

Copeland™ AWEF Approved Units

Condensing Units for Walk-In Cooler Applications



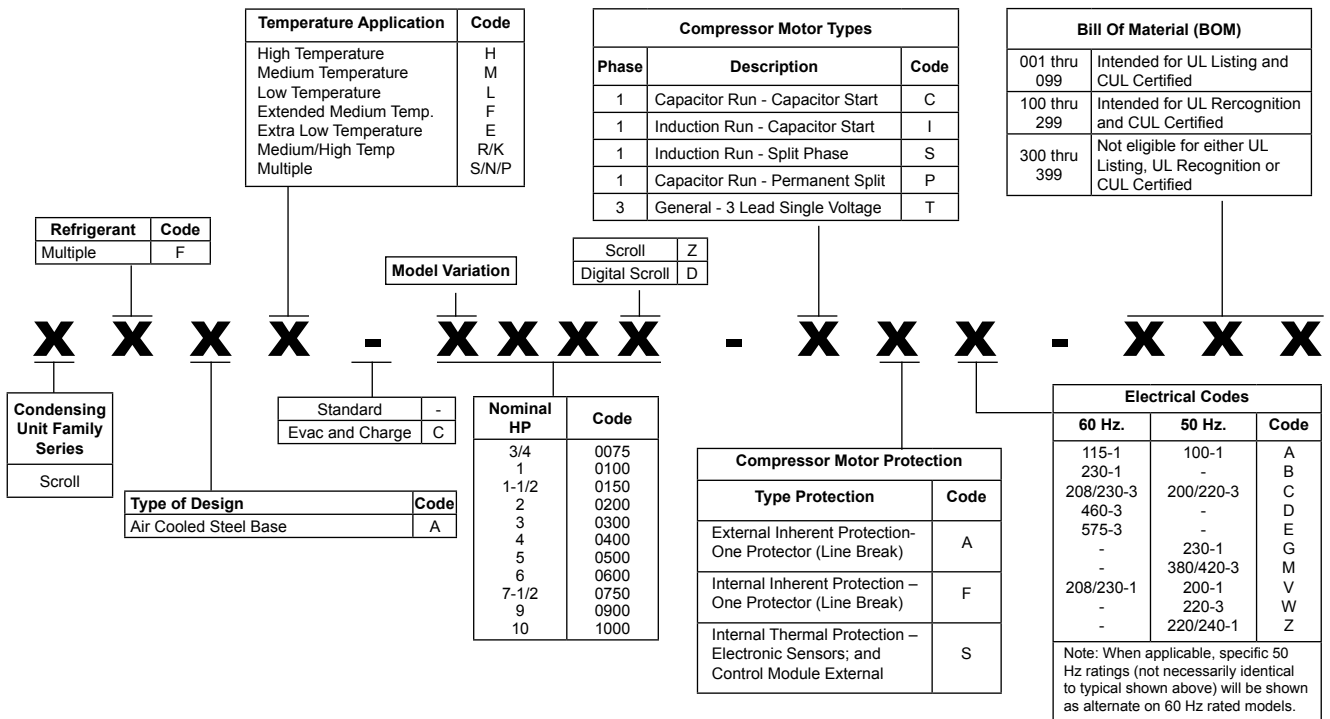
Product Information

Horsepower: 1/2 - 6

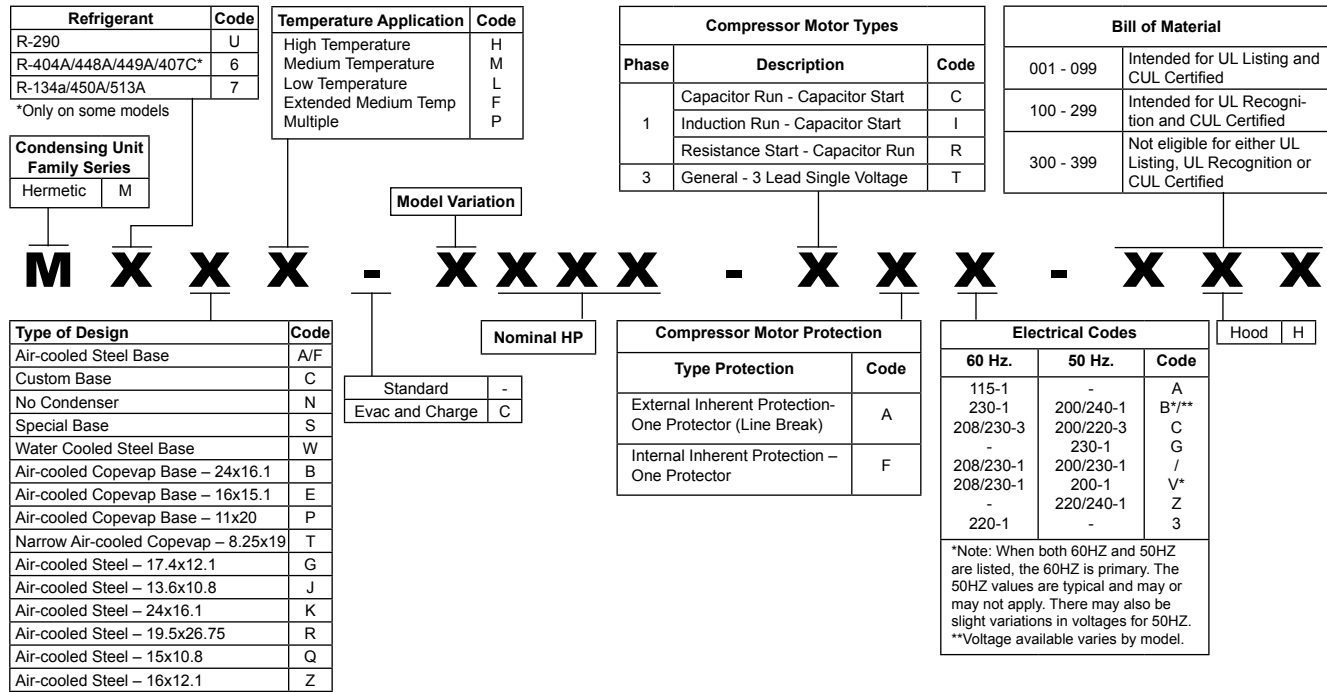
Refrigerants: R-404A, R-407A, R-448A, R-449A



Nomenclature • Welded Condensing Units (F-Line and X-Line)



Nomenclature • M-Line Condensing Units



F/M-Line - Air-cooled

BOM	Options															UL			
	Receiver W/ Valve	Suction Valve	Liquid Base Valve	Fan Guard	End Covers	Conduit	Power Cord	Accumulator*	Fan Cycling	Pressure Controls	Filter Drier	Moisture Indicator	Solenoid Valve	Crankcase Heater	Head Pressure Control Valve	Water Valve	CoreSense	Listed	Recognized
072	X	X		X	X	X				X	X	X						X	
075	X	X		X	X	X		X		X	X	X		X	X			X	

*Applies to two-fan units only

X-Line

BOM	Features														UL			
	Receiver W/ Valve	Receiver Heater / Insulation	Suction Valve	Liquid Valve	Accumulator	Oil Separator (Low Temp Only)	Pressure Controls (Adjustable low, Fixed High)	Defrost Control	Filter Drier	Moisture Indicator / Sight Glass	Crankcase Heater	Variable Speed Condenser Fan	Demand Cooling Low Temp (2-6HP) - Enhanced Vapor Injection (EVI)	Low Temp (3/4 - 1.5HP) Med/Ext Med Temp - Liquid Injecton	Two-Way Communication	CoreSense Diagnostics / Protection	Listed	Recognized
081	X	X	X	X	XFAL, XFAP Only	X	X	X	X	X	X	X	X	X	X	X	X	

AE Bulletins

- 4-1273 Factors to Consider in Converting Compressor Rated Capacity to Actual Capacity
- 4-1292 Medium Temperature R-22 Copelaweld Compressors
- 4-1295 HFC-134A Refrigerant Guidelines
- 4-1298 Extended Medium Temperature R-404A/507 Hermetic Compressors and Condensing Units
- 4-1299 Application Guidelines for Copeland Scroll Compressors 2 - 6 Horsepower
- 4-1302 Application Guidelines for Copeland Scroll Compressors 7.5 - 15 Horsepower
- 4-1305 'SystemPro' AF, AR, & AS Refrigeration Hermetic 1/8-1 Horsepower Compressors
- 4-1306 Application Guidelines for RF Low Temperature Refrigeration Compressors
- 4-1307 Application Guidelines for CF Refrigeration Compressors and Condensing Units
- 4-1317 Application Guidelines for ZBKC / ZBKCE Refrigeration Scroll Compressors 1.3 to 6 HP
- 4-1318 Application Guidelines for ZBKC / ZBKCE Refrigeration Scroll Compressors 7 to 15 HP
- 4-1327 Economized Vapor Injection (EVI) Compressors
- 4-1344 Application Guidelines for RFT, RRT, RST Compressors
- 4-1387 Application Guidelines for ZS**KAE Copeland Scroll™ Refrigeration Compressors 1.3-4.5 HP
- 5-1412 Copeland Scroll Outdoor Refrigeration Unit Installation and Reference Manual
- 8-1376 Electronic Unit Controller
- 11-1147 Suction Accumulators
- 11-1297 Liquid Line Filter-Driers
- 17-1260 Compressor Overheating
- 17-1268 Compression Ratio as it Affects Compressor Reliability
- 22-1182 Liquid Refrigerant Control in Refrigeration and Air Conditioning Systems

Performance Data

Copeland F-Line air-cooled condensing units

HP	Model	Electrical	Comp	Refrig	Capacity (BTU/Hr) 90° Ambient @ SST, 65°F				
					25	30	35	40	45
3/4	FFAM-A08Z	CFV, TFC	ZB06KAE	R-404A	7,740	8,510	9,300	10,100	10,900
				R-407A	7,040	7,820	8,650	9,520	10,400
				R-448A/449A	7,160	7,890	8,650	9,440	10,300
1	FFAM-A10Z	CFV, TFC	ZB07KAE	R-404A	9,190	10,100	11,000	12,000	13,100
				R-407A	8,460	9,290	10,100	11,000	11,900
				R-448A/449A	8,410	9,250	10,100	11,100	12,000
1 1/4	FFAM-A12Z	CFV, TFC	ZB08KAE	R-404A	10,700	11,800	13,000	14,300	15,700
				R-407A	10,000	10,900	11,900	12,800	13,700
				R-448A/449A	10,100	11,100	12,200	13,300	14,400
1 1/2	FFAP-A15Z	CFV, TFC, TFD	ZS09KAE	R-404A	12,000	13,100	14,300	15,600	
				R-407A	11,200	12,200	13,400	14,700	16,100
				R-448A/449A	10,700	11,800	13,100	14,400	15,900
1 3/4	FFAP-A17Z	CFV, TFC, TFD	ZS11KAE	R-404A	14,100	15,400	16,800	18,200	
				R-407A	13,000	14,300	15,600	17,100	18,600
				R-448A/449A	12,600	13,900	15,400	16,900	18,600
2	FFAP-A20Z	CFV, TFC, TFD	ZS13KAE	R-404A	16,300	17,800	19,400	21,100	
				R-407A	15,100	16,500	18,100	19,800	21,600
				R-448A/449A	14,200	15,700	17,300	19,200	21,200
2 1/4	FFAP-A22Z	CFV, TFC, TFD	ZS15KAE	R-404A	20,400	22,300	24,500	26,700	
				R-407A	18,700	20,500	22,600	24,800	27,200
				R-448A/449A	17,800	19,800	21,900	24,200	26,800
3	FFAP-A30Z	CFV, TFC, TFD	ZS19KAE	R-404A	22,500	24,700	27,000	29,400	
				R-407A	20,800	22,900	25,100	27,600	30,200
				R-448A/449A	19,600	21,700	24,100	26,700	29,700
3 1/4	FFAP-A32Z	CFV, TFC, TFD	ZS21KAE	R-404A	29,000	31,600	34,400	37,400	
				R-407A	26,600	29,200	31,900	34,900	38,100
				R-448A/449A	27,400	30,000	32,700	35,600	38,600
4	FFAP-A40Z	CFV, TFC, TFD	ZS26KAE	R-404A	33,900	37,200	40,700	44,500	
				R-407A	30,900	34,100	37,500	41,200	45,100
				R-448A/449A	30,800	34,100	37,700	41,500	45,600
4 1/4	FFAP-A42Z	CFV, TFC, TFD	ZS33KAE	R-404A	41,300	45,200	49,400	54,000	
				R-407A	38,100	41,900	45,900	50,000	55,000
				R-448A/449A	38,900	42,700	46,700	51,000	55,500
5	FFAP-A50Z	CFV, TFC, TFD	ZS38K4E	R-404A	In Development				
				R-407A					
				R-448A/449A					

Performance Data

Copeland M-Line air-cooled condensing units

HP	Model	Electrical	Comp	Refrig	Capacity (BTU/Hr) 90° Ambient @ SST, 65°F				
					25	30	35	40	45
1/2				R-404A	In Development				
				R-407A					
				R-448A/449A					

Performance Data

Copeland X-Line air-cooled condensing units

HP	Model*	Electrical	Comp	Refrig	Capacity (BTU/Hr) 90° Ambient @ SST, 65°F				
					25	30	35	40	45
3/4	XFAM-008Z	CFV, TFC	ZB06KAE	R-404A	8,280	9,180	10,200	11,200	12,300
				R-407A	7,460	8,330	9,280	10,300	11,400
				R-448A/449A	7,640	8,460	9,320	10,200	11,200
1	XFAM-010Z	CFV, TFC	ZB07KAE	R-404A	10,000	11,100	12,400	13,700	15,200
				R-407A	9,050	10,000	11,000	12,000	13,100
				R-448A/449A	9,080	10,100	11,100	12,200	13,400
1 1/4	XFAM-012Z	CFV, TFC	ZB08KAE	R-404A	11,400	12,600	14,100	15,600	17,400
				R-407A	10,500	11,500	12,500	13,500	14,600
				R-448A/449A	10,600	11,800	13,000	14,400	15,700
1 1/2	XFAM-015Z	CFV, TFC	ZS09KAE	R-404A	12,700	14,000	15,300	16,700	18,300
				R-407A	11,800	13,000	14,400	15,900	17,500
				R-448A/449A	11,100	12,300	13,700	15,200	16,900
1 3/4	XFAM-017Z	CFV, TFC	ZS11KAE	R-404A	15,200	16,700	18,300	19,900	21,700
				R-407A	14,000	15,400	17,000	18,700	20,600
				R-448A/449A	13,200	14,700	16,300	18,100	20,100
2	XFAM-020Z	CFV, TFC	ZS13KAE	R-404A	17,600	19,200	20,800	22,500	24,300
				R-407A	15,800	17,400	19,200	21,100	23,300
				R-448A/449A	14,900	16,600	18,400	20,500	22,800
2 1/4	XFAM-022Z	CFV, TFC	ZS15KAE	R-404A	20,400	22,300	24,300	26,400	28,600
				R-407A	18,800	20,800	22,800	25,100	27,500
				R-448A/449A	17,900	19,900	22,100	24,500	27,000
2 1/2	XFAM-025Z	CFV, TFC	ZS19KAE	R-404A	22,700	24,700	26,900	29,200	31,600
				R-407A	21,100	23,200	25,500	28,000	30,700
				R-448A/449A	19,800	21,900	24,300	27,000	30,000
3	XFAM-030Z	CFV, TFC	ZS21KAE	R-404A	29,300	31,900	34,500	37,300	40,200
				R-407A	27,200	29,900	32,800	35,900	39,200
				R-448A/449A	28,000	30,700	33,600	36,600	39,700
3 1/4	XFAM-033Z	CFV, TFC	ZS26KAE	R-404A	33,000	35,500	38,100	40,700	43,400
				R-407A	30,300	33,400	36,700	40,200	43,900
				R-448A/449A	29,300	32,300	35,400	38,600	42,100
3 3/4	XFAM-037Z	CFV, TFC	ZS29KAE	R-404A	36,700	39,400	42,100	44,900	47,700
				R-407A	33,000	36,100	39,500	43,100	46,900
				R-448A/449A	33,800	36,800	40,000	43,200	46,600
4 1/2	XFAM-045Z	CFV, TFC	ZS33KAE	R-404A	40,700	44,200	47,900	52,000	56,000
				R-407A	38,200	41,900	45,900	50,500	55,000
				R-448A/449A	39,000	42,800	46,800	51,000	55,500
5	XFAM-050Z	CFV, TFC	ZS38K4E	R-404A	47,300	51,500	55,500	60,000	65,000
				R-407A	45,000	49,200	53,500	58,000	62,500
				R-448A/449A	46,300	51,000	55,500	60,000	64,500
6	XFAM-060Z	TFC	ZS45K4E	R-404A	55,500	60,500	65,500	70,500	76,000
				R-407A	53,500	58,000	63,500	68,500	74,000
				R-448A/449A	54,500	60,000	65,000	70,500	76,000

*All data for XFAM models also applies to equivalent XFAP models.

Physical and Electrical Data

Copeland F-Line air-cooled condensing units

Model	Compressor	Voltage	Length	Width	Height	Refrigerant Connections [^]		Receiver Capacity (Lbs @ 90% Volume)			MCA	Max Over-current Protection	Approx. Ship Weight
						Liquid	Suction	404A	407A	448/449			
FFAM-A08Z-CFV-072	ZB06KAE	208/230	24.12	18.33	16.45	3/8	7/8	4.9	5.3	5.1	8.9	15	105
FFAM-A08Z-CFV-075	ZB06KAE	208/230	24.08	18.92	16.31	3/8	7/8	9.5	10.5	10.1	8.9	15	115
FFAM-A08Z-TFC-072	ZB06KAE	208/230	24.12	18.33	16.45	3/8	7/8	4.9	5.3	5.1	7	15	102
FFAM-A08Z-TFC-075	ZB06KAE	208/230	24.08	18.92	16.31	3/8	7/8	9.5	10.5	10.1	7	15	113
FFAM-A10Z-CFV-075	ZB07KAE	208/230	24.08	18.92	16.31	3/8	7/8	9.5	10.5	10.1	9.3	15	116
FFAM-A10Z-TFC-072	ZB07KAE	208/230	24.12	18.33	16.45	3/8	7/8	4.9	5.3	5.1	7.6	15	105
FFAM-A10Z-TFC-075	ZB07KAE	208/230	24.08	18.92	16.31	3/8	7/8	9.5	10.5	10.1	7.6	15	114
FFAM-A12Z-CFV-072	ZB08KAE	208/230	24.12	18.33	16.45	3/8	7/8	4.9	5.3	5.1	11.4	15	109
FFAM-A12Z-CFV-075	ZB08KAE	208/230	24.08	18.92	16.31	3/8	7/8	9.5	10.5	10.1	11.4	15	119
FFAM-A12Z-TFC-072	ZB08KAE	208/230	24.12	18.33	16.45	3/8	7/8	4.9	5.3	5.1	8	15	107
FFAM-A12Z-TFC-075	ZB08KAE	208/230	24.08	18.92	16.31	3/8	7/8	9.5	10.5	10.1	8.4	15	116
FFAP-A15Z-CFV-072	ZS09KAE	208/230	24.1	18.42	16.62	3/8	7/8	9.5	10.5	10.1	13.9	20	117
FFAP-A15Z-CFV-075	ZS09KAE	208/230	24.09	18.98	16.62	3/8	7/8	9.5	10.5	10.1	13.9	20	120
FFAP-A15Z-TFC-072	ZS09KAE	208/230	24.1	18.42	16.62	3/8	7/8	9.5	10.5	10.1	11.4	15	117
FFAP-A15Z-TFC-075	ZS09KAE	208/230	24.09	18.98	16.62	3/8	7/8	9.5	10.5	10.1	11.4	15	117
FFAP-A15Z-TFD-072	ZS09KAE	460	24.1	18.42	16.62	3/8	7/8	9.5	10.5	10.1	6.4	15	117
FFAP-A15Z-TFD-075	ZS09KAE	460	24.09	18.98	16.62	3/8	7/8	9.5	10.5	10.1	6.4	15	120
FFAP-A17Z-CFV-072	ZS11KAE	208/230	24.1	18.42	16.62	3/8	7/8	9.5	10.5	10.1	17.2	25	121
FFAP-A17Z-CFV-075	ZS11KAE	208/230	24.09	18.98	16.62	3/8	7/8	9.5	10.5	10.1	17.1	25	120
FFAP-A17Z-TFC-072	ZS11KAE	208/230	24.1	18.42	16.62	3/8	7/8	9.5	10.5	10.1	7	15	121
FFAP-A17Z-TFC-075	ZS11KAE	208/230	24.09	18.98	16.62	3/8	7/8	9.5	10.5	10.1	7	15	117
FFAP-A17Z-TFD-072	ZS11KAE	460	24.1	18.42	16.62	3/8	7/8	9.5	10.5	10.1	7	15	121
FFAP-A17Z-TFD-075	ZS11KAE	460	24.09	18.98	16.62	3/8	7/8	9.5	10.5	10.1	7	15	120
FFAP-A20Z-CFV-072	ZS13KAE	208/230	34.06	25.02	18.88	3/8	7/8	9.5	10.5	10.1	16.8	25	189
FFAP-A20Z-CFV-075	ZS13KAE	208/230	34.14	25.04	18.86	3/8	7/8	9.5	10.5	10.1	16.8	25	224
FFAP-A20Z-TFC-072	ZS13KAE	208/230	34.06	25.02	18.88	3/8	7/8	9.5	10.5	10.1	13.9	20	183
FFAP-A20Z-TFC-075	ZS13KAE	208/230	34.14	25.04	18.86	3/8	7/8	9.5	10.5	10.1	13.9	20	221
FFAP-A20Z-TFD-072	ZS13KAE	460	34.06	25.02	18.88	3/8	7/8	9.5	10.5	10.1	7.1	15	184
FFAP-A20Z-TFD-075	ZS13KAE	460	34.14	25.04	18.86	3/8	7/8	9.5	10.5	10.1	7.1	15	222
FFAP-A22Z-CFV-072	ZS15KAE	208/230	34.06	25.06	19.03	3/8	7/8	9.5	10.5	10.1	22.4	35	195
FFAP-A22Z-CFV-075	ZS15KAE	208/230	34.06	25.06	23.09	3/8	7/8	18.3	19.8	19.1	22.4	35	221
FFAP-A22Z-TFC-072	ZS15KAE	208/230	34.06	25.06	19.03	3/8	7/8	9.5	10.5	10.1	16.1	20	193
FFAP-A22Z-TFC-075	ZS15KAE	208/230	34.06	25.06	23.09	3/8	7/8	18.3	19.8	19.1	16.1	20	219
FFAP-A22Z-TFD-072	ZS15KAE	460	34.06	25.06	19.03	3/8	7/8	9.5	10.5	10.1	10	15	193
FFAP-A22Z-TFD-075	ZS15KAE	460	34.06	25.06	23.09	3/8	7/8	18.3	19.8	19.1	10	15	219
FFAP-A30Z-CFV-072	ZS19KAE	208/230	34.06	25.06	19.03	3/8	7/8	9.5	10.5	10.1	25.3	10	195
FFAP-A30Z-CFV-075	ZS19KAE	208/230	34.06	25.06	23.09	3/8	7/8	18.3	19.8	19.1	25.3	40	221
FFAP-A30Z-TFC-072	ZS19KAE	208/230	34.06	25.06	19.03	3/8	7/8	9.5	10.5	10.1	19.9	30	193
FFAP-A30Z-TFC-075	ZS19KAE	208/230	34.06	25.06	23.09	3/8	7/8	18.3	19.8	19.1	19.9	30	219
FFAP-A30Z-TFD-072	ZS19KAE	460	34.06	25.06	19.03	3/8	7/8	9.5	10.5	10.1	11.3	15	193
FFAP-A30Z-TFD-075	ZS19KAE	460	34.06	25.06	23.09	3/8	7/8	18.3	19.8	19.1	11.3	15	219
FFAP-A32Z-CFV-072	ZS21KAE	208/230	34.06	25.06	18.88	3/8	1 1/8	9.5	10.5	10.1	31.8	50	195
FFAP-A32Z-CFV-075	ZS21KAE	208/230	34.06	25.1	23.1	3/8	1 1/8	18.3	19.8	19.1	31.8	50	221
FFAP-A32Z-TFC-072	ZS21KAE	208/230	34.06	25.06	18.88	3/8	1 1/8	9.5	10.5	10.1	21.8	30	193
FFAP-A32Z-TFC-075	ZS21KAE	208/230	34.06	25.1	23.1	3/8	1 1/8	18.3	19.8	19.1	21.8	30	219
FFAP-A32Z-TFD-072	ZS21KAE	460	34.06	25.06	18.88	3/8	1 1/8	9.5	10.5	10.1	10.4	15	193
FFAP-A32Z-TFD-075	ZS21KAE	460	34.06	25.1	23.1	3/8	1 1/8	18.3	19.8	19.1	11.8	15	219
FFAP-A40Z-CFV-072	ZS26KAE	208/230	44.06	28.26	26.65	1/2	1 1/8	18.3	19.8	19.1	33.1	50	304
FFAP-A40Z-CFV-075	ZS26KAE	208/230	44.06	28.19	27.44	1/2	1 1/8	21.1	23.2	22.3	33.1	50	332
FFAP-A40Z-TFC-072	ZS26KAE	208/230	44.06	28.26	26.65	1/2	1 1/8	18.3	19.8	19.1	23	30	302
FFAP-A40Z-TFC-075	ZS26KAE	208/230	44.06	28.19	27.44	1/2	1 1/8	21.1	23.2	22.3	23	30	330
FFAP-A40Z-TFD-072	ZS26KAE	460	44.06	28.26	26.65	1/2	1 1/8	18.3	19.8	19.1	11	15	302

Physical and Electrical Data

Copeland F-Line air-cooled condensing units

Model	Compressor	Voltage	Length	Width	Height	Refrigerant Connections [^]		Receiver Capacity (Lbs @ 90% Volume)			MCA	Max Over-current Protection	Approx. Ship Weight
						Liquid	Suction	404A	407A	448/449			
FFAP-A40Z-TFD-075	ZS26KAE	460	44.06	28.19	27.44	1/2	1 1/8	21.1	23.2	22.3	11	15	330
FFAP-A42Z-CFV-072	ZS33KAE	208/230	44.06	28.26	26.65	1/2	1 1/8	18.3	19.8	19.1	38.9	60	304
FFAP-A42Z-CFV-075	ZS33KAE	208/230	44.06	28.19	27.44	1/2	1 1/8	21.1	23.2	22.3	38.9	60	332
FFAP-A42Z-TFC-072	ZS33KAE	208/230	44.06	28.26	26.65	1/2	1 1/8	18.3	19.8	19.1	31.5	50	302
FFAP-A42Z-TFC-075	ZS33KAE	208/230	44.06	28.19	27.44	1/2	1 1/8	21.1	23.2	22.3	31.5	50	330
FFAP-A42Z-TFD-072	ZS33KAE	460	44.06	28.26	26.65	1/2	1 1/8	18.3	19.8	19.1	14.9	20	302
FFAP-A42Z-TFD-075	ZS33KAE	460	44.06	28.19	27.44	1/2	1 1/8	21.1	23.2	22.3	14.9	20	330
FFAP-A50Z-CFV-072													
FFAP-A50Z-CFV-075													
FFAP-A50Z-TFC-072													
FFAP-A50Z-TFC-075													
FFAP-A50Z-TFD-072													
FFAP-A50Z-TFD-075													

In Development

Physical and Electrical Data

Copeland M-Line air-cooled condensing units

Model	Compressor	Voltage	Length	Width	Height	Refrigerant Connections [^]		Receiver Capacity (Lbs @ 90% Volume)		MCA	Max Over-current Protection	Approx. Ship Weight
						Liquid	Suction	404A	448/449			

In Development

Physical and Electrical Data

Copeland X-Line air-cooled condensing units

Model*	Compressor	Chassis	Length	Width	Height	Refrigerant Connections [^]		Receiver Capacity (Lbs @ 90% Volume)			MCA	Max Over-current Protection**	Defrost Relay Rating† (Amps)	Approx. Ship Weight
						Liquid	Suction	404A	407A	448/449				
XFAM-008Z-CFV	ZB06KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	9.3	15	40	218
XFAM-008Z-TFC	ZB06KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	8.05	15	40	218
XFAM-010Z-CFV	ZB07KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	9.3	15	40	218
XFAM-010Z-TFC	ZB07KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	8.1	15	40	218
XFAM-012Z-CFV	ZB08KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	11.1	15	40	218
XFAM-012Z-TFC	ZB08KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	8.1	15	40	218
XFAM-015Z-CFV	ZS09KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	13.55	20	40	218
XFAM-015Z-TFC	ZS09KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	11.05	15	40	219
XFAM-017Z-CFV	ZS11KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	16.8	25	40	219
XFAM-017Z-TFC	ZS11KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	14.05	20	40	219
XFAM-020Z-CFV	ZS13KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	16.1	25	40	219
XFAM-020Z-TFC	ZS13KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	13.2	20	40	219
XFAM-022Z-CFV	ZS15KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	20.68	35	40	220
XFAM-022Z-TFC	ZS15KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	14.3	20	40	219
XFAM-025Z-CFV	ZS19KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	23.6	40	40	219
XFAM-025Z-TFC	ZS19KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	18.2	30	40	219
XFAM-030Z-CFV	ZS21KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	30.05	50	40	236
XFAM-030Z-TFC	ZS21KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	20.05	30	40	236
XFAM-033Z-CFV	ZS26KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	30.6	50	40	236
XFAM-033Z-TFC	ZS26KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	20.4	30	40	236
XFAM-037Z-CFV	ZS29KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	33.7	50	40	236
XFAM-037Z-TFC	ZS29KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	9.1	10	9.7	26.7	45	40	236
XFAM-045Z-CFV	ZS33KAE-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	13.4	14.8	14.2	37.35	60	40	285
XFAM-045Z-TFC	ZS33KAE-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	13.4	14.8	14.2	29.98	50	40	280
XFAM-050Z-CFV	ZS38K4E-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	13.4	14.8	14.2	41.85	70	40	292
XFAM-050Z-TFC	ZS38K4E-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	13.4	14.8	14.2	28.85	45	40	292
XFAM-060Z-TFC	ZS45K4E-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	13.4	14.8	14.2	31.98	50	40	299

** Max Over-current rating applies to the condensing unit only. Additional evaporator fan or defrost heater loads must be considered.

See evaporator manufacturer literature for additional load requirements.

† Defrost relay for single phase heaters only. For three-phase heaters, additional contactors are required.

* All data for XFAM models also applies to equivalent XFAP models.

AWEF Cooler Scores

Copeland F-Line air-cooled condensing units

If a score is shown in the table below, the following statement applies:

“This refrigeration system is designed and certified for use in walk-in cooler applications.”

Model Number	R-404A		R-407A		R-448A / R449A	
	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
FFAM-A08Z-CFV-072	5.61		5.61		5.61	
FFAM-A08Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAM-A08Z-TFC-072	5.61		5.61		5.61	
FFAM-A08Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAM-A10Z-CFV-075		7.6		7.6		7.6
FFAM-A10Z-TFC-072	5.61		5.61		5.61	
FFAM-A10Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAM-A12Z-CFV-072	5.61		5.61		5.61	
FFAM-A12Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAM-A12Z-TFC-072	5.61		5.61		5.61	
FFAM-A12Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A15Z-CFV-072	5.61		5.61		5.61	
FFAP-A15Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A15Z-TFC-072	5.61		5.61		5.61	
FFAP-A15Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A15Z-TFD-072	5.61		5.61		5.61	
FFAP-A15Z-TFD-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A17Z-CFV-072	5.61		5.61		5.61	
FFAP-A17Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A17Z-TFC-072	5.61		5.61		5.61	
FFAP-A17Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A17Z-TFD-072	5.61		5.61		5.61	
FFAP-A17Z-TFD-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A20Z-CFV-072	5.61		5.61		5.61	
FFAP-A20Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A20Z-TFC-072	5.61		5.61		5.61	
FFAP-A20Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A20Z-TFD-072	5.61		5.61		5.61	
FFAP-A20Z-TFD-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A22Z-CFV-072	5.61		5.61		5.61	
FFAP-A22Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A22Z-TFC-072	5.61		5.61		5.61	
FFAP-A22Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A22Z-TFD-072	5.61		5.61		5.61	
FFAP-A22Z-TFD-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A30Z-CFV-072	5.61		5.61		5.61	
FFAP-A30Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A30Z-TFC-072	5.61		5.61		5.61	
FFAP-A30Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A30Z-TFD-072	5.61		5.61		5.61	
FFAP-A30Z-TFD-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A32Z-CFV-072			5.61		5.61	
FFAP-A32Z-CFV-075		7.6	5.61	7.6	5.61	7.6
FFAP-A32Z-TFC-072			5.61		5.61	
FFAP-A32Z-TFC-075		7.6	5.61	7.6	5.61	7.6
FFAP-A32Z-TFD-072			5.61		5.61	
FFAP-A32Z-TFD-075		7.6	5.61	7.6	5.61	7.6
FFAP-A40Z-CFV-072	5.61		5.61		5.61	
FFAP-A40Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A40Z-TFC-072	5.61		5.61		5.61	
FFAP-A40Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A40Z-TFD-072	5.61		5.61		5.61	
FFAP-A40Z-TFD-075	5.61	7.6	5.61	7.6	5.61	7.6

AWEF Cooler Scores

Copeland F-Line air-cooled condensing units

If a score is shown in the table below, the following statement applies:
 “This refrigeration system is designed and certified for use in walk-in cooler applications.”

Model Number	R-404A		R-407A		R-448A / R449A	
	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
FFAP-A42Z-CFV-072	5.61		5.61		5.61	
FFAP-A42Z-CFV-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A42Z-TFC-072	5.61		5.61		5.61	
FFAP-A42Z-TFC-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A42Z-TFD-072	5.61		5.61		5.61	
FFAP-A42Z-TFD-075	5.61	7.6	5.61	7.6	5.61	7.6
FFAP-A50Z-CFV-072	In Development					
FFAP-A50Z-CFV-075						
FFAP-A50Z-TFC-072						
FFAP-A50Z-TFC-075						
FFAP-A50Z-TFD-072						
FFAP-A50Z-TFD-075						
FFAP-A50Z-TFD-075						

AWEF Cooler Scores

Copeland M-Line air-cooled condensing units

If a score is shown in the table below, the following statement applies:
 “This refrigeration system is designed and certified for use in walk-in cooler applications.”

Model Number	R-404A		R-448A / R449A	
	Indoor	Outdoor	Indoor	Outdoor
	In Development			

AWEF Cooler Scores

Copeland X-Line air-cooled condensing units

If a score is shown in the table below, the following statement applies:
 “This refrigeration system is designed and certified for use in walk-in cooler applications.”

Model Number	R-404A		R-407A		R-448A / R449A	
	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor
XFAM-008Z-CFV-081		7.6		7.6		7.6
XFAM-008Z-TFC-081		7.6		7.6		7.6
XFAM-010Z-CFV-081		7.6		7.6		7.6
XFAM-010Z-TFC-081		7.6		7.6		7.6
XFAM-012Z-CFV-081		7.6		7.6		7.6
XFAM-012Z-TFC-081		7.6		7.6		7.6
XFAM-015Z-CFV-081		7.6		7.6		7.6
XFAM-015Z-TFC-081		7.6		7.6		7.6
XFAM-017Z-CFV-081		7.6		7.6		7.6
XFAM-017Z-TFC-081		7.6		7.6		7.6
XFAM-020Z-CFV-081		7.6		7.6		7.6
XFAM-020Z-TFC-081		7.6		7.6		7.6
XFAM-022Z-CFV-081		7.6		7.6		7.6
XFAM-022Z-TFC-081		7.6		7.6		7.6
XFAM-025Z-CFV-081		7.6		7.6		7.6
XFAM-025Z-TFC-081		7.6		7.6		7.6
XFAM-030Z-CFV-081		7.6		7.6		7.6
XFAM-030Z-TFC-081		7.6		7.6		7.6
XFAM-033Z-CFV-081		7.6		7.6		7.6
XFAM-033Z-TFC-081		7.6		7.6		7.6
XFAM-037Z-CFV-081		7.6		7.6		7.6
XFAM-037Z-TFC-081		7.6		7.6		7.6
XFAM-045Z-CFV-081		7.6		7.6		7.6
XFAM-045Z-TFC-081		7.6		7.6		7.6
XFAM-050Z-CFV-081		7.6		7.6		7.6
XFAM-050Z-TFC-081		7.6		7.6		7.6
XFAM-060Z-TFC-081		7.6		7.6		7.6
XFAP-015Z-CFV-081		7.6		7.6		7.6
XFAP-015Z-TFC-081		7.6		7.6		7.6
XFAP-017Z-CFV-081		7.6		7.6		7.6
XFAP-017Z-TFC-081		7.6		7.6		7.6
XFAP-020Z-CFV-081		7.6		7.6		7.6
XFAP-020Z-TFC-081		7.6		7.6		7.6
XFAP-022Z-CFV-081		7.6		7.6		7.6
XFAP-022Z-TFC-081		7.6		7.6		7.6
XFAP-025Z-CFV-081		7.6		7.6		7.6
XFAP-025Z-TFC-081		7.6		7.6		7.6
XFAP-030Z-CFV-081		7.6		7.6		7.6
XFAP-030Z-TFC-081		7.6		7.6		7.6
XFAP-033Z-CFV-081		7.6		7.6		7.6
XFAP-033Z-TFC-081		7.6		7.6		7.6
XFAP-037Z-CFV-081		7.6		7.6		7.6
XFAP-037Z-TFC-081		7.6		7.6		7.6
XFAP-045Z-CFV-081		7.6		7.6		7.6
XFAP-045Z-TFC-081		7.6		7.6		7.6
XFAP-050Z-CFV-081		7.6		7.6		7.6
XFAP-050Z-TFC-081		7.6		7.6		7.6
XFAP-060Z-TFC-081		7.6		7.6		7.6

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