

Rating Conditions

11.1 K Superheat
 8.3 K Subcooling
 35 °C Ambient Air Over

50 Hz Operation

**AIR
 CONDITIONING**

ZP51KSE-TFM

HFC-410A
 COPELAND SCROLL®
 TFM 380/420-3-50

**Condensing Temperature °C
 (Sat. Dew Pt. Pressure, bar) Evaporating Temperature °C (Sat. Dew Pt. Pressure, bar)**

	-23.0 (3.6)	-19.0 (4.1)	-14.0 (5)	-10.0 (5.7)	-5.0 (6.8)	0.0 (8)	4.0 (9)	8.0 (10.2)	13.0 (11.8)
61.0 (39.2) C P A M E %						7,800	9,350	11,100	13,550
						4,910	4,840	4,790	4,740
						8.0	7.9	7.9	7.8
						55	65	77	92
						1.6	1.9	2.3	2.9
					53.2	58.6	63.3	68.0	
56.0 (35.1) C P A M E %					6,850	8,700	10,350	12,200	14,800
					4,350	4,290	4,240	4,200	4,170
					7.2	7.1	7.1	7.0	6.9
					45	57	67	79	94
					1.6	2.0	2.5	2.9	3.6
				51.7	58.9	63.8	67.8	71.3	
51.0 (31.3) C P A M E %				5,850	7,600	9,550	11,300	13,250	16,000
				3,850	3,800	3,750	3,720	3,690	3,670
				6.5	6.4	6.3	6.3	6.3	6.2
				37	48	59	69	80	96
				1.5	2.0	2.6	3.0	3.6	4.4
			49.6	57.4	63.9	68.1	71.3	73.5	
46.0 (27.9) C P A M E %			5,200	6,500	8,300	10,350	12,200	14,250	17,100
			3,400	3,370	3,330	3,300	3,270	3,250	3,240
			5.8	5.8	5.7	5.7	5.6	5.6	5.6
			32	39	49	60	71	82	97
			1.5	1.9	2.5	3.2	3.7	4.4	5.3
		48.6	55.2	62.3	68.1	71.5	73.6	74.2	
41.0 (24.8) C P A M E %		4,300	5,750	7,100	9,000	11,150	13,050	15,200	18,200
		3,000	2,980	2,960	2,930	2,900	2,880	2,870	2,870
		5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.1
		25	33	40	50	62	72	83	99
		1.4	1.9	2.4	3.1	3.8	4.5	5.3	6.4
	45.1	53.9	60.0	66.3	71.1	73.5	74.3	73.0	
36.0 (21.9) C P A M E %	3,650	4,750	6,300	7,650	9,600	11,850	13,900	16,100	19,300
	2,640	2,630	2,620	2,600	2,580	2,560	2,540	2,530	2,530
	4.7	4.7	4.7	4.7	4.6	4.6	4.6	4.6	4.6
	20	26	34	41	51	63	73	84	100
	1.4	1.8	2.4	2.9	3.7	4.6	5.5	6.4	7.6
42.9	50.3	58.4	63.8	69.3	72.8	73.9	73.3	69.5	
32.0 (19.8) C P A M E %	4,000	5,100	6,650	8,050	10,100	12,400	14,500	16,900	20,100
	2,380	2,380	2,370	2,350	2,330	2,310	2,300	2,290	2,280
	4.4	4.4	4.3	4.3	4.3	4.3	4.2	4.2	4.2
	21	27	35	42	52	63	74	85	101
	1.7	2.1	2.8	3.4	4.3	5.4	6.3	7.4	8.8
47.0	53.9	61.3	66.1	70.7	73.1	73.0	70.9	64.8	
27.0 (17.4) C P A M E %	4,350	5,500	7,100	8,550	10,650	13,100	15,300	17,700	21,200
	2,100	2,100	2,090	2,070	2,050	2,030	2,010	2,000	1,990
	4.0	4.0	4.0	3.9	3.9	3.9	3.8	3.8	3.8
	23	28	36	43	53	64	74	86	102
	2.1	2.6	3.4	4.1	5.2	6.5	7.6	8.9	10.7
51.3	57.5	64.0	68.0	71.3	71.9	70.1	65.7	56.0	

C: Capacity (W), P: Power (W), A: Current (Amps), M: Mass Flow (gm/s), E: COP, %: Isentropic Efficiency (%)

Nominal Performance Values (±5%) based on 72 hours run-in. Subject to change without notice. Current @ 380 V

ZP51KSE-TFM

HFC, R-410A, 50 Hz, 3 - Phase, 380/420 V . [Also Available with Variable Frequency Drives](#)

Air Conditioning

Production Status: Non U.S. model with restricted sales - Contact your Emerson Climate Technologies Representative.

Performance			Mechanical	
Evaporator Temp. (°C)	7	7	Displacement (cm ³ /Rev):	48.18
Condensing Temp. (°C)	54	38	Displacement (m ³ /Hr):	
Return Gas Temp. (°C)	18	18	Overall Length (mm):	242.82
Liquid Temp. (°C)	46	29	Overall Width (mm):	242.82
Capacity (Watts)	12162	15386	Overall Height (mm):	430.28
Power (W):	4040	2650	Mounting Length (mm):	190.50
Current (Amps):	6.8	4.8	Mounting Width (mm):	190.50
EER(BTU/Wh):	17.50	33.64	Mounting Height (mm):	436.12
Mass Flow (lbs/hr):	76.86	81.90	Suction Size (mm),Type:	177.80 / 203.20 Stub
Sound Data @			Discharge Size (mm),Type:	25.40 / 50.80 Stub
Sound Power (dBA):	68 Avg	73 Max	Initial Oil Charge (ml):	1242.11
Vibration mils(peak-peak):	2.5 Avg	3.5 Max	Oil Recharge (ml):	1123.81
Record Date:	2018-03-06		Net Weight (kg):	33.02
			Internal Free Volume (cm ³):	3126.64
			Horse Power:	
			*Overall compressor height on Copeland Brand Product's specified mounting grommets.	

Electrical		Capacitors					
		Type	Part No	Low MFD	High MFD	Volts	User Description
LRA High* (Amps):	51.5						
LRA Low*(Amps):	47.0	No data available in table					
LRA Half Winding (Amps):							
MCC (Amps):	12.1						
Max Operating Current (Amps):	11.0						
RLA, MCC/1.4(use for contactor selection)(Amps):	8.6						
RLA, MCC/1.56(use for breaker & wire size selection)(Amps):	7.8						
RPM:	2900						
Box IP :	21						
UL File No:							
UL File Date:							

*Low and High refer to the low and high nominal voltage ranges for which the motor is approved.

Alternate Applications

Refrigerant	Voltage	Phase	Frequency	Application
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