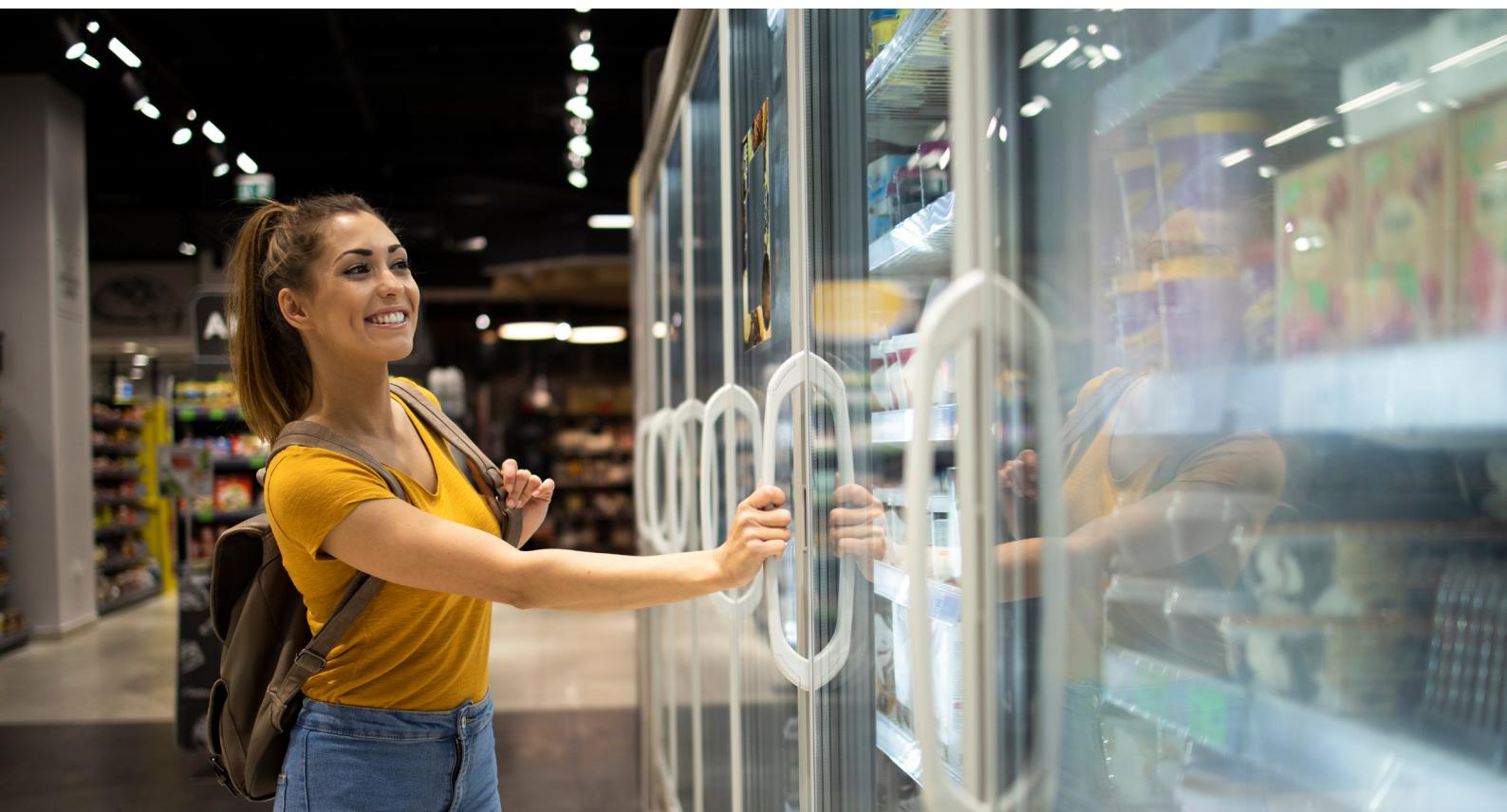


# Copeland Scroll ZX Condensing Unit for Refrigeration Applications



Product catalogue

**COPELAND**

# Copeland ZX condensing unit for refrigeration applications

The Copeland ZX platform refrigeration condensing units are specifically designed for medium temperature (ZX-MT), low temperature (ZXL-LT), digital modulated variable capacity medium temperature and low temperature (ZXD-MT & ZXLD-LT) refrigeration applications. Variable speed medium temperature and low temperature (ZXV-MT & ZXVL-LT) condensing units are also available. Please contact your local Copeland sales or application engineer for more details.

Copeland ZX series CDU has been highly successful in the commercial refrigeration market and enjoys proven success with its energy savings and customer-friendly electronic features.

## Copeland ZX platform condensing unit was designed based on three factors demanded by industry users:

Intelligent store solutions - A most innovative approach to enterprise facility management, Intelligent Store architecture integrates hardware and services to provide retailers a single view into their entire network of facilities and understanding what facilities actually cost to operate and maintain.

The Intelligent Store architecture transforms data from store equipment and controls into actionable insights. Designed to deliver value in both new and existing stores, aiming to help retailers:

- Make better decisions on resources investment for maximum impact
- Receive accurate feedback and service customized to meet your specific needs
- Reduce operational costs and boost the profitability



Energy efficiency - 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.

Reliability - Combining the proven reliability of Copeland scroll compressors with advanced electronics controller and diagnostics, equipment reliability is greatly enhanced. Fault code alerts and fault code retrieval capabilities provide information to help improve speed and accuracy of system diagnostics. 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 to the operator when there is liquid floodback, which can prevent critical damage to the unit.

Intelligent store	→	Better decision-making
Highest efficiency	→	Lower energy bills
Reliability	→	Lower maintenance cost

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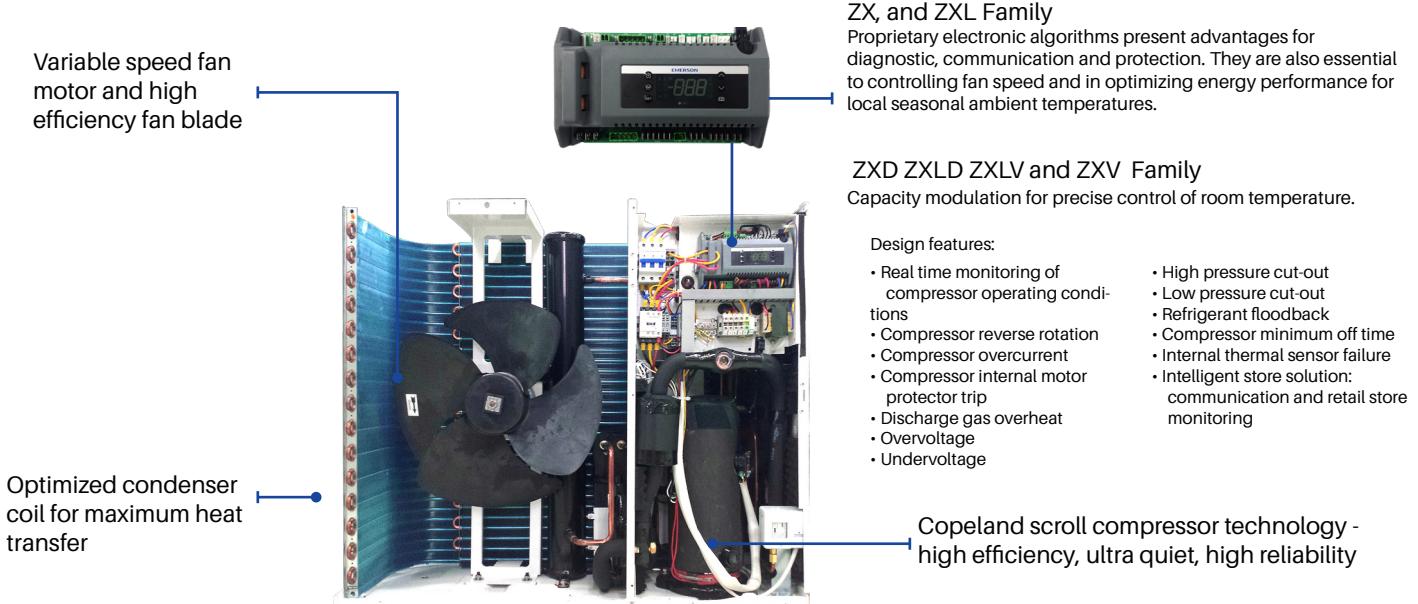


Figure 1. Copeland ZX Platform CDU features

Features	Owner/Enterprise benefits
Intelligent store solution	<ul style="list-style-type: none"> <li>• Retail store monitoring</li> <li>• Enhanced energy savings</li> <li>• High-end food safety through real time monitoring</li> </ul>
Energy-saving	<ul style="list-style-type: none"> <li>• Lower operating costs</li> </ul>
Diagnostic protection capabilities	<ul style="list-style-type: none"> <li>• Greatly reduces the chance of nuisance service calls</li> <li>• Extends the life of your equipment</li> <li>• Reduces potential service costs</li> <li>• Keeps equipment operating at their original performance levels to ensure optimum energy efficiency and temperature control</li> <li>• Serves as a guide to what the contractor needs to fix in case of malfunction</li> </ul>
Slim profile, lighter weight and optional wall mount capability	<ul style="list-style-type: none"> <li>• Lower installation costs</li> <li>• Enhances the appearance of your enterprise site</li> <li>• Avoids more costly solutions arising from potential location issues</li> </ul>
Multiple refrigerant capable	<ul style="list-style-type: none"> <li>• Suitable for multiple refrigerants</li> <li>• Ease of retrofit to low GWP refrigerants</li> </ul>

# Nomenclature

ZX	L	020	B	E	-	TFD	-	462
Unit family	Blank = Medium temp L = Low temp D = Digital medium temp LD = Digital low temp	2 - 20 HP	Generation	E = Ester oil		PFJ = 220V/240V - 1ph - 50 Hz TDF = 380V/420V - 3ph - 50 Hz		Bill of material
Base model							Electrical code	Bill of material

## Bill of material

CDU Family BOM	ZX	ZXL	ZXD 3-7.6HP	ZXD 9HP	ZXD 12-16HP	ZXLD 9HP	ZXLD 12-16HP	ZXD/ZXLD 20HP
	462	462	462	462	562	462	562	562
Liquid line filter dryer/sight glass	✓	✓	✓	✓	✓	✓	✓	✓
Liquid receiver	✓	✓	✓	✓	✓	✓	✓	✓
Oil separator	✓	✓	✓	✓	✓	✓	✓	✓
Accumulator		✓		✓	✓	✓	✓	✓
Adjustable LP switch		✓				✓	✓	✓
LP Transducer	✓	✓	✓	✓	✓	✓	✓	✓
HP Transducer					✓		✓	✓
Fixed LP switch	✓		✓	✓	✓			
Fixed HP switch	✓	✓	✓	✓	✓	✓	✓	✓
CoreSense	✓	✓	✓	✓	✓	✓	✓	✓
Digital modulation			✓	✓	✓	✓	✓	✓
Fan speed controller	✓	✓	✓	✓	✓	✓	✓	✓
Intelligent store solution module	✓	✓	✓	✓	✓	✓	✓	✓
Circuit breaker	✓	✓	✓	✓	✓	✓	✓	✓
Sound jacket	✓	✓	✓	✓	✓	✓	✓	✓
Electronic oil level protective control					✓		✓	✓
Liquid Injection	✓							
Vapor Injection *			✓		✓	✓ **	✓	✓

BOM:

4xx - Chassis with door

5xx - Chassis without door

Note: \*Units with vapor injection must have liquid line insulation, liquid is subcooled and liquid line may condensate if not insulated

\*\*ZXD120 has liquid injection instead of vapor injection, no liquid line insulation is required

# CoreSense for Copeland ZX platform condensing unit

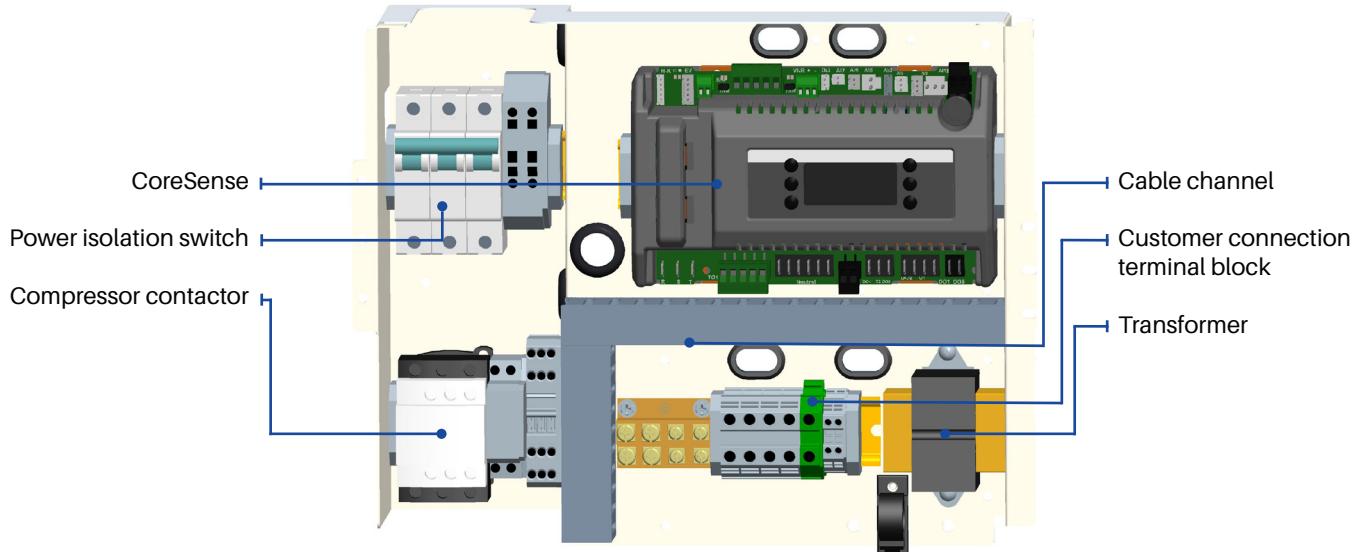
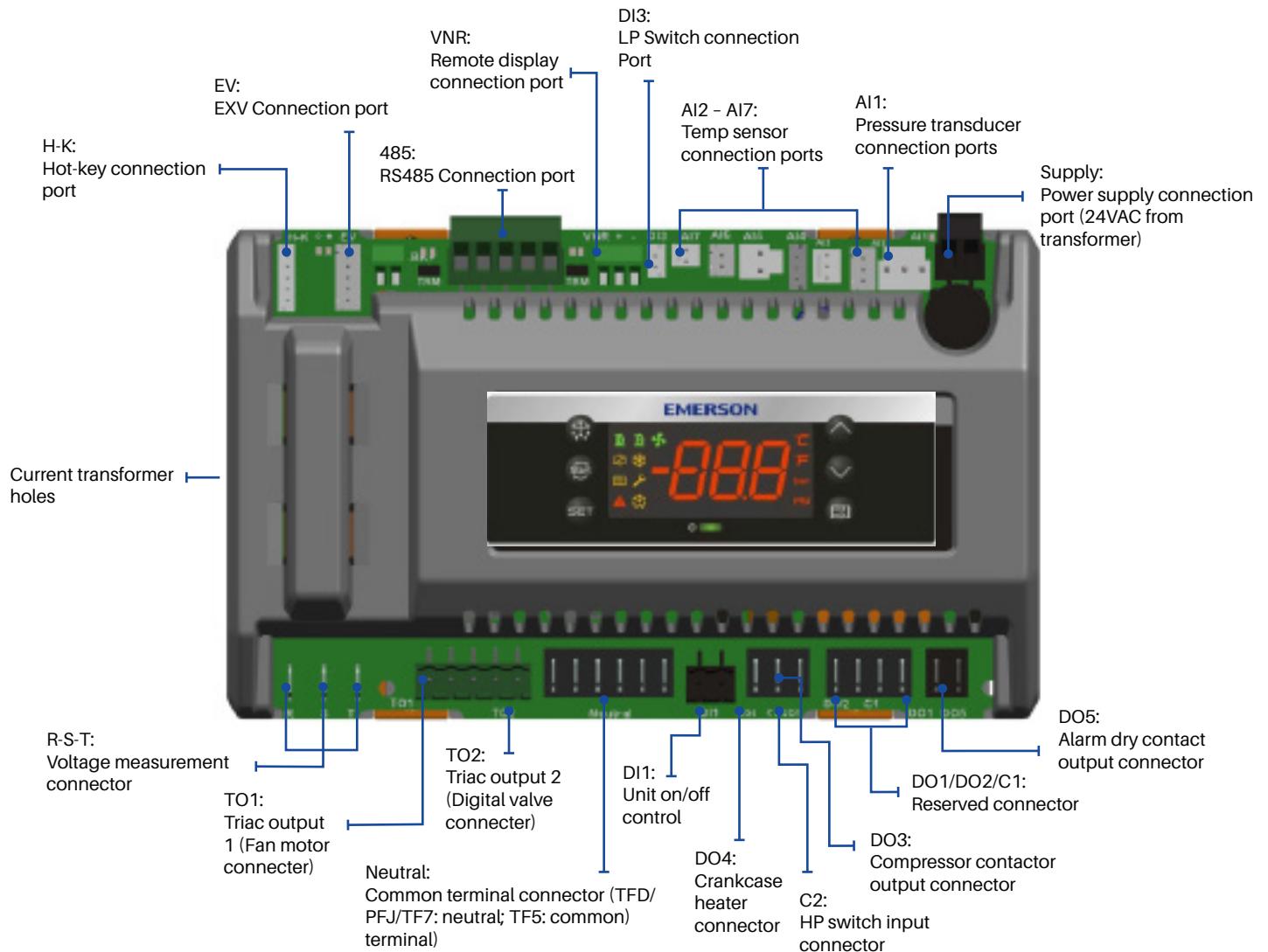


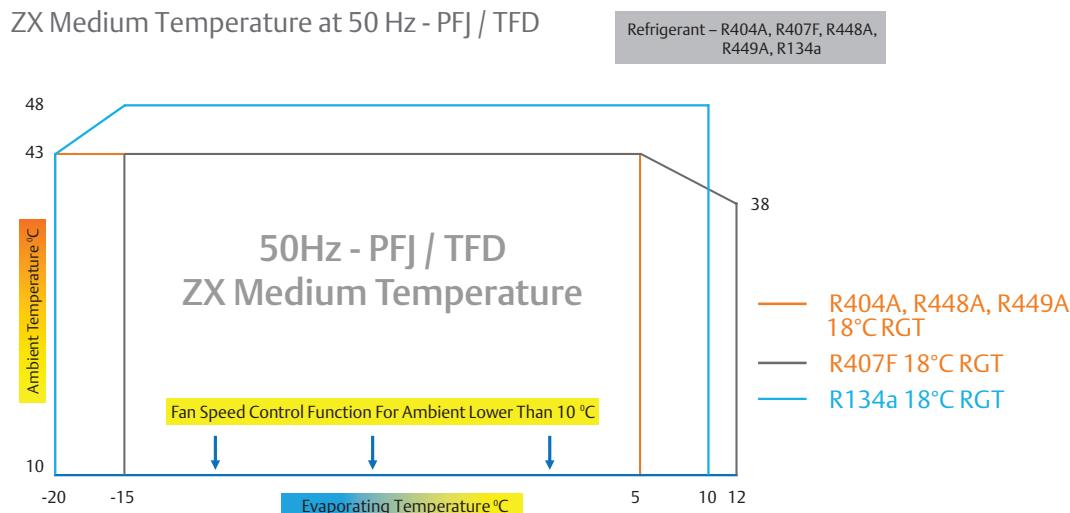
Figure 2. Layout of the CoreSense, Intelligent Store Module

## CoreSense layout

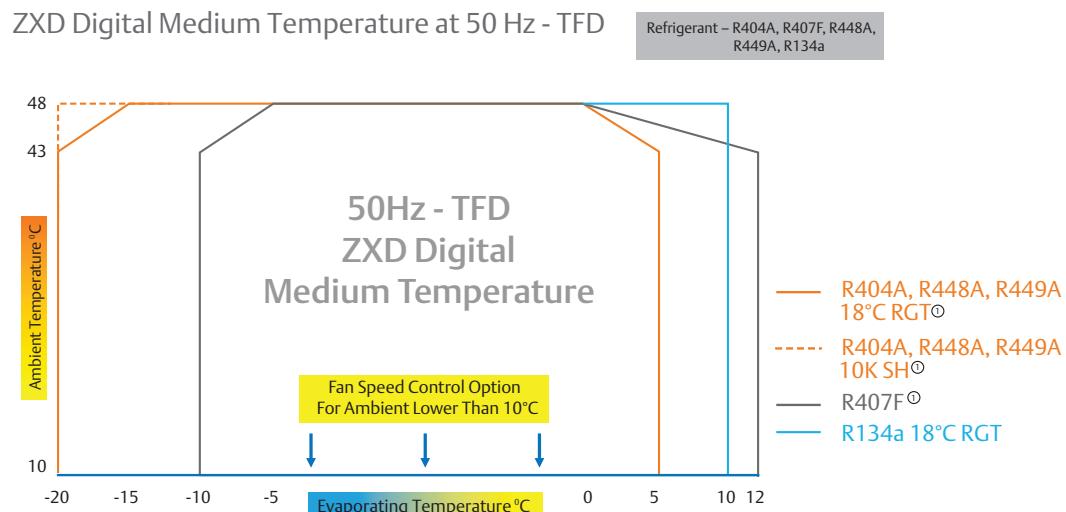


# Operating envelopes

## ZX Family : Medium temperature



## ZXD Family : Digital medium temperature



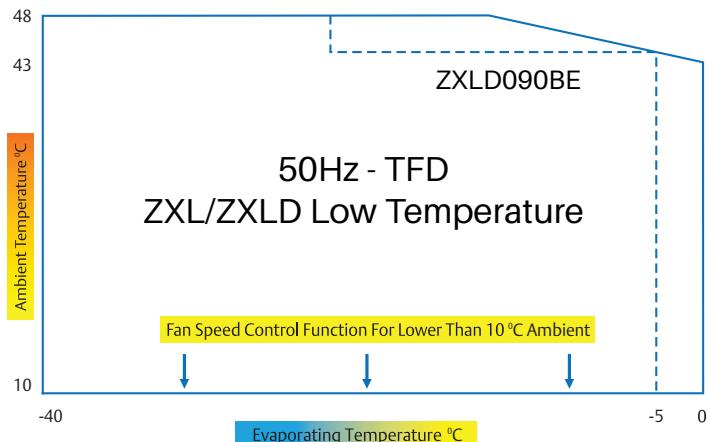
Note: For model ZXD090BE Max Amb: 43°C , Max Evap: 0°C

# Operating envelopes

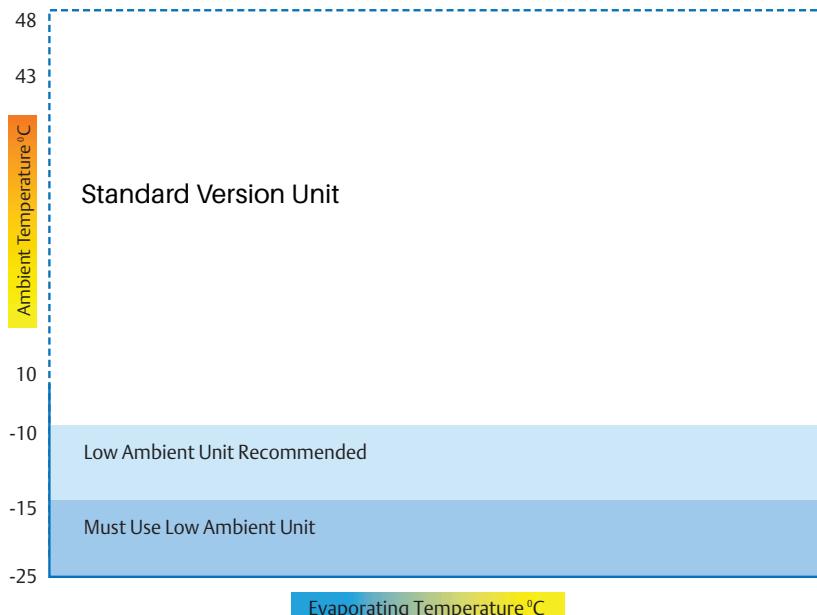
## ZXL/ZXLD Family: Low temperature

ZXL/ZXLD Low Temperature at 50 Hz - TFD

Refrigerant - R404A, R407F,  
R448A, R449A



## Guideline for using low ambient units



Note: For applications under -25°C ambient temperatures, please contact your local Copeland engineer

# ZX Family: Medium temperature

R404A

Capacity and Power (kW) at 50 Hz - PFJ/TFD

Model	Ambient temperature (°C)	Capacity						Power					
		Evaporating temperature (°C)						Evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
ZX020BE	27	3.30	3.90	4.44	5.08	5.79	6.60	1.64	1.67	1.70	1.76	1.84	1.96
	32	2.85	3.39	3.92	4.48	5.08	5.76	1.79	1.81	1.84	1.90	2.00	2.12
	38	2.42	2.90	3.36	3.85	4.36	4.94	1.95	1.99	2.02	2.07	2.16	2.26
	43	1.94	2.43	2.89	3.34	3.81	4.30	2.14	2.18	2.22	2.27	2.34	2.41
ZX030BE	27	4.04	4.87	5.81	6.85	7.99	9.23	2.14	2.19	2.24	2.32	2.42	2.55
	32	3.75	4.52	5.39	6.35	7.40	8.55	2.40	2.44	2.50	2.57	2.67	2.81
	38	3.39	4.08	4.85	5.72	6.67	7.69	2.72	2.75	2.80	2.88	3.00	3.15
	43	3.06	3.69	4.39	5.17	6.03	6.97	3.06	3.09	3.14	3.21	3.33	3.50
ZX040BE	27	5.52	6.57	7.70	8.95	10.37	12.02	2.72	2.86	3.02	3.17	3.31	3.36
	32	5.10	6.10	7.13	8.24	9.47	10.87	3.03	3.15	3.31	3.46	3.54	3.68
	38	4.61	5.60	6.57	7.57	8.64	9.85	3.45	3.58	3.71	3.85	3.97	4.03
	43	3.98	5.00	5.95	6.89	7.83	8.85	3.87	4.00	4.12	4.23	4.33	4.38
ZX050BE*	27	7.49	9.05	10.67	12.31	13.93	15.51	3.65	3.73	3.86	4.02	4.25	4.53
	32	6.56	8.12	9.76	11.43	13.10	14.74	4.11	4.20	4.32	4.50	4.72	5.00
	38	5.56	7.07	8.67	10.32	11.98	13.63	4.59	4.68	4.79	4.96	5.16	5.42
	43	4.88	6.28	7.79	9.37	10.98	12.58	5.11	5.17	5.27	5.40	5.59	5.81
ZX060BE*	27	8.24	9.72	11.47	13.30	15.69	18.48	3.69	3.84	4.06	4.33	4.62	4.93
	32	7.53	9.06	10.72	12.58	14.72	17.20	4.40	4.54	4.75	5.01	5.28	5.56
	38	6.74	8.25	9.83	11.55	13.48	15.69	4.93	5.05	5.25	5.47	5.72	5.98
	43	5.90	7.48	9.07	10.74	12.57	14.63	5.59	5.69	5.85	6.06	6.28	6.51
ZX076BE*	27	9.22	11.07	13.00	15.37	18.12	20.53	4.00	4.17	4.41	4.70	5.03	5.35
	32	8.50	10.21	12.06	14.14	16.53	19.30	4.78	4.93	5.16	5.43	5.74	6.05
	38	7.45	8.91	10.83	12.72	14.83	17.26	5.35	5.50	5.70	5.94	6.22	6.50
	43	6.39	8.09	9.80	11.61	13.59	15.81	6.07	6.19	6.36	6.57	6.82	7.07

Notes: \* Available on TFD models only

The rating condition is based on a return gas temperature of 18.3°C.

Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZX Family: Medium temperature

R407F

Capacity and Power (kW) at 50 Hz - PFJ/TFD

Model	Ambient temperature (°C)	Capacity							Power						
		Evaporating temperature (°C)							Evaporating temperature (°C)						
		-15	-10	-5	0	5	10	12	-15	-10	-5	0	5	10	12
ZX020BE	27	3.63	4.32	5.07	5.79	6.45	7.24	7.62	1.55	1.67	1.76	1.87	1.99	2.06	2.14
	32	3.36	3.98	4.69	5.39	6.07	6.90	7.30	1.77	1.85	1.93	2.05	2.22	2.35	2.46
	38	2.79	3.35	4.02	4.74	5.46	6.35	6.78	2.11	2.18	2.27	2.44	2.70	2.92	3.06
	43	2.21	2.74	3.40	4.14	4.91			2.40	2.48	2.61	2.84	3.20		
ZX030BE	27	5.01	6.13	7.30	8.53	9.88	11.32	11.91	2.20	2.39	2.47	2.58	2.64	2.78	2.85
	32	4.64	5.65	6.75	7.94	9.31	10.79	11.41	2.44	2.63	2.67	2.77	2.97	3.16	3.27
	38	3.85	4.75	5.79	6.97	8.37	9.93	10.60	2.86	3.00	3.11	3.23	3.57	3.90	4.07
	43	3.06	3.88	4.89	6.09	7.53			3.11	3.28	3.43	3.49	4.03		
ZX040BE	27	6.81	8.21	9.64	11.09	12.65	14.37	15.13	2.87	3.18	3.26	3.38	3.41	3.57	3.66
	32	6.31	7.57	8.91	10.33	11.91	13.70	14.49	3.18	3.49	3.53	3.64	3.84	4.06	4.20
	38	5.24	6.36	7.64	9.07	10.71	12.61	13.46	3.72	3.98	4.10	4.24	4.61	5.01	5.23
	43	4.16	5.20	6.46	7.92	9.64			4.04	4.36	4.53	4.59	5.21		
ZX050BE*	27	8.11	10.02	11.73	13.53	15.71	18.56	19.95	3.62	3.70	3.92	4.20	4.46	4.62	4.64
	32	7.42	9.44	11.19	12.96	15.04	17.74	19.05	4.07	4.16	4.39	4.69	4.96	5.14	5.16
	38	6.32	8.44	10.22	11.95	13.91	16.41	17.61	4.61	4.71	4.95	5.26	5.54	5.73	5.76
	43	5.32	7.53	9.33	11.01	12.87			5.12	5.22	5.46	5.77	6.06		
ZX060BE*	27	9.24	11.22	13.02	15.16	18.23	21.53	23.15	3.93	3.87	4.07	4.36	4.79	4.96	4.98
	32	8.46	10.57	12.42	14.51	17.45	20.57	22.09	4.50	4.48	4.62	5.00	5.38	5.57	5.60
	38	7.20	9.45	11.35	13.38	16.14	19.03	20.43	5.05	5.02	5.19	5.50	6.07	6.27	6.30
	43	6.07	8.44	10.36	12.33	14.93			5.56	5.51	5.66	5.98	6.44		
ZX076BE*	27	10.28	12.48	14.48	16.85	20.08	23.72	25.50	4.44	4.31	4.43	4.64	5.08	5.26	5.28
	32	9.41	11.75	13.80	16.14	19.23	22.66	24.34	5.03	5.01	5.14	5.60	5.93	6.14	6.16
	38	8.01	10.51	12.62	14.88	17.78	20.96	22.51	5.97	5.94	6.07	6.44	7.08	7.34	7.38
	43	6.75	9.38	11.52	13.71	16.44			6.84	6.72	6.90	7.26	7.76		

Notes: \* Available on TFD models only

The rating condition is based on a return gas temperature of 18.3°C.

Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZX Family: Medium temperature

Capacity and Power (kW) at 50Hz -PFJ/ TFD

R448A

Model	Ambient temperature (°C)	Capacity Evaporating temperature (°C)						Power Evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
ZX020BE	27	2.76	3.38	3.98	4.63	5.35	6.20	1.45	1.49	1.53	1.57	1.63	1.73
	32	2.40	3.13	3.64	4.18	4.80	5.52	1.51	1.61	1.65	1.69	1.76	1.86
	38	2.07	2.55	3.23	3.70	4.22	4.85	1.64	1.70	1.81	1.85	1.92	2.03
	43	1.70	2.15	2.79	3.24	3.72	4.30	1.84	1.87	1.98	2.02	2.09	2.20
ZX030BE	27	3.50	4.35	5.24	6.24	7.36	8.66	1.88	1.98	2.03	2.08	2.14	2.24
	32	3.16	4.18	5.01	5.92	6.97	8.18	2.03	2.19	2.23	2.27	2.35	2.48
	38	2.90	3.58	4.65	5.48	6.43	7.55	2.29	2.35	2.52	2.57	2.67	2.83
	43	2.68	3.26	4.24	5.01	5.90	6.94	2.63	2.65	2.81	2.87	2.98	3.19
ZX040BE	27	4.79	5.86	6.94	8.14	9.56	11.28	2.39	2.59	2.73	2.83	2.90	2.96
	32	4.30	5.63	6.62	7.69	8.93	10.44	2.56	2.83	2.95	3.04	3.12	3.18
	38	3.94	4.92	6.31	7.26	8.35	9.66	2.91	3.06	3.36	3.44	3.53	3.62
	43	3.49	4.42	5.74	6.65	7.65	8.83	3.33	3.43	3.68	3.78	3.87	3.99
ZX050BE*	27	6.50	8.07	9.63	11.22	12.85	14.57	3.21	3.35	3.47	3.60	3.76	3.98
	32	5.53	7.51	9.08	10.68	12.35	14.13	3.47	3.74	3.85	3.98	4.15	4.40
	38	4.75	6.21	8.31	9.90	11.58	13.39	3.87	4.00	4.31	4.43	4.61	4.87
	43	4.28	5.55	7.53	9.08	10.75	12.55	4.39	4.43	4.71	4.83	5.01	5.29
ZX060BE*	27	7.14	8.63	10.25	12.15	14.46	17.35	3.24	3.47	3.67	3.88	4.09	4.34
	32	6.35	8.38	9.95	11.73	13.88	16.53	3.71	4.06	4.24	4.43	4.64	4.90
	38	5.76	7.24	9.36	11.05	13.03	15.44	4.16	4.32	4.71	4.88	5.10	5.38
	43	5.18	6.62	8.80	10.45	12.32	14.57	4.80	4.88	5.23	5.40	5.63	5.92
ZX076BE*	27	8.01	9.96	11.89	13.98	16.39	19.31	3.52	3.76	3.99	4.21	4.44	4.71
	32	7.16	9.50	11.30	13.26	15.53	18.31	4.03	4.41	4.61	4.81	5.05	5.33
	38	6.37	7.82	10.35	12.18	14.33	16.98	4.51	4.70	5.11	5.30	5.54	5.85
	43	5.61	7.16	9.34	11.09	13.17	15.74	5.22	5.31	5.69	5.87	6.11	6.44

Notes: \* Available on TFD models only

Data based on dew point

Rating condition is based on Return Gas Temperature of 18.3°C

Power includes condenser fan

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZX Family: Medium temperature

R449A

Capacity and Power (kW) at 50Hz -PFJ/ TFD

Model	Ambient temperature (°C)	Capacity Evaporating temperature (°C)						Power Evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
ZX020BE	27	2.78	3.28	3.85	4.52	5.31	6.24	1.42	1.42	1.45	1.51	1.61	1.72
	32	2.36	3.02	3.54	4.12	4.79	5.58	1.47	1.55	1.59	1.66	1.75	1.87
	38	2.02	2.48	3.18	3.69	4.27	4.93	1.60	1.65	1.77	1.84	1.93	2.04
	43	1.66	2.10	2.79	3.29	3.82	4.40	1.78	1.81	1.96	2.04	2.13	2.24
ZX030BE	27	3.49	4.19	5.05	6.10	7.31	8.71	1.84	1.88	1.93	2.00	2.10	2.24
	32	3.11	4.03	4.86	5.84	6.97	8.26	1.97	2.10	2.15	2.23	2.34	2.49
	38	2.82	3.49	4.57	5.48	6.51	7.67	2.23	2.28	2.46	2.55	2.68	2.86
	43	2.62	3.18	4.24	5.10	6.06	7.12	2.55	2.57	2.78	2.89	3.04	3.24
ZX040BE	27	4.77	5.65	6.69	7.96	9.49	11.35	2.35	2.47	2.60	2.73	2.86	2.95
	32	4.23	5.44	6.43	7.57	8.93	10.53	2.48	2.72	2.85	2.98	3.10	3.20
	38	3.84	4.79	6.20	7.26	8.45	9.81	2.82	2.97	3.28	3.42	3.55	3.65
	43	3.40	4.31	5.73	6.76	7.85	9.05	3.23	3.33	3.65	3.80	3.94	4.06
ZX050BE*	27	6.48	7.78	9.29	10.96	12.76	14.65	3.14	3.19	3.30	3.47	3.70	3.98
	32	5.44	7.24	8.81	10.52	12.35	14.25	3.37	3.59	3.72	3.90	4.13	4.41
	38	4.63	6.05	8.17	9.90	11.72	13.60	3.76	3.89	4.21	4.40	4.63	4.92
	43	4.17	5.42	7.53	9.24	11.03	12.87	4.26	4.30	4.67	4.86	5.10	5.38
ZX060BE*	27	7.11	8.32	9.88	11.87	14.37	17.45	3.18	3.29	3.49	3.74	4.03	4.33
	32	6.24	8.08	9.65	11.56	13.87	16.67	3.61	3.89	4.09	4.34	4.62	4.92
	38	5.61	7.06	9.20	11.05	13.18	15.69	4.03	4.19	4.60	4.85	5.13	5.43
	43	5.05	6.45	8.80	10.63	12.65	14.94	4.66	4.73	5.18	5.44	5.73	6.03
ZX076BE*	27	7.98	9.60	11.46	13.66	16.28	19.42	3.45	3.58	3.79	4.06	4.37	4.70
	32	7.04	9.17	10.97	13.06	15.53	18.47	3.92	4.23	4.44	4.71	5.02	5.35
	38	6.20	7.62	10.18	12.17	14.50	17.25	4.38	4.57	4.99	5.27	5.57	5.90
	43	5.47	6.98	9.34	11.28	13.51	16.13	5.06	5.15	5.63	5.91	6.22	6.55

Notes: \*Available on TFD models only

Data based on dew point

Rating condition is based on Return Gas Temperature of 18.3°C

Power includes condenser fan

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZX Family: Medium temperature

## Capacity and Power (kW) at 50Hz

R134a

Model	Ambient temperature (°C)	Capacity							Power						
		Evaporating temperature (°C)							Evaporating temperature (°C)						
		-20	-15	-10	-5	0	5	10	-20	-15	-10	-5	0	5	10
ZX020BE	27	1.85	2.27	2.68	3.18	3.74	4.41	5.08	0.93	0.95	0.97	1.00	1.04	1.11	1.18
	32	1.65	2.04	2.44	2.89	3.39	3.96	4.54	1.00	1.02	1.03	1.07	1.13	1.19	1.26
	38	1.45	1.80	2.16	2.56	2.99	3.50	4.00	1.08	1.10	1.12	1.15	1.21	1.27	1.32
	43	1.20	1.56	1.92	2.29	2.69	3.13	3.57	1.17	1.19	1.22	1.25	1.30	1.34	1.38
	48	0.95	1.32	1.67	2.02	2.39	2.76	3.14	1.26	1.29	1.32	1.35	1.39	1.41	1.44
ZX030BE	27	2.26	2.83	3.51	4.28	5.17	6.17	7.17	1.22	1.25	1.27	1.32	1.38	1.45	1.52
	32	2.10	2.63	3.25	3.97	4.79	5.71	6.64	1.36	1.39	1.42	1.46	1.52	1.60	1.68
	38	1.90	2.37	2.93	3.58	4.31	5.14	5.97	1.55	1.56	1.59	1.64	1.71	1.79	1.88
	43	1.71	2.15	2.65	3.23	3.90	4.66	5.42	1.74	1.76	1.79	1.82	1.89	1.99	2.09
	48	1.53	1.92	2.37	2.89	3.49	4.18	4.87	1.93	1.95	1.98	2.01	2.08	2.19	2.30
ZX040BE	27	3.09	3.82	4.65	5.59	6.71	8.03	9.36	1.55	1.63	1.72	1.80	1.88	1.91	1.93
	32	2.96	3.67	4.44	5.31	6.31	7.48	8.65	1.70	1.77	1.86	1.95	1.99	2.07	2.15
	38	2.77	3.48	4.23	5.03	5.93	6.98	8.02	1.91	1.99	2.06	2.15	2.22	2.26	2.29
	43	2.47	3.21	3.95	4.72	5.53	6.45	7.36	2.11	2.19	2.27	2.33	2.40	2.44	2.47
	48	2.17	2.94	3.67	4.41	5.13	5.91	6.70	2.32	2.40	2.47	2.52	2.58	2.61	2.65
ZX050BE*	27	4.19	5.26	6.44	7.69	9.01	10.37	11.72	2.08	2.12	2.19	2.28	2.41	2.57	2.73
	32	3.80	4.89	6.08	7.37	8.73	10.15	11.56	2.31	2.36	2.43	2.53	2.66	2.82	2.98
	38	3.34	4.40	5.58	6.86	8.23	9.65	11.08	2.54	2.60	2.66	2.76	2.88	3.03	3.19
	43	3.03	4.03	5.17	6.42	7.76	9.16	10.57	2.79	2.83	2.90	2.98	3.10	3.23	3.36
	48	2.72	3.66	4.76	5.97	7.29	8.67	10.05	3.04	3.07	3.13	3.20	3.31	3.43	3.54
ZX060BE*	27	4.61	5.65	6.92	8.31	10.15	12.35	14.56	2.10	2.18	2.31	2.46	2.62	2.80	2.97
	32	4.37	5.45	6.68	8.11	9.81	11.84	13.87	2.47	2.55	2.67	2.82	2.97	3.13	3.29
	38	4.04	5.13	6.32	7.68	9.26	11.11	12.97	2.73	2.80	2.92	3.05	3.19	3.35	3.50
	43	3.66	4.80	6.02	7.36	8.88	10.66	12.43	3.05	3.12	3.22	3.35	3.48	3.62	3.76
	48	3.27	4.47	5.71	7.03	8.51	10.20	11.89	3.38	3.43	3.52	3.64	3.76	3.89	4.02
ZX076BE*	27	5.16	6.44	7.84	9.61	11.72	13.72	15.72	2.27	2.37	2.50	2.67	2.85	3.03	3.22
	32	4.93	6.14	7.52	9.12	11.02	13.28	15.55	2.68	2.77	2.90	3.05	3.23	3.41	3.59
	38	4.47	5.54	6.97	8.46	10.18	12.23	14.27	2.96	3.05	3.17	3.31	3.47	3.64	3.80
	43	3.96	5.19	6.50	7.95	9.60	11.51	13.43	3.31	3.39	3.50	3.63	3.78	3.93	4.08
	48	3.45	4.84	6.03	7.45	9.02	10.80	12.58	3.67	3.73	3.83	3.94	4.08	4.22	4.36

Notes: \* Available on TFD models only

The rating condition is based on a return gas temperature of 18.3°C.

Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZXD Family: Digital medium temperature

Capacity and Power (kW) at 50 Hz - TFD and TFM

R404A

Model	Ambient temperature (°C)	Capacity Evaporating temperature (°C)						Power Evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-15	-5	0	5
ZXD030BE	27	3.95	4.65	5.56	6.65	7.90	9.28	1.92	2.14	2.24	2.26	2.26	2.29
	32	3.72	4.37	5.20	6.18	7.28	8.47	2.01	2.22	2.33	2.38	2.43	2.53
	38	3.32	3.94	4.69	5.55	6.48	7.45	2.27	2.46	2.56	2.63	2.73	2.90
	43	2.98	3.59	4.29	5.06	5.86	6.67	2.53	2.69	2.78	2.85	2.97	3.19
ZXD040BE	27	5.92	7.11	8.35	9.64	11.01	12.46	2.70	2.85	3.02	3.21	3.43	3.68
	32	5.53	6.69	7.87	9.11	10.40	11.75	2.99	3.12	3.27	3.44	3.64	3.87
	38	4.90	6.00	7.12	8.27	9.45	10.68	3.49	3.59	3.72	3.87	4.04	4.24
	43	4.23	5.28	6.33	7.40	8.48	9.59	4.02	4.10	4.21	4.34	4.50	4.68
ZXD050BE	27	7.49	9.05	10.67	12.31	13.93	15.51	3.65	3.73	3.86	4.02	4.25	4.53
	32	6.56	8.12	9.76	11.43	13.10	14.74	4.11	4.20	4.32	4.50	4.72	5.00
	38	5.56	7.07	8.67	10.32	11.98	13.63	4.59	4.68	4.79	4.96	5.16	5.42
	43	4.88	6.28	7.79	9.37	10.98	12.58	5.11	5.17	5.27	5.40	5.59	5.81
ZXD060BE	27	8.24	9.72	11.47	13.30	15.69	18.48	3.69	3.84	4.06	4.33	4.62	4.93
	32	7.58	9.06	10.72	12.58	14.72	17.20	4.40	4.54	4.75	5.01	5.28	5.56
	38	6.74	8.25	9.83	11.55	13.48	15.69	4.93	5.05	5.25	5.47	5.72	5.98
	43	5.90	7.48	9.07	10.74	12.57	14.63	5.59	5.69	5.85	6.06	6.28	6.51
ZXD076BE	27	9.22	11.07	13.00	15.37	18.12	20.53	4.00	4.17	4.41	4.70	5.03	5.35
	32	8.50	10.21	12.06	14.14	16.53	19.30	4.78	4.93	5.16	5.43	5.74	6.05
	38	7.45	8.91	10.83	12.72	14.83	17.26	5.35	5.50	5.70	5.94	6.22	6.50
	43	6.39	8.09	9.80	11.61	13.59	15.81	6.07	6.19	6.36	6.57	6.82	7.07
ZXD090BE	27	11.80	13.70	14.70	16.25	18.30		5.10	5.20	5.50	6.50	6.20	
	32	10.70	12.50	14.50	16.20	17.00		6.20	6.30	6.40	7.10	6.80	
	38	10.50	12.30	14.40	16.10	16.80		7.80	8.20	8.50	9.40	8.40	
	43	9.90	11.90	13.20	14.50	15.20		8.42	8.80	9.56	9.90	9.20	
ZXD120BE	27	15.94	19.72	23.35	26.67	30.50		8.22	8.49	8.96	9.61	10.40	
	32	14.82	18.47	22.12	25.63	29.07		8.97	9.25	9.69	10.27	10.97	
	38	13.37	16.84	20.50	24.22	27.85		9.96	10.25	10.67	11.20	11.81	
	43	11.74	15.04	18.70	22.57	26.52		10.86	11.19	11.61	12.11	12.66	
ZXD160BE	27	21.54	24.95	28.49	32.10	35.71		10.45	10.86	11.27	11.69	12.13	
	32	20.35	23.84	27.53	31.33	35.18		11.45	11.89	12.33	12.78	13.26	
	38	19.48	22.99	26.75	30.68	34.73		12.49	12.99	13.48	13.99	14.53	
	43	18.51	22.15	25.88	29.84	33.97		13.41	13.96	14.52	15.09	15.69	
ZXD200BE	27	25.15	30.38	35.68	41.14			13.40	13.71	14.08	15.00		
	32	23.59	29.01	34.48	40.12			15.78	15.89	15.96	16.37		
	38	22.20	27.27	32.79	38.45			18.26	18.56	18.77	18.90		
	43	21.26	26.12	31.53	37.07			20.01	20.59	20.78	20.93		

Notes: The rating condition is based on Return Gas Temperature of 18.3°C.

The rating condition is based on suction superheat of 10K.

Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZXD Family: Digital medium temperature

Capacity and Power (kW) at 50 Hz - TFD and TFM

R407F

Model	Ambient temperature (°C)	Capacity						Power					
		Evaporating temperature (°C)						Evaporating temperature (°C)					
		-10	-5	0	5	10	12	-10	-5	0	5	10	12
ZXD030BE	27	5.70	6.64	7.48	8.63	10.52	11.57	2.20	2.33	2.61	2.87	2.93	2.86
	32	5.31	6.35	7.24	8.40	10.25	11.27	2.42	2.53	2.79	3.01	3.02	2.92
	38	4.72	5.84	6.75	7.88	9.64	10.62	2.79	2.90	3.14	3.33	3.30	3.19
	43		5.45	6.35					3.23	3.47			
ZXD040BE	27	7.68	9.32	11.17	13.20	15.41	16.34	2.85	3.04	3.23	3.40	3.49	3.50
	32	7.30	8.93	10.73	12.69	14.77	15.64	3.13	3.30	3.50	3.70	3.86	3.90
	38	6.66	8.27	10.01	11.85	13.77	14.56	3.53	3.66	3.86	4.09	4.31	4.39
	43	6.06	7.64	9.30	11.03	12.81	13.53	3.95	4.04	4.22	4.46	4.72	4.83
ZXD050BE	27	9.52	11.65	13.94	16.37	19.26	20.42	3.61	3.77	3.94	4.08	4.20	4.21
	32	9.05	11.21	13.52	15.73	18.47	19.56	3.97	4.11	4.30	4.45	4.64	4.70
	38	8.11	10.33	12.69	14.81	17.35	18.37	4.40	4.54	4.77	4.95	5.23	5.33
	43	7.45	9.47	11.72	13.90	16.40	17.40	4.98	4.98	5.19	5.45	5.82	5.97
ZXD060BE	27	10.37	12.69	15.70	18.80	22.69	24.24	3.80	4.18	4.49	4.58	4.62	4.86
	32	9.85	12.20	15.23	17.91	21.39	22.78	4.33	4.74	5.15	5.11	5.14	5.40
	38	9.07	11.50	14.19	16.64	19.76	21.01	4.81	5.27	5.65	5.64	5.75	6.03
	43	8.41	10.59	12.99	15.41	18.34	19.52	5.40	5.72	5.99	6.06	6.26	6.54
ZXD076BE	27	13.25	15.54	18.13	21.09	24.47	25.82	4.82	4.98	5.09	5.18	5.14	5.33
	32	12.59	14.78	17.21	19.96	23.07	24.32	5.50	5.59	5.71	5.74	5.71	5.94
	38	11.57	13.60	15.82	18.28	21.06	22.17	6.10	6.07	6.17	6.24	6.31	6.56
	43	10.67	12.55	14.57	16.77	19.23	20.22	6.80	6.60	6.58	6.65	6.75	6.98

Notes: The rating condition is based on suction superheat of 10K  
 ZXD030BE rating condition is based on return gas temperature of 18.3°C.  
 Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZXD Family: Digital medium temperature

## Capacity and Power (kW) at 50 Hz - TFD and TFM

R448A

Model	Ambient temperature (°C)	Capacity						Power					
		Evaporating temperature (°C)						Evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
ZXD030BE	27	3.31	3.99	4.89	6.03	7.41	9.02	1.68	1.89	1.99	2.02	2.03	2.08
	32	3.29	3.97	4.78	5.78	6.98	8.36	1.77	1.97	2.08	2.14	2.20	2.32
	38	2.87	3.57	4.45	5.32	6.34	7.48	1.94	2.17	2.31	2.38	2.49	2.67
	43	2.63	3.25	4.16	4.96	5.85	6.82	2.18	2.36	2.51	2.60	2.73	2.96
ZXD040BE	27	4.99	6.12	7.34	8.73	10.30	12.12	2.36	2.51	2.68	2.87	3.10	3.35
	32	4.96	6.08	7.25	8.53	9.98	11.63	2.62	2.76	2.91	3.09	3.29	3.52
	38	4.24	5.43	6.74	7.92	9.24	10.71	2.99	3.17	3.35	3.51	3.70	3.92
	43	3.73	4.79	6.14	7.26	8.47	9.82	3.46	3.60	3.81	3.95	4.13	4.34
ZXD050BE	27	6.32	7.80	9.41	11.16	13.05	15.08	3.18	3.28	3.42	3.60	3.83	4.12
	32	5.92	7.38	8.97	10.69	12.55	14.55	3.59	3.70	3.84	4.03	4.26	4.54
	38	4.81	6.40	8.22	9.91	11.73	13.68	3.93	4.13	4.33	4.51	4.73	5.01
	43	4.30	5.69	7.53	9.18	10.96	12.88	4.40	4.54	4.76	4.92	5.13	5.39
ZXD060BE	27	6.96	8.35	10.01	12.08	14.69	17.96	3.21	3.41	3.64	3.91	4.19	4.48
	32	6.89	8.27	9.84	11.73	14.08	17.01	3.81	3.98	4.20	4.45	4.73	5.02
	38	5.83	7.47	9.32	11.09	13.21	15.81	4.22	4.46	4.77	5.01	5.27	5.56
	43	5.20	6.78	8.78	10.52	12.52	14.92	4.81	4.99	5.27	5.49	5.74	6.02
ZXD076BE	27	7.80	9.58	11.58	13.90	16.66	19.97	3.48	3.70	3.95	4.24	4.54	4.86
	32	7.60	9.28	11.13	13.28	15.82	18.87	4.13	4.33	4.57	4.84	5.14	5.46
	38	6.45	8.07	10.26	12.23	14.56	17.35	4.58	4.86	5.18	5.44	5.73	6.04
	43	5.63	7.33	9.45	11.33	13.53	16.15	5.23	5.43	5.73	5.96	6.24	6.54
ZXD120BE	27	14.79	18.35	22.40	24.84	29.50		7.61	7.81	8.83	9.10	9.44	
	32	13.79	17.23	21.07	25.37	27.84		8.59	8.79	9.01	9.27	10.04	
	38	12.67	16.00	19.64	23.72	26.58		9.65	9.87	10.09	10.35	10.65	
	43	11.42	14.59	18.06	21.85	26.15		10.85	11.05	11.31	11.57	11.83	
ZXD160BE	27	19.54	22.63	26.73	31.18	35.25		9.45	10.11	10.77	11.43	12.03	
	32	18.55	22.04	26.04	30.37	34.99		10.45	11.15	11.85	12.52	13.13	
	38	18.01	21.45	25.29	29.52	34.29		11.57	12.33	13.08	13.79	14.48	
	43	17.41	20.69	24.42	28.62	33.12		12.59	13.40	14.13	14.87	15.61	
ZXD200BE	27	23.91	28.13	32.59	39.39			12.09	12.97	13.88	14.82		
	32	23.25	27.31	31.48	38.15			14.29	14.34	15.32	16.31		
	38	21.11	26.32	30.34	36.60			16.67	17.89	18.11	18.21		
	43	20.32	25.26	29.17	35.04			18.45	19.78	20.13	20.22		

Notes: Data based on dew point

Rating condition is based on Return Gas Temperature of 18.3°C

Power includes condenser fan

# ZXD Family: Digital medium temperature

## Capacity and Power (kW) at 50 Hz - TFD and TFM

R449A

Model	Ambient temperature (°C)	Capacity						Power					
		Evaporating temperature (°C)						Evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
ZXD030BE	27	3.37	4.02	4.87	5.94	7.24	8.81	1.66	1.86	1.94	1.96	1.97	2.03
	32	3.30	3.92	4.70	5.66	6.83	8.22	1.73	1.92	2.02	2.07	2.14	2.27
	38	2.83	3.57	4.34	5.20	6.23	7.44	1.91	2.17	2.24	2.32	2.44	2.65
	43	2.56	3.25	4.05	4.84	5.77	6.84	2.11	2.36	2.44	2.53	2.68	2.94
ZXD040BE	27	5.05	6.15	7.31	8.59	10.08	11.83	2.33	2.47	2.62	2.79	3.00	3.26
	32	4.92	6.00	7.12	8.35	9.77	11.44	2.57	2.69	2.83	2.99	3.20	3.45
	38	4.18	5.43	6.58	7.74	9.08	10.65	2.94	3.17	3.26	3.42	3.62	3.88
	43	3.63	4.79	5.98	7.09	8.36	9.84	3.36	3.60	3.69	3.85	4.06	4.32
ZXD050BE	27	6.38	7.85	9.37	10.99	12.76	14.73	3.15	3.23	3.34	3.50	3.72	4.01
	32	5.82	7.28	8.81	10.47	12.28	14.31	3.52	3.60	3.73	3.91	4.14	4.45
	38	4.75	6.40	8.03	9.68	11.53	13.60	3.86	4.13	4.21	4.39	4.63	4.95
	43	4.19	5.69	7.34	8.98	10.82	12.91	4.27	4.54	4.62	4.80	5.04	5.36
ZXD060BE	27	7.02	8.40	9.97	11.90	14.36	17.54	3.18	3.35	3.56	3.80	4.06	4.36
	32	6.77	8.16	9.67	11.48	13.78	16.73	3.72	3.88	4.08	4.32	4.60	4.92
	38	5.75	7.47	9.10	10.84	12.99	15.73	4.15	4.46	4.63	4.87	5.16	5.50
	43	5.07	6.78	8.56	10.28	12.36	14.96	4.67	4.99	5.11	5.35	5.64	5.99
ZXD0760E	27	7.87	9.64	11.52	13.69	16.29	19.51	3.45	3.64	3.86	4.12	4.41	4.73
	32	7.47	9.15	10.94	13.00	15.48	18.56	4.04	4.22	4.43	4.69	5.00	5.34
	38	6.36	8.07	10.01	11.96	14.32	17.26	4.50	4.86	5.03	5.29	5.61	5.97
	43	5.49	7.33	9.20	11.08	13.35	16.19	5.07	5.43	5.56	5.81	6.13	6.51
ZXD120BE	27	14.99	18.64	22.68	24.42	29.01		7.53	7.73	8.80	9.07	9.42	
	32	13.81	17.35	21.19	25.49	27.87		8.49	8.67	8.89	9.58	9.89	
	38	12.63	16.06	19.74	23.80	26.65		9.55	9.75	9.95	10.19	11.03	
	43	11.44	14.71	18.24	22.09	26.41		10.75	10.95	11.13	11.41	11.73	
ZXD160BE	27	19.54	22.63	26.73	31.18	35.25		9.45	10.11	10.79	11.43	12.03	
	32	18.55	22.04	26.04	30.37	34.99		10.45	11.15	11.87	12.54	13.18	
	38	18.01	21.45	25.29	29.52	34.29		11.59	12.35	13.08	13.84	14.48	
	43	17.41	20.69	24.43	28.62	33.12		12.61	13.40	14.23	14.94	15.61	
ZXD200BE	27	23.91	28.13	32.59	39.39			12.11	13.00	13.88	14.87		
	32	23.25	27.31	31.48	38.15			14.31	14.34	15.42	16.38		
	38	21.11	26.32	30.34	36.60			16.67	17.89	18.11	18.21		
	43	20.32	25.26	29.17	35.04			18.45	19.91	20.13	20.27		

Notes: Data based on dew point

Rating condition is based on Return Gas Temperature of 18.3°C

Power includes condenser fan

# ZXD Family: Digital medium temperature

R134a

Capacity and Power (kW) at 50 Hz - TFD and TFM

Model	Ambient temperature (°C)	Capacity Evaporating temperature (°C)							Power Evaporating temperature (°C)						
		-20	-15	-10	-5	0	5	10	-20	-15	-10	-5	0	5	10
ZXD030BE	27	2.21	2.70	3.35	4.16	5.11	6.20	7.30	1.09	1.22	1.27	1.28	1.28	1.30	1.32
	32	2.16	2.63	3.24	3.99	4.85	5.83	6.81	1.13	1.25	1.31	1.34	1.37	1.43	1.48
	38	1.99	2.45	3.02	3.69	4.45	5.28	6.10	1.26	1.36	1.42	1.47	1.52	1.62	1.72
	43	1.85	2.30	2.85	3.47	4.14	4.86	5.57	1.38	1.47	1.53	1.57	1.65	1.77	1.90
	48	1.70	2.16	2.67	3.24	3.83	4.44	5.05	1.51	1.58	1.63	1.68	1.77	1.92	2.08
ZXD040BE	27	3.32	4.14	5.04	6.03	7.12	8.33	9.54	1.53	1.62	1.72	1.82	1.95	2.09	2.23
	32	3.21	4.03	4.91	5.88	6.93	8.09	9.24	1.68	1.75	1.84	1.94	2.05	2.18	2.31
	38	2.94	3.73	4.58	5.50	6.49	7.57	8.64	1.93	1.99	2.07	2.16	2.26	2.37	2.49
	43	2.62	3.39	4.20	5.07	5.99	6.98	7.98	2.19	2.25	2.32	2.40	2.49	2.60	2.71
	48	2.31	3.05	3.82	4.64	5.50	6.40	7.31	2.46	2.50	2.56	2.63	2.73	2.83	2.93
ZXD050BE	27	4.19	5.26	6.44	7.69	9.01	10.37	11.72	2.08	2.12	2.19	2.28	2.41	2.57	2.73
	32	3.80	4.89	6.08	7.37	8.73	10.15	11.56	2.31	2.36	2.43	2.53	2.66	2.82	2.98
	38	3.34	4.40	5.58	6.86	8.23	9.65	11.08	2.54	2.60	2.66	2.76	2.88	3.03	3.19
	43	3.03	4.03	5.17	6.42	7.76	9.16	10.57	2.79	2.83	2.90	2.98	3.10	3.23	3.36
	48	2.72	3.66	4.76	5.97	7.29	8.67	10.05	3.04	3.07	3.13	3.20	3.31	3.43	3.54
ZXD060BE	27	4.61	5.65	6.92	8.31	10.15	12.35	14.56	2.10	2.18	2.31	2.46	2.62	2.80	2.97
	32	4.40	5.45	6.68	8.11	9.81	11.84	13.87	2.47	2.55	2.67	2.82	2.97	3.13	3.29
	38	4.04	5.13	6.32	7.68	9.26	11.11	12.97	2.73	2.80	2.92	3.05	3.19	3.35	3.50
	43	3.66	4.80	6.02	7.36	8.88	10.66	12.43	3.05	3.12	3.22	3.35	3.48	3.62	3.76
	48	3.27	4.47	5.71	7.03	8.51	10.20	11.89	3.38	3.43	3.52	3.64	3.76	3.89	4.02
ZXD076BE	27	5.16	6.44	7.84	9.61	11.72	13.72	15.72	2.27	2.37	2.50	2.67	2.85	3.03	3.22
	32	4.93	6.14	7.52	9.12	11.02	13.28	15.55	2.68	2.77	2.90	3.05	3.23	3.41	3.59
	38	4.47	5.54	6.97	8.46	10.18	12.23	14.27	2.96	3.05	3.17	3.31	3.47	3.64	3.80
	43	3.96	5.19	6.50	7.95	9.60	11.51	13.43	3.31	3.39	3.50	3.63	3.78	3.93	4.08
	48	3.45	4.84	6.03	7.45	9.02	10.80	12.58	3.67	3.73	3.83	3.94	4.08	4.22	4.36
ZXD090BE	27	6.61	7.97	8.87	10.16	11.83	13.95	16.07	2.90	2.95	3.12	3.69	3.52	3.75	3.98
	32	6.21	7.52	9.04	10.45	11.33	13.50	15.67	3.48	3.54	3.60	3.99	3.83	4.02	4.21
	38	6.30	7.65	9.26	10.71	11.54	12.70	14.56	4.32	4.55	4.73	5.24	4.69	4.96	5.23
	43	6.14	7.64	8.76	9.93	10.74	12.12	13.50	4.60	4.82	5.26	5.46	5.10	5.45	5.80
	48	5.98	7.63	8.25	9.16	9.95	11.54	12.44	4.88	5.10	5.79	5.69	5.50	5.94	6.38
ZXD120BE	27	8.92	11.24	13.54	15.73	17.73	21.38	25.02	4.67	4.83	5.09	5.45	5.90	6.35	6.80
	32	8.39	10.64	12.97	15.28	17.50	21.07	24.65	5.03	5.19	5.44	5.78	6.18	6.37	6.56
	38	7.67	9.83	12.17	14.62	17.09	20.62	24.15	5.51	5.69	5.93	6.24	6.60	6.75	6.90
	43	6.81	8.88	11.22	13.77	16.45	20.08	23.72	5.93	6.13	6.38	6.68	7.01	7.33	7.65
	48	5.95	7.92	10.27	12.92	15.80	19.50	23.20	6.35	6.57	6.84	7.12	7.43	7.91	8.40
ZXD160BE	27	12.06	14.22	16.52	18.94	21.43	24.87	28.32	5.94	6.17	6.40	6.64	6.88	7.06	7.23
	32	11.52	13.74	16.14	18.68	21.33	24.45	27.58	6.42	6.68	6.93	7.19	7.47	7.74	8.02
	38	11.18	13.42	15.88	18.52	21.32	24.21	27.10	6.91	7.21	7.49	7.80	8.12	8.28	8.45
	43	10.85	13.07	15.53	18.20	21.06	23.76	26.45	7.32	7.65	7.99	8.33	8.69	9.01	9.32
	48	10.53	12.72	15.17	17.88	20.81	23.46	26.12	7.73	8.09	8.48	8.86	9.27	9.73	10.19
ZXD200BE	27	14.08	17.32	20.69	24.27	27.00	31.00	34.00	7.62	7.79	8.00	8.52	8.70	8.85	9.23
	32	13.36	16.72	20.21	23.92	26.85	30.58	33.65	8.85	8.92	8.97	9.21	9.28	9.34	9.56
	38	12.51	15.92	19.47	23.21	26.25	30.12	33.25	10.11	10.30	10.44	10.53	10.69	10.81	10.92
	43	12.04	15.41	18.92	22.61	25.87	29.85	32.95	11.08	11.28	11.43	11.55	11.63	11.82	11.92
	48	11.56	14.90	18.37	22.01	25.12	29.25	32.45	12.06	12.27	12.42	12.57	12.70	12.88	13.05

Notes: Rating condition is based on Return Gas Temperature of 18.3°C

Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZXL Family: Low temperature

## Capacity and Power (kW) at 50 Hz - PFJ/TFD

R404A

Model	Ambient temperature (°C)	Capacity										Power									
		Evaporating temperature (°C)										Evaporating temperature (°C)									
		-40	-35	-30	-25	-20	-15	-10	-5	0		-40	-35	-30	-25	-20	-15	-10	-5	0	
ZXL020BE	27	1.52	2.02	2.42	2.86	3.34	3.86	4.42	5.02	5.66	1.35	1.47	1.60	1.73	1.86	2.00	2.14	2.29	2.44		
	32	1.45	1.82	2.24	2.70	3.19	3.73	4.31	4.92	5.58	1.50	1.60	1.71	1.83	1.95	2.08	2.21	2.34	2.48		
	38	1.25	1.49	1.93	2.40	2.92	3.47	4.07	4.70	5.38	1.72	1.81	1.91	2.01	2.12	2.23	2.34	2.46	2.59		
	43	1.10	1.23	1.58	2.07	2.60	3.18	3.79	4.44	5.13	1.95	2.03	2.11	2.20	2.30	2.39	2.50	2.60	2.72		
	48	0.99	1.12	1.16	1.67	2.21	2.80				2.22	2.29	2.36	2.44	2.52	2.60					
ZXL030BE	27	2.09	2.58	3.17	3.85	4.60	5.41	6.25	7.61	8.67	1.67	1.84	2.00	2.15	2.30	2.45	2.58	2.71	2.83		
	32	2.08	2.49	3.00	3.60	4.27	5.00	5.77	7.35	8.38	1.89	2.05	2.20	2.35	2.49	2.62	2.75	2.87	2.99		
	38	2.00	2.33	2.77	3.31	3.92	4.59	5.31	6.95	7.95	2.31	2.45	2.60	2.73	2.86	2.99	3.10	3.21	3.32		
	43	1.73	2.03	2.44	2.95	3.54	4.19	4.89	6.55	7.52	2.77	2.91	3.05	3.18	3.30	3.41	3.52	3.62	3.72		
	48	1.50	1.70	2.00	2.38	2.96	3.61				3.36	3.49	3.61	3.73	3.84	3.95					
ZXL040BE*	27	3.24	3.99	4.86	5.85	6.93	8.10	9.35	10.66	12.01	2.69	2.88	3.10	3.34	3.40	3.50	4.10	4.31	4.50		
	32	3.02	3.77	4.63	5.58	6.63	7.75	8.93	10.16	11.43	2.99	3.17	3.39	3.64	3.90	4.17	4.43	4.67	4.88		
	38	2.85	3.56	4.37	5.27	6.25	7.28	8.36	9.48	10.63	3.54	3.70	3.91	4.15	4.41	4.68	4.94	5.19	5.41		
	43	2.67	3.34	4.10	4.93	5.83	6.77	7.75	8.76	9.78	4.08	4.22	4.40	4.62	4.87	5.12	5.38	5.63	5.85		
	48	2.38	2.99	3.68	4.43	5.23	6.06				4.63	4.73	4.88	5.07	5.29	5.52					
ZXL050BE*	27	3.80	4.58	5.58	6.78	8.12	9.57	11.09	12.64	14.19	2.92	3.16	3.39	3.62	3.86	4.09	4.40	4.58	4.83		
	32	3.52	4.31	5.29	6.43	7.69	9.04	10.42	11.81	13.17	3.26	3.49	3.72	3.96	4.20	4.46	4.72	5.00	5.29		
	38	3.25	4.03	4.98	6.06	7.22	8.43	9.65	10.84	11.97	3.88	4.10	4.33	4.57	4.83	5.11	5.41	5.73	6.07		
	43	2.99	3.77	4.69	5.71	6.78	7.87	8.95	9.97	10.89	4.43	4.64	4.87	5.12	5.40	5.70	6.03	6.39	6.77		
	48	2.63	3.40	4.28	5.23	6.21	7.19				4.89	5.10	5.33	5.59	5.88	6.21					
ZXL060BE*	27	4.49	5.51	6.68	7.99	9.42	10.95	12.57	14.27	16.01	3.62	3.84	4.08	4.36	4.66	4.97	5.30	5.63	5.97		
	32	4.30	5.32	6.48	7.77	9.17	10.67	12.26	13.91	15.60	4.04	4.27	4.53	4.83	5.16	5.51	5.88	6.27	6.66		
	38	4.07	5.02	6.12	7.34	8.66	10.08	11.57	13.11	14.70	4.60	4.84	5.12	5.44	5.80	6.19	6.61	7.05	7.51		
	43	3.81	4.67	5.67	6.79	8.00	9.30	10.67	12.09	13.54	5.17	5.41	5.69	6.03	6.42	6.84	7.30	7.78	8.29		
	48	3.42	4.16	5.03	6.00	7.07	8.22				5.88	6.11	6.41	6.76	7.16	7.61					
ZXL075BE*	27	4.99	6.14	7.42	8.84	10.40	12.13	14.03	16.12	18.41	3.93	4.20	4.51	4.84	5.21	5.59	6.01	6.44	6.89		
	32	4.75	5.90	7.14	8.50	9.99	11.61	13.39	15.33	17.45	4.35	4.63	4.94	5.30	5.68	6.10	6.55	7.03	7.53		
	38	4.49	5.61	6.80	8.08	9.46	10.94	12.55	14.30	16.19	4.98	5.25	5.58	5.95	6.36	6.81	7.30	7.83	8.38		
	43	4.21	5.30	6.43	7.63	8.90	10.25	11.71	13.28	14.97	5.61	5.89	6.22	6.60	7.03	7.51	8.03	8.59	9.19		
	48	3.81	4.85	5.91	7.01	8.16	9.38				6.38	6.65	6.98	7.38	7.82	8.32					

Notes: \* Available on TFD models only

The rating condition is based on the return gas temperature of 5°C.

Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZXLD Family: Low temperature Capacity and Power (kW) at 50 Hz - TFD/TFM

R404A

Model	Ambient Temperature (°C)	Capacity Evaporating Temperature (°C)						Power Evaporating Temperature (°C)					
		-40	-35	-30	-25	-20	-15	-40	-35	-30	-25	-20	-15
ZXLD090BE	27	5.43	6.78	8.30	9.98	11.80	13.80	4.35	4.68	5.01	5.35	5.70	6.05
	32	5.34	6.63	8.08	9.69	11.45	13.35	4.64	5.04	5.43	5.81	6.20	6.59
	38	5.29	6.47	7.83	9.34	11.00	12.80	5.00	5.49	5.96	6.43	6.88	7.32
	43	5.29	6.38	7.65	9.07	10.65	12.35	5.31	5.89	6.44	6.98	7.50	8.00
ZXLD120BE	Tl	9.63	12.20	15.00	18.00	21.20	24.50	7.46	7.86	8.34	8.86	9.43	10.05
	32	9.05	11.50	14.25	17.20	20.40	23.80	8.20	8.64	9.15	9.71	10.30	10.95
	38	8.81	11.05	13.60	16.40	19.45	22.70	9.07	9.56	10.15	10.75	11.45	12.20
	43	8.46	10.40	12.70	15.25	18.10	21.20	9.94	10.50	11.15	11.85	12.65	13.45
ZXLD160BE	27	12.85	15.70	18.90	22.50	26.30	30.40	8.56	9.40	10.30	11.20	12.15	13.10
	32	12.65	15.40	18.45	21.80	25.50	29.40	9.11	10.25	11.25	12.30	13.35	14.45
	38	12.60	15.10	17.90	21.10	24.50	28.20	10.05	11.30	12.50	13.75	15.00	16.20
	43	12.65	14.95	17.55	20.50	23.70	27.10	10.75	12.20	13.65	15.05	16.50	17.90
ZXLD200BE	Tl	13.95	17.30	21.00	25.10	29.60	34.40	9.63	10.40	11.20	12.05	12.85	13.70
	32	13.75	16.90	20.50	24.40	28.70	33.30	10.30	11.25	12.20	13.10	14.05	15.00
	38	13.65	16.55	19.85	23.50	27.60	32.00	11.15	12.30	13.45	14.55	15.65	16.75
	43	13.65	16.30	19.40	22.90	26.70	30.80	11.85	13.25	14.55	15.85	17.10	18.35

Notes: Rating condition is based on a return gas temperature of 20°C

Power input includes condenser fan

# ZXL Family: Low temperature

## Capacity and Power (kW) at 50 Hz - PFJ/TFD

R407F

Model	Ambient temperature (°C)	Capacity										Power									
		Evaporating temperature (°C)										Evaporating temperature (°C)									
		-40	-35	-30	-25	-20	-15	-10	-5	0	-40	-35	-30	-25	-20	-15	-10	-5	0		
ZXL020BE	27	1.32	1.68	2.15	2.72	3.37	4.10	4.88	5.72	6.58	1.69	1.76	1.82	1.86	1.90	1.94	1.98	2.05	2.14		
	32	1.25	1.59	2.04	2.59	3.22	3.91	4.67	5.47	6.29	1.74	1.83	1.90	1.96	2.01	2.06	2.11	2.19	2.28		
	38	1.14	1.47	1.91	2.43	3.04	3.71	4.43	5.19	5.98	1.80	1.93	2.03	2.12	2.20	2.27	2.35	2.45	2.57		
	43	1.06	1.38	1.81	2.33	2.92	3.57	4.27	5.01	5.78	2.02	2.19	2.34	2.46	2.57	2.68	2.80	2.92	3.07		
	48	1.00	1.33	1.76	2.27	2.85	3.49				2.55	2.77	2.96	3.14	3.30	3.45					
ZXL030BE	27	1.85	2.36	2.99	3.72	4.56	5.57	6.77	8.20	9.74	2.23	2.43	2.49	2.52	2.57	2.53	2.59	2.69	2.82		
	32	1.75	2.24	2.84	3.54	4.35	5.32	6.47	7.84	9.31	2.24	2.46	2.59	2.64	2.69	2.69	2.75	2.82	2.92		
	38	1.60	2.07	2.65	3.33	4.11	5.04	6.14	7.45	8.85	2.26	2.45	2.67	2.81	2.94	3.01	3.13	3.23	3.36		
	43	1.48	1.94	2.52	3.19	3.95	4.86	5.93	7.19	8.55	2.70	2.78	3.00	3.24	3.46	3.64	3.81	3.97	4.13		
	48	1.40	1.87	2.44	3.10	3.86	4.75				3.45	3.81	3.93	4.20	4.58	4.81					
ZXL040BE <sup>1</sup>	27	3.06	3.87	4.80	5.83	7.00	8.30	9.76	11.38	13.17	2.74	2.85	3.03	3.26	3.54	3.85	4.18	4.52	4.84		
	32	2.93	3.72	4.60	5.59	6.70	7.94	9.33	10.86	12.56	3.08	3.19	3.38	3.63	3.93	4.26	4.61	4.97	5.32		
	38	2.73	3.47	4.30	5.23	6.26	7.42	8.71	10.13	11.72	3.53	3.68	3.90	4.19	4.52	4.90	5.29	5.70	6.11		
	43	2.56	3.26	4.04	4.90	5.86	6.94	8.14	9.47	10.95	3.98	4.17	4.44	4.77	5.16	5.58	6.04	6.50	6.92		
	48	2.42	3.07	3.78	4.58	5.47	6.46				4.52	4.77	5.10	5.49	5.94	6.44					
ZXL050BE <sup>1</sup>	27	3.50	4.25	5.33	6.70	8.28	9.99	11.75	13.47	15.08	2.95	3.13	3.28	3.45	3.63	3.94	4.25	4.60	5.12		
	32	3.23	3.97	5.04	6.36	7.87	9.51	11.15	12.74	14.20	3.39	3.56	3.72	3.87	4.05	4.36	4.61	5.03	5.56		
	38	2.90	3.62	4.67	5.96	7.40	8.94	10.48	11.92	13.22	4.23	4.35	4.47	4.61	4.79	5.06	5.35	5.77	6.33		
	43	2.69	3.38	4.42	5.68	7.08	8.55	10.00	11.34	12.47	4.99	4.98	5.09	5.22	5.51	5.85	6.17	6.50	6.94		
	48	2.55	3.19	4.24	5.48	6.86	8.28				5.60	5.40	5.55	5.87	6.20	6.62					
ZXL060BE <sup>1</sup>	27	4.14	5.11	6.38	7.89	9.61	11.43	13.32	15.21	17.02	3.65	3.81	3.95	4.15	4.39	4.71	5.12	5.65	6.28		
	32	3.94	4.90	6.17	7.68	9.38	11.22	13.12	15.01	16.82	4.20	4.36	4.52	4.72	4.98	5.31	5.74	6.30	7.00		
	38	3.60	4.52	5.74	7.22	8.88	10.69	12.56	14.42	16.23	4.97	5.13	5.29	5.49	5.75	6.09	6.54	7.10	7.83		
	43	3.33	4.18	5.34	6.75	8.36	10.11	11.93	13.75	15.51	5.67	5.81	5.95	6.14	6.40	6.74	7.19	7.76	8.49		
	48	3.13	3.90	4.98	6.29	7.81	9.47				6.36	6.48	6.61	6.78	7.02	7.34					
ZXL075BE <sup>1</sup>	27	4.60	5.69	7.08	8.73	10.61	12.66	14.87	17.18	19.57	3.97	4.17	4.37	4.61	4.91	5.30	5.81	6.46	7.30		
	32	4.36	5.44	6.80	8.41	10.22	12.21	14.33	16.54	18.82	4.53	4.73	4.93	5.17	5.48	5.88	6.40	7.07	7.92		
	38	3.98	5.05	6.38	7.94	9.70	11.60	13.63	15.73	17.87	5.38	5.57	5.77	6.00	6.30	6.70	7.22	7.89	8.74		
	43	3.68	4.75	6.06	7.59	9.30	11.14	13.09	15.10	17.14	6.15	6.32	6.50	6.72	7.01	7.40	7.90	8.57	9.41		
	48	3.49	4.55	5.85	7.35	9.01	10.80				6.90	7.05	7.20	7.40	7.66	8.03					

Notes: <sup>1</sup> Available on TFD models only

The rating condition is based on the Return Gas Temperature of 5°C.

Power includes condenser fan.

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZXL Family: Low temperature Capacity and Power (kW) at 50 Hz - PFJ/TFD

R448A

Model	Ambient temperature (°C)	Capacity Evaporating temperature (°C)										Power Evaporating temperature (°C)									
		-40	-35	-30	-25	-20	-15	-10	-5	0	-40	-35	-30	-25	-20	-15	-10	-5	0		
ZXL020BE	27	1.18	1.54	1.94	2.38	2.86	3.38	3.95	4.57	5.24	1.09	1.23	1.36	1.49	1.61	1.74	1.87	2.01	2.15		
	32	1.12	1.45	1.83	2.26	2.74	3.27	3.86	4.51	5.21	1.22	1.35	1.48	1.60	1.71	1.83	1.94	2.06	2.18		
	38	1.00	1.29	1.64	2.05	2.52	3.06	3.66	4.32	5.06	1.39	1.52	1.63	1.74	1.84	1.94	2.03	2.12	2.21		
	43	0.87	0.97	1.25	1.68	2.19	2.76	3.32	3.95	4.90	1.59	1.66	1.72	1.82	1.89	1.98	2.11	2.20	2.32		
	48	0.78	0.88	0.92	1.33	1.78	2.25				1.81	1.86	1.92	1.98	2.07	2.12					
ZXL030BE	27	1.64	2.04	2.56	3.19	3.94	4.80	5.77	6.87	8.08	1.35	1.54	1.70	1.85	1.99	2.12	2.25	2.37	2.49		
	32	1.61	1.93	2.38	2.95	3.65	4.48	5.44	6.54	7.76	1.54	1.73	1.90	2.05	2.18	2.30	2.42	2.53	2.63		
	38	1.60	1.84	2.21	2.74	3.40	4.22	5.18	6.30	7.56	1.89	2.08	2.24	2.38	2.49	2.60	2.69	2.77	2.84		
	43	1.37	1.61	1.93	2.39	2.99	3.64	4.28	5.83	7.18	2.26	2.37	2.48	2.62	2.71	2.83	2.97	3.06	3.17		
	48	1.19	1.34	1.58	1.89	2.38	2.90				2.74	2.84	2.93	3.02	3.15	3.22					
ZXL040BE <sup>1</sup>	27	2.52	3.18	3.98	4.90	5.94	7.09	8.34	9.69	11.12	2.17	2.32	2.51	2.73	2.97	3.22	3.48	3.74	3.98		
	32	2.34	3.00	3.78	4.68	5.69	6.80	8.01	9.31	10.69	2.43	2.66	2.90	3.16	3.42	3.67	3.91	4.12	4.30		
	38	2.30	2.90	3.63	4.46	5.39	6.42	7.54	8.73	10.00	2.60	2.92	3.24	3.55	3.84	4.10	4.32	4.49	4.61		
	43	2.11	2.65	3.25	4.00	4.92	5.88	6.78	7.80	9.34	3.32	3.44	3.58	3.81	3.99	4.25	4.54	4.76	4.99		
	48	1.88	2.36	2.90	3.52	4.20	4.86				3.78	3.85	3.96	4.11	4.33	4.50					
ZXL050BE <sup>1</sup>	27	2.96	3.65	4.57	5.68	6.96	8.37	9.89	11.49	13.13	2.36	2.63	2.89	3.12	3.34	3.56	3.78	4.01	4.24		
	32	2.72	3.41	4.31	5.39	6.60	7.93	9.35	10.82	12.31	2.65	2.94	3.20	3.45	3.69	3.93	4.16	4.40	4.66		
	38	2.57	3.25	4.10	5.10	6.22	7.43	8.69	9.98	11.27	3.15	3.44	3.71	3.97	4.21	4.45	4.69	4.94	5.20		
	43	2.37	2.99	3.72	4.63	5.72	6.84	7.83	8.88	10.40	3.61	3.78	3.97	4.22	4.43	4.73	5.08	5.41	5.77		
	48	2.08	2.69	3.38	4.16	4.99	5.77				3.99	4.15	4.33	4.53	4.82	5.07					
ZXL060BE <sup>1</sup>	27	3.50	4.41	5.48	6.71	8.08	9.59	11.22	12.97	14.82	2.93	3.20	3.48	3.76	4.04	4.33	4.62	4.93	5.25		
	32	3.33	4.23	5.29	6.51	7.87	9.37	11.00	12.75	14.60	3.28	3.59	3.90	4.21	4.53	4.85	5.18	5.52	5.88		
	38	3.30	4.10	5.06	6.19	7.46	8.87	10.41	12.07	13.84	3.81	4.12	4.43	4.74	5.06	5.39	5.72	6.07	6.43		
	43	3.01	3.70	4.49	5.51	6.75	8.08	9.34	10.77	12.93	4.21	4.41	4.64	4.98	5.26	5.68	6.16	6.58	7.07		
	48	2.71	3.29	3.97	4.77	5.68	6.60				4.80	4.97	5.21	5.48	5.87	6.21					
ZXL075BE <sup>1</sup>	27	3.89	4.92	6.09	7.41	8.92	10.62	12.52	14.66	17.04	3.18	3.51	3.84	4.17	4.51	4.87	5.24	5.64	6.06		
	32	3.68	4.69	5.83	7.12	8.56	10.19	12.01	14.05	16.31	3.53	3.90	4.26	4.62	4.99	5.38	5.77	6.19	6.63		
	38	3.65	4.59	5.65	6.83	8.15	9.64	11.31	13.17	15.25	4.06	4.43	4.80	5.17	5.55	5.93	6.32	6.74	7.18		
	43	3.33	4.20	5.10	6.19	7.51	8.90	10.25	11.83	14.30	4.57	4.80	5.07	5.45	5.76	6.23	6.77	7.27	7.84		
	48	3.01	3.83	4.66	5.58	6.56	7.53				5.21	5.41	5.67	5.98	6.41	6.79					
ZXLD120BE <sup>1</sup>	27	8.15	10.30	12.84	15.71	18.97	22.63	26.73	31.18	34.52	6.87	7.27	7.74	8.29	8.89	9.51	10.13	10.76	11.32		
	32	8.09	10.19	12.60	15.37	18.55	22.04	26.04	30.37	33.58	7.56	8.03	8.58	9.19	9.83	10.49	11.15	11.78	12.35		
	38	7.33	9.22	11.35	13.79	16.57	19.74	23.26	27.16	31.55	8.46	9.03	9.68	10.36	11.08	11.81	12.52	13.21	13.87		
	43	6.75	8.38	10.29	12.47	14.97	17.79	21.00	24.61	28.48	9.27	9.93	10.64	11.39	12.15	12.93	13.64	14.35	15.06		
ZXLD160BE <sup>1</sup>	27	10.46	13.04	16.31	19.95	23.84	28.08	32.36	37.04		7.83	8.52	9.26	10.03	10.85	11.71	12.60	13.49			
	32	10.22	12.75	15.86	19.38	23.18	27.20	31.48	35.70		8.73	9.59	10.46	11.36	12.30	13.28	14.18	15.20			
	38	9.79	12.41	15.42	18.77	22.39	26.20	30.30	34.23		9.73	10.78	11.84	12.92	13.98	15.14	16.18	17.34			
	43	9.61	12.07	14.91	18.08	21.50	25.15	28.90	32.88		10.34	11.59	12.80	14.01	15.24	16.47	17.70	18.94			
ZXLD200BE <sup>1</sup>	27	11.72	14.83	18.31	22.11	26.26	30.48	35.23	39.68		8.76	9.49	10.24	11.02	11.85	12.69	13.53	14.45			
	32	11.53	14.67	18.31	22.31	25.57	30.05	34.62	39.59		9.33	10.17	11.04	11.93	12.84	13.74	14.69	15.63			
	38	11.45	14.52	18.08	21.99	25.16	29.48	33.98	38.67		10.26	11.30	12.34	13.40	14.45	15.50	16.56	17.61			
	43	11.05	13.89	17.18	20.86	24.86	29.05	33.54	38.02		10.87	12.11	13.34	14.55	15.72	16.96	18.09	19.22			

Notes: <sup>1</sup> Available on TFD models only

Data based on dew point

The rating condition is based on the Return Gas Temperature of 5°C

Power includes condenser fan

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZXL Family: Low temperature Capacity and Power (kW) at 50 Hz - PFJ/TFD

R449A

Model	Ambient temperature (°C)	Capacity Evaporating temperature (°C)										Power Evaporating temperature (°C)									
		-40	-35	-30	-25	-20	-15	-10	-5	0	-40	-35	-30	-25	-20	-15	-10	-5	0		
ZXL020BE	27	1.18	1.55	1.95	2.38	2.86	3.38	3.95	4.58	5.27	1.09	1.23	1.36	1.49	1.61	1.74	1.87	2.01	2.15		
	32	1.12	1.46	1.84	2.27	2.75	3.27	3.86	4.50	5.22	1.22	1.35	1.48	1.60	1.71	1.83	1.94	2.06	2.18		
	38	0.97	1.15	1.49	1.90	2.50	3.04	3.65	4.33	5.08	1.37	1.43	1.51	1.61	1.83	1.94	2.03	2.12	2.21		
	43	0.85	0.95	1.22	1.63	2.14	2.69	3.23	3.95	4.71	1.54	1.60	1.67	1.76	1.91	1.99	2.12	2.24	2.34		
	48	0.76	0.86	0.89	1.29	1.73	2.19				1.75	1.80	1.86	1.95	2.12	2.18					
ZXL030BE	27	1.64	2.05	2.57	3.20	3.94	4.80	5.77	6.87	8.08	1.35	1.54	1.70	1.85	1.99	2.12	2.25	2.37	2.49		
	32	1.61	1.93	2.37	2.94	3.64	4.48	5.44	6.54	7.78	1.54	1.73	1.90	2.05	2.18	2.30	2.42	2.53	2.63		
	38	1.56	1.80	2.14	2.62	3.36	4.22	5.18	6.29	7.56	1.84	1.94	2.05	2.19	2.47	2.60	2.69	2.77	2.84		
	43	1.33	1.56	1.88	2.33	2.91	3.55	4.17	5.83	6.91	2.18	2.30	2.41	2.54	2.74	2.84	2.98	3.11	3.20		
	48	1.15	1.31	1.53	1.84	2.32	2.82				2.65	2.75	2.84	2.98	3.23	3.32					
ZXL040BE <sup>1</sup>	27	2.51	3.19	3.99	4.91	5.94	7.09	8.35	9.71	11.19	2.15	2.28	2.47	2.70	2.96	3.23	3.49	3.73	3.94		
	32	2.34	3.01	3.80	4.70	5.70	6.80	8.00	9.31	10.71	2.39	2.62	2.87	3.14	3.41	3.66	3.88	4.05	4.16		
	38	2.22	2.75	3.38	4.17	5.36	6.40	7.52	8.74	10.04	2.83	2.92	3.09	3.32	3.80	4.11	4.36	4.53	4.60		
	43	2.05	2.57	3.16	3.89	4.79	5.73	6.61	7.80	8.98	3.22	3.33	3.47	3.69	4.05	4.26	4.56	4.84	5.03		
	48	1.83	2.30	2.82	3.43	4.09	4.74				3.66	3.73	3.84	4.06	4.44	4.64					
ZXL050BE <sup>1</sup>	27	2.95	3.66	4.58	5.69	6.96	8.37	9.90	11.52	13.21	2.33	2.59	2.85	3.10	3.34	3.57	3.80	4.00	4.19		
	32	2.72	3.44	4.34	5.41	6.61	7.93	9.34	10.81	12.32	2.60	2.88	3.16	3.43	3.69	3.92	4.14	4.34	4.51		
	38	2.53	3.11	3.85	4.80	6.19	7.41	8.68	9.98	11.30	3.10	3.24	3.42	3.66	4.17	4.47	4.74	4.98	5.18		
	43	2.30	2.90	3.62	4.51	5.57	6.66	7.63	8.87	10.00	3.49	3.66	3.84	4.09	4.49	4.75	5.11	5.50	5.82		
	48	2.02	2.61	3.28	4.05	4.86	5.62				3.86	4.02	4.19	4.47	4.94	5.22					
ZXL060BE <sup>1</sup>	27	3.48	4.41	5.48	6.70	8.07	9.58	11.22	13.00	14.91	2.89	3.15	3.43	3.72	4.03	4.34	4.64	4.93	5.19		
	32	3.33	4.25	5.32	6.53	7.88	9.37	10.99	12.74	14.61	3.23	3.53	3.85	4.18	4.52	4.84	5.16	5.45	5.71		
	38	3.17	3.87	4.73	5.81	7.43	8.85	10.40	12.08	13.87	3.67	3.83	4.05	4.35	5.00	5.40	5.77	6.11	6.41		
	43	2.93	3.60	4.37	5.36	6.57	7.87	9.10	10.76	12.43	4.08	4.27	4.49	4.82	5.33	5.70	6.19	6.69	7.13		
	48	2.63	3.19	3.86	4.65	5.53	6.43				4.64	4.81	5.04	5.41	6.01	6.39					
ZXL075BE <sup>1</sup>	27	3.87	4.92	6.10	7.41	8.90	10.60	12.52	14.69	17.14	3.14	3.45	3.79	4.14	4.51	4.88	5.26	5.63	5.99		
	32	3.67	4.73	5.88	7.16	8.58	10.19	12.00	14.04	16.34	3.47	3.83	4.21	4.59	4.98	5.37	5.74	6.10	6.44		
	38	3.50	4.33	5.26	6.40	8.11	9.61	11.29	13.17	15.28	3.98	4.15	4.41	4.76	5.48	5.94	6.38	6.79	7.16		
	43	3.24	4.08	4.96	6.03	7.31	8.67	9.99	11.82	13.75	4.42	4.65	4.91	5.28	5.84	6.25	6.81	7.39	7.90		
	48	2.93	3.72	4.53	5.43	6.39	7.33				5.04	5.24	5.49	5.90	6.57	6.99					
ZXLD120BE <sup>1</sup>	27	8.15	10.30	12.84	15.71	18.97	22.63	26.73	31.18	34.52	6.87	7.25	7.73	8.28	8.89	9.51	10.15	10.76	11.32		
	32	8.09	10.19	12.60	15.37	18.55	22.04	26.04	30.37	33.58	7.56	8.03	8.57	9.19	9.83	10.49	11.17	11.80	12.40		
	38	7.33	9.18	11.35	13.79	16.57	19.74	23.26	27.16	31.55	8.49	9.05	9.70	10.38	11.10	11.83	12.53	13.25	13.87		
	43	6.75	8.38	10.29	12.47	14.97	17.79	21.01	24.61	28.48	9.27	9.93	10.64	11.39	12.17	12.93	13.73	14.42	15.06		
ZXLD160BE <sup>1</sup>	27	10.46	13.04	16.31	19.95	23.84	28.08	32.36	37.04		7.80	8.50	9.26	10.03	10.85	11.71	12.62	13.53			
	32	10.22	12.75	15.90	19.38	23.18	27.20	31.48	35.70		8.73	9.59	10.46	11.36	12.30	13.28	14.20	15.20			
	38	9.79	12.41	15.42	18.77	22.34	26.20	30.30	34.23		9.73	10.80	11.87	12.93	14.00	15.14	16.27	17.34			
	43	9.61	12.07	14.91	18.08	21.50	25.15	28.90	32.88		10.34	11.59	12.80	14.12	15.36	16.47	17.70	18.94			
ZXLD200BE <sup>1</sup>	27	11.69	14.93	18.63	22.75	25.83	30.39	35.20	40.13		8.74	9.48	10.25	11.06	11.91	12.78	13.65	14.62			
	32	11.43	14.54	18.15	22.12	25.57	30.05	34.62	39.59		9.33	10.17	11.04	11.93	12.86	13.74	14.69	15.70			
	38	11.45	14.52	18.08	21.99	25.16	29.48	33.97	38.67		10.26	11.31	12.37	13.41	14.45	15.50	16.56	17.61			
	43	11.05	13.89	17.18	20.88	24.86	29.05	33.54	38.02		10.87	12.11	13.34	14.55	15.72	16.96	18.09	19.26			

Notes: <sup>1</sup> Available on TFD models only

Data based on dew point

The rating condition is based on the Return Gas Temperature of 5°C

Power includes condenser fan

Ambient 38°C and 43°C are typical design conditions for unit selection.

# ZX Family: Medium temperature

Technical data at 50 Hz - PFJ

Family			ZX			
Nominal rating	Horsepower	HP	2	3	4	
Model name			ZX020BE	ZX030BE	ZX040BE	
Performance	R404A	ET/AT/RGT	°C	-6.7/32/18.3		
		Capacity	kW	4.30	6.00	7.80
		COP	W/W	2.26	2.35	2.29
	R407F	ET/AT/RGT	°C	-6.7/32/18.3		
		Capacity	kW	4.40	6.31	8.37
		COP	W/W	2.32	2.38	2.38
	R448A	ET/AT/RGT	°C	-6.7/32/18.3		
		Capacity	kW	4.00	5.61	7.33
		COP	W/W	2.40	2.50	2.40
	R449A	ET/AT/RGT	°C	-6.7/32/18.3		
		Capacity	kW	3.92	5.50	7.18
		COP	W/W	2.40	2.50	2.50
	R134a	ET/AT/RGT	°C	-7/32/18.3		
		Capacity	kW	2.71	3.68	4.97
		COP	W/W	2.57	2.55	2.60
	Sound pressure level	@1m	dB(A)	56		
Compressor	Rated load ampere		Amp	13.2	16.4	20.0
	Locked rotor ampere		Amp	58.0	82.0	114.0
	Oil type			POE		
	Oil recharge volume	R404A/R407F	Liters	1.18	1.33	1.83
Fan motor	Number of fan		Pieces	1	1	1
	Diameter		mm	450	450	450
	Fan speed		rpm	830	830	830
	Air flow	Total	m³/h	3483	3483	3483
	Total fan motor power	Input	W	116	116	116
Others	Oil separator	Volume	Liters	0.5	0.5	0.5
	Receiver volume	R404A	kg	4.4	4.4	4.4
		R407F	kg	4.5	4.5	4.5
		R448A/R449A	kg	4.7	4.7	4.7
	R134a	kg	4.4	4.4	4.4	4.4
	Pipes	Suction OD	Inch	3/4	3/4	3/4
		Liquid OD	Inch	1/2	1/2	1/2
	Dimension	W x D x H	mm	1029 x 424 x 840		
	Weight	Net	kg	76	79	100
		Gross	kg	114	117	138

# ZX Family: Medium temperature

Technical data at 50 Hz - TFD

Family			ZX						
Nominal rating	Horsepower	HP	2	3	4	5	6	7.6	
Model name			ZX020BE	ZX030BE	ZX040BE	ZX050BE	ZX060BE	ZX076BE	
Performance	R404A	ET/AT/RGT	°C	-6.7/32/18.3					
		Capacity	kW	4.30	6.00	7.80	10.70	11.80	13.46
		COP	W/W	2.26	2.35	2.29	2.40	2.41	2.50
	R407F	ET/AT/RGT	°C	-6.7/32/18.3					
		Capacity	kW	4.40	6.31	8.37	10.49	11.68	12.98
		COP	W/W	2.32	2.38	2.38	2.44	2.56	2.55
	R448A	ET/AT/RGT	°C	-6.7/32/18.3					
		Capacity	kW	4.00	5.61	7.33	10.14	11.13	12.6
		COP	W/W	2.40	2.50	2.40	2.60	2.50	2.60
Compressor	R449A	ET/AT/RGT	°C	-6.7/32/18.3					
		Capacity	kW	3.92	5.5	7.18	9.94	10.91	12.35
		COP	W/W	2.40	2.50	2.50	2.60	2.60	2.70
	R134a	ET/AT/RGT	°C	-7/32/18.3					
		Capacity	kW	2.71	3.68	4.97	6.86	7.54	8.48
		COP	W/W	2.57	2.55	2.60	2.75	2.73	2.83
	Sound pressure level	@1m	dB(A)	56			60		
Fan motor	Rated load ampere	Amp		5.0	6.1	7.5	9.6	11.5	11.8
	Locked rotor ampere	Amp		26.0	36.0	44.3	58.6	67.0	101.0
	Oil type			POE					
	Oil recharge volume	Liters		1.18	1.33	1.83	1.83	1.66	1.66
Others	Number of fan	Pieces		1	1	1	2	2	2
	Diameter	mm		450	450	450	450	450	450
	Fan speed	rpm		830	830	830	830	830	830
	Air flow	Total	m³/h	2922	2922	2922	5910	5910	5910
	Total fan motor power	Input	W	116	116	116	246	246	246
	Oil separator	Volume	Liters	0.5	0.5	0.5	0.5	0.5	0.5
	Receiver volume	R404A	kg	4.4	4.4	4.4	6.3	6.3	6.3
		R407F	kg	4.5	4.5	4.5	6.4	6.4	6.4
		R448A/R449A	kg	4.7	4.7	4.7	6.7	6.7	6.7
	Pipes	Suction OD	Inch	3/4	3/4	7/8	7/8	7/8	7/8
		Liquid OD	Inch	1/2	1/2	1/2	1/2	1/2	1/2
	Dimension	W x D x H	mm	1029 x 424 x 840			1029 x 424 x 1242		
	Weight	Net	kg	76	79	100	108	112	121
		Gross	kg	114	117	121	152	156	154

# ZXD Family: Digital medium temperature

Technical data at 50 Hz - TFD and TFM

Family			ZXD									
Nominal rating	Horse-power	HP	3	4	5	6	7.6	9	12	16	20	
Model name			ZXD030BE	ZXD040BE	ZXD050BE	ZXD060BE	ZXD076BE	ZXD090BE	ZXD120BE	ZXD160BE	ZXD200BE	
Performance	R404A	ET/AT/RGT	°C	-6.7/32/18.3								
		Capacity	kW	5.82	8.30	10.70	11.80	13.46	15.52	24.22	29.81	37.86
		COP	W/W	2.45	2.47	2.43	2.41	2.49	2.28	2.41	2.37	2.34
	R407F	ET/AT/RGT	°C	-6.7/32/18.3								
		Capacity	kW	6.04	8.28	10.34	11.26	13.90	/	/	/	/
		COP	W/W	2.47	2.71	2.73	2.46	2.50	/	/	/	/
	R448A	ET/AT/RGT	°C	-6.7/32/18.3						-7/32/18.3		
		Capacity	kW	5.42	8.07	10.08	11.04	12.50	/	23.60	28.60	35.50
		COP	W/W	2.55	2.67	2.55	2.53	2.64	/	2.58	2.34	2.23
	R449A	ET/AT/RGT	°C	-6.7/32/18.3						-7/32/18.3		
		Capacity	kW	5.33	7.93	9.90	10.87	12.30	/	23.80	28.60	35.50
		COP	W/W	2.60	2.70	2.58	2.56	2.67	/	2.55	2.33	2.22
Compressor	R134a	ET/AT/RGT	°C	-7/32/18								
		Capacity	kW	3.69	5.49	6.86	7.54	8.48	9.88	14.35	17.66	22.44
		COP	W/W	2.78	2.89	2.75	2.73	2.83	2.58	2.50	2.50	2.50
	Sound pressure level	@1m	dB(A)	56	60				62	65	69	69
	Rated load ampere	Amp		7.4	7.7	10.4	9.6	12.4	14.6	9.6+10.1	11.1 + 11.1	14.6+14.6
Fan motor	Locked rotor ampere	Amp		40.0	48.0	64.0	74.0	100.0	102	74+74	100+74	102+102
	Oil type			POE								
	Oil recharge volume	R404A/ R407F	Liters	1.12	1.24	1.77	1.77	1.77	1.89	1.9+1.8	1.9 + 1.9	1.9 + 1.9
	Number of fan	Pieces		1	3	2	2	2	2	2	2	3
Others	Diameter	mm		450	450	450	450	450	450	600	600	630
	Fan speed	rpm		830	830	830	830	830	830	930	930	920
	Air flow	Total	m³/h	2922	5910	5910	5910	5910	5910	13940	13940	16410
	Total fan motor power	Input	W	116	246	246	246	246	246	700	700	960
	Oil separator	Volume	Liters	0.5	0.5	0.5	0.5	0.5	0.5	4	4	4
	Receiver volume	kg		4.4	6.3	6.3	6.3	6.3	6.3	17	21.6	21.6
	Pipes	Suction OD	Inch	3/4	7/8	7/8	7/8	7/8	7/8	1 3/8	1 3/8	1 3/8
		Liquid OD	Inch	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4
Weight	Dimension	W x D x H	mm	1029 x 424 x 840	1029 x 424 x 1242						1619 x 1010 x 1124	
	Net	kg		85	104	112	114	122	138	357	362	362
	Gross	kg		123	148	156	158	171	158	457	462	462

# ZXL Family: Low temperature

Technical data at 50 Hz - PFJ

Family			ZXL	
Nominal rating		Horsepower	HP	2 3
Model name			ZXL020BE	ZXL030BE
Performance	R404A	ET/AT/RGT	°C	-32/32/5°C
		Capacity	kW	2.11 2.8
		COP	W/W	1.24 1.29
	R407F	ET/AT/RGT	°C	-32/32/5°C
		Capacity	kW	1.86 2.6
		COP	W/W	0.99 1.02
	R448A	ET/AT/RGT	°C	-32/32/5°C
		Capacity	kW	1.68 2.18
		COP	W/W	1.19 1.20
	R449A	ET/AT/RGT	°C	-32/32/5°C
		Capacity	kW	1.69 2.20
		COP	W/W	1.19 1.20
Sound pressure level		@1m	dB(A)	56
Compressor	Rated load ampere		Amp	12.7 15.1
	Locked rotor ampere		Amp	56.6 82.3
	Oil type			POE
	Oil recharge volume		Liters	0.56 0.56
Fan motor	Number of fan		Pieces	1 1
	Diameter		mm	450 450
	Fan speed		rpm	830 830
	Air flow	Total	m³/h	2922 2922
	Total fan motor power	Input	W	116 116
Others	Oil separator	Volume	Liters	0.5 0.5
	Receiver volume	R404A	kg	4.4 4.4
		R407F	kg	4.5 4.5
		R448A/R449A	kg	4.7 4.7
	Pipes	Suction OD	Inch	3/4 3/4
		Liquid OD	Inch	1/2 1/2
	Dimension	W x D x H	mm	1029 x 424 x 840
	Weight	Net	kg	79 81
		Gross	kg	117 119

# ZXL Family: Low temperature

Technical data at 50 Hz - TFD

Family			ZXL					
Nominal rating	Horsepower	HP	2	3	4	5	6	7.5
Model name			ZXL020B0	ZXL030B0	ZXL040B0	ZXL050B0	ZXL060B0	ZXL075B0
			ZXL020BE	ZXL030BE	ZXL040BE	ZXL050BE	ZXL060BE	ZXL075BE
Performance	R404A	ET/AT/RGT	°C	-32/32/5°C				
				2.11	2.8	4.26	4.99	5.91
				1.24	1.29	1.29	1.36	1.33
	R407F	ET/AT/RGT	°C	-32/32/5°C				
				1.86	2.60	4.25	4.61	5.66
				0.99	1.02	1.29	1.26	1.27
	R448A	ET/AT/RGT	°C	-32/32/5°C				
				1.68	2.18	3.45	3.93	4.84
				1.17	1.19	1.23	1.27	1.28
	R449A	ET/AT/RGT	°C	-32/32/5°C				
				1.69	2.20	3.46	3.95	4.89
				1.19	1.20	1.23	1.28	1.31
	Sound pressure level	@1m	dB(A)	56			60	
Compressor	Rated load ampere	Amp		5.6	6.0	8.6	10.0	11.1
	Locked rotor ampere	Amp		39.2	39.2	51.5	51.5	74.0
	Oil type			POE				
	Oil recharge volume	Liters		0.56	0.56	1.24	1.24	1.77
Fan motor	Number of fan	Pieces		1	1	1	2	2
	Diameter	mm		450	450	450	450	450
	Fan speed	rpm		830	830	830	830	830
	Air flow	Total	m³/h	2922	2922	2922	5910	5910
	Total fan motor power	Input	W	116	116	116	246	246
Others	Oil separator	Volume	Liters	0.5	0.5	0.5	0.5	0.5
	Receiver volume	R404A	kg	4.4	4.4	4.4	6.3	6.3
		R407F	kg	4.5	4.5	4.5	6.4	6.4
		R448A/R449A	kg	4.7	4.7	4.7	6.7	6.7
	Pipes	Suction OD	Inch	3/4	3/4	7/8	7/8	7/8
		Liquid OD	Inch	1/2	1/2	1/2	1/2	1/2
	Dimension	W x D x H	mm	1029 x 424 x 840			1029 x 424 x 1242	
	Weight	Net	kg	79	81	93	106	116
		Gross	kg	117	119	131	150	165
								170

# ZXLD Family: Low temperature

Technical data at 50 Hz -TFD and TFM

Family			ZXLD				
Nominal rating	Horsepower	HP	9	12	16	20	
			ZXLD090BE	ZXLD120BE	ZXLD160BE	ZXLD200BE	
Performance	R404A	ET/AT/RGT	°C	-32/32/5			
		Capacity	kW	7.24	11.76	15.72	17.91
		COP	W/W	1.38	1.30	1.42	1.52
	R448A	ET/AT/RGT	°C	-32/32/5			
		Capacity	kW	/	11.64	14.62	16.85
		COP	W/W	/	1.39	1.45	1.58
	R449A	ET/AT/RGT	°C	-32/32/5			
		Capacity	kW	/	11.64	14.64	16.71
		COP	W/W	/	1.39	1.45	1.56
	Sound pressure level	@1m	dB(A)	62	69	69	69
Compressor	Rated load ampere	Amp		14.6	11.1+11.1	14.6 + 14.6	14.6+15.6
	Locked rotor ampere	Amp		102	74+74	102+102	102+121
	Oil type			POE			
	Oil recharge volume	Liters		1.89	1.9+1.9	1.9 + 1.9	1.9 + 1.9
Fan motor	Number of fan	Pieces		2	2	2	2
	Diameter	mm		450	600	600	630
	Fan speed	rpm		830	930	930	920
	Air flow	Total	m³/h	5910	13940	13940	16410
	Total fan motor power	Input	W	246	700	700	960
Others	Oil separator	Volume	Liters	0.5	4	4	4
	Receiver volume (at 32°C)	kg		6.3	17	21.6	21.6
	Pipes	Suction OD	inch	7/8	1 3/8	1 3/8	1 3/8
		Liquid OD	inch	1/2	3/4	3/4	3/4
	Dimension	W x D x H	mm	1029 x 424 x 1242	1645 x 1010 x 1066		2033 x 857 x 1235
	Weight	Net	kg	138	362	362	362
		Gross	kg	158	462	462	462

## Dimensional drawings

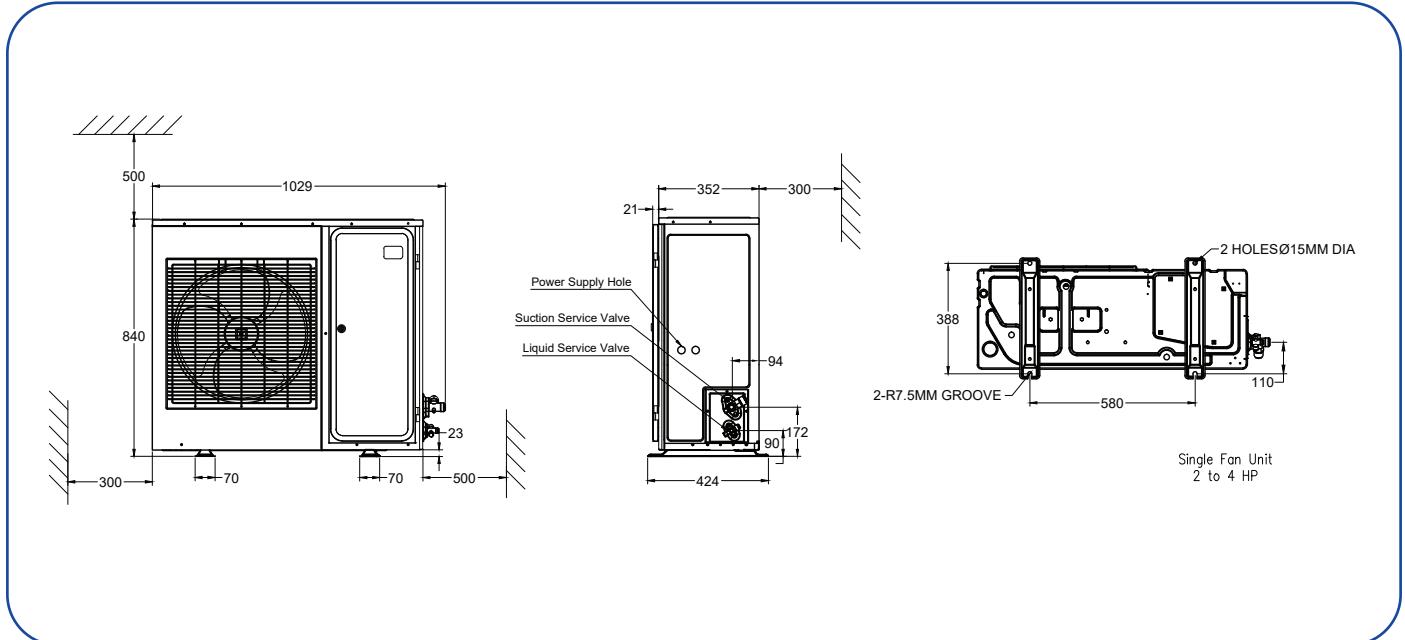
ZX-PFJ (2 HP-4 HP)

ZX-TFD (2HP-4HP)

ZXL-PFJ (2HP-3HP)

ZXL-TFD (2HP-4HP)

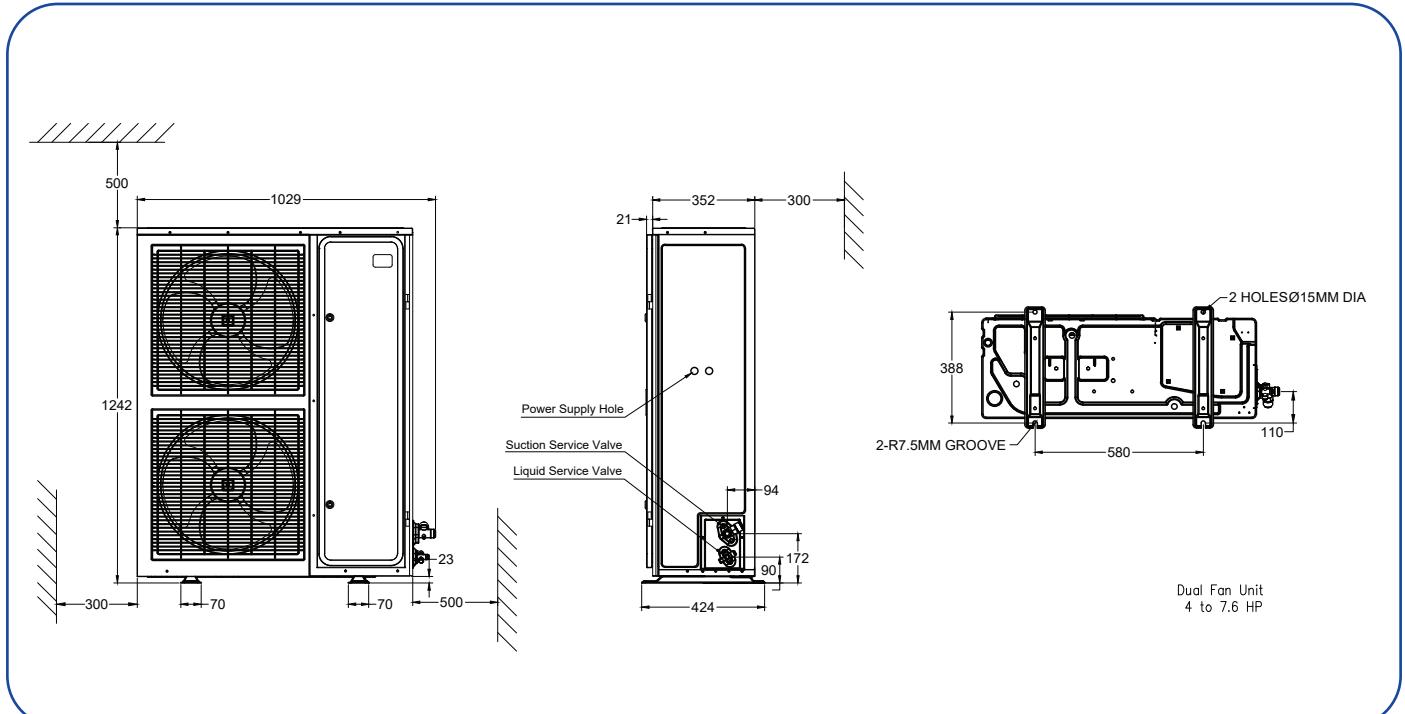
ZXD-TFD (3HP)



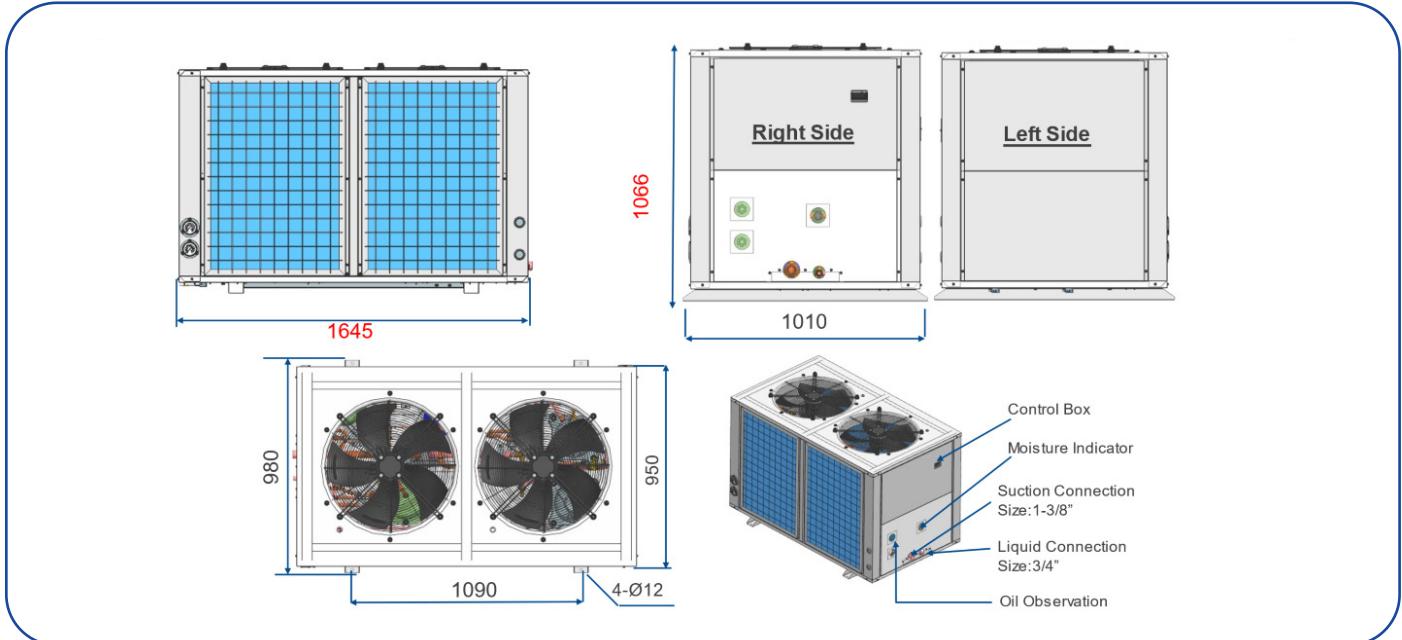
ZX-TFD (5HP-7.6HP)

ZXL-TFD (5HP-7.5HP)

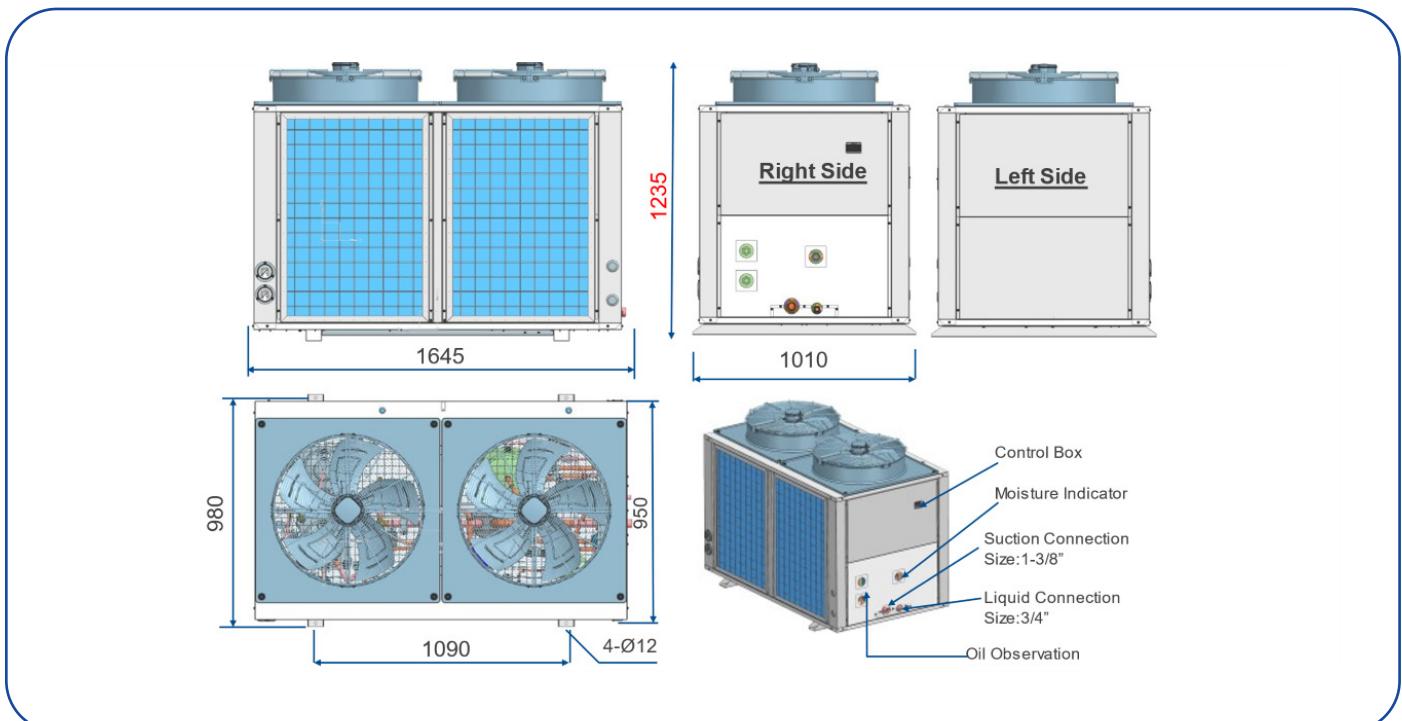
ZXD-TFD (4HP-9HP), ZXLD-TFD (9HP)



ZXD-TFD (12HP-16HP), ZXLD-TFD (12HP-16HP)



ZXD-TFD (20HP), ZXLD-TFD (20HP)



## PRESSURE TEMPERATURE CHART AT SEA LEVEL

°C	R-134a	R22	R404A HP 62	R407F Vapor	R407F Liquid	R448A Vapor	R448A Liquid	R449A Vapor	R449A Liquid	R407A Vapor	R407A Liquid	R407C Vapor	R407C Liquid	R507A AZ50"	°F
-45.6	0.63	0.21	0.00	-0.26	0.03	-0.24	0.04	-0.23	0.02	0.30	0.03	0.37	0.09	0.06	-50.0
-44.4	0.61	0.16	0.05	-0.22	0.08	-0.19	0.10	-0.19	0.08	0.26	0.03	0.33	0.04	0.12	-48.0
-43.3	0.59	0.12	0.11	-0.17	0.14	-0.14	0.16	-0.14	0.14	0.22	0.08	0.29	0.01	0.18	-46.0
-42.2	0.56	0.06	0.17	-0.12	0.20	-0.09	0.22	-0.09	0.20	0.17	0.14	0.25	0.07	0.24	-44.0
-41.1	0.53	0.01	0.23	-0.07	0.27	-0.04	0.28	-0.04	0.26	0.12	0.21	0.20	0.13	0.30	-42.0
-40.0	0.50	0.04	0.30	-0.02	0.34	0.01	0.35	0.01	0.33	0.07	0.27	0.16	0.19	0.37	-40.0
-38.9	0.47	0.10	0.37	0.04	0.41	0.07	0.42	0.07	0.39	0.01	0.34	0.11	0.26	0.44	-38.0
-37.8	0.44	0.15	0.43	0.10	0.48	0.13	0.49	0.13	0.47	0.04	0.41	0.06	0.32	0.52	-36.0
-36.7	0.41	0.21	0.51	0.16	0.56	0.19	0.57	0.19	0.54	0.10	0.48	0.00	0.39	0.59	-34.0
-35.6	0.37	0.28	0.59	0.22	0.64	0.25	0.65	0.25	0.62	0.16	0.56	0.06	0.46	0.68	-32.0
-34.4	0.33	0.34	0.66	0.29	0.72	0.32	0.73	0.32	0.70	0.23	0.63	0.11	0.53	0.75	-30.0
-33.3	0.29	0.41	0.74	0.36	0.80	0.39	0.81	0.39	0.78	0.29	0.72	0.17	0.61	0.84	-28.0
-32.2	0.25	0.48	0.83	0.43	0.89	0.46	0.90	0.46	0.87	0.36	0.80	0.23	0.69	0.93	-26.0
-31.1	0.21	0.55	0.92	0.51	0.98	0.53	0.99	0.53	0.96	0.43	0.89	0.30	0.77	1.02	-24.0
-30.0	0.17	0.63	1.01	0.59	1.08	0.61	1.09	0.61	1.05	0.51	0.98	0.37	0.86	1.12	-22.0
-28.9	0.13	0.70	1.10	0.67	1.18	0.69	1.19	0.69	1.15	0.59	1.08	0.45	0.94	1.21	-20.0
-27.8	0.08	0.79	1.20	0.75	1.28	0.78	1.29	0.78	1.25	0.67	1.17	0.52	1.04	1.32	-18.0
-26.7	0.03	0.87	1.30	0.84	1.39	0.86	1.39	0.86	1.35	0.75	1.28	0.60	1.14	1.42	-16.0
-25.6	0.02	0.96	1.41	0.93	1.50	0.95	1.50	0.95	1.46	0.84	1.38	0.68	1.23	1.53	-14.0
-24.4	0.08	1.05	1.52	1.03	1.61	1.05	1.61	1.05	1.57	0.93	1.49	0.77	1.34	1.64	-12.0
-23.3	0.13	1.14	1.63	1.13	1.73	1.15	1.73	1.15	1.68	1.03	1.60	0.85	1.44	1.76	-10.0
-22.2	0.19	1.23	1.74	1.23	1.85	1.25	1.85	1.25	1.80	1.12	1.72	0.94	1.55	1.88	-8.0
-21.1	0.25	1.34	1.86	1.34	1.98	1.35	1.97	1.35	1.92	1.23	1.83	1.03	1.67	2.00	-6.0
-20.0	0.32	1.44	1.99	1.45	2.11	1.46	2.10	1.46	2.05	1.33	1.96	1.13	1.79	2.13	-4.0
-18.9	0.38	1.54	2.12	1.56	2.24	1.57	2.23	1.57	2.18	1.44	2.09	1.23	1.91	2.26	-2.0
-17.8	0.45	1.66	2.25	1.68	2.38	1.69	2.37	1.69	2.31	1.55	2.22	1.34	2.03	2.40	0.0
-16.7	0.52	1.77	2.39	1.80	2.52	1.81	2.51	1.81	2.45	1.67	2.36	1.45	2.17	2.54	2.0
-15.6	0.59	1.89	2.52	1.93	2.67	1.93	2.66	1.93	2.60	1.79	2.50	1.56	2.30	2.68	4.0
-14.4	0.66	2.01	2.67	2.06	2.82	2.06	2.81	2.06	2.74	1.92	2.65	1.68	2.43	2.83	6.0
-13.3	0.74	2.14	2.82	2.20	2.98	2.19	2.96	2.19	2.90	2.05	2.80	1.80	2.58	2.99	8.0
-12.2	0.82	2.26	2.97	2.34	3.14	2.33	3.12	2.33	3.05	2.18	2.95	1.92	2.72	3.15	10.0
-11.1	0.90	2.40	3.13	2.48	3.31	2.47	3.29	2.47	3.22	2.32	3.11	2.05	2.88	3.31	12.0
-10.0	0.99	2.54	3.30	2.63	3.48	2.62	3.46	2.61	3.38	2.46	3.28	2.19	3.03	3.48	14.0
-8.9	1.08	2.68	3.46	2.79	3.66	2.77	3.63	2.76	3.55	2.61	3.45	2.32	3.19	3.66	16.0
-7.8	1.17	2.82	3.63	2.94	3.84	2.93	3.81	2.92	3.73	2.76	3.62	2.46	3.36	3.83	18.0
-6.7	1.27	2.97	3.81	3.11	4.03	3.09	4.00	3.08	3.91	2.92	3.80	2.61	3.53	4.01	20.0
-5.6	1.37	3.12	4.00	3.28	4.22	3.25	4.19	3.24	4.10	3.08	3.99	2.77	3.71	4.21	22.0
-4.4	1.47	3.28	4.19	3.45	4.42	3.42	4.38	3.41	4.29	3.25	4.18	2.92	3.89	4.40	24.0
-3.3	1.58	3.45	4.38	3.63	4.63	3.60	4.58	3.59	4.49	3.42	4.37	3.08	4.08	4.60	26.0
-2.2	1.69	3.61	4.58	3.82	4.84	3.78	4.79	3.77	4.69	3.60	4.57	3.25	4.27	4.80	28.0
-1.1	1.80	3.79	4.78	4.01	5.05	3.97	5.00	3.95	4.90	3.78	4.78	3.42	4.46	5.01	30.0
0.0	1.92	3.97	4.99	4.21	5.28	4.16	5.22	4.14	5.12	3.97	4.99	3.59	4.67	5.23	32.0
1.1	2.03	4.15	5.21	4.41	5.51	4.36	5.44	4.34	5.34	4.17	5.21	3.78	4.88	5.45	34.0
2.2	2.16	4.34	5.43	4.62	5.74	4.56	5.67	4.54	5.57	4.37	5.43	3.97	5.09	5.68	36.0
3.3	2.28	4.53	5.66	4.84	5.98	4.77	5.91	4.75	5.80	4.57	5.67	4.16	5.31	5.91	38.0
4.4	2.41	4.73	5.89	5.06	6.23	4.98	6.15	4.96	6.04	4.79	5.90	4.36	5.53	6.15	40.0
5.6	2.55	4.93	6.12	5.29	6.48	5.20	6.40	5.18	6.28	5.00	6.14	4.56	5.77	6.39	42.0
6.7	2.69	5.14	6.37	5.52	6.74	5.43	6.65	5.41	6.53	5.23	6.40	4.77	6.00	6.65	44.0
7.8	2.83	5.35	6.62	5.76	7.01	5.66	5.66	5.64	5.64	5.46	6.66	4.99	6.25	6.90	46.0
8.9	2.98	5.57	6.88	6.01	7.28	5.90	5.90	5.88	5.88	5.70	6.92	5.21	6.50	7.17	48.0

## PRESSURE TEMPERATURE CHART AT SEA LEVEL

°C	R-134a	R22	R404A HP 62	R407F Vapor	R407F Liquid	R448A Vapor	R448A Liquid	R449A Vapor	R449A Liquid	R407A Vapor	R407A Liquid	R407C Vapor	R407C Liquid	R507A AZ50"	°F
10.0	3.13	5.80	7.14	6.26	7.57	6.15	6.15	6.13	6.13	5.94	7.19	5.43	6.75	7.44	50.0
11.1	3.29	6.03	7.41	6.52	7.85	6.40	6.40	6.38	6.38	6.19	7.46	5.67	7.01	7.72	52.0
12.2	3.45	6.26	7.70	6.79	8.15	6.66	6.66	6.64	6.64	6.44	7.74	5.91	7.28	8.01	54.0
13.3	3.61	6.51	7.98	7.07	8.45	6.93	6.93	6.90	6.90	6.71	8.03	6.16	7.56	8.30	56.0
14.4	3.79	6.76	8.27	7.35	8.76	7.20	7.20	7.17	7.17	6.98	8.33	6.41	7.84	8.59	58.0
15.6	3.96	7.01	8.57	7.64	9.08	7.48	7.48	7.45	7.45	7.26	8.63	6.68	8.13	8.90	60.0
16.7	4.14	7.27	8.88	7.94	9.40	7.77	7.77	7.74	7.74	7.54	8.94	6.94	8.43	9.21	62.0
17.8	4.32	7.54	9.19	8.24	9.74	8.07	8.07	8.03	8.03	7.83	9.26	7.22	8.74	9.54	64.0
18.9	4.51	7.81	9.50	8.55	10.08	8.37	8.37	8.33	8.33	8.13	9.59	7.50	9.05	9.86	66.0
20.0	4.70	8.09	9.83	8.88	10.43	8.68	8.68	8.64	8.64	8.44	9.92	7.79	9.37	10.20	68.0
21.1	4.90	8.37	10.17	9.20	10.78	9.00	9.00	8.96	8.96	8.76	10.26	8.09	9.69	10.54	70.0
22.2	5.11	8.67	10.51	9.54	11.15	9.32	9.32	9.28	9.28	9.08	10.61	8.39	10.03	10.89	72.0
23.3	5.32	8.97	10.86	9.89	11.52	9.66	9.66	9.61	9.61	9.41	10.97	8.70	10.37	11.25	74.0
24.4	5.53	9.28	11.22	10.24	11.90	10.00	10.00	9.95	9.95	9.75	11.34	9.03	10.72	11.62	76.0
25.6	5.75	9.59	11.59	10.60	12.29	10.35	10.35	10.30	10.30	10.10	11.71	9.35	11.07	11.99	78.0
26.7	5.98	9.90	11.96	10.98	12.69	10.71	10.71	10.65	10.65	10.46	12.09	9.69	11.43	12.38	80.0
27.8	6.21	10.23	12.34	11.36	13.10	11.08	11.08	11.02	11.02	10.82	12.48	10.03	11.81	12.77	82.0
28.9	6.45	10.57	12.73	11.75	13.52	11.45	11.45	11.39	11.39	11.19	12.88	10.39	12.19	13.17	84.0
30.0	6.69	10.91	13.13	12.15	13.94	11.84	11.84	11.77	11.77	11.57	13.28	10.75	12.58	13.58	86.0
31.1	6.94	11.26	13.54	12.55	14.38	12.23	12.23	12.16	12.16	11.97	13.70	11.12	12.98	13.99	88.0
32.2	7.19	11.61	13.96	12.97	14.82	12.63	12.63	12.56	12.56	12.37	14.12	11.50	13.39	14.42	90.0
33.3	7.46	11.98	14.39	13.40	15.27	13.05	13.05	12.97	12.97	12.78	14.56	11.88	13.80	14.86	92.0
34.4	7.72	12.35	14.82	13.84	15.74	13.47	13.47	13.39	13.39	13.20	15.01	12.28	14.23	15.30	94.0
35.6	7.99	12.73	15.26	14.29	16.21	13.90	13.90	13.82	13.82	13.63	15.46	12.69	14.66	15.76	96.0
36.7	8.28	13.12	15.72	14.74	16.69	14.34	14.34	14.26	14.26	14.06	15.92	13.10	15.10	16.22	98.0
37.8	8.57	13.51	16.18	15.21	17.19	14.79	14.79	14.70	14.70	14.51	16.39	13.52	15.55	16.70	100.0
38.9	8.86	13.92	16.66	15.69	17.69	15.25	15.25	15.16	15.16	14.97	16.87	13.96	16.01	17.18	102.0
40.0	9.15	14.32	17.14	16.18	18.20	15.72	15.72	15.63	15.63	15.44	17.36	14.41	16.48	17.67	104.0
41.1	9.46	14.74	17.63	16.68	18.72	16.20	16.20	16.11	16.11	15.92	17.86	14.86	16.96	18.17	106.0
42.2	9.77	15.17	18.13	17.19	19.26	16.69	16.69	16.59	16.59	16.41	18.37	15.32	17.45	18.69	108.0
43.3	10.10	15.61	18.65	17.71	19.80	17.20	17.20	17.09	17.09	16.91	18.89	15.79	17.95	19.21	110.0
44.4	10.42	16.06	19.17	18.25	20.36	17.71	17.71	17.60	17.60	17.43	19.42	16.28	18.46	19.74	112.0
45.6	10.76	16.51	19.70	18.79	20.92	18.23	18.23	18.12	18.12	17.94	19.97	16.78	18.97	20.29	114.0
46.7	11.10	16.97	20.25	19.35	21.50	18.77	18.77	18.65	18.65	18.48	20.52	17.28	19.50	20.85	116.0
47.8	11.45	17.45	20.81	19.92	22.09	19.32	19.32	19.20	19.20	19.03	21.08	17.80	20.04	21.41	118.0
48.9	11.81	17.93	21.37	20.50	22.69	19.88	19.88	19.75	19.75	19.59	21.66	18.33	20.59	21.99	120.0
50.0	12.17	18.42	21.95	21.10	23.30	20.45	20.45	20.32	20.32	20.16	22.23	18.87	21.15	22.59	122.0
51.1	12.54	18.92	22.54	21.71	23.92	21.03	21.03	20.90	20.90	20.74	22.83	19.42	21.72	23.19	124.0
52.2	12.92	19.43	23.14	22.33	24.55	21.63	21.63	21.49	21.49	21.33	23.44	19.99	22.30	23.80	126.0
53.3	13.31	19.94	23.75	22.96	25.20	22.24	22.24	22.09	22.09	21.94	24.06	20.56	22.90	24.43	128.0
54.4	13.70	20.48	24.38	23.61	25.86	22.86	22.86	22.71	22.71	22.56	24.68	21.14	23.50	25.07	130.0
55.6	14.11	21.01	25.02	24.27	26.53	23.49	23.49	23.34	23.34	23.19	25.32	21.75	24.12	25.72	132.0
56.7	14.52	21.56	25.67	24.94	27.21	24.14	24.14	23.98	23.98	23.84	25.98	22.36	24.74	26.39	134.0
57.8	14.94	22.12	26.34	25.63	27.90	24.80	24.80	24.64	24.64	24.50	26.64	22.99	25.38	27.06	136.0
58.9	15.37	22.69	27.01	26.34	28.61	25.48	25.48	25.31	25.31	25.18	27.32	23.63	26.03	27.75	138.0
60.0	15.81	23.27	27.70	27.06	29.33	26.17	26.17	25.99	25.99	25.87	28.01	24.28	26.69	28.46	140.0
61.1	16.26	23.86	28.41	27.79	30.07	26.87	26.87	26.69	26.69	26.57	28.71	24.94	27.36	29.18	142.0
62.2	16.71	24.46	29.13	28.54	30.81	27.59	27.59	27.40	27.40	27.29	29.43	25.63	28.04	29.92	144.0
63.3	17.17	25.07	29.87	29.31	31.57	28.32	28.32	28.13	28.13	28.02	30.15	26.32	28.74	30.67	146.0
64.4	17.65	25.69	30.61	30.09	32.35	29.07	29.07	28.88	28.88	28.77	30.90	27.03	29.45	31.43	148.0
65.6	18.13	26.32	31.39	30.89	33.13	29.84	29.84	29.64	29.64	29.54	31.65	27.76	30.17	32.22	150.0

## Notes

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Technical data are correct at the time of printing. Updates may occur, and should you need confirmation of a specific value, please contact Emerson clearly stating the information required.

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The suitability for this has to be assured from the plant manufacturer, which may include making appropriate tests.

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