

Scroll Water-Cooled Condensing Units



- High Efficiency Scroll Compressors
- Co Axial Condenser
- Compact Design

Scroll Water-Cooled Condensing Units - 50Hz

Standard BOM Features:

- Compressor with oil sight glass
- HP / LP, water valve & crankcase heater installed

Electrical Data

Nominal Voltage : 380-420V / 3Ph / 50Hz

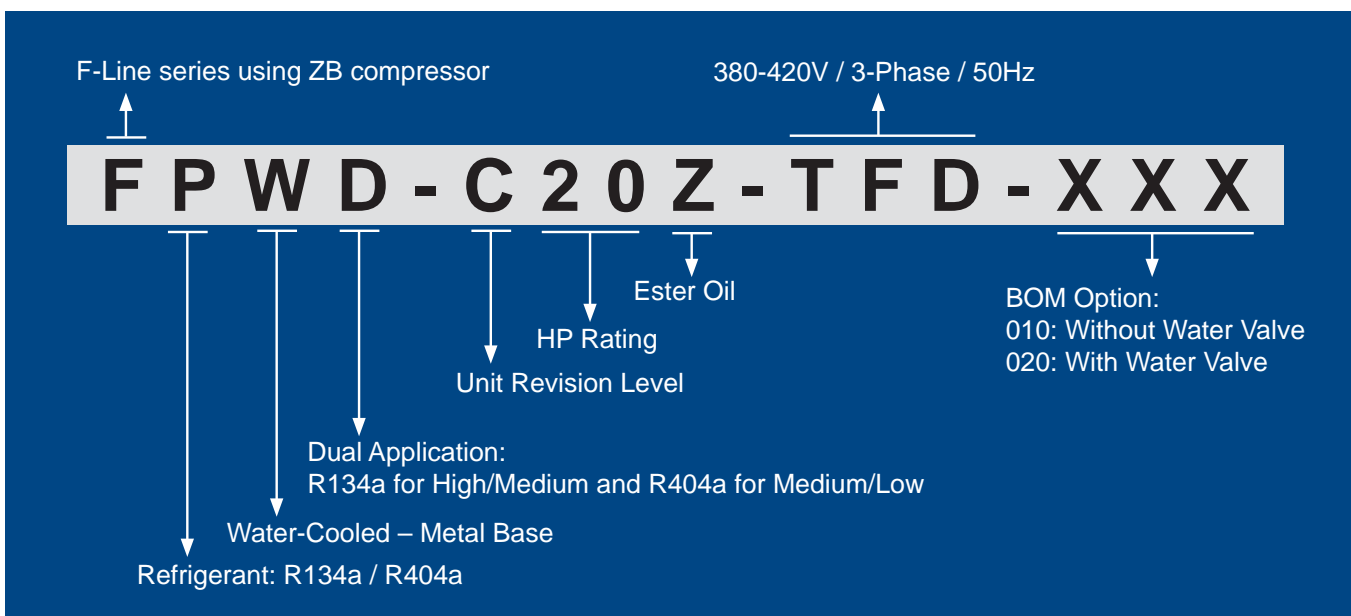
Unit Model	Max Amps	LRA	R134a		R404a	
			KW	Rated Amps	KW	Rated Amps
FPWD-C20Z-TFD	4.9	26.0	0.9	2.4	1.7	3.1
FPWD-C25Z-TFD	6.5	32.0	1.1	2.8	1.9	3.9
FPWD-C30Z-TFD	7.2	40.0	1.3	3.2	2.2	4.6
FPWD-C35Z-TFD	8.9	46.0	1.5	3.7	2.6	5.4
FPWD-C40Z-TFD	10.3	49.3	1.8	3.8	3.0	6.9
FPWD-C50Z-TFD	12.8	65.5	2.2	5.1	3.7	8.7
FPWD-C60Z-TFD	13.1	74.0	2.5	5.2	4.3	8.8

Data at 40°C condensing temperature, 400V / 3Ph / 50Hz
 -5 C for R134a and -25 C for R404a

Mechanical Data

Unit Model	Compressor	Receiver (kg)		Length (mm)	Depth (mm)	Height (mm)	Gross Weight (kg)	POE oil charge (liter)	Suction (mm)	Liquid (mm)
		R134a	R404a							
FPWD-C20Z-TFD	ZB15	5.5	4.7	610	408	443	33	1.30	22.2	9.5
FPWD-C25Z-TFD	ZB19	5.5	4.7	610	408	443	35	1.50	22.2	9.5
FPWD-C30Z-TFD	ZB21	5.5	4.7	610	408	470	36	1.24	22.2	9.5
FPWD-C35Z-TFD	ZB26	5.5	4.7	610	408	486	37	1.45	22.2	9.5
FPWD-C40Z-TFD	ZB30	5.5	4.7	610	408	507	47	1.90	22.2	9.5
FPWD-C50Z-TFD	ZB38	5.5	4.7	610	408	513	49	1.90	22.2	9.5
FPWD-C60Z-TFD	ZB45	8.7	7.5	635	533	565	79	1.90	22.2	9.5

Nomenclature



Scroll Water-Cooled Condensing Units - 50Hz

Capacity, KW

Unit Model	Cond. Temp. °C	R404a										R134a							
		Evaporating Temperature °C																	
		-35	-30	-25	-20	-15	-10	-5	0	5	7	-20	-15	-10	-5	0	5	7	10
FPWD-C20Z-TFD	30		1.90	2.40	3.00	3.80	4.60	5.50	6.60	7.80	8.40	1.50	2.09	2.62	3.28	4.02	4.85	5.20	5.77
	40		1.50	2.00	2.50	3.20	3.90	4.70	5.70	6.80	7.20	1.40	1.87	2.37	2.97	3.67	4.45	4.80	5.31
	50			1.20	2.00	2.50	3.20	3.90	4.70	5.60	6.00		1.50	2.12	2.69	3.31	4.05	4.35	4.84
FPWD-C25Z-TFD	30		2.40	3.00	3.70	4.60	5.50	6.60	7.90	9.40	10.10	1.80	2.41	3.04	3.77	4.63	5.59	6.00	6.64
	40		2.10	2.60	3.30	4.00	4.80	5.80	6.90	8.20	8.80	1.60	2.15	2.73	3.44	4.22	5.12	5.50	6.11
	50			1.90	2.70	3.40	4.10	4.90	5.90	7.00	7.50		1.80	2.44	3.09	3.83	4.68	5.00	5.57
FPWD-C30Z-TFD	30		2.90	3.60	4.50	5.50	6.70	8.00	9.60	11.40	12.10	2.20	3.04	3.82	4.77	5.83	7.04	7.60	8.40
	40		2.50	3.20	3.90	4.80	5.90	7.00	8.40	9.90	10.70	2.00	2.73	3.44	4.33	5.33	6.46	6.96	7.72
	50			2.30	3.30	4.10	4.90	5.90	7.10	8.40	9.00		2.20	3.08	3.90	4.82	5.89	6.35	7.03
FPWD-C35Z-TFD	30		3.40	4.30	5.30	6.40	7.70	9.30	11.10	13.20	14.10	2.60	3.50	4.41	5.49	6.74	8.13	8.78	9.69
	40		3.00	3.70	4.60	5.60	6.80	8.10	9.70	11.60	12.40	2.30	3.14	3.98	5.00	6.15	7.46	8.05	8.91
	50			2.60	3.80	4.70	5.70	6.90	8.30	9.80	10.60		2.60	3.55	4.50	5.58	6.79	7.35	8.13
FPWD-C40Z-TFD	30	2.60	4.00	5.00	6.20	7.60	9.20	11.00	13.10	15.50	16.60	3.00	4.14	5.18	6.61	7.91	9.55	10.30	11.37
	40	2.30	3.40	4.30	5.40	6.60	8.00	9.60	11.50	13.60	14.60	2.70	3.68	4.67	5.86	7.22	8.75	9.45	10.44
	50			3.10	4.40	5.50	6.70	8.10	9.80	11.70	12.50		3.00	4.19	5.29	6.56	7.98	8.64	9.54
FPWD-C50Z-TFD	30	3.20	5.00	6.20	7.70	9.40	11.40	13.70	16.30	19.30	20.50	3.60	5.09	6.38	7.96	9.73	11.75	12.68	14.00
	40	2.90	4.30	5.40	6.70	8.20	9.90	11.90	14.30	16.90	18.00	3.20	4.53	5.75	7.22	8.89	10.77	11.63	12.85
	50			3.90	5.60	6.90	8.40	10.10	12.10	14.40	15.40		3.70	5.16	6.53	8.06	9.82	10.60	11.76
FPWD-C60Z-TFD	30	3.80	5.80	7.30	9.10	11.10	13.50	16.20	19.30	22.70	24.30	4.60	6.16	7.71	9.57	11.70	14.12	15.20	16.79
	40	3.40	5.10	6.30	7.90	9.60	11.70	14.00	16.80	19.80	21.20	4.00	5.45	6.88	8.62	10.57	12.80	13.79	15.29
	50			4.60	6.60	8.10	9.80	11.90	14.20	16.10	18.10		4.40	6.06	7.60	9.44	11.47	12.40	13.75

Capacities are at 20°C return gas temperature and 5K liquid sub cooling **10K superheat**

Water Flow Rate, l / s

Unit Model	R404a										R134a							
	Evaporating Temperature °C																	
	-35	-30	-25	-20	-15	-10	-5	0	5	7	-20	-15	-10	-5	0	5	7	10
FPWD-C20Z-TFD		0.13	0.15	0.17	0.20	0.23	0.26	0.30	0.34	0.36	0.10	0.11	0.13	0.15	0.19	0.22	0.24	0.26
FPWD-C25Z-TFD		0.16	0.19	0.21	0.24	0.27	0.31	0.36	0.41	0.43	0.11	0.12	0.15	0.17	0.21	0.25	0.27	0.30
FPWD-C30Z-TFD		0.20	0.22	0.25	0.29	0.33	0.38	0.43	0.49	0.52	0.13	0.15	0.18	0.22	0.26	0.32	0.34	0.37
FPWD-C35Z-TFD		0.23	0.26	0.30	0.34	0.38	0.44	0.50	0.58	0.61	0.15	0.17	0.21	0.25	0.30	0.37	0.39	0.43
FPWD-C40Z-TFD	0.22	0.26	0.30	0.34	0.39	0.45	0.52	0.59	0.67	0.71	0.18	0.19	0.24	0.30	0.36	0.43	0.46	0.51
FPWD-C50Z-TFD	0.27	0.33	0.37	0.43	0.49	0.56	0.64	0.73	0.84	0.89	0.22	0.24	0.29	0.36	0.44	0.53	0.56	0.62
FPWD-C60Z-TFD	0.31	0.38	0.44	0.50	0.57	0.66	0.75	0.86	0.97	1.03	0.26	0.29	0.35	0.43	0.52	0.62	0.67	0.73

Pressure Drop, psi

Unit Model	R404a										R134a							
	Evaporating Temperature °C																	
	-35	-30	-25	-20	-15	-10	-5	0	5	7	-20	-15	-10	-5	0	5	7	10
FPWD-C20Z-TFD		1.00	1.20	1.30	1.70	2.20	2.90	3.60	4.30	5.80	0.50	0.80	1.20	1.50	2.10	2.80	3.20	3.70
FPWD-C25Z-TFD		1.30	1.60	2.00	2.70	3.60	4.50	5.90	7.10	8.10	0.70	1.00	1.40	1.90	2.50	3.30	3.70	4.40
FPWD-C30Z-TFD		1.60	2.10	2.70	3.70	4.70	6.10	7.80	9.50	10.90	1.00	1.40	2.00	2.60	3.60	4.90	5.70	6.40
FPWD-C35Z-TFD		2.40	2.90	3.50	4.60	6.00	7.90	10.10	12.30	14.00	1.20	1.70	2.40	3.40	4.50	6.10	6.90	8.10
FPWD-C40Z-TFD	2.50	3.00	3.60	4.30	5.80	7.40	9.80	12.40	15.40	17.50	1.50	2.20	3.10	4.30	5.90	7.90	9.00	10.50
FPWD-C50Z-TFD	2.90	3.90	5.00	6.30	8.40	10.20	14.00	18.00	22.20	25.20	2.20	3.20	4.80	6.20	8.40	11.00	12.50	14.80
FPWD-C60Z-TFD	1.90	2.10	2.50	3.00	3.90	5.20	7.20	10.00	14.00	16.10	1.40	1.80	2.30	2.90	3.90	5.40	6.20	7.60

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The company reserves the right to make specification changes without notice.