

# REFRIGERATION EQUIPMENT



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- COMPRESSOR SPARES
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**EMBRACO COMPRESSORS**


- High efficiency with low energy use
- Incorporating the latest technologies
- Extremely low noise across the range
- World renowned compressor reliability
- High torque starting on all listed models

**R404A - MED TEMPERATURE**

MODEL NO.	NOMINAL WATTS -5 SST	NOM HP	DISP cm <sup>3</sup> /rev	MRA	LRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
								DISCH	SUCT
NEK6144GK	480	1/4	4.5	1.8	9.6	CSIR	187	3/16	1/4
NEK6165GK	650	1/3	6.2	2.6	12.4	CSIR	187	1/4	3/8
NEK6181GK	730	3/8	7.3	3.1	12.0	CSIR	187	1/4	3/8
NEK6210GK	880	1/2	8.8	3.6	15.8	CSIR	187	1/4	3/8
NEK6213GK	1170	5/8	12.1	4.4	19.3	CSIR	206	1/4	3/8
NEK6217GK	1410	3/4	14.3	5.1	21.5	CSR	206	1/4	3/8
NT6217GK	1190	3/4	12.6	5.1	22.0	CSIR	206	1/4	3/8
NT6220GK	1340	3/4	14.5	6.0	26.5	CSIR	220	1/4	3/8
NT6222GK	1630	7/8	17.4	5.7	30.0	CSR	220	1/4	3/8
NT6226GK	2110	1	22.4	6.8	37.0	CSIR	220	1/4	3/8
NJ9226GK	2070	1	21.7	5.2	37.0	CSR	265	3/8	5/8 RL
NJ9232GK	2410	1-1/4	26.1	6.4	43.0	CSR	277	3/8	5/8 RL
NJ9238GK	2970	1-1/2	32.7	8.8	43.0	CSR	277	3/8	5/8 RL

■ NJ9238GK also available with suction stub connection.

**R404A - LOW TEMPERATURE**

MODEL NO.	NOMINAL WATTS -25 SST	NOM HP	DISP cm <sup>3</sup> /rev	MRA	LRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
								DISCH	SUCT
NEK2125GK	280	1/3	6.2	2.3	12.4	CSIR	200	1/4	3/8
NEK2134GK	390	1/2	8.8	2.8	16.1	CSIR	200	1/4	3/8
NEK2150GK	520	5/8	12.1	4.0	19.5	CSIR	206	1/4	3/8
NEK2168GK	610	3/4	14.3	4.9	24.0	CSR	206	1/4	3/8
NT2178GK	680	7/8	17.4	4.0	26.0	CSR	220	1/4	3/8
NT2180GK	810	1	20.4	5.8	35.0	CSR	220	1/4	3/8
NT2192GK	870	1-1/8	22.4	4.6	35.0	CSR	234	1/4	3/8
NJ2192GK	940	1-1/4	26.1	6.1	38.0	CSR	265	3/8	1/2 RL
NT2212GK	1160	1-1/2	27.8	6.7	43.0	CSR	234	1/4	1/2 RL
NJ2212GK	1550	1-1/2	34.4	8.1	43.0	CSR	277	3/8	1/2 RL

■ NJ2212GK also available with suction stub connection.

**R134a - MED / HIGH TEMPERATURE**

MODEL NO.	NOMINAL WATTS -5 SST	NOM HP	DISP cm <sup>3</sup> /rev	MRA	LRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
								DISCH	SUCT
EMT50HDP	310	1/6	4.5	1.1	5.4	RSIR	166	3/16	1/4
EMT6144Z	400	1/5	5.2	1.4	8.5	CSIR	187	1/4	1/4
EMT6160Z	510	1/4	6.8	1.8	9.8	CSIR	166	3/16	1/4
EMT6170Z	570	1/3	7.7	2.1	10.4	CSIR	166	3/16	1/4
NEK6170Z	580	1/3	8.4	2.2	12.4	CSIR	187	1/4	3/8
NEK6187Z	660	1/3	10.0	2.6	15.0	CSIR	200	1/4	3/8
NEK6210Z	790	3/8	12.1	3.0	19.5	CSIR	200	1/4	5/16
NEK6212Z	910	1/2	14.3	3.9	19.5	CSIR	206	1/4	5/16
NEK6214Z	920	1/2	16.8	4.0	25.5	CSIR	206	1/4	3/8
NT6215Z	1090	5/8	17.4	4.5	20.7	CSIR	220	1/4	3/8
NT6217Z	1280	3/4	20.4	4.5	25.0	CSIR	221	1/4	1/2
NT6220Z	1390	1	22.4	5.5	29.5	CSR	220	1/4	1/2
NJ6220Z	1640	1	26.1	6.2	35.0	CSIR	265	1/4	1/2 RL
NJ6226Z	2210	1-1/4	34.4	6.5	36.0	CSR	265	1/4	5/8 RL

■ Nominal capacity data at 45deg condensing temperature.





## EMBRACO COMPRESSORS R290



- Environmental friendly natural refrigerant
- Extra high efficiency Inverter control models
- Incorporating the latest technologies
- Extremely low noise across the range
- World renowned compressor reliability
- High torque starting on all listed models

### R290 - MED TEMPERATURE

MODEL NO.	PRODUCT NO.	NOM HP	DISP cm <sup>3</sup> /rev	WATTS -5 SST	MRA	LRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
									DISCH	SUCT
NEK6152U	861DA51	1/4	5.4	530	1.6	10	CSIR	188	1/4	5/16
NEK6165U	861EA51	1/3	6.2	610	2.2	13	CSIR	188	1/4	5/16
NEK6181U	861FA51	1/3	7.3	700	2.3	12	CSIR	188	1/4	5/16
NEU6210U	862FA51	1/3	8.8	890	2.9	20	CSIR	200	1/4	5/16
NEK6214U	863HA51	1/2	12.1	1090	3.5	17	CSCR	206	1/4	5/16
NEU6217U	863JA51	3/4	14.3	1400	3.6	21	CSIR	206	1/4	3/8
NT6220U	842DA04	3/4	17.4	1630	4.2	30	CSCR	220	1/4	3/8
NT6222U	842OA04	1	20.4	1720	4.6	30	CSCR	220	1/4	3/8
NT6224U	842PA04	1	22.4	1870	5.0	26	CSCR	220	1/4	3/8

### R290 - LOW TEMPERATURE

MODEL NO.	PRODUCT NO.	NOM HP	DISP cm <sup>3</sup> /rev	WATTS -25 SST	MRA	LRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
									DISCH	SUCT
NEK2121U	861BA51	1/4	6.2	250	1.8	13	CSIR	188	1/4	5/16
NEK1121U	862BA51	1/4	6.2	270	1.6	20.5	RSIR	200	1/4	5/16
NEK2125U	861CA51	1/3	7.28	310	1.7	12.4	CSIR	188	1/4	5/16
NEK2134U	862AA51	1/2	9.99	440	2.1	14	CSIR	200	1/4	5/16
NEK2150U	863AA51	1/2	13.54	580	3.5	19.5	CSIR	206	1/4	5/16
NEU2168U	863IA51	3/4	16.8	770	2.8	21	CSCR	206	1/4	3/8
NT2160U	842AA04	3/4	17.39	710	2.8	21	CSCR	220	1/4	3/8
NT2170U	842BA04	1	20.44	840	3.2	25	CSCR	220	1/4	3/8
NT2180U	843AA04	1	22.37	930	4.5	35	CSIR	234	1/4	3/8
NT2210U	843BA02	1-1/4	27.8	1160	4.9	33	CSCR	234	1/4	3/8

### R290 - INVERTER CAPACITY CONTROL

MODEL NO.	PRODUCT NO.	NOM HP	WATTS -25 SST		WATTS -5 SST		MRA	LRA	HEIGHT (mm)	CONNECTIONS	
			MIN	MAX	MIN	MAX				DISCH	SUCT
FMFT406U	513805001	1/2	140	495	330	1080	2	3.3	201	1/4	5/16
VEGT8U	513800084	1/2	265	620	595	1195	2	3.3	201	1/4	5/16
FMFT411U	513805002	3/4	345	830	735	1780	6.15	6.15	201	1/4	5/16
FMFT413U	513805004	1	395	950	900	2015	3.4	6.5	201	1/4	5/16
FMFT415U	513805006	1-1/4	400	1205	915	2560	3.4	7	201	1/4	5/16
VNEU217U	860CX71	1	530	1040	-	-	5	6.5	206	1/4	5/16

■ Nominal capacity data at 45deg condensing temperature.

**SECOP COMPRESSORS**


- High efficiency with low energy use
- Incorporating the latest technologies
- Low noise across the whole range
- World renowned compressor reliability

**R134a MED/LOW TEMPERATURE**

ITEM NO.	MODEL NO.	NOM HP	DISP cm <sup>3</sup> /rev	NOMINAL WATTS			MRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
				-25 SST	-5 SST	+7.2 SS				DISCH	SUCT
195B4028	TL4G	1/9	3.86	58	180	306	0.95	RSIR	173	3/16	1/4
195B4029	TL5G	1/8	5.08	79	224	372	1.12	RSIR	163	3/16	1/4
195B4030	FR6G	1/6	6.23	83	290	494	1.1	RSIR	196	1/4	5/16
195B4032	FR8.5G	1/4	7.95	123	381	647	1.53	RSIR	196	1/4	5/16
195B4033	FR10G	1/4	9.05	136	412	697	1.89	RSIR	196	1/4	5/16
195B4034	FR11G	1/3	11.15	170	501	-	2.08	RSIR	196	1/4	5/16
195B4016	SC12G	1/3	12.87	175	603	1064	2.74	RSIR	209	1/4	5/16
195B4110	SC15F	1/2	15.28	337	-	-	2.1	CSIR	209	1/4	1/3
195B4017	SC15G	3/8	15.28	-	728	1207	2.9	CSIR	209	1/4	3/8
195B4018	SC18G	1/2	17.69	283	870	1459	3.15	CSIR	219	1/4	3/8
195B4019	SC21G	5/8	20.95	333	1012	1700	3.2	CSR	219	1/4	3/8

**R404A MED TEMPERATURE**

ITEM NO.	MODEL NO.	NOM HP	DISP cm <sup>3</sup> /rev	NOMINAL WATTS		MRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
				-5 SST	+7.2 SST				DISCH	SUCT
195B4041	SC10DL	1/2	10.29	968	1576	3.24	CSIR	209	1/4	5/16
195B4042	SC12DL	5/8	12.87	1279	2046	4.26	CSIR	219	1/4	3/8
195B4628	GS26MLX	1	26.30	TBA	TBA	TBA	CSCR	279	1/4	5/8

**R404A LOW TEMPERATURE**

ITEM NO.	MODEL NO.	NOM HP	DISP cm <sup>3</sup> /rev	NOMINAL WATTS	MRA	MOTOR TYPE	HEIGHT (mm)	CONNECTIONS	
				-25°C SST				DISCH	SUCT
195B4037	FR6CL	1/6	6.23	243	1.63	CSIR	196	1/4	5/16
195B4038	FR8.5CL	1/4	7.95	290	2.24	CSIR	196	1/4	5/16
195B4070	SC10CL	1/3	10.29	365	2.41	CSIR	209	1/4	5/16
195B4084	SC12CL	3/8	12.87	490	3.09	CSIR	209	1/4	5/16
195B4021	SC15CL	1/2	15.28	615	3.79	CSIR	219	1/4	3/8
195B4022	SC18CL	5/8	17.69	715	4.02	CSR	219	1/4	3/8
195B4023	SC21CL	7/8	20.95	813	4.25	CSR	219	1/4	3/8

- Nominal capacity data at evap temps indicated and 45dg condensing temperature.

## RECIPROCATING COMPRESSORS



**Copeland CS Series** reciprocating compressors follow on from the very successful CR range and offer the following features:

- Proven Copeland long term performance & reliability
- High volumetric efficiency at high ambient conditions
- Optimised motors offer high energy efficiency and COP
- Designed for low noise, quiet operation
- Charged with polyester lubricant

### R404A / R134A - MED TEMPERATURE (1PH/240V)

MODEL NO.	ALSO REPLACES	NOM HP	DISP cm <sup>3</sup> /rev	CAPACITY (WATTS)			MRA	LRA	CONNECTIONS	
				R404A		R134A			DISCH	SUCT
				-25 SST	-5°SST	-5 SST				
CS10K6E-PFJ-595	CR18KQ	1.75	38.1	650	3450	1755	10.1	55	3/8	3/4
CS14K6E-PFJ-595	CR28KQ	2.25	48.6	1300	4650	2435	12.5	58	3/8	3/4
CS18K6E-PFJ-595	CR33KQ	2.75	61.4	1495	6000	3300	13.6	58	3/8	3/4

### R404A / R134A - MED/LOW TEMPERATURE (3PH/415V)

MODEL NO.	ALSO REPLACES	NOM HP	DISP cm <sup>3</sup> /rev	CAPACITY (WATTS)			MRA	LRA	CONNECTIONS	
				R404A		R134A			DISCH	SUCT
				-25 SST	-5 SST	-5 SST				
CS10K6E-TFD-595	CR18KQ	1.75	38.1	650	3450	1755	3.2	25	3/8	3/4
CS14K6E-TFD-595	CR24/28KQ	2.25	48.6	1300	4650	2435	4.2	28	3/8	3/4
CS18K6E-TFD-595	CR33KQ	2.75	61.4	1495	6000	3450	4.7	33	3/8	3/4
CS20K6E-TFD-595	CR41KQ	3.0	74.3	1705	6800	3850	5.1	40	1/2	3/4
CS27K6E-TFD-595	CR53KQ	4.0	92.4	2365	8850	5050	8.5	41	1/2	3/4
CS33K6E-TFD-595	CRN0500	5.0	106.2	2950	10600	5900	9.9	45	1/2	7/8

- Ratings based at ARI Conditions, 45°C Condensing temp / 11k Suction superheat / 8k Subcooling.
- Supplied with: Internal Motor Protection, Rubber Mounting Kit, Electrics (Single Phase Only)
- Above compressors come with rotolock stubs and do not include valves (see page 11 for selection)

## ELECTRICS FOR CS & CR COMPRESSORS

ITEM NO.	RELAY
040-0166-15	CS10, CS16 to CS20 & CR16 to CR32
040-0166-19	CS12 to 14, CS24



ITEM NO	START CAP	MF	ITEM NO.	RUN CAP	MF
014-0061-26	CS10, CS12, CR28	130-156	014-0064-06	CS10	30
014-0061-04	CS14	145-174	014-0064-13	CS14	35
914-0036-04	CS18, CR34	145-174	014-0064-25	CS18	45



- Please contact Beijer Ref for price and availability of 1 phase electrics to suit other Copeland compressors.



## MANEUROP MTZ COMPRESSORS



**Maneurop reciprocating compressors** are specifically designed for application with a wide range of operating conditions. All components are of high quality and precision in order to ensure a long operation life span.

- Large internal volume protects against risk of liquid hammer
- Fully suction gas cooled design does not require air cooling
- Wide range of models and capacities available
- MTZ & NTZ Series charged with polyester oil (POE)
- MT Series charged with mineral oil

### R404A - MED / HIGH TEMPERATURE (3PH/415V)

MODEL NO.	NOM HP	DISP cm <sup>3</sup> /rev	CAPACITY (WATTS) -5 SST	MRA	LRA	DISCHARGE		SUCTION	
						ROTO	CONN	ROTO	CONN
MTZ22-4VI	1.8	38.1	3450	4.3	16.0	1"	3/8	1"	1/2
MTZ28-4VI	2.3	48.1	4500	5.3	23.0	1"	3/8	1"	1/2
MTZ32-4VI	2.7	53.9	5170	5.7	25.0	1"	1/2	1-1/4"	5/8
MTZ36-4VI	3.0	60.5	6040	6.4	30.0	1"	1/2	1-1/4"	5/8
MTZ40-4VI	3.3	67.9	6850	7.1	38.0	1"	1/2	1-1/4"	5/8
MTZ50-4VI	4.2	85.6	8150	8.2	48.5	1-1/4"	3/4	1-3/4"	7/8
MTZ56-4VI	4.8	96.1	8830	8.6	64.0	1-1/4"	3/4	1-3/4"	7/8
MTZ64-4VI	5.4	107.7	10450	10.0	64.0	1-1/4"	3/4	1-3/4"	7/8
MTZ72-4VI	6.0	120.9	11630	12.1	80.0	1-1/4"	3/4	1-3/4"	7/8
MTZ80-4VI	6.8	135.8	13540	13.6	80.0	1-1/4"	3/4	1-3/4"	1-1/8
MTZ100-4VI	8.3	171.3	15970	15.7	78.0	1-1/4"	7/8	1-3/4"	1-1/8
MTZ125-4VI	10.4	215.4	20380	19.3	105.0	1-1/4"	7/8	1-3/4"	1-1/8
MTZ144-4VI	12.0	241.9	23810	21.4	115.0	1-1/4"	7/8	1-3/4"	1-1/8
MTZ160-4VI	13.3	271.5	26200	25.7	130.0	1-1/4"	7/8	1-3/4"	1-1/8

### R404A - LOW TEMPERATURE (3PH/415V)

MODEL NO.	OLD MODEL	NOM HP	DISP cm <sup>3</sup> /rev	CAPACITY (WATTS) -25 SST	RLA	LRA	DISCHARGE		SUCTION	
							ROTO	CONN	ROTO	CONN
NTZ048-4VI	LTZ22	1.80	48.06	1480	4.3	16.0	1"	1/2	1-1/4"	5/8
NTZ068-4VI	LTZ28	2.30	67.89	2490	5.3	23.0	1"	1/2	1-1/4"	5/8
NTZ096-4VI	LTZ40	3.30	96.13	2900	6.4	42.0	1-1/4"	3/4	1-3/4"	7/8
NTZ108-4VI	LTZ44	3.80	107.71	3570	6.8	42.0	1-1/4"	3/4	1-3/4"	7/8
NTZ136-4VI	LTZ50	4.00	135.80	4600	8.6	40.0	1-1/4"	3/4	1-3/4"	1-1/8
NTZ215-4VI	LTZ88	7.30	215.44	7010	15.7	78.5	1-1/4"	3/4	1-3/4"	1-1/8
NTZ271-4VI	LTZ100	8.30	271.55	7980	19.3	105.0	1-1/4"	3/4	1-3/4"	1-1/8

- Ratings based on ARI Conditions at 50°C Condensing temp / 11K Suction superheat / 8k Subcooling.
- MTZ Compressors can also substitute equivalent 'MT' mineral oil versions - Please consult Beijer Ref for details.
- Service valves are not supplied with compressor and should be ordered separately if required (Refer valve section)

## CRANK CASE HEATERS

ITEM NO.	TYPE	SUITS	VOLTS	WATTS
120Z0459	INSERTION	MT, MTZ, NTZ	200 - 415	35





## SM SCROLL COMPRESSORS



- Specifically designed for AC Applications
- Can be used with HFC & HCFC Refrigerants
- Proven long term performance & reliability
- Superior energy efficiency
- Low torque start design
- Low sound & vibration levels
- Charged with polyester lubricant

### R22 / R407 - AIR CONDITIONING (3PH/415V)

MODEL NO.	NOM HP	DISP cm <sup>3</sup> /rev	CAPACITY (WATTS) +7 SST	MRA	LRA	ROTOLOCKS		CONNECTIONS		KG
						DISC	SUC	DISCH	SUCT	
SM084-4	7.0	114.5	21290	17	86	STUB		3/4	1-1/8	64
SM090-4	7.5	120.5	22740	18.5	98	STUB		3/4	1-1/8	65
SM100-4	8.0	127.2	24150	19	98	STUB		3/4	1-1/8	65
SM110-4	9.0	144.2	27600	22	130	STUB		7/8	1-3/8	73
SM120-4	10.0	166.6	31420	29	130	STUB		7/8	1-3/8	73
SM160-4	13.0	216.6	40750	29	150	1-3/4"	2-1/4"	7/8	1-3/8	90
SM161-4	13.0	216.6	40630	32	145	STUB		7/8	1-3/8	88
SM175-4	14.0	233.0	43730	35	175	1-3/4"	2-1/4"	1-1/8	1-5/8	100
SM185-4	16.6	249.9	47380	35	175	1-3/4"	2-1/4"	1-1/8	1-5/8	100
*SZ160-4	14.0	233.0	43730	35	175	1-3/4"	2-1/4"	7/8	1-3/8	100
*SZ185-4	16.6	249.9	47380	35	175	1-3/4"	2-1/4"	1-1/8	1-5/8	100

- Compressors marked (\*) come with polyester oil charge, other models come with mineral oil charge.
- Service valves are not supplied with compressor and should be ordered separately if required (Refer valve section)

## CRANK CASE HEATERS

ITEM NO	SUITS	VOLTS	WATTS	OHM'S	DIAMETER (mm)	
					MIN	MAX
7773107	SM/SZ 84 to 161	230	65	81	220	320
7773108	SM/SZ 175 to 185	230	75	93	245	370



## ZB SCROLL COMPRESSORS



- Can be used with HCFC's, R448A and R449A
- Proven long term performance & reliability
- Low torque start design with scroll comp
- Low sound & vibration levels
- Charged with polyester lubricant (POE)
- Oil level sight glass

### R404A / R134A - MEDIUM TEMP

MODEL NO.	NOM HP	PHASE	AMPS MRA	CAPACITY (WATTS) -5 SST		CONNECTIONS		NET Kg
				R404A	R134a	DISCH	SUCT	
ZB15KQE-PFJ-559	2	1	12.8	4090	2410	1/2	3/4	26
ZB15KQE-TFD-559	2	3	4.9	4090	2410	1/2	3/4	26
ZB19KQE-PFJ-559	2	1	12.8	4730	2920	1/2	3/4	27
ZB19KQE-TFD-559	2	3	6.5	4730	2920	1/2	3/4	27
ZB21KQE-PFJ-559	3.0	1	16.4	5960	3750	1/2	3/4	28
ZB21KQE-TFD-559	3.0	3	7.2	5960	3750	1/2	3/4	28
ZB26KQE-PFJ-559	3.5	1	18.0	6910	4330	1/2	3/4	28
ZB26KQE-TFD-559	3.5	3	8.9	6910	4330	1/2	3/4	28
ZB29KQE-PFJ-559	4.0	1	26.4	8140	5080	1/2	7/8	35
ZB29KQE-TFD-559	4.0	3	10.3	8140	5080	1/2	7/8	35
ZB38KQE-PFJ-559	5.0	1	32.3	10100	6340	1/2	7/8	38
ZB38KQE-TFD-559	5.0	3	12.8	10100	6340	1/2	7/8	37
ZB42KQE-PFJ-551	5.5	1	35.7	11350	7010	1/2	7/8	39
ZB45KQE-TFD-559	6.0	3	13.1	11900	7530	1/2	7/8	40
ZB48KQE-TFD-559	7.5	3	14.6	14200	8620	7/8	1-1/8	57
ZB58KQE-TFD-551	8.0	3	15.4	15850	9660	7/8	1-1/8	57
ZB66KQE-TFD-551	9.0	3	17.5	17850	11050	7/8	1-3/8	60
ZB76KQE-TFD-551	10.0	3	20.4	21200	12600	7/8	1-3/8	61
ZB88KQE-TFD-551	12.0	3	22.3	23600	14000	7/8	1-3/8	66
ZB95KQE-TFD-551	13.0	3	28.2	25600	15850	7/8	1-3/8	65
ZB114KQE-TFD-551	15.0	3	33.3	30500	18190	7/8	1-3/8	66

■ Above compressors come with rotolock stubs and do not include valves (see page 11 for selection)

### ZBD DIGITAL SCROLL COMPRESSORS

MODEL NO.	NOM HP	PHASE	AMPS MRA	CAPACITY (WATTS) -5 SST		CONNECTIONS		NET Kg
				R404A	R134Aa	DISCH	SUCT	
ZBD30KCE-TFD-551	4	3	7.9	8210	5050	1/2	7/8	37
ZBD38KCE-TFD-551	5	3	11.3	10100	6340	1/2	7/8	38
ZBD45KCE-TFD-551	6	3	12.3	11900	7530	1/2	7/8	40
ZBD58KCE-TFD-551	8	3	15.6	15850	9660	1/2	7/8	60
ZBD76KCE-TFD-551	10	3	20.4	21200	12600	1/2	7/8	62
XC645CX	XC645CX-1C11F 24V, Panel Mount Controller for Digital compressor management							
XC645D	XC645D-5C11F 230V, Din Mount Controller for Digital compressor management							

- Ratings based on ARI Conditions at 50°C Condensing temp / 11K Suction superheat / 8k Subcooling.
- Above models come with rotolock connections. (Sold separately) Contact Beijer for Stub Connection versions.
- Suction superheat must be kept to a minimum to prevent scroll compressor protection device from operating.

**COPELAND SCROLL COMPRESSORS**



- Can be used with HCFC's, R448A and R449A
- Proven long term performance & reliability
- Low torque start design with scroll comp
- Low sound & vibration levels
- Charged with polyester lubricant (POE)
- Oil level sight glass

**ZF SCROLL COMPRESSORS - LOW TEMP**

MODEL NO.	NOM HP	PHASE	AMPS MRA	CAPACITY (WATTS) R404A		CONN		NET Kg
				-25 SST	-5 SST	DISCH	SUCT	
ZF09K4E-TFD	3	3	5.4	2740	5.78	1/2	7/8	30
ZF11K4E-TFD	3.5	3	6.4	3430	7.15	1/2	7/8	31
ZF13K4E-TFD	4	3	7.9	3950	8.40	1/2	7/8	41
ZF15K4E-TFD	5	3	8.1	4850	10.25	1/2	7/8	42
ZF18K4E-TFD	6	3	10.0	5900	12.38	1/2	7/8	44
ZF24K4E-TWD	7.5	3	16.1	7350	15.20	3/4	1-1/8	100
ZF33K4E-TWD	10	3	22.3	10100	21.30	7/8	1-3/8	102
ZF40K4E-TWD	13	3	25.1	12500	26.00	7/8	1-3/8	112
ZF48K4E-TWD	15	3	28.7	15100	31.80	1-1/8	1-5/8	120

- Ratings based on ARI Conditions at 45°C Condensing temp / 11K Suction superheat / 8k Subcooling.
- Above compressors come with rotolock stubs and do not include valves (see page 11 for selection)
- Demand cooling recommended for evaporating temperatures below -20deg.

**ZR, ZB & ZF COMPRESSOR ACCESSORIES**

ITEM NO.	COPELAND NO.	ITEM	COMPRESSOR MODEL
018-0095-00	018-0095-00	CRANKCASE HEATER	ZR22 - ZR81 / ZB15 - 48
018-0091-01	018-0091-01		ZR94 - ZR144 / ZB50 - 88
018-0091-18	018-0091-18		ZR16M - ZR19M
918-0056-04	918-0056-04		ZR250 - ZR310
8558547	8558547	INT69 Motor Protection Module	All models where required

**DEMAND COOLING FOR ZF COMPRESSORS**

ITEM NO.	COPELAND NO.	DESCRIPTION	COMPRESSOR MODEL
R1374	2981481	Solenoid Valve	ZF09 - ZF18
R1310	940-0135-00	Sensing Relay	
-	998-0540-00	Thermostat	
R1373	2981356	Liquid Filter	
R1374	2981481	Solenoid Valve	ZF24 - ZF48 Relay & T/Stat internal on these models
R1373	2981356	Liquid Filter	

**ZO SCROLL COMPRESSORS FOR R744 (CO2)**

MODEL NO.	NOM HP	PHASE	AMPS MRA	CAPACITY (WATTS) R744		CONNECTIONS		NET Kg
				-35 SST		DISCH	SUCT	
ZO34K3E-TFD	2.0	3	5.5	7700		1	1-1/4	31
ZO45K3E-TFD	2.5	3	6.2	10700		1	1-1/4	32
ZO58K3E-TFD	3.5	3	8	13600		1	1-1/4	34
ZO88K3E-TFD	5.0	3	11.8	20500		1	1-1/4	40
ZO104K3E-TFD	6.0	3	15	23700		1	1-1/4	40

- R744 (CO2) Ratings based on -10 Condensing temp.

**ZR SCROLL COMPRESSORS**



- Can be used with HFC & HCFC Refrigerants
- Proven long term performance & reliability
- Low torque start design with scroll comp
- Low sound & vibration levels
- Charged with polyester lubricant (POE)

**R22 / R407C - AIR CONDITIONING**

MODEL NO.	NOM HP	PHASE	AMPS	CAPACITY (WATTS) R22		CONNECTIONS		NET Kg	
				MRA	+7 SST	-5 SST	DISCH		SUCT
ZR28K3E-PFJ-522	2.5	1	14.8		7270	4630	1/2	3/4	25
ZR34K3E-PFJ-522	3.0	1	17.3		8660	5520	1/2	3/4	26
ZR36K3E-PFJ-522	3.0	1	17.3		9280	5920	1/2	3/4	26
ZR40K3E-PFJ-522	3.5	1	23.1		10200	6500	1/2	3/4	27
ZR47K3E-PFJ-522	4.0	1	23.5		12400	7600	1/2	7/8	30
ZR61KCE-PFZ-522	5.0	1	28.6		15100	9370	1/2	3/4	42
ZR68KCE-PFJ-522	5.5	1	30.7		17300	11000	1/2	7/8	39
ZR28K3E-TFD-522	2.5	3	5.1		7270	4630	1/2	3/4	25
ZR36K3E-PFJ-522	3.0	3	6.5		9280	5920	1/2	3/4	26
ZR40K3E-TFD-522	3.5	3	7.0		10200	6500	1/2	3/4	27
ZR47KCE-TFD-522	4.0	3	10		12400	7600	1/2	7/8	30
ZR57K3E-TFD-522	4.75	3	10.8		13660	8370	1/2	7/8	37
ZR61KCE-TFD-522	5.0	3	11.0		15100	9370	1/2	3/4	42
ZR68KCE-TFD-522	5.5	3	12.0		17300	11000	1/2	7/8	39
ZR72KCE-TFD-522	6.0	3	13.0		18350	11850	1/2	7/8	39
ZR81KCE-TFD-522	6.0	3	15.0		20800	13150	1/2	7/8	39
ZR94KCE-TFD-522/3	7.5	3	15.9		24400	15100	3/4	1-1/8	57
ZR108KCE-TFD-522/3	9.0	3	16.8		27500	17700	7/8	1-3/8	60
ZR125KCE-TFD-522/3	10.0	3	19.6		32300	20900	7/8	1-3/8	61
ZR144KCE-TFD-522/3	12.0	3	22.3		36800	23600	7/8	1-3/8	61
ZR160KCE-TFD-522/3	13.0	3	28.0		39900	24700	7/8	1-3/8	65
ZR190KCE-TFD-522/3	15.0	3	34.0		47500	29400	7/8	1-3/8	66
ZR250KCE-TWD-523	20.0	3	41.0		612100	39800	1-3/8	1-5/8	140
ZR310KCE-TWD-523	25.0	3	52.0		77400	48500	1-3/8	1-5/8	160
ZR380KCE-TWD-523	30.0	3	62.5		95,100	61,600	1-3/8	1-5/8	177

- Ratings based on ARI Conditions at 50°C Condensing temp / 11K Suction superheat / 8k Subcooling.
- Models with 522 Suffix come with stub connections, 523 indicates rotolock connections. (Sold Separately)
- Suction superheat must be kept to a minimum to prevent scroll compressor protection device from operating.
- **ZR16 & ZR19** Are now superseded by **ZR160 & ZR190** - Please note that dimensions and footprint may differ.

**ELECTRICS FOR 1 PHASE ZR COMPRESSORS**

ITEM NO.	RUN CAP SUITS	MFD	Volts
014-0054-36	ZR28 - 32	45	370
014-0064-16	ZR34 - 36	50	370
014-0054-39	ZR40	55	370
014-0054-37	ZR42 - 48	60	370
014-0064-16	ZR61 - 68	50	440

ITEM NO	START CAP SUITS	MFD	Volts
014-0054-37	ZR28 - 47	88	330
014-0006-15	ZR61 - 68	270	330

ITEM NO	RELAY SUITS
040-0166-37	ZR22 - 48
040-0046-24	ZR61 - 68



**ZP SCROLL COMPRESSORS**



- Copelands superior reliability and efficiency
- Proven long term performance & reliability
- Low torque start design with scroll comp
- Low sound & vibration levels
- Charged with polyester lubricant (POE)

**R410A - AIR CONDITIONING**

MODEL NO.	NOM HP	PHASE	AMPS		CAPACITY (WATTS) R410A +7.2 SST	CONNECTIONS		NET Kg
			MRA			DISCH	SUCT	
ZP50K3E-TFD-522	4.2	3	10.0		12400	1/2	7/8	39
ZP57K3E-TFD-522	4.8	3	11.5		13900	1/2	7/8	40
ZP67KCE-TFD-522	5.6	3	13		16100	1/2	7/8	40
ZP72KCE-TFD-522	6.0	3	15.0		17100	1/2	7/8	40
ZP83KCE-TFD-522	6.9	3	15.0		19900	1/2	7/8	40
ZP90KCE-TFD-522	7.5	3	16.0		21800	7/8	1-1/8	58
ZP103KCE-TFD-522	8.6	3	21.0		25200	7/8	1-3/8	61
ZP120KCE-TFD-522	10.0	3	22.0		29300	7/8	1-3/8	61
ZP137KCE-TFD-522	11.4	3	25.0		32500	7/8	1-3/8	62
ZP154KCE-TFD-522	12.8	3	31.0		37000	7/8	1-3/8	65
ZP182KCE-TFD-522	15.2	3	34.0		44000	7/8	1-3/8	66
ZP235KCE-TWD-522	19.6	3	40.0		57000	1-3/8	1-5/8	140
ZP295KCE-TWD-522	24.6	3	48.5		71500	1-3/8	1-5/8	160
ZP385KCE-TWD-522	32.1	3	65.4		92500	1-3/8	1-5/8	177
ZP485KCE-TWD-522	40.0	3	82.6		108900	1-3/8	1-5/8	190

- Ratings based on ARI Conditions at 54.4°C Condensing temp / 11K Suction superheat / 8k Subcooling.
- Suction superheat must be kept to a minimum to prevent scroll compressor protection device from operating.
- All above ZP compressors come with stub connections.

## ROTOLOCK VALVE SELECTION GUIDE



### CS & CR RECIPROCATING

MODEL	SUCTION	ITEM NO.	DISCHARGE	ITEM NO.
CS10	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CS12	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CS14	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CS18	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CS20	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CS27	7/8"x 1-1/4"	H1036	1/2"x 1"	H1014
CS33	7/8"x 1-1/4"	H1036	1/2"x 1"	H1014
CR24	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CR28	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CR33	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CR38	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CR42	3/4" x 1-1/4"	H1031	3/8"x 1"	H1007
CR47	7/8"x 1-1/4"	H1036	1/2"x 1"	H1014
CR53	7/8"x 1-1/4"	H1036	1/2"x 1"	H1014
CRNQ-0500	7/8"x 1-1/4"	H1036	1/2"x 1"	H1014

### ZR SCROLL

MODEL	SUCTION	ITEM NO.	DISCHARGE	ITEM NO.
ZR61	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZR68	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZR72	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZR81	7/8" x 1-1/4"	H1036	5/8" x 1-1/4"	H1018
ZR94	1-1/8" x 1-3/4"	H1043	3/4" x 1-1/4"	H1031
ZR108	1-1/8" x 1-3/4"	H1043	3/4" x 1-1/4"	H1031
ZR125	1-1/8" x 1-3/4"	H1043	3/4" x 1-1/4"	H1031
ZR144	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZR160	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZR190	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZR250	1-5/8" x 2-1/4"	H1049	1-3/8" x 1-3/4"	H1045
ZR310	1-5/8" x 2-1/4"	H1049	1-3/8" x 1-3/4"	H1045
ZR380	1-5/8" x 2-1/4"	H1049	1-3/8" x 1-3/4"	H1045
ZR16	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZR19	1-5/8" x 2-1/4"	H1049	1-1/8" x 1-3/4"	H1043

### ZB SCROLL

MODEL	SUCTION	ITEM NO.	DISCHARGE	ITEM NO.
ZB15	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB19	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB21	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB26	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB29	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB38	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB42	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB45	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB48	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZB58	7/8" x 1-1/4"	H1043	3/4" x 1-1/4"	H1031
ZB66	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZB76	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZB88	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZB95	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZB114	1-5/8" x 1-3/4"	H1047	1-1/8" x 1-1/4"	H1031

### ZF SCROLL

MODEL	SUCTION	ITEM NO.	DISCHARGE	ITEM NO.
ZF09	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZF11	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZF13	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZF15	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZF18	7/8" x 1-1/4"	H1036	1/2" x 1"	H1014
ZF24	1-1/8" x 1-1/4"	H1043	3/4" x 1-1/4"	H1031
ZF33	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZF40	1-3/8" x 1-3/4"	H1045	7/8" x 1-1/4"	H1036
ZF48	1-5/8" x 2-1/4"	H1049	1-1/8" x 1-3/4"	H1043



**BITZER SEMI-HERMETIC COMPRESSORS**



Bitzer Ecoline compressors are designed for operation with "Low-GWP" HFO refrigerants and HFO/HFC blends. The compressors are compatible for operation with a frequency inverter thus the cooling capacity of the system can be adjusted exactly to the demand.

**OCTAGON ECOLINE SERIES (Motor Version 1 & 2)**

MODEL NO.	NOM HP	DISP (m3/hr)	NO OF Cyls.	MOC (Amps)	MOTOR	SERIES	NOM. CAPACITY (kW)					VALVE SIZE		WEIGHT (kg)
							R404A		R448A		R134a	DISCH (Inch)	SUCT (Inch)	
							-25°C	-5°C	-25°C	-5°C	-5°C			
<b>220-240/1/50 - Single Phase</b>														
2JES-07YE	2/3	5.2	2	6.4	1Ø (E)	CE1	1.1	2.9	1.0	2.8	1.7	1/2	5/8	43
2HES-2YE	2	6.5	2	7.8			1.5	3.8	1.3	3.6	2.3	1/2	5/8	45
2GES-2YE	2	7.6	2	8.7			1.8	4.3	1.5	4.3	2.7	1/2	5/8	45
2FES-2YE	2	9.5	2	9.1			2.2	5.4	1.9	5.4	3.4	1/2	5/8	45
<b>380-420/3/50 - Three Phase</b>														
2KES-05Y-40S	1/2	4.1	2	2.6	3Ø (S) DOL Y / Δ	CE1	0.8	2.1	0.7	2.1	1.3	1/2	5/8	43
2JES-07Y-40S	2/3	5.2	2	3.4			1.1	2.9	1.0	2.8	1.7	1/2	5/8	43
2HES-1Y-40S	1	6.5	2	3.5			1.5		1.3		2.3	1/2	5/8	44
2HES-2Y-40S	2	6.5	2	4.2			1.5	3.8	1.3	3.6	2.3	1/2	5/8	45
2GES-2Y-40S	2	7.6	2	4.7			1.8	4.3	1.5	4.3	2.7	1/2	5/8	45
2FES-2Y-40S	2	9.5	2	4.9			2.2		1.9		3.4	1/2	5/8	45
2FES-3Y-40S	3	9.5	2	5.7			2.2	5.3	1.9	5.4	3.4	1/2	5/8	47
2EES-2Y-40S	2	11.4	2	5.6			2.8		2.5		4.2	5/8	7/8	68
2EES-3Y-40S	3	11.4	2	7.2		2.8	6.9	2.5	6.8	4.2	5/8	7/8	71	
2DES-2Y-40S	2	13.4	2	7.0		3.3		2.9		5.1	5/8	7/8	68	
2DES-3Y-40S	3	13.4	2	8.0		3.3	8.1	2.9	7.9	5.1	5/8	7/8	71	
2CES-3Y-40S	3	16.2	2	8.5		4.3		3.8		6.3	5/8	7/8	70	
2CES-4Y-40S	4	16.2	2	9.3		4.3	10.3	3.8	10.0	6.3	5/8	7/8	70	
4FES-3Y-40S	3	18.1	4	8.8		4.6		4.1		6.5	5/8	7/8	82	
4FES-5Y-40S	5	18.1	4	10.0		4.6	11.1	4.1	11.0	6.5	5/8	7/8	86	
4EES-4Y-40S	4	22.7	4	11.3		5.9		5.1		8.5	5/8	1-1/8	84	
4EES-6Y-40S	6	22.7	4	12.7		5.7	14.0	5.1	13.7	8.5	5/8	1-1/8	86	
4DES-5Y-40S	5	26.8	4	13.5		6.8		5.8		10.0	7/8	1-1/8	86	
4DES-7Y-40S	7	26.8	4	15.3		6.8	16.4	5.8	15.7	10.0	7/8	1-1/8	89	
4CES-6Y-40S	6	32.5	4	16.5		8.4		7.6		12.3	7/8	1-1/8	91	
4CES-9Y-40S	9	32.5	4	18.8	8.4	20.5	7.6	20.0	12.3	7/8	1-1/8	91		
4BES-9Y-40S	9	36.1	4	16.7	9.2	22.5	8.3	21.9	13.6	7/8	1-1/8	99		

- Ratings at 45deg Condensing, EN12900 conditions / 20deg suction gas temp / 0deg subcooling.
- Please refer to Bitzer selection software or contact Beijer Ref for ratings at other conditions.

**Included with Compressor**

- Start & Run capacitors with 1ph models (supplied loose)
- 4 & 6 cylinder models include 2 x CC head
- Suction & Discharge service valves
- 4 x Vibration dampers/feet
- 240v Crankcase heater
- Ester oil charge BSE-32



**BITZER SEMI-HERMETIC COMPRESSORS**



Bitzer Ecoline compressors are designed for operation with "Low-GWP" HFO refrigerants and HFO/HFC blends. The compressors are compatible for operation with a frequency inverter thus the cooling capacity of the system can be adjusted exactly to the demand.

**ECOLINE SERIES (Motor Version 1 & 2)**

MODEL NO.	NOM HP	DISP (m3/hr)	NO OF Cyls.	MOC (Amps)	MOTOR	SERIES	NOM. CAPACITY (kW)			VALVE SIZE		WEIGHT (kg)		
							R404A		R448A	R134a	DISCH (Inch)		SUCT (Inch)	
							-25°C	-5°C	-25°C	-5°C				-5°C
4VES-7Y-40P	7	34.7	4	15.4	3Ø (P) PW	CE4	8.2		7.3		13.0	7/8	1-1/8	129
4VES-10Y-40P	10	34.7	4	18.5			8.3	21.3	7.3	20.7	12.7	7/8	1-1/8	139
4TES-9Y-40P	9	41.3	4	18.5			10.3		9.2		15.8	1-1/8	1-3/8	134
4TES-12Y-40P	12	41.3	4	23.3			10.2	25.8	9.2	25.1	15.4	1-1/8	1-3/8	141
4PES-12Y-40P	12	48.5	4	21.1			11.3		10.0		17.9	1-1/8	1-3/8	139
4PES-15Y-40P	15	48.5	4	26.2			11.2	29.4	10.0	28.5	17.5	1-1/8	1-5/8	147
4NES-14Y-40P	14	56.3	4	24.7			13.9		12.4		21.2	1-1/8	1-3/8	141
4NES-20Y-40P	20	56.3	4	30.9			13.9	35.2	12.5	34.2	21.0	1-1/8	1-5/8	150
4JE-15Y-40P	15	63.5	4	28.7		16.7		15.0		24.4	1-1/8	1-5/8	190	
4JE-22Y-40P	22	63.5	4	34.6		15.9	39.5	14.1	38.4	23.9	1-1/8	1-5/8	190	
4HE-18Y-40P	18	73.7	4	34.1		19.9		18.0		29.0	1-1/8	1-5/8	190	
4HE-25Y-40P	25	73.7	4	40.9		19.2	46.5	17.3	45.3	28.5	1-1/8	2-1/8	194	
4GE-23Y-40P	23	84.6	4	40.8		23.4		21.3		32.5	1-1/8	2-1/8	192	
4GE-30Y-40P	30	84.6	4	47.6		22.3	53.3	20.1	52.0	33.3	1-1/8	2-1/8	206	
4FE-28Y-40P	28	101.8	4	49.1		28.1		25.5		40.0	1-1/8	2-1/8	207	
4FE-35Y-40P	35	101.8	4	57.8		27.6	63.8	25.0	62.5	39.1	1-1/8	2-1/8	207	
6JE-25Y-40P	25	95.3	6	43.2		24.9		22.3		35.8	1-3/8	2-1/8	228	
6JE-33Y-40P	33	95.3	6	49.5		23.4	58.6	20.7	56.9	36.1	1-3/8	2-1/8	231	
6HE-28Y-40P	28	110.5	6	49.5		29.3		26.4		42.5	1-3/8	2-1/8	228	
6HE-35Y-40P	35	110.5	6	49.9		28.3	68.3	25.4	66.7	41.7	1-3/8	2-1/8	235	
6GE-34Y-40P	34	126.8	6	60.9		35.4		32.3		48.9	1-3/8	2-1/8	228	
6GE-40Y-40P	40	126.8	6	68.7		32.8	77.6	29.6	75.8	48.8	1-3/8	2-1/8	238	
6FE-44Y-40P	44	151.6	6	77.4		42.1		38.3		59.0	1-5/8	2-1/8	241	
6FE-50Y-40P	50	151.6	6	89.5		40.3	94.5	36.4	92.5	57.7	1-5/8	2-1/8	241	

**INDUSTRIAL SERIES**

MODEL NO.	NOM HP	DISP (m3/hr)	NO OF Cyls.	MOC (Amps)	MOTOR	SERIES	NOM. CAPACITY (kW)			VALVE SIZE		WEIGHT (kg)
							R404A		R134a	DISCH (Inch)	SUCT (Inch)	
							-25°C	-5°C	-5°C			
8GE-60Y-40P	60	185.0	8	113	3Ø (P) PW	CE8	-	109.8	66.6	1-5/8	3-1/8	352
8FE-70Y-40P	70	221.0	8	139			-	129.9	78.6	2-1/8	3-1/8	363

- Ratings at 45deg Condensing, EN12900 conditions / 20deg suction gas temp / 0deg subcooling.
- Please refer to Bitzer selection software or contact Beijer Ref for ratings at other conditions.



## BITZER SEMI-HERMETIC COMPRESSORS



Bitzer Ecoline compressors are designed for operation with "Low-GWP" HFO refrigerants and HFO/HFC blends. The compressors are compatible for operation with a frequency inverter thus the cooling capacity of the system can be adjusted exactly to the demand.

### ECOLINE SERIES - R134a (Motor Version 3)

MODEL NO.	NOM HP	DISP (m3/hr)	NO OF Cyls.	MOC (Amps)	MOTOR	SERIES	NOM. CAPACITY (kW)		VALVE SIZE		WEIGHT (kg)
							R134a		DISCH (Inch)	SUCT (Inch)	
							-5°C				
4VES-6Y-40P	6	34.7	4	10.0	3Ø (P) PW	CE4	13.0	7/8	1-1/8	129	
4TES-8Y-40P	8	41.3	4	12.1			15.8	1-1/8	1-3/8	134	
4PES-10Y-40P	10	48.5	4	13.6			17.9	1-1/8	1-3/8	139	
4NES-12Y-40P	12	56.3	4	15.9			21.3	1-1/8	1-3/8	141	
4JE-13Y-40P	13	63.5	4	19.8		24.6	1-1/8	1-5/8	179		
4HE-15-40P	15	73.7	4	22.5		BE5	29.0	1-1/8	1-5/8	183	
4GE-20Y-40P	20	84.5	4	25.9			33.8	1-1/8	2-1/8	192	
4FE-25Y-40P	25	101.8	4	32.5			40.0	1-1/8	2-1/8	196	
6JE-22Y-40P	22	95.3	6	28.5			36.4	1-3/8	2-1/8	213	
6HE-25-40P	25	110.5	6	32.9		BE6	42.5	1-3/8	2-1/8	224	
6GE-30Y-40P	30	126.8	6	40.0			50.1	1-3/8	2-1/8	228	
6FE-40Y-40P	40	151.6	6	51.1			59.0	1-5/8	2-1/8	238	

- Ratings at 45deg Condensing, EN12900 conditions / 20deg suction gas temp / 0deg subcooling.
- Please refer to Bitzer selection software or contact Beijer Ref for ratings at other conditions.

#### Included with Compressor

- 4 & 6 cylinder models include 2 x CC head
- 8 cylinder models include 2 x CC head
- BE5 & BE6 include oil safety Delta PII
- CE4 optional OLC-K1 Optical oil safety
- Suction & Discharge service valves
- 4 x Vibration dampers/feet
- 240v Crankcase heater
- Ester oil charge BSE-32



## BITZER SEMI-HERMETIC COMPRESSORS



Bitzer SL series compressors certified by ASERCOM are developed for R744 CO<sub>2</sub> sub-critical applications. Housing developed with high strength pressure, high side up to 53 bar, low side up to 30 bar. The compressors are compatible for operation with a frequency inverter.

### R744 (CO<sub>2</sub>) SUB CRITICAL COMPRESSORS

MODEL NO.	NOM HP	DISP (m <sup>3</sup> /hr)	NO. OF Cyls.	MOC (Amps)	MOTOR	SERIES	NOM. CAPACITY (kW)			DISCH (Inch)	SUCT (Inch)	Wgt (kg)
							-25°C	-5°C	-25°C			
2NSL-05K-40S	1/2	1.3	2	2.1	3Ø (S) Y-DOL	C1	1.5	2.0	2.5	1/2	5/8	47
2MSL-07K-40S	2/3	1.7	2	2.5			2.0	2.6	3.3	1/2	5/8	47
2KSL-1K-40S	1	2.7	2	3.5			3.3	4.3	5.5	1/2	5/8	47
2HSL-3K-40S	3	4.3	2	6.0			5.6	7.2	9.2	1/2	5/8	50
2FSL-4K-40S	4	6.4	2	8.6			8.8	11.1	13.9	1/2	5/8	53
2DSL-5K-40S	5	9.2	2	11.3		C2	12.9	16.4	20.4	5/8	7/8	78
2CSL-6K-40S	6	11.2	2	13.9			15.7	19.9	24.7	5/8	7/8	78
4FSL-7K-40S	7	12.4	4	15.7		C3	16.8	21.4	26.8	7/8	1-1/8	94
4DSL-10K-40S	10	18.4	4	22.0			25.4	32.3	40.2	7/8	1-1/8	95

- Ratings at -5deg Condensing, EN12900 conditions / 10k suction superheat / 0deg subcooling.
- Please refer to Bitzer selection software or contact Beijer Ref for ratings at other conditions.

#### Included with Compressor

- Suction & Discharge service valves
- Suction pressure relief valve
- 4 x Vibration dampers/feet
- 240v Crankcase heater
- Ester oil charge BSE-60



## BITZER COMPRESSOR SPARES

### CRANKCASE HEATERS

ITEM NO.	DESCRIPTION
343224-02	Crankcase Heater. 60 watts. 230V
343213-12	Crankcase Heater. 140 watts. 230V
343213-11	Crankcase Heater. 140 watts. 110V



### OIL MANAGEMENT

ITEM NO.	DESCRIPTION
347319-11	Oil Pressure Safety Delta-PII
347334-03	Oil Level Monitoring OLC-K1 230V
K04-080	Kriwan Oil Level Control INT280-60
K04-055	Kriwan Adaptor (CE1, CE2, CE3 compressors only)
K06-020	AWA OLC1 Kit 230V AC PS60-AG1 1/8" UNEF-L34 - Suits C1, C2, C3 (Adaptor included)
K06-021	AWA OLC1 Kit 230V AC PS60 3-4 hole - Adaptor Suits C4, B5, C6



### MOTOR PROTECTION

ITEM NO.	DESCRIPTION
347035-04	Motor protection device. SE-B3. 115-230V (Replaces SE-B1, B2)
347017-10	Motor protection device. SE-E1. 230V
347028-05	Motor protection device. SE-B2. 24V
347009-01	Motor protection device INT69 VSY-II
347023-03	Discharge temperature sensor



### CAPACITY CONTROL MODULE CM-RC (10-100%)

ITEM NO.	DESCRIPTION	SUITS
U40-205C4	Module CM-RC-01 Kit Harness 1 CE4	CE4
U40-205BE	Module CM-RC-01 Kit Harness 1 BE5-BE6	BE5-BE6



### CAPACITY CONTROL

ITEM NO.	DESCRIPTION	SUITS
302367-01	Capacity Control Head CR11 Complete to Suit CE3	CE3
302355-34	Capacity Control Head CR11 Complete to Suit 4VES - 4NES	CE4
302355-33	Capacity Control Head CR11 Complete to Suit 4JE - 6FE	BE5-BE6
347601-47	CR II Solenoid Valve & Coil to Suit 4FES - 4NES	CE3-CE4
347601-48	CR II Solenoid Valve & Coil to Suit 4JE - 8FE	BE5-BE6 & CE8



### HEAD COOLING FANS - SINGLE PHASE

ITEM NO.	DESCRIPTION	SERIES
343021-01	Head cooling fan to suit 2 cylinder	CE1
343021-26		CE2
343021-29	Head cooling fan to suit 4 cylinder	CE3
343021-27		CE4
343021-24		BE5
343021-25		BE6



## COPELAND STREAM COMPRESSORS



- All Copeland Stream compressors feature CoreSense offering advanced motor and oil protection with communication and diagnostic features.
- Copeland proven long term performance & reliability
- High efficiency with low clearance discuss valves
- Supplied with crank case heater & oil switch

### R404A / R134A

MODEL NO.	NOM HP	DISP. M3/HR	NOM CAPACITY (WATTS)				
			R404A		R448A		R134A
			-25	-5	-25	-5	-5
4MF-13X-AWM	13	62	16250		14200		23800
4MA-22X-AWM	22	62		39700		39700	
4ML-15X-AWM	15	71	20200		18250		28600
4MH-25X-AWM	25	71		46900		44700	
4MM-20X-AWM	20	78	22500		20200		31400
4MI-30X-AWM	30	78		51600		50400	
4MT-22X-AWM	22	88	25200		22900		35700
4MJ-33X-AWM	33	88		57700		55600	
4MU-25X-AWM	25	99	27800		24800		39800
4MK-35X-AWM	35	99		65000		62600	
6MM-30X-AWM	30	120	33700		30400		47600
6MI-40X-AWM	40	120		78500		75800	
6MT-35X-AWM	35	135	38000		33900		53500
6MJ-45X-AWM	45	135		87600		84400	
6MU-40X-AWM	40	153	42600		38800		59000
6MK-50X-AWM	50	153		97900		93800	

- Ratings at 45deg Condensing, EN12900 standards / 20deg Suction gas temp / 0deg Subcooling.
- Copeland Stream compressors have polyolester oil and come complete with: Crankcase heater, CoreSense module, oil sightglass and vibration mounts.
- **240V to 24V transformer required for CoreSense - Not Included (Beijer Ref Part No G4691)**

### Other Stream compressor options

- Digital Stream Semi-hermetic compressors
- CO2 trans-critical Semi-hermetic compressors

### CoreSense Module Advanced Features

- Missing Phase or Single Phasing Protection
- Voltage Imbalance Protection
- Motor Temperature Protection
- Discharge Temperature Protection
- Oil pressure protection
- Modbus® Communication to system controller
- Compressor Asset & Runtime information
- Status LEDs to indicate warning, trip & lockout alarms
- Compressor Power Consumption Measurement
- Failure Alarm History





**COPELAND TECHNICAL DATA**



MODEL NO.	NOM HP	AMPS (DOL)		NO OF CYLINDERS	DISP. M <sup>3</sup> / HR	OIL LITRES	FOOTPRINT		VALVE SIZE		WEIGHT KG	dB(A) @ 1mtr
		MRA	LRA				LENGTH (mm)	WIDTH (mm)	DISCH (Inch)	SUCTION (Inch)		
4MF-13X-AWM	13	30.8	105	4	61.7	3.30	381	305	1-1/8	1-5/8	177	71
4ML-15X-AWM	15	35.4	156	4	71.4	3.30	381	305	1-1/8	1-5/8	180	71
4MM-20X-AWM	20	39.0	175	4	78.2	3.30	381	305	1-1/8	2-1/8	182	71
4MA-22X-AWM	22	36.3	175	4	61.7	3.30	381	305	1-1/8	1-5/8	178	75
4MT-22X-AWM	22	44.5	175	4	87.7	3.30	381	305	1-3/8	2-1/8	183	73
4MH-25X-AWM	25	41.6	199	4	71.4	3.30	381	305	1-1/8	2-1/8	187	75
4MU-25X-AWM	25	51.9	199	4	99.4	3.30	381	305	1-3/8	2-1/8	186	73
4MI-30X-AWM	30	46.6	221	4	78.2	3.30	381	305	1-1/8	2-1/8	188	75
4MJ-33X-AWM	33	52.9	221	4	87.7	3.30	381	305	1-3/8	2-1/8	190	74
4MK-35X-AWM	35	61.1	255	4	99.4	3.30	381	305	1-3/8	2-1/8	202	74
6MM-30X-AWM	30	59.7	255	6	120.5	3.30	381	305	1-3/8	2-1/8	215	78
6MT-35X-AWM	35	67.3	255	6	135.1	3.30	381	305	1-5/8	2-1/8	221	77
6MI-40X-AWM	40	71.4	304	6	120.5	3.30	381	305	1-3/8	2-1/8	219	78
6MU-40X-AWM	40	75.8	306	6	153.2	3.3	381	305	1-5/8	2-5/8	225	78
6MJ-45X-AWM	45	81.5	304	6	135.1	3.3	381	305	1-5/8	2-1/8	223	79
6MK-50X-AWM	50	92.9	393	6	153.2	3.3	381	305	1-5/8	2-5/8	230	80

■ All noise level ratings are 'free field' based at a distance of 1meter and are given as a guide only.

## COPELAND COMPRESSOR SPARES

### CRANKCASE HEATERS

ITEM NO.	ITEM	SUITS SERIES
3006870	Crank Heater 27w, 240V	DK, DKL
2894369	Crank Heater 70w, 240V	DL
2834198	Crank Heater 70w, 240V	D2D, D3D
3210093	Crank Heater 100w, 240V	D4D, 6DH, 6DL
2832205	Crank Heater 200w, 240V	D6DT, 6DJ, D8D
3210093	Crank Heater 100w, 240V	4M, 6M STREAM



### MOTOR PROTECTION

ITEM NO.	ITEM	SUITS SERIES
3216455	Thermistor INT69-2	DK, KL, L, 2D, 3D
3216466	Thermistor INT69TM2	D4, 6D, 8D
3009120	CoreSense Kit - Module & Harness (Requires TF20D Transformer Below)	4M, 6M STREAM
TF20D	240V to 24V (20VA Transformer)	
3009131	CoreSense Discharge Temp Sensor Kit	
3011230	CoreSense Electronic Sensor Module kit	



### OIL SPARES

ITEM NO.	ITEM	SUITS SERIES
3164918	OPS2 Oil Pressure Switch	ALL
3009142	CoreSense Oil Sensor Kit	4M, 6M STREAM
2832761	Oil Pump Assembly	D2, D3, DL,
3121722	Oil Pump Assembly	D4, D6, D8
3236877	Oil Pump Assembly	4M, 6M STREAM



OPS2

### CAPACITY CONTROL (Unloader Head)

ITEM NO.	ITEM	SUITS SERIES
2835339	Capacity Control - Valve & Coil (230V)	D4, D6, D8
3006870	Capacity Control - Valve & Coil (230V)	4M, 6M STREAM



### HEAD COOLING FANS

ITEM NO.	ITEM	SUITS SERIES
3258922	Head Fan Assembly 230V	4M, 6M STREAM
3011694	Head Fan Mounting Kit	4M
3011718	Head Fan Mounting Kit	6M



■ Please contact Beijer Ref for Head cooling fans to suit other Copeland models.

Please contact Beijer Ref for information and availability of Copeland spares and accessories not listed.



## FRASCOLD COMPRESSORS



**FRASCOLD** have earned their reputation as a leading world supplier and manufacturer of high quality semi-hermetic compressors which are ideally suited for today's conscientious environment. This has been achieved by using the latest technology, only the best materials available, combined with strict quality control and testing. When installing Frascold you can be assured of superior reliability, proven energy efficiency and long term trouble free operation.

### STANDARD EQUIPMENT

The compressors are supplied with suction and discharge valves (sweat connections) rubber vibration absorbers, oil lubrication charge, nitrogen charge (1 bar) to protect compressor against humidity, oil sight glass and protection devices. V, Z and W series are equipped with oil pump and OPS2 Oil pressure protection switch. Compressors are coated with anti-rust protective primer and blue enamel coat.

### PROTECTION DEVICES

For all compressors, protection is performed by means of a series of PTC thermistors placed into the stator windings of the electric motor and connected to a Kriwan INT69 electronic control module. V, Z and W series are also supplied with discharge gas high temperature protection composed of a PTC thermistor sensor also connected to the electronic control module. PTC thermistor sensor is supplied on request for Q and S series compressors.

### LUBRICATION

For compressors of A, B, C, D, F, Q and S series, lubrication is carried out by centrifugation, with a special oil thrower disc. V, Z and W series compressors lubrication is performed by a high pressure oil pump and the compressor includes oil filter and oil pressure connections with INT250 Oil pressure protection switch.

### INT69 DIAGNOSTIC

New Series Frascold Q-Z Series compressors come fitted with Special Kriwan INT69 Diagnose: The IN69® Diagnose system allows, via a simple USB connection, to download all the operating parameters of the compressor for the last 7 days and for the last 20 critical events. With an additional device it can also communicate with Modbus system technology in order to have remote monitoring. This system, in addition to analysing the operating conditions of any given moment, allows to run a retro-active survey. Therefore, in the case of abnormal conditions, it directly aims for the "heart" of the problem that needs to be solved, instead of proceeding by trial and error.



INT69 Diagnostic data download

- Improves compressor protection
- Extends the life of refrigeration systems
- Quickly identifies the causes of malfunctions
- Can be consulted with a USB connection to PC
- Remote monitoring by means of Modbus system
- Monitors & stores data on run time and start & stops
- Downloadable graphs with 7day run and event history



## Institutional presence within ASERCOM

**ASERCOM** Association of European Compressor & Controls Manufacturers

**AIM** Creation of standards for performance and safety, focusing on better Environment protection, servicing the refrigeration industry and its customers

**PERFORMANCE DATA** A Certified product guarantees a true and neutral valuation of its performance

**FRASCOLD** has more than 80 certified compressors

member of:





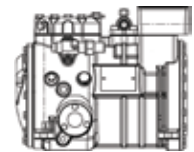
**FRASCOLD COMPRESSORS**



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**A & B-SERIES - 2 CYLINDER (1PH/240V)**

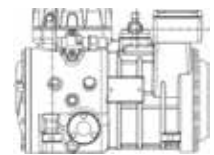
ITEM NO..	MODEL	NOM HP	DISP M <sup>3</sup> /HR	R404A		R448A		R134a
				-25	-5	-25	-5	-5
C5016	A16Y	1.0	5.5	1330	3250	1010	2970	1960
C5033	A157Y	1.5	6.9	1680	4160	1350	3840	2570
C5046	B210Y	2.0	9.9	2340	5710	2000	5580	3800



A & B Series

**A, B & D-SERIES - 2 CYLINDER (3PH/415V)**

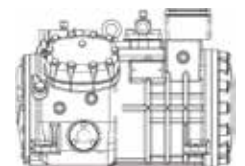
ITEM NO..	MODEL	NOM HP	DISP M <sup>3</sup> /HR	R404A		R448A		R134a
				-25	-5	-25	-5	-5
C5018	A16Y	1.0	5.5	1330	3250	1010	2970	1960
C5033A	A157Y	1.5	6.9	1680	4160	1350	3840	2570
C5047	B210Y	2.0	9.9	2340	5710	2000	5580	3800
C5048	D211Y	2.0	11.3	2710	6750	2430	6740	4100
C5061	D313Y	3.0	13.2	2910	7940	2980	7940	4740
C5063	D315Y	3.0	15.4	3980	9200	3450	9250	5580
C5078	D418Y	4.0	17.9	4370	10880	4220	10940	6990



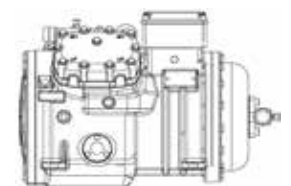
D Series

**Q & S-SERIES - 4 CYLINDER (3PH/415V)**

ITEM NO..	MODEL	NOM HP	DISP M <sup>3</sup> /HR	R404A		R448A		R134a
				-25	-5	-25	-5	-5
C5072	Q420Y	4	19.8	4760		4450		7230
C5081	Q521Y	5	21.2	4740	12440	4790	12710	7330
C5094	Q525Y	5	24.7	5970	14700	5630	14890	9610
C5097	Q528Y	5	28.0	6970		6260		10040
C5098	Q728Y	7.5	28.0	7090	17140	6330	16880	9950
C5102	Q733Y	7.5	32.7	7540	19780	7720	20090	11900
C5104	Q736Y	7.5	35.9	9970		8450		14160
C5106	S842Y	8	41.3	10820		9130		16660
C5108	S1242Y	12	41.3	9510	24340	9220	24870	16560
C5134	S1052Y	10	50.4	13720		10620		19580
C5138	S1552Y	15	50.4	13760	32120	10650	30090	19390
C5142	S1556Y	15	56.0	15080		12400		21720
C5145	S2056Y	20	56.0	15230	35530	12650	34130	21760



Q Series



S Series

- Ratings at 45deg Condensing, Euro standard EN12900 / 20deg Suction gas temp / 0k Subcooling.
- Please refer to Frascold selection software or contact Beijer Ref for ratings at other conditions.
- Compressors do not come with crank case heaters. Please order separately if required.



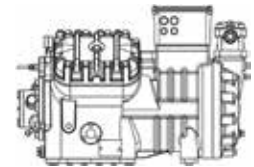
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**V-SERIES - 4 CYLINDER (3PH/415V)**

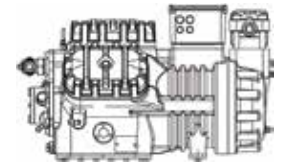
ITEM NO.	MODEL	NOM HP	DISP M <sup>3</sup> /HR	R404A		R448A		R134a
				-25	-5	-25	-5	-5
C5165	V2059Y	20	58.5	13910	35790	13050	35180	22980
C5160	V1571Y	15	70.8	18540		17240		27130
C5185	V2571Y	25	70.8	16970	42950	16650	43430	26120
C5172	V2084Y	20	83.8	20920		21090		29850
C5192	V3084Y	30	83.8	20940	51690	20050	51400	29980
C5186	V2593Y	25	93.1	22020		21900		34920
C5193	V3293Y	32	93.1	21150	55920	20680	55810	33040



V Series

**Z SERIES - 6 CYLINDER (3PH/415V)**

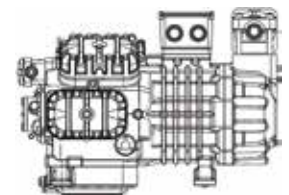
ITEM NO.	MODEL	NOM HP	DISP M <sup>3</sup> /HR	R404A		R448A		R134A
				-25	-5	-25	-5	-5
C5194	Z25106Y	25	106.2	26600		25450		37170
C5196	Z35106Y	35	106.2	26650	65460	24540	63930	40150
C5198	Z30126Y	30	125.7	30860		32040		45710
C5206	Z40126Y	40	125.7	30560	76480	29620	74590	47390
C5208	Z40154Y	40	154.4	41360		39060		55260
C5215	Z50154Y	50	154.4	37400	93600	37510	93810	56560



Z Series

**W SERIES - 8 CYLINDER (3PH/415V)**

ITEM NO.	MODEL	NOM HP	DISP M <sup>3</sup> /HR	R404A		R448A		R134A
				-25	-5	-25	-5	-5
C5234	W60187Y	60	186.1	46480	115950	45110	113380	68620
C5238	W70206Y	70	205.8	51150	126910	50170	125660	76290



W Series

- Ratings at 45deg Condensing, Euro standard EN12900 / 20deg Suction gas temp / 0k Subcooling.
- Please refer to Frascold selection software or contact Beijer Ref for ratings at other conditions.
- Compressors do not come with crank case heaters. Please order separately if required.



**TECHNICAL DATA**

ITEM NO.	MODEL	NOM HP	AMPS (DOL)		NO OF CYLINDERS	DISP. M <sup>3</sup> / HR	OIL LITRES	FOOTPRINT		VALVE SIZE		WEIGHT KG	dB(A) @ 3mtr
			MRA	LRA				LENGTH (mm)	WIDTH (mm)	DISCH (Inch)	SUCTION (Inch)		
C5016	A016Y-IPH	1.0	6.2	23.6	2	5.5	1.2	234	194	1/2	5/8	36	46
C5033	A157Y-IPH	1.5	7.9	35.8	2	6.9	1.2	234	194	1/2	5/8	36	47
C5046	B210Y-IPH	2.0	11.7	62.5	2	9.8	1.2	234	194	5/8	3/4	40	49
C5018	A016Y	1.0	3.6	13.6	2	9.8	1.2	234	194	1/2	5/8	40	46
C5033A	A157Y	1.5	4.5	20.6	2	6.9	1.2	234	195	1/2	5/8	36	47
C5047	B210Y	2.0	6.7	35.9	2	9.8	1.2	234	194	5/8	3/4	40	49
C5048	D211Y	2.0	7.1	35.9	2	11.3	1.2	234	194	5/8	7/8	45	49
Use C5061	D213Y	2.0	7.1	35.9	2	13.8	1.2	234	194	5/8	7/8	45	49
C5061	D313Y	3.0	8.8	43.7	2	13.8	1.2	234	194	5/8	1-1/8	49	49
C5063	D315Y	3.0	10.0	43.7	2	15.3	1.2	234	194	5/8	1-1/8	49	49
Use C5078	D318Y	3.0	10.0	43.7	2	17.9	1.2	234	194	5/8	1-1/8	49	51
C5078	D418Y	4.0	12.5	52.0	2	17.9	1.2	234	194	5/8	1-1/8	51	51
C5072	Q420Y	4.0	10.1	53.2	4	19.8	1.8	312	246	3/4	1-1/8	74	50
C5081	Q521Y	5.0	11.6	63.1	4	21.2	1.8	312	246	3/4	1-1/8	79	53
C5096	Q525Y	5.0	12.7	63.1	4	24.7	1.8	312	246	7/8	1-1/8	79	53
C5097	Q528Y	5.0	14.0	63.1	4	27.9	1.8	312	246	7/8	1-3/8	79	55
C5098	Q728Y	7.5	17.6	87.3	4	27.9	1.8	312	246	1-1/8	1-3/8	79	55
Use C5102	Q533Y	5.0	14.4	63.1	4	32.7	1.8	312	246	1-1/8	1-3/8	79	55
C5102	Q733Y	7.5	20.0	87.3	4	32.7	1.8	312	246	1-1/8	1-3/8	79	55
C5104	Q736Y	7.5	19.4	87.3	4	35.9	1.8	312	246	1-1/8	1-3/8	79	56
C5106	S842Y	8.0	20.3	90.3	4	41.3	1.8	292	266	1-1/8	1-3/8	117	58
C5108	S1242Y	12	22.4	102.3	4	41.3	2.9	292	266	1-1/8	1-3/8	120	58
C5134	S1052Y	10	24.5	102.3	4	51.5	2.9	292	266	1-1/8	1-3/8	120	59
C5138	S1552Y	15	32.4	117.1	4	51.5	2.9	292	266	1-1/8	1-5/8	126	59
C5142	S1556Y	15	30.7	117.1	4	56.0	2.9	292	266	1-1/8	1-5/8	130	61
C5145	S2056Y	20	38.4	136.2	4	56.0	2.9	292	266	1-1/8	1-5/8	132	61
Use C5165	V1559Y	15	31.1	117.1	4	58.5	4.5	381	305	1-1/8	1-5/8	170	61
C5165	V2059Y	20	35.3	136.2	4	58.5	4.5	381	305	1-1/8	1-5/8	174	61
C5160	V1571Y	15	32.2	117.1	4	70.8	4.5	381	305	1-1/8	1-5/8	170	61
C5185	V2571Y	25	43.5	202.7	4	70.8	4.5	381	305	1-3/8	2-1/8	184	61
C5172	V2084Y	20	42.6	145.2	4	83.8	4.5	381	305	1-1/8	1-5/8	180	64
C5192	V3084Y	30	49.2	186.2	4	83.8	4.5	381	305	1-3/8	2-1/8	187	64
C5186	V2593Y	25	52.3	202.7	4	93.1	4.5	381	305	1-3/8	2-1/8	190	65
C5193	V3293Y	32	53.1	239.2	4	93.1	4.5	381	305	1-3/8	2-1/8	192	65
C5194	Z25106Y	25	53.6	202.7	6	106.2	4.5	381	305	1-3/8	2-1/8	220	65
C5196	Z35106Y	35	60.2	239.2	6	106.2	4.5	381	305	1-3/8	2-1/8	223	65
C5198	Z30126Y	30	55.7	186.2	6	125.7	7.5	381	305	1-3/8	2-1/8	229	66
C5206	Z40126Y	40	71.9	273.0	6	125.7	7.5	381	305	1-5/8	2-5/8	240	66
C5208	Z40154Y	40	77.9	273.0	6	154.4	7.5	381	305	1-5/8	2-5/8	240	67
C5215	Z50154Y	50	90.4	321.4	6	154.4	7.5	381	305	1-5/8	2-5/8	244	67
C5234	W60187Y	60	103.5	455.0	8	186.1	8.0	458	305	1-5/8	3-1/8	315	71
C5238	W70206Y	70	116.8	548.0	8	205.8	8.0	458	305	2-1/8	3-1/8	328	72

■ All noise level ratings are 'free field' with compressor at 50hz based at a distance of 3meters and are given as a guide only.

## FRASCOLD COMPRESSOR SPARES

### CRANKCASE HEATERS

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
R0553	T00CH13RIC	50w Crank Case Heater	A, B & D
R0552	T00CH1RIC	70w Crank Case Heater	F, Q, S & T
R0555	T00CH9RIC	150w Crank Case Heater	V, Z & W



### MOTOR PROTECTION

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
R0820	T00ECA01	Motor Protection INT69	A, B, D
C5216	T00EC01D-RIC	Motor Protection INT69 Diagnose	A, B, D, Q, S
R0822	T00ECA11D	Motor Protection INT69TML Diagnose	V, Z, W
C5216B	T00EC57	INT69 Diagnose interface cable	INT69TML
R0972	T00EC50-RIC	Discharge temperature sensor suit INT69TM	Q,S & old V,Z,W
-	T00EC50D-RIC	Discharge temperature sensor suit INT69TML Diagnose	V, Z, W



- When replacing old type INT69TM with 'Diagnose' version, 10k Ohm resistor should be left in place.

### OIL SPARES

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
R0131	T00EC1630DRIC	INT250FR Oil Pressure Safety Switch (c/w brass sensor) (To be used with INT69TM Diagnose)	V, Z
R0130	T00EC1620RIC	DELTA-PII Oil Pressure Safety Switch (c/w brass sensor)	V, Z, W
3140721	3140721	Brass sensor suits Delta P, PII, INT250	V, Z, W
3110784	3110784	Sensor & Gaskets To Suit OPS	V, Z, W
R0727	T00SK210000	Oil Pump Assembly V,Z	V, Z
R0726	T00SK210100	Oil Pump Assembly W	W
R0735	T00SK190100	Oil Strainer Assembly	V, Z, W
R0730	T00SK170100	Oil Level Sightglass	All models



INT250FR



DELTA-PII

### HEAD COOLING FANS (1PH/240V)

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
R0744	SZ-FM1	Head Cooling Fan A-D	A, B, D
R0745	SZ-FM9	Head Cooling Fan Q	Q
C5803	SZ-FM2S/001	Head Cooling Fan S	S
R0747	SZ-FM2V/001	Head Cooling Fan V	V
R0747C	SZ-FM3/001	Head Cooling Fan Z (3PH)	Z



### UNLOADER HEADS

ITEM NO.	FRASCOLD NO.	ITEM	APPLICATION	SUITS SERIES
C5220Z	T00SK220150	Capacity Control Head Q	Fully unloads head for capacity control	Q
C5221	T00SK220100	Capacity Control Head S		S
C5225	T00SK220200	Capacity Control Head V-W		V, Z, W
C5229A	T00SK220310	RSH Cap Control Head Q	Partially unloads head for tighter capacity control	Q
C5229B	T00SK220360	RSH Cap Control Head S		S
C5229C	T00SK220400	RSH Cap Control Head V-W		V, Z, W
C5226A	T00SK250100	Start Unloader Head S	Unloaded Start Check valve required	S
C5227	T00SK250200	Start Unloader Head V-W		V, Z, W
-	T00SK220550	Unloader Stem & Base with Gasket	Suit unloader head	Q
C5222	T00SK220500	Unloader Stem & Base with Gasket		S, V, Z, W
-	T00SK250700	Solenoid Coil ODE - 230V AC	Suit unloader stem	Current Type
018F8032	T00SK250704	Solenoid Coil Danfoss - 230V AC		Old Type



- Start unloader heads can be used in conjunction with PWS to significantly reduce compressor starting current.
- All above unloader heads come complete with unloader valve stem assembly and coil.

**FRASCOLD COMPRESSOR SPARES**

TO SUIT	GASKET KIT COMPLETE	VALVE PLATE KIT COMPLETE	VALVE PLATE GASKET		SERVICE VALVE KITS	
			BODY	HEAD	SUCTION	DISCHARGE
A075Y, A157Y	T00SK0200	T00SK12501	S1351031E	S1411032	T00SK100120	T00SK100110
A076Y, A016Y, A158Y, B159Y, B159.1Y	T00SK0300	T00SK12502	S1451031E	S1411032	T00SK100120	T00SK100110
B210Y	T00SK0300	T00SK14501	S1451031E	S1411032	T00SK100130	T00SK100120
B210.1Y	T00SK0405	T00SK14505	S1461031	S1411032	T00SK100130	T00SK100120
D211Y, D211.1Y, D215.1Y, D215	T00SK0500	T00SK24800	S2341031	S2451032	T00SK100330	T00SK100310
Q521Y, Q521.1Y, Q519, Q519.1Y	T00SK1230	T00SK24800	S2341031	S2451032	T00SK100520	T00SK100320
Q528.1Y	T00SK1230	T00SK24800	S2341031	S2451032	T00SK100530	T00SK100330
Q728Y	T00SK1220	T00SK24802	S2451031	S2451032	T00SK100530	T00SK100340
Q728.1Y	T00SK1230	T00SK24800	S2341031	S2451032	T00SK100530	T00SK100340
D213Y, D213.1Y,	T00SK0600	T00SK24801	S2451031	S2451032	T00SK100330	T00SK100310
D313Y, D313.1Y, D318Y, D318.1Y	T00SK0600	T00SK24802	S2451031	S2451032	T00SK100340	T00SK100310
D315Y, D315.1Y	T00SK0500	T00SK24803	S2341031	S2451032	T00SK100340	T00SK100310
D418Y, D418.1Y	T00SK0600	T00SK24802	S2451031	S2451032	T00SK100340	T00SK100320
D416, D416.1Y	T00SK0500	T00SK24803	S2341031	S2451032	T00SK100340	T00SK100320
F416Y, F416.1Y	T00SK0700	T00SK36200	S4321031A	S3631032	T00SK100520	T00SK100320
F519Y	T00SK0800	T00SK26202	S4381031A	S3631032	T00SK100520	T00SK100320
Q519, Q519.1Y	T00SK1230	T00SK24800	S2341031	S2451032	T00SK100520	T00SK100320
Q420.1Y	T00SK1229	T00SK24804	S4001031	S2451032	T00SK100520	T00SK100320
Q525Y, Q525.1Y	T00SK1220	T00SK24801	S2451031	S2451032	T00SK100520	T00SK100330
Q725.1Y	T00SK1220	T00SK24802	S2451031	S2451032	T00SK100520	T00SK100330
Q528Y	T00SK1220	T00SK24801	S2451031	S2451032	T00SK100530	T00SK100330
Q533.1Y, Q733.1Y	T00SK1220	T00SK24802	S2451031	S2451032	T00SK100530	T00SK100340
S533Y, S533.1Y	T00SK1300	T00SK44900	S4321031A	S3631032	T00SK100600	T00SK100520
S733Y	T00SK1300	T00SK36200	S4321031A	S3631032	T00SK100600	T00SK100520
Q736.1Y	T00SK1220	T00SK24802	S2451031	S2451032	T00SK100530	T00SK100340
S739Y	T00SK1400	T00SK36201	S4381031A	S3631032	T00SK100600	T00SK100520
S1039Y	T00SK1400	T00SK36202	S4381031A	S3631032	T00SK100600	T00SK100520
Q842Y	T00SK1450	T00SK44902	S3641031A	S3631032	T00SK100600	T00SK100520
S1242Y	T00SK1470	T00SK36204	S3641031A	S3631032	T00SK100600	T00SK100520
S1051Y	T00SK1500	T00SK36205	S4481031A	S3631032	T00SK100600	T00SK100520
S1551Y	T00SK1600	T00SK36206	S4491031A	S3631032	T00SK100640	T00SK100520
S1052Y	T00SK1500	T00SK44906	S4481031A	S3631032	T00SK100600	T00SK100520
S1552Y	T00SK1700	T00SK44906	S4491031A	S3631032	T00SK100640	T00SK100520
S1556Y, S2056Y	T00SK1700	T00SK44906	S4451031A	S3631032	T00SK100640	T00SK100520
V1559Y	T00SK1800	T00SK49500	S6301031C	S8701032	T00SK103700	T00SK100610
V2059Y	T00SK1800	T00SK49501	S6301031C	S8701032	T00SK103700	T00SK100610
V1571Y, Z25106	T00SK1900	T00SK49502	S6351031D	S8701032	T00SK103700	T00SK100610
V2571Y	T00SK2000	T00SK49503	S6351031D	S8701032	T00SK103800	T00SK100600
V2084Y	T00SK2100	T00SK49504	S6401031C	S8701032	T00SK103700	T00SK100610
V3084Y	T00SK2200	T00SK49505	S6401031C	S8701032	T00SK103800	T00SK100600
V2593Y	T00SK2210	T00SK87003	S8601031B	S8701032	T00SK103800	T00SK100600
V3293Y	T00SK2210	T00SK87004	S8601031B	S8701032	T00SK103800	T00SK100600
V25103Y	T00SK2220	T00SK87005	S6501031D	S8701032	T00SK103800	T00SK100600
Z25106Y	T00SK2400	T00SK49502	S6351031D	S8701032	T00SK103800	T00SK103711
Z35106Y	T00SK2400	T00SK49503	S6351031D	S8701032	T00SK103800	T00SK103711
Z30126Y	T00SK2500	T00SK49504	S6401031C	S8701032	T00SK103800	T00SK103711
Z40126Y	T00SK2500	T00SK49505	S6401031C	S8710032	T00SK103810	T00SK103701
Z40154Y	T00SK2600	T00SK65005	S6510131D	S8701032	T00SK103810	T00SK103700
Z50154	T00SK2600	T00SK65006	S6501031D	S8701032	T00SK103810	T00SK103700
W60187Y	T00SK2900	T00SK87004	S8601031B	S8701032	T00SK103910	T00SK103700
W70206Y	T00SK3000	T00SK65006	S6501031D	S8701032	T00SK103910	T00SK103720

■ Please contact Beijer Ref for spares of models not listed.





## FRASCOLD SCREW COMPRESSORS



**FRASCOLD** Twin screw compressors are available in three ranges. Each range is specifically designed to provide superior performance for their nominated application and temperature range. Coupled with optimised motors, state of the art compressor protection and long life, extra heavy duty bearings, all models provide high energy efficiency, unsurpassed performance and long-term reliability where a low noise, high capacity solution is required.

### FEATURES

#### Screw Profiles

The compressors are two-shaft rotary displacement design, with innovative profiles of the screws (Ratio 5:6 between male & female screw). The shafts are fitted with large roller bearings sized to bear both radial and axial loads, resulting in reduction of friction, vibration and lower noise levels. Discharge check valve, located in the service valve prevents counter rotation when compressor stops operating.

#### High Efficiency Electric Motor

Electric motor is two-pole, three phase asynchronous type. The rotor is fitted to the shaft of the male screw. Cooling of the motor is carried out by the suction gas flowing through slots in the rotor, also causing any liquid refrigerant to be separated due to the centrifugal action. Power Supply: 400/3/50 Connection: Part Winding Start (PWS) 50% + 50% current distribution

#### Capacity Control

All compressors are fitted with capacity control, which operates by means of a three-way solenoid valve, directing the flow of oil under pressure, to a slide piston mechanism. At full load, oil under pressure pushes against the piston, opposing the spring and closing the capacity control device. At reduced load conditions, the oil is diverted to the suction side of the compressor, and the spring forces the piston to open the capacity control device, which reduces the displacement and consequently reduces the capacity of the compressor. CXH models are also available with optional stepless capacity control system offering 25% to 100% control.

#### Electronic Protection Device

All Frascold screw compressors are equipped with electronic protection KRIWAN INT 68 FRY, complete with thermistor sensors, performing the following functions:

- Control of maximum temperature of the electric motor +120°C, through six PTC thermistors, fitted to the stator winding.
- Control of the maximum discharge temperature +120°C through PTC sensor placed on compressor discharge side.
- Control of rotation direction of the electric motor and phase sequence.
- Protection of phase and voltage failures.
- Control of breakage and short circuit in chain of PTC sensors.





## TWIN SCREW COMPRESSORS



FRASCOLD FVR Series screw compressors are engineered with quality in mind and offer high capacity with a single unit. These compressors meet or exceed the latest regulations and feature a space-saving design and reduced noise levels. Offering high efficiency and reliability, the FVR series delivers truly superior performance, as well as reduced environmental impact.

### FVR-H - MED/HIGH TEMPERATURE

MODEL NO.	OLD MODEL	NOM HP	AMPS MRA	DISP M <sup>3</sup> /HR	CAPACITY STEPS (%)	WATTS @ -5 SST (WITHOUT ECO)		
						R404A	R448A	R134A
FVR-H 50 140 Y	R-TSH8 50 150Y	50	68	140	75-100	91800	92900	58900
FVR-H 60 160 Y	R-TSH8 60 186Y	60	108	160	75-100	104200	105300	68600
FVR-H 70 200 Y	R-TSH8 70 210Y	70	128	200	50-75-100	141700	142200	87300
FVR-H 80 230 Y	R-TSH8 80 240Y	80	145	230	50-75-100	162000	162200	101100
FVR-H 90 270 Y	R-TSH8 90 270Y	90	163	270	50-75-100	193800	194200	118300
FVR-H 100 300 Y	R-TSH8 100 300Y	100	183	300	50-75-100	212200	214400	131000
FVR-H 115 350 Y	R-TSH8 120 360Y	115	211	350	50-75-100	242000	242000	150000
FVR-H-125-380 Y	-	125	226	380	50-75-100	255600	258800	160500
FVR-H-140-430 Y	-	140	245	430	50-75-100	283800	287800	177800
FVR-H-160-460 Y	-	160	282	460	50-75-100	310300	314900	192200
FVR-H-180-540 Y	-	180	304	540	50-75-100	356800	361900	234900

### FVR-L - LOW TEMPERATURE

MODEL NO.	OLD MODEL	NOM HP	AMPS MRA	DISP M <sup>3</sup> /HR	CAPACITY STEPS (%)	WATTS @ -25 SST (WITH ECO)	
						R404A	R448A
FVR-L 50 160 Y	R-TSL1 50 186Y	50	89	186	75-100	63900	62900
FVR-L 60 200 Y	R-TSL1 60 210Y	60	108	200	50-75-100	85400	83500
FVR-L 70 230 Y	R-TSL1 70 240Y	70	128	230	50-75-100	98700	96600
FVR-L 80 270 Y	R-TSL1 80 270Y	80	145	270	50-75-100	113100	111000
FVR-L 90 300 Y	R-TSL1 90 300Y	90	163	300	50-75-100	125300	124100
FVR-L 100 350 Y	R-TSL1 100 360Y	100	183	350	50-75-100	146500	145100
FVR-L-110-380 Y	-	110	211	380	50-75-100	154800	153200
FVR-L-125-430 Y	-	125	218	430	50-75-100	181600	175500
FVR-L-160-540 Y	-	160	287	540	50-75-100	214600	208000

- Ratings at 45deg Condensing / 10deg Suction superheat / 3k Subcooling / Economiser on low temperature models.
- Oil cooler required for most applications below -10deg SST. Please contact Beijer Ref for further details and selection.
- Please refer to Frascold selection software or contact Beijer Ref for ratings at other conditions or with other refrigerants.

### Standard Equipment

#### Included with Compressor:

- Capacity control device
- Suction service valve with solder sleeve
- Discharge service valve with check valve
- Integral electronic protection, includes:
  - Sensor for maximum discharge temperature
  - Sensor for maximum temperature of electric motor
  - KRIWAN Electronic module

#### Not Included With Compressor:

- Vibration absorbers
- Components for external oil piping, includes:
  - Oil strainer assembly with core
  - Solenoid valve with coil and plug
  - Electronic module for oil flow switch
  - Oil flow switch
  - Oil sight glass



**COMPACT TWIN SCREW COMPRESSOR**



Frascold CXH Series of compact, semi-hermetic twin screw compressors comprises of models ranging from a nominal 50HP to 300HP, with displacements from 199 to 912 cubic meters per hour at 50Hz. The CXH range is designed for close coupled systems and incorporates a high efficiency oil separator and oil control system. Suited to applications in the operating temperature range from +12.5°C to -15°C SST on R134A, R407C, & R404A.

**CXH - TWIN SCREW COMPRESSOR**

ITEM NO.	MODEL	NOM HP	AMPS MRA	DISP M3 / HR	CAPACITY STEPS (%)	WATTS @ +5 SST (ECO)	
						R407C	R134A
C5293	CXH01-50-199Y	50	80	199	25-50-75-100		132500
C5294	CXH01-60-230Y	60	98	230	25-50-75-100		155000
C5293H	CXH02-70-199Y	70	128	199	25-50-75-100	188900	
C5295	CXH01-70-264Y	70	125	264	25-50-75-100		171300
C5294H	CXH02-80-230Y	80	145	230	25-50-75-100	217200	
C5296	CXH01-80-298Y	80	145	298	25-50-75-100		197600
C5295H	CXH02-90-264Y	90	160	264	25-50-75-100	243800	
C5297	CXH01-90-340Y	90	160	340	25-50-75-100		187230
C5296H	CXH02-100-298Y	100	175	298	25-50-75-100	275200	
C5297A	CXH01-100-370Y	100	175	370	25-50-75-100		235100
C5298A	CXH52-110-316Y	110	184	316	25-50-75-100	314700	
C5298	CXH51-110-398Y	110	180	398	25-50-75-100		275800
C5300	CXH02-120-340Y	120	195	340	25-50-75-100	341200	
C5302	CXH52-125-372Y	125	218	372	25-50-75-100	364100	
C5303	CXH51-125-468Y	125	198	468	25-50-75-100		318300
C5299	CXH52-140-428Y	140	245	428	25-50-75-100	391800	
C5305	CXH51-140-538Y	140	221	538	25-50-75-100		357200
C5306	CXH52-160-468Y	160	282	468	25-50-75-100	446600	
C5307	CXH91-160-620Y	160	283	620	25-50-75-100		300770
C5309	CXH92-180-545Y	180	332	545	25-50-75-100	546600	
C5310	CXH91-180-702Y	180	315	702	25-50-75-100		427200
C5312	CXH92-210-620Y	210	375	620	25-50-75-100	606800	
C5314	CXH91-210-810Y	210	356	810	25-50-75-100		550000
C5315	CXH92-240-702Y	240	427	702	25-50-75-100	672800	
C5317	CXH91-240-912Y	240	427	912	25-50-75-100		591100

- Ratings at 50deg Condensing temp at European standard EN12900 / 10deg Suction gas superheating / with economiser.
- CXH Compressors are also suitable for operation with R404A, R507C & R134A for medium temperature applications.
- Please refer to Frascold selection software or contact Beijer Ref for ratings at other conditions or with other refrigerants.

**Standard Equipment**

- Lubricant oil charge and oil filter
- Discharge service valve complete with check valve
- Suction service valve with flange and solder sleeve
- Oil level switch & Electric oil heater with temperature control
- Oil equalisation valve for parallel compressors application
- KRIWAN Electronic protection module with: Discharge & motor protection PTC sensor
- Stepless capacity control device (Stepped optional)
- Connection for liquid injection or economiser fittings
- Economiser valve kit ready for ECO installation

## SCREW COMPRESSOR SPARES

### MOTOR PROTECTION

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
R1012	T00EC45A	Motor Protection INT69-FRY	RTS / FVR / CXH
C5216C	T00EC45D	Motor Protection INT69-FRYL (For use with VSD)	RTS / FVR / CXH
C5217	T00EC28	Electronic Alarm Control INT69V for oil flow switch (Required with FRY only)	RTS / FVR / CXH
R0975	T00EC51	Discharge Temp Sensor	RTS / FVR / CXH



### OIL SEPARATORS & SPARES

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
C5830	SZ-AOC1	Air-Cooled Oil Cooler - 15kw	RTS / FVR
C5836	T00WK200	Remote Oil Separator Kit - 40L	RTS / FVR
C5838	T00WK201	Remote Oil Separator Kit - 120L	RTS / FVR
R1007	T00CH28	Oil Separator Heater	RTS / FVR
C5861	T00WP250	Oil Level Switch for Oil Separator	RTS / FVR
C5866	T00WK110	Oil Filter Housing Kit LM110 (Filter Not Included)	RTS / FVR
C5860	T00WP123	Oil Filter Cartridge to suit LM110 (Current)	RTS / FVR
R1003	T00WK111	Oil Filter Cartridge to suit LM100 (Old type)	RTS / FVR
R1002	T00WK130	Oil Flow Switch to Suit RTS	RTS / FVR
C5843	T00WK300116	Oil Filter Cartridge to suit CXH Series 0	CXH0
C5844	T00WK350116	Oil Filter Cartridge to suit CXH Series 5 & 9	CXH
C5863	T00WP253	Oil Level Sensor INT276	CXH
R0700	T00WK1400	Oil Flow Monitor	CXH
-	T00CH37	Sump Heater	CXH
C5853	T00WK1601	Stepped Capacity Control Kit	CXH



### CAPACITY CONTROL

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
C5852	T00WK1600	Stepless Capacity Control Kit	CXH



### MISCELLANEOUS

ITEM NO.	FRASCOLD NO.	ITEM	SUITS SERIES
C5847	T00WK1500	Economiser Connection Kit for CXHO	CXH
C5848	T00WK1201	DOL Terminal Bridges up to 100hp	CXH <100hp
C5849	T00WK1200	DOL Terminal Bridges up to 240hp	CXH <240hp



Please contact Beijer Ref for information and availability of Frascold spares and accessories not listed



## DANFOSS VARIABLE SPEED DRIVES FC103



- Danfoss Set-up-wizard provides quick and easy programming
- Integrated soft-start offers reduced compressor start up current
- Improved energy efficiency resulting in reduced energy costs
- Stable suction pressure - better control and less risk of liquid slug
- Can control up to 6 compressors for rack system applications
- Ideal for applications with multiple loads such as pubs & clubs
- Oil return management assists oil return during low loads
- Can accept either 0 to 10v or 4 to 20mA signal
- All VLT models include internal EMC filters
- Also suitable for Condenser fan control

## DANFOSS VLT SERIES (IP55 With Input Filters)

ITEM NO.	MODEL	MAX RATED			DIMENSIONS H x W x D
		KW	HP	MCC (A)	
134F7668	Danfoss P2K2	2.2	3	5.6	391 x 200 x 177
134F7669	Danfoss P3K0	3.0	4	7.2	391 x 200 x 177
134F7670	Danfoss P4K0	4.0	5.5	10	391 x 200 x 177
134F7665	Danfoss P5K5	5.5	7.5	13	420 x 242 x 200
134F7663	Danfoss P75K	7.5	10	16	420 x 242 x 200
134F7676	Danfoss P11K	11	15	24	480 x 242 x 260
134F7489	Danfoss P15K	15	20	32	480 x 242 x 260
134F7677	Danfoss P18K	18	25	37	480 x 242 x 260
134F7678	Danfoss P22K	22	30	44	650 x 242 x 260
134F7679	Danfoss P30K	30	40	61	650 x 242 x 260
134F7680	Danfoss P37K	37	50	73	680 x 308 x 310
134F7681	Danfoss P45K	45	60	90	680 x 308 x 310
134F7682	Danfoss P55K	55	73	106	680 x 308 x 310
134F7684	Danfoss P75K	75	100	147	770 x 370 x 335
134F7685	Danfoss P90K	90	120	177	770 x 370 x 335



- To overcome compressor starting torque, VLT may need to be oversized with higher MCC model.
- Contact Beijer Ref's engineering team for assistance with selection.

## ACCESSORIES

ITEM NO.	DESCRIPTION
130B1169	VLT Communication Card
130B4598	VLT Weather Shield Outdoor Mounts to Suit Frames A4, A5, B1,B2
130B4597	VLT Weather Shield Outdoor Mounts to Suit Frames C1, C2



## PRESSURE TRANSDUCERS

ITEM NO.	DESCRIPTION	APPLICATION	RANGE	OUTPUT	CONNECTION
060G2101	Danfoss AKS33 -1 to 12 bar	Compressor	-1 to 12 bar	4-20mA	1/4 NPT
060G2102	Danfoss AKS33 -1 to 20 bar	Comp/Fans	-1 to 20 bar	4-20mA	1/4 NPT
060G2115	Danfoss AKS33 +1 to 25 bar	Cond Fans	+1 to 25 bar	4-20mA	1/4 NPT
060G5750	Danfoss AKS2050 +1 to 59 bar	CO2	+1 to 59 bar	0.5-4.5V	Male
060G5752	Danfoss AKS2050 +1 to 159 bar	CO2	+1 to 159 bar	0.5-4.5V	Male
060G0008	Din Plug	Transducer	-	-	3 PIN





**LENZE VARIABLE SPEED DRIVES**



- Integrated soft-start offers reduced compressor start up current
- Less compressor starts reduces mechanical stresses and wear
- Stable suction pressure - better control and less risk of liquid slug
- Ideal for applications with multiple loads such as pubs & clubs
- Improved energy efficiency resulting in reduced energy costs
- IP66 models can handle 200% of motor current for 30 seconds
- Can accept either 0 to 10v or 4 to 20mA signal
- All Protec models include internal EMC filters
- Also suitable for Condenser fan control

**LENZE i550 PROTEC (With Input Filters)**

MODEL NO.	RATED			DIMENSIONS H X W X D (mm)	IP RATING	WEIGHT KG
	KW	HP	MCC (A)			
I55AP215F00710K00S	1.5	2	3.9	235 x 140 x 140	66	2.7
I55AP222F00710K00S	2.2	3	5.6	235 x 140 x 140	66	2.7
I55AP230F00710K00S	3.0	4	7.3	283 x 180 x 168	66	4.9
I55AP240F00710K00S	4.0	5.5	9.5	283 x 180 x 168	66	4.9
I55AP255F00710K00S	5.5	7.5	13.0	283 x 180 x 168	66	4.9
I55AP275F00710K00S	7.5	10	16.5	326 x 180 x 173	66	5.1
I55AP311F00710K00S	11.0	15	23.5	326 x 180 x 173	66	5.1
I55AP315F00710K00S	15.0	20	32.0	447 x 230 x 187	66	10.2
I55AP318F00710K00S	18.5	25	40.0	447 x 230 x 187	66	10.2
I55AP322F00710K00S	22.5	30	47.0	447 x 230 x 187	66	10.2
I55AP322F00310K00S	22.5 - 30	30 - 35	56.4	447 x 230 x 187	31	10.2



- Above VSD enclosures (excl. 22.5-30kw) have protection level of IP66. Suitable for indoor and for outdoor installations.
- Contact Beijer Ref's engineering team for assistance with selection.

**PRESSURE TRANSDUCERS**

ITEM NO.	DESCRIPTION	RECOMENDED APPLICATION	RANGE (Bar)	OUTPUT	CONNECTION	
					ELECTRICAL	THREAD
PP11	Dixell Press Transducer - LP	Compressor	-0.5 to 11	4-20mA	2m Lead	1/4" M/Flare
PP11F						1/4" F/Flare
PP30	Dixell Press Transducer - HP	Cond Fans	0 to 30	4-20mA	2m Lead	1/4" M/Flare
PP30F						1/4" F/Flare
PP50			0 to 50			1/4" M/Flare
G4921LP	Wika Press Transducer - LP	Compressor	0 to 12	4-20mA	DIN Plug	1/4" M/Flare
G4921HP	Wika Press Transducer - HP	Cond Fans	0 to 30			1/4" M/Flare



**QUICK SELECTION GUIDE**

OUTSIDE DIMENSIONS L X W 2.4m High	COOLROOM +2°C ROOM TEMP / 35°C AMBIENT				FREEZER ROOM -18°C ROOM TEMP / 35°C AMBIENT				
	Int Volume m <sup>3</sup>	Product Load Kg / 24hrs	Room Usage	Watts 16hr run time	Int Volume m <sup>3</sup>	Product Load Kg / 24hrs	Room Usage	Watts 18hr run time	
1.8 x 1.2	4.0	80	Medium	1200	2.8	60	Medium	1100	
			Heavy	1600			Heavy	1350	
1.8 x 1.8	6.3	140	Medium	1450	4.7	100	Medium	1150	
			Heavy	2000			Heavy	1650	
2.4 x 1.8	8.6	180	Medium	1650	6.6	140	Medium	1300	
			Heavy	2250			Heavy	1850	
2.4 x 2.4	11.8	250	Medium	2100	9.3	190	Medium	1450	
			Heavy	2750			Heavy	2350	
3.0 x 2.4	14.9	320	Medium	2400	11.9	250	Medium	1900	
			Heavy	3150			Heavy	2600	
3.0 x 3.0	18.9	400	Medium	2750	15.3	320	Medium	2100	
			Heavy	3550			Heavy	2950	
3.6 x 2.4	18.0	380	Medium	2700	14.6	310	Medium	2050	
			Heavy	3500			Heavy	2850	
3.6 x 3.0	22.9	480	Medium	3050	18.7	390	Medium	2350	
			Heavy	4000			Heavy	3300	
3.6 x 3.6	27.7	580	Medium	3400	22.9	480	Medium	2550	
			Heavy	4600			Heavy	3550	
4.8 x 3.6	37.3	780	Medium	4150	31.2	660	Medium	3350	
			Heavy	5350			Heavy	4500	
4.8 x 4.8	50.3	1050	Medium	5150	44.5	890	Medium	3550	
			Heavy	6500			Heavy	5050	
*Allow an Additional <b>500W</b> Per Glass Door Insert					*Allow an Additional <b>600W</b> Per Glass Door Insert				

**CAPACITIES BASED ON THE FOLLOWING:**

- Coolrooms 75mm Insulation with concrete floor / Freezers 150mm Insulation including floor.
- Product entering 8deg above room temperature (Pre-frozen product only entering freezers)
- Off-Cycle 'Air Defrost' for Coolrooms / 80mins per 24hrs total 'Electric Defrost' for Freezers.

**EQUIPMENT SELECTION NOTES**

1. **Select unit to best match required room capacity at most relevant evaporating and air-on ambient temperature.**
  - 32 & 35deg ambient rated capacity selection will be sufficient for most applications with good unit ventilation.
  - Use 40deg rated capacity selection for constant extreme ambient locations or where ventilation is poor.
  - For 36deg ambient ratings add 32 & 40deg ratings and divide by two.
2. **Select Evaporator to match unit capacity at 32deg. Matching at 40deg unit capacity will mean the evaporator will be under-sized for most of the year - This may result in low room RH and drying out of sensitive products.**
  - Select evaporator with 20 - 25% more capacity for "high humidity" applications.
  - Select evaporator with 30 - 35% less capacity for "low humidity" applications.
3. **Select Expansion valve and orifice to match unit capacity at desired evaporating temperature.**
  - Use expansion valve with MOP function for low temp condensing unit applications (Not with CPR valve)
  - Use expansion valves that can operate at low superheat for high RH applications. Ideally Electronic (EEV)

 **PLEASE CONTACT BEIJER REF FOR ASSISTANCE WITH SELECTION OR IF YOU REQUIRE A QUOTATION.**



## EMBRACO CONDENSING UNITS



- High efficiency, low noise Embraco compressors
- World renowned compressor reliability
- Copper tube coil condenser on all models
- Small footprint allows fitting in tight spots
- Made with corrosion resistant materials
- High Ambient capability

### R134A - MED TEMPERATURE (1PH/240V)

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134A)				
			-15	-10	-5	0	5
UEMT6144Z	1/5	32	221	280	349	431	523
		38	192	255	321	389	460
UEMT6160Z	1/4	32	315	388	471	564	666
		38	303	345	418	499	587
UNEK6170Z	1/3	32	320	402	496	603	725
		38	287	364	452	553	669
UNEK6187Z	1/3	32	396	496	613	748	903
		38	355	448	558	685	831
UNEK6210Z	3/8	32	445	556	679	814	962
		38	397	504	624	755	900
UNEK6212Z	1/2	32	514	635	778	944	1133
		38	474	590	728	889	1072
UNEK6214Z	1/2	32	590	731	891	1073	1277
		38	537	671	822	995	1189
UNT6217Z	3/4	32	739	918	1135	1393	1696
		38	674	851	1065	1317	1613
UNT6220Z	1	32	871	1097	1367	1674	2008
		38	788	1005	1267	1564	1888
UNJ6220Z	1	32	945	1203	1495	1823	2189
		38	858	1108	1389	1703	2053
UNJ6226Z	1-1/4	32	1164	1476	1807	2159	2534
		38	1079	1374	1689	2028	2391

■ Ratings based on 10k suction superheat, 3k subcooling.

### TECHNICAL DATA

MODEL	COMPRESSOR				COND FAN MOTOR		AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	HP	DISP CC	MOTOR	MRA	WATTS	AMPS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
UEMT6144Z	1/5	5.2	RSIR	1.4	36	0.25	83	1/4	3/8	308	430	226	15	42
UEMT6160Z	1/4	6.8	CSIR	1.8	36	0.25	117	1/4	3/8	308	435	254	16	44
UNEK6170Z	1/4	8.4	CSIR	2.2	36	0.25	89	1/4	3/8	340	465	296	21	47
UNEK6187Z	1/3	10	CSIR	2.6	60	0.42	89	1/4	3/8	340	465	296	21	47
UNEK6210Z	1/3	12.1	CSIR	3.0	60	0.42	165	1/4	3/8	340	465	296	22	47
UNEK6212Z	1/2	14.3	CSIR	3.9	60	0.42	165	1/4	3/8	340	465	296	22	47
UNEK6214Z	1/2	16.8	CSIR	4.0	60	0.42	165	1/4	3/8	340	465	296	22	47
UNT6217Z	3/4	20.4	CSR	4.5	110	0.75	178	3/8	1/2	395	470	324	30	50
UNT6220Z	1	20.4	CSIR	5.5	110	0.75	180	3/8	1/2	395	470	324	34	52
UNJ6220Z	1	26.1	CSIR	6.2	110	0.75	180	3/8	1/2	410	480	324	35	55
UNJ6226Z	1-1/4	34.4	CSR	6.5	110	0.75	180	3/8	5/8	410	480	324	38	53

■ All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.





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**R404A - MED TEMPERATURE (1PH/240V)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)				
			-15	-10	-5	0	5
UNEK6144GK	1/4	32	316	387	474	572	681
		38	284	354	439	536	642
UNEK6165GK	1/3	32	425	506	605	721	855
		38	419	515	628	755	900
UNEK6181GK	3/8	32	473	585	713	859	1025
		38	443	554	679	822	983
UNEK6210GK	1/2	32	530	654	792	944	1110
		38	474	589	717	859	1014
UNEK6213GK	5/8	32	723	882	1054	1238	1437
		38	648	798	961	1136	1325
UNT6217GK	3/4	32	719	906	1123	1372	1653
		38	668	847	1056	1297	1567
UNEK6217GK	3/4	32	878	1080	1300	1544	1810
		38	800	987	1193	1420	1668
UNT6220GK	3/4	32	871	1085	1323	1589	1888
		38	783	985	1212	1469	1760
UNT6222GK	7/8	32	1009	1253	1533	1851	2206
		38	909	1142	1408	1709	2046
UNT6226GK	1	32	1305	1617	1977	2381	2828
		38	1180	1471	1807	2184	2600
USNJ9226GK	1	32	1309	1677	2093	2564	3096
		38	1174	1523	1922	2379	2902
USNJ9232GK	1-1/4	32	1548	1917	2321	2765	3250
		38	1388	1730	2112	2538	3011
USNJ9238GK	1-1/2	32	2117	2673	3291	3972	4714
		38	1951	2472	3054	3697	4399

■ Ratings based on 10k suction superheat, 3k subcooling.

**TECHNICAL DATA**

MODEL	COMPRESSOR				COND FAN MOTOR		AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	HP	DISP CC	MOTOR	MRA	WATTS	AMPS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
UNEK6144GK	1/4	4.5	CSIR	1.8	36	0.25	117	1/4	3/8	308	435	254	17	44
UNEK6165GK	1/3	6.2	CSIR	2.6	36	0.25	117	1/4	3/8	308	435	254	17	44
UNEK6181GK	3/8	7.4	CSIR	3.1	60	0.42	165	1/4	3/8	340	465	296	21	47
UNEK6210GK	1/2	8.9	CSIR	3.6	60	0.42	165	1/4	3/8	340	465	296	21	48
UNEK6213GK	5/8	12.1	CSIR	4.4	60	0.42	165	1/4	3/8	340	465	296	21	48
UNT6217GK	3/4	12.5	CSIR	5.1	110	0.75	178	3/8	1/2	395	470	324	33	51
UNEK6217GK	3/4	14.3	CSR	5.1	110	0.75	178	3/8	1/2	395	470	324	29	51
UNT6220GK	3/4	14.5	CSR	6.0	110	0.75	178	3/8	1/2	395	470	324	33	53
UNT6222GK	7/8	17.4	CSR	5.7	110	0.75	178	3/8	1/2	395	470	324	31	53
UNT6226GK	1	22.4	CSR	6.8	110	0.75	195	3/8	5/8	405	500	390	35	52
USNJ9226GK	1	21.7	CSR	5.2	72	0.32	403	3/8	5/8	440	600	372	39	53
USNJ9232GK	1-1/4	26.1	CSR	6.4	72	0.32	361	1/2	5/8	440	600	372	46	53
USNJ9238GK	1-1/2	32.7	CSR	8.8	120	0.57	611	1/2	5/8	440	600	426	46	54

■ All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



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### R404A - LOW TEMPERATURE (1PH/240V)

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)				
			-35	-30	-25	-20	-15
UNE2125GK	1/3	32	133	186	247	315	392
		38	118	165	219	280	351
UNEK2134GK	1/2	32	188	264	350	450	563
		38	166	230	305	394	497
UNEK2150GK	5/8	32	257	355	459	577	713
		38	235	319	411	518	646
UNE2168GK	3/4	32	299	410	548	707	885
		38	275	364	482	624	787
UNT2178GK	7/8	32	335	447	580	732	903
		38	291	394	516	657	815
UNT2180GK	1	32	424	556	698	852	1023
		38	378	503	643	802	982
USNJ2192GK	1-1/4	32	533	703	899	1119	1360
		38	446	608	796	1010	1244
UNT2212GK	1-1/2	32	608	783	989	1219	1466
		38	558	729	930	1154	1393
USNJ2212GK	1-1/2	32	678	888	1148	1450	1784
		38	577	788	1043	1334	1652

- Ratings based on 10k suction superheat, 3k subcooling.
- All units suitable for use with either TX valve or capillary tube. (Remove Receiver for capillary application)

### TECHNICAL DATA

MODEL	COMPRESSOR				COND FAN MOTOR		AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	HP	DISP CC	MOTOR	MRA	WATTS	AMPS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
UNE2125GK	1/3	8.8	CSIR	2.3	36	0.25	115	1/4	3/8	300	480	254	18	44
UNEK2134GK	1/2	12	CSIR	2.8	60	0.42	165	1/4	3/8	340	465	296	20	47
UNEK2150GK	5/8	12.1	CSIR	4.0	60	0.42	130	1/4	3/8	340	467	296	20	47
UNE2168GK	3/4	14.3	CSIR	4.9	60	0.42	130	1/4	3/8	340	467	296	20	47
UNT2178GK	7/8	17.4	CSIR	4.0	60	0.42	130	1/4	3/8	340	476	296	33	48
UNT2180GK	1	20.4	CSIR	5.8	60	0.42	130	1/4	3/8	340	476	296	29	48
USNJ2192GK	1-1/4	26.1	CSR	6.1	110	0.75	403	3/8	1/2	411	482	372	38	53
UNT2212GK	1-1/2	27.8	CSR	6.7	110	0.75	220	3/8	1/2	395	470	324	34	53
USNJ2212GK	1-1/2	34.4	CSR	8.1	110	0.75	403	3/8	5/8	411	482	372	39	53

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



**PHAT SERIES UNITS (High Ambient)**



- Fully Fitted with all components ready for installation
- Reliable, high efficiency Tecumseh compressors
- Large condensers with protective coil & fin coating
- High efficiency, low noise external rotor fan motors
- High quality Auto-Reset dual pressure control fitted
- Liquid line drier & sight glass fitted on all models
- Oil separator fitted and charged on all dual fan models
- All 3ph models come fully wired with: isolator switch, contactor, overload and control breaker all in IP67 enclosure

**R134a - MED TEMPERATURE (1PH/240V)**

ITEM NO.	MODEL NO.	NOM HP	FANS	AMB TEMP	CAPACITY IN WATTS (R134a)					
					-15	-10	-5	0	+5	+10
PHA300L	PHAT 075S-1F-Y-L	0.75	1x300	38	900	1170	1480	1810	2190	2620
				43	790	1060	1340	1660	2020	2390
PHA302L	PHAT 100S-1F-Y-L	1.0	1x300	38	1200	1540	1920	2330	2790	3270
				43	1090	1400	1760	2140	2560	3010
PHA304L	PHAT 150S-1F-Y-L	1.5	1x400	38	1610	2140	2730	3400	4140	4940
				43	1450	1940	2490	3100	3790	4540
PHA306LS	PHAT 150S-2F-Y-LS	1.5	2x350	38	1690	2240	2880	3620	4440	5350
				43	1500	2030	2620	3300	4060	4920
PHA308L	PHAT 200S-1F-Y-L	2.0	1x400	38	2230	2940	3770	4680	5710	6820
				43	1960	2650	3410	4270	5220	6270
PHA310LS	PHAT 200S-2F-Y-LS	2.0	2x350	38	2230	2960	3790	4720	5750	6880
				43	1970	2660	3440	4300	5250	6320

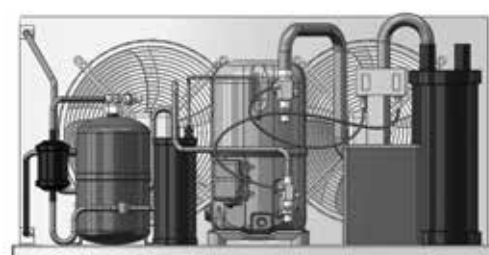
**R134a - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL NO.	NOM HP	FANS	AMB TEMP	CAPACITY IN WATTS (R134a)					
					-15	-10	-5	0	+5	+10
PHA312LSE	PHAT 275T-2F-Y-LS.E	2.75	2x350	38	2770	3840	5130	6590	8240	9990
				43	2480	3470	4660	6050	7560	9230
PHA314LSE	PHAT 300T-2F-Y-LS.E	3.0	2x400	38	3200	4340	5730	7310	9070	10960
				43	2860	3920	5210	6700	8350	10110
PHA316LSE	PHAT 350T-2F-Y-LS.E	3.5	2x400	38	3430	4640	6180	8010	10080	12340
				43	3080	4200	5620	7330	9270	11390

- Ratings based on 20deg return gas, 5k subcooling.
- Refer to page 39 for technical details.

**MODEL DESIGNATION**

<b>PHAT</b>	<b>200</b>	<b>T</b>	<b>2F</b>	<b>BR</b>	<b>LSA</b>	<b>E</b>
PATTON HIGH AMBIENT UNIT	NOMINAL HP ÷ 100	T = THREE PHASE S = SINGLE PHASE	NUMBER OF FANS	Y = R134A MED TEMP Z = R404A MED TEMP BR = R404A LOW TEMP	L = LI DRIER & S/GASS S = OIL SEPARATOR A = ACCUMULATOR	FULLY WIRED WITH 3PH ELECTRICAL BOARD





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- Reliable, high efficiency Tecumseh compressors
- Large condensers with protective coil & fin coating
- High efficiency, low noise external rotor fan motors
- High quality Auto-Reset dual pressure control fitted
- Liquid line drier & sight glass fitted on all models
- Oil separator fitted and charged on all dual fan models
- All 3ph models come fully wired with: isolator switch, contactor, overload and control breaker all in IP67 enclosure

**R404A - MED TEMPERATURE (1PH/240V)**

ITEM NO.	MODEL NO.	NOM HP	FANS	AMB TEMP	CAPACITY IN WATTS (R404A)				
					-15	-10	-5	0	+5
PHA320L	PHAT 100S-1F-Z-L	1	1x300	38	1310	1610	1950	2330	2750
				43	1170	1450	1750	2090	2470
PHA322L	PHAT 118S-1F-Z-L	1.18	1x350	38	1590	1980	2410	2890	3400
				43	1400	1760	2150	2570	3030
PHA324L	PHAT 125S-1F-Z-L	1.25	1x350	38	1800	2200	2640	3120	3640
				43	1600	1970	2370	2790	3250
PHA326L	PHAT 150S-1F-Z-L	1.5	1x400	38	2350	2900	3500	4150	4850
				43	2090	2590	3130	3720	4340
PHA328L	PHAT 200S-1F-Z-L	2.0	1x400	38	2700	3400	4190	5040	5980
				43	2350	3000	3710	4470	5320
PHA329LS	PHAT 200S-2F-Z-LS	2.0	2x350	38	2620	3310	4060	4860	5720
				43	2290	2910	3580	4300	5080
PHA330L	PHAT 250S-1F-Z-L	2.5	1x400	38	3260	4100	5000	5980	7040
				43	2880	3640	4460	5350	6310
PHA332LS	PHAT 250S-2F-Z-LS	2.5	2x350	38	3310	4140	5070	6090	7180
				43	2920	3690	4530	5450	6430

**R404A - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL NO.	NOM HP	FANS	AMB TEMP	CAPACITY IN WATTS (R404A)				
					-15	-10	-5	0	+5
PHA334LE	PHAT 250T-1F-Z-LE	2.5	1x400	38	3170	3960	4830	5780	6780
				43	2790	3520	4300	5140	6060
PHA336LSE	PHAT 250T-2F-Z-LS.E	2.5	2x350	38	3210	4010	4900	5870	6920
				43	2820	3560	4350	5240	6170
PHA338LSE	PHAT 300T-2F-Z-LS.E	3.0	2x400	38	4210	5250	6410	7660	9030
				43	3700	4670	5720	6870	8090
PHA340LSE	PHAT 400T-2F-Z-LS.E	4.0	2x400	38	4520	5840	7300	8930	10660
				43	3870	5070	6400	7840	9420
PHA342LSE	PHAT 500T-2F-Z-LS.E	5.0	2x400	38	6070	7710	9520	11490	13630
				43	5250	6770	8420	10200	12120
PHA344LSE	PHAT 650T-2F-Z-LS.E	6.5	2x400	38	7680	9530	11550	13730	16080
				43	6750	8440	10260	12220	14310

- Ratings based on 20deg return gas, 5k subcooling.
- Refer to brochure for R448A/R449A ratings.
- Refer to page 39 for technical details.



**PHAT SERIES UNITS (High Ambient)**



- Fully Fitted with all components ready for installation
- Reliable, high efficiency Tecumseh compressors
- Large condensers with protective coil & fin coating
- High efficiency, low noise external rotor fan motors
- High quality Auto-Reset dual pressure control fitted
- Liquid line drier & sight glass fitted on all models
- Oil separator & accumulator on LT dual fan models
- All 3ph models come fully wired with: isolator switch, contactor, overload and control breaker all in IP67 enclosure

**R404A - LOW TEMPERATURE (1PH/240V)**

ITEM NO.	MODEL NO.	NOM HP	FANS	AMB TEMP	CAPACITY IN WATTS (R404A)					
					-35	-30	-25	-23.3	-20	-15
PHA350L	PHAT 100S-1F-BR-L	1	1x300	38	610	820	1050	1140	1310	1590
				43	530	720	930	1010	1160	1420
PHA352L	PHAT 150S-1F-BR-L	1.5	1x350	38	840	1120	1430	1550	1790	2190
				43	740	990	1280	1380	1600	1970
PHA354L	PHAT 200S-1F-BR-L	2.0	1x350	38	1220	1710	2270	2470	2890	3570
				43	1030	1480	1990	2170	2560	3170
PHA355LSA	PHAT 200S-2F-BR-LSA	2.0	2x350	38	1300	1830	2440	2670	3140	3930
				43	1100	1580	2140	2350	2790	3500
PHA356LSA	PHAT 250S-2F-BR-LSA	2.5	2x350	38	1700	2430	3240	3540	4150	5150
				43	1430	2080	2830	3100	3660	4580

**R404A - LOW TEMPERATURE (3PH/415V)**

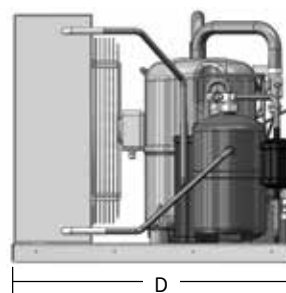
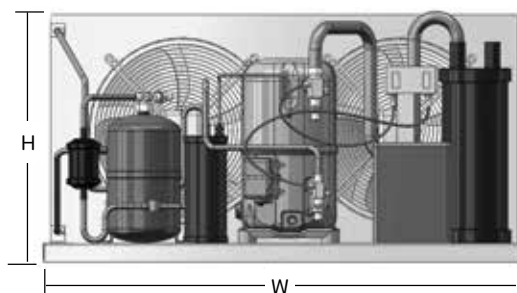
ITEM NO.	MODEL NO.	NOM HP	FANS	AMB TEMP	CAPACITY IN WATTS (R404A)					
					-35	-30	-25	-23.3	-20	-15
PHA358LSAE	PHAT 200T-2F-BR-LSA.E	2.0	2x350	38	1220	1710	2270	2470	2890	3570
				43	1030	1480	1990	2170	2560	3170
PHA360LSAE	PHAT 250T-2F-BR-LSA.E	2.5	2x350	38	1640	2300	3060	3330	3900	4860
				43	1380	1980	2680	2930	3450	4310
PHA362LSAE	PHAT 400T-2F-BR-LSA.E	4.0	2x350	38	1880	2690	3640	3980	4680	5840
				43	1550	2290	3140	3460	4090	5130
PHA364LSAE	PHAT 550T-2F-BR-LSA.E	5.5	2x400	38	2640	3630	4760	5190	6040	7460
				43	2250	3150	4180	4560	5330	6630

- Ratings based on 20deg return gas, 5k subcooling.
- Refer to brochure for R448A/R449A ratings.
- Refer to page 39 for technical details.

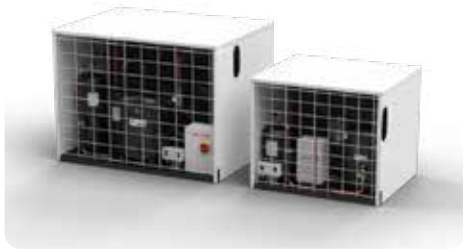
**PHAT TECHNICAL DATA**

ITEM NO.	COMPRESSOR					CONDENSER (IPH)			CONN		UNIT DIMENSIONS			COVER GROUP	KG	dB(A) @3m
	MODEL	PH	HP	DISP CC	MOC	FANS	TOTAL AMPS	AIR L/SEC	LIQ	SUCT	WIDTH	DEPTH	HEIGHT			
<b>R134a MED TEMP</b>																
PHA300L	AJ4492N-FZ	1	0.75	26.0	6.4	1 x 300	0.4	490	3/8	1/2	470	600	400	A	51	51
PHA302L	AJ4511N-FZ		1.0	32.7	6.8	1 x 300	0.4	450	3/8	5/8	470	600	400	A	51	52
PHA304L	FH4518Y-XC		1.5	48.5	8.3	1 x 350	0.7	730	3/8	5/8	600	570	448	B	67	58
PHA306LS	FH4518Y-XC		1.5	48.5	8.3	2 x 350	1.5	1420	3/8	5/8	990	665	448	D	90	61
PHA308L	FH4525Y-XC		2.0	63.0	11.5	1 x 400	1.5	930	3/8	7/8	720	610	550	C	76	60
PHA310LS	FH4525Y-XC		2.0	63.0	11.5	2 x 350	1.5	1420	3/8	7/8	990	665	448	D	88	62
PHA312LSE	AG4534N-TZ	3	2.75	100.7	6.0	2 x 350	1.5	1460	3/8	7/8	990	665	448	D	104	62
PHA314LSE	AG4537N-TZ		3.0	112.5	6.5	2 x 350	1.5	1460	1/2	7/8	990	665	448	D	104	63
PHA316LSE	AG4543N-TZ		3.5	124.4	7.4	2 x 350	1.5	1510	1/2	7/8	990	665	550	D	115	64
<b>R404A MED TEMP</b>																
PHA320L	AJ4510P-FZ	1	1.0	18.3	6.5	1 x 350	0.7	730	3/8	5/8	600	570	448	B	59	51
PHA322L	AJ4513P-FZ		1.18	24.2	8.1	1 x 350	0.7	730	3/8	5/8	600	570	448	B	59	57
PHA324L	AJ4517P-FZ		1.25	26.0	9.2	1 x 350	0.7	730	3/8	5/8	600	570	448	B	59	57
PHA326L	AJ4519P-FZ		1.5	34.5	12.5	1 x 400	1.5	930	3/8	5/8	720	610	550	C	69	60
PHA328L	FH4524Z-XC		2.0	43.5	12.4	1 x 400	1.5	980	3/8	5/8	720	610	550	C	77	62
PHA329LS	FH4524Z-XC		2.0	43.5	12.4	2 x 350	1.5	1420	3/8	5/8	990	665	448	D	87	59
PHA330L	FH4532Z-XC		2.5	50.6	14.1	1 x 400	1.5	980	1/2	7/8	720	610	550	C	82	63
PHA332LS	FH4532Z-XC		2.5	50.6	14.1	2 x 350	1.5	1460	1/2	7/8	990	665	448	D	95	60
PHA334LE	FH4532Z-XG		2.5	50.6	4.7	1 x 400	1.5	980	1/2	7/8	720	610	550	C	87	62
PHA336LSE	FH4532Z-XG		2.5	50.6	4.7	2 x 350	1.5	1460	1/2	7/8	990	665	448	D	94	60
PHA338LSE	FH4538Z-XG	3	3.0	63.0	6.8	2 x 400	3.0	1520	1/2	7/8	1000	730	652	E	111	64
PHA340LSE	AG4546P-TZ		4.0	90.2	8.5	2 x 400	3.0	1520	1/2	7/8	1000	730	652	E	113	67
PHA342LSE	AG4561P-TZ		5.0	112.5	10.3	2 x 400	3.0	1670	1/2	1-1/8	1000	730	728	E	134	67
PHA344LSE	AG4573P-TZ		6.5	134.8	13.6	2 x 400	3.0	1670	5/8	1-1/8	1000	730	728	E	141	68
<b>R404A LOW TEMP</b>																
PHA350L	AJ2446P-FZ	1	1.0	26.2	5.9	1 x 300	0.4	490	3/8	1/2	470	600	400	A	52	53
PHA352L	AJ2464P-FZ		1.5	34.5	8.5	1 x 350	0.7	730	3/8	5/8	600	570	448	B	65	56
PHA354L	FH2480Z-XC		2.0	54.3	11.0	1 x 350	0.7	730	3/8	5/8	600	570	448	B	69	58
PHA355LSA	FH2480Z-XC		2.0	54.3	11.0	2 x 350	1.5	1420	3/8	5/8	990	665	448	D	90	60
PHA356LSA	FH2511Z-XC		2.5	68.0	12.2	2 x 350	1.5	1420	3/8	7/8	990	665	448	D	96	61
PHA358LSAE	FH2480Z-XG	3	2.0	54.3	3.6	2 x 350	1.5	1420	3/8	5/8	990	665	448	D	98	60
PHA360LSAE	FH2511Z-XG		2.5	68.0	5.2	2 x 350	1.5	1460	3/8	7/8	990	665	448	D	99	61
PHA362LSAE	AG2516P-TZ		4.0	112.5	7.1	2 x 350	1.5	1460	1/2	7/8	990	665	448	D	115	62
PHA364LSAE	AG2522P-TZ		5.5	134.8	9.1	2 x 400	3.0	1500	1/2	1-1/8	1000	730	652	E	129	65

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.
- MOC (Max operating current) is taken at the max operating condntions within operating envlope.
- Please contact Beijer Ref for further details.

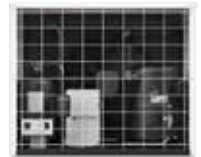


**PHAT SERIES UNIT COVERS**



PHAT SERIES Unit covers provide an attractive, cost-effective solution for outdoor unit installations. Tough, weatherproof white powder coated housing blends in with surroundings while providing protection from rain, hail and other environmental elements.

ITEM NO.	COVER GROUP
PHA366A	Cover To Suit Unit Dimension Group A
PHA366B	Cover To Suit Unit Dimension Group B
PHA366C	Cover To Suit Unit Dimension Group C
PHA366D	Cover To Suit Unit Dimension Group D
PHA366E	Cover To Suit Unit Dimension Group E



**SPARE PARTS & ACCESSORIES**

ITEM NO.	DESCRIPTION
P215PR-9200	Fan Speed Controller - Direct Mount, Range 10-25 Bar adjustable (Optional)
060-115491	Danfoss Dual Pressure Control - Convertable Reset
DNSD306X	Saginomiya Dual Pressure Control - Auto Reset
F3660	300mm external rotor fan motor
F3668	350mm external rotor fan motor
F3672	400mm external rotor fan motor



**COMPRESSOR ELECTRICS REFERENCE**

COMPRESSOR	NEW MODEL	RELAY		STAR CAP		RUN CAP	OVERLOAD
		ITEM NO.	PART NO.	VOLTS	MF	MF	
CAJ4492Y	AJ4492N-FZ	8565400	RVA 4G3D	330	64	N/A	CTS1616
CAJ4511Y	AJ4511N-FZ	8565103	RVA 6M3D	330	88	15	CTS1585
FH4518Y		8565400	RVA 4G3D	330	88	25	Internal
FH4518Y-XC		8565400	RVA 4G3D	330	88	35	Internal
FH4525Y		8565102	RVA 4L3D	330	100	30	Internal
FH4525Y-XC		8565400	RVA 4G3D	330	88	35	Internal
CAJ9510Z	AJ4510P-FZ	8565443	RVA 4O3D	330	100	15	CTS1675
CAJ9513Z	AJ4513P-FZ	8565414	RVA 3AN3D	330	88	15	CTS1651
CAJ4517Z	AJ4517P-FZ	8565411	RVA 4AP3D	330	100	15	CTS1680
CAJ4519Z	AJ4519P-FZ	8565400	RVA 4G3D	250	100	35	CTS1685
FH4524Z		8565407	RVA 4I3D	330	100	30	Internal
FH4524Z-XC		8565400	RVA 4G3D	330	88	35	Internal
FH4531Z		8565103	RVA 6M3D	330	156	35	Internal
FH4532Z-XG		8565400	RVA 4G3D	330	125	50	Internal
CAJ2446Z	AJ2446P-FZ	8565443	RVA 4O3D	250	88	15	CTS1580
CAJ2464Z	AJ2464P-FZ	8565103	RVA 6M3D	330	88	20	CTS1583
FH2480Z		8565401	RVA 4AL3D	330	156	25	Internal
FH2480Z-XC		8565412	RVA 4Q3D	330	156	45	Internal
FH2511Z		8565407	RVA 4I3D	330	156	25	Internal
FH2511Z-XC		8640162	RVA 3AH3D	330	161	60	Internal



- Please contact Beijer Ref for electrics of models not listed.
- Refer to page 196 for start and run capacitors.



**PATTON PHAS SERIES UNITS (Scroll)**



- Quiet and efficient Copeland ZB Scroll Compressors
- Large condensers with protective coil & fin coating
- High efficiency external rotor fan assemblies
- Fan speed control fitted for balanced operation
- High quality Auto-Reset dual pressure control fitted
- Oil separator fitted and charged on all models
- Fully wired complete with; isolator switch, contactor, overload and control breaker all in IP67 enclosure

**R404A - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)				
				-15	-10	-5	0	+5
PHA400LSE	PHAS650T-2F-ZB-LSE	6.5	38	8940	10600	12440	14490	16700
			43	8070	9570	11260	13090	15090
PHA402LSE	PHAS800T-2F-ZB-LSE	8	38	10660	12900	15270	17840	20590
			43	9530	11620	13860	16190	18690
PHA404LSE	PHAS900T-2F-ZB-LSE	9	38	12310	14630	17170	19950	22970
			43	11160	13290	15600	18120	20900
PHA406LSE	PHAS1000T-2F-ZB-LSE	10	38	14530	17350	20470	23840	27460
			43	13150	15790	18610	21680	24960
PHA408LSE	PHAS1200T-2F-ZB-LSE	12	38	16450	19660	23190	27050	31150
			43	14930	17790	20950	24420	28140
PHA410LSE	PHAS1500T-2F-ZB-LSE	15	38	20180	24530	29180	34270	39650
			43	17850	21850	26220	30840	35860

**R448A - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R448A)				
				-15	-10	-5	0	+5
PHA400LSE	PHAS650T-2F-ZB-LSE	6.5	38	9010	10970	13110	15480	18130
			43	8270	10130	12150	14370	16850
PHA402LSE	PHAS800T-2F-ZB-LSE	8	38	9990	12220	14730	17540	20690
			43	9280	11380	13750	16410	19370
PHA404LSE	PHAS900T-2F-ZB-LSE	9	38	11440	14130	17050	20270	23750
			43	10370	12930	15740	18770	22060
PHA406LSE	PHAS1000T-2F-ZB-LSE	10	38	13510	16740	20220	24050	28260
			43	12210	15350	18720	22390	26360
PHA408LSE	PHAS1200T-2F-ZB-LSE	12	38	15570	19220	23270	27780	32680
			43	14190	17640	21480	25740	30350
PHA410LSE	PHAS1500T-2F-ZB-LSE	15	38	18720	23690	28970	34760	40910
			43	16450	21260	26380	31900	37860

**R134a - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)				
				-10	-5	0	+5	+10
PHA400LSE	PHAS650T-2F-ZB-LSE	6.5	38	6910	8470	10250	12230	14450
			43	6500	7980	9650	11520	13610
PHA402LSE	PHAS800T-2F-ZB-LSE	8	38	7700	9550	11700	14130	16870
			43	7200	8950	10980	13300	15910
PHA404LSE	PHAS900T-2F-ZB-LSE	9	38	8810	10930	13390	16200	19330
			43	8240	10240	12580	15250	18220
PHA406LSE	PHAS1000T-2F-ZB-LSE	10	38	10100	12560	15370	18600	22200
			43	9450	11750	14430	17500	20950
PHA408LSE	PHAS1200T-2F-ZB-LSE	12	38	11430	14240	17440	21100	25180
			43	10650	13230	16250	19720	23620
PHA410LSE	PHAS1500T-2F-ZB-LSE	15	38	15440	19260	23490	28220	33420
			43	14310	17960	22010	26480	31410

- Ratings based on; 20deg return gas / 0k subcooling.
- See next page for technical data.





**PATTON PHAS SERIES UNITS (Scroll)**



- Quiet and efficient Copeland ZF Scroll Compressors
- Large condensers with protective coil & fin coating
- Fan speed control fitted for balanced operation
- High quality Auto-Reset dual pressure control fitted
- Oil separator & accumulator on all LT models
- Liquid injection valve fitted on all low temp models
- Fully wired complete with; isolator switch, contactor, overload and control breaker all in IP67 enclosure

**R404A - LOW TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)				
				-35	-30	-25	-20	-15
PHA412LSAE	PHAS750T-2F-ZF-LSAE	7.5	38	4850	5970	7260	8680	10210
			43	4520	5520	6680	7960	9360
PHA414LSAE	PHAS1000T-2F-ZF-LSAE	10	38	6390	7870	9500	11300	13290
			43	5880	7220	8690	10310	12100
PHA416LSAE	PHAS1300T-2F-ZF-LSAE	13	38	8090	9900	11880	14080	16530
			43	7450	9110	10910	12900	15110
PHA418LSAE	PHAS1500T-2F-ZF-LSAE	15	38	9620	11810	14280	17010	20070
			43	8840	10840	13060	15570	18310

**R448A - LOW TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R448A)				
				-35	-30	-25	-20	-15
PHA412LSAE	PHAS750T-2F-ZF-LSAE	7.5	38	4290	5440	6750	8240	9880
			43	3980	5040	6240	7600	9110
PHA414LSAE	PHAS1000T-2F-ZF-LSAE	10	38	5730	7240	8950	10890	13060
			43	5330	6740	8330	10110	12110
PHA416LSAE	PHAS1300T-2F-ZF-LSAE	13	38	7120	8930	11010	13370	16050
			43	6740	8410	10320	12490	14970
PHA418LSAE	PHAS1500T-2F-ZF-LSAE	15	38	8470	10660	13220	16170	19480
			43	7990	10010	12370	15100	18170

■ Ratings based on; 20deg return gas / 0k subcooling.

**TECHNICAL DATA**

ITEM NO.	COMPRESSOR (3PH)			CONDENSER (1PH)			CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	MRA	DIA	TOTAL AMPS	AIR L/SEC	LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
PHA400LSE	ZB48KQE-TFD	6.5	14.0	2x400	1.7	1670	5/8	7/8	1000	800	830	183	65
PHA402LSE	ZB58KQE-TFD	8	15.9	2x500	3.6	2360	5/8	1-1/8	1350	1000	850	208	68
PHA404LSE	ZB66KQE-TFD	9	17.5	2x500	3.6	2360	5/8	1-1/8	1350	1000	850	210	68
PHA406LSE	ZB76KQE-TFD	10	20.4	2x500	3.6	2950	5/8	1-3/8	1350	1000	1010	212	68
PHA408LSE	ZB88KQE-TFD	12	21.3	2x500	3.6	3610	5/8	1-3/8	1350	1000	1110	228	68
PHA410LSE	ZB114KQE-TFD	15	33.5	2x630	5.1	3960	7/8	1-3/8	1720	1000	970	250	69
PHA412LSAE	ZF25KQE-TFD	7.5	16.0	2x400	1.7	1670	1/2	1-1/8	1000	800	750	178	65
PHA414LSAE	ZF34KQE-TFD	10	25.0	2x500	3.6	2550	5/8	1-3/8	1350	1000	850	228	68
PHA416LSAE	ZF41KQE-TFD	13	29.0	2x500	3.6	2360	5/8	1-3/8	1350	1000	850	239	69
PHA418LSAE	ZF49KQE-TFD	15	30.0	2x500	3.6	2950	5/8	1-5/8	1350	1000	1010	274	69

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.
- Low temperature models come prefitted with DTC liquid injection kit.



**BLUE LINE SERIES CONDENSING UNITS**



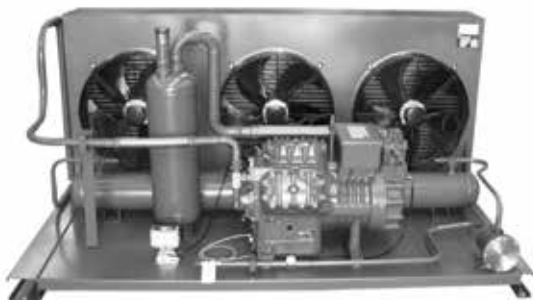
**Blue Line Condensing Unit**  
(Fitted with optional VSD Inverter)

**Blue Line** air-cooled semi-Hermetic condensing units include internationally accepted Frascold semi-hermetic compressors, which are ideally suited for today's conscientious environment.

All our units are built to Australian standards, include only high quality components combined with high ambient air-cooled condensers. This ensures reliability, high performance and trouble free operation even during those hot summers months.

**Blue Line WRF Series** 2-20hp come fully fitted with components including: Oil separator, suction accumulator, liquid line assembly and fan speed control. They also come fitted with a fully wired switchboard ready to go.

**Blue Line Custom Series** 7-30hp come with below standard components with many optional extras available to suit given application requirements.



**Blue Line 6-cylinder Condensing Unit**

**Custom Blue Line units up to 20hp include standard:**

- Frascold Semi-Hermetic reciprocating compressor
- High Ambient air-cooled condensers
- High efficiency external rotor fan motors
- Liquid receiver with Rotolock valves
- Crankcase heater
- Electronic motor protection
- Auto reset dual pressure control
- Ester oil charge (mineral oil charge on request)

**20 to 35hp Custom units include below additional components.**

- High pressure oil pump and oil filter
- INT250 oil pressure safety control
- Discharge gas high temperature protection

**A huge range of optional extras can be fitted to 'Custom units' at your request including:**

- Liquid line drier and sightglass
- Liquid line solenoid valve
- Capacity control heads
- Oil separator (internal or external float)
- Suction line accumulator
- Fully wired electrical panels
- Additional pressure controls or transducers
- Fan cycling control or fan speed controller
- VSD Inverter for capacity control and efficiency

**MODEL DESIGNATION**

<b>Q521</b>	<b>1760</b>	<b>40</b>	<b>2</b>
COMPRESSOR MODEL	CONDENSER MODEL	FAN DIAMETER (CM)	NUMBER OF FANS

■ Please contact your nearest Beijer Ref branch or one of our applications engineers for other configurations that you may require. With a streamlined local manufacturing facility and motivated team, Beijer Ref can offer flexible design and fast turn around times.





## WRF CONDENSING UNITS (Fully Fitted)



- Fully Fitted with all components ready for installation
- High efficiency Frascold semi-hermetic compressors
- Large condensers with protective coil & fin coating
- High efficiency, low noise external rotor fan motors
- Condenser fan speed control for balanced operation
- High quality Auto-Reset dual pressure control fitted
- Oil separator, accumulator and liquid line Assy fitted
- Fully wired complete with; isolator switch, contactor, overload and control breaker all in IP67 enclosure

### R404A - WIDE TEMPERATURE RANGE

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)						
				-30	-25	-20	-15	-10	-5	0
WRF1001S	WRF211-400-352	2	38	2370	3080	3890	4830	5870	7050	8350
			43	2120	2780	3520	4380	5350	6420	7620
WRF1004S	WRF315-600-402	3	38	3450	4330	5340	6480	7770	9200	10770
			43	3140	3940	4850	5880	7040	8340	9760
WRF1006S	WRF521-650-402	5	38	3840	5200	6700	8350	10160	12110	14190
			43	3340	4600	5990	7500	9140	10920	12820
WRF1007S	WRF525-900-502	5.5	38	5030	6510	8190	10100	12210	14570	17160
			43	4510	5870	7410	9130	11080	13200	15520
WRF1009S	WRF728-1000-502	7	38	5970	7690	9640	11840	14290	16990	19950
			43	5370	6960	8750	10760	12970	15440	18110
WRF1012S	WRF733-1000-502	7.5	38	6900	8810	10990	13410	16100	19050	22250
			43	6190	7970	9960	12180	14620	17300	20200
WRF1015S	WRF1242-1500-632	12	38	8000	10430	13230	16410	20000	23940	28290
			43	7070	9300	11880	14790	18060	21710	25740
WRF1016S	WRF1552-2050-632	15	38	11450	14710	18250	22170	26440	31150	36320
			43	10220	13340	16640	20250	24180	28490	33200
WRF1017S	WRF2056-2400-632	20	38	12660	16240	20160	24420	29100	34240	39880
			43	11350	14750	18410	22370	26680	31330	36480

- Ratings based on 20deg return gas, 3k subcooling.
- Please contact Beijer Ref for ratings with other refrigerants.

### TECHNICAL DATA

ITEM NO.	COMPRESSOR (3PH)				CONDENSER (1PH)			CONNECTIONS		UNIT DIMENSIONS			WEIGHT KG	dB(A) @3mtr
	MODEL	HP	DISP M <sup>3</sup> /hr	MRA	FANS	TOTAL AMPS	L/Sec	LIQUID	SUCTION	WIDTH	DEEP	HIGH		
WRF1001S	D2-11Y	2	11.3	7.1	2 x 350	1.3	1520	3/8	7/8	880	980	670	155	67
WRF1004S	D3-15Y	3	15.3	10.0	2 x 400	1.6	1550	1/2	1-1/8	980	880	670	180	68
WRF1006S	Q5-21Y	5	21.2	11.6	2 x 400	1.6	1670	1/2	1-1/8	980	880	730	200	69
WRF1007S	Q5-25Y	5.5	24.7	12.7	2 x 500	3.5	2360	5/8	1-1/8	1300	1000	805	230	72
WRF1009S	Q7-28Y	7	27.9	17.6	2 x 500	3.5	2360	5/8	1-3/8	1300	1000	805	250	72
WRF1012S	Q7-33Y	7.5	32.7	20.0	2 x 500	3.5	2360	5/8	1-3/8	1300	1000	805	250	72
WRF1015S	S12-42Y	12	41.3	22.4	2 x 630	5.4	3770	5/8	1-3/8	1720	1086	895	380	70
WRF1016S	S15-52Y	15	51.5	32.4	2 x 630	5.4	3960	7/8	1-5/8	1720	1086	1050	400	71
WRF1017S	S20-56Y	20	56.0	38.4	2 x 630	5.4	4185	7/8	1-5/8	1720	1086	1252	420	72

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



**WRF CONDENSING UNITS (Fully Fitted)**



- Fully Fitted with all components ready for installation
- High efficiency Frascold semi-hermetic compressors
- Large condensers with protective coil & fin coating
- High efficiency, low noise external rotor fan motors
- Condenser fan speed control for balanced operation
- High quality Auto-Reset dual pressure control fitted
- Oil separator, accumulator and liquid line Assy fitted
- Fully wired complete with; isolator switch, contactor, overload and control breaker all in IP67 enclosure

**R448A - WIDE TEMPERATURE RANGE**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R448A)						
				-30	-25	-20	-15	-10	-5	0
WRF1001S	WRF211-400-352	2	38	1970	2640	3430	4350	5400	6590	7920
			43	1750	2380	3120	3980	4960	6090	7340
WRF1004S	WRF315-600-402	3	38	2830	3750	4820	6070	7510	9150	11000
			43	2550	3410	4410	5560	6900	8440	10180
WRF1006S	WRF521-650-402	5	38	3880	5090	6500	8140	10020	12170	14610
			43	3510	4630	5940	7450	9210	11230	13540
WRF1007S	WRF525-900-502	5.5	38	4600	6040	7720	9670	11930	14490	17430
			43	4150	5490	7050	8860	10960	13350	16090
WRF1009S	WRF728-1000-502	7	38	5170	6820	8730	10960	13540	16480	19810
			43	4660	6190	7960	10040	12430	15190	18320
WRF1012S	WRF733-1000-502	7.5	38	6250	8150	10350	12870	15790	19060	22770
			43	5680	7440	9470	11820	14510	17590	21020
WRF1015S	WRF1242-1500-632	12	38	7470	9860	12650	15890	19660	23980	28890
			43	6730	8960	11540	14560	18050	22090	26700
WRF1016S	WRF1552-2050-632	15	38	8550	11480	14900	18890	23490	28780	34700
			43	7570	10310	13460	17170	21390	26270	31850
WRF1017S	WRF2056-2400-632	20	38	10230	13490	17280	21700	26730	32550	39060
			43	9190	12210	15740	19810	24480	29860	35930

- Ratings based on 20deg return gas, 3k subcooling.
- Please contact Beijer Ref for ratings with other refrigerants.

**TECHNICAL DATA**

ITEM NO.	COMPRESSOR (3PH)				CONDENSER (1PH)			CONNECTIONS		UNIT DIMENSIONS			WEIGHT KG	dB(A) @3mtr
	MODEL	HP	DISP M <sup>3</sup> hr	MRA	FANS	TOTAL AMPS	L/Sec	LIQUID	SUCTION	WIDTH	DEEP	HIGH		
WRF1001S	D2-11Y	2	11.3	7.1	2 x 350	1.3	1520	3/8	7/8	880	980	670	155	67
WRF1004S	D3-15Y	3	15.3	10.0	2 x 400	1.6	1550	1/2	1-1/8	980	880	670	180	68
WRF1006S	Q5-21Y	5	21.2	11.6	2 x 400	1.6	1670	1/2	1-1/8	980	880	730	200	69
WRF1007S	Q5-25Y	5.5	24.7	12.7	2 x 500	3.5	2360	5/8	1-1/8	1300	1000	805	230	72
WRF1009S	Q7-28Y	7	27.9	17.6	2 x 500	3.5	2360	5/8	1-3/8	1300	1000	805	250	72
WRF1012S	Q7-33Y	7.5	32.7	20.0	2 x 500	3.5	2360	5/8	1-3/8	1300	1000	805	250	72
WRF1015S	S12-42Y	12	41.3	22.4	2 x 630	5.4	3770	5/8	1-3/8	1720	1086	895	380	70
WRF1016S	S15-52Y	15	51.5	32.4	2 x 630	5.4	3960	7/8	1-5/8	1720	1086	1050	400	71
WRF1017S	S20-56Y	20	56.0	38.4	2 x 630	5.4	4185	7/8	1-5/8	1720	1086	1252	420	72

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



**WRF CONDENSING UNITS (Fully Fitted)**



- Fully Fitted with all components ready for installation
- High efficiency Frascold semi-hermetic compressors
- Large condensers with protective coil & fin coating
- High efficiency, low noise external rotor fan motors
- Condenser fan speed control for balanced operation
- High quality Auto-Reset dual pressure control fitted
- Oil separator, accumulator and liquid line Assy fitted
- Fully wired complete with; isolator switch, contactor, overload and control breaker all in IP67 enclosure

**R134a - MED/HIGH TEMPERATURE RANGE**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
				-15	-10	-5	0	+5	+10
WRF1001S	WRF211-400-352	2	38	2390	3060	3820	4690	5680	6770
			43	2200	2830	3540	4360	5290	6320
WRF1004S	WRF315-600-402	3	38	3650	4680	5860	7210	8750	10450
			43	3330	4320	5440	6720	8160	9790
WRF1006S	WRF521-650-402	5	38	4620	6030	7670	9590	11770	14200
			43	4200	5530	7080	8880	10940	13250
WRF1007S	WRF525-900-502	5.5	38	6470	8100	9990	12140	14590	17350
			43	6010	7560	9340	11360	13670	16250
WRF1009S	WRF728-1000-502	7	38	6460	8290	10420	12910	15750	18930
			43	5950	7670	9690	12020	14680	17690
WRF1012S	WRF733-1000-502	7.5	38	7720	9830	12280	15060	18180	21640
			43	7160	9170	11460	14070	17000	20260
WRF1015S	WRF1242-1500-632	12	38	9790	12570	15790	19430	23530	28120
			43	8930	11570	14620	18060	21990	26350
WRF1016S	WRF1552-2050-632	15	38	13040	16320	20120	24450	29370	34920
			43	12100	15210	18790	22890	27550	32760
WRF1017S	WRF2056-2400-632	20	38	14430	18130	22380	27240	32710	38860
			43	13390	16910	20950	25520	30700	36470

- Ratings based on 20deg return gas, 3k subcooling.
- Please contact Beijer Ref for ratings with other refrigerants.

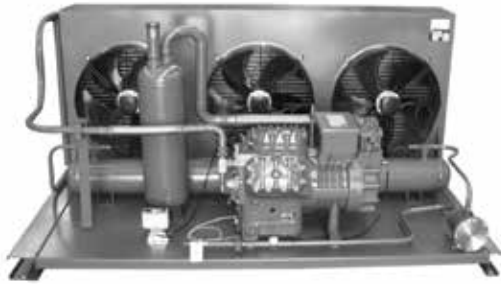
**TECHNICAL DATA**

ITEM NO.	COMPRESSOR (3PH)				CONDENSER (1PH)			CONNECTIONS		UNIT DIMENSIONS			WEIGHT KG	dB(A) @3mtr
	MODEL	HP	DISP M <sup>3</sup> hr	MRA	FANS	TOTAL AMPS	L/Sec	LIQUID	SUCTION	WIDTH	DEEP	HIGH		
WRF1001S	D2-11Y	2	11.3	7.1	2 x 350	1.3	1520	3/8	7/8	880	980	670	155	67
WRF1004S	D3-15Y	3	15.3	10.0	2 x 400	1.6	1550	1/2	1-1/8	980	880	670	180	68
WRF1006S	Q5-21Y	5	21.2	11.6	2 x 400	1.6	1670	1/2	1-1/8	980	880	730	200	69
WRF1007S	Q5-25Y	5.5	24.7	12.7	2 x 500	3.5	2360	5/8	1-1/8	1300	1000	805	230	72
WRF1009S	Q7-28Y	7	27.9	17.6	2 x 500	3.5	2360	5/8	1-3/8	1300	1000	805	250	72
WRF1012S	Q7-33Y	7.5	32.7	20.0	2 x 500	3.5	2360	5/8	1-3/8	1300	1000	805	250	72
WRF1015S	S12-42Y	12	41.3	22.4	2 x 630	5.4	3770	5/8	1-3/8	1720	1086	895	380	70
WRF1016S	S15-52Y	15	51.5	32.4	2 x 630	5.4	3960	7/8	1-5/8	1720	1086	1050	400	71
WRF1017S	S20-56Y	20	56.0	38.4	2 x 630	5.4	4185	7/8	1-5/8	1720	1086	1252	420	72

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



**BLUE-LINE CONDENSING UNITS (Custom)**



- Frascold 3phase Semi-Hermetic compressor
- High Ambient air-cooled condensers
- High efficiency external rotor fan motors
- Liquid receiver with Rotolock valves
- Crankcase heater fitted
- Electronic motor protection
- Auto reset dual pressure control

OPTIONAL PREWIRED SWITCHBOARD OR FITTED WITH VSD

**R404A - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)				
				-15	-10	-5	0	+5
CUF0133	Q728-2400-502	7.0	38	11330	13790	16580	19740	23320
			43	10360	12910	15530	18510	21900
CUF0145	Q733-2400-502	7.5	38	13170	15770	18650	21820	25300
			43	11020	13630	16660	20150	
CUF0157	S1242-3400-552	12	38	16080	19770	24010	28860	34390
			43	14620	18040	22000	26540	31770
CUF0169	S1552-4200-552	15	38	21170	25590	30620	36380	42990
			43	19470	23560	28220	33560	
CUF0181	S2056-4200-552	20	38	22900	27660	33070	39260	46360
			43	21270	25720	30770	36560	44570
CUF0193	V2059-5200-553	20	38	23000	28310	34400	41390	49370
			43	20840	25720	31350	37840	45320
CUF0208	V2571-6300-553	25	38	28380	34820	42210	50680	60350
			43	25850	31780	38620	46490	55540
CUF0217	V3084-6300-553	30	38	32320	39570	47920	57480	68420
			43	29760	36510	44300	53280	

- Ratings based on 20k suction superheat, 3k subcooling.
- Please contact Beijer Ref for ratings with other refrigerants.
- For fitted optional accessories please refer to pages 57-62

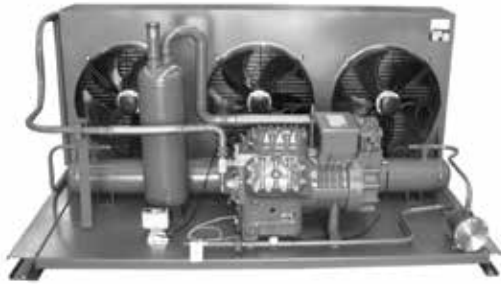
**TECHNICAL DATA**

ITEM NO.	COMPRESSOR (3PH)				CONDENSER (3PH)			CONNECTIONS		UNIT DIMENSIONS				WEIGHT KG	dB(A) @3mtr
	MODEL	HP	DISP M <sup>3</sup> /hr	MRA	FANS	TOTAL AMPS	L/SEC	LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT	DRW NO.		
CUF0133	Q728Y	7.5	27.9	17.6	2 x 500	1.9	3500	1/2	1-3/8	1475	1100	800	2	139	72
CUF0145	Q733Y	7.5	32.7	20.0	2 x 500	1.9	3500	1/2	1-3/8	1475	1100	800	2	140	72
CUF0157	S1242Y	12	41.3	22.4	2 x 550	2.3	4300	5/8	1-3/8	1475	1100	1070	2	215	75
CUF0169	S1552Y	15	51.5	32.4	2 x 550	2.3	4300	5/8	1-5/8	1475	1100	1070	2	224	75
CUF0181	S2056Y	20	56.0	38.4	2 x 550	2.3	4300	7/8	1-5/8	1475	1100	1070	2	235	76
CUF0193	V2059Y	20	58.5	35.3	3 x 550	3.5	6400	7/8	1-5/8	2200	1100	1070	3	270	77
CUF0208	V2571	30	70.8	43.5	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	272	78
CUF0217	V3084	30	83.8	49.2	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	320	77

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



**BLUE-LINE CONDENSING UNITS (Custom)**



- Frascold 3phase Semi-Hermetic compressor
- High Ambient air-cooled condensers
- High efficiency external rotor fan motors
- Liquid receiver with Rotolock valves
- Crankcase heater fitted
- Electronic motor protection
- Auto reset dual pressure control

OPTIONAL PREWIRED SWITCHBOARD OR FITTED WITH VSD

**R404A - LOW TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	HP	AMB TEMP	CAPACITY IN WATTS (R404A)				
				-35	-30	-25	-20	-15
CUF0149A	Q736-2400-502	7.5	38	6030	7810	9840	11750	14760
			43	5450	7090	8970	11090	13490
CUF0151	S842-2400-502	8	38	6100	8110	10400	13000	15960
			43	5090	6950	9090	11550	14390
CUF0163	S1052-3400-552	10	38	8390	10770	13480	16590	20220
			43	7140	9180	11730	14690	18160
CUF0174	S1556-3400-552	15	38	8850	11510	14530	18020	22070
			43	7440	9980	12870	16230	20190
CUF0187	V2059-4200-552	15	38	7990	10800	14100	17970	22460
			43	6560	9180	12290	15970	20310
CUF0199	V1571-4200-552	15	38	10940	14190	17850	22060	26960
			43	9490	12830	16240	20150	24700
CUF0214	V2084-5200-553	20	38	12380	16200	20600	25650	31390
			43	10640	14070	18100	22790	28240
CUF0218	V2593-5200-553	25	38	12080	16270	21160	26810	33330
			43	9880	13780	18370	23770	30090
CUF0223	Z25106-6300-553	25	38	14730	19710	25570	32400	40300
			43	12830	17480	22430	28880	36490
CUF0226	Z30126-6300-553	30	38	17600	22440	28910	36420	45070
			43	14630	19240	25230	32300	40600

- Ratings based on 20k suction superheat, 3k subcooling.
- Please contact Beijer Ref for ratings with other refrigerants.
- For fitted optional accessories please refer to pages 57-62

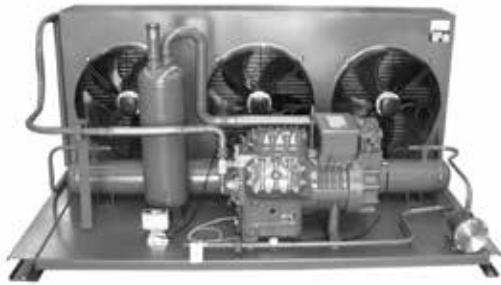
**TECHNICAL DATA**

ITEM NO.	COMPRESSOR (3PH)				CONDENSER (3PH)			CONNECTIONS		UNIT DIMENSIONS				WEIGHT KG	dB(A) @3mtr
	MODEL	HP	DISP M <sup>3</sup> /hr	MRA	FANS	TOTAL AMPS	L/SEC	LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT	DRW NO.		
CUF0149A	Q736Y	7.5	35.9	19.4	2 x 500	1.9	3500	5/8	1-3/8	1475	1100	800	2	185	70
CUF0151	S842Y	8	41.3	20.3	2 x 500	1.9	3500	5/8	1-3/8	1475	1100	800	2	185	72
CUF0163	S1052Y	10	51.5	24.5	2 x 550	2.3	4300	5/8	1-3/8	1475	1100	1070	2	215	75
CUF0174	S1556Y	15	56.0	30.7	2 x 550	2.3	4300	5/8	1-5/8	1475	1100	1070	2	224	76
CUF0187	V2059Y	15	58.5	31.1	2 x 550	2.3	4300	7/8	1-5/8	1475	1100	1070	2	265	76
CUF0199	V1571Y	15	70.8	32.2	2 x 550	2.3	4300	7/8	1-5/8	1475	1100	1070	2	265	77
CUF0214	V2084	20	83.8	42.6	3 x 550	3.5	6400	7/8	1-5/8	2200	1100	1070	3	281	78
CUF0218	V2593	25	93.1	52.3	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	298	79
CUF0223	Z25106	25	106.2	53.6	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	330	78
CUF0226	Z30126	30	106.2	55.7	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	340	79

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



**BLUE-LINE CONDENSING UNITS (Custom)**



- Frascold 3phase Semi-Hermetic compressor
- High Ambient air-cooled condensers
- High efficiency external rotor fan motors
- Liquid receiver with Rotolock valves
- Crankcase heater fitted
- Electronic motor protection
- Auto reset dual pressure control

OPTIONAL PREWIRED SWITCHBOARD OR FITTED WITH VSD

**R134a - MED / HIGH TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
				-15	-10	-5	0	+5	+10
CUF0149A	Q736-2400-502	7.5	38	9254	11594	14283	17320	20702	24427
			43	8570	10820	13420	163450	19150	23240
CUF0151	S842-2400-502	8	38	10330	13030	16220	19970	24350	29420
			43	9320	11894	14963	18591	22848	27813
CUF0163	S1052-2400-502	10	38	12760	15390	18890	22900	27480	32680
			43	11340	14150	17510	21360	25780	30830
CUF0173	S1556-2400-502	15	38	13830	17240	21170	25680	30820	
			43	12290	15890	19660	24000	28970	
CUF0174	S1556-3400-552	15	38	14280	17760	21790	26410	31690	37660
			43	12840	16410	20280	24730	29830	35640
CUF0187	V2059-3400-552	15	38	14420	17850	22110	27020	32630	39010
			43	13670	17030	21210	26030	31570	37900
CUF0199	V1571-3400-552	15	38	16850	21010	25790	31260	37490	
			43	15990	19430	24000	29230	35200	
CUF0214	V2084-4200-552	20	38	18350	23320	29090	35720	43290	51880
			43	16810	21510	26980	33310	40580	48890
CUF0218	V2593-5200-553	25	38	22240	28190	34930	42500	50920	60210
			43	20200	26120	32570	39850	47990	57040
CUF0220	Z25106-5200-553	25	38	23070	29100	36090	44120	53250	63590
			43	21200	26760	33330	40920	49620	59530
CUF0226	Z30126-6300-553	30	38	28260	35770	44480	54510	65970	79000
			43	25720	32820	41100	50700	61720	74330

- Ratings based on 20k suction superheat, 3k subcooling.
- Please contact Beijer Ref for ratings with other refrigerants.
- For fitted optional accessories please refer to pages 57-62

**TECHNICAL DATA**

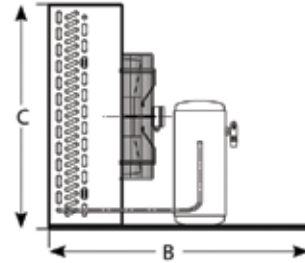
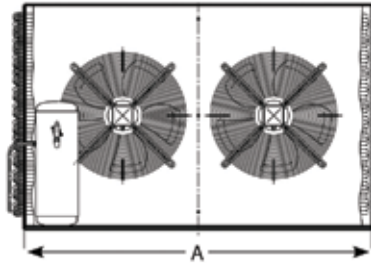
ITEM NO.	COMPRESSOR (3PH)				CONDENSER (3PH)			CONNECTIONS		UNIT DIMENSIONS				WEIGHT KG	dB(A) @3mtr
	MODEL	HP	DISP M <sup>3</sup> /hr	MRA	FANS	TOTAL AMPS	L/SEC	LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT	DRW NO.		
CUF0149A	Q736Y	7.5	35.9	19.4	2 x 500	1.9	3500	5/8	1-3/8	1475	1100	800	2	185	70
CUF0151	S842Y	8	41.3	20.3	2 x 500	1.9	3500	5/8	1-3/8	1475	1100	800	2	185	72
CUF0163	S1052Y	10	51.5	24.5	2 x 550	2.3	4300	5/8	1-3/8	1475	1100	1070	2	215	75
CUF0173	S1556Y	15	56.0	30.7	2 x 500	1.9	3500	5/8	1-5/8	1475	1100	800	2	210	73
CUF0174	S1556Y	15	56.0	30.7	2 x 550	2.3	4300	5/8	1-5/8	1475	1100	1070	2	224	76
CUF0187	V2059Y	15	58.5	31.1	2 x 550	2.3	4300	7/8	1-5/8	1475	1100	1070	2	265	76
CUF0199	V1571Y	15	70.8	32.2	2 x 550	2.3	4300	7/8	1-5/8	1475	1100	1070	2	265	77
CUF0214	V2084	20	83.8	42.6	3 x 550	3.5	6400	7/8	1-5/8	2200	1100	1070	3	281	78
CUF0218	V2593	25	93.1	52.3	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	298	79
CUF0220	Z25106	25	106.2	53.6	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	323	78
CUF0226	Z30126	30	106.2	55.7	3 x 550	3.5	6400	7/8	2-1/8	2200	1100	1070	3	340	79

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.

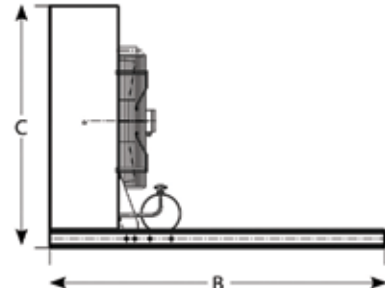
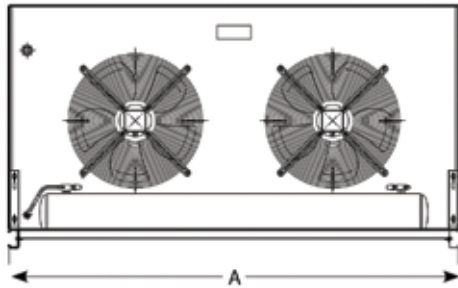


**DIMENSIONAL DRAWINGS**

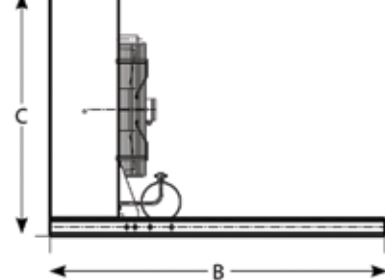
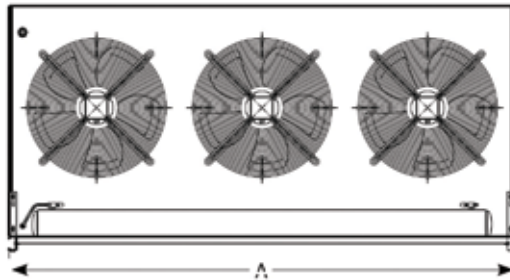
**Drawing 1**



**Drawing 2**



**Drawing 3**





**FRASCOLD REMOTE CONDENSING UNITS**



Z-Series Remote Unit



**FRASCOLD** range of Remote Semi-Hermetic condensing units are manufactured in our factory right here in Australia. They include internationally accepted Frascold semi-hermetic compressors, which are ideally suited for today's conscientious environment.

The large range extends from 1hp through to 70 hp with capacities from 3kw through to 130kw operating on R404A @ -5deg SST.

All our units are built to Australian standards and include only high quality components. This ensures reliability, high performance and trouble free operation all year round.

**FEATURES & INCLUSIONS**

**Compressor sets up to 20hp include standard:**

- Frascold Semi-Hermetic reciprocating compressor
- Liquid receiver with Rotolock valves
- Crankcase heater
- Electronic motor protection
- Auto reset dual pressure control
- Ester oil charge (mineral oil charge on request)

**All units have the above components as standard with the larger 20 to 70hp range having these additional components fitted.**

- High pressure oil pump and oil filter
- INT250 oil pressure safety control
- Discharge gas high temperature protection

**A huge range of optional extras can be fitted at your request and include:**

- Liquid line drier and sightglass
- Liquid line solenoid valve
- Capacity control head
- Oil separator (with internal or external oil floats)
- Suction line accumulator
- Electrical panels
- Extra pressure controls or transducers
- Fan cycling control
- Fan speed controller

**MODEL DESIGNATION**

<b>V</b>	<b>20</b>	<b>59</b>	<b>15-30</b>
COMPRESSOR SERIES	MOTOR HP	DISPLACEMENT M <sup>3</sup> /HR	RECEIVER MODEL

■ Please contact your nearest Beijer Ref branch or one of our applications engineers for other configurations that you may require. With a streamlined local manufacturing facility and motivated manufacturing team, Beijer Ref can offer flexible design and fast turn around times.





**R404A - MED TEMPERATURE**

ITEM NO.	MODEL	NOM HP	COND TEMP	CAPACITY IN WATTS (R404A)				
				-15	-10	-5	0	5
CUF0215A	D211/075-4	2	40	4900	6090	7470	9050	10860
			50	3920	4900	6030	7340	8850
CUF0514	D313/075-4	3	40	5760	7150	8760	10600	12710
			50	4710	5840	7150	8660	10390
CUF0525	D315/075-4	3	40	6830	8370	10150	12190	14530
			50	5550	6800	8240	9910	11830
CUF0533	Q521/075-4	5	40	9040	11260	13790	16630	19830
			50	7160	9000	11080	13430	16070
CUF0539	Q525/075-4	5	40	10700	13260	16230	19640	23540
			50	8640	10740	13160	15970	19190
CUF0542	Q728/075-4	7.5	40	12550	15480	18860	22730	27130
			50	10210	12620	15410	18620	22280
CUF0547	Q733/075-4	7.5	40	14500	17870	21770	26250	31370
			50	11800	14570	17780	21470	25700
CUF0554	S1242/5-15	12	40	17570	21890	26870	32570	39040
			50	14020	17630	21830	26670	32200
CUF0560	S1552/5-15	15	40	23730	28990	35080	42130	50270
			50	19640	24050	29130	35000	41800
CUF0566	S2056/5-15	20	40	26160	32040	38680	46480	55440
			50	21470	26470	32090	38680	46210
CUF0572	V2059/15-30	20	40	26670	32060	39490	47990	57600
			50	20490	25850	32070	39180	47180
CUF0578	V2571/15-30	25	40	30900	38530	47410	57610	69170
			50	24810	31160	38540	46990	56520
CUF0584	V3084/15-30	30	40	37580	46560	56940	68860	82440
			50	30380	37830	46490	56490	67970
CUF0586	V3293/30-50	30	40	39880	50070	61870	75420	90860
			50	31850	40270	50090	61450	74480
CUF0588	Z35106-ALH64	35	40	47530	58990	72350	87770	105420
			50	38310	47670	58650	71430	86180
CUF0594	Z40126-ALH64	40	40	55320	68850	84560	102620	123220
			50	44350	55400	68350	83360	100630
CUF0600	Z50154-ALH64	50	40	67520	83950	102950	124650	149070
			50	54600	68330	84190	102280	122550
CUF0602	W60187-ALH130	60	40	83770	104190	128040	155700	187530
			50	67540	84220	103740	126460	152760
CUF0605	W70206-ALH130	70	40	91990	113970	139390	168600	201960
			50	74800	93150	114390	138900	167010

- Ratings based on European standard EN12900; 20deg Suction gas temp / 0k Subcooling.
- Please contact Beijer Ref for ratings with other refrigerants including R448A, R449A & R407F.
- For fitted optional accessories please refer to pages 57-62



**R404A - LOW TEMPERATURE**

ITEM NO.	MODEL	COMP HP	COND TEMP	CAPACITY IN WATTS (R404A)				
				-35	-30	-25	-20	-15
CUF0215A	D211/075-4	2	40	1690	2300	3030	3890	4900
			50	1260	1780	2390	3090	3920
CUF0514	D313/075-4	2	40	2140	2830	3670	4660	5830
			50	1750	2320	3010	3820	4800
CUF0525	D315/075-4	3	40		3450	4400	5520	6830
			50		2800	3580	4490	5550
CUF0532	Q420/075-4	4	40	3020	4040	5280	6740	8460
			50	2340	3200	4230	5470	6940
CUF0539	Q525/075-4	5	40	3710	5050	6640	9510	10700
			50	2900	3950	5290	6840	8640
CUF0541	Q528/075-4	5	40	4440	5960	7760	9870	12330
			50	3440	4700	6190	7930	9960
CUF0543	Q533/075-4	5.5	40	5510	7230	9250	11630	14400
			50	4450	5870	7540	9500	11800
CUF0544	Q736/075-4	7.5	40	6640	8660	11040	13810	17030
			50	5520	6910	8890	11200	13900
CUF0551	S842/5-15	8	40	6860	9280	12080	15330	19080
			50	5230	7240	9550	12220	15300
CUF0557	S1052/5-15	10	40	9150	11920	15080	18770	23100
			50	7140	9590	12330	15470	19150
CUF0563	S1556/5-15	15	40	9750	12940	16650	20980	25990
			50	7530	10290	13480	17210	21480
CUF0572	V2059/15-30	15	40	10350	13610	17370	21860	27050
			50	7980	10770	13990	17820	22240
CUF0575	V1571/15-30	15	40	12030	15930	20480	25810	31900
			50	9310	12680	16590	21150	26300
CUF0581	V2084/15-30	20	40	13500	17990	23310	29560	36830
			50	10750	14290	18490	23450	29270
CUF0583	V2593/15-30	25	40	13680	18780	24810	31860	40070
			50	10080	14320	19310	25150	31960
CUF0587	Z25106-ALH64	25	40	16530	22510	29670	38150	48060
			50	12870	17730	23570	30520	38710
CUF0590	Z30126-ALH64	30	40	19490	26320	34480	44100	55350
			50	15100	20660	27280	35120	44320
CUF0597	Z40154-ALH64	40	40	26720	35280	45340	56970	70340
			50	20810	28200	36840	46770	58120
CUF0602	W60187-ALH130	60	40		39400	51750	66410	83770
			50		30800	41200	53320	67540
CUF0605	W70206-ALH130	70	40		43190	56960	73110	91990
			50		33660	45420	59010	74800

- Ratings based on European standard EN12900; 20deg Suction gas temp / 0k Subcooling.
- Please contact Beijer Ref for ratings with other refrigerants Including R448A, R449A & R407F.
- For fitted optional accessories please refer to pages 57-62

Head Cooling fan required at these conditions.



**R134A - MED TEMPERATURE**

ITEM NO.	MODEL	COMP HP	COND TEMP	CAPACITY IN WATTS (R134A)					
				-15	-10	-5	0	5	10
CUF0215A	D211/075-4	2	40	2670	3480	4440	5570	6870	8340
			50	2200	2910	3760	4740	5870	7150
CUF0514	D313/075-4	2	40	3260	4180	5270	6560	8060	9790
			50	2740	3550	4500	5620	6940	8450
CUF0525	D315/075-4	3	40	3680	4760	6030	7500	9210	11180
			50	3030	4010	5140	6460	7980	9740
CUF0532	Q420/075-4	4	40	4680	6170	7980	10130	12650	15590
			50	3810	5100	6680	8560	10780	13360
CUF0539	Q525/075-4	5	40	6520	8240	10280	12680	15470	18710
			50	5570	7130	8940	11050	13520	16390
CUF0541	Q528/075-4	5	40	6620	8520	10810	13510	16670	20310
			50	5590	7260	9270	11640	14410	18510
CUF0543	Q533/075-4	5.5	40	7850	10040	12600	15580	19050	24190
			50	6770	8690	10910	13500	16510	20970
CUF0544	Q736/075-4	7.5	40	9470	12090	15130	18590	22480	26890
			50	8150	10500	13230	16360	19890	23910
CUF0551	Q842/5-15	8	40	11040	14200	17950	22370	27540	33620
			50	9090	11930	15330	19350	24060	29650
CUF0557	S1052/5-15	10	40	13260	16800	20960	25840	31530	38110
			50	11310	14490	18190	22510	27540	33360
CUF0563	S1556/5-15	15	40	14730	18660	23250	28590	34810	42200
			50	12530	16060	20170	24940	30490	37010
CUF0572	V2059/15-30	15	40	15560	19750	24660	30350	36980	44850
			50	13190	16960	21350	26440	32350	39310
CUF0575	V1571/15-30	15	40	18510	23420	29140	35840	43640	52900
			50	15740	20140	25280	31260	38230	46370
CUF0581	V2084/15-30	20	40	19510	25350	32270	40390	49810	60840
			50	16470	21520	27530	34600	42850	52570
CUF0583	V2593/15-30	25	40	23750	30110	37570	46260	56370	68330
			50	20250	25980	32700	40460	49470	60030
CUF0587	Z25106-ALH64	25	40	24580	31830	40480	50660	62530	76480
			50	20700	26790	34090	42740	52880	64880
CUF0590	Z30126-ALH64	30	40	30140	39000	49480	61740	75370	92620
			50	25150	32880	42040	52800	65340	80100
CUF0597	Z40154-ALH64	40	40	36690	47240	59810	74620	91890	112200
			50	30690	39800	50700	63600	78720	96620
CUF0602	W60187-ALH130	60	40	46000	58860	73990	91600	111920	135160
			50	38360	49790	63220	78870	96980	117750
CUF0605	W70206-ALH130	70	40	49600	64530	82290	103150	127370	155210
			50	41990	54930	70360	88540	109740	134200

- Ratings based on European standard EN12900; 20deg Suction gas temp / 0k Subcooling.
- Please contact Beijer Ref for ratings with other refrigerants Including R448A, R449A & R407F.
- For fitted optional accessories please refer to pages 57-62

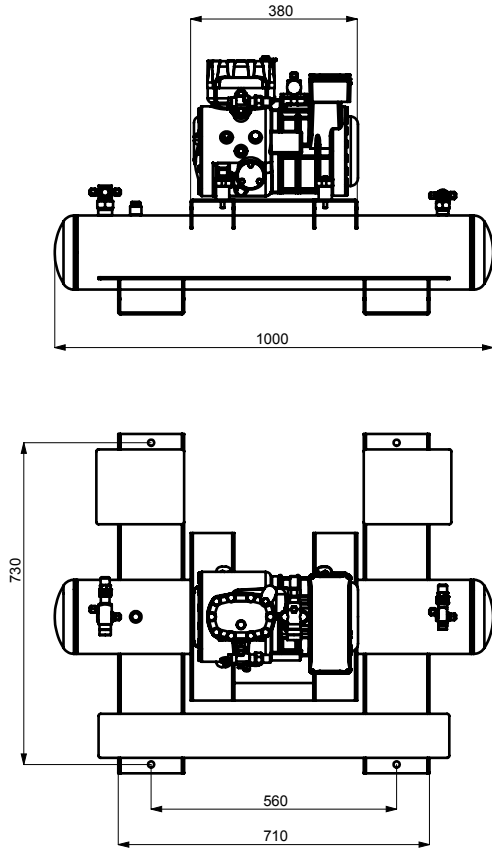
**TECHNICAL DATA**  
**FRACOLD REMOTE**

ITEM NO.	UNIT MODEL	COMPRESSOR						DIMENSIONS			CONNECTIONS		WEIGHT KG	dB(A) @ 3mtr
		MODEL	HP	DISP M <sup>3</sup> hr	MRA	LRA DOL	LRA P/W	LENGTH (A) mm	DEEP (B) mm	HIGH (C) mm	IN	OUT		
<b>415 VOLT COMPRESSOR</b>														
CUF0215A	D211/075-4	D211	2	11.3	7.1	24.9	DOL	1000	770	590	3/8	1/2	65	50
CUF0514	D313/075-4	D313	3	13.8	8.8	43.7	DOL	1000	770	590	3/8	1/2	69	51
CUF0525	D315/075-4	D315	3	15.3	10	43.7	DOL	1000	770	590	3/8	1/2	69	51
CUF0532	Q420/075-4	Q420	4	19.8	10.1	53.0	DOL	1000	770	600	7/8	7/8	132	52
CUF0533	Q521/075-4	Q521	5	21.2	11.6	63.1	DOL	1000	770	600	7/8	7/8	137	53
CUF0539	Q525/075-4	Q525	5	24.7	12.7	63.1	DOL	1000	770	600	7/8	7/8	137	53
CUF0541	Q528/075-4	Q528	5.5	27.9	14.0	63.1	DOL	1000	770	600	7/8	7/8	137	55
CUF0542	Q728/075-4	Q728	7.5	27.9	17.6	87.3	DOL	1000	770	600	7/8	7/8	137	55
CUF0547	Q733/075-4	Q733	7.5	32.7	20.0	87.3	DOL	1000	770	600	7/8	7/8	137	56
CUF0544	Q736/075-4	Q736	7.7	35.9	19.4	87.3	DOL	1000	770	600	7/8	7/8	137	57
CUF0551	S842/5-15	S842	8	41.3	20.3	90.3	52.7	1000	820	715	1-1/8	7/8	182	60
CUF0557	S1052/5-15	S1052	10	51.5	24.2	87.6	53.9	1000	820	715	1-1/8	7/8	185	62
CUF0554	S1242/5-15	S1242	12	41.3	22.4	102	59.1	1000	820	715	1-1/8	7/8	185	59
CUF0560	S1552/5-15	S1552	15	51.5	31.5	117.1	74.8	1000	820	715	1-1/8	7/8	192	59
CUF0563	S1556/5-15	S1556	15	56.0	30.7	117.1	74.8	1000	820	715	1-1/8	7/8	195	63
CUF0566	S2056/5-15	S2056	20	56.0	38.4	136.2	87.5	1000	820	715	1-1/8	7/8	197	61
CUF0569	V1559/15-30	V1559	15	58.5	31.1	117.1	74.8	1300	870	795	1-1/8	7/8	245	62
CUF0575	V1571/15-30	V1571	15	70.8	31.0	117.1	74.8	1300	870	795	1-1/8	7/8	245	62
CUF0572	V2059/15-30	V2059	20	58.5	35.3	136.2	87.5	1300	870	795	1-1/8	7/8	250	61
CUF0578	V2571/15-30	V2571	25	70.8	43.5	202.7	104.1	1300	870	795	1-1/8	7/8	258	61
CUF0581	V2084/15-30	V2084	20	83.8	42.6	145.2	89.9	1300	870	795	1-1/8	7/8	258	66
CUF0583	V2593/15-30	V2593	25	93.1	52.3	202.7	104.1	1300	870	795	1-1/8	7/8	265	66
CUF0584	V3084/15-30	V3084	30	83.8	49.2	186.2	118.3	1300	870	795	1-1/8	7/8	260	64
CUF0586	V3293/15-30	V3293	30	93.1	53.1	239.2	144.5	1300	870	795	1-1/8	7/8	265	64
CUF0587	Z25106-ALH64	Z25106	25	106.2	53.6	202.7	118.3	1390	940	880	1-3/8	1-3/8	298	69
CUF0590	Z30126-ALH64	Z30126	30	125.7	55.7	186.2	118.3	1390	940	880	1-3/8	1-3/8	306	70
CUF0588	Z35106-ALH64	Z35106	35	106.2	60.2	239.2	144.5	1390	940	880	1-3/8	1-3/8	300	65
CUF0593	Z40126-ALH64	Z40126	40	125.7	71.9	273.0	159.2	1390	940	880	1-3/8	1-3/8	317	66
CUF0597	Z40154-ALH64	Z40154	40	154.4	77.9	273.0	159.2	1390	940	880	1-3/8	1-3/8	324	71
CUF0600	Z50154-ALH64	Z50154	50	154.4	90.4	321.4	188.6	1390	940	880	1-3/8	1-3/8	330	67
CUF0602	W60187-ALH130	W60187	60	186.1	103.5	455	326	1600	800	1070	1 3/8	1 3/8	468	71
CUF0605	W70206-ALH130	W70206	70	205.8	116.8	548	390	1600	800	1070	1 3/8	1 3/8	482	72

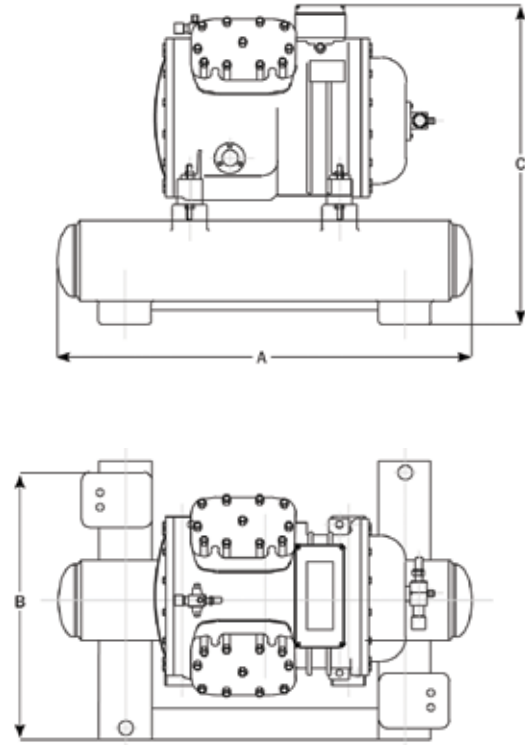
- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.
- Refer to next page for dimensional drawings.

**DIMENSIONAL DRAWINGS**

**D-SERIES**  
**2 CYLINDER MODELS**

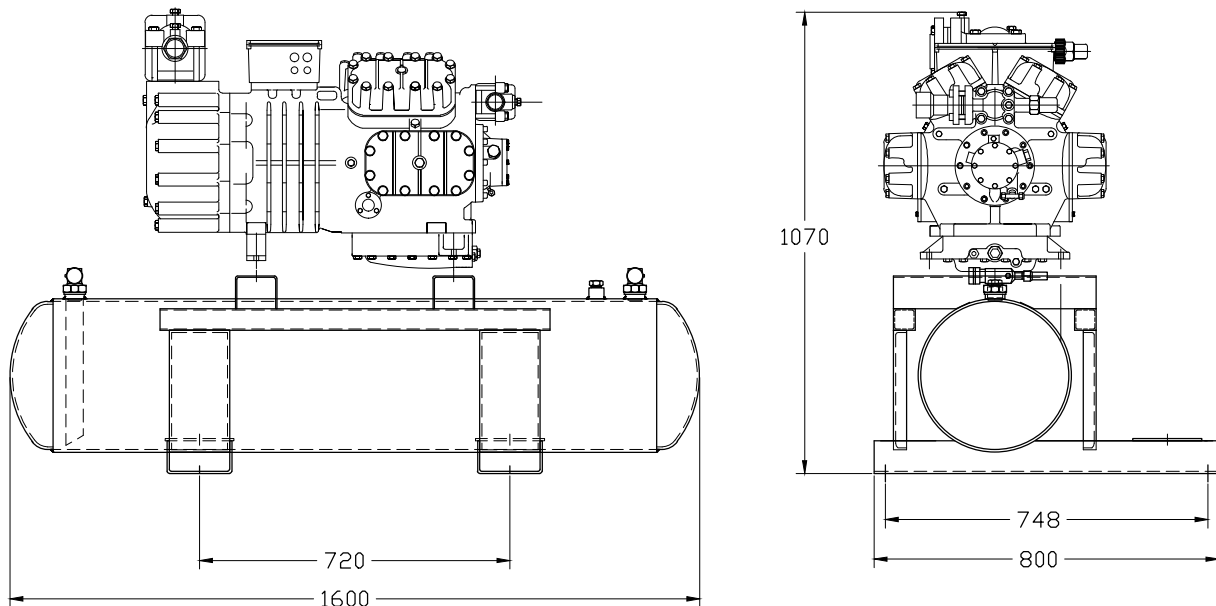


**Q, S, V & Z-SERIES**  
**4 & 6 CYLINDER MODELS**



■ Z-Series with 6 cylinder compressors

**W-SERIES**  
**8 CYLINDER MODELS**



### LIQUID LINE ASSEMBLIES

ITEM NO.	SIZE CONNECTION	KW RANGE GUIDE
ULF003	3/8" Liquid Line c/w Sight Glass & 163 Drier	3 - 5
ULF006	1/2" Liquid Line c/w Sight Glass & 164 Drier	6 - 9
ULF008	1/2" Liquid Line c/w Sight Glass & 304 Drier	10 - 12
ULF011	5/8" Liquid Line c/w Sight Glass & 305 Drier	12 - 18
ULF014	5/8" Liquid Line c/w Sight Glass & 415 Drier	19 - 22
ULF016	7/8" Liquid Line c/w Sight Glass & 1 Drier Core	20 - 30
ULF019	7/8" Liquid Line c/w Sight Glass & 2 Drier Cores	30 - 40
ULF023	1-1/8" Liquid Line c/w Sight Glass & 2 Drier Cores	40 - 60
ULF025	1-3/8" Liquid Line c/w Sight Glass & 2 Drier Cores	60 - 100

- Duty of above liquid line assemblies wil vary with refrigerant type and application temperature. Please contact Beijer Ref if you would like to confirm selection.



### SOLENOID VALVE

ITEM NO.	DESCRIPTION	KW RANGE GUIDE
USF001	3/8" Solenoid valve c/w Coil	3 - 5
USF003	1/2" Solenoid valve c/w Coil	6 - 9
USF006	5/8" Solenoid valve c/w Coil	10 - 18
USF008	7/8" Solenoid valve c/w Coil	20 - 35
USF011	1-1/8" Solenoid valve c/w Coil	40 - 60



### OIL SEPARATORS (Standard Internal Float)

ITEM NO.	DESCRIPTION	HP RANGE GUIDE
F0070F	1/2" Oil Separator c/w Oil Charge	1 - 1.5
F0072F	5/8" Oil Separator c/w Oil Charge	2 - 4
F0074F	7/8" Oil Separator c/w Oil Charge	5 - 7
F0076F	1-1/8" Oil Separator c/w Oil Charge	7 - 20
F0078F	1-3/8" Oil Separator c/w Oil Charge	25 - 30



### OIL SEPARATOR (Helical External Float with Intel-Oil)

ITEM NO.	MODEL	HP RANGE GUIDE
F0150F	1-1/8" HELICAL Oil Sep c/w INTEL, Oil Charge & S/Glases	7 - 20
F0152F	1-3/8" HELICAL Oil Sep c/w INTEL, Oil Charge & S/Glases	25 - 30
F0154F	1-5/8" HELICAL Oil Sep c/w INTEL, Oil Charge & S/Glases	35 - 50



### OIL LEVEL SAFETY SWITCH (For Internal Float Systems)

ITEM NO.	MODEL	SUITS
-	INTEL Oil level safety fitted - For use with internal float oil separators	All Models



**INTEL Oil Safety** offers protection against low compressor oil level by monitoring the oil sump and sending a signal if the oil level falls too low. Signal can provide alarm functionality and shut down the compressor.



### SUCTION LINE ACCUMULATORS

ITEM NO.	DESCRIPTION	HP RANGE GUIDE
F0105F	5/8" Suction Accumulator	1 - 1.5
F0106F	3/4" Suction Accumulator	2
F0107F	7/8" Suction Accumulator	2
F0108F	1-1/8" Suction Accumulator	3 - 5
F0109F	1-3/8" Suction Accumulator	6 - 12
F0110F	1-5/8" Suction Accumulator	15 - 20
F0111F	2-1/8" Suction Accumulator	25 - 30
F0115F	2-5/8" Suction Accumulator	40 - 50



### SUCTION LINE ACCUMULATORS (With Liquid Line Heat Exchange)

ITEM NO.	DESCRIPTION	HP RANGE GUIDE
F0168F	1-1/8" Suction Accumulator / Heat Exchanger	3 - 5
F0170F	1-3/8" Suction Accumulator / Heat Exchanger	6 - 12
F0171F	1-5/8" Suction Accumulator / Heat Exchanger	15 - 20
F0172F	2-1/8" Suction Accumulator / Heat Exchanger	25 - 30
F0173F	2-5/8" Suction Accumulator / Heat Exchanger	40 - 50



- **Accumulators** with 'Liquid HE's' offer heat transfer between return suction gas and the liquid line. This helps boil off any liquid build up in the accumulator and provides additional liquid subcooling.

### SUCTION LINE FILTER

ITEM NO.	SIZE CONNECTION	HP RANGE GUIDE
ULF030	1-3/8" 1 Core Suction Line Filter	6 - 12
ULF031	1-5/8" 1 Core Suction Line Filter	15 - 20
ULF032	2-1/8" 1 Core Suction Line Filter	25 - 30
ULF033	2-5/8" 1 Core Suction Line Filter	40 - 50



### UNLOADER HEADS (Frascold)

ITEM NO.	DESCRIPTION	HP RANGE GUIDE
UUF000C	Capacity Control Head Fitted - Q Series	4 - 7.5
UUF000D	Capacity Control Head Fitted - S Series	8 - 20
UUF001	Capacity Control Head Fitted - V, W, Z Series	20 - 50
UUF003	RSH Cap Control Head Fitted - Q Series	4 - 7.5
UUF004	RSH Cap Control Head Fitted - S Series	8 - 20
UUF005	RSH Cap Control Head Fitted - V, W, Z Series	20 - 50
UUF000	Start Unloader Head Fitted - Q Series	4 - 7.5
UUF000A	Start Unloader Head Fitted - S Series	8 - 20
UUF000B	Start Unloader Head Fitted - V, W, Z Series	20 - 50



- **Capacity control heads** are designed to be unloaded for temporary reduction in compressor capacity.
- **Frascold RSH** capacity control heads partially unload single cylinders for even more capacity control. RSH offers better control, higher efficiency and no unloaded operation time limits required.
- **Start unloader heads** are specifically designed to reduce start power and are specifically designed to work in conjunction with 'Part winding start' to offer a significant reduction in start current.

**HEAD COOLING FANS 1PH**

ITEM NO.	FRASCOLD ITEM NO	ITEM	SUITS SERIES
R0744F	S2-FM1	Head Cooling Fan A-F	A, B, D & F
R0745F	S2-FM9	Head Cooling Fan Q	Q Series
R0746F	S2-FM2	Head Cooling Fan S-V	S & V
R0747F	S2-FM3	Head Cooling Fan Z	Z Series
H-CFANE	Copeland	Head Cooling Fan	Suits All Copeland



**ADDITIONAL PRESSURE CONTROLS**

ITEM NO.	DESCRIPTION
UPF016	Single HP Auto Reset - Single Cond Fan Cycling
UPF006	Dual HP Auto Reset - Twin Cond Fan Cycling
UPF008	LP Manual Reset
UPF011	LP Auto Reset
UPF014	HP Manual Reset



**CONDENSER FAN SPEED CONTROLS**

ITEM NO.	SUITS	DESCRIPTION
UFF001	1ph Fans to 3A	Johnson 1ph Fan Speed Control
UFF001S	1ph Fans to 8A	Saginomiya 1ph Fan Speed Control
UFF003	3ph Fans to 5A	Saginomiya 3ph Fan Speed Control



Please contact Beijer Ref to discuss other accessory requirements you may have



## DANFOSS VLT DRIVES FITTED



**Danfoss VLT® HVAC Drive** has been designed to offer flexible, intelligent control of compressors, making it even easier to optimise cooling capacity with constant temperature and pressure levels. The Drive calculates the actual refrigerant temperature from the measured pressure and refines compressor operation accordingly using the built-in PID controller. Offering low torque start and energy savings makes the addition of VLT ideal for any typical HVAC compressor application.

### DANFOSS VLT SERIES (IP55 With Input Filters)

ITEM NO.	MODEL	RATED		DIMENSIONS W X H X D
		KW	AMPS	
R0799DF	Danfoss P3K0	3.0	4	391 x 200 x 177
R0800DF	Danfoss P4K0	4.0	5.5	391 x 200 x 177
R0802DF	Danfoss P5K5	5.5	7.5	420 x 242 x 200
R0804DF	Danfoss P75K	7.5	10	420 x 242 x 200
R0806DF	Danfoss P11K	11	15	480 x 242 x 260
R0808DF	Danfoss P15K	15	20	480 x 242 x 260
R0810DF	Danfoss P18K	18	25	480 x 242 x 260
R0812DF	Danfoss P22K	22	30	650 x 242 x 260
R0827DF	Danfoss P30K	30	40	650 x 242 x 260
R0828DF	Danfoss P37K	37	50	680 x 308 x 310
R0829DF	Danfoss P45K	45	60	680 x 308 x 310
R0831DF	Danfoss P55K	55	73	680 x 308 x 310
R0832DF	Danfoss P75K	75	100	770 x 370 x 335
R0833DF	Danfoss P90K	90	120	770 x 370 x 335

\* Above VSD enclosures made with ABS plastic. IP55 enclosure classification.

- Please contact Beijer Ref technical staff for assistance with selection.





**VARIABLE SPEED DRIVES FITTED**



- Integrated soft-start offers reduced compressor start up current
- Easy to program interface allows for quick set up of target pressure
- Once set Compressor will ramp up and down to maintain set point
- Less compressor starts reduces mechanical stresses and wear
- Stable suction pressure - better control and less risk of liquid slug
- Ideal for applications with multiple loads such as pubs & clubs
- Improved energy efficiency resulting in reduced energy costs
- All below models include internal EMC filters

**LENZE i550 SERIES (IP66 with input filters)**

ITEM NO.	LENZE MODEL	RATED		DIMENSIONS W X H X D
		MAX KW	MCC (A)	
-	I55AP222F00710K00S	2.2	5.6	235 x 140 x 140
-	I55AP230F00710K00S	3.0	7.3	283 x 180 x 168
-	I55AP240F00710K00S	4.0	9.5	283 x 180 x 168
-	I55AP255F00710K00S	5.5	13.0	283 x 180 x 168
-	I55AP275F00710K00S	7.5	16.5	326 x 180 x 173
-	I55AP311F00710K00S	11.0	23.5	326 x 180 x 173
-	I55AP315F00710K00S	15.0	32.0	447 x 230 x 187
-	I55AP318F00710K00S	18.5	40.0	447 x 230 x 187
-	I55AP322F00710K00S	22.5	47.0	447 x 230 x 187

Above VSD enclosures have protection level of IP66.  
Suitable for both indoor and outdoor installations

■ Selection of Lenze VSD should be made so full load full load amps of compressor do not exceed SMV maximum rated amps.

**PEGO ELECTRICAL BOARDS FITTED**



- Made made with self-extinguishing ABS plastic
- IP65 protection for dusty or moist environments
- Pre-fitted in our factory to save you time on site
- High quality components and switchgear
- Schneider/Telemecanique contactors & overloads
- Custom boards available upon request



**PEGO ECP ELECTRICAL BOARDS**

ITEM NO.	MODEL	MAX HP	AMPS	COND FANS	DESCRIPTION	DIMENSIONS W X H X D
G4942F	ECP04E 4.5-6.3	2	4.5-6.3	1PH	Electrical box c/w Isolating switch, 1 x 3ph circuit- breaker, Compressor contactor & overload, 1ph Cond fan/Control circuit breaker, LED status lights	210 x 260 x 145
G4944F	ECP04E 7-10	3	7-10	1PH		210 x 260 x 145
G4946F	ECP04-E 9-12.5	5	9-12.5	1PH		210 x 260 x 145
G4948F	ECP07E 14-20	8	14-20	1PH		210 x 260 x 145
G4948AF	ECPI0S 18-25	10	18-25	3PH	*Condenser fan contactors & overloads also included on ECPI0S Boards	290 x 340 x 145
G4948BF	ECPI0S 27-32	15	27-32	3PH		290 x 340 x 145
G4949F	ECPI5S 18-25	10	18-25	3PH	*Separate condenser fan circuit breaker also included on ECPI5S Boards	350 x 450 x 160
G4950F	ECPI5S 22-35	15	22-35	3PH		350 x 450 x 160
G4951F	ECPI5S 28-40	20	28-40	3PH		350 x 450 x 160

\* Above electrical boxes made with self-extinguishing ABS plastic with IP65 protection rating.

## ELECTRICAL BOARDS FITTED TO UNITS



- Wired in Australia to Australian standards & regulations.
- Industrial quality steel enclosure - IP65 protection
- Pre-fitted in our factory to save you time on site
- High quality components and switchgear
- Locally supplied switchgear readily available
- Schneider contactors & overloads
- Custom boards available upon request

## ELECTRICAL BOARDS FOR CONDENSING UNIT

ITEM NO.	SUITS	AMPS	START	FANS	DESCRIPTION
CUE100F	1 - 4HP	10	DOL	1PH	<b>Electrical Board Fitted &amp; Wired to Condensing Unit</b> c/w Isolating switch, compressor circuit breaker, 3ph Compressors come with contactor & overload, 3ph condenser fan contactors and overloads wired with 3ph fans. Many other optional electrical components available.
CUE102F	5 - 12HP	25	DOL	1PH	
CUE106F	5 - 12HP	25	DOL	3PH	
CUE108F	15 - 20HP	32	DOL	3PH	
CUE110F	15 - 20HP	32	PWS	3PH	
CUE112F	20 - 25HP	50	PWS	3PH	
CUE114F	25 - 35HP	63	PWS	3PH	

## ELECTRICAL BOARDS FOR REMOTE UNITS

ITEM NO.	SUITS	AMPS	START	FANS	DESCRIPTION
CUE120F	1 - 4HP	10	DOL	1PH	<b>Electrical Board Fitted &amp; Wired to Remote Unit</b> c/w Isolating switch, compressor circuit breaker, 3ph Compressors come with contactor & overload, 3ph condenser fan contactors and overloads wired with 3ph fans. Many other optional electrical components available.  Remote condenser fan motors must be wired back to switchboard on site.
CUE122F	5 - 12HP	25	DOL	1PH	
CUE124F	5 - 12HP	25	DOL	3PH	
CUE126F	15 - 20HP	32	DOL	3PH	
CUE128F	15 - 20HP	32	PWS	3PH	
CUE130F	20 - 25HP	50	PWS	3PH	
CUE132F	25 - 35HP	63	PWS	3PH	
-	40HP	75	PWS	3PH	

## OPTIONAL EXTRAS FITTED

ITEM NO.	DESCRIPTION
CUE150F	Additional condenser fan contactor
CUE152F	Traxoil wired with transformer
CUE154F	Anti short cycle timer
CUE156F	MP15 Phase protection
CUE158F	Switchboard cooling fan

- Contact Beijer ref for information and availability of other optional extras.



**FRASCOLD SCREW PACK UNITS**



**CX-Series Screw-Pack**

**FRASCOLD** CX range of Screw-Pack units are manufactured in our factory right here in Australia. They include internationally accepted Frascold CXHO Series screw compressors, which are ideally suited for energy efficient Air-conditioning and chiller applications.

The large range extends from 50hp through to 120 hp with capacities on R134A @ +7deg SST ranging from 135kw through to 240kw on standard models with larger models up to 210hp available upon request.

All our CX Series units are built to Australian standards and include only high quality components. This ensures reliability, high performance and trouble free operation all year round.

**FEATURES & INCLUSIONS**

**Compressor sets include standard:**

- Frascold CXHO Compact Screw Compressor
- Integrated high efficiency oil separator
- Stepless Capacity Control  
→ Stepped available on request
- Liquid receiver with Rotolock valves
- Oil Flow switch or level control
- Electronic motor protection
- Manual reset dual pressure control
- Liquid Line Direr & Sight Glass

**A huge range of optional extras can be fitted at your request and include:**

- Economiser Kit
- Suction Accumulator
- Suction Filter Shell
- Pressure Gauge Panel
- Pre-wired Electrical panel
- Variable Speed Drive
- Extra pressure controls or transducers



**CX-Series Screw-Pack  
(Fitted with VSD Inverter)**

**MODEL DESIGNATION**

<b>CX</b>	<b>80</b>	<b>298</b>	<b>ALH</b>	<b>130</b>
COMPRESSOR SERIES	MOTOR HP	DISPLACEMENT M <sup>3</sup> /HR	RECEIVER TYPE	RECEIVER CAPACITY KG AT 80% FULL

■ Please contact your nearest Beijer Ref branch or one of our applications engineers for other configurations that you may require. With a streamlined local manufacturing facility and motivated manufacturing team, Beijer Ref can offer flexible design and fast turn around times.





**FRASCOLD CX SCREW-PACK UNITS**



- Frascold CXHO Compact Screw Compressor
- Electronic motor protection with diagnostics
- Intergrated high efficiency oil separator
- Steppless Capacity Control standard  
→ Stepped available on request
- Liquid receiver with rotolock valves
- Oil Flow switch or oil level control
- Manual reset dual pressure control
- Liquid Line Direr & Sighnt Glass

**AIR-CONDITIONING - R134A**

ITEM NO.	MODEL	NOM HP	AMPS MRA	DISP m³/HR	ECONOMISER		WATTS @ +5 SST (R134A)	
					KW	KIT	W/OUT ECO	ECONOMISER
CUF0625	CX50L-199-ALH130	50	80	199	23	1	110600	132500
CUF0630	CX60L-230-ALH130	60	98	230	27	2	132700	155000
CUF0635	CX70L-264-ALH130	70	125	264	30	2	150200	171300
CUF0640	CX80L-298-ALH130	80	145	298	34	3	172400	197600
CUF0642	CX90L-340-ALH130	90	160	340	38	3	192300	187230
CUF0644	CX100L-370-ALH130	100	175	370	42	4	209300	235100
CUF0646	CX110L-398-ALH130	110	180	398	48	4	241700	275800

**AIR-CONDITIONING - R407C**

ITEM NO.	MODEL	NOM HP	AMPS MRA	DISP m³/HR	WATTS @ +5 SST (R407C)	
					W/OUT ECO	
CUF0650	CX70H-199-ALH130	70	128	199	156400	
CUF0652	CX80H-230-ALH130	80	145	230	180500	
CUF0654	CX90H-264-ALH130	90	160	264	209300	
CUF0656	CX100H-298-ALH130	100	175	298	237300	
CUF0658	CX110H-316-ALH130	110	184	316	267700	

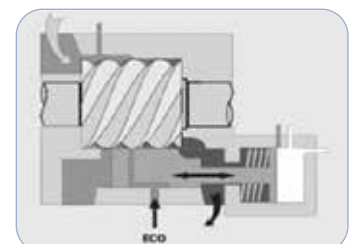
- Ratings based on European standard EN12900 and at 50deg Condensing temperature / 10deg Suction gas superheating.
- Due to the high intermediate suction pressure on R407C at above conditions, standard economiser kits are not available.
- CXH Compressors are also suitable for operation with R404A, R507C & R134A for medium temperature applications.
- Please refer to Frascold selection software or contact Beijer Ref for ratings at other conditions.

**ECONOMISER KITS**

ITEM NO.	KIT NO.	DESCRIPTION	PRICE \$ EXCL. GST
CUF0670	1	Fitted Economiser Kit R134A - 50hp	<b>P.O.A</b>
CUF0671	2	Fitted Economiser Kit R134A - 60, 70hp	<b>P.O.A</b>
CUF0672	3	Fitted Economiser Kit R134A - 80, 90hp	<b>P.O.A</b>
CUF0673	4	Fitted Economiser Kit R134A - 100, 110hp	<b>P.O.A</b>

- Economiser Kits Include - Heat Exchanger, TX Valve, Solenoid Valve

Economiser/Subcooler  
Increases Output & Efficiency





## MULTI-COMP RACK SYSTEMS



**Mini Rack System**  
(Fitted with Air-Cooled Condenser)



**Reciprocating Rack System**  
(Low-Line Series)



**Screw Compressor Rack System**  
(Fitted with Electrical Panel)

**Beijer Ref** Multi-Compressor Rack Systems are manufactured in our SCM factory right here in Australia. They include internationally accepted Frascold or Bitzer semi-hermetic compressors, which are ideally suited for today's conscientious environment.

All our rack systems are built to Australian standards, include only high quality components and are designed by our team of accomplished applications engineers. This ensures reliability, high performance and energy efficiency while also offering years of trouble free operation.

### FEATURES & INCLUSIONS

#### Semi-Hermetic Reciprocating Rack Systems

- Frascold or Bitzer Semi-Hermetic compressors
- High efficiency oil separator with outlet valve
- Intel Oil level controls with low level safety
- Liquid receiver with inlet & outlet valves
- Dual self resetting pressure relief valves
- Large volume steel suction header
- Liquid & Suction filter drier shells & cores (Suction filters not fitted on Low-line series)
- Branch isolating ball valves as required
- Auto reset dual pressure controls
- Electronic motor protection

#### Screw Compressor Rack Systems

- Frascold Semi-Hermetic Screw compressors
- Variable volume capacity control standard
- Special high efficiency oil separator with outlet valve
- Complete oil control system with filtration and safety
- Liquid receiver with inlet & outlet valves
- Twin self resetting pressure relief valves
- Large volume 8 or 10" steel suction header
- Branch isolating ball valves as required
- Auto reset dual pressure controls
- Electronic motor and rotation protection

#### A huge range of optional extras can be fitted at your request

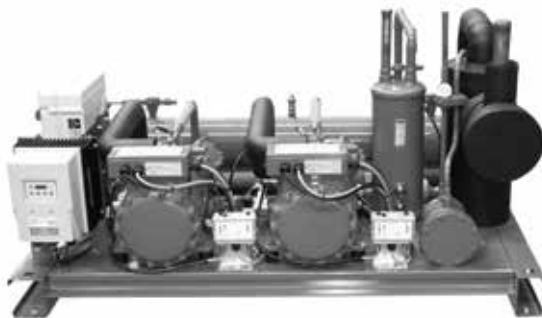
- Air cooled condenser complete with fans (Mini Racks only)
- Capacity control heads on Reciprocating compressors
- Liquid level switch for low level signal and alarming
- Mechanical Subcooler/Economiser heat exchanger kits
- Extra pressure controls or pressure transducers fitted
- VSD Inverter for capacity control and soft starting
- Metal clad insulation - ideal for extra low temp applications
- Electrical panels completely wired with PLC rack controller

- Please contact one of our helpful applications engineers for more details or to discuss your project requirements. With the utilisation of world class manufacturing technology and a highly experienced engineering team, Beijer Ref can offer you the right solution with flexible design and fast turn around times.





**V.TEQ SERIES MINI RACK SYSTEMS**



**V.TEQ Series** mini-racks are manufactured in our factory right here in Australia. They include two Frascold Q-series compressors and come fully wired with lead compressor controlled via Danfoss, ABB or Lenze variable speed drive (VSD) and second compressor staged on demand.

This combination of the already efficient Q-Series compressors coupled with VSD on the lead compressor, provides tight control of a wide capacity range to handle both peak & low loads with very high energy efficiency.

V.TEQ Series units are ideally suited for applications with multiple and fluctuating loads such as pubs, clubs and small supermarkets or any other application where wide capacity range with close capacity control and a reduction in energy costs is needed.



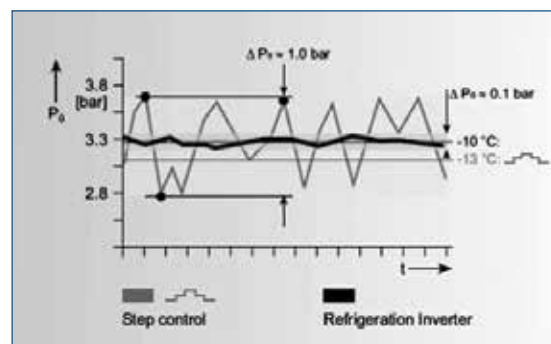
**FEATURES & INCLUSIONS**

- 2 x Q-Series Frascold compressors with CC heaters
- Electronic motor protection (with diagnostics)
- Pre-wired with isolating switch, starters & safety's
- Variable speed drive and pressure transducer → Includes control panel with digital display
- Liquid receiver with inlet & outlet rotolock valves
- 2 x Auto reset dual pressure controls
- High efficiency oil separator/reservoir
- Intel oil level control and monitoring
- Suction Accumulator with LL Heat exchanger
- Liquid line drier shell and sight glass
- Suction filter shell with pleated filter core

**MODEL DESIGNATION**

<b>V.TEQ</b>	<b>736</b>	<b>752</b>	<b>AR..</b>
VARIABLE SPEED TWIN COMPRESSOR ENERGY EFFICIENT Q-SERIES MINI-RACK	COMPRESSOR MODEL (X2)	VARIABLE SPEED DRIVE MODEL	RECEIVER & BASE MODEL

**Stable Suction Pressure with VSD**

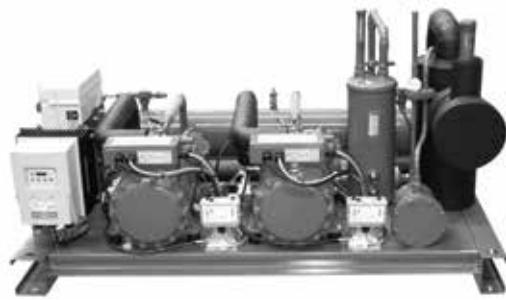


■ Please contact one of our helpful applications engineers for more details or to discuss your project requirements. With the utilisation of world class manufacturing technology and a highly experienced engineering team, Beijer Ref can offer you the right solution with flexible design and fast turn around times.





**FRASCOLD V.TEQ MINI-RACKS**



- 2 x Frascold Q-Series compressors
- Variable speed drive & transducer
- High efficiency oil separator/reservoir
- Intel oil level control & monitoring
- Suction accumulator with LL HX
- Liquid & suction shells with cores
- 2 x Auto reset dual pressure controls
- Fully wired unit saves time on site

**R134A - MED TEMPERATURE**

ITEM NO.	MODEL	NOM HP	COND TEMP	CAPACITY RANGE IN KW (MIN - MAX) <sup>①</sup>				
				-15	-10	-5	0	+5
VTQ100	V.TEQ 420-402-AR127	2 x 4	40	2.6 - 12.2	3.4 - 15.8	4.3 - 20.1	5.4 - 25.2	6.6 - 31.1
			50	2.2 - 10.3	2.9 - 13.5	3.7 - 17.5	4.7 - 22.1	5.8 - 27.4
VTQ102	V.TEQ 528-552-AR127	2 x 5	40	3.4 - 16.0	4.4 - 20.1	5.6 - 26.4	7.1 - 33.2	8.8 - 41.2
			50	2.9 - 13.4	3.8 - 17.6	4.8 - 22.7	6.1 - 28.8	7.6 - 35.9
VTQ104	V.TEQ 736-752-AR127	2 x 7.5	40	4.9 - 22.9	6.3 - 29.4	7.9 - 37.0	9.7 - 45.7	11.8 - 55.6
			50	4.2 - 19.6	5.4 - 25.5	6.9 - 32.4	8.6 - 40.5	10.5 - 49.6

**R404A - MED TEMPERATURE**

ITEM NO.	MODEL	NOM HP	COND TEMP	CAPACITY RANGE IN KW (MIN - MAX) <sup>②</sup>			
				-15	-10	-5	0
VTQ106	V.TEQ 521-552-AR127	2 x 5	40	4.6 - 19.8	5.8 - 25.1	7.2 - 31.1	8.8 - 38.0
			50	3.6 - 15.6	4.6 - 20.0	5.8 - 25.1	
VTQ108	V.TEQ 525-552-AR127	2 x 5	40	5.4 - 23.5	6.8 - 29.5	8.5 - 36.2	10.4 - 44.8
			50	4.4 - 18.9	5.5 - 24.2	6.9 - 30.2	
VTQ110	V.TEQ 728-752-AR127	2 x 7.5	40	6.4 - 27.5	8.0 - 34.5	9.8 - 42.5	12.0 - 51.9
			50	5.2 - 22.3	6.5 - 28.1	8.1 - 35.2	

**R404A - LOW TEMPERATURE**

ITEM NO.	MODEL	NOM HP	COND TEMP	CAPACITY RANGE IN KW (MIN - MAX) <sup>②</sup>			
				-35	-30	-25	-20
VTQ100	V.TEQ 420-402-AR127	2 x 4	40	1.4 - 6.2	2.0 - 8.5	2.6 - 11.3	3.4 - 14.6
			50	1.1 - 4.7	1.5 - 6.5	2.1 - 8.9	2.7 - 11.7
VTQ102	V.TEQ 528-552-AR127	2 x 5	40	2.1 - 9.2	2.9 - 12.5	3.8 - 16.5	4.9 - 21.3
			50	1.6 - 6.9	2.2 - 9.6	3.0 - 13.0	3.9 - 16.9
VTQ104	V.TEQ 736-752-AR127	2 x 7.5	40	2.9 - 12.4	3.9 - 16.9	5.2 - 22.3	6.6 - 28.7
			50	2.1 - 9.2	3.0 - 12.9	4.0 - 17.3	5.2 - 22.7

- Please contact Beijer Ref for further information or technical data.
- Ratings based on 20k suction superheat, 3k subcooling and below operation:
  - ① Min with 1 compressor only at 25hz / Max with 2 Compressors - Lead compressor at 70hz
  - ② Min with 1 compressor only at 25hz / Max with 2 Compressors - Lead compressor at 60hz

Larger 3 Compressor Models  
Up To 60kw at -5°C sst or  
30kw at -25°C sst on R404A  
Available on Request

*i* Due to wide varying capacity and subsequent HOR range, it is recommended either fan speed controller or VSD is used to control fan speed and maintain stable and constant condensing pressure at varying conditions and loads.

Head Cooling fans required at these low temp conditions.



## Smart Sustainable Solutions

C

2



### SCM Frigo CO2 Refrigerating Systems

- › CO2 Transcritical Racks with Parallel Compress and Multi-Vapor ejectors
- › CO2 LT Boosters
- › CO2 Glycol Chillers
- › CO2 Subcritical Systems
- › CO2 Pump Systems
- › CO2 Cascade Systems



Natural Refrigerant



ECO Friendly



Energy Efficiency

For further details please contact your nearest Beijer Ref Australia branch.

# CUBO<sub>2</sub> PLUS

## Smart Sustainable Solutions CO<sub>2</sub> Plus Condensing Units

**CUBO2 Plus** – Future proofing commercial refrigeration systems with smart sustainable solutions using natural refrigerant condensing units with very low carbon footprint & lower energy consumption than traditional HFC systems.

Design is compact and all units are easy to install and maintain coming equipped with gas cooler and electrical panel, tested and factory programmed for an easy start-up.



### STANDARD CONFIGURATION

- Semi-Hermetic Compressor
- All units with 37Ltr Vessel
- EC Fan Motors
- K65 Connections

### DESIGN PRESSURE

- 120 bar (high pressure side)
- 80 bar (liquid line)
- 80 bar (suction)

### OPTIONAL

- VARISTEP CR11 Capacity Modulation
- Frequency Controlled Compressor
- Adiabatic Cooling System



Natural Refrigerant



ECO Friendly



Energy Efficiency

For further details please contact your nearest Beijer Ref Australia branch.



## CUBO2 PLUS CO<sub>2</sub> PACKAGE UNITS



**CUBO2 PLUS** offers a Natural Refrigerant Condensing Unit solution for transcritical CO<sub>2</sub> with a very low carbon footprint & lower energy consumption than traditional HFC systems. Unit design is compact, easy to install, maintain and are equipped with gas cooler and electrical panel, tested and factory programmed for a quick and easy start up.

### Standard Configuration

- Semi-Hermetic Compressor
- VFD compressor (Med Temp)
- EC Fan Motors
- Small Footprint

### Design Pressure

- 120 bar (high pressure side)
- 80 bar (liquid line)
- 80 bar (suction)
- K65 Connections

## CO<sub>2</sub> MED TEMP - TRANSCRITICAL

MODEL NO.	AMB TEMP	CAPACITY IN KW (CO <sub>2</sub> )											
		-15			-10			-5			0		
		MIN	MAX	COP	MIN	MAX	COP	MIN	MAX	COP	MIN	MAX	COP
UMT 036 MTDX	32	3.11	6.22	1.54	3.87	7.74	1.81	4.64	9.29	2.13	5.52	11.04	2.48
	38	2.67	5.34	1.18	3.30	6.60	1.39	3.98	7.96	1.61	4.79	9.58	1.89
UMT 075 MTDX	32	4.60	9.19	1.53	5.56	11.11	1.81	6.76	13.52	2.13	8.01	16.02	2.51
	38	3.97	7.94	1.17	4.79	9.58	1.39	5.99	11.99	1.59	6.92	13.85	1.89
UMT 120 MTDX	32	6.14	12.28	1.46	7.58	15.17	1.75	9.04	18.07	2.10	10.87	21.73	2.48
	38	5.17	10.34	1.14	6.53	13.07	1.33	7.78	15.56	1.56	9.67	19.34	1.80
UMT 150 MTDX	32	9.37	18.73	1.62	11.50	22.99	1.80	13.68	27.36	2.20	16.05	32.10	2.61
	38	8.34	16.68	1.25	9.90	19.80	1.45	12.30	24.60	1.65	14.07	28.14	1.94
UMT 190 MTDX	32	11.92	23.84	1.58	14.20	28.39	1.85	16.94	33.89	2.17	19.96	33.26	2.54
	38	15.67	31.34	2.46	18.68	37.37	2.91	22.06	44.12	3.84	22.95	38.25	3.42

- KW min at 30Hz / KW max at 60, except UMT190 max at 50Hz.
- Low temperature models available on request.
- All models 3ph 400V/50Hz.

Contact Beijer Ref for information on Low-Temperature models

## ADIABATIC COOLING

MODEL NO.	DESCRIPTION
BXSF7001A	Adiabatic Cooling kit to suit CUBO2 PLUS - Suits all 2fan models
BXSF7002A	Adiabatic Cooling kit to suit CUBO2 PLUS - Suits all 3fan models

Kits Include: Mesh filters, support brackets, water spray piping, spray nozzles, venting valve, control system and fasteners.

- Adiabatic cooling required for ambient temperatures above 35deg C.

## TECHNICAL DATA

MODEL	COMPRESSOR	UNIT	EC FANS (3PH)	AIR L/SEC	MEPS	DIMENSIONS (mm)			KG	dB(A) @10m
	BITZER MODEL	MRA	QTY/MM			LENGTH	WIDTH	HEIGHT		
UMT 036 MTDX	2MTE-5K	15.9	2x500	3375	2.65	1340	1760	1485	460	43
UMT 075 MTDX	2KTE-7K	20.5	2x500	3375	2.65	1340	1760	1485	470	44
UMT 120 MTDX	4MTE-10K	26.3	2x500	3375	2.71	1340	1760	1485	570	44
UMT 150 MTDX	4KTE-12K	33.4	3x500	4500	2.67	1895	1760	1485	645	45
UMT 190 MTDX	4HTE-20K	42.4	3x500	4500	2.69	1895	1760	1485	655	45

- MEPS According to Ecodesign directive EN2009/125/EC.
- Sound pressure based on free field area with semi-spherical sound emission at 10m.

## COPELAND ZX NEXT GENERATION OUTDOOR PACKAGE UNITS

**ZX Next Generation Condensing Units** have been highly successful with their energy savings and customer-friendly electronic features. ZX models have been specifically designed for medium temperature applications and ZXL for low temperature with vapour injection. Digital models ZXD and ZXDL provide capacity modulation suitable for variable refrigeration loads, while the larger platform ZXD/L-120 to 200 offer a higher and wider capacity range with 2 compressors; 1 digital and 1 fixed capacity.

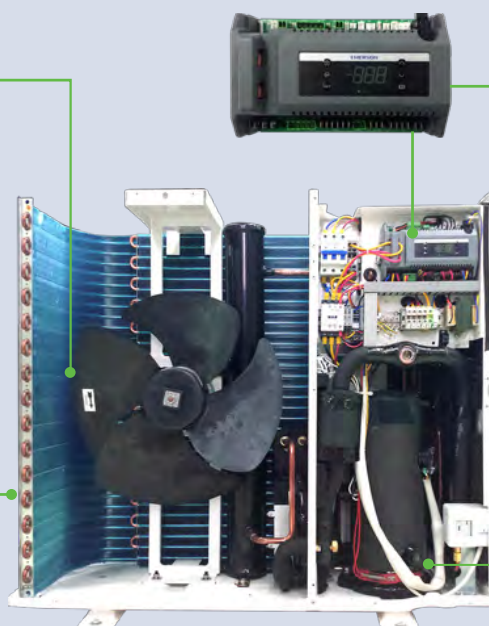
- Utilizing Copeland Scroll™ compressor technology, variable speed fan motor, large capacity condenser coil and advanced control algorithms, energy consumption is significantly reduced. End-users can save more than 20% on annual energy costs compared to using hermetic reciprocating units.
- Combining the proven reliability of Copeland Scroll compressors with advanced electronic controller and diagnostics, equipment reliability is greatly enhanced.
- The integration of low speed fan motors with sickle blades and fan speed controller result in low noise operation ideal for urban areas.
- Integrated electronics provide protection against over-current, overheating, incorrect phase rotation, compressor cycling, high pressure resets and low pressure cut-outs. It can also send out a warning message when there is liquid floodback, which can prevent critical damage to the unit.
- Fault code alerts and fault code retrieval capabilities provide information to help improve speed and accuracy of system diagnostics.
- Oil Separator fitted on all models plus Suction Accumulator on low temp models.
- Suitable for multiple refrigerants including; R404A, R134a, R407F, R448A & 449A.



### SPECIAL FEATURES

Variable speed fan motor and high efficiency fan blade

Optimised condenser coil for maximum heat transfer



#### ZX and ZXL Family (Fixed speed)

Proprietary electronic algorithms present advantages for diagnostic, communication and protection. They are also essential to controlling fan speed and in optimising energy performance for local seasonal ambient temperatures.

#### ZXD and ZXDL Family (Digital)

Also Provide Capacity modulation for precise control of temperature for varying loads with additional energy efficiency.

#### Safety Monitoring

- Real time monitoring of compressor operating conditions
- Compressor reverse rotation
- Under-voltage / Over-voltage
- Compressor over-current
- Compressor internal motor protector trip
- Discharge gas overheat
- High pressure cut-out
- Low pressure cut-out
- Refrigerant floodback
- Compressor minimum off time
- Internal thermal sensor failure
- Intelligent store solution: communication and retail store monitoring

Copeland™ scroll compressor technology  
high efficiency, ultra quiet, high reliability

**ZX SERIES UNITS (Fixed Capacity)  
NEXT GENERATION**



- Copeland Scroll Compressor for high efficiency operation
- Advanced control algorithms provide high energy savings
- Advanced electronic control for protection and diagnostics
- Low speed / Low noise variable speed PSC fan motors
- Aesthetically pleasing compact and light weight design
- Oil Separator fitted on all next generation ZX models
- Liquid injection valve fitted for compressor cooling

**MED TEMPERATURE - ZX RANGE**

MODEL NO.	NOM HP	PH	AMB TEMP	CAPACITY IN WATTS									
				R404A			R448A			R134a			
				-15	-10	-5	-15	-10	-5	-10	-5	0	+5
ZX-020BE-PFJ-462	2.0	1	38	2900	3360	3850	2550	3230	3700	2160	2560	2990	3500
			43	2430	2890	3340	2150	2790	3240	1920	2290	2690	3130
ZX-020BE-TFD-462	2.0	3	38	2900	3360	3850	2550	3230	3700	2160	2560	2990	3500
			43	2430	2890	3340	2150	2790	3240	1920	2290	2690	3130
ZX-030BE-PFJ-462	3.0	1	38	4080	4850	5720	3580	4650	5480	2930	3580	4310	5140
			43	3690	4390	5170	3260	4240	5010	2650	3230	3900	4660
ZX-030BE-TFD-462	3.0	3	38	4080	4850	5720	3580	4650	5480	2930	3580	4310	5140
			43	3690	4390	5170	3260	4240	5010	2650	3230	3900	4660
ZX-040BE-PFJ-462	4.0	1	38	5600	6570	7570	4920	6310	7260	4230	5030	5930	6980
			43	5000	5950	6890	4420	5740	6650	3950	4720	5530	6450
ZX-040BE-TFD-462	4.0	3	38	5600	6570	7570	4920	6310	7260	4230	5030	5930	6980
			43	5000	5950	6890	4420	5740	6650	3950	4720	5530	6450
ZX-050BE-TFD-462	5.0	3	38	7070	8670	10320	6210	8310	9900	5580	6860	8230	9650
			43	6280	7790	9370	5550	7530	9080	5170	6420	7760	9160
ZX-060BE-TFD-462	6.0	3	38	8250	9830	11550	7240	9360	11050	6320	7680	9260	11100
			43	7480	9070	10740	6620	8800	10450	6020	7360	8880	10660
ZX-076BE-TFD-462	7.5	3	38	8910	10830	12720	7820	10350	12180	6970	8460	10180	12230
			43	8090	9800	11610	7160	9340	11090	6500	7950	9600	11510

■ Med temp unit ratings based on 18deg return gas temperature.

**TECHNICAL DATA**

MODEL	COMPRESSOR MODEL	COMPRESSOR			COND FANS (IPH)			AIR L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @1m
		HP	PH	MOC	QTY	DIA	AMPS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
ZX020BE-PFJ	ZX15KCE-PFJ	2	1	12.8	1	450	0.6	810	1/2	3/4	950	424	840	76	56
ZX020BE-TFD	ZX15KCE-TFD	2	3	4.9	1	450	0.6	810	1/2	3/4	950	424	840	76	56
ZX030BE-PFJ	ZX21KCE-PFJ	3	1	16.4	1	450	0.6	810	1/2	3/4	950	424	840	79	56
ZX030BE-TFD	ZX21KCE-TFD	3	3	8.0	1	450	0.6	810	1/2	3/4	950	424	840	79	56
ZX040BE-PFJ	ZX29KCE-PFJ	4	1	23.5	1	450	0.6	810	1/2	3/4	950	424	840	100	56
ZX040BE-TFD	ZX29KCE-TFD	4	3	9.0	1	450	0.6	810	1/2	3/4	950	424	840	100	56
ZX050BE-PFJ	ZX38KCE-TFD	5	3	12.8	2	450	1.2	1640	1/2	7/8	950	424	1242	108	60
ZX060BE-TFD	ZX45KCE-TFD	6	3	13.1	2	450	1.2	1640	1/2	7/8	950	424	1242	112	60
ZX076BE-TFD	ZX51KCE-TFD	7.5	3	15.3	2	450	1.2	1640	1/2	7/8	950	424	1242	121	60

**ZX SERIES UNITS (Digital Comp)  
NEXT GENERATION**



- Copeland Scroll Compressor for high efficiency operation
- Adjustable program to maintain required evaporating temp
- Advanced control algorithms provide high energy savings
- Advanced electronic control for protection and diagnostics
- Low speed / Low noise variable speed PSC fan motors
- Aesthetically pleasing compact and light weight design
- Oil Separator fitted on all next generation ZXD models
- Liquid injection valve fitted for compressor cooling
- ZXD090 has vapour injection which provides subcooling and energy savings

**MED TEMPERATURE - ZXD RANGE (3PH/415V)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS									
			R404A			R448A			R134a			
			-15	-10	-5	-15	-10	-5	-10	-5	0	+5
ZXD-030BE-TFD-462	3.0	38	3940	4690	5550	3570	4450	5320	3020	3690	4450	5280
		43	3590	4290	5060	3250	4160	4960	2850	3470	4140	4860
ZXD-040BE-TFD-462	4.0	38	6000	7120	8270	5430	6740	7920	4580	5500	6490	7570
		43	5280	6330	7400	4790	6140	7260	4200	5070	5990	6980
ZXD-050BE-TFD-462	5.0	38	7070	8670	10320	6400	8220	9910	5580	6860	8230	9650
		43	6280	7790	9370	5690	7530	9180	5170	6420	7760	9160
ZXD-060BE-TFD-462	6.0	38	8250	9830	11550	7470	9320	11090	5580	6860	8230	11100
		43	7480	9070	10740	6780	8780	10520	5170	6420	7760	10660
ZXD-076BE-TFD-462	7.5	38	8910	10830	12720	8070	10260	12230	6970	8460	10180	12230
		43	8090	9800	11610	7330	9450	11330	6500	7950	9600	11510
ZXD-090BE-TFD-462	9.0	38	12300	14400	16100	11500	13710	15630	9260	10710	11540	12700
		43	11900	13200	14500	11120	12570	14080	8760	9930	10740	12120

- Med temp unit ratings based on 18deg return gas temperature.
- Digital ZXD units are pre-programmed to run down to 20% of full capacity.

To prevent condensation  
Liquid line needs to be  
insulated on ZXD90

**TECHNICAL DATA**

MODEL	COMPRESSOR MODEL	COMPRESSOR			COND FANS (IPH)			AIR L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @1m
		HP	PH	MOC	QTY	DIA	AMPS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
ZXD030BE-TFD	ZBD21KQE-TFD	3	3	5.5	1	450	0.6	810	1/2	3/4	950	424	840	76	56
ZXD040BE-TFD	ZBD29KQE-TFD	4	3	7.9	2	450	1.2	1640	1/2	7/8	950	424	1242	104	60
ZXD050BE-TFD	ZBD38KQE-TFD	5	3	11.3	2	450	1.2	1640	1/2	7/8	950	424	1242	112	60
ZXD060BE-TFD	ZBD45KQE-TFD	6	3	11.4	2	450	1.2	1640	1/2	7/8	950	424	1242	114	60
ZXD076BE-TFD	ZBD48KQE-TFD	7.5	3	14.0	2	450	1.2	1640	1/2	7/8	950	424	1242	119	60
ZXD090BE-TFD	ZBD78KVE-TFD	9	3	16.0	2	450	1.2	1640	1/2	7/8	950	424	1242	138	62



**ZX SERIES UNITS (Fixed Capacity)  
NEXT GENERATION**



- Copeland Scroll Compressor for high efficiency operation
- Advanced control algorithms provide high energy savings
- Advanced electronic control for protection and diagnostics
- Low speed / Low noise variable speed PSC fan motors
- Aesthetically pleasing compact and light weight design
- Oil Separator and Accumulator on low temp models
- Vapour Injection provides subcooling and energy savings

**LOW TEMPERATURE - ZXL RANGE**

MODEL NO.	NOM HP	PH	AMB TEMP	CAPACITY IN WATTS					
				R404A			R448A		
				-30	-25	-20	-30	-25	-20
ZXL-020BE-PFJ-462	2.0	1	38	1930	2400	2920	1640	2050	2520
			43	1580	2070	2600	1250	1680	2190
ZXL-020BE-TFD-462	2.0	3	38	1930	2400	2920	1640	2050	2520
			43	1580	2070	2600	1250	1680	2190
ZXL-030BE-PFJ-462	3.0	1	38	2770	3310	3920	2210	2740	3400
			43	2440	2950	3540	1930	2390	2990
ZXL-030BE-TFD-462	3.0	3	38	2770	3310	3920	2210	2740	3400
			43	2440	2950	3540	1930	2390	2990
ZXL-040BE-TFD-462	4.0	3	38	4370	5270	6250	3630	4460	5390
			43	4100	4930	5830	3250	4000	4920
ZXL-050BE-TFD-462	5.0	3	38	4980	6060	7220	4100	5100	6220
			43	4690	5710	6780	3720	4630	5720
ZXL-060BE-TFD-462	6.0	3	38	6120	7340	8660	5060	6190	7460
			43	5670	6790	8000	4490	5510	6750
ZXL-075BE-TFD-462	7.5	3	38	6800	8080	9460	5650	6830	8150
			43	6430	7630	8900	5100	6190	7510
**ZULD-090BE-TFD-462	9.0	3	38	7500	8850	10480			
			43	6880	8570	9980			

■ Low temp unit ratings based on 5deg return gas temperature.

\*\* ZULD-090 is digital model with capacity control.

To prevent condensation  
Liquid lines need to be  
insulated on ZXL units

**TECHNICAL DATA**

MODEL	COMPRESSOR MODEL	COMPRESSOR			COND FANS (IPH)			AIR L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @1m
		HP	PH	MOC	QTY	DIA	AMPS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
ZXL020BE-PFJ	ZX106KCE-PFJ	2	1	13.6	1	450	0.6	810	1/2	3/4	950	424	840	79	56
ZXL020BE-TFD	ZX106KCE-TFD	2	3	5.7	1	450	0.6	810	1/2	3/4	950	424	840	79	56
ZXL030BE-PFJ	ZX109KCE-PFJ	3	1	17.8	1	450	0.6	810	1/2	3/4	950	424	840	81	56
ZXL030BE-TFD	ZX109KCE-TFD	3	3	6.7	1	450	0.6	810	1/2	3/4	950	424	840	81	56
ZXL040BE-TFD	ZXI 14KCE-TFD	4	3	9.2	1	450	0.6	810	1/2	7/8	950	424	840	93	56
ZXL050BE-TFD	ZXI 15KCE-TFD	5	3	11.9	2	450	1.2	1640	1/2	7/8	950	424	1242	106	60
ZXL060BE-TFD	ZXI 18KCE-TFD	6	3	13.7	2	450	1.2	1640	1/2	7/8	950	424	1242	116	60
ZXL075BE-TFD	ZXI 21KCE-TFD	7.5	3	14.6	2	450	1.2	1640	1/2	7/8	950	424	1242	121	60
ZULD090BE-TFD	ZXJ25KCE-TFD	9	3	16.0	2	450	1.2	1640	1/2	7/8	950	424	1242	138	62

**ZX SERIES UNITS (Digital Twin Comp)  
NEXT GENERATION**



ZX Twin Compressor models can modulate capacity from 100% down to 20%

- Dual compressor set-up offers extra wide capacity range
- Adjustable program to maintain required evaporating temp
- Advanced control algorithms provide high energy savings
- Advanced electronic control for protection and diagnostics
- Low speed / Low noise variable speed PSC fan motors
- Oil Separator on ZXD models plus Accumulator on ZXLD
- All model except med temp ZXD120BE come with vapour Injection which provides subcooling and energy savings
- ZXD120BE comes with liquid injection for compressor cooling

**MED TEMPERATURE - ZXD RANGE (3PH/415V)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS									
			R404A			R448A			R134a			
			-15	-10	-5	-15	-10	-5	-10	-5	0	+5
ZXD-120BE-TFD-562	12.0	38	16840	20500	24220	16000	19640	23720	12170	14620	17090	20620
		43	15040	18700	22570	14590	18060	21850	11220	13770	16450	20080
ZXD-160BE-TFD-562	16.0	38	22990	26750	30680	21450	25290	29520	15880	18520	21320	24210
		43	22150	25880	29840	20690	24420	28620	15530	18200	21060	23760
ZXD-200BE-TFD-562	20.0	38	27270	32790	38450	26320	30340	36600	19470	23210	26250	30120
		43	26120	31530	37070	25260	29170	35040	18920	22610	25870	29850

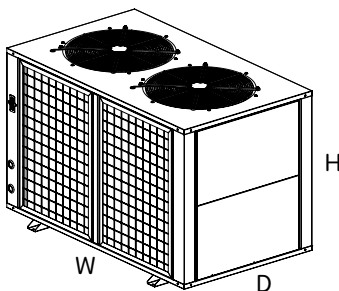
■ Med temp unit ratings based on 18deg return gas temperature.

**LOW TEMPERATURE - ZXLD RANGE (3PH/415V)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS					
			R404A			R448A		
			-30	-25	-20	-30	-25	-20
ZXLD-20BE-TFD-562	12.0	38	11730	14340	17440	11350	13790	16570
		43	10780	13160	16080	10290	12470	14970
ZXLD-160BE-TFD-562	16.0	38	15720	19010	22880	15420	18770	22390
		43	14700	17850	21700	14910	18080	21500
ZXLD-200BE-TFD-562	20.0	38	18740	22140	25770	18080	21990	25160
		43	18100	21350	25480	17180	20860	24860

■ Low temp unit ratings based on 5deg return gas temperature.

To prevent condensation liquid lines need to be insulated on twin comp ZXD/L units (Not required for model ZXD120BE)



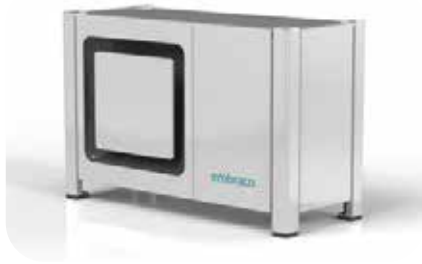
**TECHNICAL DATA**

MODEL	COMPRESSOR MODEL	COMPRESSOR		COND FANS (1PH)			AIR L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @1m
		HP	MOC	QTY	DIA	AMPS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		
ZXD120BE-TFD	ZBD45 + ZX45	6 + 6	9.6 + 10.1	2	600	3.3	3870	3/4	1-3/8	1645	1010	1066	357	65
ZXD160BE-TFD	ZXD61 + ZX61	8 + 8	11.1 + 11.1	2	600	3.3	3870	3/4	1-3/8	1645	1010	1066	362	69
ZXD200BE-TFD	ZXD78 + ZX78	10+10	14.6 + 14.6	2	630	4.5	4560	3/4	1-3/8	1645	1010	1235	362	69
ZXLD120BE-TFD	ZXJ18 + ZXI18	6 + 6	11.1 + 11.1	2	600	3.3	3870	3/4	1-3/8	1645	1010	1066	362	69
ZXLD160BE-TFD	ZXJ25 + ZXI25	8 + 8	14.6 + 14.6	2	600	3.3	3870	3/4	1-3/8	1645	1010	1066	362	69
ZXLD200BE-TFD	ZXJ25 + ZXI28	8 + 10	14.6 + 15.6	2	630	4.5	4560	3/4	1-3/8	1645	1010	1235	362	69

■ All above compressors are 3Ph, 400V / 50Hz



**EMBRACO BIOMA UNITS**



- **Super Silent Operation** ideal for residential areas
- Aesthetically pleasing, stylish design with hidden fan
- Advanced energy efficient Embraco compressors
- Ultra low noise fans with precise fan speed control
- Easy access for servicing with hinged panels
- All necessary components come pre-fitted
- Stackable units offer optional reduced footprint

**R134a - MED/HIGH TEMPERATURE (1PH/230V)**

MODEL NO.	NOM HP	AMB TEMP	R134a WATTS				
			-15	-10	-5	0	+5
UP-NEU6214Z	1/2	32	696	872	1083	1327	1598
		38	642	808	1006	1233	1486
UP-NJ6220Z	3/4	32	900	1155	1432	1738	2079
		38	780	1021	1278	1563	1882
UP-NJ6226Z	1	32	1187	1481	1799	2143	2517
		38	1029	1308	1607	1932	2285
UP-SE6015GK	2	32	1744	2193	2729	3345	4037
		38	1607	2031	2539	3125	3782
UP-SE6018GK	2-1/2	32	2079	2614	3252	3986	4808
		38	1916	2421	3026	3723	4504
UP-SE6021GK	3	32	2345	2946	3660	4479	5394
		38	2160	2726	3402	4177	5044

**R404A/R448A - MED TEMPERATURE (1PH/230V)**

MODEL NO.	NOM HP	AMB TEMP	R404A WATTS				R448A WATTS			
			-15	-10	-5	0	-15	-10	-5	0
UP-NT6224GK	1	32	1342	1654	2002	2382	1308	1634	1999	2400
		38	1182	1459	1773	2118	1176	1470	1802	2171
UP-NT6226GK	1-1/8	32	1462	1796	2169	2579	1442	1801	2207	2656
		38	1286	1587	1926	2298	1303	1628	1995	2399
UP-NJ9232GK	1-1/4	32	1540	1935	2367	2828	1608	2044	2535	3074
		38	1315	1669	2058	2474	1425	1827	2276	2771
UP-NTU6238GKV	1-1/2	32	1842	2233	2680	3163	1841	2274	2764	3287
		38	1627	1976	2375	2803	1658	2051	2488	2952
UP-SE6015GK	2	32	3016	3605	4268	5008	3116	3730	4425	5210
		38	2707	3235	3831	4498	2825	3395	4041	4771
UP-SE6018GK	2-1/2	32	3592	4292	5078	5955	3715	4445	5272	6206
		38	3223	3851	4557	5348	3368	4047	4814	5682
UP-SE6021GK	3	32	4009	4775	5629	6575	4155	4963	5872	6890
		38	3587	4271	5037	5889	3746	4497	5342	6289

**R404A/R448A - LOW TEMPERATURE (1PH/230V)**

MODEL NO.	NOM HP	AMB TEMP	R404A WATTS				R448A WATTS			
			-35	-30	-25	-20	-35	-30	-25	-20
UP-SE2006GK	2	32	1169	1464	1815	2221	1212	1512	1864	2274
		38	1040	1305	1620	1986	1121	1387	1703	2078
UP-SE2008GK	2-1/2	32	1460	1823	2250	2742	1527	1896	2326	2826
		38	1293	1617	2000	2439	1405	1731	2118	2574
UP-SE2010GK	3	32	1685	2098	2582	3134	1773	2193	2681	3248
		38	1486	1854	2284	2776	1625	1997	2435	2952

■ Ratings based on 10k suction superheat, 0k subcooling.

■ Please contact Beijer Ref for ratings with other refrigerants.

**TECHNICAL DATA**

MODEL	COMP TYPE	COMPRESSOR (IPH)		COND FANS (IPH)			M <sup>3</sup> /HR	CONNECTIONS		DIMENSIONS (mm)			KG	SOUND dB(A)	
		HP	MRA	QTY	DIA	WATTS		LIQUID	SUCTION	WIDTH	DEPTH	HEIGHT		3m	10m
UP-NEU6214Z	RECIP	1/2	3.3	1	350	67	1695	1/4	3/8	948	418	600	54	41	28
UP-NJ6220Z	RECIP	3/4	6.2	1	350	67	1695	1/4	1/2	948	418	600	56	42	28
UP-NJ6226Z	RECIP	1	6.5	1	350	67	1523	1/4	1/2	948	418	600	56	42	29
UP-NT6224GK	RECIP	1	5.7	1	400	120	1523	3/8	1/2	1082	490	708	91	42	29
UP-NT6226GK	RECIP	1-1/8	6.8	1	400	120	1523	3/8	1/2	1082	490	708	91	42	29
UP-NJ9232GK	RECIP	1-1/4	6.4	1	400	120	1523	3/8	5/8	1082	490	708	92	43	30
UP-NT6238GK	RECIP	1-1/2	8.8	1	350	67	1523	3/8	5/8	982	484	600	62	43	30
UP-SE6015GK	SCROLL	2	8.4	1	350	67	2673	1/2	3/4	1048	418	708	91	46	33
UP-SE6018GK	SCROLL	2-1/2	9.8	1	350	67	2545	1/2	3/4	1048	418	708	91	46	33
UP-SE6021GK	SCROLL	3	10.9	1	350	67	2545	1/2	3/4	1048	418	708	92	46	33
UP-SE2006GK	SCROLL	2	5.1	1	400	120	2673	3/8	3/4	1048	418	708	91	46	33
UP-SE2008GK	SCROLL	2-1/2	6.6	1	400	120	2673	3/8	3/4	1048	418	708	91	46	33
UP-SE2010GK	SCROLL	3	7.7	1	400	120	2673	3/8	3/4	1048	418	708	91	46	33

- Low temperature models with scroll compressor have liquid injection to provide compressor cooling when needed.
- Single phase models with scroll compressors have bypass valve for low torque start. Pump down is not recommended as compressor may short cycle.

Silent Unit Range  
**BIOMA**

Product benefits



**FLEXIBILITY**  
Multi refrigerant platform:  
R404A, R448A, R449A  
R134a, R452A, R513A



**INNOVATIVE DESIGN**

- Hidden fan - Stylish design with a premium look
- Unique airflow management
- Mini channel condenser - 40% less refrigerant charge



**COMPACTNESS**

- Optimised dimensions reduce space requirements
- Stackability: Unique design allows for stacking units of different dimensions



**ULTRA LOW SOUND LEVEL**

- Robust design prevents vibration
- Fan speed controller for optimised performance and reduced sound level
- 5 faces insulated with acoustic foam
- Sound level as low as 28dB(A)



**EASY ACCESSIBILITY**

- 3 door access on hinges - ¼ turn door lock to open/close
- Direct access to components for easy setting or replacement
- Direct access to fan and condenser



**ALL INCLUDED**

- Fully equipped electrical box
- Electrical isolation switch
- Fan speed controller as standard
- Condenser treatment protects against corrosive environment



**PATTON PAK PEMS & PCC SERIES  
RECIPROCATING COMPRESSOR**



- Reliable Reciprocating Hermetic Compressors
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass
- PCC Series come standard with Suction Accumulator
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- Factory applied "Blue Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R404A - MED/LOW TEMPERATURE (1PH/230V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)							
				-30	-25	-20	-15	-10	-5	0	5
PP1000	PEMS100	1	38				1345	1690	2055	2370	2685
			43				1235	1555	1875	2165	2455
PP1005	PEMS125	1.3	38				1665	2130	2555	3010	3460
			43				1530	1960	2330	2750	3165
PP1010	PEMS150	1.5	38				2105	2605	3015	3510	3915
			43				1935	2395	2750	3205	3580
PP1015	PCCS175	1.8	38	580	1010	1465	1880	2360	2875	3495	
			43	535	930	1345	1725	2170	2625	3190	
PP1020	PCCS200	2.0	38	795	1285	1790	2300	2835	3415	4150	
			43	730	1185	1640	2110	2605	3115	3790	
PP1025	PCCS225	2.3	38	930	1605	2155	2720	3290	3880	4740	
			43	855	1480	1975	2500	3030	3540	4330	
PP1030	PCCS275	2.8	38	1340	2020	2660	3480	4385	5305	6200	
			43	1235	1860	2440	3195	4035	4840	5665	

**R134a - MED/HIGH TEMPERATURE (1PH/230V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
				-15	-10	-5	0	5	10
PP1015	PCCS175	1.8	38	1080	1430	1915	2555	3125	3800
			43	1040	1370	1835	2445	2985	3635
PP1020	PCCS200	2	38	1190	1680	2200	2885	3620	4470
			43	1145	1605	2105	2760	3460	4275
PP1025	PCCS225	2.3	38	1420	1960	2565	3370	4240	5220
			43	1365	1880	2455	3225	4055	4995
PP1030	PCCS275	2.8	38	1925	2660	3530	4490	5790	6825
			43	1850	2545	3375	4290	5535	6525

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS (1PH)		AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PEMS100	NJ9226GK	1.0	5.5	1 x 350	0.7	1048	3/8	5/8	745	650	820	72	56
PEMS125	NJ9232GK	1.3	7.6	1 x 350	0.7	1048	3/8	5/8	745	650	820	72	56
PEMS150	NJ9238GK	1.5	9.0	1 x 350	0.7	1007	3/8	5/8	745	650	820	72	56
PCCS175	CS10K6E-PFJ	1.8	10.1	1 x 350	0.7	1007	3/8	3/4	745	650	820	82	57
PCCS200	CS12K6E-PFJ	2.0	10.9	1 x 350	0.7	1007	3/8	3/4	745	650	820	82	58
PCCS225	CS14K6E-PFJ	2.3	12.5	1 x 350	0.7	969	3/8	3/4	745	650	820	82	58
PCCS275	CS18K6E-PFJ	2.8	13.6	1 x 350	0.7	931	3/8	3/4	745	650	820	84	58

- All noise level ratings are 'free field' based at a distance of 3 meters and are given as a guide only.
- Horizontal conversation kits available for models with 350mm fans part No. PK1-HK & PK2-HK



**PATTON PAK PCC & PT SERIES  
RECIPROCATING COMPRESSOR**



- Reliable Reciprocating Hermetic Compressors
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass
- PCC, PLT, PMT come standard with Suction Accumulator
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- Factory applied "Blue Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R404A - MED/LOW TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)						
				-30	-25	-20	-15	-10	-5	0
PP1035	PCC225	2.3	38	930	1605	2155	2720	3290	3880	4740
			43	855	1480	1975	2500	3030	3540	4330
PP1040	PCC275	2.8	38	1340	2020	2660	3480	4385	5305	6200
			43	1235	1860	2440	3195	4035	4840	5665
PP1045	PCC300	3.0	38	1820	2435	3080	3830	4800	5750	7460
			43	1675	2240	2825	3515	4415	5250	6815
PP1050	PCC400	4.0	38	2025	2940	3945	5085	6215	7395	9385
			43	1865	2705	3615	4670	5720	6745	8570
PP1055	PCC500	5.0	38	2575	3535	4725	5910	7320	8765	10945
			43	2370	3255	4330	5425	6735	7995	9995
PP1057	PTL550	5.5	38	3380	4420	5610	6900	8310		
			43	2940	3890	4950	6130	7420		
PP1059	PTM650	6.5	38			5600	7160	8880	10740	12770
			43			4850	6290	7860	9530	11350

**R134a - MED/HIGH TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
				-15	-10	-5	0	5	10
PP1035	PCC225	2.3	38	1420	1960	2565	3370	4240	5220
			43	1365	1880	2455	3225	4055	4995
PP1040	PCC275	2.8	38	1925	2660	3530	4490	5790	6825
			43	1850	2545	3375	4290	5535	6525
PP1045	PCC300	3	38	2365	3120	3980	5040	6150	7185
			43	2270	2985	3805	4820	5880	6870
PP1050	PCC400	4	38	2955	3990	5150	6595	8080	9530
			43	2835	3820	4930	6305	7725	9110
PP1055	PCC500	5	38	3640	4770	6140	7790	9265	10665
			43	3495	4565	5875	7445	8855	10195

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS (IPH)		AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PCC225	CS14K6E-TFD	2.3	4.7	1 x 350	0.7	969	3/8	3/4	745	650	820	82	58
PCC275	CS18K6E-TFD	2.8	5.4	1 x 350	0.7	931	3/8	3/4	745	650	820	84	58
PCC300	CS20K6E-TFD	3.0	5.1	1 x 350	0.7	889	1/2	7/8	745	650	820	84	58
PCC400	CS27K6E-TFD	4.0	8.5	2 x 350	1.4	1859	1/2	7/8	1145	705	820	122	59
PCC500	CS33K6E-TFD	5.0	9.9	2 x 350	1.4	1787	1/2	7/8	1145	705	820	124	59
PTL550	TAG2522Z	5.5	9.1	2 x 350	1.4	1859	5/8	1-1/8	1145	650	850	135	62
PTM650	TAG4573Z	6.5	13.6	2 x 400	1.6	1902	5/8	1-1/8	1145	650	850	145	64

- All noise level ratings are 'free field' based at a distance of 3 meters and are given as a guide only.
- Horizontal conversation kits available for models with 350mm fans part No. PK1-HK & PK2-HK.

**PATTON PAK PZB SERIES  
ZB SCROLL COMPRESSOR**



- Reliable and efficient 1ph Copeland Scroll Compressors
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- Attractive weatherproof, powder coated housing
- Factory applied "Blue Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R404A - MED TEMPERATURE (1PH/230V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)					
				-20	-15	-10	-5	0	+5
PP1065	PZBS250	2.5	38	2615	3205	3840	4655	5470	6560
			43	2395	2945	3530	4250	5000	6000
PP1070	PZBS325	3.3	38	3185	3895	4685	5640	6725	7945
			43	2920	3575	4310	5145	6145	7265
PP1075	PZBS350	3.5	38	3355	4215	4980	6115	7435	8945
			43	3080	3870	4585	5580	6790	8180
PP1080	PZBS400	4	38	4355	5265	6260	7530	8900	10475
			43	3995	4835	5760	6870	8130	9580
PP1082	PZBS500	5	38	5320	6550	7860	9495	11235	13300
			43	4880	6015	7235	8665	10265	12160
PP1084	PZBS550	5.5	38	5915	7100	8730	10455	12495	14675
			43	5425	6520	8030	9540	11410	13420

**R134a - MED/HIGH TEMPERATURE (1PH/230V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
				-10	-5	0	+5	+10	+15
PP1065	PZBS250	2.5	38	2145	2705	3300	4030	4945	5865
			43	2060	2590	3155	3855	4730	5605
PP1070	PZBS325	3.3	38	3120	3850	4810	5725	6780	8065
			43	2990	3690	4605	5475	6480	7710
PP1075	PZBS350	3.5	38	3670	4585	5405	6595	7740	9160
			43	3520	4390	5175	6305	7400	8760
PP1080	PZBS400	4	38	4220	5410	6415	7605	9070	10080
			43	4050	5180	6140	7270	8670	9625
PP1082	PZBS500	5	38	4770	6100	7790	9255	11095	13145
			43	4575	5840	7455	8850	10610	12570
PP1084	PZBS550	5.5	38	5045	6420	8110	9605	11505	13745
			43	4840	6145	7760	9180	11005	13140

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS (1PH)		AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PZBS250	ZB19KQE-PFJ	2.5	12.4	1 x 350	0.7	1933	3/8	3/4	745	590	815	85	56
PZBS325	ZB21KQE-PFJ	3.3	16.4	2 x 350	1.4	1933	1/2	3/4	1150	650	815	110	57
PZBS350	ZB26KQE-PFJ	3.5	18.8	2 x 350	1.4	1933	1/2	3/4	1150	650	815	112	57
PZBS400	ZB29KQE-PFJ	4	26.4	2 x 350	1.4	1859	1/2	3/4	1150	650	815	114	58
PZBS500	ZB38KCE-PFJ	5	32.3	2 x 350	1.4	1787	1/2	7/8	1150	650	815	122	58
PZBS550	ZB42KCE-PFJ	5.5	35.7	2 x 350	1.4	1654	1/2	7/8	1150	650	815	125	58

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.
- Horizontal conversation kits available for models with 350mm fans part No. PK1-HK & PK2-HK.

**PATTON PAK PZB SERIES  
ZB SCROLL COMPRESSOR**



Digital Compressor versions also available  
Contact Beijer Ref for details



- Reliable and efficient 3ph Copeland Scroll Compressors
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- EC fan motors fitted on model PSF1000, 1500 & 2000
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R404A - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)					
				-20	-15	-10	-5	0	+5
PP1085	PZB325	3.3	38	3185	3895	4685	5640	6725	7945
			43	2920	3575	4310	5145	6145	7265
PP1090	PZB350	3.5	38	3355	4215	4980	6115	7435	8945
			43	3080	3870	4585	5580	6790	8180
PP1095	PZB400	4	38	4355	5265	6260	7530	8900	10475
			43	3995	4835	5760	6870	8130	9580
PP1100	PZB500	5	38	5320	6550	7860	9495	11235	13300
			43	4880	6015	7235	8665	10265	12160
PP1105	PZB600	6	38	6600	7950	9370	11275	12995	14850
			43	6055	7300	8620	10290	11870	13580
PP1110	PZB650	6.5	38	7080	8700	10735	13080	15210	17630
			43	6475	7990	9880	11935	13890	16125
PP1115	PZB800	8	38	8710	10650	12520	15180	17650	20775
			43	7990	9775	11520	13850	16125	18995
PP1120	PZB900	9	38	10315	12280	14465	17335	20340	23215
			43	9460	11275	13310	15815	18580	21230
PP1125	PZB1000	10	38	12150	14315	16910	20125	23435	27115
			43	11145	13140	15560	18365	21405	24795
PP1130E	PZB1200E	12	38	13600	16215	19265	22780	26995	31135
			43	12655	14885	17725	20785	24620	28470
PP1135E	PZB1300E	13	38	15865	18310	21015	24280	28315	32855
			43	14550	16810	19340	22155	25860	30040
PP1140E	PZB1500E	15	38	17425	20780	24355	29185	34205	39695
			43	15980	19080	22410	26625	31240	36300

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS			AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	PH	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PZB325	ZB21KQE-TFD	3.3	7.2	2 x 350	1	1.4	1933	1/2	3/4	1150	650	815	110	57
PZB350	ZB26KQE-TFD	3.5	8.9	2 x 350	1	1.4	1933	1/2	3/4	1150	650	815	112	57
PZB400	ZB29KQE-TFD	4	10.3	2 x 350	1	1.4	1859	1/2	3/4	1150	650	815	114	58
PZB500	ZB38KQE-TFD	5	12.8	2 x 350	1	1.4	1787	1/2	7/8	1150	650	815	122	58
PZB600	ZB45KQE-TFD	6	13.1	2 x 350	1	1.4	1654	1/2	7/8	1150	650	815	125	58
PZB650	ZB48KQE-TFD	6.5	14.6	2 x 500	1	4.8	4320	5/8	1 1/8	1326	990	1165	135	60
PZB800	ZB58KQE-TFD	8	15.4	2 x 500	1	4.8	3927	5/8	1 1/8	1326	990	1165	182	60
PZB900	ZB66KQE-TFD	9	17.5	2 x 500	1	4.8	3750	5/8	1 1/8	1326	990	1165	208	61
PZB1000	ZB76KQE-TFD	10	20.4	2 x 500	1	4.8	3582	5/8	1 1/8	1326	990	1165	212	62
PZB1200E	ZB88KQE-TFD	12	22.3	2 x 630	3 EC	3.1	4830	5/8	1 3/8	1766	990	1175	220	63
PZB1300E	ZB95KQE-TFD	13	28.2	2 x 630	3 EC	3.1	4770	5/8	1 3/8	1766	990	1175	225	65
PZB1500E	ZB114KQE-TFD	15	33.3	2 x 630	3 EC	3.1	5393	7/8	1 3/8	1766	990	1175	235	65

- All noise level ratings are 'free field' based at a distance of 3 meters and are given as a guide only.
- Horizontal conversation kits available for models with 350mm fans part No. PK1-HK & PK2-HK



**PATTON PAK PZB SERIES  
ZB SCROLL COMPRESSOR**



Digital Compressor versions also available  
Contact Beijer Ref for details



- Reliable and efficient 3ph Copeland Scroll Compressors
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- EC fan motors fitted on model PSF1000, 1500 & 2000
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R134a - MED/HIGH TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
				-10	-5	0	+5	+10	+15
PP1085	PZB325	3.3	38	3120	3850	4810	5725	6780	8065
			43	2990	3690	4605	5475	6480	7710
PP1090	PZB350	3.5	38	3670	4585	5405	6595	7740	9160
			43	3520	4390	5175	6305	7400	8760
PP1095	PZB400	4	38	4220	5410	6415	7605	9070	10080
			43	4050	5180	6140	7270	8670	9625
PP1100	PZB500	5	38	4770	6100	7790	9255	11095	13145
			43	4575	5840	7455	8850	10610	12570
PP1105	PZB600	6	38	6050	7520	9255	11180	13375	15575
			43	5810	7200	8860	10685	12790	14890
PP1110	PZB650	6.5	38	6730	8310	10010	12090	14310	16685
			43	6460	7955	9575	11560	13685	15950
PP1115	PZB800	8	38	7410	9105	11005	13275	15935	19435
			43	7110	8720	10535	12690	15235	18580
PP1120	PZB900	9	38	8875	10985	13530	16370	19490	22000
			43	8520	10520	12945	15650	18635	21035
PP1125	PZB1000	10	38	10300	12735	15625	18760	22550	25725
			43	9880	12195	14955	17935	21560	24600
PP1130E	PZB1200E	12	38	11115	13545	17525	20860	24930	29330
			43	10665	12970	16770	19940	23835	28040
PP1135E	PZB1300E	13	38	12625	15655	19210	23040	27385	32060
			43	12120	14985	18380	22025	26185	30650
PP1140E	PZB1500E	15	38	14745	18385	22370	26890	32260	38030
			43	14150	17605	21410	25706	30845	36365

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS			AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	PH	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PZB325	ZB21KQE-TFD	3.3	7.2	2 x 350	1	1.4	1933	1/2	3/4	1150	650	815	110	57
PZB350	ZB26KQE-TFD	3.5	8.9	2 x 350	1	1.4	1933	1/2	3/4	1150	650	815	112	57
PZB400	ZB29KQE-TFD	4	10.3	2 x 350	1	1.4	1859	1/2	3/4	1150	650	815	114	58
PZB500	ZB38KQE-TFD	5	12.8	2 x 350	1	1.4	1787	1/2	7/8	1150	650	815	122	58
PZB600	ZB45KQE-TFD	6	13.1	2 x 350	1	1.4	1654	1/2	7/8	1150	650	815	125	58
PZB650	ZB48KQE-TFD	6.5	14.6	2 x 500	1	4.8	4320	5/8	1 1/8	1326	990	1165	135	60
PZB800	ZB58KQE-TFD	8	15.4	2 x 500	1	4.8	3927	5/8	1 1/8	1326	990	1165	182	60
PZB900	ZB66KQE-TFD	9	17.5	2 x 500	1	4.8	3750	5/8	1 1/8	1326	990	1165	208	61
PZB1000	ZB76KQE-TFD	10	20.4	2 x 500	1	4.8	3582	5/8	1 1/8	1326	990	1165	212	62
PZB1200E	ZB88KQE-TFD	12	22.3	2 x 630	3 EC	3.1	4830	5/8	1 3/8	1766	990	1175	220	63
PZB1300E	ZB95KQE-TFD	13	28.2	2 x 630	3 EC	3.1	4770	5/8	1 3/8	1766	990	1175	225	65
PZB1500E	ZB114KQE-TFD	15	33.3	2 x 630	3 EC	3.1	5393	7/8	1 3/8	1766	990	1175	235	65

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.
- Horizontal conversation kits available for models with 350mm fans part No. PK1-HK & PK2-HK.



**PATTON PAK PZBD(T) SERIES  
TANDAM - DIGITAL PLUS STANDARD SCROLL**



- Digital Scroll technology for capacity modulation and best system efficiency
- Supplied c/w HP/LP, Oil Separator with Reservoir and Oil management, Liquid Receiver, Liquid Line Drier & Sightglass
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing
- EC fans are optional with all PZBD(T) units

**R404A - MED TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)					
				-20	-15	-10	-5	0	+5
PP1625	PZBD(T) 800	2x4	38	8710	10535	12520	15065	17800	20405
			43	7990	9670	11520	13745	16260	18660
PP1635	PZBD(T) 1000	2x5	38	10635	13060	15720	18735	22255	26235
			43	9755	11995	14465	17095	20325	23990
PP1620	PZBD(T) 1200	2x6	38	13205	15720	18735	22550	25990	29700
			43	12110	14430	17240	20575	23740	27155
PP1600	PZBD(T) 1600	2x8	38	15770	19970	24680	30355	35305	41550
			43	14465	18335	22705	27695	32245	37995
PP1610	PZBD(T) 2000	2x10	38	21825	27480	32540	39260	46695	54230
			43	20015	25230	29940	35820	42650	49590

**R134a - MED/HIGH TEMPERATURE (3PH/415V)**

ITEM NO.	MODEL	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
				-10	-5	0	+5	+10	+15
PP1625	PZBD(T) 800	2x4	38	8435	10820	12830	15210	18140	20155
			43	8095	10360	12280	14540	17345	19270
PP1635	PZBD(T) 1000	2x5	38	10300	12735	15625	18760	22550	25725
			43	9150	11675	14910	17695	21215	25140
PP1620	PZBD(T) 1200	2x6	38	12105	15040	18515	21990	26755	31150
			43	11615	14400	17715	21025	25580	29785
PP1600	PZBD(T) 1600	2x8	38	14820	18210	22015	26545	31865	38865
			43	14220	17435	21065	25380	30465	37160
PP1610	PZBD(T) 2000	2x10	38	20595	25475	31255	37520	45095	51445
			43	19765	24390	29905	35870	43115	49195

■ Please contact Beijer Ref for ratings with other refrigerants including R448A, R449A & R407F.

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS			AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	PH	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PZBDT800	ZBD29KCE-TFD	4	7.9	2 x 500	1	4.8	3927	5/8	1 3/8	1326	990	1165	225	63
	ZB29KQE-TFD	4	10.0											
PZBDT1000	ZBD38KCE-TFD	5	11.3	2 x 500	1	4.8	3582	5/8	1 3/8	1326	990	1165	230	65
	ZB38KQE-TFD	5	12.8											
PZBDT1200	ZBD45KCE-TFD	6	11.4	2 x 630	3	4.8	7383	5/8	1 3/8	1776	990	1175	235	66
	ZB45KQE-TFD	6	13.1											
PZBDT1600	ZBD57KCE-TFD	8	16.4	2 x 630	3	5.0	7280	7/8	1 5/8	1776	990	1175	255	68
	ZB58KQE-TFD	8	16.4											
PZBDT2000	ZBD76KCE-TFD	10	20.0	2 x 630	3	5.0	6950	7/8	1 5/8	1776	990	1175	260	70
	ZB76KQE-TFD	10	20.0											

■ All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.

**PATTON PAK PSF SERIES  
SEMI HERMETIC COMPRESSOR**



- Reliable and efficient Frascold Semi-Hermetic Compressors
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- EC fan motors fitted on model PSF1000, 1500 & 2000
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R404A - MED/LOW TEMPERATURE**

ITEM NO.	MODEL	NOM HP	PH	AMB TEMP	CAPACITY IN WATTS (R404A)						
					-30	-25	-20	-15	-10	-5	0
PP1193	PSFS150	1.5	1	38	1300	1700	2180	2730	3360	4070	4850
				43	1160	1530	1960	2470	3040	3690	4410
PP1192	PSF150	1.5	3	38	1330	1730	2200	2750	3370	4050	4820
				43	1180	1550	1980	2480	3040	3670	4380
PP1197	PSF200	2	3	38	1980	2540	3200	3950	4790	5730	6770
				43	1810	2320	2920	3600	4370	5230	6180
PP1202	PSF300	3	3	38	2590	3410	4320	5340	6450	7660	8980
				43	2330	3100	3930	4860	5880	6970	8170
PP1201	PSF350	3.5	3	38	3380	4240	5200	6290	7480	8820	10270
				43	3070	3850	4720	5700	6780	7970	9260
PP1212	PSF500	5	3	38	3920	5320	6890	8630	10540	12620	14890
				43	3410	4720	6160	7770	9500	11410	13490
PP1217	PSF700	7	3	38	5070	6580	8290	10220	12410	14850	17530
				43	4550	5930	7490	9280	11250	13470	15880
PP1222	PSF750	7.5	3	38	6000	7740	9700	11910	14400	17130	20110
				43	5400	7000	8810	10830	13060	15540	18270
PP1226	PSF800	8	3	38	7040	9030	11300	13870	16750	19920	23440
				43	6330	8190	10270	12610	15210	18130	21300
PP1232E	PSF1000E	10	3	38	8080	10580	13430	16730	20420	24540	29100
				43	7170	9450	12060	15070	18480	22250	26490
PP1237E	PSF1500E	15	3	38	11520	14850	18450	22410	26790	31680	37020
				43	10320	13460	16850	20490	24530	28960	33840
PP1242E	PSF2000E	20	3	38	12800	16420	20380	24730	29580	34890	40730
				43	11460	14910	18630	22680	27110	31980	37330

■ Please contact Beijer Ref for ratings with other refrigerants Including R448A, R449A & R407F.

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS			AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	PH	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PSFS150	A157Y	1.5	7.9	1 x 350	1	0.7	1007	3/8	5/8	742	546	814	100	58
PSF150	A157Y	1.5	4.5	1 x 350	1	0.7	1007	3/8	5/8	742	546	814	100	58
PSF200	B210Y	2	6.7	2 x 350	1	1.4	1933	1/2	3/4	1142	606	814	130	59
PSF300	D313Y	3	8.8	2 x 350	1	1.4	1933	1/2	7/8	1142	606	814	145	61
PSF350	D315Y	3.5	10.1	2 x 350	1	1.4	1933	1/2	7/8	1142	606	814	147	62
PSF500	Q521Y	5	11.6	2 x 500	1	4.8	4320	5/8	1-1/8	1322	946	1150	243	62
PSF700	Q525Y	7	12.7	2 x 500	1	4.8	3927	5/8	1-1/8	1322	946	1150	250	63
PSF750	Q728Y	7.5	17.6	2 x 500	1	4.8	3750	5/8	1-3/8	1322	946	1150	260	63
PSF800	Q733Y	8	20.0	2 x 500	1	4.8	7380	5/8	1-3/8	1322	946	1150	260	64
PSF1000E	S1242Y	10	22.4	2 x 630	3 EC	3.1	7050	5/8	1-3/8	1762	946	1150	348	65
PSF1500E	S1552Y	15	32.4	2 x 630	3 EC	3.1	6730	5/8	1-5/8	1762	946	1150	375	66
PSF2000E	S2056Y	20	38.4	2 x 630	3 EC	3.1	6630	5/8	1-5/8	1762	946	1150	380	69

■ All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.



**PATTON PAK PSF SERIES  
SEMI HERMETIC COMPRESSOR**



- Reliable and efficient Frascold Semi-Hermetic Compressors
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Electrical box fully wired c/w all electrics, and Main Isolator
- All models fitted with adjustable fan speed controller
- EC fan motors fitted on model PSF1000, 1500 & 2000
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R134a - MED/HIGH TEMPERATURE**

ITEM NO.	MODEL	NOM HP	PH	AMB TEMP	CAPACITY IN WATTS (R134a)					
					-15	-10	-5	0	+5	+10
PP1193	PSFS150	1.5	1	38	1530	1990	2520	3130	3810	4560
				43	1400	1820	2320	2890	3530	4230
PP1192	PSF150	1.5	3	38	1570	2010	2520	3110	3770	4510
				43	1450	1870	2350	2910	3530	4230
PP1197	PSF200	2	3	38	2380	3040	3800	4650	5620	6700
				43	2190	2810	3520	4330	5240	6250
PP1202	PSF300	3	3	38	3050	3900	4890	6050	7350	8820
				43	2790	3580	4510	5590	6830	8200
PP1201	PSF350	3.5	3	38	3590	4590	5740	7050	8510	10140
				43	3280	4230	5330	6560	7940	9480
PP1212	PSF500	5	3	38	4700	6120	7830	9800	12050	14620
				43	4270	5620	7220	9090	11230	13630
PP1217	PSF700	7	3	38	6500	8150	10060	12240	14730	17540
				43	6040	7610	9410	11460	13810	16440
PP1222	PSF750	7.5	3	38	6470	8300	10450	12950	15790	19010
				43	5960	7690	9700	12040	14730	17740
PP1226	PSF800	8	3	38	7830	10000	12520	15400	18660	22310
				43	7270	9310	11690	14390	17460	20870
PP1232E	PSF1000E	10	3	38	9870	12680	15940	19660	23840	28510
				43	9020	11680	14760	18300	22290	26740
PP1237E	PSF1500E	15	3	38	13090	16390	20230	24610	29600	35250
				43	12140	15280	18900	23060	27750	33040
PP1242E	PSF2000E	20	3	38	14510	18230	22530	27460	33020	39280
				43	13480	17010	21100	25740	31010	36890

■ Please contact Beijer Ref for ratings with other refrigerants including R448A, R449A & R407F.

**TECHNICAL DATA**

MODEL	COMPRESSOR			COND FANS			AIR VOLUME L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
	MODEL	HP	RLA	QTY	PH	AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PSFS150	A157Y	1.5	7.9	1 x 350	1	0.7	1007	3/8	5/8	742	546	814	100	58
PSF150	A157Y	1.5	4.5	1 x 350	1	0.7	1007	3/8	5/8	742	546	814	100	58
PSF200	B210Y	2	6.7	2 x 350	1	1.4	1933	1/2	3/4	1142	606	814	130	59
PSF300	D313Y	3	8.8	2 x 350	1	1.4	1933	1/2	7/8	1142	606	814	145	61
PSF350	D315Y	3.5	10.1	2 x 350	1	1.4	1933	1/2	7/8	1142	606	814	147	62
PSF500	Q521Y	5	11.6	2 x 500	1	4.8	4320	5/8	1-1/8	1322	946	1150	243	62
PSF700	Q525Y	7	12.7	2 x 500	1	4.8	3927	5/8	1-1/8	1322	946	1150	250	63
PSF750	Q728Y	7.5	17.6	2 x 500	1	4.8	3750	5/8	1-3/8	1322	946	1150	260	63
PSF800	Q733Y	8	20.0	2 x 500	1	4.8	3750	5/8	1-3/8	1322	946	1150	260	64
PSF1000E	S1242Y	10	22.4	2 x 630	3 EC	3.1	7050	5/8	1-3/8	1762	946	1150	348	65
PSF1500E	S1552Y	15	32.4	2 x 630	3 EC	3.1	6730	5/8	1-5/8	1762	946	1150	375	66
PSF2000E	S2056Y	20	38.4	2 x 630	3 EC	3.1	6630	5/8	1-5/8	1762	946	1150	380	69

■ All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.

**PATTON PAK E-SERIES**  
**BITZER COMPRESSORS / EC FANS**



- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Traxoil oil level control, Delta PII oil pressure switch, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Fitted with efficient Bitzer Ecoline Semi-Hermetic Compressor
- EC fans for energy efficiency and precise condenser control
- Danfoss VSD fitted on 'VFD' and wide range 'VFD-W' versions
- Electrical box fully wired c/w all electrics, and Main Isolator
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R404A - MED TEMPERATURE**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)			
			-15	-10	-5	0
PSBM2200E	22	38	25110	30930	37610	45120
		43	22420	27820	34040	41070
PSBM2500E	25	38	30170	37100	44980	53940
		43	27070	33410	40730	49100
PSBM3000E	30	38	34990	42910	52010	62350
		43	31420	38740	47080	56720
PSBM3500E	35	38	44440	54650	66390	79610
		43	39930	49410	60230	72450
PSBM4000E	40	38	49850	60790	73410	87320
		43	44690	54890	66430	79330

**R404A - MED TEMPERATURE (Fitted with VSD)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)							
			-15		-10		-5		0	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
PSBM2200E-VFD	22	38	13400	25190	16690	31090	20540	37800	24940	45340
		43	12020	22550	15090	27960	18680	34220	22820	41280
PSBM2200E-VFD-W	22	38	13510	29630	16860	36430	20740	44280	25260	53130
		43	12130	26520	15230	32840	18880	40180	23100	48400
PSBM2500E-VFD-W	25	38	15990	34920	19850	42840	24360	51860	29510	61880
		43	14410	31310	18010	38570	22160	46970	27000	56340
PSBM3000E-VFD-W	30	38	18440	40630	22880	49680	28060	59970	33930	71690
		43	16610	36380	20700	44740	25500	54430	31010	65240
PSBM3500E-VFD-W	35	38	23510	51460	29190	63150	35840	76450	43410	91600
		43	21200	46210	26450	57080	32630	69350	39760	83380
PSBM4000E-VFD	40	38	26640	49950	32870	61040	40150	73560	48490	87710
		43	24000	44870	29790	54970	36510	66550	44230	79700
PSBM4000E-VFD-W	40	38	26750	57930	33000	70660	40300	85050	48670	101340
		43	24110	51920	29920	63690	36660	77040	44510	92020

- Ratings based on 20k suction superheat, 3k subcooling.
- VFD versions 25hz min / 50hz max / 60hz max on VFD-W.
- Please contact Beijer Ref for ratings with other refrigerants.

**Bitzer CR11 advanced capacity control system:**  
Optional on all fixed speed models; modulated capacity control down to 50% on 4 cylinder compressor models (1 x CR11 head) and to 33% with 6 cylinder compressor models (2 x CR11 heads)

**PATTON PAK E-SERIES  
BITZER COMPRESSOR / EC FANS**



- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Traxoil oil level control, Delta PII oil pressure switch, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Fitted with efficient Bitzer Ecoline Semi-Hermetic Compressor
- EC fans for energy efficiency and precise condenser control
- Danfoss VSD fitted on 'VFD' and wide range 'VFD-W' versions
- Electrical box fully wired c/w all electrics, and Main Isolator
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R448A - MED TEMPERATURE**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R448A)			
			-15	-10	-5	0
PSBM2200E	22	38	23780	29650	36400	44080
		43	21550	27090	33410	40700
PSBM2500E	25	38	28680	35650	43570	52650
		43	26140	32640	40110	48630
PSBM3000E	30	38	33290	41240	50440	60780
		43	30390	37770	46340	56190
PSBM3500E	35	38	42340	52530	64310	77600
		43	38560	48160	59210	71930
PSBM4000E	40	38	47690	58780	71520	85740
		43	43470	53870	65720	79100

**R448A - MED TEMPERATURE (Fitted with VSD)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R448A)							
			-15		-10		-5		0	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
PSBM2200E-VFD	22	38	12620	23920	15890	29820	19680	36590	24110	44300
		43	11480	21690	14550	27180	18150	33590	22340	40900
PSBM2200E-VFD-W	22	38	12720	28150	16030	35030	19880	42930	24370	51930
		43	11580	25490	14690	31970	18350	39450	22570	47900
PSBM2500E-VFD-W	25	38	15120	33380	18930	41310	23360	50300	28500	60560
		43	13820	30350	17400	37800	21600	46260	26450	55870
PSBM3000E-VFD-W	30	38	17450	38810	21840	47920	26960	58340	32870	70140
		43	15960	35340	20070	43860	24880	53540	30440	64650
PSBM3500E-VFD-W	35	38	22190	49260	27840	60960	34380	74350	41990	89530
		43	20300	44840	25620	55860	31780	68390	38980	82770
PSBM4000E-VFD	40	38	25270	47900	31530	59040	38730	71710	47070	86130
		43	23130	43650	28990	54090	35790	66000	43630	79430
PSBM4000E-VFD-W	40	38	25360	55680	31640	68490	38920	82990	47220	99250
		43	23180	50730	29090	62730	35920	76200	43780	91490

- Ratings based on 20k suction superheat, 3k subcooling.
- VFD versions 25hz min / 50hz max / 60hz max on VFD-W.
- Please contact Beijer Ref for ratings with other refrigerants.

**Bitzer CR11 advanced capacity control system:**  
Optional on all fixed speed models; modulated capacity control down to 50% on 4 cylinder compressor models (1 x CR11 head) and to 33% with 6 cylinder compressor models (2 x CR11 heads)

**PATTON PAK E-SERIES**  
**BITZER COMPRESSOR / EC FANS**



- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Traxoil oil level control, Delta PII oil pressure switch, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Fitted with efficient Bitzer Ecoline Semi-Hermetic Compressor
- EC fans for energy efficiency and precise condenser control
- Danfoss VSD fitted on 'VFD' and wide range 'VFD-W' versions
- Electrical box fully wired c/w all electrics, and Main Isolator
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R134a - MED TEMPERATURE**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)					
			-15	-10	-5	0	+5	+10
PSBL1500E	15	38	15260	19470	24310	29810	36000	42910
		43	14020	17980	22540	27760	33660	40190
PSBL1800E	18	38	18200	23050	28650	34990	42110	50120
		43	16770	21360	26580	32580	39400	46950
PSBL2300E	23	38	20270	25670	31910	39010	47030	55910
		43	18490	23560	29450	36110	43640	52160
PSBL2800E	28	38	25600	32240	39930	48750	58750	69960
		43	23740	30030	37270	45640	55070	65740
PSBL3400E	34	38	30970	39120	48580	59390	71570	85150
		43	28570	36270	45160	55280	66810	79670
PSBL4400E	44	38	37680	47540	58920	72020	86690	103180
		43	34770	44100	54870	67160	81040	96690

**R134a - MED TEMPERATURE (Fitted with VSD)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R134a)									
			-15		-10		-5		0		+5	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
PSBL1500E-VFD	22	38	7910	18960	10160	24080	12780	29910	15810	36510	19280	43890
		43	7280	17410	9390	22210	11880	27750	14750	33950	18070	40970
PSBL1800E-VFD	25	38	9430	22630	12040	28540	15090	35240	18620	42810	22680	51270
		43	8710	20850	11170	26380	14050	32700	17390	39850	21230	47860
PSBL2300E-VFD	30	38	10550	25150	13490	31680	16950	39140	20920	47500	25530	56880
		43	9640	22910	12420	29040	15670	35980	19450	43950	23800	52840
PSBL2800E-VFD	35	38	13230	31940	16740	40030	20880	49340	25750	59940	31350	71770
		43	12310	29600	15610	37250	19550	46000	24160	56030	29470	67260
PSBL3400E-VFD	40	38	16020	38510	20410	48520	25550	59930	31530	72750	38430	87210
		43	14820	35490	18920	44880	23790	55550	29430	67740	35930	81270
PSBL4400E-VFD	40	38	19430	46950	24710	59020	30880	72770	38120	88470	46400	105910
		43	17970	43300	22950	54620	28800	67690	35620	82400	43430	98870

- Ratings based on 20k suction superheat, 3k subcooling.
- VFD versions 25hz min / 65hz max with refrigerant R134a.
- Please contact Beijer Ref for ratings with other refrigerants.

**Bitzer CR11 advanced capacity control system:**  
Optional on all fixed speed models; modulated capacity control down to 50% on 4 cylinder compressor models (1 x CR11 head) and to 33% with 6 cylinder compressor models (2 x CR11 heads)

**PATTON PAK E-SERIES**  
**BITZER COMPRESSOR / EC FANS**



- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Traxoil oil level control, Delta PII oil pressure switch, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Fitted with efficient Bitzer Ecoline Semi-Hermetic Compressor
- EC fans for energy efficiency and precise condenser control
- Danfoss VSD fitted on 'VFD' and wide range 'VFD-W' versions
- Electrical box fully wired c/w all electrics, and Main Isolator
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R404A - LOW TEMPERATURE**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)				
			-35	-30	-25	-20	-15
PSBL1500E	15	38	9110	12160	15700	19850	24640
		43	7870	10640	13890	17670	22110
PSBL1800E	18	38	10950	14460	18540	23260	28740
		43	9570	12730	16410	20730	25720
PSBL2300E	23	38	13050	17020	21600	26930	33030
		43	11460	15050	19220	24030	29630
PSBL2800E	28	38	15780	20640	26280	32750	40200
		43	13820	18280	23410	29350	36120
PSBL3400E	34	38	20090	26030	32880	40850	49950
		43	17730	23100	29360	36670	44940
PSBL4400E	44	38	23670	30960	39420	49130	60310
		43	20730	27350	35110	44020	54180

**R404A - LOW TEMPERATURE (Fitted with VSD)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R404A)							
			-35		-30		-25		-20	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
PSBL1500E-VFD	15	38	4720	8950	6380	12050	8360	15650	10690	19860
		43	4070	7700	5590	10510	7400	13820	9560	17670
PSBL1500E-VFD-W	15	38	4750	10850	6430	14410	8420	18540	10810	23430
		43	4110	9390	5640	12600	7460	16400	9660	20880
PSBL1800E-VFD	18	38	5710	10910	7630	14460	9900	18580	12580	23340
		43	4990	9510	6720	12710	8800	16430	11270	20800
PSBL1800E-VFD-W	18	38	5740	13080	7670	17070	9970	21800	12690	27330
		43	5020	11380	6770	15010	8870	19340	11360	24440
PSBL2300E-VFD	23	38	6830	12930	9010	16950	11600	21590	14660	26990
		43	6010	11310	7980	14960	10360	19190	13140	24080
PSBL2300E-VFD-W	23	38	6930	15490	9160	20350	11840	26000	15010	32660
		43	6110	13500	8130	17920	10560	23100	13460	29180
PSBL2800E-VFD	28	38	8300	15690	10890	20620	13990	26270	17630	32820
		43	7300	13690	9700	18180	12520	23370	15860	29390
PSBL2800E-VFD-W	28	38	8380	18680	11020	24480	14170	31250	17890	39090
		43	7380	16300	9800	21580	12680	27760	16120	34990
PSBL3400E-VFD	34	38	10430	20050	13650	26040	17490	32940	22020	40970
		43	9220	17660	12180	23070	15690	29390	19840	36680
PSBL3400E-VFD-W	34	38	10480	23640	13740	30590	17640	38720	22200	48140
		43	9270	20780	12280	27140	15800	34530	20020	43210
PSBL4400E-VFD	44	38	12220	23720	16180	31050	20860	39570	26370	49340
		43	10700	20760	14360	27420	18650	35230	23700	44210
PSBL4400E-VFD-W	44	38	12260	27780	16210	36190	20960	45910	26480	57120
		43	10740	24230	14400	31870	18700	40780	23810	51110

- Ratings based on 20k suction superheat, 3k subcooling.
- VFD versions 25hz min / 50hz max / 60hz max on VFD-W.
- Liquid injection or head fan may be required below -30sst.
- Please contact Beijer Ref for ratings with other refrigerants.

**Bitzer CR11 advanced capacity control system:**

Optional on all fixed speed models; modulated capacity control down to 50% on 4 cylinder compressor models (1 x CR11 head) and to 33% with 6 cylinder compressor models (2 x CR11 heads)



**PATTON PAK E-SERIES**  
**BITZER COMPRESSOR / EC FANS**



- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Traxoil oil level control, Delta PII oil pressure switch, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Fitted with efficient Bitzer Ecoline Semi-Hermetic Compressor
- EC fans for energy efficiency and precise condenser control
- Danfoss VSD fitted on 'VFD' and wide range 'VFD-W' versions
- Electrical box fully wired c/w all electrics, and Main Isolator
- Factory applied "Patton Coat" condenser coil & fin protection
- Attractive weather proof, powder coated housing

**R448A - LOW TEMPERATURE**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R448A)				
			-35	-30	-25	-20	-15
PSBL1500E	15	38	8000	11070	14660	18840	23630
		43	6950	9770	13120	17000	21550
PSBL1800E	18	38	9740	13260	17390	22160	27700
		43	8560	11810	15630	20110	25250
PSBL2300E	23	38	11740	15730	20390	25780	31970
		43	10430	14160	18450	23470	29180
PSBL2800E	28	38	14110	19070	24830	31400	38980
		43	12430	17090	22460	28620	35710
PSBL3400E	34	38	18260	24270	31280	39350	48610
		43	16230	21880	28440	35930	44590
PSBL4400E	44	38	21160	28600	37250	47110	58460
		43	18650	25640	33690	42920	53560

**R448A - LOW TEMPERATURE (FITTED WITH VSD)**

MODEL NO.	NOM HP	AMB TEMP	CAPACITY IN WATTS (R448A)							
			-35		-30		-25		-20	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
PSBL1500E-VFD	15	38	4130	8160	5780	11190	7730	14760	10050	18940
		43	3580	7100	5110	9920	6940	13230	9110	17140
PSBL1500E-VFD-W	15	38	4160	9310	5810	12940	7790	17200	10150	22160
		43	3600	8000	5150	11400	7000	15360	9210	20010
PSBL1800E-VFD	18	38	5030	9580	6930	13170	9180	17370	11860	22200
		43	4420	8370	6180	11730	8290	15580	10780	20090
PSBL1800E-VFD-W	18	38	5050	11680	6960	15770	9250	20580	11950	26130
		43	4440	10280	6230	14080	8340	18520	10870	23690
PSBL2300E-VFD	23	38	6280	11980	8390	15970	10900	20610	13910	25990
		43	5640	10720	7590	14390	9920	18640	12710	23630
PSBL2300E-VFD-W	23	38	6350	14380	8510	19190	11110	24800	14190	31330
		43	5720	12840	7700	17290	10110	22450	12990	28530
PSBL2800E-VFD	28	38	7540	14020	10110	19020	13160	24840	16780	31480
		43	6720	12280	9130	17010	12000	22450	15350	28670
PSBL2800E-VFD-W	28	38	7600	16990	10210	22870	13300	29700	16980	37600
		43	6790	14990	9240	20500	12120	26880	15560	34200
PSBL3400E-VFD	34	38	9490	18380	12680	24450	16460	31480	20930	39590
		43	8490	16400	11480	22060	15040	28580	19200	36150
PSBL3400E-VFD-W	34	38	9550	21610	12760	28760	16580	37010	21110	46520
		43	8550	19220	11580	25890	15160	33620	19390	42420
PSBL4400E-VFD	44	38	11050	21530	14980	28950	19600	37500	25080	47440
		43	9780	18980	13480	25980	17840	34020	22930	43240
PSBL4400E-VFD-W	44	38	11070	24810	15010	33550	19670	43500	25120	55000
		43	9810	21780	13540	29980	17880	39320	23020	49980

- Ratings based on 20k suction superheat, 3k subcooling.
- VFD versions 25hz min / 50hz max / 60hz max on VFD-W.
- Liquid injection or head fan may be required below -25sst.
- Please contact Beijer Ref for ratings with other refrigerants.

**Bitzer CR11 advanced capacity control system:**

Optional on all fixed speed models; modulated capacity control down to 50% on 4 cylinder compressor models (1 x CR11 head) and to 33% with 6 cylinder compressor models (2 x CR11 heads)



**TECHNICAL DATA**  
**PATTON PAK E-SERIES**



**FIXED SPEED MODELS**

UNIT MODEL	COMPRESSOR MODEL	COMPRESSOR			COND FANS (3PH)		AIR L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
		HP	MOC	M <sup>3</sup> /HR	QTY	T/AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PSBM2200E	4JE-22Y	22	37.2	63.5	2 x 630	3.1	6250	7/8"	1-5/8"	1762	990	1252	370	63
PSBM2500E	4HE-25Y	25	44.0	73.7	4 x 630	6.2	14760	1-1/8"	2-1/8"	2874	1768	1227	890	64
PSBM3000E	4GE-30Y	30	51.2	84.5	4 x 630	6.2	14100	1-1/8"	2-1/8"	2874	1768	1227	900	66
PSBM3500E	6HE-35Y	35	64.4	110.5	4 x 630	6.2	13260	1-1/8"	2-1/8"	2874	1768	1227	910	67
PSBM4000E	6GE-40Y	40	73.9	126.8	4 x 630	6.2	13260	1-1/8"	2-1/8"	2874	1768	1227	920	68
PSBL1500E	4JE-15Y	15	30.8	63.5	2 x 630	3.1	7050	5/8"	1-5/8"	1762	990	1150	340	65
PSBL1800E	4HE-18Y	18	36.7	73.7	2 x 630	3.1	6730	7/8"	1-5/8"	1762	990	1150	350	65
PSBL2300E	4GE-23Y	23	43.9	84.5	2 x 630	3.1	6630	7/8"	2-1/8"	1815	990	1150	400	69
PSBL2800E	4FE-28Y	28	52.8	101.8	4 x 630	6.2	14760	1-1/8"	2-1/8"	2874	1768	1227	900	72
PSBL3400E	6GE-34Y	34	65.5	126.8	4 x 630	6.2	14100	1-1/8"	2-1/8"	2874	1768	1227	920	72
PSBL4400E	6FE-44Y	44	83.2	151.6	4 x 630	6.2	13260	1-1/8"	2-1/8"	2874	1768	1227	930	73

**VARIABLE SPEED MODELS**

UNIT MODEL	COMPRESSOR MODEL	COMPRESSOR			COND FANS (3PH)		AIR L/SEC	CONNECTIONS		DIMENSIONS (mm)			KG	dB(A) @3m
		HP	MOC	M <sup>3</sup> /HR	QTY	T/AMPS		LIQUID	SUCTION	LENGTH	WIDTH	HEIGHT		
PSBM2200E-VFD	4JE-22Y	22	37.2	63.5	2 x 630	3.1	6250	7/8"	1-5/8"	1762	990	1252	410	63
PSBM2200E-VFD-W	4JE-22Y	22	37.2	63.5	*4 x 500	7.2	8840	7/8"	1-5/8"	2232	1768	1227	850	68
PSBM2500E-VFD-W	4HE-25Y	25	44.0	73.7	4 x 630	6.2	14760	1-1/8"	2-1/8"	2874	1768	1227	940	65
PSBM3000E-VFD-W	4GE-30Y	30	51.2	84.5	4 x 630	6.2	14100	1-1/8"	2-1/8"	2874	1768	1227	950	67
PSBM3500E-VFD-W	6HE-35Y	35	64.4	110.5	4 x 630	6.2	13260	1-1/8"	2-1/8"	2874	1768	1227	950	68
PSBM4000E-VFD	6GE-40Y	40	73.9	126.8	4 x 630	6.2	13260	1-1/8"	2-1/8"	2874	1768	1227	970	68
PSBM4000E-VFD-W	6GE-40Y	40	73.9	126.8	4 x 630	6.2	12500	1-1/8"	2-1/8"	2874	1768	1330	990	69
PSBL1500E-VFD	4JE-15Y	15	30.8	63.5	2 x 630	3.1	7050	5/8"	1-5/8"	1762	990	1150	380	65
PSBL1500E-VFD-W	4JE-15Y	15	30.8	63.5	2 x 630	3.1	6730	5/8"	1-5/8"	1762	990	1150	390	66
PSBL1800E-VFD	4HE-18Y	18	36.7	73.7	2 x 630	3.1	6730	7/8"	1-5/8"	1762	990	1150	390	65
PSBL1800E-VFD-W	4HE-18Y	18	36.7	73.7	2 x 630	3.1	6630	7/8"	1-5/8"	1762	990	1150	440	66
PSBL2300E-VFD	4GE-23Y	23	43.9	84.5	2 x 630	3.1	6630	7/8"	2-1/8"	1815	990	1150	440	69
PSBL2300E-VFD-W	4GE-23Y	23	43.9	84.5	4 x 630	6.2	14760	1-1/8"	2-1/8"	2874	1768	1227	950	71
PSBL2800E-VFD	4FE-28Y	28	52.8	101.8	4 x 630	6.2	14760	1-1/8"	2-1/8"	2874	1768	1227	940	72
PSBL2800E-VFD-W	4FE-28Y	28	52.8	101.8	4 x 630	6.2	14100	1-1/8"	2-1/8"	2874	1768	1227	950	73
PSBL3400E-VFD	6GE-34Y	34	65.5	126.8	4 x 630	6.2	14100	1-1/8"	2-1/8"	2874	1768	1227	970	72
PSBL3400E-VFD-W	6GE-34Y	34	65.5	126.8	4 x 630	6.2	13460	1-1/8"	2-1/8"	2874	1768	1227	990	73
PSBL4400E-VFD	6FE-44Y	44	83.2	151.6	4 x 630	6.2	13260	1-1/8"	2-1/8"	2874	1768	1227	1000	73
PSBL4400E-VFD-W	6FE-44Y	44	83.2	151.6	4 x 630	6.2	12500	1-1/8"	2-1/8"	2874	1768	1330	1040	74

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.
- 500mm (\*) fan motors on PSBM2200E-VFD-W are single phase, all 630mm motors are 3phase.



**PATTON PAK  
WATER CHILLERS**



ALSO AVAILABLE  
WITH STAINLESS STEEL  
CASING

- Quiet and efficient Copeland ZB Scroll Compressors
- Only high quality Brazed Plate Heat Exchangers used
- Supplied c/w HP/LP, Crankcase Heater, Oil Separator, Liquid Receiver, Liquid Line Drier & Sightglass, Suction Accumulator
- Pre-wired Including water temp & low temp safety controls
- Fitted with fan speed controller for balanced operation
- Condenser coils coated with resistant coil and fin protection
- All enclosed in attractive powder coated housing

**R404 - WATER CHILLER**

ITEM NO	MODEL	NOM HP	PHASE	NOM. KW	FLOW RATE (L/SEC)
PP1400	Patton Water Chiller PZBS325W	3.25	1	6	0.29
PP1405	Patton Water Chiller PZBS350W	3.5	1	8	0.38
PP1410	Patton Water Chiller PZBS400W	4	1	9	0.43
PP1415	Patton Water Chiller PZB400W	4	3	9	0.43
PP1420	Patton Water Chiller PZB500W	5	3	11	0.52
PP1425	Patton Water Chiller PZB600W	6	3	14	0.67
PP1430	Patton Water Chiller PZB650W	6.5	3	17	0.81
PP1435	Patton Water Chiller PZB800W	8	3	20	0.95
PP1440	Patton Water Chiller PZB900W	9	3	23	1.1
PP1445	Patton Water Chiller PZB1000W	10	3	27	1.29
PP1450	Patton Water Chiller PZB1200W	12	3	31	1.48
PP1455	Patton Water Chiller PZB1300W	13	3	33	1.57
PP1460	Patton Water Chiller PZB1500W	15	3	39	1.86

- Nominal capacity based on +12deg EWT / +7LWT and will vary widely depending on fluid entering temperature.
- Please contact Beijer Ref for correct selection and other optional refrigerants.

**TECHNICAL DATA**

UNIT MODEL	COMPRESSOR MODEL	COMPRESSOR		COND FANS			AIR VOLUME L/SEC	CONN WATER	DIMENSIONS (mm)			KG	dB(A) @3m
		HP	MRA	QTY	PH	AMPS			LENGTH	WIDTH	HEIGHT		
PZBS325W	ZB21KQE-PFJ	3.25	16.4	2 x 350	1	1.4	1933	1" BSP	1145	605	815	115	57
PZBS350W	ZB26KQE-PFJ	2.5	18.8	2 x 350	1	1.4	1933	1" BSP	1145	605	815	117	57
PZBS400W	ZB29KQE-PFJ	4	26.4	2 x 350	1	1.4	1859	1" BSP	1145	605	815	120	57
PZB400W	ZB29KQE-TFD	4	10.3	2 x 350	1	1.4	1859	1" BSP	1145	605	815	120	58
PZB500W	ZB38KQE-TFD	5	12.8	2 x 350	1	1.4	1787	1" BSP	1145	605	815	130	58
PZB600W	ZB45KQE-TFD	6	13.1	2 x 350	1	1.4	1654	1" BSP	1145	605	815	134	58
PZB650W	ZB48KQE-TFD	6.5	14.6	2 x 500	1	4.8	4320	1" BSP	1326	990	1165	145	60
PZB800W	ZB58KQE-TFD	8	15.4	2 x 500	1	4.8	3927	1" BSP	1326	990	1165	192	60
PZB900W	ZB66KQE-TFD	9	17.5	2 x 500	1	4.8	3750	1" BSP	1326	990	1165	218	61
PZB1000W	ZB76KQE-TFD	10	20.4	2 x 500	1	4.8	3582	1" BSP	1326	990	1165	222	62
PZB1200W	ZB88KQE-TFD	12	22.3	2 x 630	3	3.0	4830	1" BSP	1766	990	1175	230	63
PZB1300W	ZB95KQE-TFD	13	28.2	2 x 630	3	3.0	4770	1" BSP	1766	990	1175	235	65
PZB1500W	ZB114KQE-TFD	15	33.3	2 x 630	3	3.0	5393	1-1/4" BSP	1766	990	1175	246	65

- All noise level ratings are 'free field' based at a distance of 3meters and are given as a guide only.
- Horizontal conversation kits available for models with 350mm fans part No. PK2-HK



## GREE A,B & D-SERIES WATER CHILLERS

Gree A and B-Series Inverter chillers and D-Series fixed speed chillers are suitable for a wide range of applications and thanks to their modular design also offer a very wide capacity range. With the 'optional' additional advantage of reverse cycle versions, they can be used for cooling in summer and heating in winter. Heating cycle means you can save energy that would otherwise be used by other less efficient heating sources such as electric heat which can use 3-4 times more energy for the same heat output.

These modular chillers can be widely used in various sized new or retrofitted buildings such as hotels, apartments, offices, shopping malls, hospitals or any other building where reliable, efficient cooling or heating is required. Further to air-conditioning applications; A, B series chillers can also be used to chill a glycol mix down to -10°C and D series down to -5°C making this range suitable for use in a myriad of other applications including cold-stores, food and dairy, breweries, wineries and various process cooling applications.

Further to A,B and D-Series, Gree also manufacture large industrial screw compressor chillers for both air-conditioning and sub zero process cooling applications where extra high capacity fluid cooling systems are required.

### Key features

- Inverter technology on A & B series can quickly respond to load changes leading to decreased water temperature fluctuations better comfort. This also leads to improved energy usage.
- Compressor operation balance technology ensures that each compressor operates in turn. This reduces the number of stop/start cycles on an individual compressor to maximise their lifespan.
- Internal baffles ensure the water mixes thoroughly in the heat exchanger to achieve a higher rate of heat transfer and efficiency.
- The high efficiency and low noise fan motors and blades combined with the optimised air passage can greatly lower the operation noise of the unit.
- Gree's proprietary 'gold fin' hydrophobic coating offers greater resistance to corrosive elements, performing 20 times better under salt spray testing than standard fin coil coating.
- Gree Intelligent Management System allows users to remotely monitor multiple A & B-Series chillers, including turning units on/off, setting parameters and monitoring alarms.





## GREE A,B & D-SERIES WATER CHILLERS

MODEL NO.	SERIES	NOM CAPACITY (KW)		WATER FLOW L/SEC	PRESS DROP KPA	QUANTITY		REFRIGERANT (R410A)		CIRCUIT BREAKER AMPS	DIMENSIONS W x D x H (mm)	WEIGHT KG	CONN mm
		COOL	HEAT			COMPS	FANS	CIRCUITS	KG/CIRC				
*LSQWF35VM/NaA-M	A	32	-	1.5	75	1	2	1	7.8	32	1605 x 845 x 1340	417	32
*LSQWF65VM/NaA-M	A	65	-	3.1	60	2	2	2	7.8	63	1607 x 965 x 2200	720	50
*LSQWF130VM/NaA-M	B	130	-	6.2	60	4	4	4	7.0	150	2190 x 2305 x 1980	1568	80
LSQWF65M/NaD-M	D	60	65	2.9	15	2	2	2	6.1	63	2040 x 1000 x 2230	770	65
LSQWF80M/NaD-M	D	71	80	3.5	20	2	2	2	7.4	80	2040 x 1000 x 2230	825	65
LSQWF130M/NaD-M	D	120	130	5.7	30	4	4	4	6.1	125	2225 x 1000 x 2230	1365	80
*LSQWF160M/NaD-M	D	147	160	7.0	40	4	4	4	7.4	160	2225 x 1000 x 2230	1475	80
LSQWF249M/NaD-M	D	230	249	11.9	75	4	8	4	12.8	225	3980 x 2260 x 2450	3285	100

- Units marked (\*) are stock items other models are indent so please check lead time with Beijer Ref.
- Water pumps are not included and should be selected to suit the given application.

### Nominal Conditions

**Cooling:** Ambient Temp 35°C DB, 12°C EWT / 7°C LWT

**Heating:** Ambient Temp 7°C DB, 40°C EWT / 45°C LWT

\*Please contact Beijer Ref for ratings at other conditions.

GREE industrial screw chillers also available for both AC and process cooling applications.

Please contact Beijer Ref for details.

## CONTROLLERS & ACCESSORIES

ITEM NO	DESCRIPTION
AG57034	A-Series Chiller Controller XE73-25/G for Airconditioning applications
EN01200170	A-Series Chiller Controller CF612 for process cooling (down to -10deg)
AC7850	D-Series Chiller Controller for Airconditioning applications
AC7854	D-Series Chiller Controller for for for process cooling (down to -5deg)
4202021921	Jumper Cap to suit Chiller 35kW #21
4202021922	Jumper Cap to suit Chiller 65kW #22
4202021924	Jumper Cap to suit Chiller 130kW #24
300027060168	Low Temp Chip for Chillers Prior 2022



A-Series  
2fan model



B-Series  
4fan model



D-Series  
2fan model



D-Series  
4fan model



D-Series  
8fan model



**MONKEYTOE MOUNTING SYSTEMS**



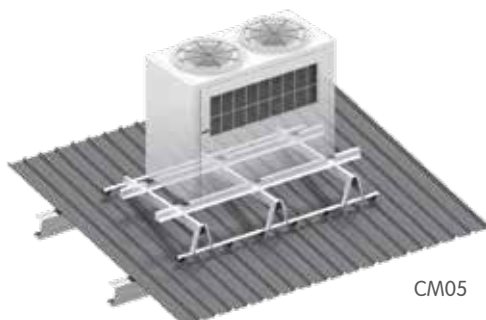
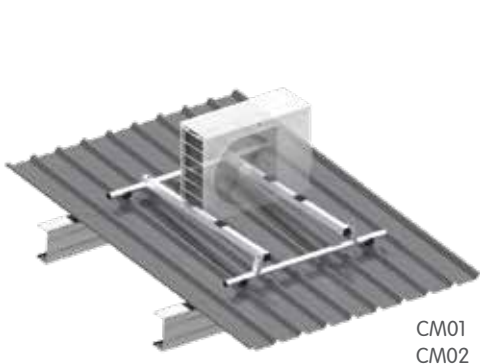
Aluminium, Modular, Quick to install, Fully adjustable & Compliant HVAC Mounts, supporting up to 1000kg! The Monkeytoe Condenser Mounts are provided as a boxed kit-set, including the specialised Monkeytoe mounting clips and fixings to ensure loads are transferred to the roof structure and not applied to the roof sheeting. This pre-engineered solution is compatible with most roofing types and is designed to support a wide variety of Heating, Ventilation, Air Conditioning and Refrigeration units.

Manufactured in Australia & fully engineered to AS/NZS 1170.0, 1170.1, 1170.2, and 1170.4

**UNIT MOUNTING SYSTEMS**

ITEM NO.	RATING (kg)	MAX. PURLIN SPACING (mm)	UPRIGHT HEIGHT (mm)	RANGE OF ADJUSTABILITY (deg)
CM01.12.3	120	1200	300	1 to 14
CM02.12.3	200	1200	300	1 to 14
CM02.18.6	200	1800	600	1 to 18
CM03.12.3	300	1200	300	1 to 14
CM03.18.6	300	1800	600	1 to 18
CM05.18.6	500	1800	600	1 to 18
CM05.24.6	500	2400	600	1 to 14
CM10.30.6	1000	1200 to 1500	600	1 to 11

- Modular, fully adjustable assembly
- Suitable for a variety of outdoor units
- Simple and quick installation
- Eliminate incorrect fixing & mounting methods
- Engineered and Certified for use Australia wide
- Compatible with roofing warranties





## WATER COOLED CONDENSERS



**Aqua Systems** - water cooled condensers are a high efficiency heat exchanger for refrigeration and air conditioning systems. The patented design incorporates a unique tube geometry with extended surface tube with an internal spiral fin. This results in a high level of heat exchange efficiency with reduced water flow, close approach temperature and providing up to 8k liquid subcooling.

### AQUA SYSTEMS CONDENSERS - FRESH WATER

ITEM NO.	MODEL	NOMINAL THR	Nominal Flow Water L/sec	WATER			REFRIGERANT			DIMENSIONS mm			WEIGHT Kg
				IN/OUT	IN	OUT	LENGTH	WIDTH	HEIGHT				
CW0014	S-2	10 kW	0.28	7/8	7/8	7/8	155	223	225	7			
CW0016	S-3	14 kW	0.43	7/8	7/8	7/8	155	223	260	9			
CW0018	S-4	19 kW	0.57	7/8	7/8	7/8	155	223	310	10			
CW0020	S-5	24 kW	0.63	7/8	7/8	7/8	155	233	355	12			
CW0022	S-6	30 kW	0.72	7/8	7/8	7/8	155	223	398	14			
CW0024	S-4/2H	38 kW	1.13	1-1/4	1-1/8	3/4	365	250	310	21			
CW0026	S-5/2H	48 kW	1.27	1-1/4	1-1/8	3/4	365	250	355	25			
CW0028	S-6/2H	60 kW	1.44	1-1/4	1-1/8	7/8	365	250	398	30			
CW0030	S-3VT	30 kW	0.72	1-1/4	7/8	7/8	153	240	500	17			
CW0032	S-4VT	40 kW	0.95	1-1/4	7/8	7/8	153	240	580	20			
CW0034	S-5VT	48 kW	1.15	1-1/4	7/8	7/8	153	240	670	23			

### AQUA SYSTEMS CONDENSERS - SALT WATER

ITEM NO.	MODEL	NOMINAL THR	Nominal Flow Water L/sec	WATER			REFRIGERANT			DIMENSIONS mm			WEIGHT Kg
				IN/OUT	IN	OUT	LENGTH	WIDTH	HEIGHT				
CW0036	CN-2	10 kW	0.28	7/8	7/8	7/8	155	223	225	7			
CW0038	CN-3	14 kW	0.43	7/8	7/8	7/8	155	223	260	9			
CW0040	CN-4	19 kW	0.57	7/8	7/8	7/8	155	223	310	10			
CW0042	CN-5	24 kW	0.63	7/8	7/8	7/8	155	233	355	12			
CW0044	CN-6	30 kW	0.72	7/8	7/8	7/8	155	223	398	14			
CW0046	CN-4/2H	38 kW	1.13	1-1/4	1-1/8	3/4	365	250	310	21			
CW0048	CN-5/2H	48 kW	1.27	1-1/4	1-1/8	3/4	365	250	355	25			
CW0050	CN-6/2H	60 kW	1.44	1-1/4	1-1/8	7/8	365	250	398	30			

- Nominal ratings based on 30deg water entering, 36deg water leaving and 42deg condensing.
- 2H models are twin parallel condensers, offering large capacity with low pressure drop.
- VT models are twin vertical series circuit models, offering large capacity with small footprint.
- Please refer to following page for dimensional drawings.

## TUBE IN TUBE CONDENSERS

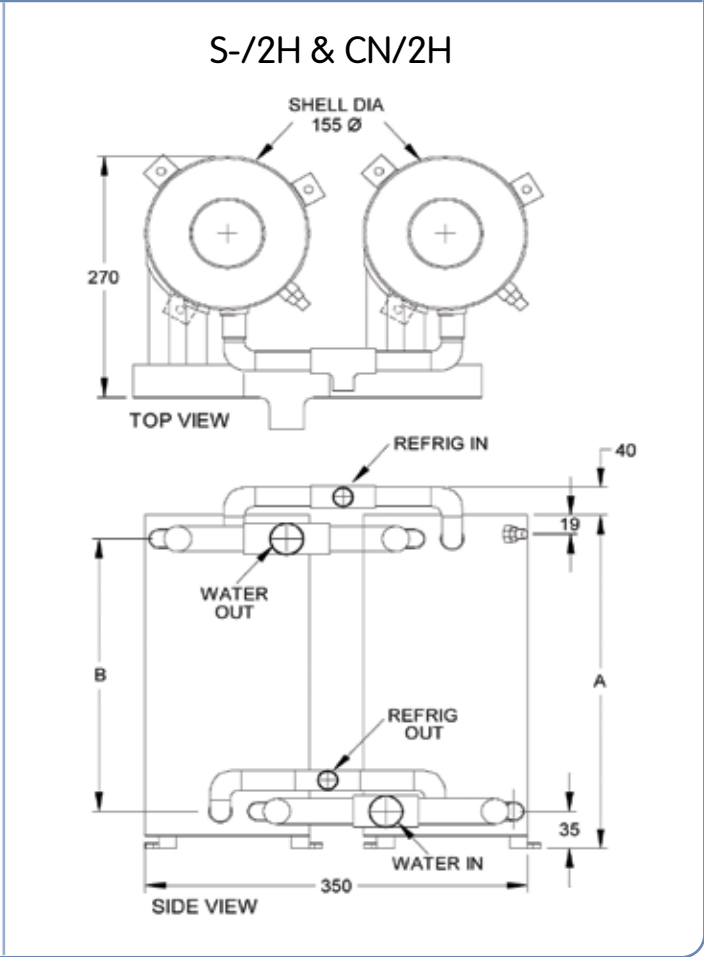
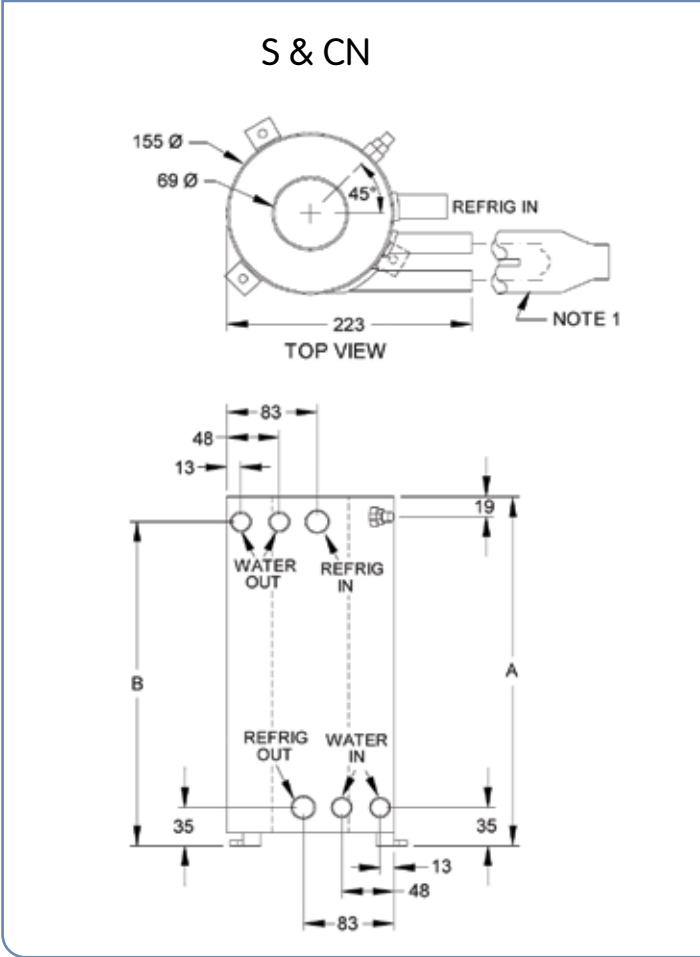
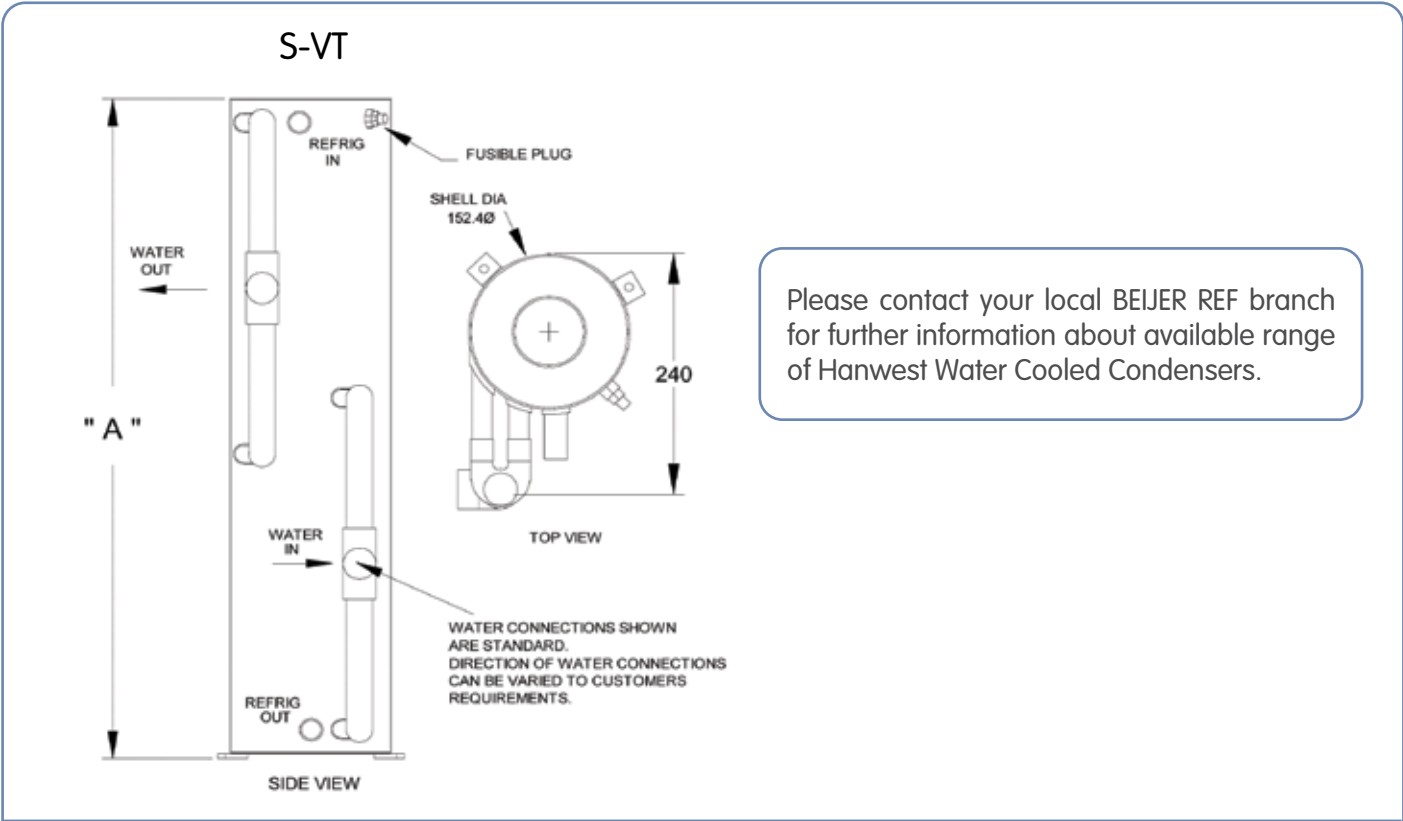


**HNT Series** - water cooled condensers are manufactured with an inner Titanium, extended surface water tube and an outer stainless steel tube. They are suitable for use with sea water, ground water and many corrosive fluids. They have mounting brackets attached for ease of installation.

ITEM NO.	NOMINAL THR KW	Nominal Flow Water L/sec	WATER			REFRIGERANT			DIMENSIONS mm		WEIGHT Kg
			IN/OUT	IN	OUT	WIDTH	HEIGHT				
HNT-4.5	4.5	0.2	19	12	12	235	170	3.5			
HNT-6.8	6.8	0.3	19	12	12	235	207	5.0			
HNT-9.0	9.0	0.4	19	12	12	235	235	6.2			
HNT-18	18.0	0.8	25	20	12	720	250	7.6			

- Water connections are MBSP and refrigerant connections are copper ODS.

**DIMENSIONAL DRAWINGS  
HANWEST CONDESERS**





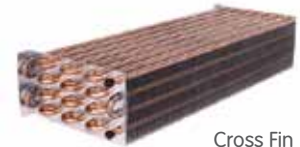


## CUSTOM COILS HEAT EXCHANGER SOLUTIONS

### About

Beijer Ref Australia are leaders in custom coil design, selection and supply for the HVAC industry. Our fluid coils can be designed for air heating or cooling applications using hot water, chilled water, DX Refrigerant or brine (e.g. ethylene or propylene glycol mixtures) with our expertise we have the ability to design and build the precise coil for your replacement, custom or OEM application.

Patton coils offers custom coils with a wide variety of fin spacing, rows depths, circuiting arrangements, capacity ranges, physical size, type of material, and refrigerant.



Cross Fin

### Options

- Copper tube diameters: 7mm, 3/8", 1/2", 5/8"
- Available with fin spacing's from 1.5 to 18 fpi.
- Fin material: aluminium, copper, stainless steel
- Physical sizes: from 150mm to 2400mm high and from 150mm to 6600mm long.
- Coils can be factory coated to the highest level of protection: Our Supercoat finish is a dipped coating and has been salt-spray tested to 15,000 hours.



Direct Expansion

### Coil Solutions

- High volume OEM Coils
- Chilled or Heated Fluid Coils
- DX Evaporator Cooling Coils
- Air Conditioning Duct Coils
- Custom Replacement Coils
- CO2 Coils (80 & 120Bar)



Custom Coils with Protective Coating

All our coils are designed by experts and are manufactured under strict quality control standards to ensure the finest quality with long life and performance.



**For more information, please contact our coil team.**

[www.beijerref.com.au/brands/patton-coils](http://www.beijerref.com.au/brands/patton-coils)



## NPAC / NQAC-BK SERIES CONDENSERS



- Supplied fitted with Hidria external rotor fan assemblies
- Standard with "Patton Coat" fin and coil protective coating
- Suitable for PHAT series and other small condensing units
- Gloss black casing paint finish matches PHAT series units
- Low current 1ph motors allows for simple fan speed control

### HORIZONTAL AIR-FLOW

MODEL NO.	WATTS R404A 10KTD	RECOMENDED FANS (1PH)			dB(A) @ 3m	CONNECTIONS		SHROUD O.D (mm)	DIMENSIONS			Kg
		HIDRIA MODEL	No/Dia. (mm)	Total Amps		IN	OUT		Width Inc. Hdr.	Depth Inc. Fans	Height	
NPAC60-BK	2400	R09-3028A-4M-3509	1 x 300	0.4	58	3/8"	3/8"	360	446	288	366	8
NPAC75-BK	2800	R09-3028A-4M-3509	1 x 300	0.4	60	3/8"	3/8"	360	446	288	366	9
NQAC150-BK	4410	R11-3530A-4M-3852	1 x 350	0.8	60	1/2"	1/2"	442	574	300	418	15
NQAC225-BK	6350	R11R-4030-4M-5715	1 x 400	1.5	66	5/8"	1/2"	455	688	330	520	22
NQAC230-BK	6520	R11-3530A-4M-3852	2 x 350	1.6	67	5/8"	1/2"	442	954	330	418	25
NQAC250-BK	7840	R11R-4030-4M-5715	1 x 400	1.5	64	5/8"	1/2"	455	688	330	520	24
NQAC300-BK	8530	R11-3530A-4M-3852	2 x 350	1.6	66	5/8"	1/2"	442	954	330	418	27
NQAC400-BK	10980	R11-3530A-4M-3852	2 x 350	1.6	63	5/8"	5/8"	442	954	330	520	35
NQAC430-BK	10850	R11R-4030-4M-5715	2 x 400	3.0	69	7/8"	5/8"	455	954	370	622	36
NQAC450-BK	12000	R11R-4030-4M-5715	2 x 400	3.0	68	7/8"	5/8"	455	954	370	622	39
NQAC650-BK	16860	R11R-4030-4M-5715	2 x 400	3.0	69	7/8"	5/8"	455	954	370	698	53

- Ratings are calculated with standard fans as fitted to PHAT units.
- Sound level data is 'free field' and to be used as a guide only.
- If fitting alternative fans, insure fan guard fits over shroud.

### REPLACEMENT FAN MOTOR ASSEMBLIES

ITEM NO.	PRODUCT NUMBER	DIA (mm)	AIR-FLOW M <sup>3</sup> /HR	PH	RPM	WATTS	AMPS	RUN CAP MF
F3660	R09R-3028A-4M	300	1800	1	1330	74	0.34	2.5
F3668	R11R-3530A-4M	350	3000	1	1410	175	0.8	4.0
F3672	R11R-4030A-4M	400	4000	1	1345	200	0.9	6.3



ITEM NO.	SUITS PHAT CONDENSING UNIT
NPAC60-BK	PHA300L, PHA350L
NPAC75-BK	PHA302L
NQAC150-BK	PHA304L, PHA320L, PHA322L, PHA324L, PHA352L, PHA354L
NQAC225-BK	PHA326L, PHA328L
NQAC230-BK	PHA306LS, PHA310LS, PHA329LS, PHA355LSA, PHA356LSA, PHA358LSAE, PHA360LSAE
NQAC250-BK	PHA328L, PHA330L, PHA334LE
NQAC300-BK	PHA312LSE, PHA314LSE, PHA332LS, PHA336LSE, PHA362LSAE
NQAC400-BK	PHA316LSE
NQAC430-BK	PHA364LSAE
NQAC450-BK	PHA338LSE, PHA340LSE
NQAC650-BK	PHA342LSE, PHA344LSE



## NQAC SERIES CONDENSERS



- Highly efficient external rotor fan motors give optimum performance with low noise levels
- Standard with "Patton Coat" fin and coil protective coating
- Multi refrigerant circuits available to special order
- Optional vertical or horizontal airflow arrangement
- Optional fan speed controller fitted

### NQAC CONDENSERS (Single Module)

ITEM NO.	MODEL NO.	WATTS R404A 10KTD	FANS (IPH)		dB(A) @ 3m	CONNECTIONS		DIMENSIONS With Horizontal Air-flow			Kg
			No/Dia. (mm)	Total Amps		IN	OUT	Length Inc. Hdr.	Depth Inc. Fans	Height	
C8320	NQAC150	4410	1 x 350	0.7	60	1/2	1/2	574	300	418	15
C8322	NQAC200	5880	1 x 350	0.7	61	5/8	1/2	688	330	418	18
C8324	NQAC250	7840	1 x 400	1.5	64	5/8	1/2	688	330	520	24
C8326	NQAC300	8530	2 x 350	1.5	66	5/8	1/2	954	330	418	27
C8328	NQAC400	10980	2 x 350	1.5	63	5/8	5/8	954	330	520	35
C8330	NQAC500	13230	2 x 350	1.5	64	7/8	5/8	954	350	622	44
C8332	NQAC600	14990	2 x 400	3.0	68	7/8	5/8	954	370	622	45
C8334	NQAC650	16860	2 x 400	3.0	69	7/8	5/8	954	370	698	53
C8336	NQAC750	19010	2 x 500	4.0	71	7/8	7/8	1255	440	772	61
C8338	NQAC900	21950	2 x 500	4.0	72	7/8	7/8	1255	440	772	73
C8340	NQAC1000	25280	2 x 500	4.0	72	7/8	7/8	1255	440	772	73
C8342	NQAC1300	29890	2 x 500	4.0	73	1-1/8	7/8	1255	440	924	100
C8344	NQAC1400	34100	2 x 500	4.0	72	1-1/8	7/8	1255	440	1030	112
C8346	NQAC1500	33030	2 x 630	6.2	70	1-1/8	1-1/8	1651	450	772	91
C8348	NQAC1700	37040	2 x 630	6.2	70	1-1/8	1-1/8	1651	450	772	96
C8350	NQAC2050	40470	2 x 630	6.2	71	1-1/8	1-1/8	1651	450	924	127
C8352	NQAC2400	44050	2 x 630	6.2	72	1-3/8	1-3/8	1651	450	1126	154
C8354	NQAC3000	57530	3 x 630	9.3	75	1-3/8	1-3/8	2264	450	961	182
C8356	NQAC4800	83300	4 x 630	12.4	77	1-3/8	1-3/8	3180	450	961	240

### NQAC CONDENSERS (Double Module)

C8500	NQAC3002	66050	4 x 630	12.4	73	2 x 1-1/8	2 x 1-1/8	1651	450	1544	184
C8502	NQAC3402	74090	4 x 630	12.4	73	2 x 1-1/8	2 x 1-1/8	1651	450	1544	192
C8504	NQAC4102	78990	4 x 630	12.4	74	2 x 1-1/8	2 x 1-1/8	1651	450	1848	254
C8506	NQAC4802	88100	4 x 630	12.4	75	2 x 1-3/8	2 x 1-3/8	1651	450	2252	308
C8508	NQAC6002	115050	6 x 630	18.6	78	2 x 1-3/8	2 x 1-3/8	2264	450	1922	364

- Sound level data is 'free field' and to be used as a guide only.
- For dimensions with horizontal air-flow, please refer to NQAC technical brochure.

NQAC condensers also available with EC fans and optional controller

### CONDENSER LEGS

CODE	AIR-FLOW	SUITS MODELS
V-Q5	Vertical	Suits condenser models NQAC150-600
V-Q30	Vertical	Suits condenser models NQAC750-3000 & NQAC3002-NQAC6002
F-Q5	Horizontal	Suits condenser models NQAC150-600
F-Q30	Horizontal	Suits condenser models NQAC750-3000 & NQAC3002-NQAC6002

- Legs are supplied loose to be fitted on site.



## HQAC & EQAC SERIES CONDENSERS



- **HQAC** with efficient low speed 6pole AC external rotor fan motors give optimum performance with low noise levels.
- **EQAC** with highly efficient EC fan motors give very high performance and efficiency with low noise levels.
- Standard with "Patton Coat" fin and coil protective coating
- Optional multi-section refrigerant circuits and subcooling circuits available to special order.
- Optional horizontal airflow arrangement available.

### HQAC - AC FAN ASSEMBLIES (6-POLE)

ITEM NO.	MODEL	Capacity (watts) R404A 10K TD		Fans 800mm	Total Amps 3ph / 415V		SOUND PRESS dB(A) @ 3m		DIMENSIONS With Vertical Air-flow			WEIGHT Kg
		High	Low	Qty	High	Low	High	Low	L mm	W mm	H mm	
<b>Single Module</b>												
C8360	HQAC3500	95700	79000	2	8	4.6	75	68	2270	1156	1075	238
C8362	HQAC4000	99000	86800	3	12	6.9	78	73	3650	1156	1075	270
C8364	HQAC5000	118300	100500	3	12	6.9	77	72	3660	1156	1075	298
C8366	HQAC6000	140100	117500	3	12	6.9	77	72	3660	1156	1075	378
C8368	HQAC7500	171800	143400	4	16	9.2	78	74	3960	1156	1075	435
<b>Double Module</b>												
C8370	HQAC7002	191400	158000	4	16	9.2	78	71	2270	2312	1075	480
C8372	HQAC8002	198000	173600	6	24	13.8	81	76	3650	2312	1075	544
C8374	HQAC10002	236600	201000	6	24	13.8	80	75	3660	2312	1075	600
C8376	HQAC12002	280200	235000	6	24	13.8	80	75	3660	2312	1075	760
C8380	HQAC15002	343600	286800	8	32	18.4	81	76	3960	2312	1075	874

### EQAC - EC FAN ASSEMBLIES

ITEM NO.	MODEL	Capacity (watts) R404A 10K TD		Fans 800mm	Total Amps 3ph / 415V (Full Speed)	SOUND PRESS dB(A) @ 3m		DIMENSIONS With Vertical Air-flow			WEIGHT Kg
		MAX SPEED	300 RPM	Qty		Max Speed	Min Speed	L mm	W mm	H mm	
<b>Single Module</b>											
C8450	EQAC3500	89950	33300	2	7.4	75	41	2270	1156	1075	238
C8452	EQAC4000	98150	43800	3	11.0	78	44	3650	1156	1075	270
C8454	EQAC5000	118200	48650	3	11.0	77	43	3660	1156	1075	298
C8456	EQAC6000	144100	53250	3	11.0	77	43	3660	1156	1075	378
C8458	EQAC7500	172100	63800	4	14.8	79	45	3960	1156	1075	435
<b>Double Module</b>											
C8460	EQAC7002	179900	66600	4	14.8	79	45	2270	2312	1075	480
C8462	EQAC8002	196300	87600	6	22.2	82	48	3650	2312	1075	544
C8464	EQAC10002	236400	97300	6	22.2	81	47	3660	2312	1075	600
C8466	EQAC12002	288200	106500	6	22.2	81	47	3660	2312	1075	760
C8468	EQAC15002	344200	127600	8	29.6	83	49	3960	2312	1075	874

■ Sound level data is 'free field' and to be used as a guide only.

### CONDENSER LEGS

CODE	AIR-FLOW	SUITS MODELS
H-Q60	Horizontal	Suits condenser models H/EQAC3500-7500

■ Legs are supplied loose to be fitted on site.



**S SERIES - CABINET COOLERS**



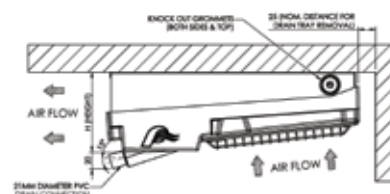
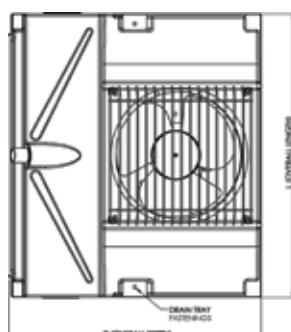
- Easy clean white ABS tray and colour steel case
- Extremely low profile saves on cabinet space
- Optimised evaporator coil with 3/8" Rifle bore tube
- Factory applied "Patton Coat" coil & fin protection
- Low temp models fitted with heater safety klixon
- Large 15mm PVC drain connection

ITEM NO.	MODEL (MED TEMP)	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134a
W5100	SM03	330	320	270
W5105	SM04	459	450	390
W5110	SM06	690	670	600
W5115	SM08	840	810	750
W5120	SM10	1110	1080	990
W5125	SM12	1290	1250	1170
W5130	SM14	1470	1430	1320
W5135	SM16	1650	1600	1500

ITEM NO.	MODEL (LOW TEMP)	CAPACITY (WATTS) @ -24 SST / 6KTD	
		R404A	R448A
W5140	SL025	260	250
W5145	SL045	435	420
W5150	SL050	520	500
W5155	SL070	695	670
W5160	SL080	810	780
W5165	SL105	1050	1010
W5170	SL120	1200	1150

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		SM03	SM04	SM06	SM08	SM10	SM12	SM14	SM16	SL025	SL045	SL050	SL070	SL080	SL105	SL120
Air flow	Ltr/sec	80	106	160	140	240	220	320	310	80	140	160	240	220	320	210
Fan Motor (230V) 175mm Fan Blade	No. of Fans	1	1	2	2	3	3	3	3	1	2	2	3	3	3	3
	Total Watts	12	16	24	24	36	36	48	48	12	24	24	36	36	48	48
	Total Amps	0.24	0.26	0.48	0.48	0.72	0.72	0.78	0.78	0.26	0.48	0.48	0.74	0.72	0.72	0.78
Inlet Connection	inch	3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2	3/8	3/8	3/8	3/8	3/8	1/2	1/2
Suction Connection	inch	3/8	3/8	3/8	3/8	1/2	1/2	1/2	1/2	3/8	3/8	3/8	3/8	3/8	1/2	1/2
Fin Spacing	mm	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4
Elect. defrost / 230V	watts	-	-	-	-	-	-	-	-	350	400	400	500	500	500	500
Nett Weight	kg	3.9	4.1	5.6	6.1	7.9	8.6	8.4	11	4.6	6.5	6.9	8.5	9.4	9.2	12
Dimensions	Width	mm	414	414	594	594	794	794	794	414	594	594	794	794	794	794
	Depth	mm	372	372	372	372	392	392	392	372	372	372	392	392	392	392
	Height	mm	126	126	130	130	135	135	186	186	136	136	162	145	145	196





**TC SERIES - CABINET COOLERS (Dual Discharge)**

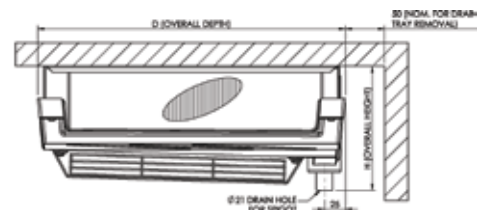
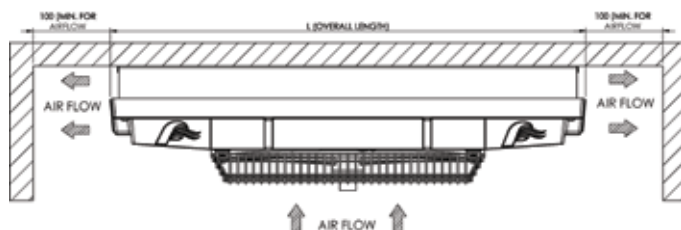


- Dual discharge design for even air-flow distribution
- Optimised evaporator coils with 3/8" Rifle bore tube
- Factory applied "Patton Coat" coil & fin protection
- Easy clean white ABS tray and colour steel case
- Extremely low profile design saves cabinet space
- Large 15mm PVC drain connection

ITEM NO.	MODEL	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134a
W5180	TCM04	480	470	450
W5185	TCM06	690	670	600
W5190	TCM08	840	810	750
W5195	TCM10	990	960	900
W5200	TCM12	1290	1250	1170
W5205	TCM16	1650	1600	1500

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		TCM04	TCM06	TCM08	TCM10	TCM12	TCM16
Air flow	Ltr/sec	220	220	200	230	260	300
Fan Motors (230V)	No. of Fans	1 x 254	1 x 254	1 x 254	1 x 254	1 x 300	1 x 300
	Total Watts	16	24	24	36	36	48
	Total Amps	0.24	0.26	0.48	0.72	0.72	0.78
Inlet Connection	inch	3/8	3/8	3/8	1/2	1/2	1/2
Suction Connection	inch	3/8	3/8	3/8	1/2	1/2	1/2
Fin Spacing	mm	3	3	3	3	3	3
Nett Weight	kg	7.4	7.5	8.5	9.2	12.5	13.5
Dimensions	Length	604	604	604	604	804	804
	Depth	386	386	386	386	466	466
	Height	178	178	178	178	200	208



CORRECTION FACTORS				
Evaporating Temperature	-10°C	-5°C	0°C	+5°C
Correction Factor	0.93	0.99	1.07	1.17



## D SERIES - PROCESS ROOM COOLERS (Dual Discharge)

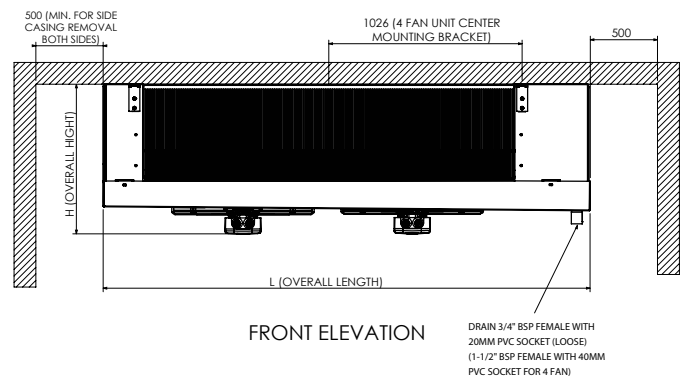
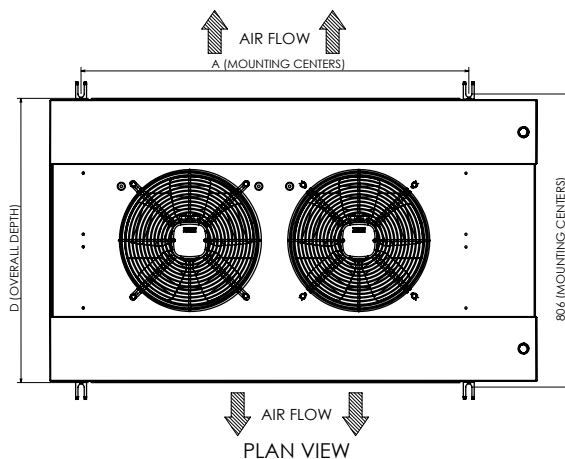


- Low velocity / Low noise fans on 6pole fan models
- Dual discharge design for even air-flow distribution
- Optimised evaporator coils with 3/8" Rifle bore tube
- Factory applied "Patton Coat" coil & fin protection
- Hygienic easy clean white fully aluminium casing
- Large PVC drain connections ideal for wash down

ITEM NO.	DESCRIPTION	WATTS @ 0 SST / 10KTD			WATTS @ +2 SST / 8KTD		
		R404A	R448A	R134a	R404A	R448A	R134a
DM019-41	Dual Flow Evaporator DM019-41.6	3310	3210	3010	2750	2670	2500
DM039-42	Dual Flow Evaporator DM039-42.6	6980	6770	6350	5790	5620	5270
DM058-43	Dual Flow Evaporator DM058-43.6	10370	10060	9440	8600	8340	7830
DM075-43	Dual Flow Evaporator DM075-43.4	13460	13060	12250	11160	10830	10160
DM078-44	Dual Flow Evaporator DM078-44.6	13930	13510	12680	11560	11210	10520
DM100-44	Dual Flow Evaporator DM100-44.4	17870	17330	16270	14830	14390	13500

- R448A listed ratings have been calculated at 'mid point' conditions.
- For Coolroom applications, multiply 10ktd ratings by 0.6

TECHNICAL DATA		DM019-41.6	DM039-42.6	DM058-43.6	DM075-43.4	DM078-44.6	DM100-44.4	
Air flow	Ltr/sec	390	780	1165	1680	1555	2240	
Air throw	m	6	7	7	11	7	11	
Sound Data	dB(A) 3m	47	50	52	60	53	61	
350mm Fan Motors (230V)	No. of Fans	1	2	3	3	4	4	
	Total Watts	75	150	225	390	300	520	
	Total Amps	0.37	0.74	1.11	1.95	1.48	2.6	
	Motor Poles	6	6	6	4	6	4	
Inlet Connection	inch	1/2	1/2	1/2	1/2	1/2	1/2	
Suction Connection	inch	3/4	7/8	1-1/8	1-1/8	1-1/8	1-1/8	
Fin Spacing	mm	4	4	4	4	4	4	
Nett Weight	kg	27	46	68	68	89	89	
Dimensions	Length	(L) mm	825	1347	1848	1848	2332	2332
	Depth	(D) mm	775	775	775	775	775	775
	Height	(H) mm	385	385	385	385	385	385
	Mounting	(A) mm	544	1067	1568	1568	1026 / 1026	1026 / 1026





**A SERIES - MED TEMP (300mm fans)**

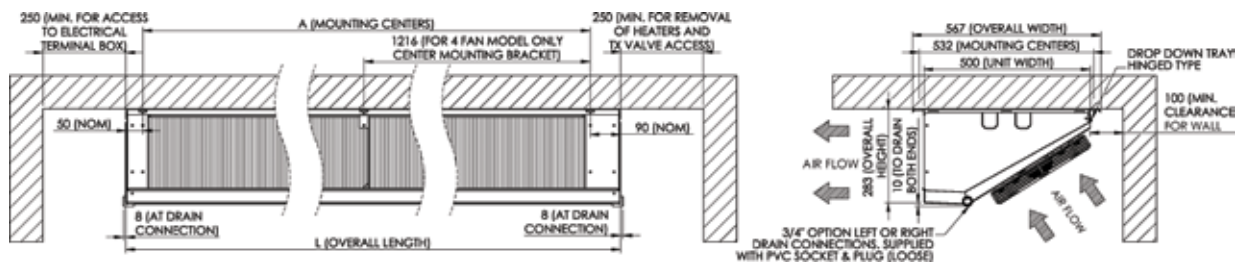


- Light weight units in hygienic white powder coat finish
- Ideal for coolrooms and large display cabinets
- Optimised evaporator coil with 3/8" Rifle bore tube
- Factory applied "Patton Coat" coil & fin protection
- High efficiency external rotor fan motor assemblies

ITEM NO.	MODEL	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134a
W5220	AM16	1560	1510	1410
W5225	AM19	1860	1800	1680
W5230	AM23	2310	2240	2100
W5235	AM28	2820	2740	2550
W5240	AM32	3210	3110	2910
W5250	AM38	3750	3640	3390
W5255	AM43	4260	4130	3870
W5260	AM49	4860	4710	4410
W5270	AM57	5670	5500	5160
W5280	AM65	6450	6260	5850
W5285	AM76	7590	7360	6900

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		AM16	AM19	AM23	AM28	AM32	AM38	AM43	AM49	AM57	AM65	AM76
Air flow	Ltr/sec	400	395	830	820	800	790	1230	1200	1185	1600	1580
Air throw	m	5.5	5	8.5	8	8	7.5	8.5	8.5	8	10	9.5
Fan Motors 300mm (230V)	No. of Fans	1	1	2	2	2	2	3	3	3	4	4
	Total Watts	60	60	120	120	120	120	180	180	180	240	240
	Total Amps	0.3	0.3	0.6	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2
Fin Spacing	mm	6	4	6	4	6	4	4	6	4	6	4
Inlet Connection	inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Suction Connection	inch	1/2	1/2	5/8	5/8	5/8	5/8	3/4	3/4	3/4	7/8	7/8
Nett Weight	kg	14	15	24	25	28	28	33	37	37	48	48
Dimensions (All models 283mm High)	(L) mm	774	774	1374	1374	1374	1374	1974	1974	1974	2574	2574
	(A) mm	632	632	1232	1232	1232	1232	1832	1832	1832	2432	2432



CORRECTION FACTORS					
Evaporating Temperature		-10°C	-5°C	0°C	+5°C
Correction Factor		0.93	0.99	1.07	1.17





**A SERIES - LOW TEMP (300mm fans)**

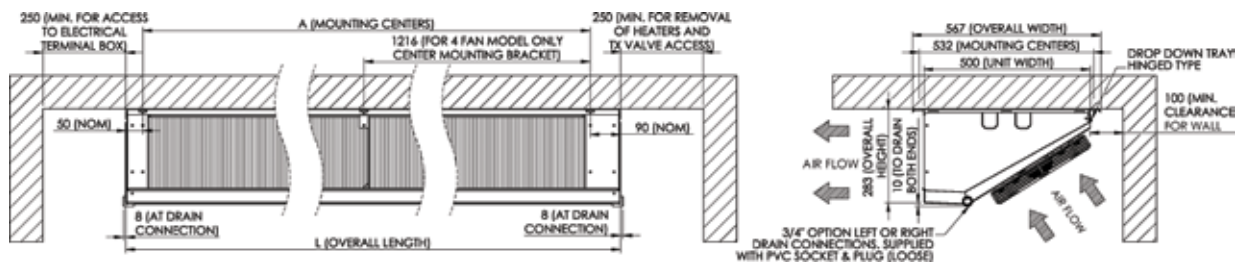


- Light weight units in hygienic white powder coat finish
- Ideal for freezer rooms and large display cabinets
- Optimised evaporator coil with 3/8" Rifle bore tube
- Factory applied "Patton Coat" coil & fin protection
- High efficiency external rotor fan motor assemblies
- Fitted with defrost termination heater safety klixon

ITEM NO.	MODEL	CAPACITY (WATTS) @ -24 SST / 6KTD		
		R404A	R448A	R134a
W5300	AL14	1410	1350	1200
W5305	AL17	1650	1580	1410
W5310	AL21	2130	2040	1800
W5315	AL26	2550	2450	2160
W5320	AL28	2820	2710	2400
W5330	AL33	3240	3110	2760
W5335	AL39	3870	3720	3300
W5340	AL42	4230	4060	3600
W5350	AL49	4860	4670	4140
W5360	AL56	5640	5410	4800
W5365	AL65	6540	6280	5550

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		AL14	AL17	AL21	AL26	AL28	AL33	AL39	AL42	AL49	AL56	AL65
Air flow	Ltr/sec	400	395	830	820	800	790	1230	1200	1185	1600	1580
Air throw	m	5.5	5	8.5	8	8	7.5	8.5	8.5	8	10	9.5
Fan Motors 300mm (230V)	No. of Fans	1	1	2	2	2	2	3	3	3	4	4
	Total Watts	60	60	120	120	120	120	180	180	180	240	240
	Total Amps	0.3	0.3	0.6	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2
Fin Spacing	mm	6	4	6	4	6	4	4	6	4	6	4
Inlet Connection	inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Suction Connection	inch	1/2	1/2	5/8	5/8	5/8	5/8	3/4	3/4	3/4	7/8	7/8
Elect. Defrost (230V)	watts	1690	1690	3130	3130	3130	3130	4570	4570	4570	6010	6010
Nett Weight	kg	15	16	25	26	29	29	34	38	38	49	50
Dimensions (All models 283mm High)	(L) mm	774	774	1374	1374	1374	1374	1974	1974	1974	2574	2574
	(A) mm	632	632	1232	1232	1232	1232	1832	1832	1832	2432	2432



CORRECTION FACTORS					
Evaporating Temperature		-35°C	-30°C	-25°C	-20°C
Correction Factor		0.8	0.89	0.99	1.07



### B SERIES - MED TEMP (300mm Fans)

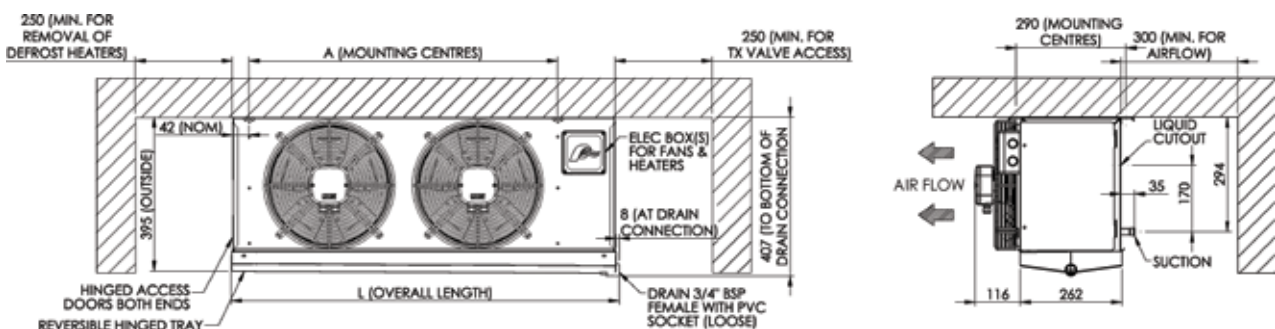


All B-Series available  
Fitted with EVD ice  
Contact Beijer Ref  
for details

- Light weight aluminium case in 'White' powder coat
- Factory applied "Patton Coat" coil & fin protection
- Optimised evaporator coil with 3/8" Rifle bore tube
- High airflow external rotor fan motor assemblies
- High efficiency EC fan motor option available
- Reversible drain tray provides installation flexibility

ITEM NO.	MODEL	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134A
W5370	BM15	1530	1480	1380
W5375	BM19	1920	1860	1740
W5380	BM22	2250	2180	2040
W5385	BM26	2610	2530	2370
W5390	BM32	3100	3010	2790
W5395	BM37	3750	3640	3420
W5400	BM44	4410	4280	3990
W5405	BM52	5250	5090	4770
W5410	BM57	5760	5590	5250
W5415	BM62	6200	6010	5640
W5420	BM66	6690	6490	6090
W5425	BM76	7710	7480	7020
W5430	BM86	9000	8730	8190

TECHNICAL DATA		BM15	BM19	BM22	BM26	BM32	BM37	BM44	BM52	BM57	BM62	BM66	BM76	BM86
Air volume	Ltr/sec	450	420	410	480	460	840	820	960	1260	1230	1300	1680	1630
Air throw	m	8	7	7	8	8	10	10	11	12.5	12	13	14	13.5
Fan Motors 300mm (230V)	No. of Fans	1	1	1	1	1	2	2	2	3	3	3	4	4
	Total Watts	60	60	60	60	60	120	120	120	180	180	180	240	240
	Total Amps	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2
Fin Spacing	mm	3	4	3	4	3	4	3	4	4	3	4	4	3
Defrost Option	watts	910	910	910	1150	1150	1680	1680	2010	2010	2010	2760	2760	2760
Liquid Conn	inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Suction Conn	inch	1/2	1/2	1/2	5/8	5/8	3/4	3/4	3/4	3/4	3/4	7/8	7/8	7/8
Nett Weight	kg	11	12	12	15	15	21	21	26	29	30	35	38	40
Dimensions (All models 407mm High)	(L) mm	606	606	606	797	797	988	988	1370	1370	1370	1752	1752	1752
	(A) mm	412	412	412	603	603	794	794	1176	1176	1176	1558	1558	1558



CORRECTION FACTORS				
Evaporating Temperature	-10°C	-5°C	0°C	+5°C
Correction Factor	0.93	0.99	1.07	1.17



**B SERIES - LOW TEMP (300mm Fans)**

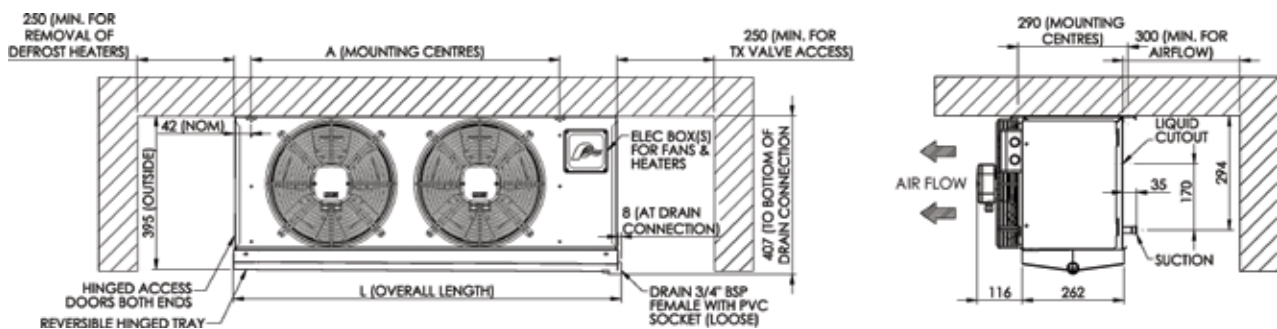


All B-Series available  
Fitted with EVD ice  
Contact Beijer Ref  
for details

- Light weight aluminium case in 'White' powder coat
- Factory applied "Patton Coat" coil & fin protection
- Optimised evaporator coil with 3/8" Rifle bore tube
- High airflow external rotor fan motor assemblies
- High efficiency EC fan motor option available
- Reversible drain tray provides installation flexibility
- Fitted with defrost termination heater safety klixon

ITEM NO.	MODEL	CAPACITY (WATTS) @ -24 SST / 6KTD	
		R404A	R448A
W5435	BL14	1410	1350
W5440	BL20	1980	1900
W5445	BL27	2820	2710
W5450	BL38	3930	3770
W5455	BL42	4260	4090
W5460	BL49	4920	4720
W5465	BL56	5700	5470

TECHNICAL DATA		BL14	BL20	BL27	BL38	BL42	BL49	BL56
Air flow	Ltr/sec	420	480	840	960	1260	1300	1680
Air throw	m	6.5	8	9	10	11.5	12	13
Fan Motors 300mm (230V)	No. of Fans	1	1	2	2	3	3	4
	Total Watts	60	60	120	120	180	180	240
	Total Amps	0.3	0.3	0.6	0.6	0.9	0.9	1.2
Fin Spacing	mm	4	4	4	4	4	4	4
Liquid Connection	inch	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Suction Connection	inch	1/2	5/8	3/4	3/4	3/4	7/8	7/8
Elect. Defrost (230V)	Watts	1360	1700	2380	2960	2960	4060	4060
	Amps	5.9	7.4	10.3	12.9	12.9	17.7	17.7
Nett Weight	kg	14	18	24	31	34	41	44
Dimensions (All models 407mm High)	(L) mm	606	797	988	1370	1370	1752	1752
	(A) mm	312	603	794	1176	1176	1558	1558



CORRECTION FACTORS				
Evaporating Temperature	-35°C	-30°C	-25°C	-20°C
Correction Factor	0.8	0.89	0.99	1.07



**P SERIES - MED TEMP (350mm Fans)**

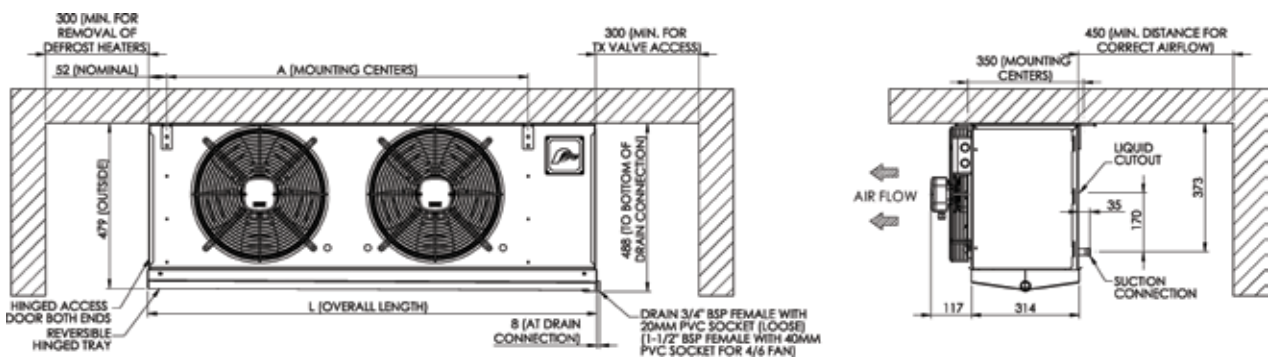


All P-Series available  
Fitted with EVD ice  
Contact Beijer Ref  
for details

- Light weight aluminium case in 'White' powder coat
- Factory applied "Patton Coat" coil & fin protection
- Optimised evaporator coil with 3/8" Rifle bore tube
- High Airflow external rotor fan motor assemblies
- High efficiency EC fan motor option available
- Reversible drain tray provides installation flexibility

ITEM NO.	MODEL	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134A
W5470	PM30	3030	2910	2760
W5475	PM40	4170	4000	3780
W5480	PM50	5040	4840	4590
W5485	PM60	6090	5850	5550
W5490	PM70	7170	6880	6540
W5495	PM80	8280	7950	7530
W5500	PM95	9720	9330	8850
W5505	PM105	10650	10330	9690
W5510	PM110	11280	10940	10260
W5515	PM130	13290	12890	12090
W5520	PM140	14340	13910	13050
W5525	PM160	16380	15890	14910
W5530	PM190	19410	18830	17670
W5535	PM210	21480	20840	19530

TECHNICAL DATA		PM30	PM40	PM50	PM60	PM70	PM80	PM95	PM105	PM110	PM130	PM140	PM160	PM190	PM210
Air flow	Ltr/sec	860	875	790	1720	1550	1750	1580	2320	2460	2220	3100	3520	3180	4650
Air throw	m	8	8.5	8	11.5	11	14.5	13	15	15.5	15	16	18	17.5	18.5
Fan Motors 350mm (230V)	No. of Fans	1	1	1	2	2	2	2	3	3	3	4	4	4	6
	Total Watts	175	175	175	350	350	350	350	525	525	525	700	700	700	700
	Total Amps	0.75	0.75	0.75	1.5	1.5	1.5	1.5	2.25	2.25	2.25	3	3	3	4.5
Fin Spacing	mm	4	4	3	4	3	4	3	3	4	3	3	4	3	3
Liquid Connection	inch	1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	7/8	7/8	7/8	7/8	7/8	7/8
Suction Connection	inch	3/4	3/4	3/4	7/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8	1 1/8	1 3/8	1 3/8	1 3/8
Nett Weight	kg	19	22	23	29	30	44	45	50	61	62	66	72	73	82
Dimensions (All models 488mm High)	(L) mm	799	1051	1051	1309	1309	1813	1813	1813	2329	2329	2329	3349	3349	3349
	(A) mm	540	792	792	1050	1050	1554	1554	1554	2070	2070	2070	3090	3090	3090



CORRECTION FACTORS				
Evaporating Temperature	-10°C	-5°C	0°C	+5°C
Correction Factor	0.93	0.99	1.07	1.17



**P SERIES - LOW TEMP (350mm Fans)**

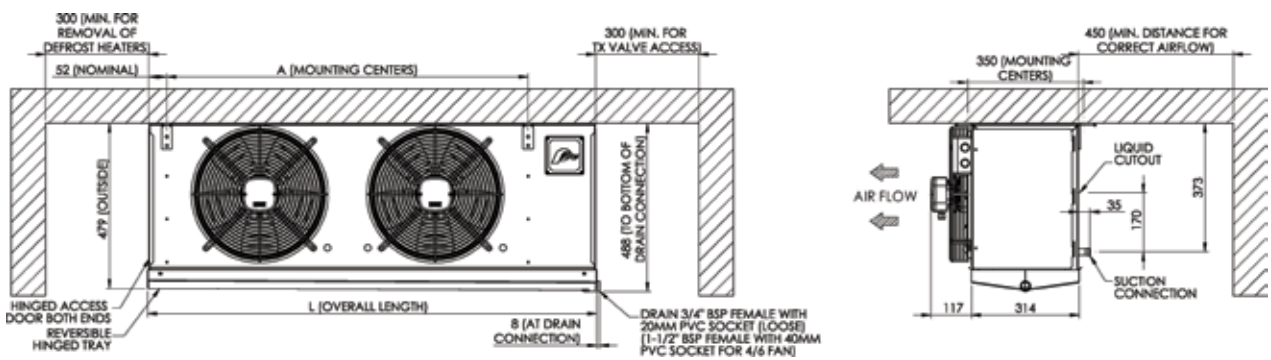


All P-Series available  
Fitted with EVD ice  
Contact Beijer Ref  
for details

- Light weight aluminium case in 'White' powder coat
- Factory applied "Patton Coat" coil & fin protection
- Optimised evaporator coil with 3/8" Rifle bore tube
- High Airflow external rotor fan motor assemblies
- High efficiency EC fan motor option available
- Reversible drain tray provides installation flexibility
- Fitted with defrost termination heater safety klixon

ITEM NO.	MODEL	CAPACITY (WATTS) @ -24 SST / 6KTD	
		R404A	R448A
W5540	PL22	2250	2220
W5545	PL30	3120	3090
W5550	PL45	4560	4500
W5555	PL60	6210	6150
W5560	PL70	7110	7050
W5565	PL80	8250	8160
W5570	PL95	9630	9540
W5575	PL120	12300	12180
W5580	PL130	13290	13140

TECHNICAL DATA		PL22	PL30	PL45	PL60	PL70	PL80	PL95	PL120	PL130
Air flow	Ltr/sec	775	790	1550	1580	2095	2220	2800	3180	4200
Air throw	m	8	8.5	11.5	12.5	14	15	16	17	18
Fan Motors 350mm (230V)	No. of Fans	1	1	2	2	3	3	4	4	6
	Total Watts	175	175	350	350	525	525	700	700	1050
	Total Amps	0.75	0.75	1.5	1.5	2.25	2.25	3	3	4.5
Fin Spacing	mm	4	4	4	4	4	4	4	4	4
Liquid Connection	inch	1/2	1/2	1/2	5/8	5/8	7/8	7/8	7/8	7/8
Suction Connection	inch	3/4	3/4	7/8	7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8
Elect. Defrost (230V)	Watts	2400	3200	4120	5780	5780	7300	7300	10820	10820
	Amps	10.4	13.9	17.9	25.1	25.1	31.7	31.7	47.0	47.0
Nett Weight	kg	20	23	29	45	50	60	65	75	83
Dimensions (All models 488mm High)	(L) mm	799	1051	1309	1813	1813	2129	2329	3349	3349
	(A) mm	540	792	1050	1554	1554	2070	2070	3090	3090



CORRECTION FACTORS					
Evaporating Temperature		-35°C	-30°C	-25°C	-20°C
Correction Factor		0.8	0.89	0.99	1.07



**Q SERIES - MED TEMP (500mm Fans)**



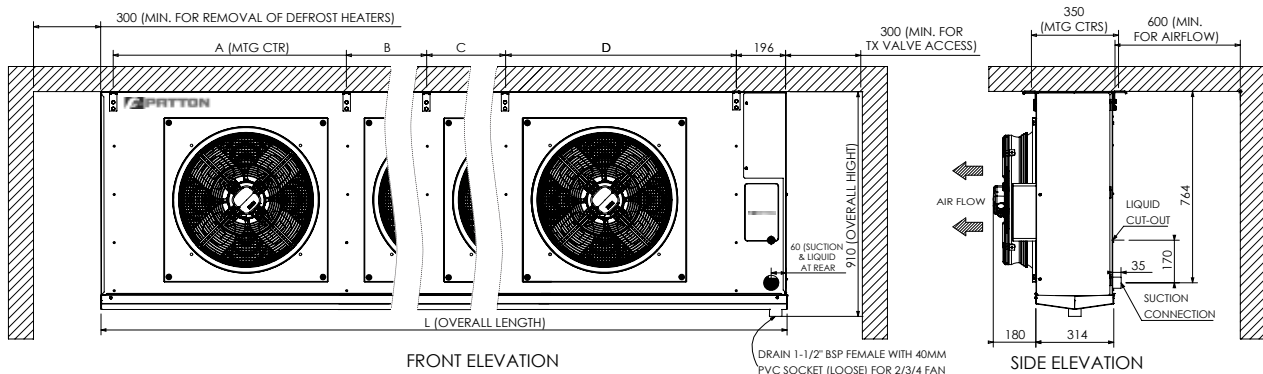
Below Listed Q-Series Standard with EVD ice  
Contact Beijer Ref for details

- Attractive white powder coated aluminium casing
- Optimised evaporator coil design with 1/2" tube
- Factory applied "Patton Coat" coil & fin protection
- Improved airflow with full nozzle fan assemblies
- Hybrid side door design for easy front access
- Reversible drain tray provides installation flexibility

ITEM NO.	MODEL	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134a
QM18042EVD	QM180-42-FD2-EVD	18750	18190	17060
QM23542EVD	QM235-42-FD2-EVD	24080	23360	21910
QM27543EVD	QM275-43-FD2-EVD	28560	27700	25990
QM32043EVD	QM320-43-FD2-EVD	32830	31850	29880
QM35043EVD	QM350-43-FD2-EVD	36350	35260	33080
QM42044EVD	QM420-44-FD2-EVD	43370	42070	39470

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		QM180-42	QM235-42	QM275-43	QM320-43	QM350-43	QM420-44
Air flow	Ltr/sec	4680	4430	7010	6850	6650	8320
Air throw	m	25	24	27	26	26	27
Fan Motors 500mm (415V)	No. of Fans	2	2	3	3	3	4
	Total Watts	1700	1700	2550	2550	2550	3400
	Total Amps	3.2	3.2	4.8	4.8	4.8	6.4
Fin Spacing	mm	4.2	4.2	4.2	4.2	4.2	4.2
Inlet Connection	inch	7/8	7/8	7/8	1-1/8	1-1/8	1-1/8
Suction Connection	inch	1-3/8	1-3/8	1-5/8	1-5/8	1-5/8	2-1/8
Nett Weight	kg	118	143	158	176	210	278
Dimensions (All models 870mm High)	(L) mm	2330	2330	3350	3350	3350	3690
	(A) mm	1036	1036	1036	1036	1036	866



CORRECTION FACTORS				
Evaporating Temperature	-10°C	-5°C	0°C	+5°C
Correction Factor	0.93	0.99	1.07	1.17



**Q SERIES - LOW TEMP (500mm Fans)**



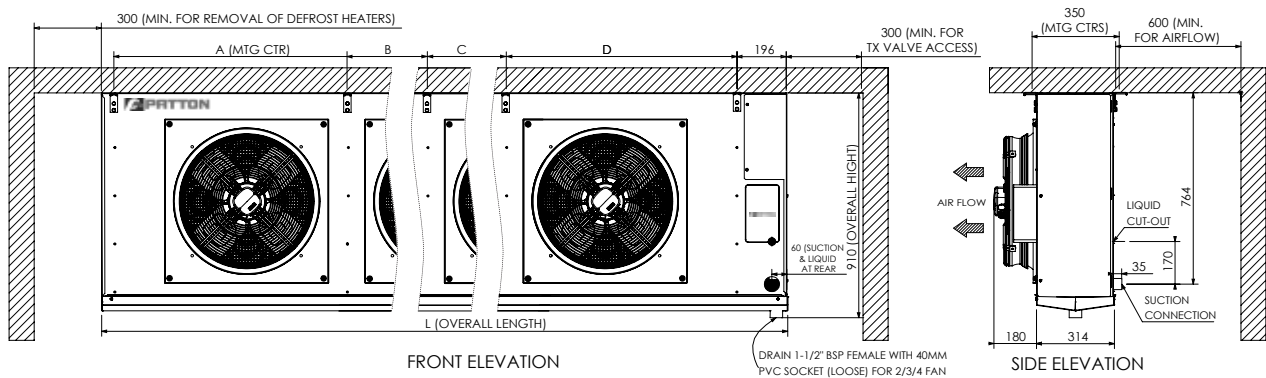
Below Listed Q-Series  
Standard with EVD ice  
Contact Beijer Ref  
for details

- Attractive white powder coated aluminium casing
- Optimised evaporator coil design with 1/2" tube
- Factory applied "Patton Coat" coil & fin protection
- Improved airflow with full nozzle fan assemblies
- Fan shroud heaters prevents ice formation
- Fitted with defrost termination heater safety klixon
- Hybrid side door design for easy front access
- Reversible drain tray provides installation flexibility

ITEM NO.	MODEL NO.	CAPACITY (WATTS) @ -24 SST / 6KTD	
		R404A	R448A
QL13062EVD	QL130-62-FD2 -EVD	13290	12760
QL17062EVD	QL170-62-FD2-EVD	17310	16620
QL19563EVD	QL195-63-FD2-EVD	19890	19090
QL25063EVD	QL250-63-FD2-EVD	26000	24960
QL32054EVD	QL320-54-FD2-EVD	32670	31360

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		QL130-62	QL170-62	QL195-63	QL250-63	QL320-54
Air flow	Ltr/sec	4760	4580	7150	6880	8500
Air throw	m	28	25	28	27	28
Fan Motors 500mm (415V)	No. of Fans	2	2	3	3	4
	Total Watts	1700	1700	2550	2550	3400
	Total Amps	3.2	3.2	4.8	4.8	6.4
Fin Spacing	mm	6.3	6.3	6.3	6.3	5
Inlet Connection	inch	7/8	7/8	7/8	1-1/8	1-1/8
Suction Connection	inch	1-3/8	1-5/8	1-5/8	2-1/8	2-1/8
Elect. Defrost (230V)	Watts	11500	11500	16940	16940	18580
	Amps	50	50	77	77	81
Fan Cowl Heater	Watts	250	250	375	375	500
Nett Weight	kg	128	150	167	219	294
Dimensions (All models 870mm High)	(L) mm	2330	2330	3350	3350	3690
	(A) mm	1036	1036	1036	1036	866



CORRECTION FACTORS				
Evaporating Temperature	-35°C	-30°C	-25°C	-20°C
Correction Factor	0.8	0.89	0.99	1.07



**J SERIES - MED TEMP (630mm Fans)**



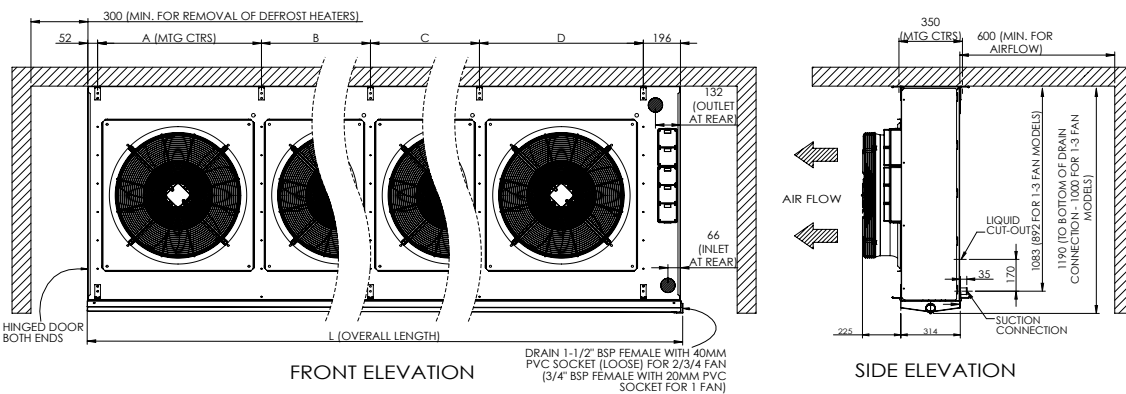
J-Series also available  
Fitted with EVD ice  
Contact Beijer Ref  
for details

- Attractive white powder coated aluminium casing
- Optimised evaporator coil design with 1/2" tube
- Factory applied "Patton Coat" coil & fin protection
- Improved airflow with full nozzle fan assemblies
- Reversible drain tray provides installation flexibility

ITEM NO.	MODEL	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134a
JMC14541FD2	JMC145-41-FD2	14670	14230	13350
JMC21052FD2	JMC210-52-FD2	20760	20140	18890
JMC26552FD2	JMC265-52-FD2	26510	25710	24120
JMC30542FD2	JMC305-42-FD2	30610	29690	27860
JMC32053FD2	JMC320-53-FD2	31860	30900	28990
JMC42053FD2	JMC420-53-FD2	41790	40540	38030
JMC46543FD2	JMC465-43-FD2	46600	45200	42410
JMC55054FD2	JMC550-54-FD2	55020	53370	50070
JMC61044FD2	JMC610-44-FD2	60930	59100	55450

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		JMC145-41	JMC210-52	JMC265-52	JMC305-42	JMC320-53	JMC420-53	JMC465-43	JMC550-54	JMC610-44
Air flow	Ltr/sec	2750	6030	5680	5500	9050	8520	8260	11360	11010
Air throw	m	30	33	32	31	36	35	34	36	35
Fan Motors 630mm (415V)	No. of Fans	1	2	2	2	3	3	3	4	4
	Total Watts	800	1600	1600	1600	2400	2400	2400	3200	3200
	Total Amps	1.6	3.2	3.2	3.2	4.8	4.8	4.8	6.4	6.4
Fin Spacing	mm	3.6	5	5	3.6	5	5	3.6	5	3.6
Optional Partial Defrost (230V)	Watts	4120	6450	6450	6450	9490	9490	9490	10420	10420
	Amps	18	28	28	28	41	41	41	45	45
Inlet Connection	inch	1/2	5/8	5/8	5/8	5/8	5/8	5/8	7/8	7/8
Suction Connection	inch	1-3/8	1-3/8	1-3/8	1-3/8	1-5/8	1-5/8	1-5/8	2-1/8	2-1/8
Nett Weight	kg	112	128	171	207	189	251	299	348	401
Dimensions	Length	1306	2326	2326	2326	3346	3346	3346	3686	3686
	Height	1000	1000	1000	1000	1000	1000	1000	1190	1190



CORRECTION FACTORS				
Evaporating Temperature	-10°C	-5°C	0°C	+5°C
Correction Factor	0.93	0.99	1.07	1.17





**J SERIES - LOW TEMP (630mm Fans)**



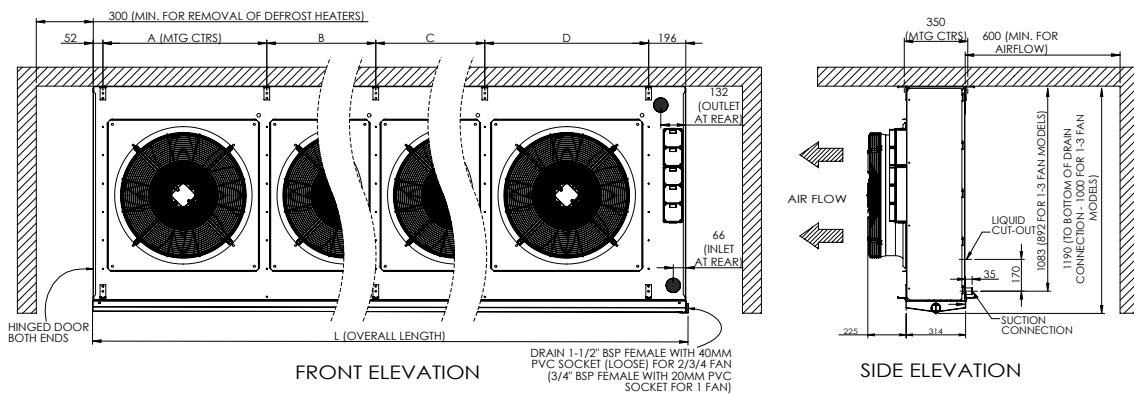
J-Series also available  
Fitted with EVD ice  
Contact Beijer Ref  
for details

- Attractive white powder coated aluminium casing
- Optimised evaporator coil design with 1/2" tube
- Factory applied "Patton Coat" coil & fin protection
- Improved airflow with full nozzle fan assemblies
- Fan shroud heaters prevents ice formation
- Fitted with defrost termination heater safety klixon
- Reversible drain tray provides installation flexibility

ITEM NO.	MODEL	CAPACITY (WATTS) R404A @ -24 SST / 6KTD	
		R404A	R448A
JLL10061FD2	JLL100-61-FD2	10160	9750
JLL16062FD2	JLL160-62-FD2	16190	15540
JLL21062FD2	JLL210-62-FD2	21220	20370
JLL24563FD2	JLL245-63-FD2	24690	23700
JLL32063FD2	JLL320-63-FD2	31900	30620
JLL39564FD2	JLL395-64-FD2	39640	38050

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		JLL100-61	JLL160-62	JLL210-62	JLL245-63	JLL320-63	JLL395-64
Air flow	Ltr/sec	2890	6110	5790	9160	8690	11580
Air throw	m	31	33	32	36	35	38
Fan Motors 630mm (415V)	No. of Fans	1	2	2	3	3	4
	Total Watts	800	1600	1600	2400	2400	3200
	Total Amps	1.6	3.2	3.2	4.8	4.8	6.4
Fin Spacing	mm	6	6	6	6	6	6
Elec. Defrost (230V)	Watts	7180	12900	12900	18980	18980	20840
	Amps	31	56	56	83	83	91
Inlet Connection	inch	1/2	5/8	5/8	5/8	5/8	7/8
Suction Connection	inch	1-3/8	1-3/8	1-3/8	1-5/8	1-5/8	2-1/8
Nett Weight	kg	95	126	165	185	242	314
Dimensions	Length	1306	2326	2326	3346	3346	3686
	Height	1000	1000	1000	1000	1000	1190



CORRECTION FACTORS				
Evaporating Temperature	-35°C	-30°C	-25°C	-20°C
Correction Factor	0.8	0.89	0.99	1.07



**JW SERIES - MED TEMP (630 mm Fans)  
WATER DEFROST**

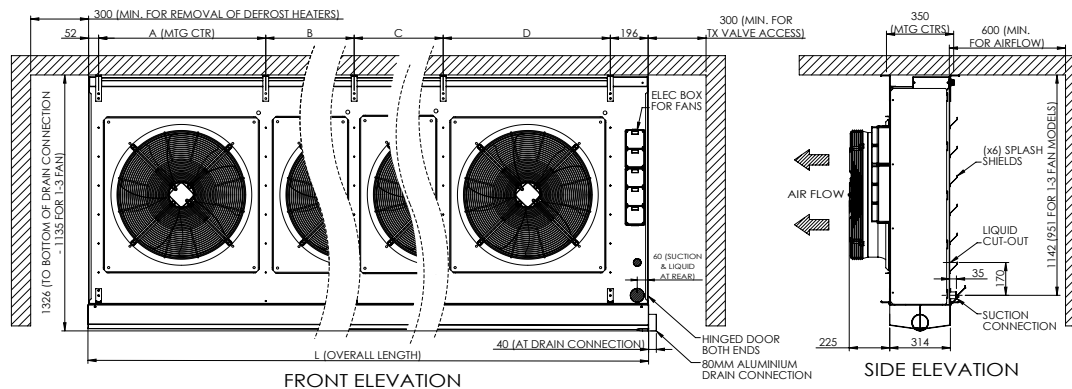


- Attractive white powder coated aluminium casing
- Optimised evaporator coil design with 1/2" tube
- Factory applied "Patton Coat" coil & fin protection
- Improved airflow with full nozzle fan assembly
- Reversible drain tray provides installation flexibility
- Fully servicable water defrost system

ITEM NO.	MODEL	CAPACITY (WATTS) @ -4 SST / 6KTD		
		R404A	R448A	R134a
JMWC14541FD2	JMWC145-41-FD2	14670	14230	13350
JMWC21052FD2	JMWC210-52-FD2	20760	20140	18890
JMWC26552FD2	JMWC265-52-FD2	26510	25710	24120
JMWC30542FD2	JMWC305-42-FD2	30610	29690	27860
JMWC32053FD2	JMWC320-53-FD2	31860	30900	28990
JMWC42053FD2	JMWC420-53-FD2	41790	40540	38030
JMWC46543FD2	JMWC465-43-FD2	46600	45200	42410
JMWC55054FD2	JMWC550-54-FD2	55020	53370	50070
JMWC61044FD2	JMWC610-44-FD2	60930	59100	55450

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		JMWC145 FD2	JMWC210 FD2	JMWC265 FD2	JMWC305 FD2	JMWC320 FD2	JMWC440 FD2	JMWC465 FD2	JMWC550 FD2	JMWC610 FD2
Air flow	Ltr/sec	2750	6030	5680	5500	9050	8520	8260	11360	11010
Air throw	m	30	33	32	31	36	35	34	36	35
Fan Motors 630mm (415V)	No. of Fans	1	2	2	2	3	3	3	4	4
	Total Watts	800	1600	1600	1600	2400	2400	2400	3200	3200
	Total Amps	1.6	3.2	3.2	3.2	4.8	4.8	4.8	6.4	6.4
Fin Spacing	mm	3.6	5	5	3.6	5	5	3.6	5	3.6
Defrost Water	L/Min	26	34	50	50	52	76	76	100	100
Nom Cycles	Min/Hr	12/8	12/8	12/8	12/8	12/8	12/8	12/8	12/8	12/8
Inlet Conn	inch	1/2	5/8	5/8	5/8	5/8	5/8	5/8	7/8	7/8
Suction Conn	inch	1 3/8	1 3/8	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	2 1/8	2 1/8
Nett Weight	kg	116	132	175	211	193	255	303	352	406
Dimensions	Length	1306	2326	2326	2326	3346	3346	3346	3686	3686
	Height	1135	1135	1135	1135	1135	1135	1135	1326	1326



CORRECTION FACTORS					
Evaporating Temperature		-10°C	-5°C	0°C	+5°C
Correction Factor		0.93	0.99	1.07	1.17



**JW SERIES - LOW TEMP (630mm Fans)  
WATER DEFROST**

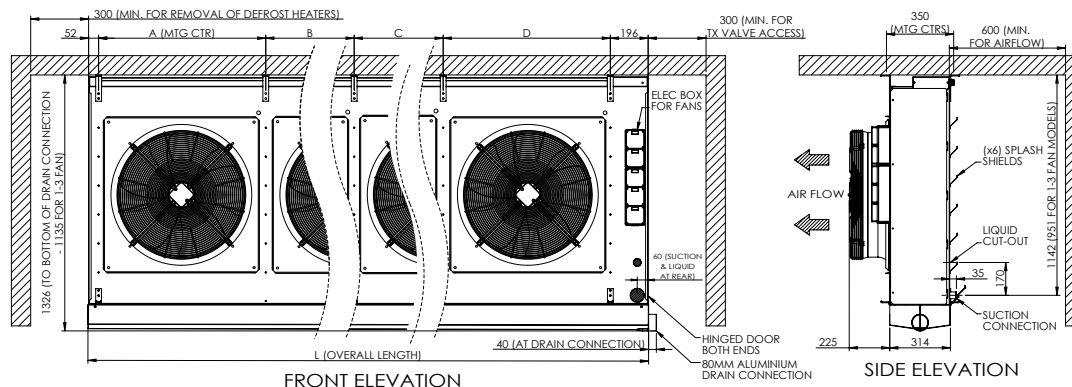


- Attractive white powder coated aluminium casing
- Optimised evaporator coil design with 1/2" tube
- Factory applied "Patton Coat" coil & fin protection
- Improved airflow with full nozzle fan assemblies
- Fan shroud heaters prevents ice formation
- Reversible drain tray provides installation flexibility
- Fully servicable water defrost system

ITEM NO.	MODEL	CAPACITY (WATTS) @ -24 SST / 6KTD	
		R404A	R448A
JLLWC10061FD2	JLLWC100-61-FD2	10160	9750
JLLWC16062FD2	JLLWC160-62-FD2	16190	15540
JLLWC21062FD2	JLLWC210-62-FD2	21220	20370
JLLWC24563FD2	JLLWC245-63-FD2	24690	23700
JLLWC32063FD2	JLLWC320-63-FD2	31900	30620
JLLWC39564FD2	JLLWC395-64-FD2	39640	38050

■ R448A listed ratings have been calculated at 'mid point' conditions.

TECHNICAL DATA		JLLWC100-61 FD2	JLLWC160-62 FD2	JLLWC210-62 FD2	JLLWC245-63 FD2	JLLWC320-63 FD2	JLLWC395-64 FD2
Air flow	Ltr/sec	2890	6110	5790	9160	8690	11580
Air throw	m	31	33	32	36	35	38
Fan Motors 630mm (3 Phase)	No. of Fans	1	2	2	3	3	4
	Total Watts	800	1600	1600	2400	2400	3200
	Total Amps	1.6	3.2	3.2	4.8	4.8	6.4
Fin Spacing	mm	6	6	6	6	6	6
Defrost Water	L/Min	29	38	55	58	84	110
Nom Cycles	Min/Hr	16/6	16/6	16/6	16/6	16/6	16/6
Inlet Connection	inch	1/2	5/8	5/8	5/8	5/8	7/8
Suction connection	inch	1 3/8	1 3/8	1 3/8	1 5/8	1 5/8	2 1/8
Nett Weight	kg	106	140	183	203	265	342
Dimensions	Length	1306	2326	2326	3346	3346	3685
	Height	1135	1135	1135	1135	1135	1326



CORRECTION FACTORS				
Evaporating Temperature	-35°C	-30°C	-25°C	-20°C
Correction Factor	0.8	0.89	0.99	1.07

**G SERIES GLYCOL COOLERS**



- Attractive white powder coated aluminium casing
- Optimised fluid coils 3/8" & 1/2" tube
- Factory applied "Patton Coat" coil & fin protection
- High airflow external rotor fan motor assemblies
- Reversible drain tray provides installation flexibility

ITEM NO.	MODEL	CAPACITY WATTS	Flow (l/sec)	GPD (kpa)	FAN MOTORS		Airflow (l/sec)	Air Throw (m)	Defrost Watts	DIMENSIONS (MM)			WEIGHT (KG)
					FANS	AMPS				W	D	H	
W7000	GBL14	2050	0.11	76	1 x 300	0.3	420	6.5	1360	608	380	404	14
W7005	GBL27	2750	0.15	53	2 x 300	0.6	840	9.0	2380	988	380	404	24
W7010	GBL42	3900	0.20	58	3 x 300	0.9	1260	11.5	2860	1370	380	404	34
W7015	GBL56	4900	0.26	60	4 x 300	1.2	1680	13.0	4060	1752	380	404	44
W7020	GPL30	3000	0.16	40	1 x 350	0.7	790	8.5	3200	1051	430	484	23
W7025	GPL45	4400	0.24	47	2 x 350	1.5	1550	11.5	4120	1309	430	484	29
W7030	GPL70	5850	0.31	44	3 x 350	2.3	2095	14.0	5780	1813	430	484	50
W7035	GPL95	7600	0.40	55	4 x 350	3	2800	16.0	7300	2329	430	484	65
W7040	GPL130	10250	0.55	48	6 x 350	4.5	4200	18.0	10820	3349	430	484	83
W7045	GRL40	4700	0.25	55	1 x 450	2.4	1737	11.0	3200	1051	450	654	76
W7050	GRL80	8150	0.43	50	2 x 450	4.7	3476	13.0	5780	1813	450	654	86
W7055	GRL110	10400	0.55	56	3 x 450	7.1	4594	14.5	7300	2329	450	654	96
W7060	GRL170	14400	0.76	60	4 x 450	9.4	6954	16.0	10820	3349	450	654	106
W7065	GJL100	14600	0.77	50	1 x 630	2.5	3730	26.0	7180	1306	490	1000	102
W7070	GJL175	17310	0.91	45	2 x 630	5	7923	28.0	12900	2326	490	1000	136
W7075	GJL220	23700	1.13	47	2 x 630	5	7460	27.0	12900	2326	490	1000	179
W7080	GJL260	25170	1.33	47	3 x 630	7.5	11884	30.0	18980	3346	490	1000	199
W7085	GJL330	34560	1.82	49	3 x 630	7.5	11190	31.0	28980	3346	490	1000	261
W7090	GJL435	46100	2.43	62	4 x 630	10	14920	32.0	20840	3686	490	1190	338

- Ratings bases on +2.5°C Air temp & -7.5°C glycol entering at above listed flow rates.
- Fluid with 30% Propylene Glycol.



**PATTON EVAPORATOR FAN MOTORS**

ITEM NO.	MODEL NO.	TYPE	SUITS MODEL	DIA (mm)	PHASE	AMPS
F3077	JO6KR10	FASCO	S-Series Evaporators	175	1	0.24
F3098C	VNT16-25	ALCO	TC-Series TCM04 to TCM10	255	1	0.24
F3089B	VNT25-40/197	ALCO	TC-Series TCM12 to TCM16	300	1	0.72
FMW-1-15-70110	FMW-1-15-70110	FREDDOX	D-Series Evaporators - 6pole	350	1	0.37
FMW-1-15-70115	FMW-1-15-70115	FREDDOX	D-Series Evaporators - 4pole	350	1	0.65
F3660	R09R-3028A-4M	HIDRIA	A & B-Series Evaporators	300	1	0.3
F3668	R11R-3530A-4M	HIDRIA	P-Series Evaporators	350	1	0.7
F4326	S4E450-AO-09-01	EBM	R-Series Evaporators	450	1	2.3
R13P-5030A-4T2	R13P-5030A-4T2-7002	HIDRIA	Q-Series Evaporators (Gen 2) Square Plate	500	3	1.3
YWF4D-500GS-K7L	YWF4D-500GS-K7L	FREDDOX	Q-Series Evaporators (Gen 2) Square Plate FD2	500	3	1.6
S4D630-AR01-01	S4D630-AR-01-05	EBM	J-Series Evaporators	630	3	2.5
FMW-1-15-70111	FMW-1-15-70111	FREDDOX	J-Series Evaporators (Gen 2) Square Plate FD2	630	3	1.6

**PATTON CONDENSER FAN MOTORS**

ITEM NO.	MODEL NO.	TYPE	SUITS MODEL	DIA (mm)	PHASE	AMPS
F3668	R11R-3530A-4M	HIDRIA	NGAC150,200,300,400,500	350	1	0.75
F3672	R11R-4030A-4M	HIDRIA	NGAC250,600,650	400	1	1.5
F3680	R13R-5030A-4M	HIDRIA	NGAC750 to 1400	500	1	2.0
F3688	R13R-6330HA-6M	HIDRIA	NGAC1500 to 3000 & NQAC-V	630	1	3.1
F3692	R18E-8030HA-6T	HIDRIA	HQAC3500 to 15002	800	3	4.0
F3650	R18P-080MPS-ET120B	HIDRIA (EC)	HQAC3500 to 15002	800	3	4.6
-	FN080-ZIQ.GL.V7P3	ZIEHL (EC)	EQAC3500 to 15002	800	3	3.8

**PATTON COIL HEATERS**

ITEM NO.	PART NO.	SUITS MODELS
W4826	D290	SL025
W4830	D500	SL045 to 050
W4838	D800	SL070 to 120
W4832	D530	AL11 to 17
W4800	D1010	AL21 to 33
W4812	D1490	AL32 to 49 (Excludes AL33)
W4818	D1970	AL43 to 65
W4828	D450	BL14
W4834	D550	BL20
W4836	D700	BL27
W4844	D950	BL38 to 42
W4806	D1300	BL49 to 56
W4842	D900	PL22
W4804	D1210	PL30
W4814	D1530	PL45
W4820	D2160	PL60 to 70
W4810	D1400	PL80 to 95
W4819	D2040	PL120 to 130
W4804	D1210	Q-Series (Gen.1) & R-Series 1fan
W4820	D2160	Q-Series (Gen.1) & R-Series 2fan
W4810	D1400	Q-Series (Gen.1) & R-Series 3fan
W4819	D2040	Q-Series (Gen.1) & R-Series 4fan
W4814	D1530	J Series 1fan
W4810	D1400	Q-Series (Gen.2) & J-Series 2fan
W4819	D2040	Q-Series (Gen.2) & J-Series 3fan
W4822	D2260	Q-Series (Gen.2) & J-Series 4fan

**PATTON TRAY HEATERS**

ITEM NO.	PART NO.	SUITS MODELS
W4826	D290	SL025
W4830	D500	SL045 to 050
W4838	D800	SL070 to 120
W4862	P630	AL11 to 17
W4848	P1110	AL21 to 33
W4854	P1590	AL32 to 49 (Excludes AL33)
W4856	P2070	AL43 to 65
W4858	P460	BL14
W4860	P600	BL20
W4866	P980	BL27
W4846	P1060	BL38 to 42
W4852	P1460	BL49 to 56
W4860	P600	PL22
W4866	P980	PL30
W4846	P1060	PL45
W4852	P1460	PL60 to 70
W4864	P850	PL80 to 95
W4850	P1330	PL120 to 130
W4866	P980	Q-Series (Gen.1) & R-Series 1fan
W4852	P1460	Q-Series (Gen.1) & R-Series 2fan
W4864	P850	Q-Series (Gen.1) & R-Series 3fan
W4850	P1330	Q-Series (Gen.1) & R-Series 4fan
W4846	P1060	J Series 1fan
W4864	P850	Q-Series (Gen.2) & J-Series 2fan
W4850	P1330	Q-Series (Gen.2) & J-Series 3fan
W4851	P1380	Q-Series (Gen.2) & J-Series 4fan

**DISCHARGE MUFFLERS**

ITEM NO.	CONN SIZE	DIMENSIONS Dia x L (mm)	ITEM NO.	CONN SIZE	DIMENSIONS Dia x L (mm)
F0515	5/8"	50 x 185	F0521	1-3/8"	102 x 345
S-6407	7/8"	102 x 178	S-6415	1-5/8"	102 x 465
S-6411	1-1/8"	102 x 325	S-6621	2-1/8"	152 x 535



**Discharge Mufflers** are designed to eliminate pulsation noise in discharge lines between the compressor and the condenser. Mufflers have internal baffles designed for minimum pressure drop. These baffles change the velocity of the discharge gases passing through the muffler, resulting in a dampening effect on high frequency sound waves on high speed compressors and also smoothing out the pulsating discharge sound waves in low speed compressors.

**SUCTION ACCUMULATORS - Top Entry**

ITEM NO.	CONNECTION SIZE	DIMENSIONS		MOUNT TYPE
		DIAMETER (mm)	HEIGHT (mm)	
3100-083007	1/2"	76	200	M10 stud & nut
3100-104019	5/8"	102	305	M10 stud & nut
3100-145040	7/8"	127	368	M10 stud & nut
F0108	1-1/8"	160	390	M10 stud & nut
F0109	1-3/8"	150	470	M10 stud & nut
3100-266510	1-5/8"	160	575	M10 stud & nut
3100-348615	2-1/8"	220	533	M10 stud & nut
3100-348626	2-1/8"	219	879	M10 stud & nut
S-7721-CE	2-1/8"	219	588	3 x 14 x 22mm slots
S-7725-CE	2-5/8"	219	578	3 x 14 x 22mm slots



■ Height dimension is to top of pipe connections.

**SUCTION ACCUMULATORS - Top Entry (With Liquid Line HE)**

ITEM NO.	CONNECTION SIZE		DIMENSIONS		MOUNT TYPE
	SUCTION	LIQUID	DIAMETER (mm)	HEIGHT (mm)	
S-7057HE-CE	7/8"	1/2"	152	252	M10 stud & nut
S-7061HE-CE	1-1/8"	5/8"	152	382	M10 stud & nut
S-7063HE-CE	1-3/8"	5/8"	152	630	M10 stud & nut
S-7065HE-CE	1-5/8"	3/4"	152	640	M10 stud & nut
S-7721HE-CE	2-1/8"	7/8"	219	588	3 x 14 x 22mm slots
S-7725HE-CE	2-5/8"	1-3/8"	273	578	3 x 14 x 22mm slots



■ Height dimension is to top of pipe connections.

**SUCTION ACCUMULATORS - Side Entry (With Liquid Line HE)**

ITEM NO.	CONNECTION SIZE		DIMENSIONS		MOUNT TYPE
	SUCTION	LIQUID	DIAMETER (mm)	HEIGHT (mm)	
F0170	1-3/8"	5/8"	168	522	3 x 14 x 22mm slots
F0171	1-5/8"	7/8"	168	530	3 x 14 x 22mm slots
F0172	2-1/8"	7/8"	219	664	Flat plate
F0173	2-5/8"	1-3/8"	273	746	Flat plate



**Heat Exchange (HE)** Accumulators have the liquid line passing through them; This provides heat exchange between the liquid and suction lines, which assists with boiling off any liquid in the accumulator helping protect the compressor while also providing a small amount of additional subcooling.

**OIL SEPARATORS (Internal Float)**

ITEM NO.	CONN SIZE	CHARGE LTRS	R404A kw		R134a kw		DIMENSIONS Dia x H (mm)
			-25°C	-5°C	-5°C	+5°C	
3210-6406	3/8"	0.5	4	5	4	5	107 x 277
3210-6408	1/2"	0.5	6	7	6	6	107 x 278
3210-6410	5/8"	0.5	15	17	16	17	107 x 338
3210-6414	7/8"	0.5	24	27	24	25	107 x 384
3210-6418	1-1/8"	0.6	32	35	32	33	107 x 415
3210-9622	1-3/8"	1.2	43	47	43	44	153 x 395

■ Height dimension is to top of pipe connections.



**OIL SEPARATORS (Helical / Internal Float)**

ITEM NO.	CONN SIZE	CHARGE LTRS	R404A kw		R134a kw		DIMENSIONS Dia x H (mm)
			-25°C	-5°C	-5°C	+5°C	
F0142	1-1/8"	0.5	42	48	32	35	140 x 443
F0144	1-3/8"	0.5	53	60	42	46	140 x 443
F0146	1-5/8"	0.5	78	98	68	75	200 x 448

■ Height dimension is to top of pipe connections.



**OIL SEPARATORS/RESERVOIR (Helical / External Float)**

ITEM NO.	CONN SIZE	CHARGE LTRS	R404A kw		R134a kw		DIMENSIONS Dia x H (mm)
			-25°C	-5°C	-5°C	+5°C	
F0150	1-1/8"	4	44	55	38	42	140 x 590
F0152	1-3/8"	11	78	98	68	75	220 x 690
F0154	1-5/8"	11	84	105	72	80	220 x 695
F0156	2-1/8"	17	104	130	90	100	220 x 895
F0158	2-5/8"	25	216	270	190	210	275 x 905

- Helical (Centrifugal) type oil separators offer high efficiency oil removal of up to 99%.
- External float models include 2 x oil level sight glass & oil return shut off valve.
- Specified oil charge is oil charge required to fill reservoir to top sight glass.  
\*50% of this value is usually adequate for most close coupled systems.



**OIL CONTROL ACCESSORIES**

ITEM NO.	PRODUCT NUMBER	DESCRIPTION
H0100	SH-9105	Henry Compact Oil Strainer 083 3/8" Flare (153mm Long x 66mm dia)
SP2600	OF-303	Sporlan OF-303 Oil Filter 3/8" Flare
SP2601	OF-303-BP	Sporlan OF-303-BP Oil Filter W/Bypass 3/8" Flare
SP2605	ROF-413	Sporlan Demountable Oil Shell ROF-413
SP2608	OFE-1	Sporlan Oil Element C/W Gasket OFE-1
F1012	S-9420A	Henry N/O Liquid/Oil Level Switch 1/2" MPT
F1012B	S-9420	Henry N/C Liquid/Oil Level Switch 1/2" MPT
F0057	S-9104	Henry Reservoir Pressure Valve (0.35Bar Diff) 3/8 FM Flare Inlet / 3/8 MF Outlet

■ Please contact Beijer Ref for more information on the above oil control accessories.





## HENRY INTEL OIL LEVEL CONTROLS



IntelOil HOC1 Controllers monitor and maintain the oil level in the compressor crankcase, while the HLS Oil Level Sensors monitor the oil level only. Both HOC1 & HLS use proven high resolution float sensor technology and can shut down the compressor and generate an alarm if the oil falls below an acceptable level. This can protect the compressor from damage and possible failure.

- Approved for HCFC, HFC & CO2 refrigerants and their associated oils
- High resolution float sensor with Precise level sensing
- Reliable performance even with foaming or dirty oil
- Integral diagnostics & alarm output relay
- Supplied with 3m power and relay cables

## LEVEL CONTROLS & MONITORS

ITEM NO.	PRODUCT NO.	VOLTS	PRESS (BAR)	DESCRIPTION
F1024	HOC1-230-3-UNI	230	60	<b>230V Oil Level Control (Includes: Universal Flange, Power &amp; Relay Cables)</b> Suits most semi-hermetic compressors and brands including: Frascold, Copeland, Bitzer, Bock, Dorin
F1020	HOC1-230-3	230	60	230V Oil Level Control & Monitoring System
F1022	HOC1-24-3	24		24V Oil Level Control & Monitoring System
F1025	HLS-230-3	230		230V Oil Level Monitoring System
F1026	HLS-24-3	24		24V Oil Level Monitoring System
-	HOC1H-230-3	230	120	230V Oil Level Control & Monitoring System (High Pressure)
-	HOC1H-24-3	24		24V Oil Level Control & Monitoring System (High Pressure)
F1027	HLSH-230-3	230		230V Oil Level Monitoring System (High Pressure)
F1028	HLSH-24-3	24		24V Oil Level Monitoring System (High Pressure)

■ All above controls include power and relay cables

## ADAPTORS & ACCESSORIES

ITEM NO.	PRODUCT NO.	COMPRESSOR TYPE	MOUNTING STYLE
F1015	H12070	Multi-Adaptor (UNI)	3 & 4 bolt combination flange with O-ring
-	H12071	Bitzer, Bock, Copeland	1-1/8"-18 UNEF thread with O-ring
-	H12072	Dorin Compressor	1-1/8"-18 UNEF thread with aluminium seal
-	H12073	Copeland Scroll	3/4"-14 NPTF
-	H12074	Copeland Scroll Large HP	1-3/4"-12 UN thread rotalock with teflon gasket
F1017	H12075	Copeland Scroll Sm/Med HP	1-1/4"-12 UN thread rotalock with teflon gasket
-	H12076	Danfoss/Maneurop	1-1/8"-18 UNEF thread with O-ring and adaptor ring
-	H12023	All IntelOil Models	240/24 VAC supply cable with plugs 3m
-	H12024		Relay Cable with plug 3m
-	H12043		24V AC Replacment Coil
-	H12044		240V AC Replacment Coil

## TRAXOIL OIL LEVEL CONTROL

ITEM NO.	VOLTS	PRESS (BAR)	DESCRIPTION
991-0200-00	24	46	<b>Emerson TraxOil OM3 Oil Level Control Kit (Includes: Power &amp; Relay Cables)</b> Suits most semi-hermetic compressors and brands including: Frascold, Copeland, Bitzer, Bock, Dorin



**NORTHPEAK VERTICAL LIQUID RECEIVERS**

ITEM NO.	PRODUCT NO.	VOLUME	kg @ 80%	CONNECTIONS		DIMENSIONS (mm)	
			R404A	INLET	OUTLET	HEIGHT	DIAMETER
C5703	AR – 103	3.6L	3.0	3/8"	3/8"	340	120
C5704	AR – 104	4.8L	4.0	1/2"	1/2"	270	150
C5705	AR – 105	6.0L	5.0	1/2"	1/2"	230	180



■ Northpeak vertical liquid receivers have solder inlet and come complete with outlet rotolock valve.

**HENRY VERTICAL LIQUID RECEIVERS**

ITEM NO.	VOLUME	KG @ 80%	CONNECTIONS		DIMENSIONS (mm)	
		R404A	INLET	OUTLET	HEIGHT	DIAMETER
3310-064014	1.4L	1.1	1/4" Copper Tail	3/4" R/L Stub	200	100
3310-064724	2.4L	1.9	3/8" Copper Tail	3/4" R/L Stub	249	120
3310-105544	4.4L	3.5	1/2" Copper Tail	3/4" R/L Stub	337	140
3310-167082	8.2L	6.6	1" R/L Stub	1" R/L Stub	396	180
3310-1670109	10.9	8.7	1" R/L Stub	1" R/L Stub	509	180
3310-1686145	14.5	11.6	1" R/L Stub	1" R/L Stub	430	219



■ Henry vertical liquid come with outlet Rotolock spud connector. Rotolock valve to be ordered separately.

**HORIZONTAL LIQUID RECEIVERS**

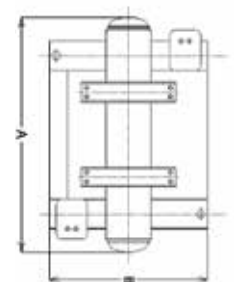
ITEM NO.	PRODUCT NO.	VOLUME	KG @ 80%	CONNECTIONS		DIMENSIONS (mm)	
			R404A	INLET	OUTLET	LENGTH	DIAMETER
C5715G	AR – 115	22.0L	18.2	7/8"	5/8"	1100	150
C5727G	AR – 127	26.0L	21.6	7/8"	7/8"	1300	180
C5742G	AR – 142	40.5L	33.6	1-1/8"	7/8"	2000	180



■ Above Horizontal liquid receivers come complete with rotolock valves and relief valve port.

**HORIZONTAL LIQUID RECEIVERS (With Compressor Mounts)**

ITEM NO.	PRODUCT NO.	VOLUME	KG @ 80%	CONNECTIONS		DIMENSIONS (mm)		
			R404A	INLET	OUTLET	A	B	C
C5730G	RES 075-4	20.0L	16.6	7/8"	5/8"	1000	770	260
C5732G	RES 5-15	35.0L	29.0	7/8"	7/8"	1000	820	300
C5734G	RES 15-30	43.0L	35.7	1-1/8"	7/8"	1300	870	300
C5736G	RES 30-50	92.5L	76.8	1-1/8"	7/8"	1300	970	360



■ Above Horizontal liquid receivers come complete with rotolock valves and relief valve port.

**FREDDOX LIQUID LINE DRIERS**



Freddox driers have a solid core totally made of 3A molecular sieves, and special binding agent in appropriate portions. This provides a superlative capacity for water absorption while also offering some deacidifying characteristics.

- 100% 3A Molecular Sieve core will not deplete oil additives
- High drying capacity minimises the risk of acid formation
- Recommended for use with HFO, HC, HFC and HCFC refrigerants

**LIQUID LINE DRIERS - FLARE**

ITEM NO.	PRODUCT NO.	CONN SIZE FLARE	SELECTION RECOMMENDATION (KW)					DESICCANT VOLUME (Inch <sup>3</sup> )	LENGTH (mm)	DIAMETER (mm)
			R134A	R404A	R448A	R410A	R32			
GDFD1032A	DSC032	1/4	7.2	5.1	6.8	7.6	11.0	3	109	41.5
GDFD1052A	DSC052		7.3	5.2	7.0	7.8	11.3	5	120	63.5
GDFD1082A	DSC082		7.5	5.4	7.2	7.9	11.6	8	141	63.5
GDFD1162A	DSC162		8.3	5.9	7.8	8.7	12.7	16	161	63.5
GDFD1033A	DSC033	3/8	16.8	12.0	16.0	17.7	25.9	3	109	41.5
GDFD1053A	DSC053		17.5	12.5	16.7	18.5	27.0	5	120	63.5
GDFD1083A	DSC083		19.4	13.9	18.5	20.5	30.0	8	141	63.5
GDFD1163A	DSC163		19.5	13.9	18.6	20.6	30.1	16	161	63.5
GDFD1303A	DSC303	1/2	20.4	14.6	19.4	21.6	31.5	30	249	76.0
GDFD1084A	DSC084		23.6	16.8	22.4	24.9	36.3	8	156	63.5
GDFD1164A	DSC164		25.2	18.0	24.0	26.6	38.9	16	176	63.5
GDFD1304A	DSC304		28.7	20.5	27.3	30.3	44.3	30	254	76.0
GDFD1414A	DSC414	5/8	36.5	26.0	34.7	38.6	56.3	41	257	89.0
GDFD1165A	DSC165		33.7	24.0	32.0	35.6	51.9	16	186	63.5
GDFD1305A	DSC305	5/8	37.2	26.6	35.4	39.3	57.4	30	264	76.0
GDFD1415A	DSC415		42.2	30.1	40.1	44.6	65.0	41	267	89.0



**LIQUID LINE DRIERS - SOLDER**

ITEM NO.	PRODUCT NO.	CONN SIZE ODS	SELECTION RECOMMENDATION (KW)					DESICCANT VOLUME (Inch <sup>3</sup> )	LENGTH (mm)	DIAMETER (mm)
			R134A	R404A	R407C	R410A	R32			
GDFD1032C	DSC032S	1/4	7.2	5.1	6.8	7.6	11.0	3	101	41.5
GDFD1052C	DSC052S		7.3	5.2	7.0	7.8	11.3	5	112	63.5
GDFD1082C	DSC082S		7.5	5.4	7.2	7.9	11.6	8	133	63.5
GDFD1162C	DSC162S		8.3	5.9	7.8	8.7	12.7	16	153	63.5
GDFD1033C	DSC033S	3/8	16.8	12.0	16.0	17.7	25.9	3	105	41.5
GDFD1053C	DSC053S		17.5	12.5	16.7	18.5	27.0	5	116	63.5
GDFD1083C	DSC083S		19.4	13.9	18.5	20.5	30.0	8	137	63.5
GDFD1163C	DSC163S		19.5	13.9	18.6	20.6	30.1	16	157	63.5
GDFD1303C	DSC303S	1/2	20.4	14.6	19.4	21.6	31.5	30	235	76.0
GDFD1084C	DSC084S		23.6	16.8	22.4	24.9	36.3	8	137	63.5
GDFD1164C	DSC164S		25.2	18.0	24.0	26.6	38.9	16	157	63.5
GDFD1304C	DSC304S		28.7	20.5	27.3	30.3	44.3	30	235	76.0
GDFD1414C	DSC414S	5/8	36.5	26.0	34.7	38.6	56.3	41	238	89.0
GDFD1165C	DSC165S		33.7	24.0	32.0	35.6	51.9	8	163	63.5
GDFD1305C	DSC305S	5/8	37.2	26.6	35.4	39.3	57.4	16	241	76.0
GDFD1415C	DSC415S		42.2	30.1	40.1	44.6	65.0	30	244	89.0
GDFD1307C	DSC307S	7/8	50.1	35.7	47.6	52.9	77.2	30	255	76
GDFD1417C	DSC417S		71.1	50.7	67.6	75.1	109.6	41	258	89
GDFD1757C	DSC757S		103.6	73.9	98.5	109.5	158.2	75	393	89



■ Ratings are based at 0.07bar pressure drop

**DANFOSS LIQUID LINE DRIERS**



All ELIMINATOR® driers have a solid core with binding material held to an absolute minimum. DML driers have a core composition of 100% Molecular Sieve. DML driers are designed for applications requiring the highest moisture capacity.

- 100% 3A Molecular Sieve core will not deplete oil additives
- High drying capacity minimises the risk of acid formation
- Recommended for use with HFO, HC, HFC and HCFC refrigerants

**LIQUID LINE DRIERS - FLARE**

ITEM NO.	PRODUCT NO.	CONN SIZE FLARE	SELECTION RECOMMENDATION (KW)					DESICCANT VOLUME (Inch <sup>3</sup> )	LENGTH (mm)	DIAMETER (mm)
			R134A	R404A	R448A	R410A	R32			
023Z5035	DML 032	1/4	4.6	3.1	4.3	4.7	7.1	3	110	43
023Z5037	DML 052		4.8	3.2	4.5	5	7.4	5	119	54
023Z5039	DML 082		4.9	3.3	4.6	5.1	7.6	8	145	54
023Z5042	DML 162		4.9	3.3	4.6	5.1	8.6	16	154	76
023Z5036	DML 033	3/8	4.6	3.1	4.3	4.7	7.1	3	123	43
023Z5038	DML 053		12.5	8.5	11.8	13.0	19.4	5	132	54
023Z5040	DML 083		12.5	8.5	11.8	13.0	19.4	8	158	54
023Z5043	DML 163		14.2	9.7	13.4	14.7	22.1	16	167	76
023Z0049	DML 303	1/2	15.1	10.3	14.2	15.7	23.5	30	243	76
023Z5041	DML 084		17.0	11.5	16.0	17.6	26.4	8	166	54
023Z5044	DML 164		20.9	14.2	19.7	21.6	32.4	16	175	76
023Z0050	DML 304		25.7	17.5	24.3	26.7	39.9	30	251	76
023Z0109	DML 414	5/8	26.6	18.0	25.0	27.5	41.2	41	252	89
023Z5045	DML 165		30.3	20.6	28.6	31.4	47.1	16	184	76
023Z0051	DML 305		35.7	24.2	33.6	36.9	55.3	30	260	76
023Z0110	DML 415		35.7	24.2	33.6	36.9	55.3	41	261	89
023Z0193	DML 306	3/4	46.3	31.4	43.6	47.9	71.8	30	258	76



**LIQUID LINE DRIERS - SOLDER**

ITEM NO.	PRODUCT NO.	CONN SIZE ODS	SELECTION RECOMMENDATION (KW)					DESICCANT VOLUME (Inch <sup>3</sup> )	LENGTH (mm)	DIAMETER (mm)
			R134A	R404A	R448A	R410A	R32			
023Z5048	DML 032s	1/4	4.6	3.1	4.3	4.7	7.1	3	104	43
023Z5053	DML 052s		4.8	3.2	4.5	5	7.4	5	107	54
023Z5057	DML 082s		4.9	3.3	4.6	5.1	7.6	8	133	54
023Z5063	DML 162s		4.9	3.3	4.6	5.1	8.6	16	142	76
023Z5050	DML 033s	3/8	4.6	3.1	4.3	4.7	7.1	3	104	43
023Z5054	DML 053s		12.5	8.5	11.8	13.0	19.4	5	113	54
023Z5058	DML 083s		12.5	8.5	11.8	13.0	19.4	8	136	54
023Z5064	DML 163s		14.2	9.7	13.4	14.7	22.1	16	148	76
023Z0067	DML 303s	1/2	15.1	10.3	14.2	15.7	23.5	30	224	76
023Z5061	DML 084s		17.0	11.5	16.0	17.6	26.4	8	143	54
023Z5067	DML 164s		20.9	14.2	19.7	21.6	32.4	16	152	76
023Z0068	DML 304s		25.7	17.5	24.3	26.7	39.9	30	228	76
023Z5068	DML 165s	5/8	30.3	20.6	28.6	31.4	47.1	16	160	76
023Z0069	DML 305s		35.7	24.2	33.6	36.9	55.3	30	236	76
023Z0112	DML 415s		35.7	24.2	33.6	36.9	55.3	41	251	89
023Z0070	DML 306s		3/4	46.3	31.4	43.6	47.9	71.8	30	258
023Z0113	DML 417s	7/8	T.B.A					41	260	89
023Z0114	DML 419s	1-1/8	T.B.A					41	270	89



■ Ratings are based at -10sst, 45sct and liquid line pressure drop equivalent to 0.2k



**DANFOSS BI-FLOW DRIERS**



**ELIMINATOR®** Type DMB Hermetic Bi-flow filter driers are for use in liquid lines on reverse cycle air-conditioning units. The hermetic bi-flow filter driers have built-in check valves which ensure that refrigerant liquid always flows through the filter drier from the outer side of the filter core towards the center. Thus all dirt particles are retained irrespective of flow direction. DMB hermetic bi-flow filter driers ensure fast and effective adsorption of moisture as well as organic and inorganic acids.

- High drying capacity minimises the risk of acid formation (hydrolysis)
- Built-in check valve insures particles are retained irrespective of flow
- Recommended for use with HFO, HC, HFC and HCFC refrigerants

**BI-FLOW DRIERS - FLARE**

ITEM NO.	PRODUCT NO.	CONN SIZE FLARE	SELECTION RECOMMENDATION (KW)			LENGTH (mm)	DIAMETER (mm)
			R134A	R407C	R410A		
023Z1412	DMB 082	1/4	4.3	3.9	3.9	147	58
023Z1411	DMB 083	3/8	8.2	7.4	7.4	160	58
023Z1415	DMB 163		20	18	18	169	80
-	DMB 303		21	19	19	245	80
023Z1410	DMB 084	1/2	9.2	8.3	8.3	168	58
023Z1414	DMB 164		32	28	28	177	80
-	DMB 304		33	29	29	253	80
023Z1413	DMB 165	5/8	40	37	37	186	80
H0342	DMB 305		42	38	38	262	80



**BI-FLOW DRIERS - SOLDER**

ITEM NO.	PRODUCT NO.	CONN SIZE ODS	SELECTION RECOMMENDATION (KW)			LENGTH (mm)	DIAMETER (mm)
			R134A	R407C	R410A		
023Z1443	DMB 082S	1/4	4.3	3.9	3.9	135	58
023Z1442	DMB 083S	3/8	8.2	7.4	7.4	141	58
023Z1446	DMB 163S		20	18	18	150	80
023Z1441	DMB 084S		9.2	8.3	8.3	145	58
023Z1445	DMB 164S	1/2	32	28	28	154	80
023Z1449	DMB 304S		21	19	19	230	80
023Z1444	DMB 165S	5/8	40	37	37	160	80
023Z1448	DMB 305S		42	38	38	236	80
023Z1447	DMB 307S	7/8	47	43	43	250	80



■ Ratings are based at +7sst, 45sct and liquid line pressure drop equivalent to 0.2k



## DANFOSS SUCTION FILTER DRIERS



**ELIMINATOR®** Hermetic burn-out filter drier type DAS are used in the suction line to clean up refrigeration and air conditioning systems after a compressor motor burn-out. The solid core, which is composed of 70% activated alumina and 30% Molecular Sieve, adsorbs harmful acids as well as moisture. Available with flare and solder (pure copper) connections.

- Corrosion resistant powder-painted finish
- installation with any orientation provided flow is in direction of arrow
- 2 Schrader access valves to measure pressure drop across the drier
- Recommended for use with HFO, HC, HFC and HCFC refrigerants

### SUCTION FILTER DRIERS - FLARE

ITEM NO.	PRODUCT NO.	CONN SIZE FLARE	SELECTION RECOMMENDATION (KW)				LENGTH (mm)	DIAMETER (mm)
			R134A	R404A	R407C	R410A		
023Z1001	DAS 083	3/8	3.5	4.5	6	6	157	53
023Z1002	DAS 084	1/2	5.5	8	10	10	165	53
023Z1007	DAS 164		6	8.5	10.5	10.5	175	76
023Z1008	DAS 165	5/8	9.5	13	15	15	183	76



### SUCTION FILTER DRIERS - SOLDER

ITEM NO.	PRODUCT NO.	CONN SIZE ODS	SELECTION RECOMMENDATION (KW)				LENGTH (mm)	DIAMETER (mm)
			R134A	R404A	R407C	R410A		
023Z1003	DAS 083S	3/8	3.5	4.5	6	6	140	53
023Z1004	DAS 084S	1/2	5.5	8	10	10	142	53
023Z1009	DAS 164S		6	8.5	10.5	10.5	152	76
023Z1005	DAS 085S	5/8	9	12.5	14.5	14.5	150	53
023Z1010	DAS 165S		9.5	13	15	15	157	76
023Z1013	DAS 305S		11	15	18	18	234	76
023Z1006	DAS 086S	3/4	11.5	16.5	19	19	160	53
023Z1011	DAS 166S		12	17	20	20	170	76
023Z1014	DAS 306S		14	19	22	22	246	76
023Z1012	DAS 167S	7/8	13.5	19	22	22	173	76
023Z1015	DAS 307S		16	22	26	26	249	76
023Z1017	DAS 417S		18	25	30	30	249	89
023Z1019	DAS 607S	1-1/8	18	25	30	30	398	76
023Z1016	DAS 309S		20	27	31	31	249	76
023Z1018	DAS 419S		22	30	35	35	249	89
023Z1020	DAS 609S		22	30	35	35	398	76



■ Ratings based at +4sst, 45sct and pressure drop equivalent to 0.2k

**DANFOSS FILTER & DRIER CORES**

ITEM NO.	PRODUCT NO.	DESCRIPTION	APPLICATION
023U1392	48-DM	Drier Core - Standard Capacity	General Application
023U4381	48-DC	Drier Core - High Capacity	High Capacity Drying
023U5381	48-DA	Drier Core - Burn Out	Burn Out or Clean Up
023U1921	48-F	Filter Element	Suction Side Filtration



**48-DC Genral Usage Core** Adsorbs moisture and acid in the system throughout the entire temperature range; 80% molecular sieve and 20% activated alumina solid core suitable for general purpose and compatible with most refrigerants.

**48-DA Activated Core** High acid adsorption and standard water adsorption; 30% molecular sieve and 70% activated alumina solid core suitable for use after compressor burnout and compatible with most refrigerants.

**48-F Strainer** Utilised in the suction or liquid line; Retains dirt particles larger than 15 µm and compatible with all refrigerants.

**SPORLAN FILTER & DRIER CORES**

ITEM NO.	PRODUCT NO.	DESCRIPTION	APPLICATION
SP3702	RC4864	Drier Core Standard	General use
SP3704	RCW48	Drier Core High Moisture	High Moisture
SP3703	RC4864HH	Drier Core - Burn Out	Burn Out or Clean Up
SP3710	RPE48BD	Filter Element	Suction Side Filtration



**RC-4864 Activated Core** This high quality standard core consists of a blend of highly effective desiccants. suitable for most installations in the liquid or suction line applications.

**RCW-48 High Water Capacity Core** This core should be used on systems that have been exposed to the atmosphere, or for some reason have a high amount of moisture.

**RC-4864-HH Activated Charcoal Core** This core should be used for wax removal on med & low temperature systems, and for clean-up of systems that have had a hermetic motor burnout. After clean-up this core should be replaced with RPE-48-BD Filter Element.

**RPE-48-BD Filter Element** This element should be used in the suction line to obtain the lowest possible pressure drop. In cleaning up a system after a hermetic motor burnout **RC-4864-HH**, cores should be used first. Then after the system is thoroughly clean, this filter element can be installed in the shell to offer continued compressor protection against solid particals.

**DEMOUNTABLE DRIER SHELLS**

ITEM NO.	PRODUCT NO.	CONNECTION SIZE	NO OF CORES
SD0000G	BFDS-487	7/8" ODS	1 Core
SD0001G	BFDS-489	1-1/8" ODS	1 Core
SD0002G	BFDS-4811	1-3/8" ODS	1 Core
SD0003G	BFDS-4813	1-5/8" ODS	1 Core
SD0004G	BFDS-4817	2-1/8" ODS	1 Core
SD0005G	BFDS-4825	2-5/8" ODS	1 Core
SD0007G	BFDS-967	7/8" ODS	2 Core
SD0008G	BFDS-969	1-1/8" ODS	2 Core
SD0009G	BFDS-9613	1-3/8" ODS	2 Core
SD0010G	BFDS-9613	1-5/8" ODS	2 Core
SD0011	BFDS-9617	2-1/8" ODS	2 Core
SD0015G	BFDS-1449	1-1/8" ODS	3 Core
SD0016G	BFDS-14411	1-3/8" ODS	3 Core
SD0017	BFDS-14413	1-5/8" ODS	3 Core
SD0020	BFDS-19211	1-3/8" ODS	4 Core
SD0022	BFDS-19217	2-1/8" ODS	4 Core
SD0025	ACR3056	Bracket for mounting standard size drier shells	



**DANFOSS SGP SERIES SIGHT GLASSES**

ITEM NO.	PRODUCT NO.	SIZE (SOLDER)
014L0181	SGP 6s N	1/4" ODS
014L0182	SGP 10s N	3/8" ODS
014L0183	SGP 12s N	1/2" ODS
014L0184	SGP 16s N	5/8" ODS
014L0185	SGP 19s N	3/4" ODS
014L0186	SGP 22s N	7/8" ODS
014L0187	SGP 28s N	1 1/8" ODS

ITEM NO.	PRODUCT NO.	SIZE (FLARE)
014L0161	SGP 6 N	1/4" MF
014L0162	SGP 10 N	3/8" MF
014L0163	SGP 12 N	1/2" MF
014L0165	SGP 16 N	5/8" MF
014L0171	SGP 6 N	1/4" MF x FF
014L0172	SGP 10 N	3/8" MF x FF
014L0173	SGP 12 N	1/2" MF x FF
014L0174	SGP 16 N	5/8" MF x FF



**Danfoss SGP** is a series of sight glasses for high pressure applications (Max Working Pressure 52 bar/754 psig) SGP is available in versions optimized for refrigerants with mineral oil e.g. HCFC, and in versions optimized for non-flammable HFC refrigerants. SGP is available with flare, solder and socket connections, and with and without moisture indicators

**SPORLAN SEE-ALL SIGHT GLASSES**

ITEM NO.	PRODUCT NO.	SIZE (SOLDER)
SP2702	SA-12-S	1/4" ODS
SP2705	SA-13-S	3/8" ODS
SP2712	SA-14-S	1/2" ODS
SP2718	SA-15-S	5/8" ODS
SP2722	SA-17-S	7/8" ODS
SP2723	SA-19-S	1 1/8" ODS
SP2724	SA-211	1 3/8" ODS
SP2726	SA-213	1 5/8" ODS
SP2728	SA-217	2 1/8" ODS

ITEM NO.	PRODUCT NO.	SIZE (FLARE)
SP2700	SA-12	1/4" MF
SP2703	SA-13	3/8" MF
SP2710	SA-14	1/2" MF
SP2717	SA-15	5/8" MF
SP2701	SA-12FM	1/4" MF x FF
SP2704	SA-13FM	3/8" MF x FF
SP2711	SA-14FM	1/2" MF x FF
SP2709	SA-15-U	5/8" MF x FF (Swivel)
SP2699	K-SA-4	Replacement Indicator

**SPORLAN**



**The See-All** Moisture and Liquid Indicator provides a true moisture indication for Refrigerants The dark green indicates dry and a bright yellow indicates wet. The one indicator avoids the confusion found in models with two elements. You cannot pick the wrong element when checking the moisture content of the system.

**SEE-ALL SIGHT GLASS FEATURES**

**Reliable And Accurately Calibrated Colour Change Points.**

See-All Moisture Indicators are accurately calibrated in parts per million of moisture. The indicator's colour differs so widely between WET and DRY conditions that there is no possibility of confusion between the two. Colours will reverse as often as moisture concentration in the system changes.

**Large Full View Sight Glass.**

The See-All Moisture and Liquid Indicator has an extra large crystal clear sight glass for viewing the refrigerant. Bubbles can indicate a shortage of refrigerant or a restriction in the liquid line

**Indicator Protected from Discolouration and Dirt.**

The indicator is protected by a filter pad and screen. This prevents washing of the indicator by the refrigerant and protects it from the system contamination and turbulence.

**Replaceable Indicator Element.**

The colour moisture indicator can be changed on the new fused glass models without the need to remove the See-All from the line. Simple replacement of the indicator is through the bottom. Request the K-SA-4 kit (SP2700)

**ROTOLOCK VALVES WITH DUAL ACCESS**

ITEM NO.	CONNECTION SIZE	
	TUBE	ROTOLOCK
H1006	1/4" MF	3/4"
H1009	3/8" MF	3/4"
H0990	3/8" ID	3/4"
H1012	1/2" ID	3/4"
H1007	3/8" ID	1"
H1014A	1/2" MF	1"
H1014	1/2" ID	1"
H1017	5/8" ID	1"
H1018	5/8" ID	1-1/4"



ITEM NO.	CONNECTION SIZE	
	TUBE	ROTOLOCK
H1031	3/4" ID	1-1/4"
H1036	7/8" ID	1-1/4"
H1037	7/8" ID	1-3/4"
H1040	1-1/8" ID	1-1/4"
H1042	1-1/8" ID	1-3/4"
H1045	1-3/8" ID	1-3/4"
H1047	1-5/8" ID	1-3/4"
H1049	1-5/8" ID	2-1/4"

**ROTOLOCK STRAIGHT CONNECTOR**

ITEM NO.	CONNECTION SIZE	
	TUBE	ROTOLOCK
H1140	1/2" ID	1"
-	5/8" ID	1"
H1132	7/8" ID	1-1/4"
-	1-1/8" ID	1-1/4"
-	1-1/8" ID	1-3/4"



**ROTOLOCK ANGLE CONNECTOR**

ITEM NO.	CONNECTION SIZE	
	TUBE	ROTOLOCK
H1114	1/2" ID	1"
H1115	5/8" ID	1"
H1117	7/8" ID	1"
H1144	7/8" ID	1-1/4"
-	1-1/8" ID	1-1/4"
H1123	1-1/8" ID	1-3/4"

**ROTOLOCK SPUDS**

ITEM NO.	CONNECTION SIZE
H1065	3/8" ID x 3/4" RL Nut
H1068	1/2" ID x 1" RL Nut
H1074	3/4" ID x 1-1/4" RL Nut
H1080	1-3/8" ID x 1-3/4" RL Nut
H1083	1-5/8" ID x 2-1/4" RL Nut



**TEFLON FIBRE SEALS**

ITEM NO.	TO SUIT
H1103	3/4" Rololock
H1104	1" Rololock
H1105	1-1/4" Rololock
H1106	1-3/4" Rololock
H1108	2-1/4" Rololock



**PRESSURE RELIEF VALVES**

ITEM NO.	PRODUCT NO.	SIZE CONNECTIONS		PRESSURE SETTINGS	
		INLET	OUTLET	PSI	KPA
5231AX-27.6	5231AX-27.6	3/8" NPT	1/2" FPT	400	2760
5231AX-29.3	5231AX-29.3	3/8" NPT	1/2" FPT	425	2930
5231AX-31.0	5231AX-31.0	3/8" NPT	1/2" FPT	450	3100
5231BX-27.6	5231BX-27.6	1/2" NPT	5/8" MF	400	2760
5231BX-29.3	5231BX-29.3	1/2" NPT	5/8" MF	425	2930
5231BX-31.0	5231BX-31.0	1/2" NPT	5/8" MF	450	3100



- The X-series PRV's will reseal within 15% of the set pressure, resulting in minimum refrigerant loss.
- Contact Beijer Ref for availability of 60, 80 & 120bar relief valves to suit CO2 systems.

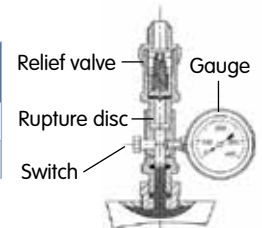
**RELIEF VALVE CHANGOVER MANIFOLD**

ITEM NO.	PRODUCT NO.	SIZE CONNECTIONS	
		INLET	OUTLET
G0685	A17921	1/2" MNPT	2 x 1/2" FNPT
G0580	925	1/2" FNPT	2 x 1/2" FNPT
G0683	Union	1/2" MNPT	1/2" MNPT



**RELIEF SIGNAL PRESSURE SWITCH & GAUGE**

ITEM NO.	PRODUCT NO.	DESCRIPTION	CONNECTION SIZE	PRESSURE
G0688	G15	Pressure gauge	1/8" MPT	600 psi max
G0690	FF31F5HBMS	Signal Switch	1/8" MPT	210 psi switch



- The above pressure switch and gauge can be installed to signal that a rupture disc has been activated.
- Pressure relief valves should be selected to activate at a higher pressure than the rupture disc, this ensures that a high pressure fault is signalled and corrected via the signal switch before refrigerant is released.

**SANHUA REVERSING VALVES**

ITEM NO.	PRODUCT NO.	CONNECTIONS		PORT	Kv	NOM KW	
		DISCH	SUCT			R407C	R410A
SANSHF-19009	SHF(G)-7C-34U	3/8	1/2	11.1	2.9	5.9	6.9
SANSHF-19014	SHF(L)-11H-45D1	1/2	5/8	11.5	4.5	9.1	10.7
SANSHF-50022	SHF-20D-46-02	1/2	3/4	17.2	9.5	19.3	22.5
SANSHF-50041	SHF-20D-47-02	1/2	7/8	17.2	9.9	20.1	23.5
SANSHF-50027	SHF-35B-67-04	3/4	7/8	20.0	14.7	29.8	34.9
SANSHF-50048	SHF-35B-79-04	7/8	1-1/8	20.9	14.7	29.8	34.9
SANSHF-50016	SHF-50-911-D2	1-1/8	1-3/8	25.6	18.5	37.5	43.9



- Capacity based on +7.2deg evaporating / 54.4deg Condensing. Max capacity at 10kpa pressure drop.
- Coil is not included and should be ordered separately along with reversing valve.

**SANHUA COILS**

ITEM NO.	PRODUCT NO.	VOLTAGE	CONNECTION TYPE	LENGTH (mm)
SANSHF-56001	SQ-A25-22G	240V AC	LEAD	500
SANSHF-56005	SQ-A25-24	24V AC	LEAD	500



**HAND SHUT-OFF VALVES - FLARE**

ITEM NO.	CONNECTION
H0841A	1/4" MF
H0842A	3/8" MF
H0843A	1/2" MF
H0844A	5/8" MF



**HAND SHUT-OFF VALVES - SOLDER**

ITEM NO.	CONNECTION
H0820A	1/4" ID
H0821A	3/8" ID
H0822A	1/2" ID
H0823A	5/8" ID

**CAPPED LINE VALVES - FLARE**

ITEM NO.	CONNECTION
H0850	1/4" FLARE
H0850A	3/8" FLARE
H0850B	1/2" FLARE
H0850C	5/8" FLARE



**CAPPED LINE VALVES - SOLDER**

ITEM NO.	CONNECTION
H0851	1/4" ID
H0852	3/8" ID
H0853	1/2" ID
H0854	5/8" ID

**CAPPED LINE VALVES - ANGLE MFxBSP**

ITEM NO.	CONNECTION
H0859	1/4" MF x 1/4" MBSP
H0864	1/4" MF x 3/8" MBSP
H0866	1/4" MF x 1/2" MBSP



**CAPPED LINE VALVES - ANGLE MFxBSP**

ITEM NO.	CONNECTION
H0861	3/8" MF x 1/4" MBSP
H0862	3/8" MF x 3/8" MBSP
H0865	1/2" MF x 1/2" MBSP

**HERMETIC CHECK VALVES**

ITEM NO.	CONNECTION
H0900	1/4" OD
H0901	3/8" OD
H0902	1/2" OD
H0903	5/8" OD
H0904	7/8" OD



**HERMETIC CHECK VALVES**

ITEM NO.	CONNECTION
H0905	1-1/8" OD
H0906	1-3/8" OD
H0907	1-5/8" OD
H0908	2-1/8" OD

- Sealed brass body with copper tails
- Positive sealing / low dp

- Sealed brass body with copper tails
- Positive sealing / low dp

**ACCESSIBLE CHECK VALVES (60 BAR)**

ITEM NO.	CONNECTION
B34237	1-3/8" OD
B34238	1-5/8" OD

- Mueller 4 bolt accessible with brass body



**ACCESSIBLE CHECK VALVES (60 BAR)**

ITEM NO.	CONNECTION
B34239	2-1/8" OD
B34240	2-5/8" OD

- Mueller 4 bolt accessible with brass body

**Four-Bolt Check Valves**

Four-bolt check valves feature forged brass bodies that exceed the most stringent quality standards in the industry. The four-bolt flanges allow easy removal and reassembly of internal components. Suitable for either horizontal or vertical installation, the "Y" type design provides increased flow capacity and minimal pressure drop. The non-asbestos gasket material and O-ring seal ensure absolute seal integrity while heat-stabilized Teflon seats provide a positive seal across wide temperature ranges. Our four-bolt check valves also feature back-pressure shutoff at low pressure differentials and special springs for various differential applications.



## DANFOSS GBC BALL VALVES



GBC valves are approved for applications in liquid, suction, and hot gas lines in refrigeration and air conditioning systems. GBC valves offer maximum tightness across the seat and seal, with minimum pressure drop. GBC valves give maximum flow in the fully open position. They are designed for operation within a broad temperature range and are approved for use with any fluorinated refrigerant including; R404A, R134A, R407F, R448/449A, R410A, R32

### Main Features

- Burst proof spindel design with double stem seal
- High precision laser welded construction
- Valve Seat made of special long life teflon
- Full flow with minimum pressure drop

## BALL VALVES (With & Without Access Port)

ITEM NO.	MODEL NO.	ACCESS PORT	CONNECTION		K <sub>v</sub> VALUE m <sup>3</sup> /hr	TOTAL LENGTH (mm)	LAY-IN LENGTH (mm)	WEIGHT (kg)
			I.D (Inch)	I.D (mm)				
009L7020	GBC 6s		1/4	6	1.8	139	125	0.13
009L7050	GBC 6s	√	1/4	6	1.8	139	125	0.13
009L7021	GBC 10s		3/8	10	8.0	139	121	0.13
009L7051	GBC 10s	√	3/8	10	8.0	139	121	0.13
009L7022	GBC 12s		1/2	12	13.2	161	141	0.13
009L7052	GBC 12s	√	1/2	12	13.2	161	141	0.13
009L7023	GBC 16s		5/8	16	15.7	161	137	0.2
009L7053	GBC 16s	√	5/8	16	15.7	161	137	0.2
009L7024	GBC 18s		3/4	18	21.9	185	157	0.4
009L7054	GBC 18s	√	3/4	18	21.9	185	157	0.4
009L7025	GBC 22s		7/8	22	33.3	185	151	0.4
009L7055	GBC 22s	√	7/8	22	33.2	185	151	0.4
009L7026	GBC 28s		1-1/8	28	62.2	208	168	0.9
009L7056	GBC 28s	√	1-1/8	28	62.2	208	168	0.9
009L7027	GBC 35s		1-3/8	35	92.8	251	201	1.4
009L7057	GBC 35s	√	1-3/8	35	92.8	251	201	1.4
009L7028	GBC 42s		1-5/8	42	134.8	281	223	2.2
009L7058	GBC 42s	√	1-5/8	42	134.8	281	223	2.2
009L7029	GBC 54s		2-1/8	54	240.1	305	237	4.2
009L7059	GBC 54s	√	2-1/8	54	240.1	305	237	4.2
009L7036	GBC 67s RP		2-5/8	67	203.1	305	231	4.4
009L7066	GBC 67s RP	√	2-5/8	67	367.4	343	267	5.8

■ Danfoss GBC ball valves have a maximum working pressure is 45bar / temperature range -40°C to +150°C

## BALL VALVES (High Pressure)

ITEM NO.	MODEL NO.	ACCESS PORT	CONNECTION		K <sub>v</sub> VALUE m <sup>3</sup> /hr	TOTAL LENGTH (mm)	LAY-IN LENGTH (mm)	WEIGHT (kg)
			I.D (Inch)	I.D (mm)				
009L7415	GBC 6s H		1/4	6	1.8	139	129	0.23
009L7416	GBC 10s H		3/8	10	6.3	139	125	0.23
009L7582	GBC 10s H	√	3/8	10	6.3	139	125	0.23
009L7417	GBC 12s H		1/2	12	12.9	161	145	0.25
009L7585	GBC 12s H	√	1/2	12	12.9	161	145	0.25
009L7418	GBC 16s H		5/8	16	11.8	161	141	0.25
009L7586	GBC 16s H	√	5/8	16	11.8	161	141	0.25
009L7419	GBC 18s H		3/4	18	31.1	185	161	0.45
009L7588	GBC 18s H	√	3/4	18	31.1	185	161	0.45
009L7420	GBC 22s H		7/8	22	24.5	185	155	0.45
009L7589	GBC 22s H	√	7/8	22	24.5	185	155	0.45

■ Danfoss high pressure ball valves have a maximum working pressure is 90bar / temperature range -40°C to +120°C

## HENRY BALL VALVES



Henry ball valves are used in a wide variety of air conditioning and refrigeration applications. They can be used for both liquid and gas applications, and commonly used for isolating purposes. All valves are suitable for use with HFC, HFO and CO2. refrigerants and their associated oils.

- Suitable for Bi-directional flow
- Premium quality PTFE ball and stem O-ring seals
- Double stem seal with blow-out proof design
- Ball cavity vented to prevent over-pressure
- All valves are factory helium tested
- K65 pipe extensions on high pressure models

### BALL VALVES (With & Without Access Port)

ITEM NO.	ACCESS PORT	CONNECTION		PORT SIZE (Inch)	TOTAL LENGTH (mm)	LAY-IN LENGTH (mm)	WEIGHT (kg)
		I.D (Inch)	I.D (mm)				
H1322		3/8	10	1/2	165	149	0.33
H1300	√	3/8	10				
H1324		1/2	12				
H1302	√	1/2	12				
H1326		5/8	16				
H1304	√	5/8	16				
H1328		3/4	19	3/4	184	152	0.62
H1306	√	3/4	19				
H1330		7/8	22				
H1308	√	7/8	22				
H1332		1-1/8	28	1	216	170	0.95
H1310	√	1-1/8	28				
H1334		1-3/8	35	1-1/4	235	185	1.52
H1312	√	1-3/8	35				
H1336		1-5/8	42	1-1/2	254	198	2.44
H1314	√	1-5/8	42				
H1338		2-1/8	54	2	289	221	4.58
H1316	√	2-1/8	54				
H1340		2-5/8	67	2-1/2	365	291	8.73
H1318	√	2-5/8	67				
H1342		3-1/8	80	3-1/3	420	334	18.2
H1320	√	3-1/8	80				

■ Henry standard ball valves have a maximum working pressure is 48bar / temperature range -40°C to +150°C

### BALL VALVES (High Pressure - Without Access Port)

ITEM NO.	ACCESS PORT	CONNECTION		PORT SIZE (Inch)	TOTAL LENGTH (mm)	LAY-IN LENGTH (mm)	WEIGHT (kg)
		I.D (Inch)	I.D (mm)				
H1369	NO	1/4	6	1/2	165	149	0.33
H1367		3/8	10				
H1365		1/2	12				
H1363		5/8	16				
H1361		3/4	19	3/4	184	152	0.62
H1360		7/8	22				
H1359		1-1/8	28	1	216	170	0.95

■ Henry high pressure ball valves have a maximum working pressure is 120bar / temperature range -40°C to +120°C



**SANHUA RFKH SERIES**



- Similar size to most commonly used TX valves allows for easy service replacement
- Compact dimensions allows valve to be fitted in tight spots with limited space
- Stainless steel element, capillary & bulb offers high corrosion and vibration resistance
- Wide operating temperature, suitable suitable for a wide range of applications
- Precise control with easy adjustment of superheat setting

**TX VALVES**

ITEM NO.	DANFOSS EQUIVALENT	REFRIGERANT	TEMPERATURE RANGE (°C)	CONNECTIONS	
				IN	OUT
RFKH04E-2.9-31	TEN2S	R134a	+10 to -40	1/4" MF	1/2" Solder
RFKH03E-4.8-10	TES2S	R404A	+10 to -40		
RFKH03E-4.8-310	TES2S-MOP	R404A (MOP)	-15 to -40		

- All above listed valves are externally equalised with 1/4" solder equaliser line connection.

**ORIFICES**

ITEM NO.	ORIFICE NUMBER	NOMINAL CAPACITY KW			
		R404A		R134a	
		-5	-25	-5	-15
RFKH-023-0X	0X	0.7	0.6	0.6	0.6
RFKH-023-00	0	1.2	0.9	1.1	0.9
RFKH-023-01	1	2.3	1.4	1.7	1.4
RFKH-023-02	2	3.1	1.6	2.1	1.6
RFKH-023-03	3	5.2	2.8	3.5	2.7
RFKH-023-04	4	8.0	4.0	5.1	3.9
RFKH-023-05	5	10.6	5.3	6.7	5.1
RFKH-023-06	6	12.6	6.3	8.1	6.1

- Nominal capacities are based at 2k sub-cooling & 45deg Condensing, 1.5Bar DP across the valve.
- Valves should be initially installed with the factory setting unaltered. Should adjustment be necessary, remove the sealing cap and adjust the spindle; clockwise to increase superheat / anti-clockwise to decrease the superheat.



## DANFOSS T2 SERIES TX VALVES



- Most commonly used TX valve means direct replacements are readily available
- Compact dimensions allows valve to be fitted in tight spots with limited space
- Laser-welded stainless steel power element provides high pressure tolerance
- Stainless steel element, capillary & bulb offers high corrosion and vibration resistance
- Precise control with easy adjustment of superheat setting

### TX VALVES - SOLDER

ITEM NO.	MODEL	REFRIGERANT	TEMPERATURE RANGE (°C)	EQUALISED	CONNECTIONS		
					TYPE	IN	OUT
068Z3414	TS2S	R404A	+10 to -40	INT	SOLDER	3/8"	1/2"
068Z3415	TES2S			EXT			
068Z3429	TS2S	R404A (MOP)	-15 to -40	INT	SOLDER	3/8"	1/2"
068Z3430	TES2S			EXT			
068Z3383	TN2S	R134a	+10 to -40	INT	SOLDER	3/8"	1/2"
068Z3385	TEN2S			EXT			
068Z3281	TX2S	R22	+10 to -40	INT	SOLDER	3/8"	1/2"
068Z3284	TEX2S			EXT			
068Z3729	TS2	R448/449A	+10 to -40	INT	SOLDER	3/8"	1/2"
068Z3730	TES2			EXT			

### TX VALVES - FLARE

ITEM NO.	MODEL	REFRIGERANT	TEMPERATURE RANGE (°C)	EQUALISED	CONNECTIONS		
					TYPE	IN	OUT
068Z3400	TS2	R404A	+10 to -40	INT	FLARE	3/8"	1/2"
068Z3403	TES2			EXT			
068Z3408	TS2	R404A (MOP)	-15 to -40	INT	FLARE	3/8"	1/2"
068Z3409	TES2			EXT			
068Z3346	TN2	R134a	+10 to -40	INT	FLARE	3/8"	1/2"
068Z3348	TEN2			EXT			
068Z3206	TX2	R22	+10 to -40	INT	FLARE	3/8"	1/2"
068Z3209	TEX2			EXT			

### ORIFICES

ITEM NO.	ORIFICE NO.	NOMINAL CAPACITY KW					
		R404A		R134a		R448A / R449A / R407F	
		-5	-25	-5	-15	-5	-25
068-2002	0X	0.7	0.6	0.6	0.6	0.9	0.8
068-2003	0	1.2	0.9	1.1	0.9	1.6	1.3
068-2010	1	2.3	1.4	1.7	1.4	3.0	2.0
068-2015	2	3.1	1.6	2.1	1.6	3.8	2.3
068-2006	3	5.2	2.8	3.5	2.7	6.4	3.9
068-2007	4	8.0	4.0	5.1	3.9	9.6	5.8
068-2008	5	10.6	5.3	6.7	5.1	12.6	7.5
068-2009	6	12.6	6.3	8.1	6.1	15.3	9.0

- Nominal capacities are based at 0k sub-cooling & 40deg Condensing.
- **Valves should be initially installed with the factory setting of 5k unaltered.**
- Should adjustment be necessary, remove the sealing cap and adjust the spindle.
  - **Clockwise turn** - Reduces flow, thus increasing superheat.
  - **Anti-clockwise turn** - Increases flow, decreasing superheat.



## DANFOSS TUA SERIES TX VALVES



- The use of stainless steel makes the valves light and strong
- Bi-metal connections for safe, fast and convenient soldering
- Stainless steel capillary tube for superior strength and ductility
- Allen key superheat setting screw is convenient and space-saving
- Orifice can be easily replaced without the need to remove the valve

### TX VALVES - SOLDER

ITEM NO.	MODEL	REFRIGERANT	TEMPERATURE RANGE (°C)	EQUALISED	CONNECTIONS		
					TYPE	IN	OUT
068U2205	TUA	R134a	+10 to -40	INT	SOLDER	3/8"	1/2"
068U2207	TUAE			EXT			
068U2285	TUA	R404A	+10 to -40	INT	SOLDER	3/8"	1/2"
068U2287	TUAE			EXT			
068U2295	TUAE	R404A (MOP)	-10 to -40	EXT	SOLDER	3/8"	1/2"

### ORIFICES

ITEM NO.	ORIFICE NO.	NOMINAL CAPACITY KW					
		R404A		R134a		R448A / R449A / R407F	
		-5	-25	-5	-15	-5	-25
068U1030	0	0.4	0.2	0.3	0.3	0.5	0.3
068U1031	1	0.6	0.3	0.5	0.4	0.8	0.5
068U1032	2	0.7	0.4	0.6	0.5	0.9	0.6
068U1033	3	0.9	0.5	0.8	0.6	1.2	0.8
068U1034	4	1.6	0.9	1.3	1.0	2.0	1.2
068U1035	5	2.1	1.2	1.7	1.3	2.6	1.6
068U1036	6	3.3	1.8	2.7	2.0	4.1	2.5
068U1037	7	4.4	2.3	3.5	2.7	5.4	3.3
068U1038	8	6.4	3.4	5.2	4.0	7.9	4.9
068U1039	9	8.7	4.6	7.1	5.4	10.8	6.4

- Nominal capacities are based at 0k subcooling and 40deg condensing.
- **Valves should be initially installed with the factory setting of 4k unaltered.**
- Should adjustment be necessary, remove the sealing cap and adjust the spindle.
  - **Clockwise turn** - Reduces flow, thus increasing superheat.
  - **Anti-clockwise turn** - Increases flow, decreasing superheat.



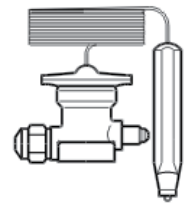
## DANFOSS TE5 & TE12 SERIES



- Wide capacity & operating range.
- Interchangeable orifice assembly
- Stainless steel power element & bulb
- Superior charge performance
- Patented bulb strap design
- MWP up to 28 bar

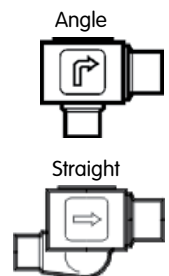
### POWER ELEMENTS - UPPER HOUSING

ITEM NO.	REFRIGERANT	VALVE TYPE	TEMPERATURE RANGE (°C)	MOP
067B3342	R404A	TE5	+10 to -40	-
067B3358	R404A		-15 to -40	-10° C
067B3504	R407F		+10 to -40	-
067B3252	R448A/R449A			-
067B3297	R134a		-	
067B3298	R134a		+15 to -40	+15° C (AC)
067B3277	R407C			+15° C (AC)
067B3347	R404A	TE12	+10 to -40	-
067B3348	R404A		-15 to -40	-10° C
067B3532	R407F		+10 to -40	-
067B2512	R448A/R449A			-
067B3232	R134a		-	
067B3233	R134a		+15 to -40	+15° C (AC)



### VALVE BODY

ITEM NO.	ITEM	CONNECTIONS	
		IN	OUT
067B4011	TE5 ANGLE BODY (90°)	5/8"	7/8"
067B4034		7/8"	1-1/8"
067B4032	TE5 STRAIGHT BODY	5/8"	7/8"
067B4033		7/8"	1-1/8"
067B4023	TE12 ANGLE BODY (90°)	7/8"	1-1/8"
067B4021	TE12 STRAIGHT BODY	7/8"	1-1/8"



### ORIFICE ASSEMBLY

ITEM NO.	ORIFICE NO.	NOMINAL CAPACITY KW									
		R404A			R134a		R448A/449A		R407F		R407C
		-5	-25		-5	+7	-5	-25	-5	-25	+7
067B2789	TE5 - 1	13.2	8.9	10.6	12.8	16.6	10.8	17.8	11.8	20.3	
067B2790	TE5 - 2	18.3	12.1	14.9	17.7	23.2	15.2	24.9	16.6	28.0	
067B2791	TE5 - 3	23.2	15.1	19.0	22.8	29.2	19.0	31.3	20.8	35.9	
067B2792	TE5 - 4	31.7	20.4	25.9	31.0	40.0	25.4	42.9	27.9	50.0	
067B2708	TE12 - 5	42.7	25.7	32.3	39.3	45.7	29.1	58.4	36.1	57.6	
067B2709	TE12 - 6	53.4	31.4	42.5	52.3	60.2	37.2	77.0	45.7	76.5	
067B2710	TE12 - 7	65.7	37.9	55.3	68.2	74.5	46.3	96.6	61.6	97.0	



■ Nominal capacities are based at 40deg condensing temperature and 1k subcooling.





## Q SERIES (Universal)



- Changeable orifice and power element makes Q-Valves a truly universal
- Brass body with silver soldered connections for leakproof installation
- Accessible internal construction allows the valve to be disassembled, and the internal parts removed, cleaned and inspected
- Removable 100 mesh strainer, which can be cleaned and/or replaced without the need to remove or disassemble the valve

### Q SERIES VALVES

ITEM NO.	PRODUCT NO.	DESCRIPTION	CONNECTION SIZE
SP0001	SQ-ODS	Q Valve Body OD Internally Equalised	3/8" x 1/2"
SP0002	SQE-ODS	Q Valve Body OD Externally Equalised	



### Q CARTRIDGE

ITEM NO.	PRODUCT NO.	ORIFICE SIZE (COLOUR CODE)	NOMINAL CAPACITY kW		
			R404A	R22	R134a
SP0010	Q-0	Q-0 Red	0.6	1.2	0.6
SP0087	Q-1	Q-1 Yellow	0.9	2.6	0.9
SP0012	Q-2	Q-2 Green	1.8	3.5	1.8
SP0013	Q-3	Q-3 Blue	3.5	5.3	3.5
SP0014	Q-4	Q-4 Pink	5.3	8.8	5.3
SP0015	Q-5	Q-5 Black	7.0	12.3	7.0
SP0016	Q-6	Q-6 White	10.6	17.6	8.8



### POWER ELEMENTS

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION
SP0040A	KT43SC-5	404A	+10°C to -25°C
SP0041	KT43SZ-5		-20°C to -40°C
SP0042	KT43SZP-5		-20°C to -40°C (MOP)
SP0030	KT43JC-5	134a	+10°C to -25°C
SP0031	KT43JC60-5		Air Conditioning
SP0020	KT-43-VC	R22	+10°C to -25°C
SP0021	KT43-VCP100		Air Conditioning



- Nominal KW values are an approximate guide only. Use Sporlan selection tables or software for accurate selection. Please contact one of our technical staff if you would like us to select a valve for your application.



**SBF SERIES (Balanced Port)**



- Balanced port design offers stable control at varying loads & conditions
- Brass body with silver soldered connections for leakproof installation
- Removable thermostatic elements allows field replacement
- Accessible internal construction allows the valve to be disassembled, and the internal parts removed, cleaned and inspected
- Removable 100 mesh strainer, which can be cleaned and/or replaced without the need to remove or disassemble the valve

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP0407	SBFJE-AAA-C	R134a	MED TEMP	0.7	3/8" x 1/2"	JC	43
SP0408	SBFJE-AA-C			1.2			
SP0410	SBFJE-A-C			3.5			
SP0412	SBFJE-B-C			7.0			
SP0414	SBFJE-C-C			10.6			
SP0456	SBFSE-AAA-C	R404A R507	MED TEMP	0.7	3/8" x 1/2"	SC / PC	43
SP0455	SBFSE-AA-C			1.2			
SP0457	SBFSE-A-C			3.5			
SP0458	SBFSE-B-C			7.0			
SP0459	SBFSE-C-C			10.6			
SP0460	SBFSE-AAA-Z	R404A R507	LOW TEMP	0.7	3/8" x 1/2"	SZ	43
SP0461	SBFSE-AA-Z			1.2			
SP0462	SBFSE-A-Z			3.5			
SP0463	SBFSE-B-Z			7.0			
SP0464	SBFSE-C-Z			10.6			
SP0450	SBFVE-AAA-C	R22 R407C	MED TEMP	1.2	3/8" x 1/2"	VC	43
SP0451	SBFVE-AA-C			2.3			
SP0452	SBFVE-A-C			5.3			
SP0453	SBFVE-B-C			10.6			
SP0454	SBFVE-C-C			19.3			

■ Nominal KW values are an approximate guide only. Use Sporlan selection tables or software for accurate sizing. Please contact one of our technical staff if you would like us to select a suitable valve for your application.



**S-SERIES VALVES (General Purpose)**



- General purpose valve for commercial refrigeration applications
- Brass body with silver soldered connections for leakproof installation
- Accessible internal construction allows the valve to be disassembled, and the internal parts removed, cleaned and inspected
- Removable thermostatic elements allows field replacement
- Inlet has a permanent 12 mesh strainer

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP0605	SJE-2-C	R134a	MED TEMP	7.0	1/2" x 5/8"	JC	83
SP0606	SJE-3-C			10.6	1/2" x 7/8"		
SP0607	SJE-5-C			17.6	5/8" x 7/8"		
SP0609	SJE-6-C			21.1			
SP0611	SJE-10-C			35.2	7/8" x 1-1/8"		
SP0773	SSE-3-C	R404A R507	MED TEMP	10.6	1/2" x 7/8"	SC / PC	83
SP0774	SSE-4-C			14.1			
SP0777	SSE-6-C			21.1	5/8" x 7/8"		
SP0780	SSE-7-C			24.6			
SP0786	SSE-10-C			35.2	7/8" x 1-1/8"		
SP0803	SSE-4-Z	R404A R507	LOW TEMP	14.1	1/2" x 7/8"	SZ	83
SP0809	SSE-6-Z			21.1	5/8" x 7/8"		
SP0814	SSE-7-Z			24.6			
SP0820	SSE-10-Z			35.2	7/8" x 1-1/8"		
SP0805	SSE-3-ZP	R404A R507	LOW TEMP (MOP 50)	10.5	1/2" x 7/8"	SZP-50	83
SP0806	SSE-4-ZP			14.1			
SP0812	SSE-6-ZP			21.1	5/8" x 7/8"		
SP0817	SSE-7-ZP			24.6			
SP0823	SSE-10-ZP			35.2	7/8" x 1-1/8"		
SP0732	SVE-3-C	R22 R407C	MED TEMP	10.6	1/2" x 5/8"	VC	83
SP0733	SVE-4-C			14.1	1/2" x 7/8"		
SP0734	SVE-5-C			17.6	1/2" x 7/8"		
SP0737	SVE-8-C			28.1	5/8" x 7/8"		
SP0739	SVE-10-C			35.2			
SP0741	SVE-15-C			52.8	7/8" x 1-1/8"		

■ Nominal KW values are an approximate guide only. Use Sporlan selection tables or software for accurate sizing. Please contact one of our technical staff if you would like us to select a suitable valve for your application.



**EBS & O-SERIES (Balanced Port)**



EBS-Series

O-Series

- Balanced port design offers stable control at varying loads & conditions
- Brass body with silver soldered connections for leakproof installation
- EBS has extended copper tails for ease of brazing without overheating
- Accessible internal construction allows the valve to be disassembled, and the internal parts removed, cleaned and inspected
- Removable thermostatic elements allows field replacement
- Inlet has a permanent 12 mesh strainer.

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP0980	EBSJE-5-JC	R134a	MED TEMP	17.6	5/8" x 7/8"	JC	83
SP0982	EBSJE-7-JC			24.6			
SP0984	EBSJE-9-JC			31.7	7/8" x 1-1/8"		
SP0986	EBSJE-12-JC			42.2	7/8" x 1-3/8"		
SP0964	EBSSE-6-SC	R404A	MED TEMP	21.1	5/8" x 7/8"	SC/PC	83
SP0965	EBSSE-7-1/2-C			26.4			
SP0966	EBSSE-10-SC			35.2	7/8" x 1-1/8"		
SP0967	EBSSE-13-SC			45.7	7/8" x 1-3/8"		
SP0952	EBSVE-11-VC	R22	MED TEMP	38.7	5/8" x 7/8"	VC	83
SP0962	EBSVE-15-VC			52.8	7/8" x 1-1/8"		
SP0963	EBSVE-20-VC			70.3	7/8" x 1-3/8"		

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP0620	OJE-16-JC	R134a	MED TEMP	56.3	1-1/8" x 1-3/8"	JC	83
SP0622	OJE-23-JC			80.5			33
SP0624	OJE-32-JC			112			
SP0626	OJE-40-JC			140			
SP0793	OSE-21-SC	R404A	MED TEMP	73.9	1-1/8" x 1-3/8"	SC	83
SP0794	OSE-30-SC			106			33
SP0854	OSE-35-SC			122.5			
SP0856	OSE-45-SC			157.5			
SP0841	OSE-21-SZ	R404A	LOW TEMP	73.9	1-1/8" x 1-3/8"	SZ	83
SP0845	OSE-30-SZ			106			33
SP0847	OSE-35-SZ			123			
SP0842	OSE-21-SZP	R404A	LOW TEMP (MOP 50)	73.9	1-1/8" x 1-3/8"	SZP	83
SP0846	OSE-30-SZP			106			33
SP0849	OSE-35-SZP			123			
SP0756	OVE-20-C	R22	MED TEMP	70.3	7/8" x 1-3/8"	VC	83
SP0757	OVE-30-C			106	1-1/8" x 1-3/8"		
SP0758	OVE-40-C			141			33

■ Nominal KW values are an approximate guide only. Use Sporlan selection tables or software for accurate sizing. Please contact one of our technical staff if you would like us to select a suitable valve for your application.



**RC SERIES - AIR COND (Bi-Flow)**



- Compact valve suitable for air conditioning and heat pump applications
- Suitable for reverse cycle operation with internal check valve to eliminate the need for external bypass check valve to be fitted for heat pump applications
- Small brass body with ODS connections inlet fitting
- Removable 100 mesh strainer, which can be cleaned and/or replaced without the need to remove or disassemble the valve

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP1230	RCVE-2-GA	R22	AIR COND BI-FLOW	7.0	3/8" x 1/2"	VGA/NGA	43
SP1231	RCVE-3-GA			10.5	3/8" x 1/2"		
SP1232	RCVE-4-GA			14.1	1/2" x 1/2"		
SP1233	RCVE-5-GA			17.6	1/2" x 1/2"		
SP1234A	RCVE-6-GA			21.1	1/2" x 1/2"		

**PARKER HAE - AIR COND (Bi-Flow)**



- The H series has full bi-flow capability for R-22, R-407C and R-410A heat pump applications with field adjustable superheat
- All R22 HAE valves have a 20% bleed feature for pressure equalisation on the off cycle to allow low torque compressors (PSC) to start
- HAE TX Valves feature 100psi Maximum Opening Pressure on R22 and 200 psi Maximum opening pressure on R410A

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOM CAPACITY		CONNECTION SOLDER	CHARGE	BLEED
				TON	KW			
F1790	HAE3VX100B20	R22/R407C	AIR COND BI-FLOW	3	10	1/2" x 1/2"	VX100 (MOP100)	20%
F1792	HAE5VX100B20			5	18	1/2" x 1/2"		
F1794	HAE7.5VX100B20			7.5	26	1/2" x 5/8"		
F1796	HAE8VX100B20			8	28	5/8" x 5/8"		
F1798	HAE10VX100B20			10	35	5/8" x 7/8"		
F1800	HAE3KX200	R410A	AIR COND BI-FLOW	3	10	3/8" x 1/2"	ZX200 (MOP200)	N/A
F1802	HAE5KX200			5	18	1/2" x 5/8"		
F1804	HAE7.5KX200			7.5	26	1/2" x 5/8"		
F1806	HAE10KX200			10	35	5/8" x 7/8"		

**S SERIES - AIR COND (General Purpose)**



- General purpose valve for air conditioning applications.
- Brass body with silver soldered connections is leakproof and high strength.
- Accessible internal construction allows the valve to be disassembled, and the internal parts cleaned and inspected
- Removable thermostatic elements allows field replacement
- Inlet has a permanent 12 mesh strainer

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP0900	SVE3-CP100	R22/R407C	AIR COND	10.6	1/2" x 5/8"	VCP-100	83
SP0903	SVE5-CP100			17.6	1/2" x 7/8"		
SP0906	SVE8-CP100			28.1	5/8" x 7/8"		
SP0909	SVE10-CP100			35.2			
SP0910	SVE15-CP100			52.8	7/8" x 1-1/8"		



### O SERIES - AIR COND (Balanced Port)



- Balanced port design offers stable control at varying loads & conditions
- Brass body with silver soldered connections is leakproof and high strength.
- Accessible internal construction allows the valve to be disassembled and the internal parts cleaned and inspected
- Removable thermostatic elements allows field replacement.
- Inlet has a permanent 12 mesh strainer

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP0717	OJE-6-CP60	R134A	AIR COND	21.0	5/8" x 7/8"	JCP-60	83
SP0718	OJE-9-CP60			31.7	7/8" x 1-1/8"		
SP0719	OJE-12-CP60			42.2	7/8" x 1 3/8"		
SP0720	OJE-16-CP60			56.3	1-1/8" x 1-3/8"		
SP0721	OJE-23-CP60			80.9			
SP0722	OJE-32-CP60			113.0			
SP0626	OJE-40-JW			140		JW	
SP0912	OVE15-CP100			R22	AIR COND	52.8	7/8" x 1-3/8"
SP0915	OVE20-CP100	70.3					
SP0918	OVE30-CP100	106					
SP0761	OVE40-CP100	141	1-1/8" x 1-3/8"				33
SP0764	OVE55-CP100	193					
SP0923	OVE70-CP100	246					

### M SERIES - AIR COND (Balanced Port)



- Suitable for high capacity air conditioning applications
- Cast bronze body with flange connections for easy removal and service
- Accessible internal construction allows the valve to be disassembled and the internal parts cleaned and inspected
- Removable thermostatic elements allows field replacement
- Inlet has a permanent 12 mesh strainer

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	NOMINAL KW	CONNECTION SOLDER	CHARGE	ELEMENT SIZE
SP0930	MVE21-CP100	R22/R407C	AIR COND	73.9	7/8" x 1-1/8"	VCP-100	63
SP0933	MVE26-CP100			91.4			
SP0936	MVE34-CP100			120			
SP0939	MVE42 -CP100			148	1-1/8" x 1-1/8"		

■ Nominal KW values are an approximate guide only. Use Sporlan selection tables or software for accurate sizing. Please contact one of our technical staff if you would like us to select a suitable valve for your application.



## SPORLAN THERMAL ELEMENTS



- Removable thermostatic elements allows replacement without the need to change complete valve
- Selective thermostatic charges designed to provide optimum performance for all applications: medium, low temperature refrigeration and air conditioning
- Long lasting and field proven stainless steel diaphragm and welded element construction provides corrosion resistance
- Large flat diaphragm design permits precise valve control.

### KT43 POWER ELEMENTS

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	TEMP RANGE
SP00119A	KT43-VGA-5	R22 & R407A	AIR COND	A/C
SP0021	KT43-VCP100-5		AIR COND	
SP0020	KT43-VC-5		MED TEMP	+10 to -25°C
SP0040A	KT43-SC-5	R404A	MED TEMP	+10 to -25°C
SP0041	KT43-SZ-5		LOW TEMP	-20 to -40°C
SP0042	KT43-SZP-5		LOW TEMP (MOP)	
SP0031	KT43-JCP60-5	R134A	AIR COND	A/C
SP0030	KT43-JC-5		MED TEMP	+10 to -25°C

### KT83 POWER ELEMENTS

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	TEMP RANGE
SP1220	KT83-VCP100-5	R22 & R407A	AIR COND	A/C
SP1222A	KT83-VCP100-30		AIR COND	
SP1221	KT83-VC-5		MED TEMP	+10 to -25°C
SP1224	KT83-SC-5	R404A	MED TEMP	+10 to -25°C
SP1225	KT83-SZ-5		LOW TEMP	-20 to -40°C
SP0052	KT83-SZP		LOW TEMP (MOP)	
SP0054	KT83-JCP60-5	R134A	AIR COND	A/C
SP0053	KT83-JC-5		MED TEMP	+10 to -25°C

### KT33 POWER ELEMENTS

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	TEMP RANGE
SP1202	KT33-VCP100-5	R22 & R407A	AIR COND	A/C
SP0024	KT-33-VC-5		MED TEMP	+10 to -25°C
SP0025	KT-33-VZ-5		LOW TEMP	-20 to -40°C
SP0044	KT33SC-5	R404A	MED TEMP	+10 to -25°C
SP0045	KT33-SZ-5		LOW TEMP	-20 to -40°C
SP0046	KT33-SZP-5		LOW TEMP (MOP)	
SP0033	KT33-JCP60-5	R134A	AIR COND	A/C
SP0032	KT33-JC-5		MED TEMP	+10 to -25°C

### KT63 POWER ELEMENTS

ITEM NO.	PRODUCT NO.	REFRIGERANT	APPLICATION	TEMP RANGE
SP0022	KT63-VCP100-5	R22 & R407A	AIR COND	A/C
SP0028	KT63-VCP100-30			
SP0035	KT63-JCP60-5	R134A	AIR COND	A/C
SP0034	KT63-JC-5		MED TEMP	+10 to -25°C

■ Please refer to valve section on previous pages for selection of correct power element to suit given valve series.



## SPORLAN ELECTRONIC EXPANSION VALVES



The **SER and SERI** Electronically Operated Step Motor Expansion Valves are intended for precise control of evaporator superheat. Synchronised signals to the motor provide discrete angular movement which translate into precise linear positioning of the valve piston. Advanced pin and port geometry and precision machined components provide extraordinary flow resolution and performance. These valves can be controlled with Sporlans Kelvin-II controller or can be interfaced with other microprocessor based controllers.

### Features

- Step motor operated for precise control with high resolution drive assembly
- Compatible with HFC, HFO refrigerants and oils in addition to subcritical CO2
- SERI-G & SERI-J models incorporate built-in sightglass which indicates valve system operation, system moisture levels and entering refrigerant quality
- SER-B to SER-J are suitable for bi-directional applications
- Solenoid tight seating provides positive closure
- Corrosion resistant materials used throughout
- Self lubricating materials used for long life

## SER SERIES ELECTRONIC EXPANSION VALVES

ITEM NO.	PRODUCT NO.	MAX NOMINAL CAPACITY (KW)				CONNECTION SOLDER
		R404A	R448A	R134A	R410A	
SP0236	SER-A	3.0	4.2	3.2	5.0	3/8" x 1/2"
SP0238	SER-B	4.8	6.5	5.4	8.0	3/8" x 1/2"
SP0240	SER-C	13	18	14	22	3/8" x 5/8"
SP0243	SER-D	26	36	29	44	5/8" x 7/8"
SP0245	SERI-G	51	66	56	76	7/8" x 1-1/8"
SP0247	SERI-J	93	119	100	154	7/8" x 1-1/8"

- Nominal KW values are at 80% capacity with 38deg liquid temperature and are for use as a guide only. For more accurate selections use Sporlan selection software or contact one of our technical staff.



## KELVIN II SUPERHEAT CONTROLLERS

ITEM NO.	DESCRIPTION
SP0262	Kelvin-II Controller with Display (Requires 24V,40VA supply)
SP0263	Kelvin-II Controller without Display (Requires 24V,40VA supply)
SP0264	Kelvin-II Remote Display and Programming Unit



## ACCESSORIES

ITEM NO.	DESCRIPTION
SP0253	Pressure Transducer 10bar (R134A, R404A, R407C, R22)
SP0252	Pressure Transducer 20bar (410A)
SP0254	Pressure Transducer Cable 2m cable
SP0256	Temperature Sensor Assembly
SP0266	240 - 24V, 40VA Surface Mount Transformer
SP0270	EEV Manual Test Kit SMA-12



Please contact Beijer Ref for further information or if you would like a copy of Sporlan EEV and Kelvin-II installation and operating manuals





## DANFOSS AKV ELECTRONIC EXPANSION VALVES



Danfoss AKV valves are suitable for a wide range of refrigerants including; HFC's, HFO's & CO2

**Danfoss AKV** valves are electronically operated expansion valves designed for direct expansion heat exchanger applications. AKV 10P(S) replace the well known AKV10 and AKVH10 valves offering increased damping effect and higher MOPD. The AKV valves are usually controlled by Danfoss AK-CC55 controllers, that ensure precise liquid injection into evaporators for maximum performance.

### Features

- Supports variety of refrigerants including R744 (CO2)
- AKV10P Maximum operating pressure (MOP) 90 bar
- AKV10P Wide evaporating temp range -60 to +60 C
- Both expansion and solenoid functions in one valve
- Automatic closing with power failure provide safety
- Fully serviceable with the spare parts program
- AKV10P offer fully replaceable orifice and filters

## AKV 10 & 15 EXPANSION VALVES

ITEM NO.	VALVE TYPE / ORIFICE NO	MAX NOMINAL CAPACITY (KW)					CONNECTION SOLDER
		R404A	R448A	R452A	R744 MT	R744 LT	
068F5210	AKV 10P0	0.21	0.32	0.25	0.44	0.69	3/8 x 1/2
068F5211	AKV 10P1	0.8	0.95	0.73	1.17	1.84	3/8 x 1/2
068F5212	AKV 10P2	1.3	1.68	1.29	2.06	3.25	3/8 x 1/2
068F5213	AKV 10P3	2.0	2.57	1.98	3.14	4.97	3/8 x 1/2
068F5214	AKV 10P4	3.1	4.99	3.84	6.10	9.64	3/8 x 1/2
068F5215	AKV 10P5	4.9	6.95	5.35	8.49	13.4	3/8 x 1/2
068F5216	AKV 10P6	4.9	12.4	9.54	15.1	23.9	3/8 x 1/2
068F5217	AKV 10P7	12.5	20.1	15.5	24.6	39.3	1/2 x 5/8
068F5218	AKV 10P8	18.1	29.0	22.4	33.3	52.4	1/2 x 5/8
068F5000	AKV 15-1	19.4	27.3	20.8	-	-	3/4 x 3/4
068F5005	AKV 15-2	31.1	43.6	33.2	-	-	3/4 x 3/4
068F5010	AKV 15-3	48.8	68.5	52.2	-	-	7/8 x 7/8
068F5015	AKV 15-4	77.2	108.1	82.5	-	-	1 1/8 x 1 1/8
018F6732	230V Coil Suits all above valves						



- HFC's Nominal capacities are based at 38deg condensing, 1k sub-cooling, +4deg evaporating.
- R744 Med Temp capacities are based at 0deg condensing, 1k sub-cooling, -10deg evaporating.
- R744 Low Temp capacities are based at 0deg condensing, 1k sub-cooling, -30deg evaporating.
- Please contact Beijer Ref for alternative coils - check data sheet for max operating pressure differential.

## CONTROLS & ACCESSORIES

ITEM NO.	PRODUCT NAME	DESCRIPTION
084B4082	AK-CC55 Single Coil	Case controller for one AKV valve w.o display
084B4083	AK-CC55 Single Coil UI	Case controller for one AKV valve with display
084B4076	AK-UI55 Set	Integrated display with control buttons
084B4078	AK-UI cable	External display with control buttons
060G1036	AKS 32R	Pressure transducer -1 to 12bar - 1/4" MF Connection
060G5750	AKS 2050 (CO2)	Pressure transducer -1 to 59bar - G38EN37 Connection
060G5752	AKS 2050 (CO2)	Pressure transducer -1 to 159bar - G38EN37 Connection
084N0003	AKS 11	Surface mount temperatre probe Ptc1000, 3.5m Cable
084N0039	AKS 12	Standard type temperatre probe Ptc1000, 3.5m Cable
060G0008	DIN plug	DIN plug for AKS Transducer



Please contact Beijer Ref for further information.



**DANFOSS EVR SOLENOID VALVES**



**Danfoss** offers a complete and flexible range of solenoid valves for use in refrigeration and A/C systems. Direct-operated versions for low capacity applications and pipe sizes of 3/8" or smaller or pilot operated valves for larger flows and/or pipe sizes. EVR solenoid valves are available with both standard size and oversize connections and are designed for refrigerant temperatures of up to 105°C.

ITEM NO.	PRODUCT NO.	CONNECTIONS		LIQUID LINE CAPACITY KW		
		SIZE	TYPE	R404A	R448A	R134a
032F1206	EVR3S	1/4"	SOLDER	3.2	4.2	4.4
032F1204	EVR3S	3/8"		3.2	4.2	4.4
032L1212	EVR6S	3/8"		12.1	16.2	17.1
032L1209	EVR6S	1/2"		12.1	16.2	17.1
032L1217	EVR10S	1/2"		26.6	35.8	37.6
032L1214	EVR10S	5/8"		26.6	35.8	37.6
032L1228	EVR15S	5/8"		40.0	53.6	56.5
032L1225	EVR15S	7/8"		40.0	53.6	56.5
032L1240	EVR20S	7/8"		72.6	97.5	102.7
032L1244	EVR20S	1-1/8"		72.6	97.5	102.7
042H1106	EVR32S	1-3/8"		154.0	207.0	217.0
032F8107	EVR3	1/4"		FLARE	3.2	4.2
032F8116	EVR3	3/8"	3.2		4.2	4.4
032L8072	EVR6	3/8"	12.1		16.2	17.1
032L8079	EVR6	1/2"	12.1		16.2	17.1
032L8095	EVR10	1/2"	26.6		35.8	37.6
032L8098	EVR10	5/8"	26.6		35.8	37.6
032L8101	EVR15	5/8"	40.0		53.6	56.5



- Ratings based at -10deg sst, 35deg liquid with 1k subcooling, 0.15bar pressure drop.
- Larger Danfoss solenoid valves available upon request.

**SOLENOID COILS**

ITEM NO.	PRODUCT NO.	CONNECTION TYPE	VOLTS	WATTS
018F6702	SC240AC	IP67 Terminal box	240AC	10
018F6707	SC24AC	IP67 Terminal box	24AC	10
018F6856	SC12DC	IP67 Terminal box	12DC	20
018F6857	SC24DC	IP67 Terminal box	24DC	20



- Above coils suit all listed EVR Solenoid valves.



**SPORLAN SOLENOID VALVES**



**Sporlan** offers a complete line of premium quality solenoid valves to the industry. They are available in all capacities and connection sizes for air conditioning and refrigeration applications. A combination of top quality materials used in both the internal and external construction ensures unsurpassed long term product reliability. This is verified by periodic accelerated life tests.

ITEM NO.	PRODUCT NO.	CONN SIZE FLARE	PORT SIZE (mm)	NOMINAL CAPACITY KW			COIL TYPE (Not Incl)
				R404A	R134A	R22	
SP1300	A3F1	1/4"	2.6	3.0	4.3	4.6	MKC-1
SP1411	B6F1	3/8"	4.8	9.5	13.4	14.3	
SP1427	B10F2	1/2"	8.0	21.2	30.0	32.1	MKC-2



A & B Series

ITEM NO.	PRODUCT NO.	CONN SIZE SOLDER	PORT SIZE (mm)	NOMINAL CAPACITY KW			COIL TYPE (Not Incl)
				R404A	R134A	R22	
SP1400	E3S120	1/4"	2.6	3.0	4.3	4.6	MKC-1
SP1401	E3S130	3/8"	2.6	3.0	4.3	4.6	
SP1407	E5S130	3/8"	3.8	5.4	7.6	8.1	
SP1414	E6S130	3/8"	4.8	9.5	13.4	14.3	
SP1416	E6S140	1/2"	4.8	9.5	13.4	14.3	MKC-2
SP1430	E9S240	1/2"	7.1	15.5	21.8	23.4	
SP1432	E10S250	5/8"	7.9	21.2	30.0	32.1	
SP1450	E14S250	5/8"	11.1	30.2	42.5	45.6	
SP1462	E19S270	7/8"	15.1	46.2	65.3	70.0	MKC-1
SP1472	E25S290	1-1/8"	19.8	78.9	111	119	
SP1479	E35S1110	1-3/8"	23.2	110	155	166	MKC-1
SP1829	E34S2110	1-5/8"	25.4	110	155	166	MKC-2
SP1830	E42S2130	1-5/8"	33.3	195	271	291	
SP1801	180	Solenoid Pilot control 1/4" MF					-



E Series



ME42

- Ratings based for Liquid line operation at 0.14bar pressure drop / 38deg liquid.
- E Series valves with extended copper tails can be installed without disassembly.
- A & B Series = Compact type / E Series = Extended Copper Solder Connections.
- E5 to E42 are pilot operated and can be mounted; Horizontally, vertically or on their side.

**SPORLAN SOLENOID COILS**

ITEM NO.	PRODUCT NUMBER	VOLTS	WATTS
MKC-1E	MKC-1E	240AC	10
SP1902		24AC	10
SP1904		12AC	10
SP1909		24DC	15
MKC-2E	MKC-2E	240AC	15
SP1907		24AC	15
SP1916		24DC	18
SP1918	OMKC-2E	240AC	15
C18209N21	Din Connector MKC1 & MKC2	-	-
H1060	Magnetic Manual Solenoid Activator	-	-



MKC1/2E



OMKC  
(Old Style)

- Din connectors are not included with coils and must be ordered separately.



## DANFOSS KVL - CRANKCASE PRESSURE REGULATORS

**Danfoss KVL** Crankcase Pressure Regulators can be installed in the suction line to protect the compressor against excessively high pressure. These are often used to keep low temperature compressors and their condensers within their operating envelope on start up or after electric defrost. The regulator is normally fitted in the suction line just before the compressor.

ITEM NO.	PRODUCT NO.	SIZE SOLDER	KW at 1.5K DELTA P	
			R404A	R448A
034L0043	KVL12	1/2	2.9	3.3
034L0049	KVL15	5/8	2.9	3.3
034L0045	KVL22	7/8	2.9	3.3
034L0046	KVL28	1-1/8	7.9	8.8
034L0052	KVL35	1-3/8	7.9	8.8



- Contact our technical team to assist with selecting a suitable CPR valve for your application.

## SPORLAN CRO - CRANKCASE PRESSURE REGULATORS

**Spolan** Crankcase Pressure Regulating Valves are designed to prevent overloading of the compressor motor by limiting the crankcase pressure to a predetermined maximum value during and after a defrost cycle or a normal shutdown period. These adjustable valves automatically throttle the vapour flow from the evaporator until the compressor is within these operating limits where it can handle the load.

ITEM NO.	PRODUCT NO.	CONNECTION	PORT SIZE (mm)	ADJUSTMENT RANGE (PSI)	
SP2002	CRO-6-0/60-1/2	1/2" ODS	19mm	0 to 60	
SP2004	CRO-6-0/60-5/8	5/8" ODS			
SP2006	CRO-10-0/60-7/8	7/8" ODS	31mm		
SP2013	CRO-10-0/60-1 1/8	1-1/8" ODS			
SP2014	CRO-10-0/60-1 3/8	1-3/8" ODS	19mm		30 to 110
SP2009	CRO-6-30/110-5/8	5/8" ODS			
SP2011	CRO-6-30/110-7/8	7/8" ODS	31mm		
SP2015	CRO-10-30/110-7/8	7/8" ODS			
SP2016	CRO-10-30/110-1 1/8	1-1/8" ODS			
SP2017	CRO-10-30/110-1 3/8	1-3/8" ODS			



- 0/60 range CRO valves should be selected for standard low temp freezer applications -25 to -35°C
- Nominal KW values are an approximate guide only. Use Parker selection tables for accurate sizing.
- Contact our technical team to assist with selecting a suitable CPR valve for your application.



## DANFOSS KVP - EVAPORATOR PRESSURE REGULATORS

**Danfoss KVP** Evaporating Pressure Regulators are fitted after evaporators (such as in a multi-evaporator system) that must be operated at a higher pressure than other evaporators. Evaporating pressure regulators are also often fitted to chiller units to provide additional protection against freezing of the water in the evaporator. Adjustment Range 0-550kpa (0-80psi)

ITEM NO.	PRODUCT NO.	SIZE SOLDER	KW at 1.5K DELTA P			KW at 3K DELTA P			KW at 4.5K DELTA P		
			R404A	R448A	R134a	R404A	R448A	R134a	R404A	R448A	R134a
034L0023	KVP12	1/2	5.5	6.2	3.7	7.5	8.4	4.9	8.8	9.8	5.8
034L0029	KVP15	5/8	5.5	6.2	3.7	7.5	8.4	4.9	8.8	9.8	5.8
034L0025	KVP22	7/8	5.5	6.2	3.7	7.5	8.4	4.9	8.8	9.8	5.8
034L0026	KVP28	1-1/8	15.5	17.4	10.3	21.0	23.5	13.9	24.7	27.6	16.2
034L0032	KVP35	1-3/8	15.5	17.4	10.3	21.0	23.5	13.9	24.7	27.6	16.2

- Rated capacities are based at -5deg sst, 0K subcooling, 5k evap superheat and 40deg condensing.
- Contact our technical team if you require assistance with selection at other conditions.



## SPORLAN ORIT - EVAPORATOR PRESSURE REGULATORS

**Sporlan** Evaporator Pressure Regulating (EPR) valves are designed to provide an accurate and economical means of balancing system capacity and load requirements during "low loads" or while maintaining different evaporator conditions on multi-temperature evaporator systems.

ITEM NO.	PRODUCT NO.	CONNECTION	PORT SIZE (mm)	ADJUSTMENT RANGE (PSI)
SP2099	ORIT-6-30/100-1/2	1/2" MF	19mm	30 to 100
SP2101	ORIT-6-30/100-1/2	1/2" ODS		
*SP2107A	X106-ORIT-6-30/100-5/8	5/8" ODS		
*SP2109A	X106-ORIT-6-30/100-7/8	7/8" ODS		
SP2110	ORIT-6-30/100-1 1/8	1-1/8" ODS		
SP2114	ORIT-10-30/100-7/8	7/8" ODS	31mm	0 to 50
*SP2115A	X106-ORIT-10-30/100-1 1/8	1-1/8" ODS		
*SP2116A	X106-ORIT-10-30/100-1 3/8	1-3/8" ODS		
SP2103	ORIT-6-0/50-5/8	5/8" ODS	19mm	0 to 50
SP2104	ORIT-6-0/50-7/8	7/8" ODS		
SP2130	ORIT-10-0/50-7/8	7/8" ODS	31mm	
SP2132	ORIT-10-0/50-1 1/8	1-1/8" ODS		
SP2134	ORIT-10-0/50-1 3/8	1-3/8" ODS		

- \*X106 high pressure version to be used if valves will be above 14bar during pressure testing or operation.
- EPR valve selection should not be based on connection size alone. This may lead to excessive pressure drop and resulting capacity loss. Please contact one of our technical staff if you require assistance with selection.





## EVAPORATOR PRESSURE REGULATORS (Externally Pilot operated)

Sporlan (S)ORIT EPR valves are pilot operated using “high side” pressure and require a pilot supply connection from the compressor discharge to operate. They are designed to be “normally open” providing an unparalleled ability to operate with virtually no suction line pressure drop.

- High side pilot for improved temperature control and low ΔP operation.
- Optional solenoid “stop” feature (S) to close valve during defrost.
- Normally open design allows system evacuation without manual operator.

ITEM NO.	PRODUCT NO.	CONNECTION	PORT SIZE (mm)	ADJUSTMENT RANGE (PSI)	COIL
SP2128	ORIT-12	1-1/8" ODS	19.8	0 to 100	MKC-1
SP2135	ORIT-15	1-3/8" ODS	25.4		
SP2136	ORIT-20	1-5/8" ODS	33.3		
SP2160	(S)ORIT-12	1-1/8" ODS	19.8		
SP2162	(S)ORIT-15	1-3/8" ODS	25.4		
SP2164	(S)ORIT-20	1-5/8" ODS	33.3		



- Contact our technical team to assist with selecting a suitable EPR valve for your application.
- MKC-1 Solenoid coils are not included and should be ordered separately.

## EVAPORATOR PRESSURE REGULATORS (Internally Pilot operated)

Sporlan (S)ORIT-PI EPRs are Piloted Internally using the natural pressure drop across the valve to operate and do not require a “high side” pilot connection. Like the (S)ORIT valves, the pilot operated design does not require the “allowable evaporator pressure change” necessary with the direct acting regulating valves.

- Piloted internally (No high side connection required)
- Optional solenoid “stop” feature to close valve during defrost.
- Optional electric open feature for “two temperature operation”
- Manual lift stem (standard) to allow system evacuation

ITEM NO.	PRODUCT NO.	CONNECTION	PORT SIZE (mm)	ADJUSTMENT RANGE (PSI)	COIL
SP2204	(S)ORIT-PI-27S	7/8" ODS	12.7	0 to 100	MKC-1
SP2206	(S)ORIT-PI-29S	1-1/8" ODS	12.7		
SP2214	(S)ORIT-PI-39S	1-1/8" ODS	19.1		
SP2216	(S)ORIT-PI-311S	1-3/8" ODS	19.1		
SP2220	(S)ORIT-PI-411S	1-3/8" ODS	25.4		
SP2222	(S)ORIT-PI-413S	1-5/8" ODS	25.4		
SP2224	(S)ORIT-PI-513S	1-5/8" ODS	31.8		
SP2226	(S)ORIT-PI-517S	2-1/8" ODS	31.8		



- Contact our technical team to assist with selecting a suitable EPR valve for your application.
- MKC-1 Solenoid coils are not included and should be ordered separately.



## EVAPORATOR PRESSURE REGULATORS (Electrically Operated)

The CDS family of valves provide precise temperature or pressure control of DX evaporators. Tight temperature is maintained by regulating refrigerant flow in the evaporator in response to signals generated by a temperature sensor connected to controller. Designed for low pressure drop, the CDS valves provide energy savings compared to other types of EPR valves and are able to fully open, significantly shortening pulldown time after defrost.

- Step motor operated with high resolution drive assembly.
- Designed for precise energy efficient control of evaporator.
- Stable close temperature control of 0.3k for sensitive applications.
- Tight seating valve can provide positive suction stop during defrost cycle.

ITEM NO.	PRODUCT NO.	CONNECTION	VOLTAGE	MRP	NOM CAPACITY KW		
					R404A	R407C	R134A
SP2304	CDS-9-7/8-10-S	7/8" ODS	12V DC	47Bar	48.5	51.4	42.4
SP2242	CDS-9-1 1/8-10-S	1-1/8" ODS					
SP2312	CDS-9-1 3/8-10-S	1-3/8" ODS					
SP2318	CDS-17-1 3/8-10-S	1-3/8" ODS	12V DC	47Bar	87.3	92.5	76.6
SP2320	CDS-17-1 5/8-10-S	1-5/8" ODS					
SP2322	CDS-17-2 1/8-10-S	2-1/8" ODS					



- Contact our technical team to assist with selecting a suitable EPR valve for your application.
- Nominal ratings at +2deg°C Evaporating temperature / 0.4bar pressure drop
- Other valves sizes available on request - Please contact Beijer Ref for details.

## THREE WAY HEAT RECLAIM VALVES

Sporlan Heat Reclaim & Split Condenser Valves are tight synthetic seating three-way valves designed specifically to divert hot gas from the normal to auxiliary condenser and/or to reduce condenser capacity during low ambient winter conditions. They offer proven performance backed by Sporlan service, engineering and technical support.

ITEM NO.	PRODUCT NO.	DESCRIPTION	CONN SIZE (INCHES)	PORT SIZE (INCHES)	COIL TYPE (Not Included)
SP5070	8D7B	Heat Reclaim Valve	7/8	3/4	MKC-1
SP5060	8D9B		1-1/8	3/4	
SP1985	12D11B		1-3/8	1-1/4	
SP1983	12D13B		1-5/8	1-1/4	
16D17B	16D17B		2-1/8	2-1/8	
SP5045	12D11B-SC	Split Condenser Valve	1-3/8	1-1/4	
12D13B-SC	12D13B-SC		1-5/8	1-1/4	
16D17B-SC	16D17B-SC		2-1/8	2-1/8	



- 16D models with date codes prior to 12-03 will require MKC-2 Coils. Spare part kits will also differ.
- For more information consult your nearest Beijer Ref branch and request Sporlan Bulletin 30-10.
- MKC-1 Solenoid coils are not included and should be ordered separately.

## HEAT RECLAIM VALVE SERVICE KITS

ITEM NO.	DESCRIPTION
SP5100	Heat Reclaim Valve Kit KS-8DB
SP5105	Heat Reclaim Valve Kit KS-12DB
SP5110	Heat Reclaim Valve Kit KS-16DB
SP5115	Pilot Assembly KS-8D/12DP
SP5120	Pilot Assembly KS-16DP



**FLARE NUTS - SHORT BARREL**

ITEM NO.	SIZE (Inches)
J0428	5/16MF x 1/4
J0401	1/4
J0402	5/16
J0403	3/8
J0404	1/2
J0405	5/8
J0406	3/4



**FLARE NUTS - FROSTPROOF**

ITEM NO.	SIZE (Inches)
J0410	1/4
J0411	5/16
J0412	3/8
J0413	1/2
J0414	5/8
J0415	3/4



**REDUCING F/NUTS - F/PROOF**

ITEM NO.	SIZE (Inches)
J0421	3/8 x 1/4
J0422	1/2 x 3/8
J0423	5/8 x 1/2



**F/FLARE SWIVEL UNIONS**

ITEM NO.	SIZE (Inches)
J0541	1/4
J0543	3/8
J0544	1/2
J0545	5/8



**FEMALE FLARE CONNECTORS**

ITEM NO.	SIZE (Inches)
J0551	1/4
J0553	3/8
J0554	1/2



**FLARE SEAL CAPS**

ITEM NO.	SIZE (Inches)
J0770	1/4
J0772	3/8
J0773	1/2
J0774	5/8



**MALE FLARE UNION**

ITEM NO.	SIZE (Inches)
J0431	1/4 x 1/4
J0432**	5/16 x 5/16
J0433	3/8 x 3/8
J0434	1/2 x 1/2
J0435	5/8 x 5/8
J0436	3/4 x 3/4



\*\*5/16 Fitting J0432 is R410A specific.

**M/FLARE REDUCING UNIONS**

ITEM NO.	SIZE (Inches)
J0452	3/8 x 1/4
J0454	1/2 x 1/4
J0456	1/2 x 3/8
J0458	5/8 x 1/4
J0459	5/8 x 3/8
J0460	5/8 x 1/2
J0464	3/4 x 1/2
J0466	3/4 x 5/8



**COPPER FLARE GASKETS**

ITEM NO.	SIZE (Inches)
J0810	1/4
J0812	3/8
J0813	1/2
J0814	5/8
J0815	3/4



**COPPER FLARE BONNETS**

ITEM NO.	SIZE (Inches)
J0790	1/4
J0792	3/8
J0793	1/2
J0794	5/8
J0795	3/4



**COPPER SADDLES**

ITEM NO.	SIZE	ITEM NO.	SIZE
J8235	1/4"	J8249	1"
J8236	5/16"	J8250	1-1/8"
J8238	3/8"	J8252	1-1/4"
J8240	1/2"	J8253	1-3/8"
J8243	5/8"	J8255	1-5/8"
J8245	3/4"	J2020	2-1/8"
J8248	7/8"		





**MALE TO F/FLARE REDUCING UNION**

ITEM NO.	SIZE (Inches)	
	MF	FF
J0476**	5/16	1/4
J0472	1/4	3/8
J0474	1/4	1/2
J0486	3/8	1/4
J0475	3/8	1/2
J0480	1/2	3/8
J0489	1/2	5/8
J0491	5/8	1/2



**MALE FLARE - FBSP UNIONS**

ITEM NO.	SIZE (Inches)	
	MF	FBSP
J0536	1/4	1/8
J0537	1/4	1/4
J0538	1/4	3/8
J0535	3/8	1/2
J0535A	1/2	1/2



**MALE FLARE - MBSP UNIONS**

ITEM NO.	SIZE (Inches)	
	MF	MBSP
J0501	1/4	1/8
J0502	1/4	1/4
J0504	1/4	3/8
J0519	1/4	1/2
J0505	1/4	1/4
J0507	3/8	1/8
J0508	3/8	1/4
J0510	3/8	3/8
J0511	3/8	1/2
J0515	1/2	1/4
J0517	1/2	3/8
J0518	1/2	1/2
J0520	1/2	3/4
J0523	5/8	3/8
J0524	5/8	1/2
J0525	5/8	3/4
J0530	3/4	1/2
J0531	3/4	3/4



**MALE FLARE - I.D. SOLDER**

ITEM NO..	SIZE (Inches)	
	MF	I.D
J0758	1/4	3/8
J0764	3/8	3/8
J0626	3/8	1/2
J0627	1/2	1/2
J0762	5/8	5/8
J0760	3/4	3/4



**MALE PIPE UNIONS**

ITEM NO.	SIZE (Inches)	
	MBSP	I.D
J0820	1/4"	1/4"
J0822	3/8"	3/8"



**CYLINDER ADAPTORS & SPARES**

ITEM NO.	SIZE (Inches)	
	MF	FBSP
J0539	1/4	3/4
J0540	3/8	3/4
ZJ0539A**	5/16	3/4
J0539-R32*	5/16	3/4
J0548	Cylinder Cap 3/4" FBSP	
J0534	Fibre Washer to suit Cyl. Adap	



**MALE FLARE - MBSP SCHRADER**

ITEM NO.	SIZE (Inches)	
	MF	MBSP
J0900	1/4	1/8
J0901	1/4	1/4



**MALE FLARE - MNPT SCHRADER**

ITEM NO..	SIZE (Inches)	
	MF	MNPT
T0320A	1/4	1/8
T0326A	1/4	1/4



**ACME ADAPTOR**

ITEM NO.	SIZE (Inches)
J0475	1/2 F/ACME to 1/4 MF



**SCHRADER R410A ADAPTORS**

ITEM NO.	SIZE (Inches)	
	MF	FF
J0616**	1/4 Schr	5/16
J0616A**	5/16 Schr	1/4



\*\*5/16 fittings as marked are R410A specific.  
\*5/16 as marked are R32 specific with LH thread.

**DOUBLE MALE FLARE ELBOWS**

ITEM NO.	SIZE (Inches)
J0561	1/4
J0563	3/8
J0564	1/2"
J0565	5/8
J0566	3/4



**MALE FLARE - FEMALE FLARE ELBOWS**

ITEM NO.	SIZE (Inches)	
	MF	FF
J0606	1/4	1/4
J0608	3/8	3/8



**MALE FLARE - MALE BSP ELBOWS**

ITEM NO.	SIZE (Inches)	
	MF	MBSP
J0590	1/4	1/8
J0591	1/4	1/4
J0592	1/4	3/8
J0594	3/8	1/4
J0595	3/8	3/8
J0596	3/8	1/2
J0599	1/2	3/8
J0600	1/2	1/2
J0601	5/8	1/2



**MALE FLARE TEES**

ITEM NO.	SIZE (Inches)
J0610	1/4
J0612	3/8
J0613	1/2
J0614	5/8



**MALE FLARE - MALE BSP TEES**

ITEM NO.	SIZE (Inches)
J0617	1/4 MF x 1/4 MF x 1/8 MBSP
J0618	1/4 MF x 1/4 MF x 1/4 MBSP



**FEMALE FLARE - M/FLARE TEES**

STOCK NO.	SIZE (Inches)
J0621	1/4 MF x 1/4 MF x 1/4 FF
J0628	1/4 MF x 1/4 MF x 1/4 FF (Swivel)



**SCHRADER VALVES TEES**

ITEM NO.	SIZE (Inches)
J0622	1/4Schr x 1/4Schr x 1/8 MNPT
J0625	1/4Schr x 1/4Schr x 1/4 FF Swivel



**MALE FLARE SEAL PLUGS**

ITEM NO.	SIZE (Inches)
J0690	1/4
J0691**	5/16
J0692	3/8
J0693	1/2
J0694	5/8
J0695	3/4



**PIPE PLUGS MBSP**

ITEM NO.	SIZE (Inches)
J0730	1/8
J0731	1/4
J0732	3/8
J0733	1/2



**PIPE BUSHINGS**

ITEM NO.	SIZE (Inches)	
	MBSP	FBSP
J0750	1/4	1/8
J0752	3/8	1/4
J0754	1/2	3/8
J0756	3/4	1/2



**VALVE CAPS**

ITEM NO.	SIZE (mm)
J0720	20mm Cap - Plastic Rotalock
J0721	22mm Cap - Plastic Rotalock
J0722	24mm Cap - Plastic Rotalock
J0701	Brass Cap - 3/8 & 1/2 Service
J0702	Brass Cap - 5/8 & 3/4 Service



### SCHRADER ACCESS VALVES

ITEM NO.	DESCRIPTION
T0324A	Schrader Valve 1/4"MF with 50 mm 1/4" OD copper tail
T0325A	Schrader Valve 1/4"MF with 50mm 3/16" OD copper tail
T0234A	Schrader Valve 5/16"MF with 50 mm 1/4" OD copper tail (R410A)
T0357	Schrader Quick Seal Cap 1/4" Flare
T0358A	Schrader Quick Seal Cap 5/16" Flare (R410A)
T0345	Schrader Core - Standard
T0370	Schrader Core - R410A



■ Refer to fittings section for complete range of schrader valves including schrader tee's.

### SUPCO BULLET PIERCING VALVES

ITEM NO.	DESCRIPTION
T0030	Bullet Valve BPV21
T0031	Bullet Valve BPV31



### VIBRATION ELIMINATORS

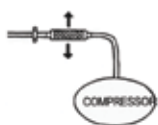
ITEM NO.	ODS	LAYING LENGTH
V-3/8	3/8"	210 mm
V-1/2	1/2"	228 mm
V-5/8	5/8"	247 mm
V-3/4	3/4"	254mm
V-7/8	7/8"	292 mm
V-1-1/8	1-1/8"	330 mm
V-1-3/8	1-3/8"	374 mm
V-1-5/8	1-5/8"	432 mm
V-2-1/8	2-1/8"	508 mm
-	2-5/8"	609 mm
-	3-1/8"	686 mm



#### Installation Hints



Install the Vibration eliminator as close to the compressor as possible, and at right angles to the vibration motion. Anchor the refrigerant piping at the end of the unit furthest away from the vibration source. Allow sufficient space for the unit so that it will not be subject to static compression or tension after brazing it into place. Units should be installed in a straight line; they are not intended to compensate for offset piping.



If the unit is installed in an area where condensate can accumulate on it, cover the unit with a waterproof barrier to prevent moisture from freezing under the braid and ferrules, causing the unit to rupture. Care should be taken when making the sweat connections – direct the torch flame away from the braid and clean excess flux from the unit. For situations of severe vibration, install two units in series at right angles to one another.

### SOFT DRAWN COPPER TUBE

ITEM NO.	DESCRIPTION	R410A	WALL
CTSD0635-080	1/4" (6.35 mm) 30m roll	✓	0.81 mm
CTSD0952-080	3/8" (9.53 mm) 18m roll	✓	0.81 mm
CTSD1270-100	1/2" (12.70 mm) 18m roll	✓	0.81 mm
CTSD1588-100	5/8" (15.88 mm) 18m roll	✓	1.02 mm
CTSD1905-114	3/4" (19.05 mm) 18m roll	✓	1.22 mm
CTSD2223-140	7/8" (2.22 mm) 18m roll	✓	1.60 mm



- Refrigeration grade dehydrated and nitrogen purged, copper tube. Manufactured in accordance with AS1571.

### FIRE RATED PAIR COIL

ITEM NO.	TUBE			INSULATION / R-VALUE		COIL LENGTH (metre)
	O.D (inches)	O.D (mm)	WALL (mm)	WALL (mm)	(W/m.K)	
FRPC06350952-13	1/4 - 3/8	6.35 - 9.52	0.81 - 0.81	13	0.7	18
FRPC06351270-13	1/4 - 1/2	6.35 - 12.70	0.81 - 0.81	13	0.6	18
FRPC06351588-13	1/4 - 5/8	6.35 - 15.88	0.81 - 1.02	13	0.6	18
FRPC09521588-13	3/8 - 5/8	9.52 - 15.88	0.81 - 1.02	13	0.6	18
FRPC09521905-13	3/8 - 3/4	9.52 - 19.05	0.81 - 1.14	13	0.6	18
FRPC06350952-19	1/4 - 3/8	6.35 - 9.52	0.81 - 0.81	19	1.1	18
FRPC06351270-19	1/4 - 1/2	6.35 - 12.70	0.81 - 0.81	19	1	18
FRPC06351588-19	1/4 - 5/8	6.35 - 15.88	0.81 - 1.02	19	1	18
FRPC09521588-19	3/8 - 5/8	9.52 - 15.88	0.81 - 1.02	19	1	18
FRPC09521905-19	3/8 - 3/4	9.52 - 19.05	0.81 - 1.14	19	0.9	15



- Manufactured in accordance with AS1571 and meets specifications of Australian fire safety regulations.
- 19mm wall insulation option also available upon request.

### CAPILLARY TUBE SERVICE PACKS

ITEM NO.	DESCRIPTION	INTERNAL DIAMETER		LENGTH (metre)
		mm	Inch	
G0381	Capillary Service Pack SP-1	0.66	0.026	3.66
G0382	Capillary Service Pack SP-2	0.80	0.032	3.66
G0383	Capillary Service Pack SP-3	0.90	0.036	3.66
G0384	Capillary Service Pack SP-4	1.10	0.044	4.27
G0384A	Capillary Service Pack SP-4.5	1.20	0.043	4.27
G0385	Capillary Service Pack SP-5	1.30	0.051	4.27
G0386	Capillary Service Pack SP-6	1.40	0.055	3.66
G0386A	Capillary Service Pack SP-6.5	1.50	0.059	3.66
G0387	Capillary Service Pack SP-7	1.62	0.064	3.05
G0388	Capillary Service Pack SP-8	1.78	0.070	3.66
G0389	Capillary Service Pack SP-9	1.90	0.075	2.75
G0390	Capillary Service Pack SP-10	2.04	0.080	3.05
G0391	Capillary Service Pack SP-11	2.24	0.088	3.66



- Please contact Beijer Ref for assistance with selecting the capillary tube for your application.

### LIQUID LINE DRIERS COPPER SPUN

ITEM NO..	DESCRIPTION
120110XH9	10g Domestic Copper Spun Drier
120115XH9	15g Domestic Copper Spun Drier
121420XH9	20g Domestic Copper Spun Drier



**HARD DRAWN COPPER TUBE (Refrigeration Grade)**

ITEM NO.	LENGTH (M)	NOMINAL OD		WALL SIZE	410A
		Inches	mm	mm	
T51435	6	1/4	6.4	0.81	✓
T77112	6	3/8	9.5	0.81	✓
T10287	6	1/2	12.7	0.81	✓
T24937	6	5/8	15.9	0.91	
T16870	6	5/8	15.9	1.02	✓
T88072	6	3/4	19.1	0.91	
T16855	6	3/4	19.1	1.14	✓
T13862	6	7/8	22.2	0.91	
T64173	6	7/8	22.2	1.22	
T16860	6	7/8	22.2	1.40	✓
T23515	6	7/8	22.2	1.63	✓
T60658	6	1	25.4	0.91	
T79850	6	1	25.4	1.63	✓
T73971	6	1-1/8	28.6	0.91	
T91961	6	1-1/8	28.6	1.22	
T14569	6	1-1/8	28.6	1.83	✓
T22039	6	1-1/4	31.8	0.91	
T21820	6	1-1/4	31.8	2.03	✓
T15237	6	1-3/8	34.9	0.91	
T91987	6	1-3/8	34.9	1.22	
T75980	6	1-3/8	34.9	2.03	✓
T32921	6	1-5/8	41.3	0.91	
T91791	6	1-5/8	41.3	1.22	
T16865	6	1-5/8	41.3	2.41	✓
T94943	6	2	50.8	1.22	
T78166	6	2-1/8	54.0	0.91	
T94960	6	2-1/8	54.0	1.22	
T94951	6	2-1/8	54.0	1.63	
T31976	6	2-5/8	66.7	1.22	
T75566	6	2-5/8	66.7	1.63	
T88013	6	3	76.2	1.63	
T20923	6	4	101.6	1.63	



■ Refrigeration grade dehydrated and nitrogen purged, copper tube. Manufactured in accordance with AS1571.

**90° LONG RADIUS ELBOW**

ITEM NO.	SIZE (Inches)	410A
J8000	1/4	✓
J8003	3/8	✓
J8005	1/2	✓
J8008	5/8	✓
J1156	3/4	✓
J8013	7/8	✓
J8015	1	✓
J8019	1-1/8	✓
J8026	1-1/4	

ITEM NO.	SIZE (Inches)	410A
J8026A	1-1/4	✓
J8020	1 3/8	
J8020A	1 3/8	✓
J8021	1-1/2	
J1163	1-5/8	
J8023A	1-5/8	✓
J8028	2-1/8	
J1167	2-5/8	
J8031	3	



**90° SHORT RADIUS ELBOW**

ITEM NO.	SIZE (Inches)	410A
J7003	3/8	✓
J7005	1/2	✓
J7008	5/8	✓
J7010	3/4	✓
J7013	7/8	✓

ITEM NO.	SIZE (Inches)	410A
J7015	1	✓
J7018	1-1/8	
J7023	1-3/8	
J7028	1-5/8	
J7030	2-1/8	



**90° MALE / FEMALE ELBOW**

ITEM NO.	SIZE (Inches)	410A
J8315	3/8	✓
J8316	1/2	✓
J8319	5/8	✓
J8300	3/4	✓
J8301	7/8	✓
J8302	1	✓

ITEM NO.	SIZE (Inches)	410A
J8303	1-1/8	
J8306	1-3/8	
J8308	1-5/8	
J8310	2-1/8	
J8313	2-5/8	



**45° COPPER ELBOW**

ITEM NO.	SIZE (Inches)	410A
J8034	3/8	✓
J8036	1/2	✓
J0993	5/8	✓
J0994	3/4	✓
J0995	7/8	✓
J8043	1	✓
J8045	1-1/8	
J8046	1-1/8	✓

ITEM NO.	SIZE (Inches)	410A
J8047	1-1/4	
J8048	1-3/8	
J8049	1-3/8	✓
J1000	1-5/8	
J8051	1-5/8	✓
J1001	2-1/8	
J0988	2-5/8	



**COPPER TEES**

ITEM NO.	SIZE (Inches)	410A
J1133	1/4	✓
J8088	3/8	✓
J8090	1/2	✓
J8093	5/8	✓
J8095	3/4	✓
J8098	7/8	✓
J8100	1	✓

ITEM NO.	SIZE (Inches)	410A
J8103	1-1/8	
J8104	1-1/8	✓
J8105	1-3/8	
J1142	1-5/8	
J1144	2-1/8	
J1145	2-5/8	
J8117	3	



**COPPER REDUCING TEES**

ITEM NO.	SIZE LINE (Inches)	BRANCH (Inches)	410A
J8096	3/8	1/4	✓
J8089	1/2	1/4	✓
J8403	1/2	3/8	✓
J8401	5/8	3/8	✓

ITEM NO.	SIZE LINE (Inches)	BRANCH (Inches)	410A
J8402	5/8	1/2	✓
J8407	3/4	3/8	✓
J8408	3/4	1/2	✓
J8097	7/8	1/2	✓



**COPPER REDUCERS (COUPLING ID X ID)**

ITEM NO.	SIZE ID (Inches)	SIZE ID (Inches)	410A
J8170	3/8	1/4	✓
J8175	1/2	3/8	✓
J8178	5/8	3/8	✓
J8180	5/8	1/2	✓
J8183	3/4	3/8	✓
J8185	3/4	1/2	✓
J8186	3/4	5/8	✓
J8188	7/8	1/2	✓
J8190	7/8	5/8	✓
J8193	7/8	3/4	✓
J8194	1	3/4	✓
J8196	1	7/8	
J8197	1-1/8	1/2	
J8195	1-1/8	5/8	
J8198	1-1/8	3/4	
J8200	1-1/8	7/8	
J8201	1-1/8	1	

ITEM NO.	SIZE ID (Inches)	SIZE ID (Inches)	410A
J8203	1-3/8	5/8	
J8203A	1-3/8	3/4	
J8205	1-3/8	7/8	
J8208	1-3/8	1-1/8	
J8210	1-5/8	7/8	
J8209	1-5/8	1-1/8	
J8215	1-5/8	1-3/8	
J8218	2-1/8	1-1/8	
J8220	2-1/8	1-3/8	
J8223	2-1/8	1-5/8	
J8225	2-5/8	1-3/8	
J8228	2-5/8	1-5/8	
J8230	2-5/8	2-1/8	
J8231	3	2-1/8	
J1201	3-1/8	2-5/8	



**COPPER REDUCERS (BUSH OD X ID)**

ITEM NO.	SIZE OD (Inches)	SIZE ID (Inches)	410A
J8181	1/2	3/8	✓
J8182	5/8	1/2	✓
J1308	3/4	5/8	✓
J1312	7/8	1/2	✓
J1311	7/8	5/8	✓
J1312B	1-1/8	5/8	
J8192	1-1/8	5/8	✓
J1314	1-1/8	3/4	
J1313	1-1/8	7/8	
J8199A	1-1/8	7/8	✓
J1318	1-3/8	7/8	
J8204A	1-3/8	7/8	
J1317	1-3/8	1-1/8	

ITEM NO.	SIZE OD (Inches)	SIZE ID (Inches)	410A
J1322	1-5/8	7/8	
J1321	1-5/8	1-1/8	
J1320	1-5/8	1-3/8	
J8217	1-5/8	1-3/8	✓
J1326	2-1/8	1-1/8	
J8222	2-1/8	1-3/8	
J1324	2-1/8	1-5/8	
J8234	2-5/8	1-5/8	
J1329	2-5/8	2-1/8	
J8232A	3	2-1/8	
J8232B	3	2-5/8	
J8226	3-1/8	2-1/8	
J1331	3-1/8	2-5/8	



**Y PIECES**

ITEM NO.	SIZE (Inches)
J8422	1/2 x 3/8 x 3/8
J8418	5/8 x 5/8 x 5/8
J8417	5/8 x 1/2 x 1/2

ITEM NO.	SIZE (Inches)
J8425	7/8 x 7/8 x 7/8
J8424	7/8 x 5/8 x 5/8



**COPPER COUPLINGS**

ITEM NO.	SIZE (Inches)	410A
J8119	1/4	✓
J8120	3/8	✓
J8123	1/2	✓
J8125	5/8	✓
J8128	3/4	✓
J8130	7/8	✓
J8131	1	✓
J8133	1-1/8	
J8133A	1-1/8	✓

ITEM NO.	SIZE (Inches)	410A
J8132	1-1/4	
J8135	1-3/8	
J8136	1-3/8	✓
J8138	1-5/8	
J8138A	1-5/8	✓
J8140	2-1/8	
J8143	2-5/8	
J8144A	3	
J81215	3-1/8	



**'P' TRAPS**

ITEM NO.	SIZE (Inches)	410A
J1498	5/8	✓
J1499	3/4	✓
J1500	7/8	✓
J1501	1-1/8	

ITEM NO.	SIZE (Inches)	410A
J1502	1-3/8	
J1503	1-5/8	
J1504	2-1/8	



**RETURN BENDS - 180°**

ITEM NO.	SIZE (Inches)	410A
J1121	1/2	✓
J1122	5/8	

ITEM NO.	SIZE (Inches)	410A
J1123	3/4	
J8070	7/8	



**END CAPS**

ITEM NO.	SIZE (Inches)
J8147	1/2
J1345	5/8
J8150	3/4
J8153	7/8
J8154	1
J8155	1-1/8

ITEM NO.	SIZE (Inches)
J8158	1-3/8
J8160	1-5/8
J8163	2-1/8
J8165	2-5/8
J8167	3
J8169	4



**COPPER FLARE BONNETS**

ITEM NO.	SIZE (Inches)
J0790	1/4
J0792	3/8
J0793	1/2

ITEM NO.	SIZE (Inches)
J0794	5/8
J0795	3/4



**COPPER FLARE GASKETS**

ITEM NO.	SIZE (Inches)
J0810	1/4
J0812	3/8
J0813	1/2

ITEM NO.	SIZE (Inches)
J0814	5/8
J0815	3/4





### K65 TUBE & FITTINGS FOR USE WITH CO2 (R744)

In air conditioning/refrigeration, and in particular in the area of commercial or industrial refrigeration systems, more and more ecology-oriented concepts are being implemented, with the focus being on efficiency and environmentally friendly refrigerants.

The use of the natural refrigerant CO2 (R744) leads to higher operating pressures, particularly in transcritical operation. The new K65 system, consisting of tubes and fittings, is particularly suited to these applications.

K65 is a high-strength copper alloy and enables simple, safe and economical installation of refrigeration systems with operation pressures of up to 120 bar

Both the tubes and the fittings of the K65 system are TÜV-certified and, therefore, meet the requirements of the European Pressure Equipment Directive 97/23/EC.

K65 tubes and K65 fittings are clearly marked, so that the system components can be easily identified at all times.

#### Benefits of using K65

- Cost reduction and improved handling due to weight reduction
- Known and user friendly processing technologies (e.g. brazing)
- Existing processes and equipment can be used
- Clear identification of the system components
- TÜV-certified

### K65 COPPER TUBE FOR CO2 (R744)

ITEM NO.	LENGTH (M)	NOMINAL OD		WALL SIZE	WEIGHT (KG) PER 5m L
		Inches	mm	mm	
K65HD10-065	5	3/8	9.5	0.65	0.8
K65HD12-085	5	1/2	12.7	0.85	1.4
K65HD15-105	5	5/8	15.9	1.05	2.3
K65HD20-130	5	3/4	19.1	1.30	3.2
K65HD22-150	5	7/8	22.2	1.50	4.4
K65HD28-190	5	1-1/8	28.6	1.90	7.1
K65HD35-230	5	1-3/8	34.9	2.30	10.5
K65HD42-270	5	1-5/8	41.3	2.70	14.6
K65HD54-355	5	2-1/8	54	3.55	25.0



- Changes in surface colour are possible with this material but have no impact on technical properties.

### K65 90° ELBOW (Female to Female)

ITEM NO.	SIZE (Inches)
KX5002003000000	3/8
KX5002004000000	1/2
KX5002005000000	5/8
KX5002006000000	3/4

ITEM NO.	SIZE (Inches)
KX5002007000000	7/8
KX5002009000000	1-1/8
KX5002011000000	1-3/8
KX5002013000000	1-5/8



### K65 90° ELBOW (Male to Female)

ITEM NO.	SIZE (Inches)
KX5001003000000	3/8
KX5001004000000	1/2
KX5001005000000	5/8
KX5001006000000	3/4

ITEM NO.	SIZE (Inches)
KX5001007000000	7/8
KX5001009000000	1-1/8
KX5001011000000	1-3/8
KX5001013000000	1-5/8



### K65 45° ELBOW (Female to Female)

ITEM NO.	SIZE (Inches)
KX5041003000000	3/8
KX5041004000000	1/2
KX5041005000000	5/8
KX5041006000000	3/4

ITEM NO.	SIZE (Inches)
KX5041007000000	7/8
KX5041009000000	1-1/8
KX5041011000000	1-3/8
KX5041013000000	1-5/8



**K65 45° ELBOW (Male to Female)**

ITEM NO.	SIZE (Inches)
KX5040006000000	3/4
KX5040007000000	7/8
KX5040009000000	1-1/8

ITEM NO.	SIZE (Inches)
KX5040011000000	1-3/8
KX5040013000000	1-5/8



**K65 COPPER TEE'S**

ITEM NO.	SIZE (Inches)
KX5130003003003	3/8
KX5130004004004	1/2
KX5130005005005	5/8
KX5130006006006	3/4

ITEM NO.	SIZE (Inches)
KX5130007007007	7/8
KX5130009009009	1-1/8
KX5130011011011	1-3/8
KX5130013013013	1-5/8



**K65 COPPER COUPLING**

ITEM NO.	SIZE (Inches)
KX5270003000000	3/8
KX5270004000000	1/2
KX5270005000000	5/8
KX5270006000000	3/4

ITEM NO.	SIZE (Inches)
KX5270007000000	7/8
KX5270009000000	1-1/8
KX5270011000000	1-3/8
KX5270013000000	1-5/8



**K65 REDUCERS**

ITEM NO.	SIZE (Inches)	SIZE (Inches)
KX5240004003000	1/2	3/8
KX5240005004000	5/8	1/2
KX5240006005000	3/4	5/8
KX5240007006000	7/8	3/4

ITEM NO.	SIZE (Inches)	SIZE (Inches)
KX5240009007000	1-1/8	7/8
KX5240011009000	1-3/8	1-1/8
KX5240013011000	1-5/8	1-3/8
KX5240017013000	2-1/8	1-5/8



**K65 COPPER REDUCERS (BUSH OD X ID)**

ITEM NO.	SIZE OD (Inches)	SIZE ID (Inches)
KX5243004003000	1/2	3/8
KX5243005003000	5/8	3/8
KX5243005004000	5/8	1/2
KX5243006003000	3/4	3/8
KX5243006004000	3/4	1/2
KX5243006005000	3/4	5/8
KX5243007003000	7/8	3/8

ITEM NO.	SIZE OD (Inches)	SIZE ID (Inches)
KX5243007004000	7/8	1/2
KX5243007005000	7/8	5/8
KX5243007006000	7/8	3/4
KX5243009005000	1-1/8	5/8
KX5243009006000	1-1/8	3/4
KX5243009007000	1-1/8	7/8
KX5243011009000	1-3/8	1 1/8



**K65 COPPER END CAPS**

ITEM NO.	SIZE OD (Inches)
KX5301003000000	3/8
KX5301004000000	1/2
KX5301005000000	5/8
KX5301006000000	3/4

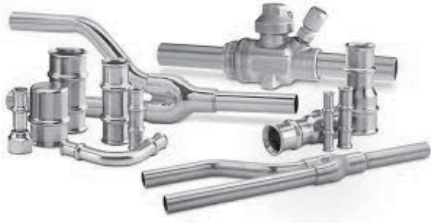
ITEM NO.	SIZE OD (Inches)
KX5301007000000	7/8
KX5301009000000	1-1/8
KX5301011000000	1-3/8
KX5301013000000	1-5/8



Please contact Beijer Ref for further information on K65 tube and fittings or for information and availability on any other components suitable for use with CO2 Subcritical or Transcritical applications



## RLS - RAPID LOCKING SYSTEM



**RLS** flame-free refrigerant fittings are specially designed to work without brazing, which automatically makes your job simpler and faster when joining copper tubes.

- For HVAC/R up to 700 psi
- Huge labor and time savings
- Less equipment required
- No need to nitrogen-purge
- Safer conditions no fire hazards
- No hot-work permits
- More flexible access to job sites
- All Fittings are 410A rated

### TOOL KIT WITH 5-JAW SET

ITEM NO.	DESCRIPTION
399011190501	RLS Tool Kit with Klauke Tool & 5 Jaws: 3/8; 1/2; 5/8; 7/8; 1-1/8 Tube Cutter, Deburring Tool, Abrasive Pad, Depth Gauge, Crimp Gauge, Marker Pen, Wire Brush <b>(Does not include batteries or charger)</b>
Battery Kit	Battery 5.0AH x 2 & Charger
399040306	RLS Metal Crimp Gauge - Included
399040308	RLS Plastic Depth Gauge - Included



### KLAUKE JAWS

ITEM NO.	SIZE	DESCRIPTION
399021191040	1/4"	RLS Klauke Jaw 1/4"
399021191060	3/8"	RLS Klauke Jaw 3/8"
399021191080	1/2"	RLS Klauke Jaw 1/2"
399021191100	5/8"	RLS Klauke Jaw 5/8"
399021191120	3/4"	RLS Klauke Jaw 3/4"
399021191140	7/8"	RLS Klauke Jaw 7/8"
399021191160	1"	RLS Klauke Jaw 1"
399021191180	1-1/8"	RLS Klauke Jaw 1-1/8"
399021191220	1-3/8"	RLS Klauke Jaw-1 3/8"
399031000100	Holds all 9 Jaws	Klauke Jaw Case (Klauke Jaws not included)



Professionals who have tried RLS flame-free refrigerant fittings report their time and labor costs on tube connections are typically reduced 60% on average by eliminating the need for brazing. The biggest benefits are more productivity and increased profit, but there are also many other advantages to flamefree tube connecting.





**COUPLINGS**

ITEM NO.	SIZE
3011040400111	1/4"
3011060600111	3/8"
3011080800111	1/2"
3011101000111	5/8"
3011121200111	3/4"
3011141400111	7/8"
3011161600111	1"
3011181800111	1-1/8"
3011222200111	1-3/8"



**90° ELBOWS**

ITEM NO.	SIZE
3031040400111	1/4"
3031060600111	3/8"
3031080800111	1/2"
3031101000111	5/8"
3031121200111	3/4"
3031141400111	7/8"
3031161600111	1"
3031181800111	1-1/8"
3031222200111	1-3/8"



**REDUCERS**

ITEM NO.	SIZE
3051060400111	3/8" to 1/4"
3051080400111	1/2" to 1/4"
3051080600111	1/2" to 3/8"
3051100400111	5/8" to 1/4"
3051100600111	5/8" to 3/8"
3051100800111	5/8" to 1/2"
3051120800111	3/4" to 1/2"
3051121000111	3/4" to 5/8"
3051140800111	7/8" to 1/2"
3051141000111	7/8" to 5/8"
3051141200111	7/8" to 3/4"
3051180800111	1-1/8" to 1/2"
3051181000111	1-1/8" to 5/8"
3051181200111	1-1/8" to 3/4"
3051181400111	1-1/8" to 7/8"
3051221800111	1-3/8" to 1-1/8"
3051221400111	1-3/8" to 7/8"



**45° ELBOWS**

ITEM NO.	SIZE
3081060600111	3/8"
3081080800111	1/2"
3081101000111	5/8"
3081121200111	3/4"
3081141400111	7/8"
3081181800111	1-1/8"
3081222200111	1-3/8"



**TEE PIECES**

ITEM NO.	SIZE
3091060606111	3/8"
3091080808111	1/2"
3091101010111	5/8"
3091121212111	3/4"
3091141414111	7/8"
3091181818111	1-1/8"
3091222222111	1-3/8"



**CAPS**

ITEM NO.	SIZE
3071040000111	1/4"
3071060000111	3/8"
3071080000111	1/2"
3071100000111	5/8"
3071120000111	3/4"
3071140000111	7/8"
3071180000111	1-1/8"
3071220000111	1-3/8"



**Y-CONNECTIONS**

ITEM NO.	SIZE
3771060606111	3/8"
3771080808111	1/2"
3771101010111	5/8"
3771121212111	3/4"
3771141414111	7/8"
3771181818111	1-1/8"



**FLARE NUTS**

ITEM NO.	SIZE
3291040000111	1/4"
3291060000111	3/8"
3291080000111	1/2"
3291100000111	5/8"
3291120000111	3/4"



**BALL VALVES (With Access)**

ITEM NO.	SIZE
3791040400111	3/8"
3791060600111	1/2"
3791080800111	5/8"
3791101000111	3/4"
3791121200111	7/8"
3791141400111	1-1/8"
3791222200111	1-3/8"





## K-FLEX TUBE INSULATION



K-FLEX Insulation is a fire rated, multi-purpose flexible elastomeric thermal insulation with a built in vapour barrier and a closed cell structure. This makes K-FLEX Insulation highly resistant to water vapour transmission and enables the product to maintain a high level of energy conservation efficiency.

### Temperature Range:

Suitable for applications ranging from - 200 °C to + 116 °C. Independently tested by NATA accredited laboratories. K-FLEX insulation is compliant to the Australian Building Code Boards (ABCB) National Construction Code (NCC) 2015 edition.

- FM Approved and ISO 9001:2000 Registered with over one thousand additional domestic and international certificates
- Low thermal conductivity and high  $\mu$  factor for effective control of condensation and insulating against heat loss and heat gain
- A wide range of tube and sheet with self adhesive and aluminium foil face available
- CFC & HCFC free with ozone depletion potential of zero
- Non-corrosive, smoke and fire rated material

9mm WALL	ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
	N09006	1/4	6	158
	N09009	3/8	10	110
	N09013	1/2	13	100
	N09016	5/8	16	94
	N09019	3/4	19	68
	N09022	7/8	22	64

ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
N09025	1	25	54
N09028	1-1/8	28	49
N09035	1-3/8	35	38
N09042	1-5/8	42	30
N09054	2-1/8	54	23
N09067	2-5/8	67	23

13mm WALL	ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
	N13006	1/4	6	100
	N13010	3/8	10	76
	N13013	1/2	13	64
	N13016	5/8	16	56
	N13019	3/4	19	50
	N13022	7/8	22	49
	N13025	1	25	40

ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
N13028	1-1/8	28	36
N13032	1-1/4	32	30
N13035	1-3/8	35	29
N13042	1-5/8	42	25
N13048	2	50	20
N13054	2-1/8	54	20
N13067	2-5/8	67	15

19mm WALL	ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
	N19006	1/4	6	50
	N19010	3/8	10	40
	N19013	1/2	13	36
	N19016	5/8	16	36
	N19019	3/4	19	30
	N19022	7/8	22	30
	N19025	1	25	25
	N19028	1-1/8	28	24
	N19032	1-1/4	32	20

ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
N19035	1-3/8	35	20
N19042	1-5/8	42	16
N19050	2	50	12
N19054	2-1/8	54	12
N19060	2-3/8	60	11
N19067	2-5/8	67	11
N19076	3	76	9
N19080	3-1/8	79	9
N19102	4	102	7

25mm WALL	ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
	N25010	3/8	10	26
	N25013	1/2	13	25
	N25016	5/8	16	25
	N25019	3/4	19	20
	N25022	7/8	22	19
	N25025	1	25	16
	N25028	1-1/8	28	16

ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
N25035	1-3/8	35	15
N25042	1-5/8	42	12
N25048	2	50	9
N25054	2-1/8	54	9
N25067	2-5/8	67	8
N25076	3	76	6
N25102	4	102	4

32mm WALL	ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
	N32013	1/2	13	18
	N32016	5/8	16	18
	N32019	3/4	19	16
	N32022	7/8	22	12
	N32025	1	25	12
	N32028	1-1/8	28	12

ITEM NO.	ID (Inches)	ID (mm)	QTY/CARTON
N32035	1-3/8	35	10
N32042	1-5/8	42	9
N32054	2-1/8	54	7
N32067	2-5/8	67	4
N32076	3	76	4
N32102	4	102	3

■ Please contact Beijer Ref for further technical information or for availability of other sizes including 38mm and 50mm wall options.



### CONTINUOUS ROLL TUBE INSULATION - 9mm WALL

K-FLEX continuous roll Insulation is a fire rated, multi-purpose flexible elastomeric thermal insulation with a built in vapour barrier and a closed cell structure. This makes K-FLEX Insulation highly resistant to water vapour transmission and enables the product to maintain a high level of energy conservation efficiency.

ITEM NO.	ID (Inches)	ID (mm)	LENGTH
NC09006	1/4	6	80
NC09010	3/8	10	60
NC09013	1/2	13	50
NC09016	5/8	16	40
NC09019	3/4	19	40



### SHEET INSULATION - 2 METERS SQUARE

ITEM NO.	Thickness (Inches)	Thickness (mm)	LENGTH x WIDTH
NS0901M	3/8	9	1m x 1.22m
NS1301M	1/2	13	1m x 1.22m
NS1901M	3/4	19	1m x 1.22m
NS2501M	1	25	1m x 1.22m



### INSULATION ADHESIVE

ITEM NO.	DESCRIPTION	SOLD PER
KADH500ML	Adhesive Glue (with brush)	500ml



### INSULATION TAPE

ITEM NO.	DESCRIPTION
KINSTAPE	<b>Foam Tape Roll</b> - Closed cells elastomeric, black colour, one side adhesive with protective film. Used for hot and cold pipe insulation. Can be used as joint protection. 3mm x 48mm x 9m roll *Self adhering
N2510	<b>Cork Tape Roll</b> - Compounded with synthetic rubber, asphalt and cork dust. Ideal to prevent condensation on pipes. 3mm x 50mm x 10m roll *Self adhering



**THERMALOC INSULATED PIPE BLOCKS**

Thermaloc Insulated Pipe Blocks are made using durable closed cell foam. Under extreme humid conditions, the tough closed cell product offers high insulation values and will not absorb water as wooden ferrules may do. They are designed to ensure an air tight seal when the clamps are tightened, preventing air movement in to the cold piping.

13mm WALL	ITEM NO.	ID (mm)	ID (Inch)	CLAMP (mm)
	F1500	13	1/2	38
	F1501	16	5/8	43
	F1502	19	3/4	43
	F1503	22	7/8	48
	F1504	28	1-1/8	57
	F1505	35	1-3/8	60
	F1506	42	1-5/8	67
	F1507	54	2-1/8	83

19mm WALL	ITEM NO.	ID (mm)	ID (Inch)	CLAMP (mm)
	F1510	16	5/8	57
	F1511	19	3/4	60
	F1512	22	7/8	60
	F1513	28	1-1/8	70
	F1514	35	1-3/8	73
	F1515	42	1-5/8	83
	F1516	54	2-1/8	98
	F1517	67	2-5/8	102

25mm WALL	ITEM NO.	ID (mm)	ID (Inch)	CLAMP (mm)
	F1520	16	5/8	70
	F1521	19	3/4	73
	F1522	22	7/8	76
	F1523	28	1-1/8	83
	F1524	35	1-3/8	86
	F1525	42	1-5/8	95
	F1526	54	2-1/8	108
	F1527	67	2-5/8	121

32mm WALL	ITEM NO.	ID (mm)	ID (Inch)	CLAMP (mm)
	F1530	16	5/8	79
	F1531	19	3/4	83
	F1532	22	7/8	86
	F1533	28	1-1/8	92
	F1534	35	1-3/8	95
	F1535	42	1-5/8	105
	F1536	54	2-1/8	117
	F1537	67	2-5/8	127



- Strut Clamps are not included with pipe blocks. Please order separately as below.
- All above pipe blocks come in packs of 5 (Price is for each)
- Thermaloc are fire rated to AS1530.3

**STRUT CLAMPS (For Pipe Blocks)**

ITEM NO.	CLAMP (mm)
F1540	38
F1542	43
F1544	48
F1546	57
F1548	60
F1550	67
F1552	70

ITEM NO.	CLAMP (mm)
F1554	73
F1556	76
F1558	79
F1560	83
F1562	86
F1564	92
F1566	95

ITEM NO.	CLAMP (mm)
F1568	98
F1570	102
F1572	105
F1574	108
F1576	117
F1578	121
F1580	127



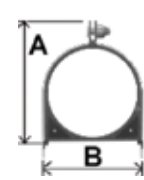
- All above strut clamps come in packs of 5 (Price is each)

**INSULCLAMPS (Include Clamps)**

**Insulclamp** is an effective pipe support and has first-rate isolations properties that reduce transmission of vibration and noise. It can withstand temperatures from -30°C to +125°C and has excellent resistance to oil, UV rays etc.

ITEM NO.	SIZE (Inches)	DIMENSIONS	
		A (mm)	B (mm)
J1602	1/4	31.0	15.0
J1603	3/8	34.9	19.0
J1604	1/2	38.1	23.8
J1605	5/8	42.7	25.4
J1606	3/4	44.4	30.1
J1607	7/8	49.2	33.3

ITEM NO.	SIZE (Inches)	DIMENSIONS	
		A (mm)	B (mm)
J1608	1-1/8	53.9	36.5
J1609	1-3/8	60.3	44.4
J1610	1-5/8	73.0	53.1
J1611	2-1/8	88.9	68.2
J1612	2-5/8	101.6	80.9
J1613	3-1/8	114.3	93.6



### QUICK POSITIONING CLIPS

Quick Positioning Clips are very simple pipe clip made from a UV resistant plastic. They are fitted into standard unistrut channels by just a single twist. The QPC's are ideal for smaller installations and can be used both externally and internally. They are tidy and give a professional finish to any installation.

ITEM NO.	SIZE (Inches)
J1633	3/8
J1634	1/2
J1635	5/8
J1636	3/4

ITEM NO.	SIZE (Inches)
J1637	7/8
J1638	1-1/8
J1639	1-3/8



### RAPID INSUL CLIP

Ideal for securing insulated pipe or drain pipe to unistrut channel.

ITEM NO.	DESCRIPTION	CLIP INSIDE DIAMETER	
J1583	Rapid Insul Clip 28mm	1-1/8"	28mm
J1584	Rapid Insul Clip 32mm	1-1/4"	32mm
J1585	Rapid Insul Clip 35mm	1-3/8"	35mm
J1586	Rapid Insul Clip 40mm	1-1/2"	40mm
J1588	Rapid Insul Clip 50mm	2"	50mm
J1589	Rapid Insul Clip 54mm	2-1/8"	54mm



### BRONCO PIPE SADDLES

Ideal for securing insulated pipe to unistrut channel. 305mm length spreads weight reducing insulation compression.

ITEM NO.	DESCRIPTION	SADDLE INSIDE DIAMETER	
HZSB225	BRONCO Pipe Saddles 57mm	2-1/4"	57mm
HZSB325	BRONCO Pipe Saddles 82mm	3-1/4"	82mm
HZSB425	BRONCO Pipe Saddles 108mm	4-1/4"	108mm
HZSB525	BRONCO Pipe Saddles 133mm	5-1/4"	133mm
HZSB625	BRONCO Pipe Saddles 159mm	6-1/4"	159mm
HZSB825	BRONCO Pipe Saddles 209mm	8-1/4"	209mm





## GRIP LOCKS

Grip Locks are simple metal pipe clips that hold both liquid and gas lines. Designed to be fitted directly to the wall or solid ceiling, they can hold insulated pipes without a break in the insulation. Installation requires only one screw to be tightened.

ITEM NO.	SIZE	LIQUID (including insulation)	SUCTION (including insulation)
J1660	Size 1	1/4"	1/2"
J1661	Size 2	3/8"	5/8"
J1662	Size 3	1/2"	7/8"
J1663	Size 4	5/8"	1-1/8"



## METAL PIPE HANGER

Ideal for securing insulated pipe or drain pipe to 8mm or 10mm threaded rod with easily adjusted height.

ITEM NO..	SIZE (including insulation)	LIQUID (including insulation)	GAS (including insulation)
J1650	BBJ 2	3/8"	5/8"
J1651	BBJ 3	1/2"	7/8"
J1652	BBJ 4	5/8"	1-1/8"



## GALVANIZED UNISTRUT CHANNEL

ITEM NO.	DESCRIPTION
J8293A	Unistrut Slotted - 41mm x 41mm x 6m (1.6mm wall)
J8295A	Unistrut Slotted - 20mm x 41mm x 6m (1.6mm wall)
J8295	Unistrut Non Slotted - 20mm x 41mm 6m (1.6mm wall)

- Other types and wall thicknesses available in store and upon request.



## CANTILEVER BRACKET KITS

ITEM NO.	DESCRIPTION
CANTILEVER-500	Freddox Cantilever Bracket Kit 500mm - Standard
CANTILEVER-500SP	Freddox Cantilever Bracket Kit 500mm - Heavy Duty
CANTILEVER-650	Freddox Cantilever Bracket Kit 650mm - Standard
CANTILEVER-650SP	Freddox Cantilever Bracket Kit 650mm - Heavy Duty
CANTILEVER-800	Freddox Cantilever Bracket Kit 800mm - Standard
CANTILEVER-800SP	Freddox Cantilever Bracket Kit 800mm - Heavy Duty

- Standard brackets includes 6 x 12mm dyna bolts, Heavy duty brackets include 8 x dyna bolts.
- All brackets come with 4 x rubber anti vibration foot mounts and 2 x end caps.



## THREADED ROD

ITEM NO.	DESCRIPTION
J8278	10mm x 3000mm - Zinc plated
J9220	10mm nuts to suit - Zinc plated (Pack of 25)
J9215	10mm washers to suit - Zinc plated (Pack of 25)

- Other sizes and fasteners available in store and upon request.



**DRAIN PIPE**

ITEM NO.	O.D (mm)	DESCRIPTION
AC1001	15	4 m length
AC1003	20	4 m length



ITEM NO.	O.D (mm)	DESCRIPTION
AC1005	25	4 m length
J3526A	32	4 m length

**ELBOWS**

ITEM NO.	I.D (mm)	DESCRIPTION
AC1010	15	90° PVC
AC1012	20	90° PVC
AC1014	25	90° PVC
J3529A	32	90° PVC



ITEM NO.	I.D (mm)	DESCRIPTION
AC1018	15	45° PVC
AC1020	20	45° PVC
AC1022	25	45° PVC
J3532A	32	45° PVC

**TEES**

ITEM NO.	I.D (mm)	DESCRIPTION
AC1028	15	Tee PVC
AC1030	20	Tee PVC



ITEM NO.	I.D (mm)	DESCRIPTION
AC1032	25	Tee PVC
J3535A	32	Tee PVC

**UNIONS**

ITEM NO.	I.D (mm)	DISCRIPTION
AC1036	15	Double End Union
AC1038	20	Double End Union
AC1040	25	Double End Union
J3538A	32	Double End Union



ITEM NO.	I.D (mm)	DISCRIPTION
AC1110	15	Barrell Union
AC1112	20	Barrell Union
AC1114	25	Barrell Union

**REDUCERS**

ITEM NO.	I.D (mm)	DESCRIPTION
AC1044	20 - 15	Reducer Socket
AC1046	25 - 15	Reducer Socket
AC1048	25 - 20	Reducer Socket
J3512B	32 - 25	Reducer Socket



ITEM NO.	I.D - O.D (mm)	DESCRIPTION
AC1052	20 - 15	Reducing Bush
AC1054	25 - 15	Reducing Bush
AC1056	25 - 20	Reducing Bush

**THREADED SOCKETS**

ITEM NO.	SIZE (mm)	DESCRIPTION
AC1070	15	FM thread socket
AC1072	20	FM thread Socket
AC1074	25	FM thread Socket
J3521A	32	FM thread Socket



ITEM NO.	SIZE (mm)	DESCRIPTION
AC1060	15	M thread socket
AC1062	20	M thread Socket
AC1064	25	M thread Socket

**SADDLES**

ITEM NO.	I.D (mm)	DESCRIPTION
AC1090	15	Pipe Saddle
AC1092	20	Pipe Saddle
AC1094	25	Pipe Saddle
J3504A	32	Pipe Saddle
AC1096	15	Pipe Saddle Zinc



ITEM NO.	I.D (mm)	DESCRIPTION
AC1098	20	Pipe Saddle Zinc
J3507	15	Stand off Bracket
J3508	20	Stand off Bracket
J3509	25	Stand off Bracket
J3509A	32	Stand off Bracket

**VIBRATION PAD**

ITEM NO.	DESCRIPTION
V0265A	450 mm x 450 mm x 9 mm Black Machinery Mount Pad. 100-650 kPa Load Rating.
V0290A	450 mm x 450 mm x 17 mm Red Machinery Mount Pad. 100-1200 kPa Load Rating.
V0292	Waffle Cork Pad Blocks 100 mm x 100 mm x 25 mm
AC0765	Black Waffle Pad 75 mm x 1000 mm x 10 mm



**PIPE FLASHING - BLACK**

ITEM NO.	DESCRIPTION	HOLE SIZE (mm)	BASE SIZE (mm)
SPFRTMINI	Dektite Pipe Flashing - Mini	0-35	70 x 80
SPFRT1	Dektite Pipe Flashing - RT 1	0-55	100 x 110
SPFRT2	Dektite Pipe Flashing - RT 2	3-100	152 x 167
SPFRT3	Dektite Pipe Flashing - RT 3	80-175	267 x 288



**TAPES**

ITEM NO.	DESCRIPTION	PACK SIZE
DUCT-TAPE-BLK	Duct Tape - Black 48mm x 30m	64 Rolls
DUCT-TAPE-WHT	Duct Tape - White 48mm x 30m	60 Rolls
DUCT-TAPE-SLV	Duct Tape - Silver 48mm x 30m	60 Rolls
N0419	Duct Tape - Aluminium Foil	24 Rolls
FOILTAPE48	Reinforced Foil Tape 48mm	24 Rolls
FOILTAPE72	Reinforced Foil Tape 72mm	12 Rolls
N0193	Electrical Insulation Tape	10 pack



**SEALANTS**

ITEM NO.	DESCRIPTION	PACK SIZE
SILBL	Silicon - Black	300g
SILGR	Silicon - Light Grey	300g
SILTR	Silicon - Clear	300g
SILWH	Silicon - White	300g
CRMAS	Mastic - White	450g
A5593	Medium Tin Clear PVC Solvent Glue	250g
A7856CC	Large Tin Clear PVC Solvent Glue	500g



**THREAD SEALS & THERMAL PASTE**

ITEM NO.	DESCRIPTION	PACK SIZE
N0068	Leak Lock Thread Sealant	39ml
RT201B	Nylog 30ml Blue Gasket Thread Sealant	30ml
RT200R	Nylog 30ml Red Gasket Thread Sealant	30ml
4605000012	Teflon Thread Seal Tape 12mm	10m Roll
BHTS	Heat Transfer Paste - Thermal Contact	460ml



### DIAL THERMOMETERS

**FR87R Series** dial thermometers are housed in a heavy duty nylon case with provision for bottom or back entry capillary and can be flush or surface mounted. They have a range of -40 to +40°C and can be easily calibrated

ITEM NO.	PRODUCT NO.	DESCRIPTION	RANGE
U0089	FR87R-60	60mm Dial Thermometer (1.5m capillary)	-40 to +40°C
U0083	FR87R-80	80mm Dial Thermometer (1.5m capillary)	-40 to +40°C
U0087	FR87R-100	100mm Dial Thermometer (1.5m capillary)	-40 to +40°C



### PRESSURE BALANCING VALVE

ITEM NO.	PRODUCT NO.	DESCRIPTION	SUITS
F2227	F2227	Freezer Room Pressure Balancing Valve - Heated	Cut-Out 80mm Panel 75-150mm



### EVAPORATOR MOUNTING KIT

ITEM NO.	PRODUCT NO.	DESCRIPTION	MAX WEIGHT
IEMK	EMK	Nylon Evaporator Mounting Kit with low thermal conductivity. Suits Coldroom Panel 50mm to 200mm. Includes: 4 x Mushroom Bolts, 8 x Nuts, 4 x Washers	80kg each (320kg Total)



### COOLROOM ROLLER ASSEMBLIES AND GUIDES

ITEM NO.	PRODUCT NO.	DESCRIPTION	STYLE / MOUNT
AH-1178	AH-1178	CRH Safety Latch 44-60mm Offset	Lockable
A113X	A113X	55mm Delrin Wheel, Bearing and Circlip	55mm Wheel, 12mm ID
A127X	A127X	75mm Delrin Wheel, Bearing and Circlip	75mm Wheel, 12mm ID
V0512	A129	75mm Delrin Wheel with S/S Axel Bolt Assembly	75mm Wheel with Axel
V0453	A240	large Floor Stop, 124mm Base	25mm Rubber
V0457	A250	Small Floor Stop, 75mm Base	25mm Rubber
A280	A280	H Type Floor Guide Roller	170mm Base



### CABINET DOOR HINGES

ITEM NO.	PRODUCT NO.	DESCRIPTION	STYLE / MOUNT
P11ZRHMSPIK	P11R	Right Hand Self Closing Hinge	Chrome finish suit cabinet or small coolroom doors
P11ZLHMSPIK	P11L	Left Hand Self Closing Hinge	
HP	HP	Hinge Packer Suit P11	Nylon



Please Contact Beijer Ref for availability of other coolroom hardware



## ASPEN TANK CONDENSATE PUMPS

When looking for a high level of reliability, performance and value for money, Aspen condensate pumps are the perfect solution. Aspen's continued focus on innovation has created a market leading range of tank pumps, designed to suit a diverse array of applications. With reliability as the key decision criteria, the tank pumps are designed to perform even under the most challenging of applications.

ITEM NO..	MODEL	DESCRIPTION
T0911 1L tank  TA0906 2L Tank	High Lift  1 or 2Ltr Tank	<b>Where the collection of condensate water is required in a Tank before discharge to waste and where HIGH LIFT is required at LOW FLOW. (Peristaltic pump type)</b> <ul style="list-style-type: none"> <li>• Tank capacity: 1 or 2Ltr</li> <li>• Flow Rate: 11Ltr/hr max</li> <li>• Discharge Head: 12m max</li> <li>• Dimensions: 244mm L x 148mm W x 132mm / 164mm H</li> </ul>
FP3349	Max Hi Flow	<b>Where High Flow is required with a low profile pump</b> <ul style="list-style-type: none"> <li>• Tank Capacity: 4Ltr</li> <li>• Flow rate: 550Ltr/hr max</li> <li>• Discharge Head: 5m max</li> <li>• Two drain inlet points</li> <li>• Only 134mm high</li> <li>• Dimensions: 285mm L x 144mm W x 134mm H</li> </ul>



- All above condensate pumps require a 240V power supply.
- All models include alarm contacts.

## ASPEN PERISTALTIC PUMPS

Peristaltic pumps can offer an ideal solution for condensate removal due to the combination of quietness, reliability and installation advantages. The Peristaltic rotary movement generates a continuous pressure meaning that the pump can be sited over 15m away from the condensate source, with no effect on performance. The pump mechanism does not come into contact with the water and therefore they do not require a filter and will operate quietly wet or dry. (To ensure condensate removal these pumps include a 3min overrun)

ITEM NO..	MODEL	DESCRIPTION
T0947	Standard	<b>Pump operates by being hard wired to cooling signal - starts when unit starts.</b> <ul style="list-style-type: none"> <li>• Flow rate: 6Ltr/hr max</li> <li>• Discharge Head: 12m max</li> <li>• Dimensions: 135mm L x 77mm W x 115mm H</li> </ul>
T0945	Mechanical	<b>Removes condensate water QUIETLY and RELIABLY. Pump operates using a remote reservoir and float.</b> <ul style="list-style-type: none"> <li>• Flow rate: 6Ltr/hr max</li> <li>• Discharge Head: 12m max</li> <li>• Dimensions: 135mm L x 77mm W x 115mm H</li> </ul>
T0946	Universal Pump	<b>Pump operates using coil inlet &amp; outlet sensors which detect a change in air temperature and switches at 5°C differential across the evaporator.</b> <ul style="list-style-type: none"> <li>• Flow rate: 6Ltr/hr max</li> <li>• Discharge Head: 12m max</li> <li>• Dimensions: 160mm L x 145mm W x 75mm H</li> </ul>



- All above condensate pumps require a 240V power supply.
- All the peristaltics now include a wall-mounting bracket.
- All models include alarm contacts.



## ASPEN UNDER-CABINET PUMPS

A complete solution to the growing demand for reliable condensate removal within the retail refrigeration industry. The retail refrigeration pumps are low in height which means they can be easily installed underneath a refrigeration cabinet, where direct drainage is not available and water needs to be pumped up above the ceiling and to a suitable drain. The high capacity of the pumps also permits the draining of several cabinets together. The pumps are operated by floats which activate sensors as the water level rises in the tank.

ITEM NO..	MODEL	DESCRIPTION
TA0908	ERRP Low Profile (Top Inlet)	<b>Low Profile effective solution for the removal of water from supermarket retail refrigeration cabinets.</b> <ul style="list-style-type: none"> <li>• Tank Capacity: 3.5Ltr</li> <li>• Flow Rate: 190Ltr/hr max</li> <li>• Discharge Head: 21m max</li> <li>• Dimensions: 530mm L x 240mm W x 75mm H</li> </ul>
TA0909	ERRP Low Profile (Side Inlet)	<b>Low Profile effective solution for the removal of water from supermarket retail refrigeration cabinets.</b> <ul style="list-style-type: none"> <li>• Tank Capacity: 3.5Ltr</li> <li>• Flow Rate: 190Ltr/hr max</li> <li>• Discharge Head: 21m max</li> <li>• Dimensions: 530mm L x 240mm W x 75mm H</li> </ul>



## SAUERMANN PUMPS

Sauermann have been manufacturing condensate removal pumps for over 40 years. Their pumps are designed to detect and remove condensates from refrigeration and air conditioning cooling systems. The Si-83 Tank pump is constructed from rugged materials and components for exceptional durability and reliability, while the low profile Si-1931 is specially designed to handle condensate from refrigerated supermarket display cabinets.

ITEM NO..	MODEL	DESCRIPTION
SI83	Sauermann Si-83	<b>Compact solution for the removal condensate in AC &amp; Refrigeration Systems.</b> <ul style="list-style-type: none"> <li>• Tank Capacity: 2Ltr</li> <li>• Flow Rate: 65Ltr/hr max</li> <li>• Discharge Head: 5.4m max</li> <li>• Dimensions: 287mm L x 146mm W x 129mm H</li> </ul>
SI1931	Sauermann Si-1931	<b>Low Profile solution for the removal of condensate from refrigerated supermarket cabinets.</b> <ul style="list-style-type: none"> <li>• Tank Capacity: 6.5Ltr</li> <li>• Flow Rate: 700Ltr/hr max</li> <li>• Discharge Head: 24.6m max</li> <li>• Dimensions: 610mm L x 235mm W x 80mm H</li> </ul>



## FREDDOX PUMP

Freddox Si-1800 pump is designed to be easily installed whatever the layout of the premises. Easily removable tank allows mounting and water outlet on either the left or right side. Capable of evacuating up to 500 l/h, the Si-1800 pump is suitable for both air conditioning and commercial refrigeration applications.

ITEM NO..	MODEL	DESCRIPTION
SI800	Freddox Si-1800	<b>Compact solution for the removal condensate in AC &amp; Refrigeration Systems.</b> <ul style="list-style-type: none"> <li>• Tank Capacity: 2Ltr</li> <li>• Flow Rate: 500Ltr/hr max</li> <li>• Discharge Head: 5.0m max</li> <li>• Dimensions: 279mm L x 130mm W x 171mm H</li> </ul>



- All above condensate pumps require a 240V power supply.
- Contact Beijer Ref for further details or technical brochure.



## HIDRIA AXIAL FANS

**Hidria fans** offer premium acoustic performance and represent a compact, efficient and energy-saving product that is also robust and durable. The fans are designed and produced in line with clients' specific requirements and comply with all provisions of current regulations and directives concerning the environmental design of fans (ErP).

### AC Axial Fans

Hidria AC axial fan assemblies represent an efficient, reliable and cost-effective solution with uncomplicated and proven technology designed for quick and simple installation.

### EC Axial Fans

Hidria EC axial assemblies offer the maximum operational reliability and performance, low operating costs and low environmental pollution through continuous speed control. The new generation of EC axial fans combines top-level design with advanced operating functions. The excellent design was also awarded with the international industrial design prize, the Red Dot Award for Product Design.

## HIDRIA AC FAN MOTOR ASSEMBLIES - 4 & 6 POLE

ITEM NO.	PRODUCT NO.	DIA (mm)	AIR-FLOW M <sup>3</sup> /HR	RPM	WATTS	PH	AMPS	RUN CAP
F3660	R09R-3028A-4M	300	1800	1330	74	1	0.34	2.5
F3668	R11R-3530A-4M	350	3000	1410	175	1	0.8	4.0
F3672	R11R-4030A-4M	400	4000	1345	200	1	0.9	6.3
F3676	R13R-4530A-4M	450	5800	1390	375	1	1.7	10
F3680	R13R-5030A-4M	500	7500	1300	550	1	2.5	10
F3684	R13R-6130A-6M	610	7800	890	480	1	2.2	10
F3688	R13R-6330HA-6M	630	10500	890	680	1	3.1	18



## HIDRIA EC FAN MOTOR ASSEMBLIES

ITEM NO.	PRODUCT NO.	DIA (mm)	MAX M <sup>3</sup> /HR	MAX RPM	WATTS	PH	AMPS	VOLTS
F3640	R09R-3030HS-ES25C	300	2160	1650	80	1	0.64	230
F3642	R09R-3530HS-ES25C	350	2890	1400	125	1	0.98	230
F3644	R10R-40APS-ES50B-02C	400	5200	1520	320	1	2.15	230
F3646	R14R-50APS-ES40B-17A	500	9230	1420	650	1	2.90	230
F3648	R14R-63APS-ET80B-14B	630	13530	1100	900	3	1.57	400
F3650	R18P-080MPS-ET120B	800	18720	1140	2900	3	4.00	400



## PATTON PAK FAN MOTOR ASSEMBLIES

ITEM NO.	MODEL NO.	DIA (mm)	TYPE	PH	AMPS	SUITS MODEL
F3668	R11R-3530A-4M	350	HIDRIA	1	0.7	PEM, PCC, All PZB, PZF, PSC & PSF with 350mm Fan
F3680	R13R-5030A-4M	500	HIDRIA	1	2.0	All PZB, PZF, PSC & PSF with 500mm AC fan motors
F3646	R14R-50APS-ES40B-17A	500	HIDRIA	3	2.9	All PattonPak E-Series with 500mm EC fan motors
S4D630-AR01-01	S4D630-AR01-01	630	EBM	3	2.5	All PZB, PZF, PSC & PSF with 630mm AC fan motors
F3648	R14R-63APS-ET80B-14B	630	HIDRIA	3	1.6	All PZB, PZF, PSC & PSF with 630mm EC fan motors



■ Please contact Beijer Ref for further details about Hidria fan motors including wiring and control methods.



**AC AXIAL FAN ASSEMBLIES**



- Available 4 pole or 6 pole motor options
- 3-phase or single phase motors on select sizes
- Operating temperature range -30deg to +60deg
- All steel parts e-coated for high corrosion resistance
- Induced draught as standard forced also available

**FREDDOX FAN MOTOR ASSEMBLIES - 4 POLE**

PRODUCT NO.	DIA (mm)	AIR-FLOW M <sup>3</sup> /HR	RPM	WATTS	PH	AMPS	RUN CAP
YFDXAF3001PH4	300	1690	1380	85	1	0.42	3
YFDXAF3501PH4	350	2300	1400	130	1	0.65	4
YFDXAF4001PH4	400	3700	1380	180	1	0.82	6
YFDXAF4501PH4	450	5045	1350	250	1	1.15	8
YFDXAF5001PH4	500	6720	1320	380	1	1.75	10
YFDXAF5003PH4	500	6765	1370	390	3	1.00	-
YFDXAF6301PH6	630	8990	900	550	1	2.7	12
YFDXAF6303PH6	630	8810	920	400	3	1.35	-



■ Freddox air-flows taken at 20pa static pressure.

**HENRY FAN MOTOR ASSEMBLIES - 4 POLE**

ITEM NO.	PRODUCT NO.	DIA (mm)	AIR-FLOW M <sup>3</sup> /HR	RPM	WATTS	PH	AMPS	RUN CAP
F3852B	AF-4E-250S-92/25G	250	825	1380	50	1	0.23	2
F3853	AF-4E-300S-92/35G	300	1845	1380	85	1	0.42	2
F3856	AF-4E-350S-102/34G1	350	2450	1400	130	1	0.65	4
F3859	AF-4E-400S-102/47G	400	3955	1380	180	1	0.82	6
F3858	AF-4D-400S-102/47G	400	3955	1380	180	3	0.40	-
F3860	AF-4E-450S-137/35G	450	5365	1350	370	1	1.70	10
F3864	AF-4D-450S-G-415	450	5415	1350	250	3	0.55	-
F3865	AF-4E-500S-137/35G	500	7155	1320	380	1	1.75	10
F3866	AF-4D-500S-G-415	500	7395	1300	414	3	0.85	-
F3870A	AF-4D-550S-137/50-G	550	8220	1320	520	1	2.40	12
F3870	AF-4E-550S-137/50G	550	8390	1300	600	3	1.20	-



**HENRY FAN MOTOR ASSEMBLIES - 6 POLE**

ITEM NO.	PRODUCT NO.	DIA (mm)	AIR-FLOW M <sup>3</sup> /HR	RPM	WATTS	PH	AMPS	RUN CAP
F3855	AF-6E-350S-102/34G	350	1615	920	75	1	0.37	3
F3862	AF-6E-450S-102/60GP	450	3775	920	138	1	0.75	6
F3867	AF-6E-500S-P137/35	500	5705	900	230	1	1.05	10
F3868	AF-6D-500S-G-415	500	5840	900	210	3	0.55	-
-	AF-6E-550S-P137/35G	550	6320	900	330	1	1.60	10
-	AF-6E-560S-145/65G	560	9710	900	500	1	2.30	12
F3871	AF-6D-560S-145/65G	560	8050	900	380	3	1.30	-
F3874	AF-6E-630S-P137/70G	630	9250	900	520	1	2.50	12
F3872	AF-6D-630S-G-415	630	TBA	900	550	3	1.45	-



All above motors are (M) type induced draught



**OPEN FRAME MOTORS 240V**

ITEM NO.	PRODUCT NO.	REPLACES/ APPLICATION	WATTS	AMPS	STACK	ROTATION	SHAFT
F3100	J06BM15T	Muller CSN,CSI, Inc. Plug	4.0	0.34	3/4"	Reversible	3/16"
F3093	J04RF01T	Kirby, Repco Cabinet Coils	4.5	0.30	1/2"	ACW	3/16"
F3095	J06BM19T	General Purpose	6.0	0.30	3/4"	Reversible	3/16"
F3103	J09BM05T	Replaces 46C019-02A	7.0	0.25	11/8"	ACW	1/4"
F3105	J12BM07T	Extra Heavy Duty	10	0.35	11/2"	Reversible	1/4"
F3102	J09OR05ST	Threaded Shaft Suits Orford Cabinets	12	0.45	11/8"	ACW	Threaded Shaft
F3510	SM672 J236-062-6308	Includes 140mm & 100mm Fan Blades + Hardware	4.0	0.32	5/8"	Reversible	3/16"



**FREDDOX SHADED POLE Q-MOTORS (Multi-Mount)**

ITEM NO.	SUIT BLADE (mm/pitch)	WATTS	AMPS	VOLTS	RPM	ROTATION	SHAFT
YFDX05	200 / 28°	5	0.20	240	1300	ACW	Hub Drive
YFDX10	230 / 28°	10	0.25			ACW	
YFDX16	254 / 28°	16	0.45			ACW	
YFDX25	300 / 25°	25	0.70			ACW	
YFDX34	300 / 28°	34	0.85			ACW	



**HENRY EC HUB DRIVE FAN MOTORS**

ITEM NO.	MOTOR TYPE	WATTS	AMPS	REPLACES (Shaded Pole)	SHAFT
EQ1-12	Energy Efficient EC Motor c/w 1m lead	12	0.21	5,7,10,12,16W	Multi-mount M4 at 9 points
EQ1-20	Energy Efficient EC Motor c/w 1m lead	20	0.28	18,20,25,34W	



**UNADA EC FAN MOTORS**

ITEM NO.	PRODUCT NO.	APPLICATION	MAX BLADE & PITCH	WATTS	AMPS	VOLTS	ROTATION	SHAFT
F3407	PENTA FP200BT	Cond / Evap	N/A	≤25	0.25	240	CCW/CW	N/A
F3409	UC+ FM103709AX	Cond / Evap	300 x 28	≤25	0.25		CCW/CW	D
F3410	UC+ FM103709M	Cond / Evap	300 x 28	≤25	0.25		CCW/CW	HUB
F3411	HHP	Fan Motor Programmer						



**UC+ Refrigeration Fan Motor**

The Only All-In-One solution for your refrigeration fan motors. A new generation of EC motor that sets the standard for features, performance and reliability. No longer do you need to buy several motor variants, the ALL-In-One UC+ motor is the only true drop-in replacement in the market. 3-speed and programmable via mains cable.

**Penta 200 Fanpack**

New design that sets the benchmark for efficiency and low noise. Another 3-speed programmable drop-in replacement refrigeration fan solution from Unada.

Please Contact Beijer Ref for Information Sheet on how to set-up Unada EC fan motors.

**DOUBLE SHAFT - BI-DIRECTIONAL**

ITEM NO.	PRODUCT NO.	WATTS	AMPS	VOLTS	ROTATION	MAX. FAN BLADE	SHAFT
F3050	50D501-80AT	10	0.30	240	Bi-Directional	225mm 40°	5/16"
F3053	50D502-80AT	20	0.50	240	Bi-Directional	250mm 40°	5/16"
F3055	50D503-80AT	40	0.75	240	Bi-Directional	275mm 40°	5/16"
F3058	50D505-80AT	60	1.15	240	Bi-Directional	350mm 40°	5/16"



**THREADED SHAFT / HUB MOUNT**

ITEM NO.	PRODUCT NO.	REPLACES/ APPLICATION	WATTS	AMPS	VOLTS	ROTATION	SHAFT
F3063	50D520-82AT	Replaces 30D520-79A	8	0.18	240	ACW	Hub Drive
F3060	50D501-81AT	Replaces 30D501-70A	13	0.38	240	ACW	
F3066	50D552-01AT	BKM90150 c/w Braided cord	10	0.32	240	ACW	
F3065	50D551-02AT	BKM90170 c/w Spade Connectors	20	0.41	240	ACW	
F3071	50D543-03AT	Heavy Duty	35	0.55	240	ACW	
F3074	50D505-71C	BPI46C - 4 Stud Mount (Suit Muller Evaporator)	60	1.0	240	CW	5/16"



**415 VOLT (2 PHASE)**

ITEM NO.	PRODUCT NO.	REPLACES/ APPLICATION	WATTS	AMPS	VOLTS	ROTATION	SHAFT
F3068	50D509-22AT	Kirby Style	40	0.45	415	ACW	5/16"
F3067	50D509-11AT	Heavy Duty	40	0.45	415	ACW	Hub Drive



**AGITATOR MOTORS**

ITEM NO.	PRODUCT NO.	REPLACES/ APPLICATION	WATTS	AMPS	VOLTS	ROTATION	SHAFT
F3073	50D521-76AT	140mm long shaft	15	0.30	240	ACW	Threaded Shaft
F3070	50D521-77AT	190mm long shaft	15	0.30	240	ACW	Threaded Shaft



**LUG MOUNT MOTORS**

ITEM NO.	PRODUCT NO.	REPLACES / APPLICATION	WATTS	AMPS	VOLTS	RUN CAP	ROTATION	SHAFT
F3082	808557NVB-B11	2 Speed suit Email A/C 4 x Lug Mount	450	3.0	240	20	CW	3/4" x 75mm



**SCROLL FAN - SINGLE SHAFT**

ITEM NO.	PRODUCT NO.	REPLACES/ APPLICATION	WATTS	AMPS	VOLTS	RUN CAP	ROTATION	SHAFT
F3085A	8061S109-03	3 Speed Resilient Mount Replaces 8061S109-03	315	2.5	240	4	ACW	1/2" x 70mm
F3204	8061S082-03	3 Speed Resilient Mount	600	4.4	240	15	CW	1/2" x 70mm



**SCROLL FAN - DOUBLE SHAFT**

ITEM NO.	PRODUCT NO.	REPLACES/ APPLICATION	WATTS	AMPS	VOLTS	RUN CAP	ROTATION	SHAFT
F3085	8061S109-01	3 Speed Multi Purpose RAC Usage	425	3.35	240	2-10	Reversible	1/2" x 200mm
F3204E	8061S082-80	3 Speed Resilient Mount	600	4.00	240	15	Reversible	1/2" x 235mm



**EVAPORATIVE COOLER PUMPS**

ITEM NO.	PRODUCT NO.	Litres / Minute at 1 mtr head	GENERAL APPLICATION	WATTS	VOLTS
E/P28/S	JRM28	21.5	Cooler up to 2800l/s	28	240
E/P38/S	JRM38	27.5	Cooler up to 4200/s	38	240
E/P50/S	JRM50	35.5	Cooler up to 5400l/s	50	240



**COMPACT AXIAL FAN ASSEMBLY**

ITEM NO.	PRODUCT NO.	DESCRIPTION	CASE SIZE	WATTS	AMPS
F3185	F2E-80S-230	Computer / Electrical Panel Fan	80 X 80 X 38 mm	12	0.07
CAF-SQ-12038	CAF-SQ-12038	Computer / Electrical Panel Fan	120 X 120 X 38 mm	20	0.14
F3297A	T40-1/LEAD1M	Lead To Suit 120 X 120mm			



**EBM PAPST - SPECIAL APPLICATION**

ITEM NO.	PRODUCT NO.	REPLACES/ APPLICATION	WATTS	AMPS	VOLTS	RUN CAP	BLADE DIAMETER
F3228	R2S133AE17-05	Backward Curved Evaporator Fan Motor	36	0.25	240	-	133mm
F3196	R2E180-CB28-09		60	0.28	240	1.5	180mm
F3198	R2E190-A026-37		58	0.26	240	2.0	190mm
F3199	R2E190-RA26-51		85	0.38	240	3.0	190mm





**FASCO/TORIN FAN DECKS**



- Motor: 240V AC, Single Phase, 4 Pole, 3 Speed
- Motor Watt Range: 130W to 1100W
- All motors have thermal overload
- Galvanised Steel Housing
- Steel Fan Wheel

**SINGLE FAN DECKS**

ITEM NO.	PRODUCT NO.	WATTS	WHEEL (mm) DIA x WIDTH	DIMENSIONS (MM)			
				A	B	C	D
F3558	DDG203-203-481	180	203 x 203	386	248	306	319
F3557	DDG203-203-060	315	203 x 203	386	248	306	319
F3555	DDG241-181-200	425	241 x 181	305	234	380	392
F3559	DDG241T-181-200	425	241 x 181	305	234	325	327
F3219	DDC241-241-200	425	241 x 241	345	300	380	392
F3218	DDC241-241-300	600	241 x 241	365	300	380	392
F3220	DDG270-270-300	600	270 x 270	400	334	420	442
F3560	DDC270-270-360	750	270 x 270	400	334	420	442

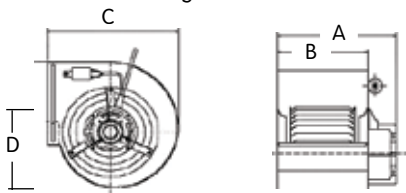


**TWIN FAN DECKS**

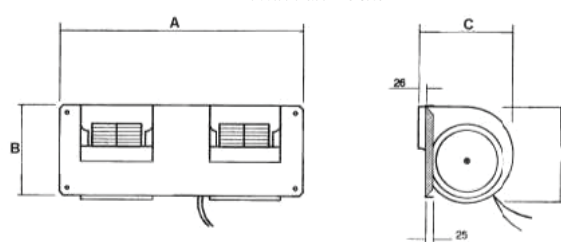
ITEM NO.	PRODUCT NO.	WATTS	WHEEL (mm) DIA x WIDTH	DIMENSIONS (MM)			
				A	B	C	D
F3566	DXG203-203-401	315	203 x 203	813	308	306	320
F3567	DXG203-203-441	600	203 x 203	813	308	306	320
F3570	DXG241T-181-441	600	241 x 181	813	308	325	327
F3571	DXG241T-181-521	750	241 x 181	810	300	380	327
F3569	DXG241-181-521	750	241 x 181	810	300	380	392
F3563	DXC241-241-521	750	241 x 241	900	300	380	392
F3564	DXC241-241-541	1100	241 x 241	1040	305	380	392



Single Fan Decks

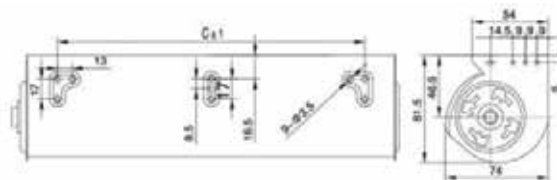
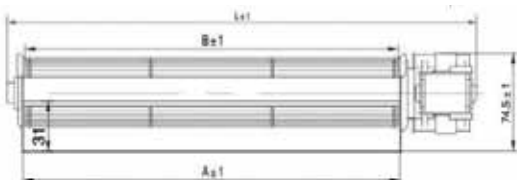


Twin Fan Decks



**BARREL FAN ASSEMBLIES - COMPACT**

ITEM NO.	PRODUCT NO.	SPEED	WHEEL DIA (mm)	DIMENSIONS (MM)		
				A	C	L
YGF60.183	YGF60.183	Single	60	206	153	253
YGF60.300	YGF60.300			325	270	382
YGF60.360	YGF60.360			385	330	456



**PLASTIC PUSH ON TYPE - MULTI PURPOSE**

ITEM NO.	PRODUCT NO.	DIAMETER (mm)	BLADES	BORE	AIRFLOW (FACING BLADE)
F3993	5-R5-56-5AC187	125 (5")	5	3/16"	Forced on ACW Suck on CW Motor
F3995	5-R10530CWD312	250 (10")	5	5/16"	
F3995A	5-R12-3CWD312	300 (12")	5	5/16"	



**HUB MOUNT - 4 PIN ONE PIECE ALUMINIUM**

ITEM NO.	DIAMETER (mm)	PITCH	BLADES	BORE	AIRFLOW (FACING BLADE)
F4150	154	34°	5	Hub Mount	Forced on Anti Clockwise Motor (A)
F4151	172	28°			
F4152	200	34°			
F4153	230	34°			
F4154	254	28°			
F4155	300	34°			
F4156	154	34°	5	Hub Mount	Induced on Anti Clockwise Motor (V)
F4157	172	34°			
F4149	200	28°			
F4158	200	34°			
F4159	230	28°			
F4160	254	34°			
F4161	300	34°			



**TYPE U LIGHT DUTY - 1 PIECE ALUMINIUM**

ITEM NO.	PRODUCT NO.	Diameter (mm)	BLADES	BORE	AIRFLOW (FACING BLADE)
F4036	PU5203A30R05AA	203 (8")	5	5/16" Shaft	Forced on Clockwise Motor
F4048	PU5203N30R05AA				Induced on Anti Clockwise Motor
F4037	PU5203N40R05AA				Forced on Clockwise Motor
F4038	PU5229N30R05AA	229 (9")			Induced on Anti Clockwise Motor
F4039	PU5254A30R05AA	254 (10")			Forced on Clockwise Motor
F3999	PU5254N30R05AA				Induced on Anti Clockwise Motor

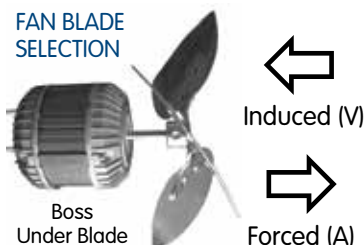


**TYPE "S" STANDARD & HEAVY DUTY**

ITEM NO.	PRODUCT NO.	DIAMETER (mm)	BLADES	BORE	AIRFLOW (FACING BLADE)
F4053	PS3203N30L05AA	203 (8")	3	Shaft	Induced on Clockwise Motor
F4054	PS3203N30R05AA				Induced on Anti Clockwise Motor
F4055	PS3229N30L05AA	229 (9")	3		Induced on Clockwise Motor
F4056	PS3229N30R05AA				Induced on Anti Clockwise Motor
F4060	PS3254N30L05AA	254 (10")	3		Induced on Clockwise Motor
F4012A	PS3254A30R05AA				Forced on Clockwise Motor
F4061	PS4254A30L05AA		4		Forced on Anti Clockwise Motor
F4062	PS4254A30R05AA				Forced on Clockwise Motor
F4064	PS4254N40L05AA	305 (12")	3		Induced on Clockwise Motor
F4067	PS3305A25R05AA				Forced on Clockwise Motor
F4069	PS3305N30L05AA			Induced on Clockwise Motor	
F4019	PS3305N30R05AA	457 (18")	3	1/2"	Induced on Anti Clockwise Motor
F4073	PH3457A25R08AA				Forced on Clockwise Motor
F4074	PH3457N30R08AA			Induced on Anti Clockwise Motor	



**FAN BLADE SELECTION**



- Determine blade diameter and pitch needed
- Determine air direction required - This is facing the blade (regardless of boss position or motor direction)
- Suck (Induced) is the air being drawn towards the motor (V)
- Blow is the air being blown away from the motor (A)
- Boss position is UNDER fan blade unless specially ordered



## DANFOSS REFRIGERATION CONTROLS



**Danfoss** ERC series are multi-purpose refrigeration controllers with temperature and defrost management, available with up to 4 relays. The controllers have been designed to fulfil today's requirements of commercial refrigeration applications with an easy program menu and large 16A compressor relay make them an install friendly option.

### DANFOSS ERC CONTROLLERS

ITEM NO.	MODEL	VOLTS	DESCRIPTION
G4760	ERC211	230	Med Temp with off Cycle Defrost, Audible Alarm (1 Relay)
G4761	ERC213	230	Low Temp with Electric Defrost, Fan Control, Alarm (3 Relays)
G4762	ERC214	230	Low Temp with Electric Defrost, Fan Control, Alarm (4 Relays)
G4765	EKS221	-	Temperature Sensor NTC 10K, 3.5m



- ERC211 & 213 come standard with NTC sensors provided in box. ERC214 sensors to be ordered separately.

## DIXELL REFRIGERATION CONTROLS



**Dixell** is one of the leading brands of electronic controls for the Refrigeration, Air-Conditioning and food and beverage industries. Dixell devices are particularly adaptable and make the application easy to use thanks to the wide range of products available and their compatibility with current safety standards.

### CX PRIME CONTROLLERS

ITEM NO.	MODEL	VOLTS	DESCRIPTION
XR20CXB	XR20CX-B	230V	Med Temp; Off Cycle Defrost, Digi Input
XR30CXB	XR30CX-B	230V	Med Temp; Off Cycle Defrost, Aux/Alarm Relay, Digi Input
XR60CXB	XR60CX-B	230V	Low Temp; Electric Defrost, Fan Relay, Digi Input
XR70CXB	XR70CX-B	230V	Low Temp; Electric Defrost, Fan, Aux/Alarm Relay, Digi Input
XR35CX-5C713U	XR35CX-B	230V	Med Temp; Off Cycle Defrost, Aux/Alarm Relay, Digi Input, RS485 Port Can also be used for heating
XR75CX-5N713	XR75CX-B	230V	Multi Function; Electric Defrost, Fan, Aux/Alarm Relay, Digi Input, RS485 Port, Optional 2-stage cooling or heating/cooling with dead band
X0LG9QBX700	UNIVERSAL R	230V & 12V	UNIVERSAL-R Digital Multifunction Universal Controller (Dual Voltage)



- All above listed Dixell controls come standard with NTC sensors provided in box.
- XR35CX and XR75CX are compatible with CPC
- For Dixell control accessories refer to page 185

PLEASE CONTACT BEIJER REF ABOUT OUR DIXELL BULK PACKS  
**8 CONTROLLERS PER PACK**



**COOLMATE CONTROLLERS (Large Wall Mount)**

ITEM NO.	MODEL	VOLTS	DESCRIPTION
XER140P	XER140P	230V	Med Temp Controller with 4 Relays; 2x20A, 1x16A, 1x8A
XER160P	XER160P	230V	Low Temp Controller with 6 Relays; 2x20A, 2x16A, 1x8A, 1x8A
XLR130B-RTC	XLR130-B	230V	Med Temp Controller; Auxilary/Alarm Relay
XORMHFMNC500	XLR170-B	230V	Low Temp Controller; Defrost, Fan, Aux/Alarm Relay
XLR170B-RTC	XLR170RTC	230V	Low Temp; Defrost, Fan, Aux/Alarm Relay plus RTC
XOHNEOBHE500	XLH260	230V	Controller; Temperature & Humidity (Does not include RH Sensor XH20)

■ All above listed Dixell controls come standard with NTC sensors provided in box.



**DIXELL WING & CASE CONTROLLERS**

ITEM NO.	MODEL	VOLTS	DESCRIPTION
XW35VS-B	XW35VS-B	230V	Vertical Med Temp Wing Controller with Aux/Alarm Relay
XW20L-OEMBLUE	XW35L-B	230V	Horizontal Med Temp Wing Controller with Aux/Alarm Relay
1064080010	XW35LCOVER	-	XW35L Wing Series Stainless Steel Face Plate

■ Sensors not included with Wing & Case controllers and should be ordered separately.



**DIN RAIL PRIME CONTROLLERS**

ITEM NO.	MODEL	VOLTS	DESCRIPTION
XORDDCBXC500	XR130D	230V	Med Temp; DIN Rail, Aux/Alarm Relay, Digi Input, RS485 Port
XR170D-240V	XR170D	230V	Low Temp; DIN Rail, Defrost, Fan, Aux/Alarm Relay, Digi Input, RS485 Port
XM678D-2C3C	XM678D	24V	Case Controller for Med & Low Temp Application with High Performance Defrost, Stepper Electronic Valve Management plus Aux/Alarm outputs 0-10v output can be used to control EC evaporator fans

■ Sensors not included with Prime Din Rail controllers and should be ordered separately.  
■ For For Dixell control accessories refer to page 185



**DIXELL RACK CONTROLLERS**

ITEM NO.	MODEL	VOLTS	DESCRIPTION
XC645CX	XC645CX	12V-24V	Panel Mount Rack Controller with Inverter Management
XC645D-5C11F	XC645D	12V-24V	Din Rail Mount Rack Controller with Inverter Management
XC660D-5C11F	XC660D	230V	Din Rail Mount Rack Controller with 6 Progamable Output Relays 2 x configurable 0-10V outputs
IPRC215D	IPRC215D	24V	iPro Genius Din Rail Mount Programable Rack Controller
XOKBHAAAA1PA	VTIPR	-	4.3" Colour Touchscreen for iPro Rack Controller
IPFC215CP	IPFC215CP	-	iPro IPG215 Connection Kit



Please contact Beijer Ref for information and availability of other Dixell controls including; EEV Drivers, Alarm management and web monitoring



**PRIME & E-CLASS ACCESSORIES**

ITEM NO.	PRODUCT NO.	DESCRIPTION
FA/CX	FACX	Dixell - Adaptor Frame to suit CX
PA-CX	PACX	Dixell - Plastic cover to suit XR-CX series
CXLS-G	CXLS-G	CXLS-G Green Light Switch 16A/250VAC for FA/CX
CXLS-R	CLXS-R	CXLS-R Red Light Switch 16A/250VAC for FA/CX
DI000003	CLXS-Y	CXLS-Y Yellow Light Switch 16A/250VAC for FA/CX
HOTKEY	HOTKEY	HOT KEY Digital Controller Programming Tool 4K
XOJ7MAZZZ910	RS485PLUG	XJ485CX Serial Interface TTL to RS485 + Cable
G4684	FTPW	FT-PW Line Filter
TF20D	TF20D	TF20D DIN Rail Mount Transformer 230 to 24VAC, 20VA
G6272	JQX116F-240	Relay for Controllers 30amp
C-BOX	CBOX	C-BOX Digital Controller Enclosure IP55 (Small) 108mm H x 108mm W
C-BOX2	CBOX2	C-BOX2 Digital Controller Enclosure IP55 (Large) 170mm H x 105mm W



**PROBES AND TRANSDUCERS**

ITEM NO.	PRODUCT NO.	DESCRIPTION
BN659002 01	NTC2.0M	NG6P NTC Probe Plastic Cap IP68 2.0m
BN607003 01	NTC3.0M	NG6 NTC Probe Plastic Cap IP67 3.0m
BN659006 01	NTC6.0M	NG6P NTC Probe Plastic Cap IP68 6.0m
G4679	PTC1.5M	S6 PTC Probe Steel Cap IP67 1.5m
G4681	PTC3.0M	S6 PTC Probe Steel Cap IP67 3.0m
G4689	SPC10IA	PTC Insert Probe Food Grade 3.0m
XH20P	XH20P	Wall Mount Humidity Probe IP65
PP11	PP11	2 Wires Transducer with 4-20mA output; Range -0.5-11 Bar (1/4 MF)
PP11F	PP11F	2 Wires Transducer with 4-20mA output; Range -0.5-11 Bar (1/4 FF)
PP30	PP30	2 Wires Transducer with 4-20mA output; Range 0-30Bar (1/4 MF)
PP30F	PP30F	2 Wires Transducer with 4-20mA output; Range 0-30Bar (1/4 FF)
PP50	PP50	2 Wires Transducer with 4-20mA output; Range 0-50Bar (1/4 MF)



■ Please contact Beijer Ref for other Dixell accessories or sensors.



**PHASEFALE CONTROLS**

ITEM NO.	PRODUCT NO.	DESCRIPTION
G4450	TACmV2	TACMV9 Temperature and alarm control with memory, <b>USB data logging</b> Range: -35°C to + 65°C, Differential: 0.5°C to 5°C, Accuracy: 0.3°C, Alarm delay: 0 – 99 mins, Power Supply: 240v AC. Comes Complete with probe
G4448	TACm/FRZ	TACMV9 - Complete with Defrost Relay board Fitted & two M probes
G4468	JOULE TEMP	Combines Features of TACMV9 plus ethernet and humidity functions, monitoring and Alarm, Web browser interface, integrated data logging, Email/SMS alarms over network, HACCP Australia endorsed
G4480	VATPAC	Phasefale Milk Vat Controller



**PHASEFALE TACM ACCESSORIES**

ITEM NO.	PRODUCT NO.	DESCRIPTION
G4451	TACM/M	Standard Temperature Probe
G4457	TACM/H	High Temperature Probe
G4453	TACM-PCB	Low Temp Circuit Board
G4452	TACML240V	Alarm Signal Light
G4458	TACM/B12V	Remote Audible Alarm



**PHASEFALE LEAK DETECTION UNIT**

ITEM NO.	PRODUCT NO.	DESCRIPTION
RAMIV9	RAMIV9	<b>Leak Detection Unit;</b> Cost effective refrigerant leak detection system for supermarkets, warehouses, process & anywhere refrigerant plant is used.
RAMIV/4	RAMIV	4-4 Channel Option Board
RAMIV/P328	RG/328	P328 Refrigerant Sensor for R404A, R134A, R410A



■ Sensors to suit other refrigerants available upon request.

**PHASEFALE PHASE PROTECTION**

ITEM NO.	PRODUCT NO.	DESCRIPTION
G4460	MP15	Phasefale Adjustable MP15 Protector - Plug-in
G4460A	MP15D	Phasefale Adjustable MP15 Protector - Din rail mount
G4462	8PIN	Phasefale MP15 Base





## PEGO REFRIGERATION CONTROLS



**ECP200 Series** is a line of temperature controls specifically designed for coolroom and freezer room applications and provide greater flexibility at a competitive price; Large contacts can control up to 2hp compressor directly for smaller applications, while the large display also makes ECP200 especially suitable for larger coolrooms and freezers. All Pego Controls are easy to program with user friendly instructions.

### ECP200 WALL MOUNT CONTROLLERS

ITEM NO.	MODEL NO.	VOLTS	DESCRIPTION
200200BASE4ACS	ECP200 BASE 4A	240V	<b>Wall Mount Coolroom/Freezer Room Controller</b> - Large 30(10) Amp Comp & Def Relay, Electric or Air Defrost, Alarm Buzzer/Contacts, Door- Switch, Room Light, 2 x NTC Sensor, RS-485 Comms port, IP65 Protection

- NTC Sensors included.

### REPLACEMENT SENSORS

ITEM NO..	PRODUCT NO.	DESCRIPTION
G4920A	SON103C4RL3000	Pego NTC Sensor 3m
G4920B	SON103C4RL6000	Pego NTC Sensor 6m

## AUDIO & VISUAL LOCK-IN ALARM



The purpose of the **ECP-1P-03** safety system is to allow a person trapped inside the cold room to activate an acoustic/luminous alarm located outside the room to request help. The system has been designed to function even in the event of a temporary mains power failure: In this event the system is powered by a buffer battery housed in the external unit.



ITEM NO.	MODEL NO.	DESCRIPTION
100APE03	ECP 1PE-03	Coolroom Lock-In Alarm c/w Luminous LED Push-Button
100APEPUL	PUSHBUTTON	Replacment Luminous Push-button with LED For ECP Lock-In Alarm

### KIT CONSISTS OF

#### Emergency push-button

To be fitted inside the cold room. Consists of a luminous mushroom-type button with N.C. contact. The push-button is permanently lit by LEDs so that it can be located in the dark.

#### Acoustic / Visual alarm control unit

To be fitted outside the cold room. Features a siren and flashing light and a buffer battery to provide power in the event of a black-out. The noise pressure level of the siren is **95dBA @ 1 meter**

There is also a clean N.O contact that can be used to activate other devices such as a remote warning dialer or additional sirens.





## PEGO MINI ELECTRICAL BOARDS



**Pego Mini Boards** provide a simple, compact and professional solution for safe control of RHA series and other 3phase Condensing units. These compact Electrical boxes come pre-wired, ready to be fitted, saving you time on site with all the necessary components to operate, switch and protect Compressor, Condenser fans and Control circuit.

ITEM NO.	MODEL	MAX HP	AMPS	COND FANS	DESCRIPTION	DIMENSIONS H X W X D
G4932	5RSECP0501	2.5	3.5 - 5.0	1PH	Electrical box c/w Isolating switch, Compressor contactor & overload, 1ph Cond fan/Control circuit breaker	250 x 195 x 95
G4933	5RSECP0503	3	5.5 - 8.0	1PH		
G4934	5RSECP0504	5	7.0 - 10	1PH		
G4936	5RSECP0506	6.5	11 - 16	1PH		
* Above electrical boxes made with self-extinguishing ABS plastic with IP65 protection rating.						

## PEGO ECP ELECTRICAL BOARDS



**Pego ECP Boards** provide a simple, compact and professional solution for safe control of 1 & 3 phase Condensing units. These smart looking Electrical boxes come pre-wired, ready to be fitted, saving you time on site with all the necessary components to operate, switch and protect Compressor, Cond fan and Control circuit including: Isolating switch, Circuit breakers, Contactors & Overloads, LED system status Indicators.

ITEM NO.	MODEL	MAX HP	AMPS	COND FANS	DESCRIPTION	DIMENSIONS W X H X D
G4940	ECP04ME -1ph	2	12	1PH	Electrical box c/w Isolating switch & circuit breaker	210 x 260 x 145
G4942	ECP04E 4.5-6.3	2	4.5-6.3	1PH	Electrical box c/w Isolating switch, 1 x 3ph circuit-breaker, Compressor contactor & overload, 1ph Cond fan/Control circuit breaker, LED status lights	210 x 260 x 145
G4944	ECP04E 7-10	3	7-10	1PH		210 x 260 x 145
G4946	ECP04-E 9-12.5	5	9-12.5	1PH		210 x 260 x 145
G4948	ECP07E 14-20	8	14-20	1PH		290 x 340 x 145
G4948A	ECP10S 18-25	10	18-25	3PH	*Condenser fan contactors & overloads also included on ECP10S Boards	290 x 340 x 145
G4948B	ECP10S 27-32	15	27-32	3PH		290 x 340 x 145
G4949	ECP15S 18-25	10	18-25	3PH	*Separate condenser fan circuit breaker also included on ECP15S Boards	350 x 450 x 160
G4950	ECP15S 22-35	15	22-35	3PH		350 x 450 x 160
G4951	ECP15S 28-40	20	28-40	3PH		350 x 450 x 160
* Above electrical boxes made with self-extinguishing ABS plastic with IP65 protection rating.						

## BOARD MOUNTING BRACKET

ITEM NO.	MODEL	DESCRIPTION
G6120	EBM260	Mounting Bracket to Suit ECP04
G6122	-	Mounting Bracket to Suit ECP07
-	-	Mounting Bracket to Suit ECP10
G6123	EBM400	Mounting Bracket to Suit ECP15








## PROSA-DIRECT MONITORING KIT




### Simple app-based solution for food store owners


Prosa-Direct PR-SC4 connectivity device paired with the ProsaLink app is a user-friendly, real-time temperature monitoring and automatic data logging solution – combined with alarm notifications to act immediately. Up to 4 cold rooms, display cabinets, refrigerators or freezers can be connected to one device providing you, or your customer a quick and easy overview of all connected equipment across your sites in the same simple to use application.

ITEM NO.	PRODUCT NO.	DESCRIPTION
300B4325	PR-SC4K	Prosa-direct alarm & monitoring kit; PR-SC4 Connectivity Device, Antenna, Enclosure & Sensors

-  All required components to monitor your refrigeration equipment in one package: Connectivity hardware, protection box, antenna, temperature sensors, internal sim card.
-  Up to 4 Cold Rooms or Cabinets can be connected to one Prosa PR-SC4 Direct connectivity device, providing monitoring for up to 4 fixtures with only 1 device. Can also be used to monitor equipment temperatures; evaporators, condensers etc.
-  6 digital inputs for alarm signalling can be used to monitor; Room controller alarm output, door switches, lock-in safety alarms, equipment safety device trip or monitoring any other switch within a refrigeration system.
-  Download the free ProsaLink app on your mobile phone and PC, offering quick and easy overview of your equipment across your sites and across different countries and regions with simple, 24/7 real-time temperature monitoring, alarms, and HACCP compliance.
-  First month free subscription - After the first month, the user will be asked to subscribe to the monitoring service. The user will automatically receive a reminder notification through the mobile app notifying of the start date of the subscription. Payments will be recurring unless subscription is cancelled.



**24/7 real-time temperature data**



**Alarm by push notification**



**Automatic data logging & history in the cloud**

### SUBSCRIPTION SERVICE INCLUDES

- APP for iOS or Android
- Emailed Alarm notifications
- Push notifications
- Web portal

### Features & Benefits



### Set Up Videos



**DANFOSS DOMESTIC**

ITEM NO.	APPLICATION	REMARKS	WARM (°C)		COLD (°C)	
			IN	OUT	IN	OUT
077B7001	Refrigerators	-	+2	-5.5	-13.5	-25
077B7002	Refrigerators with pushbutton defrost	Pushbutton defrost	0	-7.5	-11.0	-21
077B7003	Refrigerators with automatic defrost	With auxillary switch	+3.5	-11	+3.5	-27.5
077B7004	Absorption Refrigerators	With auxillary switch	+3.5	-1	-5	-11
077B7005	Ice-cream cabinets and freezers	Without signal	-7.5	-15	-21	-32.5
077B7006	Freezers with active signal	With active signal	-10	-17	-24	-34.5
077B7007	Freezers with passive signal	With passive signal	-10	-17	-24	-34.5
077B7008	Bottle and liquid coolers	-	+11.5	+6	-1	-8.5



**JOHNSON COMMERCIAL (PENN)**

ITEM NO.	APPLICATION	SENSOR	RANGE °C	DIFF (°K)
A19ABC-41C	Wide Range	2.4m with Bulb	-34 to +38	3 to 13
A19ABC-5C	High Temp	2.4m with Bulb	+10 to +55	2 to 8
A25CN-4C	Duct Sensor Heater Hi Limit	Flange Mount	-4 to 100	Manual Reset



■ Other Johnson (Penn) controls available upon request. Please contact Beijer Ref for details.

**RANCO COMMERCIAL (ELIWELL)**

ITEM NO.	APPLICATION	SENSOR TYPE	RANGE	DIFF
016-6951	Wide Range	2m with coiled bulb	-18 to +13	1.7 to 12K
016-6954	Coolroom	2m with coiled bulb	-5 to +25	1.7 to 12K
016-6980	Wide Range	Cross ambient	-18 to +13	1.7 to 12K



■ Cross ambient sensors should be used on applications where the thermostat may be at or below room temperature.



**SAGINOMIYA DUAL PRESSURE CONTROLS**

ITEM NO.	HP/LP	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
DNS-D606XQ	LP	Auto	-60 to 600	60 to 400	1/4" Male Flare
	HP	Auto	800 to 3000	400 (Fixed)	
DNSD306XM	LP	Auto	-60 to 600	60 to 400	
	HP	Manual	800 to 3000	Manual Reset	
DNSAK01	Dual Pressure Control Lid for Increased IP Rating				-



**DANFOSS SINGLE PRESSURE CONTROLS**

ITEM NO.	TYPE	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
060-1101	LP	Auto	-20 to 750	70 to 400	1/4" Male Flare
060-1171	HP	Auto	800 to 3200	180 to 600	
060-1173	HP	Man	800 to 3200	300 (Fixed)	



**DANFOSS DUAL PRESSURE CONTROLS**

ITEM NO.	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
060-1241	Auto	-20 to 750	70 to 400	1/4" Male Flare
	Auto	800 to 3200	400 (Fixed)	
060-1154	Convertible	-20 to 750	70 to 400	
	Convertible	800 to 3200	400 or Manual	



**RANCO LOW PRESSURE CONTROLS**

ITEM NO.	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
016-8713	Auto	-30 to 700	60 to 400	Capillary/Nut
016-8706	Auto	-30 to 700	60 to 400	1/4" Male Flare
016-8705	Manual	-30 to 700	Manual Reset	



**RANCO HIGH PRESSURE CONTROLS**

ITEM NO.	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
016-8750	Auto (HP/Fan Cycling)	700 to 3000	250 to 800	1/4" Male Flare
016-8751	Manual	700 to 3000	Manual Reset	



**RANCO DUAL PRESSURE CONTROLS**

ITEM NO.	HP/LP	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
017-8711	LP	Auto	-30 to 700	60 to 400	Capillary & flare nut
	HP	Auto	700 to 3000	345 (Fixed)	
017-8701	LP	Auto	-30 to 700	60 to 400	1/4" Male Flare
	HP	Auto	700 to 3000	345 (Fixed)	
017-8705	LP	Auto	-30 to 700	60 to 400	
	HP	Man	700 to 3000	Manual Reset	
017-8703	LP	Man	-30 to 700	Manual Reset	
	HP	Man	700 to 3000		
017-COVER	Replacement Ranco Dual Pressure Control Cover				-





**JOHNSON LOW PRESSURE CONTROLS**

ITEM NO.	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
P77AAA-9300	Auto	-50 to 700	50 to 300	1/4" Male Flare
P77BCA-9300	Manual	-50 to 700	Manual Reset	



**JOHNSON HIGH PRESSURE CONTROLS**

ITEM NO.	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
P77AAA-9350	Auto	300 to 3000	300 to 1200	1/4" Male Flare
P77BEA-9350	Manual	300 to 3000	Manual Reset	
P77AAA-9351	Auto HP/Fan Cycling	350 to 2100	210 to 550	
P78ALA-9351	Auto/Auto Dual HP/Fan Cycling	350 to 2100 Both sides	180 Fixed Both sides	



■ Twin HP switch P78ALA-9351 is suitable for cycling two condenser fans on multi-fan condenser.

**JOHNSON DUAL PRESSURE CONTROLS**

ITEM NO.	HP/LP	RESET	RANGE (KPA)	DIFFERENTIAL (KPA)	CONNECTION
P78LCA-9300	LP	Auto	-50 to 700	50 to 300	1/4" Male Flare
	HP	Auto	300 to 3000	300 (Fixed)	
P78MCA-9300	LP	Auto	-50 to 700	50 to 300	
	HP	Manual	700 to 3000	Manual Reset	
P78PGA-9300	LP	Manual	-50 to 700	Manual Reset	
	HP	Manual	300 to 3000		



**CONTROL MOUNTING BRACKETS**

ITEM NO.	DESCRIPTION
31696-1	Angle Bracket For Mounting Controls
48129-3	Flat Bracket For Mounting Controls



**CONTROL LINES / PRESSURE HOSES**

ITEM NO.	DESCRIPTION
G0065	1m Copper Capillary Control Line c/w 1/4" Flare Nuts (Without Schrader Depressor)
G0060A	1m Copper Capillary Control Line c/w 1/4" Flare Nuts (With Schrader Depressor)
DN2C300SE	300mm x 2mm Gomax thermoplastic pressure line (1/4" 90deg x 1/4" Straight)
DN2C600SE	600mm x 2mm Gomax thermoplastic pressure line (1/4" 90deg x 1/4" Straight)
DN2C900SE	900mm x 2mm Gomax thermoplastic pressure line (1/4" 90deg x 1/4" Straight)
DN2C1200SE	1200mm x 2mm Gomax thermoplastic pressure line (1/4" 90deg x 1/4" Straight)
DN6C300SE	300mm x 6mm Gomax thermoplastic pressure line (3/8" 90deg x 3/8" Straight)
DN6C600SE	600mm x 6mm Gomax thermoplastic pressure line (3/8" 90deg x 3/8" Straight)
DN6C900SE	900mm x 6mm Gomax thermoplastic pressure line (3/8" 90deg x 3/8" Straight)
DN6C1200SE	1200mm x 6mm Gomax thermoplastic pressure line (3/8" 90deg x 3/8" Straight)



■ Gomax 2mm hoses are suitable for pressure lines, 6mm suitable for oil return lines (Copper gaskets included)

**DELTA-P II**

ITEM NO.	PRODUCT NUMBER	DESCRIPTION	RANGE	TIME DELAY	RESET	POWER SUPPLY
R0130	T00EC1620RIC	Delta-P II	65 kPa	90 sec	Manual	230 V



**FRASCOLD INT250**

ITEM NO.	FRASCOLD ITEM NO	ITEM	SUITS SERIES
R0131	T00EC1630DRIC	INT250FR Oil Pressure Safety Switch (To be used with INT69TM Diagnose)	V,Z,W Series



**OPS & INT250 SENSORS**

ITEM NO.	PRODUCT NUMBER	DESCRIPTION	SUITS
3140721	3140721	OPS Brass Sensor	Frascold Copeland
3110784	3110784	Sensor & Gaskets To Suit OPS	



**JOHNSON OIL PRESSURE CONTROLS (PENN)**

ITEM NO.	CONNECTION	RANGE (KPA)	DIFF (KPA)	TIME DELAY	RESET	PRESSURE CONNECTION
P28AA-41	1/4" Male Flare	55 - 483	35 Fixed	90	Manual	900mm capillary c/w flare nut



**JOHNSON WATER REGULATING VALVES**

ITEM NO.	MODEL NO.	OPENING POINT RANGE	CONNECTIONS	
			LIQUID SIDE	CONDENSER SIDE
V46AA-9600	V46AA-9600	500-1800 kPa	3/8" FBSP	1/4" Female Flare 750mm Capillary
V46AB-9600	V46AB-9600		1/2" FBSP	
V46AC-9600	V46AC-9600		3/4" FBSP	
V46AD-9600	V46AD-9600		1" FBSP	
V46AE-9600	V46AE-9600		1-1/4" FBSP	



**JOHNSON FLOW SWITCHES**

ITEM NO.	MODEL NO.	CONNS.	ENCLOSURE IP RATING	MAX LIQUID PRESSURE kPa (psig)	MAX LIQUID TEMP (°C)	MIN LIQUID TEMP (°C)
F261MAH-V01C	F61MB-1C	1" MNPT	IP66	1034 (150)	120	-29
F261KAH-V01C	F61KB-11C		IP30	1034 (150)		-4
G1324	F61SB-9100		IP43	1034 (150)		



- For use on lines carrying water or glycol. Not for corrosive or hazardous fluids or in hazardous atmospheres.
- Supplied with 6", 3", 2" & 1" stainless steel paddle segments.





## CONDENSER FAN SPEED CONTROLLERS

### FOR SINGLE PHASE, THREE PHASE & EC FAN MOTORS

Condenser Fan Speed Controls are designed to regulate the fan speed in response to changes in condensing pressure. Keeping the pressure constant under changing ambient conditions and above minimum levels during low ambient conditions ensures adequate pressure at the expansion device and provides stable system operation.

### ZIEHL CBG EC FAN SPEED CONTROL

The UNIcon sensor "CBG" control is equipped with a female screw thread compatible with Schraeder valves, enabling measurement of refrigerant pressures directly from condenser headers. The desired pressure and control range can be easily adjusted with an integrated potentiometer. The 0-10 V signal resulting from the adjusted pressure, controls EC fans to meet the required cooling demands. Integrated analogue display & direct nominal value setting on device with simple screw adjustments means complex EC fans can easily be controlled. IP65 protection for outdoor mounting.

ITEM NO.	DESCRIPTION	OUTPUT	RANGE (Bar)	CONNECTION	
				ELECTRICAL	THREAD
G0738	CBG-30AV Smart EC Fan Control	0-10V	6 to 21	2m Lead	1/4" F/Flare
G0739	CBG-50AV Smart EC Fan Control	0-10V	10 to 35		



### SAGINOMIYA XGE-EC FAN SPEED CONTROL

XGE-4S-E, EC Fan speed controller stabilises condensing pressure by regulating fan speed to maintain set condensing pressure/temperature. As well as providing balanced operation the controller saves energy and reduces fan noise in low ambient conditions. Compact size, reduced weight and high degree of protection (IP65) means that it can be mounted directly on refrigeration lines with easy adjusting made by the turn of a setting screw situated on the top surface. Specially designed heat dissipation radiator ensures no overheating and extended lifetime.

ITEM NO.	DESCRIPTION	OUTPUT	RANGE (Bar)	CONNECTION	
				ELECTRICAL	THREAD
XGE-4SE	XGE-4SE EC Fan Speed Control	0-10V	10 to 25	DIN	1/4" F/Flare



### JOHNSON FAN SPEED CONTROLLERS - 1 PHASE

ITEM NO.	DESCRIPTION	RANGE (Bar)	PH / MAX A	CONNECTION
P215PR-9200	Compact/Direct Mount Pressure Actuated Fan Speed Controller; fitted with RF suppression filter, 4 Bar fixed proportional band. Suits R404A, R448A, R407 & R134A	10 to 25	1PH / 3A	1/4" F/Flare



### SAGINOMIYA FAN SPEED CONTROLLERS - 1 & 3 PHASE

ITEM NO.	DESCRIPTION	RANGE (Bar)	PH / MAX A	CONNECTION
RGE-Z1N4-5	Pressure Actuated Fan Speed Controller with weather-proof (IP54) enclosure, 4 Bar fixed proportional band. Suits Refrigerants: R404A, R448A, R407 & R134A	8 to 28	1PH / 4A	Capillary with 1/4" F/Flare
RGE-Z1Q4-5			1PH / 8A	
RGE-X3R4-7			3PH / 5A	1/4" M/Flare
RGE-Z1Q4-5-MF			1PH / 8A	
RGE-X3R4-7			3PH / 5A	
RGE-Z1Q6-7DS	Pressure Actuated Fan Speed Controller Suits R410A	16 to 39	1PH / 8A	Capillary with 1/4" F/Flare



■ All above Saginomiya fan speed controls offer selectable min speed slowdown or cut-off mode.



**PARAGON DEFROST TIMERS**

ITEM NO.	PRODUCT NO.	DESCRIPTION
9045-00	9045-00 Replaces 8045-21	<ul style="list-style-type: none"> <li>• Time initiated, time terminated.</li> <li>• 1 - 6 defrosts per 24 hours.</li> <li>• Minimum of 4 hours between defrosts.</li> <li>• Length of defrost 4 - 110 minutes in 2 minute increments.</li> <li>• Maximum contact rating is 30 amps resistive current.</li> </ul>
9145-00	9145-00 Replaces 8145-21	<ul style="list-style-type: none"> <li>• Time initiated, Externally temp or pressure terminated.</li> <li>• 1 - 6 defrosts per 24 hours.</li> <li>• Minimum of 4 hours between defrost.</li> <li>• Length of defrost 4 to 110 minutes in 2 minute increments.</li> <li>• Maximum contact rating is 30 amps resistive current.</li> </ul>



**COMPACT TIMERS**

ITEM NO.	PRODUCT NO.	DESCRIPTION
THE64B	THE64 B	<ul style="list-style-type: none"> <li>• 24 hour clock.</li> <li>• 7.5 minute time setting intervals.</li> <li>• 30min minimum switching period.</li> <li>• Contact ratings: 16 Amp resistive, 2 Amp inductive.</li> </ul>
THE64C	THE64 C	<ul style="list-style-type: none"> <li>• 24 hour / 7 day clock.</li> <li>• 5min / 30min time setting intervals.</li> <li>• 20min / 2hrs Minimum switching period.</li> <li>• Contact ratings: 16 Amp resistive, 2 Amp inductive.</li> </ul>



**DEFROST SAFETY THERMOSTATS**

ITEM NO.	PRODUCT NO.	DESCRIPTION	MAX AMPS	FACE	OPEN / CLOSE
R7624500	TA3	Klixon 2 wire, Defrost Safety/Termination	25	CURVED	+15 / +0
80920Y2	53000002	Klixon 2 wire, Defrost Safety/Termination	15	FLAT	+24 / +5
80920Y1	53000001	Klixon 3 wire, Defrost termination, Fan delay	15	FLAT	+13 / +2
W4740A	14T21-27713	Klixon 2 wire - Fitted to all LT Patton Evaps	30	FLAT	+24 / +5



**HEAT TRACE TAPE & CABLE**

ITEM NO.	PRODUCT NO.	DESCRIPTION
FLX-5-2-BC	FLX-5-2BC	Heater Tape 16 Watts per metre at 230V - Metal Braided
FLX-10-2-BC	FLX-10-2BC	Heater Tape 33 Watts per metre at 230V - Metal Braided
FLX-15-2-BC	FLX-15-2BC	Heater Tape 48 Watts per metre at 230V - Metal Braided
G0019A	AKO-5234	Heating Cable 30 Watts per metre at 230V - Silicone Insulation
G0019B	AKO-52344	Heating Cable 40 Watts per metre at 230V - Silicone Insulation
CDH-2-1-OJ	CDH-2-1-OJ	Condensate drain heater, 1m long terminated over jacketed heater circuit with 1m power lead, 26 Watts @ 10 deg. C. 240V .
CDH-2-2-OJ	CDH-2-2-OJ	Condensate drain heater, 2m long terminated over jacketed heater circuit with 1m power lead. 52 Watts @ 10 deg. C. 240V .



**EVAPORATION PAN**

ITEM NO.	PRODUCT NO.	DESCRIPTION
CRH-660	CRH-660	Evaporative Drain Pan - Evaporation Rate 150ml/hr



**START CAPACITORS - 250V AC**

ITEM NO.	PRODUCT NO.	MFD
C4065	92A025B250AC1X	25 - 30
C4064	92A030B250AC1X	30 - 36
C4066	92A036B250AC1X	36 - 43
C4081	92A040B250AC1X	40 - 48
C4082B	92A047B250AD2A	47 - 56
C4080B	92A060B250BD4X	60 - 72
C4079	92A080B250BD4X	80 - 96
C4071	92A088B250BD4X	88 - 108
C4083	92A108B250BD4X	108 - 130
C4063	92A124B250BD4X	120 - 144
C4067	92A161B250BD4X	161 - 193
C4069	92A200B250BD4X	200 - 240
C4090	92A233B250CD6A	233 - 280
C4092	92A270B250CE7A	270 - 324

**START CAPACITORS - 330V AC**

ITEM NO.	PRODUCT NO.	MFD
C4066A	92A036B330AD2R	36 - 43
C4082A	92A047B330BD4X	47 - 56
C4080A	92A060B330BD4X	60 - 72
C4079A	92A080B330BD4X	80 - 96
C2039	92A088B330BD4X	88 - 108
C4083A	92A108B330BD4X	108 - 130
C4063B	92A120B330CE7X	120 -144
C4063A	92A130B330CE7X	130 -156
C4067A	92A161B330DE8X	161 - 193

**RUN CAPACITORS - 440V AC**

ITEM NO.	PRODUCT NO.	MFD
C4103	YT110020A000	1
C4072	YT115020A000	1.5
C4091	YU120010A000	2
C4105	YU125010A000	2.5
C4107	YU130010A000	3
C4073	YU140010A000	4
C4109	YU150010A000	5
C4093	YU160010A000	6
C4111	YU175010A000	7
C4095	YU180010A000	8
C4074	YU210010A000	10
C4115	YU211010A000	11
C4097	YU212010A000	12
C4117	YU212510A000	12.5
C4119	YL214020A000	14

**Motor Start Capacitors**

The purpose of a start capacitor is solely to provide the motor with a 'boost' to assist in starting under load.

The capacitor provides an out-of-phase starting current to the start winding, forcing the motor to operate as a two-phase motor for the starting duration.

After the motor has started, the start capacitor and start winding is disconnected from circuit via a voltage or current relay.



Start Cap

**Capacitor Replacement & Selection**

Replacement of a faulty capacitor should always be made using a capacitor of equivalent capacitance rating, and a voltage rating equal to or higher than the faulty part. The motor rating plate bears little significance to the voltage rating of the capacitor. An AC voltmeter should be used to monitor the voltage across the capacitor after replacement.

**Reasons for Start Capacitor Failure**

Conditions which increase failure rate and can reduce the life of a capacitor are:

- Short-cycling of the compressor
- High operating temperatures
- Application of voltages in excess of ratings
- Overloading, preventing running speed from being reached
- Physical damage to case or terminals
- Failure of starting switch
- Worn or frozen motor bearings
- Low line voltage
- Incorrect capacitance rating



Run Cap

If the start capacitor and start winding remains in-circuit for extended period, it will be permanently damaged. The motor should reach speed within 1 to 3 seconds.

ITEM NO.	PRODUCT NO.	MFD
C4075	YU215010A000	15
C4123	YL218020A000	18
C4076	YU220010A000	20
C4085	YU225010A000	25
C4086	YU230010A000	30
C4077	YU235010A000	35
C4078	YU240010A000	40
C4087	YU245010A000	45
C4088	YU250010A000	50
C4127	YL255020A000	55
C4089	YU260010A000	60
C4098	YU265010A000	65
C4099	YU270010A000	70
C4129	YU275010A000	75
C4131	YU280010A000	80



**DELAY CUBE TIMERS**

ITEM NO.	PRODUCT NO.	DESCRIPTION	RANGE
ICM102	ICM102	6sec to 8min adjustable delay-on-make timer - 2 Pin	18 - 240V / 1.5A
ICM209	ICM209	6sec to 8min adjustable delay-on-break timer - 2 Pin	18 - 240V / 1A
ICM208	ICM208	5 minute fixed delay-on-break timer - 4 Pin	
ICM103	ICM103	1 to 1000sec adjustable precise delay-on-make timer Switch-settable time delays Ideal for ice machines	



**SOLID STATE RELAYS, OVERLOAD & CAPACITOR COMBOS**

ITEM NO.	PRODUCT NO.	DESCRIPTION	RANGE
C4000	ICG220	230V Solid State Relay - Quick Connect	1/12 - 1/2HP
PO230	PO230	230V Solid State Relay - Push on	1/12 - 1/2HP
C4020	RO-82	230V Relay & Overload	1/12, 1/10, 1/8HP
C4015	RO-62	230V Relay & Overload	1/6, 1/5HP
C4010	RO-42	230V Relay & Overload	1/4, 1/3HP
C4025	RSC-20	230V Relay & Capacitor	43 - 52MFD
C4040	RCO-420	230V 3-in-1 Relay, O/load & Capacitor	1/4, 1/3HP
C4050	SPP-5	230V Starter Pow-R-Pak for Air Cond Increases Starting Torque Up To 300%	1/2 - 10HP
ICM-UMSR50	UMSR-50	ICM Universal Motor Starting Relay Replaces all standard Potential Relays	Up to 10HP



ICG Series



RO Series



UMSR-50



**SPP5 Starter Pow-R-Pak**

- For low voltage A/C & hard starting Refrigeration compressors
- Suits all PSC A/C & Heat pump units from 1.2kw thru 30kw
- Contains relay and start capacitor for extra starting torque
- Installs in seconds across run capacitor terminals



**RCO Series 3 N 1 Start Relay**

The **3 n 1 Start Relay** adds new life to old refrigerators and freezers by providing an additional boost to the compressor. It replaces ALL 3 electrical components - Relay, overload and start capacitor on compressors from 1/4 to 1/3hp

- Completely prewire & Installs quickly and easily by simply pushing on 3 female pin terminals



**RSC Series The Big Relay**

A combined solid state start relay and capacitor for all compressors from 1/12hp thru 1/2hp for domestic and commercial applications

- Prevents low voltage starting problems and provides added boost for hard start and unbalanced systems
- Installs quickly and easily by just pushing the female pin terminals onto the compressor terminals
- No additional wires required

## SCHNEIDER CONTACTORS

ITEM NO.	DESCRIPTION	KW	MOTOR AMPS	AUXILLARY
LC1D09U7	Contactora 9A, AC-3	4	9	1 NO + 1 NC
LC1D12U7	Contactora 12A, AC-3	5.5	12	1 NO + 1 NC
LC1D18U7	Contactora 18A, AC-3	9	18	1 NO + 1 NC
LC1D25U7	Contactora 25A, AC-3	11	25	1 NO + 1 NC
LC1D32U7	Contactora 32A, AC-3	15	32	1 NO + 1 NC
LC1D38U7	Contactora 38A, AC-3	18.5	38	1 NO + 1 NC
LC1D40AU7	Contactora 40A, AC-3	22	40	1 NO + 1 NC
LC1D50AU7	Contactora 50A, AC-3	22	50	1 NO + 1 NC
LC1D65AU7	Contactora 65A, AC-3	37	65	1 NO + 1 NC
LC1D80U7	Contactora 80A, AC-3	45	80	1 NO + 1 NC

■ Above contactors come with 240V coils.



## SCHNEIDER OVERLOADS

ITEM NO.	DESCRIPTION	AMP RANGE
LRD08	Overload Relay 2.5 - 4.0A	2.5 - 4.0
LRD10	Overload Relay 4.0 - 6.0A	4.0 - 6.0
LRD12	Overload Relay 5.5 - 8.0A	5.5 - 8.0
LRD14	Overload Relay 7.0 - 10.0A	7.0 - 10.0
LRD16	Overload Relay 9.0 - 13.0A	9.0 - 13.0
LRD21	Overload Relay 12.0 - 18.0A	12.0 - 18.0
LRD22	Overload Relay 16.0 - 24.0A	16.0 - 24.0
LRD32	Overload Relay 23.0 - 32.0A	23.0 - 32.0
LRD340	Overload Relay 25.0 - 40.0A	25.0 - 40.0
LRD35	Overload Relay 30.0 - 38.0A	30.0 - 38.0
LRD350	Overload Relay 37.0 - 50.0A	37.0 - 50.0



## SCHNEIDER AUXILIARY CONTACTS

ITEM NO.	DESCRIPTION	CONTACTS
LADN11	Auxiliary Contacts - Front mount	1-N/O 1-N/C
LADN22	Auxiliary Contacts - Front mount	2-N/O 2-N/C
LAD8N11	Auxiliary Contacts - Side mount	1-N/O 1-N/C
LAD8N20	Auxiliary Contacts - Side mount	2-NO
LAD8N02	Auxiliary Contacts - Side mount	2-NC



## SCHNEIDER 24V COILS

ITEM NO.	DESCRIPTION
LXD1B7	24v coil suit LC1D09 - D38
LXD3B7	24v coil suit LC1D40 - D80





**ALLEN BRADLEY CONTACTORS (240V Coil)**

ITEM NO.	PRODUCT NO.	DESCRIPTION	MAX AMPS	
			HEATER	MOTOR
G6202	100C09T10	AB Contactor, 9A, 1 x NO Aux	17	9
G6204	100C12T10	AB Contactor, 12A, 1 x NO Aux	23	12
G6206	100C16T10	AB Contactor, 16A, 1 x NO Aux	31	16
G6208	100C23T10	AB Contactor, 23A, 1 x NO Aux	46	23
G6210	100C30T10	AB Contactor, 30A, 1 x NO Aux	62	30
G6212	100C37T10	AB Contactor, 37A, 1 x NO Aux	83	37
G6214	100C43T10	AB Contactor, 43A, 1 x NO Aux	92	43
G6216	100C60T10	AB Contactor, 60A, 1 x NO Aux	133	60



■ Above contactors come with 240V coil - 24V coils available as listed below.

**THERMAL OVERLOADS (Suit SMC Series)**

ITEM NO.	PRODUCT NO.	DESCRIPTION	AMP RANGE
G6240	193EEBB	AB Overload - Suits 100C09 - C23	0.2 - 1.0
G6242	193EECB	AB Overload - Suits 100C09 - C23	1.0 - 5.0
G6244	193EEDB	AB Overload - Suits 100C09 - C23	3.2 - 16
G6246	193EEEB	AB Overload - Suits 100C09 - C23	5.4 - 27
G6248	193EEED	AB Overload - Suits 100C30 - C43	5.4 - 27
G6250	193EEFD	AB Overload - Suits 100C30 - C43	9.0 - 45
G6252	193EEGE	AB Overload - Suits 100C60 - C85	18 - 90



**AUXILIARY CONTACTS**

ITEM NO.	PRODUCT NO.	DESCRIPTION	CONTACTS
G6234	100SB10	AB Auxillary Contact - Side Mount	1 x NO
G6232	100SB01	AB Auxillary Contact - Side Mount	1 x NC
G6230	100FA40	AB Auxillary Contact - Front Mount	4 x NO
G6224	100FA04	AB Auxillary Contact - Front Mount	4 x NC
G6226	100FA11	AB Auxillary Contact - Front Mount	1 x NC, 1 x NO
G6228	100FA22	AB Auxillary Contact - Front Mount	2 x NC, 2 x NO



**CONTACTOR COILS**

ITEM NO.	PRODUCT NO.	DESCRIPTION	SUITS
G6264	TA855	AB 24V Contactor Coil	100C09 - C16
G6268	TC855	AB 24V Contactor Coil	100C23 - C37
G6262	TA480	AB 240V Contactor Coil	100C09 - C16
G6266	TC480	AB 240V Contactor Coil	100C23 - C37
G6270	TD480	AB 240V Contactor Coil	100C40 - C43



**ISOLATING SWITCHES**

ITEM NO.	PRODUCT NO.	DESCRIPTION
UKF4220	UKF4220	Isolating Switch 20A, 2pole , IP66
G6350	EUR1-20	Isolating Switch 20A, 1pole , IP66
G6354	EUR3-20	Isolating Switch 20A, 3pole, IP66
G6352	EUR1-35	Isolating Switch 35A, 1pole, IP66
G6356	EUR3-35	Isolating Switch 35A, 3pole, IP66
iStand	iStand	Isolating Switch Stand



■ Above isolating switches comply with AS/NZS 3123: 2005 Australian Electrical Standards.

**REFRIGERANTS**



Distributed by Beijer Ref Australia, Gas2Go® is thoroughly committed to ensuring we deliver the highest quality products and services. Our state-of-the-art decanting facility based in Bankstown, NSW offers a total gas management system supported by first class, zero emissions Gas2Go® decanting and blending capability. Our Gas2Go® testing laboratory is certified to the ISO 9001 quality system.

Visit [gas2go.com.au](http://gas2go.com.au) to download a Fact Sheet or Safety Data Sheet for your refrigerant of choice.

ITEM NO.	REFRIGERANT	SIZE KG	TYPE	COMMON APPLICATIONS
H404010	R404A	10	Near Azeotrope	Med/Low Commercial Refrigeration
H404018		18		
H404050		50		
H134012	R134a	12	Azeotrope	Med/High Commercial and Domestic Refrigeration
H134022		22		
H134065		65		
H448010	R448A	10	Blend	R404A Alternative for New & Existing Installations
H448055		55		
H452010	R452A	10	Blend	R404A & R507 Replacement In Low Temp Transport
H407F11	R407F	11	Blend	R404A & R22 Alternative for New & Existing Installations
H407F50		50		
H407C11	R407C	11	Blend	Commercial Air Conditioning
H407C18		18		
H407C60		60		
H410010	R410A	10	Near Azeotrope	Commercial Air Conditioning
H410018		18		
H410060		60		
H320005	R32	5	Azeotrope	Domestic Air Conditioning
H320009		9		
H438012	R438A (MO99)	12	Blend	R22 Drop-In Replacement
H438022		22		
H438060		60		
H220012	R22	12	Azeotrope	Commercial Air Conditioning (Recommend using lower GWP Alternatives)
H220022		22		
H220065		65		
R744014	R744 (CO2)	13.5	Natural	Commercial & Industrial Refrigeration
R744030		30		
0717034	R717 (AMMONIA)	34	Natural	Industrial Refrigeration
0717056		56		



- Beijer Ref will only supply refrigerant to appropriately trained and licensed account holders.
- All refrigerant products are quality assured under AHRI 700 International Refrigerant Standards.
- Refrigerant is available in pre-filled and leak tested cylinders equipped with non-return check valves.
- All cylinders supplied by Beijer Ref are compliant with Australian standards AS2030.1-1999
- All cylinders are the property of Beijer Ref and are subject to service fees.
- Refrigerant cylinders returned within a month will not attract any service fee.
- For full terms and conditions relating to cylinders, please refer to Beijer Ref's Term's & Conditions of Sale.

### RECLAIM CYLINDERS

ITEM NO.	DESCRIPTION	SIZE
HSRR	Reclaim cylinders are provided to enable refrigeration contractors to reclaim unusable refrigerant for return to Beijer Ref for a credit and subsequent return to Refrigerant Reclaim Australia	8kg
HMRR		16Kg
HLRR		52Kg

- Returning reclaim refrigerant to Beijer Ref ensures safe and environmentally friendly disposal in compliance with legislation, and attracts a payment as directed by Refrigerant Reclaim Australia (RRA).
- All cylinders are the property of Beijer Ref and are subject to service fees.
- Reclaim cylinders are suitable for all refrigerants including R410A.



### PUMPDOWN CYLINDERS (Recovery)

ITEM NO.	DESCRIPTION	SIZE
HMPD	Pumpdown cylinders are provided to enable refrigeration contractors to recover refrigerant into a guaranteed clean cylinder for reuse after repairs are completed	22 Kg
HLPD		65 Kg

- All refrigerant cylinders are clean and dehydrated to maintain purity of recovered refrigerant.
- All cylinders are the property of Beijer Ref/A-Gas and are subject to service fees.
- Pumpdown cylinders are suitable for all refrigerants including R410A.



### DRY NITROGEN

ITEM NO.	DESCRIPTION	SIZE
H728015	10Ltr (1.8m <sup>3</sup> ) High purity dry nitrogen	D
H728035	20Ltr (3.6m <sup>3</sup> ) High purity dry nitrogen	E

- All cylinders are the property of Beijer Ref and are subject to service fees.



### NITROGEN REGULATORS

Mastercool's new nitrogen regulator is specifically designed to meet the specifications and requirements of HVAC/R and automotive A/C systems. This single stage nitrogen regulator is used to pressurise systems to test for leaks when they do not contain refrigerant and for purging air and other contaminants out of refrigeration systems.

- 1/4" SAE flare outlet port with control valve to keep pressure on the regulator at all times
- 63mm gauges with guards; HP gauge 4400 psig (300 bar) / LP gauge 1000 psig (70 bar)
- T-Handle for ease of pressure adjustment



ITEM NO.	MODEL NO.	DESCRIPTION
T7122	53004	Nitrogen Pressure Regulator with 63mm gauges
T7124	53040	Pressure Testing Regulator Kit includes: Pressure Regulator fitted with gauges, 48" Yellow Hose, Leak Testing Adapter, Blow molded case





### MINERAL OIL

ITEM NO.	TYPE	APPLICATION	SIZE
N0531	Suniso 3GS	Low / Med Temp	4 Ltr
N0535	Suniso 3GS		20 Ltr
N0541	Suniso 4GS	Med / High Temp	4 Ltr
N0545	Suniso 4GS		20 Ltr



### POLYOLESTER OIL

ITEM NO..	TYPE	APPLICATION	SIZE
RL32-3MAF 1LTR	Emkarate RL32	Low / Med Temp	1 Ltr
RL32-3MAF 5LTR	Emkarate RL32		5 Ltr
1529220	Emkarate RL32		20 Ltr
N0587A	Suniso RL68	Med / High Temp	1 Ltr
N0587	Suniso RL68		4 Ltr
N0588	Suniso RL68		20 Ltr



### BITZER LUBRICANTS (POE)

ITEM NO.	TYPE	APPLICATION	SIZE
I06-018	BSE32	Suits Bitzer Reciprocating Compressor	1L
I06-019			2L
I06-015			5L
I06-012			20L
I06-027	BSE170	Suits Bitzer Screw Compressor	5L
I06-028			20L
I06-033	BSE60	Suit Bitzer CO <sub>2</sub> Compressor	1L
I06-039			5L
I06-043			10L
I06-035			1L
I06-036	BSE85		5L



### SCREW COMPRESSOR OIL

ITEM NO.	TYPE	DESCRIPTION	SIZE
RL170H-5L	Emkarate RL170	Screw Compressor Oil	5 Ltr
RL170H-20L	Emkarate RL170	Screw Compressor Oil	20 Ltr



### VACUUM PUMP OIL

ITEM NO.	PRODUCT NO.	DESCRIPTION	PACK SIZE
T7010	90010-6	To suit Mastercool model 90063-2V-220	295ml
T7012	90018-6	To suit Mastercool model 90066-2V-220 & 90612-2V-220	531ml
T7014	90024-6	To suit Mastercool model 90068-2V-220	708ml
N0107	DVO12-0.95	General Vacuum Pump Oil	0.95L
N0110	DVO24-3.8	General Vacuum Pump Oil	3.8L



### OIL CHARGING PUMP

ITEM NO.	DESCRIPTION
OP1	Aspen OP1 Oil Charging Pump; Easily adds or removes oil for recovery or conversion at 78ml per stroke - Pumps against pressure to 1380kpa



**SUPERSEAL KITS**

ITEM NO.	BRAND	DESCRIPTION	GUIDE
947KIT	Super Seal	ACR Sealant Kit c/w charging hose	.07 to 5kw
944KIT		HVACR Sealant Kit c/w charging hose	5 to 17 kw
948KIT		Commercial Sealant Kit c/w charging hose	17kw plus
946KIT		Auto Air Conditioning c/w charging hose	Auto Air
973KIT		Dry R - System Drying Agent	17kw Max
971KIT		Total 1 - c/w UV Dye & Drying Agent	.07 to 5kw
972KIT		Total 2 - c/w UV Dye & Drying Agent	5 to 17kw
981		Super Change HVACR - Links Mineral/AB oil to any HFC refrigerant	20kw Max
20122		Injection hose for application of Super Seal HVACR products	-



**FLUSHING AGENTS**

ITEM NO.	BRAND	PRODUCT NO.	DESCRIPTION	PACK SIZE
L0070	A-GAS	MERGU05	Universal System Flushing Agent	5 Ltr



**OIL SPRAY**

ITEM NO.	BRAND	PRODUCT NO.	DESCRIPTION	PACK SIZE
OG6012		OG6012	Refrigeration Grade Oil Spray	300ml



**OIL TEST KITS & NEUTRALISERS**

ITEM NO.	BRAND	PRODUCT NO.	DESCRIPTION	PACK SIZE
RT700K	Viper	RT700K	Checkmate Kit - Oil contamination detector kit	Kit
RT752C	Viper	RT752C	Easy Oil Test - Replacement pack	3 Tests
780044	Sporlan	TA1	Test-All TA1 Acid Test Kit - POE & Mineral	1 Test
N0800	RectorSeal	45004	Acid-Away Acid Neutraliser - Mineral	118ml
45016	RectorSeal	45016	Acid-Away Pro Neutraliser - POE & Mineral Complete with disposable injector	45ml



■ Please contact Beijer Ref for more information on the above products including Material Safety Data Sheets.



**VIPER RT700K CHEKMATE KIT**

The Checkmate method is the industry's only valid field test for measuring acid and moisture levels in both the compressor oil and any refrigerant gas. The Detector Tubes have been tested for accuracy by Intertek Testing Services, an ARI approved laboratory. Simply insert a Detector Tube into the Checkmate body and connect inline to a cylinder or on the low side of the system. Detector Tube results take less than one minute.



## COIL CLEANERS

ITEM NO.	DESCRIPTION	CONTAINER SIZE
RT300G	Viper Brite - Premium strength non acid ultra foaming alkaline cleaner	4 Litre
RT310V	Viper Brightener Cleaner - Venom Pack - Premium strength non acid ultra foaming alkaline cleaner	975ml
RT350G	Viper Evap+ - Ready To Go - non rinsing enzymatic evaporator coil cleaner	4 Litre
RT320V	Viper Evaporator Cleaner - Venom Pack - Concentrate - non rinsing enzymatic evaporator coil cleaner	1.06 Litre
RT375A	Viper Coil Cleaner - Aerosol - Foaming coil cleaner and degreaser	510 ml
RT390G	Viper Heavy Duty - Universal coil cleaner and degreaser	4 Litre
RT330V	Viper Condenser Cleaner - Venom Pack - Universal coil cleaner and degreaser	1.06 Litre
RT340V	Viper Coil Coating - Aerosol - Permanent clear epoxy resin	1.06 Litre
RT640A	Viper Pan and Drain Treatment - non rinsing enzymatic drain pan and drain cleaner (Spray trigger bottle)	432 Grams
RT800S	Viper Pan and Drain Treatment - non rinsing enzymatic drain pan and drain cleaner (Spray trigger bottle)	975ml
RT301S	Viper Foam Sprayer	1.5 Litre
RT300S	Viper Foam Gun	2 Litre



## CLEANING AND MAINTENANCE KITS

ITEM NO.	INCLUDES	DESCRIPTION	CONTAINER SIZE
RT300K		<b>VIPER COIL CLEAN KIT</b>	
	RT300S	Viper Foam Gun	-
	RT300G	Viper Brite	4 Litre
	RT350G	Viper Evap+	4 Litre
	RT390G	Viper Heavy Duty	4 Litre
RT380K		<b>VIPER CLEANING &amp; MAINTENANCE KIT</b>	
	RT300S	Viper Foam Gun	-
	RT301S	Viper 2-in-1 Foam Sprayer	-
	RT310V	Viper Brightener Venom Pack	975ml
	RT320V	Viper Evaporator Cleaner Venom Pack	1.06 Litre
	RT330V	Viper Condenser Cleaner Venom Pack	1.06 Litre
	RT340V	Viper All-Purpose Cleaner Venom Pack	1.06 Litre
	RT8952S	Viper Germicidal Hospital Grade Disinfectant	
-	10 x Cleaning & Maintenance Stickers	-	



## SURFACE CLEANERS & DISINFECTANTS

ITEM NO.	DESCRIPTION	CONTAINER SIZE
RT340V	Viper All Purpose Cleaner - Venom Pack - Concentrate - Advanced cleaner and degreaser - Just spray and wipe	1.064 Litre
RT8952S	Viper Germicidal Disinfectant - Hard surface disinfectant - Hospital grade (Spray trigger bottle)	750ml
RT8952	Viper Germicidal Disinfectant - Hard surface disinfectant - Hospital grade (bulk container)	5 Litre
RT8990	Viper Hand Rub Sanitiser - Anti-Bacterial Alcohol free liquid hand sanitiser	5 Litre
RT600S	Viper Wipes - Multi-purpose ultra strong dual textured wipes	



■ Please contact Beijer Ref for more information on the above products including Material Safety Data Sheets.

**ICE MACHINE CLEANER**

ITEM NO.	DESCRIPTION	CONTAINER SIZE
RT500N	Viper Nickel Safe Ice Machine Cleaner - Organic acid rapid scale removal	473 ml
RT500G	Viper Nickel Safe Ice Machine Cleaner - Organic acid rapid scale removal (Bulk Container)	3.78 Litre


**LIQUID FOAMING LEAK DETECTORS**

ITEM NO.	DESCRIPTION	CONTAINER SIZE
RT100G	Viper - Big Blu Leak Detector (Bulk Container)	3.785 Litre
RT100S	Viper - Big Blu Leak Detector (Bulk Container)	1 Litre
RT150S	Viper - Big Blu Leak Detector - Sub Zero Spray Trigger	1 Litre
RT175B	Viper - Big Blue Leak Detector - Brush On Applicator	225 ml


**AC EVAPORATOR COIL CLEANERS & AIR FRESHENERS**

ITEM NO.	BRAND	DESCRIPTION	PACK SIZE
82565	Rectorseal	Desolve Evaporator Coil & Blower Cleaner, Biodegradable, Non Corrosive, Low Odor	3.8L
82560		Desolve Cleaning Kit - Includes: 3.8L Cleaner, Frame Assy, 2xFunnel Bags, Brush, Drain Pail	3.8L
82562		Replacement Funnel Bags for cleaning run off	1
FAS-1	Sterile Care	Fresh Air Sponge - Return Air	500ml


**DRAIN PAN TREATMENT**

ITEM NO.	PRODUCT NO.	BRAND	DESCRIPTION	PACK SIZE
NI008	CHARGE	Minehan	Pressure Spray Drain Solvent (Aerosol)	400g
RT800S	-	Viper	Drain Treatment - non rinsing enzymatic drain pan and drain cleaner (Spray trigger bottle)	975ml
N0676	61053	Purcool	Purcool Condensate pan treatment tabs	200tab
SPSI93T1	QP34	Sauermann	Gel-clear condensate drain tablet: proven anti-biofilm solution	200tab
SPSI93T10	QP34	Sauermann		10tab


**THREAD SEALANTS**

ITEM NO.	DESCRIPTION
RT201B	Nylog Blue - Gasket and thread sealant / lubricant - compatible with all refrigerants (twin pack)
RT200R	Nylog Red - Gasket and thread sealant / lubricant - CFC & HCFC compatible
RT202W	Nylog White - Gasket and thread sealant / lubricant - metal and plastic fittings
RT901T	Viper Silicone Grease - lubricant and heat sink - food grade - High dielectric strength


**BRAZING ACCESSORIES**

ITEM NO.	DESCRIPTION
RT400P	Viper Wetrag - reusable, non toxic, heat blocking putty
RT410S	Viper Heat Blocking Gel - Biodegradable water-based thermal heat absorption compound - Fire prevention



■ Please contact Beijer Ref for more information on the above products including Material Safety Data Sheets.

### BERNZOMATIC SURE FIRE

Concentrated high heat, anti-flare, adjustable flame with powerful turbine flame pattern. Equipped with instant piezo ignition, the Sure-Fire is fast and effective for all soldering and brazing applications and can be operated with either the disposable Propane or Map gas cylinders. Burns at up to **2000°C**

ITEM NO.	PRODUCT NO.	DESCRIPTION
N6020	TS8000BT	Sure Fire Brazing Torch



### TESUCO TURBOSET-200

The Turbo Set 200 is a compact and light weight gas brazing set, specifically designed for use with self-contained disposable gas cylinders, making it ideal for use within the refrigeration and air conditioning industries. Weighing in at only 5kg (including cylinders), the unit is extremely versatile and suitable for use in hard to reach areas. As the gas cylinders are bought outright, there are no ongoing cylinder rental payments. Burns at up to **3100°C**

ITEM NO.	PRODUCT NO.	DESCRIPTION
N6030	OTS200	<b>TurboSet 200</b> c/w - Metal carry stand, Brazing Tips, Press regulators for Oxygen & MAP/Pro, 2m of separated hose, lighter, Multipurpose spanner & Protective welding goggles



### BRAZING TORCH ACCESSORIES

ITEM NO.	PRODUCT NO.	DESCRIPTION
N6050	35663	Mapp Gas Cylinder - Suits Surefire, Superfire & TurboSet
N6032	Oxygen	Oxygen Cylinder for TurboSet 200
N6035	OTS200RO	Oxygen Regulator for TurboSet 200
N6036	OTS-200RM	Mapp Gass Regulator for TurboSet 200
N6035A	OTS-ORO	O-Ring for Oxy TurboSet Regulator
T0103	580500	Spark-Key Torch Ignitor



### SILVER BRAZING ALLOY

ITEM NO.	TYPE	COLOUR CODE	DIAMETER x LGTH (mm)	SOLD	STICKS PER KG
W10001	2% SBA	Yellow	2.5 x 750	Per Stick	34
W10003	5% SBA	Silver	2.5 x 750	Per Stick	34
W10005	15% SBA	Brown	2.5 x 750	Per Stick	35
W10007	45% SBA	Blue	1.5 x 750	Per Stick	41
W11001	Easyflow - General Purpose Flux for Silver Brazing Alloy			250g Pot	-



### BRAZING ACCESSORIES

ITEM NO.	DESCRIPTION	PACK SIZE
N0782	LA-CO Heat Barrier Spray for Brazing	946ml
RT410S	Viper Heat Blocking Gel - Biodegradable water-based thermal heat absorption compound - Fire prevention	946ml
RT400P	Viper Wetrag - reusable, non toxic, heat blocking putty	360g



■ See next page for brazing alloy usage guide and tips on brazing.

## Brazing Alloy Guide

### 2% Silver (Yellow Tip)

- Suitable for copper to copper and copper alloys.
- Use flux for copper to copper and copper alloys.

### 15% Silver (Brown Tip)

- Suitable for copper to copper and copper alloys
- Provides excellent ductility for high stressed joints.
- No flux required for copper to copper.
- Use flux for copper alloys.

### 5% Silver (Yellow Tip)

- Suitable for copper to copper and copper alloys.
- Use flux for copper to copper and copper alloys.

### 45% Silver (Blue Tip)

- Suitable for copper to copper and copper alloys.
- Provides high strength with excellent capillary action.
- Good ability to fill fine gaps.
- No flux required for copper to copper.
- Use flux for copper alloys.



## Notes On Brazing

### Pre-Cleaning the Joint Area

- Surface oxides must be removed for sound joining of metals and best used in conjunction with one of the following two cleaning methods:
  1. **Mechanical** - Joint areas should be thoroughly rubbed with abrasive material such as plumber's sandpaper, steel wool or emery cloth.
 

**NOTE:** When cleaning tubing, always turn tubing downwards when rubbing so that any excess material is not introduced into the pipe system while cleaning.
  2. **Chemical** - In refrigeration applications Mechanical cleaning is normally sufficient, but if necessary to swab the interior surface a solvent should be used. **AVOID:** Carbon Tetrachloride's or solvents that contain Chlorinates.

### Post-Cleaning

- Most fluxes allow a quick, permanent and complete post-cleaning solution. Remove excess flux residue with damp cloth.
- **NOTE:** In refrigeration repairs and applications, remove flux residue prior to pressurising system.

### Purpose of Flux

- To remove the surface of excess films and oxides during the soldering (brazing) process.
- Helps prevent oxides from forming.
- To promote fluid flow and increase adhesion of the filler metal.
- Each type of flux is formulated for a specific application.
- In refrigeration applications, flux is required to be applied without interfering with the system function.





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## **Australia**

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