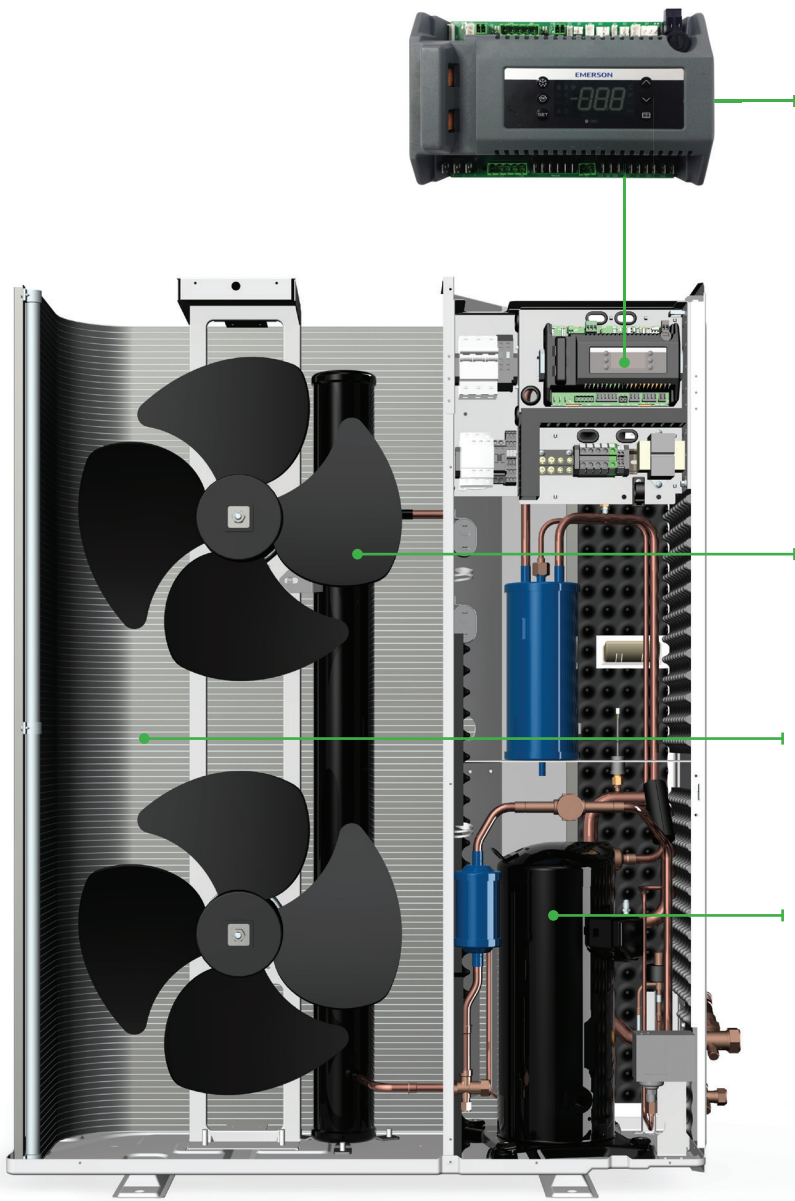


Copeland Scroll™ ZX Condensing Unit for Refrigeration Applications With Microchannel Condenser





ZX, ZXB and ZXL Family

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

ZXD, ZXLD Family

Capacity modulation for precise control of room temperature.

Design features:

- Real time monitoring of compressor operating conditions
- Compressor reverse rotation
- Compressor overcurrent
- Compressor internal motor protector trip
- Discharge gas overheat
- Overvoltage
- Undervoltage
- High pressure cut-out
- Low pressure cut-out (only on MT series)
- Refrigerant floodback
- Compressor minimum off time
- Internal thermal sensor failure
- Intelligent store solution: communication and retail store monitoring

Variable speed fan motor and high efficiency fan blade

Microchannel condenser for high efficiency and corrosion resistance

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

Nomenclature

ZX	L	020	C	E	-	TFD	-	451
Unit family	Blank = Medium temp L = Low temp D = Digital medium temp	2-7.6 HP	With Microchannel Condenser	E = Ester oil		TFD = 380V/420V - 3ph - 50 Hz		Bill of material
Base model						Electrical code	Bill of material	

ZXD Family: Medium Temperature

Capacity and power (kW) at 50Hz - TFD

R404A

Model	Ambient temperature (°C)	Capacity (kW) evaporating temperature (°C)						Power (kW) evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
ZXD040CE	27	5.11	6.45	7.89	9.43	11.08	12.87	2.68	2.77	2.95	3.08	3.18	3.24
	32	4.58	5.94	7.35	8.81	10.34	11.95	2.85	2.95	3.09	3.23	3.38	3.47
	38	4.13	5.49	6.83	8.17	9.53	10.91	3.12	3.31	3.52	3.72	3.87	3.94
	43	3.77	5.11	6.38	7.61	8.80	9.97	3.53	3.75	3.98	4.17	4.22	4.31
	48	3.31	4.61	5.80	6.90	7.91		3.89	4.12	4.32	4.47	4.53	
ZXD050CE	27	6.62	8.17	9.61	11.16	13.01	15.38	3.66	3.78	3.87	3.97	4.14	4.41
	32	6.11	7.70	9.12	10.57	12.26	14.39	3.79	3.92	4.03	4.16	4.35	4.66
	38	5.38	7.02	8.40	9.74	11.24	13.09	4.08	4.23	4.36	4.52	4.76	5.11
	43	4.79	6.47	7.82	9.06	10.40	12.03	4.39	4.56	4.72	4.91	5.18	5.58
	48	4.31	6.03	7.36	8.50	9.68		4.74	4.94	5.13	5.35	5.66	
ZXD060CE	27	7.93	9.96	11.65	13.29	15.18	17.59	4.15	4.35	4.57	4.91	5.28	5.62
	32	7.30	9.29	10.91	12.46	14.23	16.50	4.33	4.54	4.86	5.25	5.65	6.02
	38	6.40	8.34	9.89	11.34	12.98	15.09	4.71	4.96	5.33	5.75	6.18	6.57
	43	5.65	7.57	9.07	10.44	11.97	13.97	5.09	5.38	5.76	6.20	6.63	7.02
	48	5.04	6.93	8.39	9.69	11.14		5.48	5.78	6.17	6.60	7.03	

Notes: Data is preliminary based on limited volume of units being tested.
 The rating condition is based on return gas temperature of 18°C.
 The rating condition is based on return gas superheat of 10K.

R448A Dew Point

Model	Ambient temperature (°C)	Capacity (kW) evaporating temperature (°C)						Power (kW) evaporating temperature (°C)					
		-20	-15	-10	-5	0	5	-20	-15	-10	-5	0	5
ZXD040CE	27	4.39	5.52	7.01	8.76	10.66	12.63	2.67	2.78	2.85	2.91	2.95	3.10
	32	4.09	5.21	6.68	8.38	10.23	12.12	2.84	2.98	3.06	3.15	3.25	3.41
	38	3.66	4.75	6.16	7.79	9.53	11.30	3.05	3.22	3.32	3.41	3.57	3.85
	43	3.21	4.26	5.60	7.14	8.79	10.43	3.33	3.52	3.63	3.75	3.94	4.26
	48	2.67	3.64	4.90	6.33	7.86		3.71	3.89	4.01	4.14	4.34	
ZXD050CE	27	5.67	7.12	8.97	11.07	13.30	15.51	3.66	3.81	3.83	3.84	3.94	4.24
	32	5.31	6.78	8.58	10.59	12.65	14.63	3.82	3.96	4.00	4.05	4.22	4.61
	38	4.87	6.37	8.13	10.01	11.88	13.59	4.07	4.19	4.25	4.35	4.60	5.11
	43	4.35	5.88	7.61	9.39	11.09	12.58	4.38	4.50	4.58	4.72	5.04	5.63
	48	3.55	5.11	6.80	8.48	10.03		4.84	4.95	5.05	5.24	5.62	
ZXD060CE	27	6.68	8.36	10.36	12.62	15.06	17.63	3.76	4.02	4.29	4.59	4.93	5.31
	32	6.22	7.83	9.73	11.86	14.14	16.50	4.07	4.34	4.63	4.94	5.30	5.71
	38	5.61	7.16	8.96	10.95	13.04	15.19	4.47	4.76	5.07	5.41	5.80	6.24
	43	4.96	6.47	8.20	10.09	12.05	14.02	4.85	5.16	5.49	5.85	6.26	6.74
	48	4.08	5.58	7.26	9.05	10.89		5.27	5.60	5.95	6.34	6.78	

Notes: Data is preliminary based on limited volume of units being tested.
 The performance data is based on dew point, capacity will be higher in real application.
 The rating condition is based on return gas superheat of 10K.
 The rating condition is based on return gas superheat of 5K.

Technical data

Model name			ZXD040CE-TFD	ZXD050CE-TFD	ZXD060CE-TFD	
Nominal horsepower		HP	4	5	6	
Powered by		Compressor	3PH-380V-50 Hz			
		Fan	1PH-220V-50 Hz			
Performance	R404A	ET/AT/RGT	°C	-7/32/18	-7/32/18	-7/32/18
		Capacity	kW	8.28	10.20	11.58
		COP	kW	2.62	4.04	5.02
	R448A (Dew point)	ET/AT/RGT	°C	-7/32/18	-7/32/18	-7/32/18
		Capacity	kW	7.61	9.46	10.98
		COP	kW	2.52	2.50	2.33
	Sound pressure level (@1m)		dB(A)	60		
Compressor		Rated load ampere	A	7.7	10.4	9.6
		Locked rotor ampere	A	48	64	74
		Oil type		POE		
		Oil charge volume	L	1.24	1.77	1.77
Fan motor		Number of fan		2		
		Fan diameter	mm	450		
		Fan speed	rpm	830		
		Air flow	m ³ /h	5910		
		Total fan motor power	W	246		
Other		Oil separator oil charge	L	0.5		
		Receiver volume	L	6.0		
		Suction pipe OD	inch	7/8		
		Liquid line pipe OD	inch	1/2		
		Dimension (W x D x H)	mm	1029*424*1242		
		Weight (Net)	kg	104	112	114
		Weight (Gross)	kg	148	156	158

Note: Preliminary Data

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