

Nomenclature

ZX	L	020	B	E	-	TFD	-	451
Unit family	Blank = Medium temp B = R134a Medium temp L = Low temp D = Digital medium temp LD = Digital low temp	2 - 20 HP	Generation	E = Ester oil O = Mineral oil		PFJ = 220V/240V - 1ph - 50 Hz PFV = 208V/230V - 1ph - 60Hz TFD = 380V/420V - 3ph - 50 Hz TF5 = 200V/230V - 3ph - 60 Hz TF7 = 380 - 3ph - 60 Hz		Bill of material
Base model						Electrical code		Bill of material

Bill of material

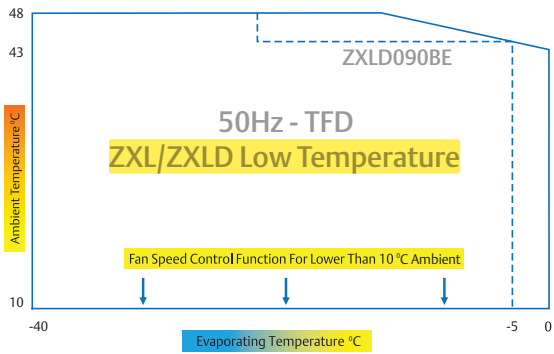
CDU Family BOM	ZX				ZXB		ZXL			ZXD 2-9HP			ZXD 12-16HP		ZXLD 9HP		ZXLD 12-16HP		ZXD/ZXLD 20HP	
	401 501	451 551	462	481 581	401	451	451 551	462	471	451 551	462	481 581	551	581	451 551	481 581	551	581	551	581
Liquid line filter dryer/sight glass	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Liquid receiver	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low ambient kit				✓							✓		✓		✓		✓		✓	✓
Electronic oil level protective control												✓	✓			✓	✓	✓	✓	✓
Emergency mode																			✓	✓

BOM:
4xx - Chassis with door
5xx - Chassis without door

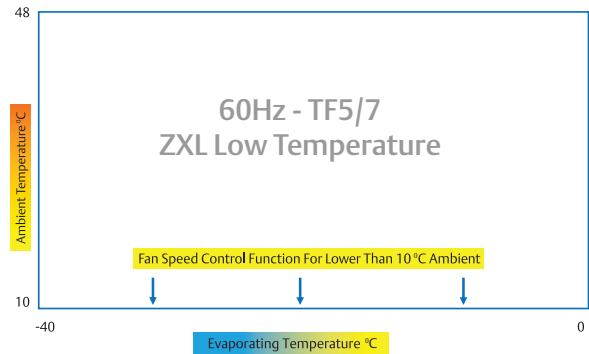
Operating envelopes

ZXL/ZXLD Family : Low temperature

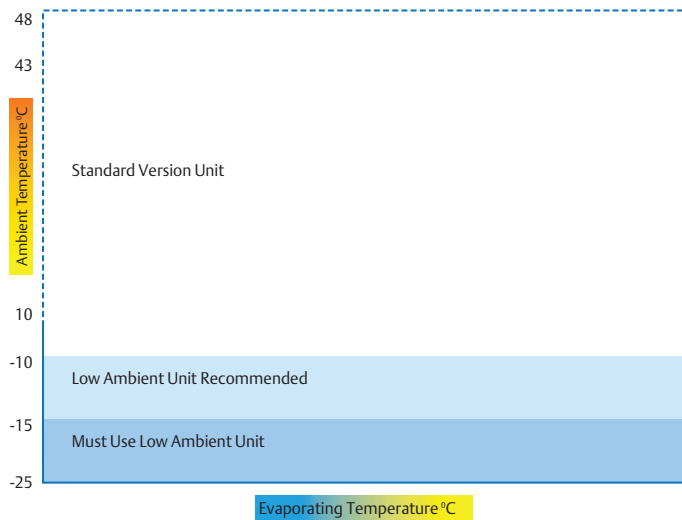
ZXL/ZXLD Low Temperature at 50 Hz - TFD Refrigerant - R404A, R22, R407F
Maximum Suction Gas Temperature: 20 °C



ZXL Low Temperature at 60 Hz - PFV/TF5/TF7 Refrigerant -R404A, R22, R407F
Maximum Suction Gas Temperature: 20 °C



Guideline for using low ambient units



Note: For applications under -25°C ambient temperature, please contact Application Engineering.

ZXLD Family: Low temperature

Capacity and power (kW) at 50 Hz - TFD

R404A

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
ZXLD090BE	27	5.53	6.79	8.21	9.78	11.43	13.26	15.34	17.66		4.27	4.61	5.02	5.51	6.00	6.49	6.99	7.50	
	32	5.31	6.55	7.87	9.43	10.95	12.65	14.54	16.72		4.71	4.97	5.47	6.05	6.64	7.08	7.76	8.24	
	38	5.00	6.16	7.50	8.85	10.48	11.90	13.58	15.17		5.44	5.68	6.12	6.33	7.39	8.01	8.67	9.22	
	43	4.72	5.85	6.88	8.57	9.98	11.04	12.74	13.89		6.26	6.46	6.80	7.33	8.07	8.92	9.50	10.03	
	48	4.05	5.39	6.57	7.96						7.12	7.46	7.84	8.38					
ZXLD120BE	27	8.86	11.15	13.39	15.73	18.33	21.37	25.00	29.38	34.68	7.84	8.24	8.73	9.27	9.83	10.38	10.90	11.36	11.72
	32	8.51	10.70	12.85	15.11	17.66	20.65	24.25	28.62	33.93	8.76	9.09	9.53	10.04	10.60	11.17	11.73	12.25	12.69
	38	7.74	9.85	11.94	14.17	16.69	19.68	23.30	27.71	33.07	10.20	10.43	10.79	11.26	11.79	12.37	12.96	13.54	14.06
	43	6.85	8.93	11.01	13.25	15.80	18.83	22.51	26.98	32.43	11.70	11.83	12.12	12.53	13.03	13.60	14.20	14.81	15.40
	48	5.76	7.87	9.98	12.26	14.87	17.98				13.47	13.50	13.70	14.04	14.50	15.05			
ZXLD160BE	27	11.99	14.09	17.25	21.23	25.80	30.71	35.65	40.25		9.10	9.60	10.30	11.08	11.86	12.67	13.50	14.38	
	32	11.82	13.83	16.83	20.60	24.89	29.46	34.07	38.48		10.50	10.81	11.70	12.57	13.42	14.28	15.15	15.80	
	38	10.07	12.03	14.97	18.64	22.79	27.20	31.61	35.80		12.05	12.90	13.50	14.27	15.20	16.08	16.50	17.11	
	43	8.93	10.87	13.75	17.33	21.38	25.65	29.91	33.90		13.50	14.01	14.40	15.43	16.42	17.37	18.29	18.90	
	48	7.40	9.80	12.90	16.30	20.10	23.90				14.71	15.03	15.41	16.17	17.20	18.18			
ZXLD200BE	27	13.10	16.90	19.72	23.44	27.05	31.56	37.12	42.30		10.01	10.50	11.25	12.28	13.22	14.01	14.81	15.41	
	32	12.18	15.86	19.27	22.04	26.03	30.65	35.09	39.98		11.03	11.50	12.24	13.30	14.30	15.19	15.91	16.58	
	38	11.11	14.04	17.08	20.03	24.10	29.09	34.08	38.90		13.20	13.80	14.30	15.07	15.76	16.88	17.86	18.67	
	43	9.70	12.50	16.02	19.06	22.80	28.07	33.37	38.17		14.55	15.06	15.34	16.05	17.12	18.50	19.80	20.95	
	48	8.10	11.20	14.50	17.04	21.10	26.11				16.50	16.90	17.30	17.80	18.75	20.32			

Notes: 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.

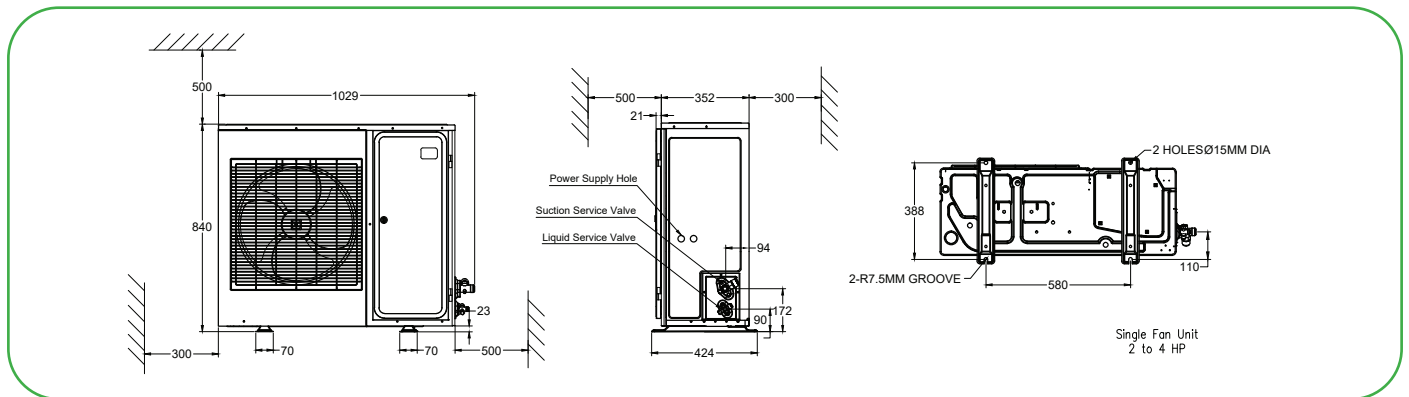
ZXLD Family: Low temperature

Technical data at 50 Hz -TFD

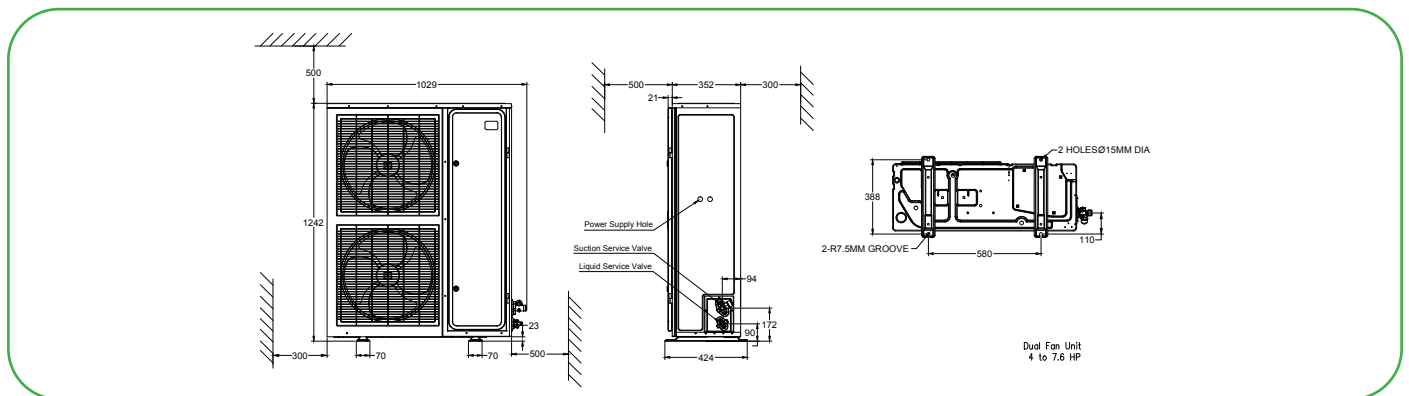
Family				ZXLD			
Nominal Rating		Horsepower	HP	9	12	16	20
Model Name				ZXLD090BE	ZXLD120BE	ZXLD160BE	ZXLD200BE
Performance	R404A	ET/AT/RGT	°C	-32/32/5	-32/32/5	-32/32/5	-32/32/5
		Capacity	kW	7.2	11.99	15.63	17.91
		COP	W/W	1.38	1.28	1.38	1.50
	Sound Pressure Level	@1m	dB(A)	62	69	69	72
Compressor	Rated Load Ampere	R404A	Amp	14.6	11.1+11.1	14.6 + 14.6	14.6 + 14.6
	Locked Rotor Ampere	R404A	Amp	102	74	102	121
	Oil Type	R404A				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	3
	Diameter		mm	450	590	590	600
	Fan Speed		rpm	830	850	850	860
	Air Flow	Total	m ³ /h	5910	19280	19280	23400
	Total Fan Motor Power	Input	W	246	950	950	1350
Others	Oil Separator	Volume	Liters	0.5	2.5	2.5	3
	Receiver Volume (at 32°C)		kg	6.3	17	17	17
	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	1619 x 1010 x 1124		2033 x 857 x 1913
Weight	Net	kg	138	362	362	470	
	Gross	kg	158	462	462	550	

Dimensional drawings

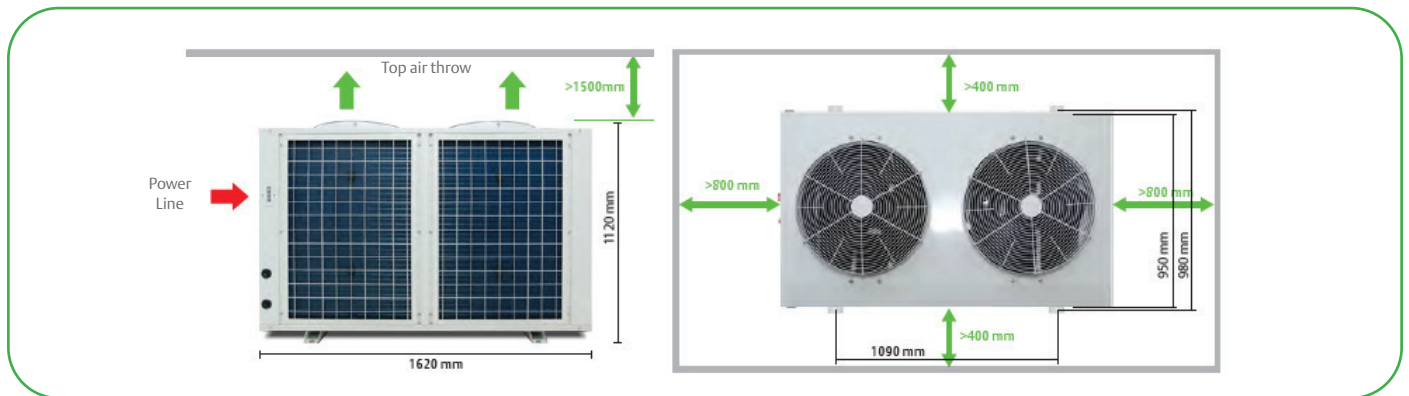
ZX-PFJ (2 HP-4 HP)
 ZX-TFD (2HP-4HP), ZX-PFV/TF5/TF7 (2HP-3HP), ZXB-TFD (1.5HP-3.5HP)
 ZXL-PFJ (2HP-3HP)
 ZXL-TFD (2HP-4HP), ZXL-PFV (2HP, 3.5HP), ZXL-TF5/7 (2HP-3.5HP)
 ZXD-TFD (3HP), ZXD-TF7(3HP)



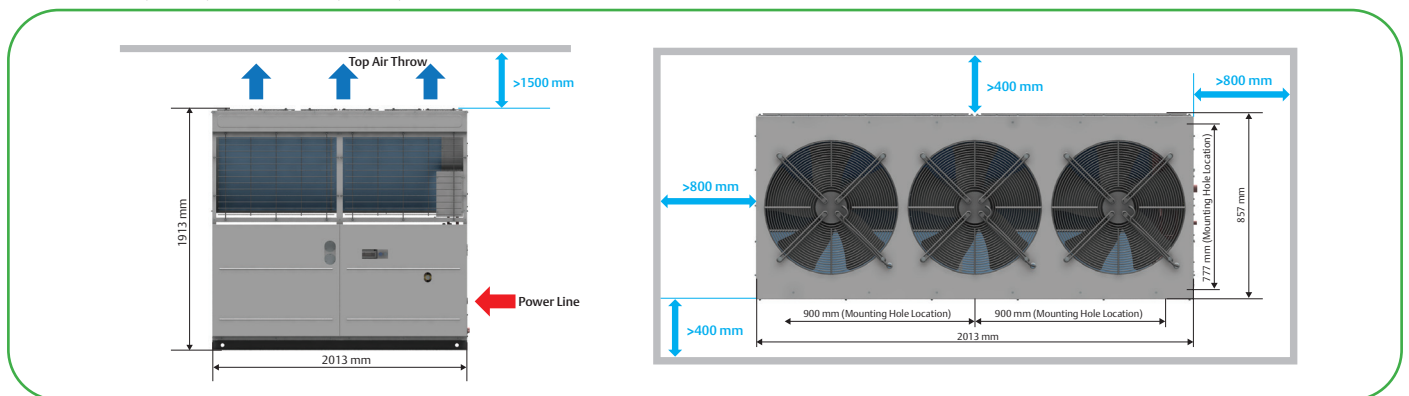
ZX-TFD (5HP-7.6HP), ZX-PFV (4HP-5HP), ZX-TF5/7 (4HP-7.5HP), ZXB-TFD (4HP-6HP)
 ZXL-TFD (5HP-7.5HP), ZXL-PFV (4HP-5HP), ZXL-TF5/7 (4HP-7.5HP),
 ZXD-TFD (4HP-9HP), ZXD-TF5/7 (4HP-7.5HP), **ZXLD-TFD (9HP)**



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



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



Fixing dimension and distance – Top air throw unit