

Copeland™ F-Line

Air-Cooled and Water-Cooled Condensing Units



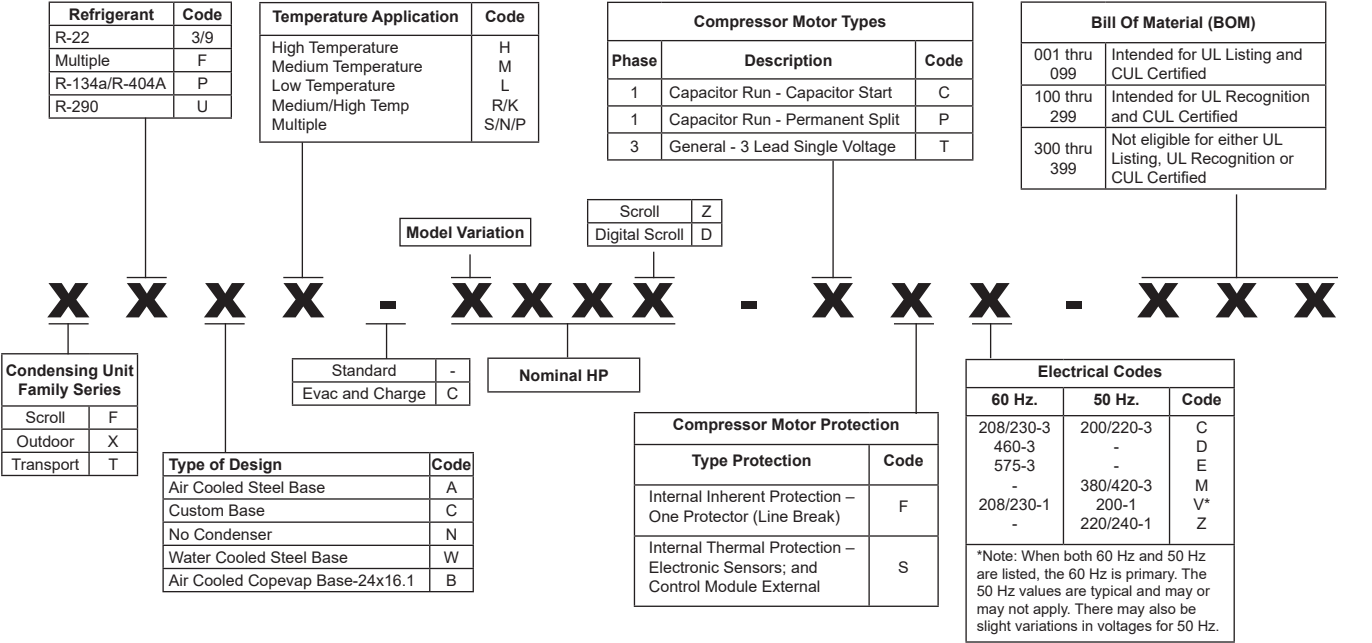
Product Information

Horsepower: 3/4 -10

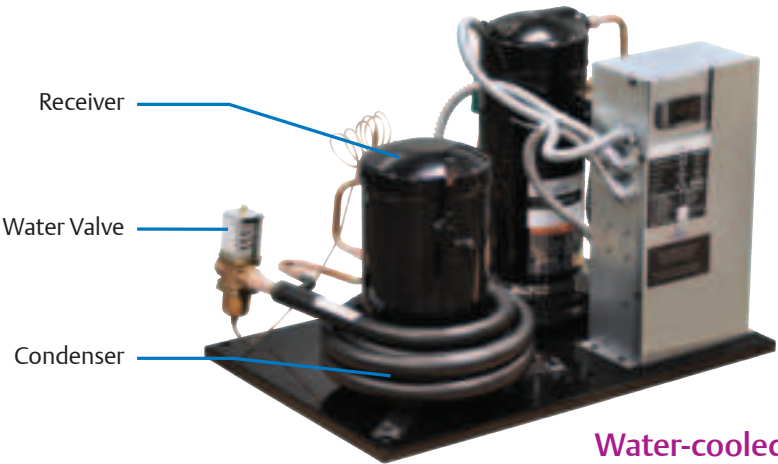
Refrigerants: R-22, R-134a, R-404A, R-407A,
R-407C, R-448A, R-449A, R-507



Nomenclature • Welded Condensing Units



Air-cooled



Water-cooled

Bill of Materials Matrix

BOM	Options																	UL		
Sweat	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	Compressor Electronics Technology	Listed	Recognized	
	Air Cooled																			
	071	X	X		X	X	X		X	X	X	X	X		X				X	
	072	X	X		X	X	X		X*		X	X	X						X	
	075	X	X		X	X	X		X ¹		X	X	X		X	X			X	
Water Cooled																				
020	X	X				X				X				X		X		X		

* -071 BOM not available on all models. See Emerson.com/CopelandOPI for available models.

¹ Accumulator available on dual fan units only.

All information in this catalog is for reference only and subject to change without notice. Please visit Emerson.com/CopelandOPI for a complete listing of all available models and updated information.

For AWEF compliant models, see pages 32-33.

Application Engineering 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
- 4-1344 Application Guidelines for RFT, RRT, RST Compressors
- 4-1387 Application Guidelines for ZS**KAE Copeland Scroll Refrigeration Compressors 1.3-4.5 HP
- 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

Copeland™ air-cooled and water-cooled condensing units

Features	Benefits
Copeland Scroll Compressor	Reliability, High Energy Efficiency, Low Sound & Vibration
Advance Diagnostics and Protection Features	Faster Trouble Shooting Warranty Reduction
Factory Installed EK Filter Drier & HMI Moisture Indicator	Less Leaks, Reduce Callbacks, Lower Installation Cost, Increase Equipment Reliability, Lower Warranty
Aluminum/Copper Condenser Design	Durability
Multi Refrigerant Approval for High/Med Models	Application Flexibility Inventory Consolidation



Climate.Emerson.com

Access for more
product information

For more information, visit Emerson.com/CopelandOPI.

Medium Temp – Air Cooled

90° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
3/4	FFAM-A08Z	ZB06KAE	CFV	R-134a			2800	3200	3640	4130	4680	4770	5340	5950	6620	7320
				R-404A	3920	4380	4890	5470	6090	6760	7460	7740	8500	9300	10100	11000
				R-407A	3560	3950	4420	4950	5550	6200	6920	7040	7820	8640	9520	10400
				R-407C	3090	3580	4090	4640	5230	5850	6520	6610	7320	8070	8870	9710
				R-448A	3600	4060	4570	5120	5720	6360	7030	7160	7880	8650	9450	10300
				R-449A	3620	4080	4590	5140	5730	6370	7050	7170	7900	8660	9450	10300
			TFC	R-134a			2800	3200	3640	4130	4680	4770	5340	5960	6620	7330
				R-404A	3920	4380	4900	5470	6090	6760	7470	7740	8510	9300	10100	10900
				R-407A	3560	3950	4420	4950	5550	6210	6920	7040	7820	8650	9520	10400
				R-407C	3090	3580	4090	4640	5230	5850	6520	6610	7320	8080	8880	9720
				R-448A	3610	4070	4570	5120	5720	6360	7040	7160	7890	8650	9440	10300
				R-449A	3630	4090	4590	5140	5740	6370	7050	7170	7900	8650	9450	10300
1	FFAM-A10Z	ZB07KAE	CFV	R-134a			3440	3920	4460	5030	5640	5740	6400	7120	7880	8690
				R-404A	4590	5200	5840	6520	7250	8020	8840	9170	10100	11000	12000	13100
				R-407A	4120	4720	5360	6050	6770	7530	8320	8460	9290	10100	11000	11900
				R-407C	3740	4280	4870	5500	6180	6910	7670	7780	8600	9450	10300	11200
				R-448A	4240	4780	5370	6010	6710	7460	8250	8410	9250	10100	11100	12000
				R-449A	4260	4790	5380	6030	6720	7470	8250	8410	9250	10100	11000	12000
			TFC	R-134a			3440	3920	4460	5030	5640	5740	6410	7120	7890	8690
				R-404A	4600	5210	5850	6530	7260	8030	8850	9190	10100	11000	12000	13100
				R-407A	4120	4720	5360	6050	6770	7530	8320	8460	9290	10100	11000	11900
				R-407C	3740	4280	4870	5510	6190	6910	7680	7790	8590	9440	10300	11200
				R-448A	4240	4780	5370	6010	6710	7460	8250	8410	9250	10100	11100	12000
				R-449A	4260	4790	5380	6030	6720	7470	8260	8410	9260	10100	11000	12000
	FPAK-010Z	ZS09KAE	CFV	R-134a		4020	4520	5060	5620	6230	6870	7100	7810	8570	9370	10200
				R-404A	5940	6540	7190	7860	8570	9310	10100	10500	11400	12300	13200	
			TFC, TFD	R-134a		4020	4520	5060	5620	6230	6870	7100	7810	8570	9370	10200
				R-404A	5870	6470	7110	7780	8490	9230	10000	10500	11300	12200	13100	
				R-134a			4090	4640	5270	5960	6700	6810	7600	8440	9340	10300
				R-404A	5560	6240	6950	7700	8500	9370	10300	10700	11800	13000	14300	15700
1 1/4	FFAM-A12Z	ZB08KAE	CFV	R-407A	4960	5730	6520	7330	8160	9010	9870	10000	10900	11900	12800	13700
				R-407C	4560	5190	5860	6580	7360	8190	9090	9210	10200	11200	12300	13500
				R-448A	5100	5720	6420	7190	8030	8930	9900	10100	11100	12200	13300	14400
				R-449A	5110	5720	6420	7190	8030	8930	9890	10100	11100	12200	13300	14400
			TFC	R-134a			4090	4640	5270	5960	6700	6820	7600	8450	9350	10300
				R-404A	5560	6240	6950	7700	8500	9370	10300	10700	11800	13000	14300	15700
				R-407A	4960	5730	6520	7330	8160	9010	9880	10000	10900	11900	12800	13700
				R-407C	4560	5190	5860	6580	7360	8190	9090	9210	10200	11200	12300	13500
				R-448A	5110	5720	6420	7190	8030	8930	9900	10100	11100	12200	13300	14400
				R-449A	5110	5730	6420	7190	8030	8930	9890	10100	11100	12200	13300	14400
	FPAK-012Z	ZS11KAE	CFV	R-134a		4730	5300	5920	6560	7250	7980	8250	9060	9910	10800	11700
				R-404A	6790	7450	8150	8880	9630	10400	11200	11700	12600	13500	14400	
			TFC, TFD	R-134a		4730	5300	5920	6560	7250	7980	8250	9060	9910	10800	11700
				R-404A	6890	7570	8260	9000	9760	10500	11400	11900	12800	13700	14600	
	FPAK-013Z	ZS15KAE	CFV	R-134a		6640	7470	8360	9300	10300	11400	11800	13000	14200	15600	17000
				R-404A	9940	11000	12000	13200	14400	15700	17000	17800	19200	20800	22400	
			TFC, TFD	R-134a		6640	7470	8360	9300	10300	11400	11800	13000	14200	15600	17000
				R-404A	9860	10900	11900	13100	14300	15600	16900	17600	19100	20600	22200	

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

90° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
1 1/2	FFAP-A15Z	ZS09KAE	CFV	R-134a	3680	4210	4790	5420	6100	6810	7580	7700	8540	9430	10400	11400
				R-404A	6430	7150	7940	8780	9690	10700	11700	11900	12900	14000	15100	16300
				R-407A	6010	6700	7430	8220	9070	9990	11000	11200	12200	13400	14700	16100
				R-407C	4910	5770	6660	7580	8530	9520	10500	10700	11700	12900	14000	15200
				R-448A	5490	6130	6810	7560	8390	9310	10300	10500	11700	13000	14400	15900
				R-449A	5490	6130	6810	7560	8390	9310	10300	10500	11700	13000	14300	15900
			TFC, TFD	R-134a	3680	4210	4790	5410	6100	6810	7570	7700	8530	9430	10400	11400
				R-404A	6350	7070	7840	8680	9570	10500	11600	11800	12800	13900	15000	16200
				R-407A	6010	6700	7430	8220	9070	9990	11000	11200	12200	13400	14700	16100
				R-407C	4910	5770	6660	7580	8530	9520	10500	10700	11700	12900	14000	15200
				R-448A	5440	6110	6820	7610	8470	9420	10500	10700	11800	13100	14400	15900
				R-449A	5450	6110	6830	7610	8470	9420	10500	10700	11800	13100	14400	15900
	FPAK-015Z	ZS19KAE	CFV, TFC, TFD	R-134a		7410	8330	9310	10300	11500	12600	13100	14300	15700	17200	18700
			CFV	R-404A	10900	12000	13200	14400	15700	17000	18400	19200	20700	22300	24000	
			TFC, TFD	R-404A	10900	12000	13100	14300	15600	16900	18300	19100	20600	22200	23800	
1 3/4	FFAP-A17Z	ZS11KAE	CFV	R-134a	4400	5030	5720	6440	7210	8030	8920	9080	10000	11100	12200	13400
				R-404A	7450	8270	9160	10100	11100	12200	13400	13600	14700	15900	17100	18300
				R-407A	7090	7890	8740	9650	10600	11700	12800	13000	14300	15600	17100	18600
				R-407C	5800	6820	7860	8940	10000	11200	12400	12500	13800	15100	16400	17700
				R-448A	6560	7310	8110	8990	9950	11000	12200	12400	13800	15200	16800	18500
				R-449A	6560	7310	8110	8980	9950	11000	12200	12400	13800	15200	16800	18500
			TFC, TFD	R-134a	4400	5030	5720	6440	7210	8030	8920	9080	10000	11100	12200	13400
				R-404A	7570	8410	9300	10300	11300	12400	13600	13800	14900	16100	17300	18600
				R-407A	7090	7890	8740	9650	10600	11700	12800	13000	14300	15600	17100	18600
				R-407C	5800	6820	7860	8940	10000	11200	12400	12500	13800	15100	16400	17700
				R-448A	6510	7290	8130	9050	10100	11200	12400	12600	13900	15400	16900	18600
				R-449A	6510	7290	8130	9050	10100	11200	12400	12600	13900	15300	16900	18500
2	FFAP-A20Z	ZS13KAE	CFV	R-134a	5020	5750	6530	7390	8280	9230	10200	10400	11500	12700	14000	15400
				R-404A	8710	9680	10700	11800	13100	14300	15700	16500	17700	19000	20300	21700
				R-407A	8150	9080	10100	11100	12300	13500	14800	15100	16500	18100	19800	21600
				R-407C	6670	7840	9040	10300	11600	12900	14300	14400	15900	17400	18900	20500
				R-448A	7510	8370	9300	10300	11400	12700	14000	14300	15900	17500	19400	21400
				R-449A	7510	8370	9300	10300	11400	12700	14000	14300	15900	17500	19400	21400
			TFC, TFD	R-134a	5020	5750	6530	7390	8280	9230	10200	10400	11500	12700	14000	15400
				R-404A	8710	9670	10700	11800	13000	14300	15700	16800	18200	19800	21400	23200
				R-407A	8150	9080	10100	11100	12300	13500	14800	15100	16500	18100	19800	21600
				R-407C	6670	7840	9040	10300	11600	12900	14300	14400	15900	17400	18900	20500
				R-448A	7620	8530	9460	10400	11500	12700	14000	14200	15700	17300	19200	21200
				R-449A	7620	8530	9460	10400	11500	12700	14000	14200	15700	17300	19200	21200
	FPAK-020Z	ZS21KAE	CFV	R-134a		10000	11300	12600	14000	15500	17200	17700	19500	21400	23400	25600
				R-404A	14900	16500	18100	19800	21600	23500	25400	26400	28500	30500	32400	
			TFC, TFD	R-134a		10000	11300	12600	14000	15500	17200	17700	19500	21400	23400	25600
R-404A	14800	16400	18000	19700	21500	23400	25300	26300	28300	30400	32300					
2 1/4	FFAP-A22Z	ZS15KAE	CFV	R-134a	6060	6930	7870	8910	10000	11300	12600	12800	14200	15700	17400	19100
				R-404A	10800	12000	13300	14800	16300	18000	19800	20800	22500	24300	26100	28000
				R-407A	9330	10600	11900	13400	14900	16600	18500	18700	20700	22800	25100	27500
				R-407C	8130	9560	11000	12600	14200	15800	17600	17800	19600	21500	23500	25600
				R-448A	9120	10200	11300	12600	14000	15600	17300	17600	19600	21800	24200	26800
				R-449A	9110	10200	11300	12600	14000	15600	17300	17600	19600	21800	24200	26800
			TFC, TFD	R-134a	6060	6930	7870	8910	10000	11300	12600	12800	14200	15700	17400	19100
				R-404A	10700	11900	13200	14700	16200	17900	19700	20100	21900	23800	25800	27900
				R-407A	9960	11100	12400	13700	15100	16700	18400	18700	20500	22600	24800	27200
				R-407C	8130	9560	11000	12600	14200	15800	17600	17800	19600	21500	23500	25600
				R-448A	9040	10200	11400	12700	14100	15800	17500	17800	19800	21900	24200	26800
				R-449A	9030	10100	11400	12700	14100	15700	17500	17800	19800	21900	24200	26800
Area Restrictions: 20°F Max Superheat							Area Restrictions: 40°F Max Return Gas Temp									

Medium Temp – Air Cooled

90° Ambient																		
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling													
					-5	0	5	10	15	20	25	25	30	35	40	45		
3	FFAP-A30Z	ZS19KAE	CFV	R-134a	6840	7820	8880	10000	11300	12700	14100	14400	15900	17600	19400	21300		
				R-404A	12000	13300	14800	16400	18100	19900	21900	22300	24300	26300	28500	30700		
				R-407A	11200	12500	13800	15300	16900	18600	20500	20800	22900	25100	27600	30200		
				R-407C	9110	10700	12400	14100	15900	17700	19700	19900	21900	24000	26200	28500		
				R-448A	10300	11600	12900	14300	15800	17400	19300	19600	21700	24100	26700	29600		
				R-449A	10300	11600	12900	14200	15800	17400	19300	19600	21700	24100	26700	29600		
			TFC, TFD	R-134a	7140	8120	9190	10300	11600	12900	14300	14600	16100	17700	19500	21300		
				R-404A	11900	13200	14700	16300	18000	19800	21700	22200	24100	26200	28300	30600		
				R-407A	11200	12500	13800	15300	16900	18600	20500	20800	22900	25100	27600	30200		
				R-407C	9110	10700	12400	14100	15900	17700	19700	19900	21900	24000	26200	28500		
				R-448A	10300	11600	12900	14200	15700	17400	19300	19600	21700	24100	26700	29700		
				R-449A	10300	11600	12800	14200	15700	17400	19200	19600	21700	24100	26700	29700		
3 1/4	FFAP-A32Z	ZS21KAE	CFV	R-134a	9190	10500	11900	13400	15000	16700	18600	18900	20900	23100	25400	27800		
				R-404A	15700	17400	19300	21200	23400	25600	28000	29500	31700	33900	36200	38500		
				R-407A	14500	16100	17900	19700	21700	23900	26200	26600	29200	31900	34900	38100		
				R-407C	12100	14200	16300	18600	20900	23300	25700	26100	28600	31300	34100	36900		
				R-448A	14100	15900	17800	19800	21900	24100	26400	26900	29300	31800	34500	37200		
				R-449A	14100	15900	17800	19800	21900	24100	26400	26800	29300	31800	34400	37100		
			TFC, TFD	R-134a	9190	10500	11900	13400	15000	16700	18600	18900	20900	23100	25400	27800		
				R-404A	15600	17300	19100	21100	23200	25500	27900	28300	30700	33100	35600	38200		
				R-407A	14500	16100	17900	19700	21700	23900	26200	26600	29200	31900	34900	38100		
				R-407C	12100	14200	16300	18600	20900	23300	25700	26100	28600	31300	34100	36900		
				R-448A	14100	15900	17900	20000	22200	24500	26900	27400	30000	32700	35600	38600		
				R-449A	14100	15900	17900	20000	22200	24500	26900	27400	30000	32800	35600	38600		
4	FPAK-039Z	ZS29KAE	CFV	R-134a		11300	12800	14300	16000	17800	19700	22500	24800	27200	29800	32600		
				R-404A	18700	20700	22800	25000	27300	29800	32400	33800	36700	39700	42900			
			TFC, TFD	R-134a		11300	12800	14300	16000	17800	19700	22500	24800	27200	29800	32600		
				R-404A	18800	20800	22900	25100	27500	29900	32600	34000	36900	39900	43100			
			FFAP-A40Z	ZS26KAE	CFV	R-134a	10200	11700	13200	15000	16900	18900	21100	21500	23800	26300	29000	31900
						R-404A	17700	19700	21900	24300	26800	29600	32600	34200	37000	39900	42900	46100
	R-407A	15500				17600	19800	22200	24800	27700	30700	31100	34400	37900	41700	45700		
	R-407C	13600				16000	18500	21000	23700	26500	29400	29700	32800	36000	39300	42800		
	R-448A	15600			17400	19400	21700	24200	26800	29700	30200	33300	36700	40300	44100			
	R-449A	15600			17400	19400	21700	24100	26800	29700	30200	33300	36700	40300	44100			
	TFC, TFD	R-134a			10200	11700	13200	15000	16900	18900	21100	21500	23800	26300	29000	31900		
		R-404A			17700	19800	22000	24400	26900	29700	32700	33400	36400	39600	42900	46400		
		R-407A	15700	17700	19900	22200	24700	27500	30400	30900	34100	37500	41200	45100				
		R-407C	13600	16000	18500	21000	23700	26500	29400	29700	32800	36000	39300	42800				
4 1/4	FFAP-A42Z	ZS33KAE	CFV	R-448A	15500	17400	19500	21900	24400	27200	30300	30800	34100	37700	41500	45600		
				R-449A	15500	17400	19500	21900	24400	27200	30300	30800	34100	37700	41500	45600		
				R-134a	12700	14500	16400	18600	20800	23200	25800	26300	29100	32100	35300	38800		
				R-404A	22100	24600	27200	30100	33200	36500	40100	40800	44300	48000	52000	56000		
				R-407A	20600	23000	25500	28100	31000	34200	37500	38100	41900	45900	50000	55000		
				R-407C	16600	19600	22600	25800	29000	32400	35900	36300	40000	43800	47800	52000		
			TFC, TFD	R-448A	19800	22400	25100	28000	31000	34200	37500	38100	41700	45400	49300	53500		
				R-449A	19800	22400	25100	27900	30900	34100	37400	38100	41700	45400	49300	53500		
				R-134a	12700	14500	16400	18600	20800	23200	25800	26300	29100	32100	35300	38800		
				R-404A	21900	24400	27000	29900	33000	36300	39800	40800	44300	48000	52000	56000		
				R-407A	20600	23000	25500	28100	31000	34200	37500	38100	41900	45900	50000	55000		
				R-407C	16600	19600	22600	25800	29000	32400	35900	36300	40000	43800	47800	52000		
				R-448A	19700	22400	25200	28200	31400	34700	38300	38900	42700	46700	51000	55500		
				R-449A	19800	22400	25200	28200	31300	34700	38200	38900	42700	46700	51000	55500		

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

90° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
5	FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-134a	14800	16800	18800	21100	23600	26200	29000	29600	32600	35900	39400	43100
				R-404A	25600	28200	31000	33900	37000	40300	43800	45500	49200	53000	57500	61500
				R-407A	22600	25500	28700	32000	35500	39200	43000	43700	47700	52000	56000	60000
				R-407C	22300	25200	28300	31600	35000	38700	42400	43000	46900	51000	55000	59000
				R-448A	22300	25300	28600	32100	35800	39700	43700	44500	48700	53000	57500	61500
				R-449A	22300	25300	28600	32100	35800	39700	43700	44500	48700	53000	57500	61500
6	FFAP-060Z	ZS45K4E	TFC, TFD	R-134a	17500	19800	22300	24900	27800	30900	34200	34800	38400	42200	46300	50500
				R-404A	30100	33100	36200	39500	43000	46700	50500	52500	57000	61000	65500	70500
				R-407A	26900	30300	33900	37700	41700	45900	50000	51000	56000	60500	65500	70000
				R-407C		29900	33400	37200	41200	45300	49600	50500	55000	59500	64500	69000
				R-448A	26300	29800	33500	37500	41700	46100	50500	51500	56500	61500	66500	71500
				R-449A	26300	29800	33500	37500	41700	46100	50500	51500	56500	61500	66500	71500
7	FFAM-071Z	ZB48KCE	TFC	R-134a			25300	28400	31700	35200	39100	39800	44000	48400	53000	58000
				R-404A	33400	37100	41100	45200	49600	54500	59000	61500	67000	72500	78000	84500
				R-404A	28300	32200	36400	40900	45700	51000	56500	57500	63000	69500	76000	82500
				R-407C					38900	44200	49900	50500	56500	63000	70000	77000
				R-407A	28500	32700	37000	41600	46400	51500	57000	58000	63500	70000	76500	83500
				R-449A	28500	32700	37000	41600	46400	51500	57000	58000	63500	70000	76500	83500
			TFD	R-407C			25200	28200	31500	35000	38700	39500	43500	47900	52500	57500
				R-404A	33100	36700	40500	44600	48900	53500	58000	60500	65500	71000	76500	82000
				R-448A	28100	31800	35900	40300	45100	50000	55500	56500	62000	68000	74000	80500
				R-407C					38400	43600	49200	49900	56000	62000	68500	75500
				R-449A	28300	32100	36000	40300	44700	49500	54500	55500	61000	67000	73500	80000
				R-449A	28200	32300	36600	41100	45700	50500	56000	57000	62500	68500	75000	81500
			TFC	R-134a			26900	30600	34600	39000	43800	44600	49800	55000	61000	67000
				R-404A	37800	41800	46100	50500	55500	60500	65500	68500	74000	80000	86000	92500
				R-404A	33100	37300	41800	46500	51500	57000	62500	63500	69500	76000	82500	90000
				R-407C					48500	54000	60000	61000	67000	74000	81000	88500
				R-407A	32500	37200	42000	47000	52500	58000	63500	64500	71000	77500	84500	91500
				R-449A	32500	37200	42000	47000	52000	57500	63500	64500	71000	77500	84500	91500
8	FFAM-081Z	ZB57KCE	TFD	R-407C			26800	30400	34300	38700	43300	44200	49200	54500	60000	66000
				R-404A	37400	41400	45500	49900	54500	59500	64500	67000	72500	78000	83500	89500
				R-448A	32800	36900	41300	45900	51000	56000	61500	62500	68500	74500	81000	87500
				R-407C						53500	59000	60000	66000	72500	79500	87000
				R-449A	32700	36800	41100	45700	50500	55500	61000	62500	68000	74000	80500	87500
				R-449A	32200	36800	41500	46400	51500	57000	62500	63500	69500	76000	82500	89000
			TFC	R-134a			31500	35400	39700	44400	49400	50500	56000	61500	67500	74000
				R-404A	44300	49100	54500	59500	65000	71000	77000	80000	86500	93500	101000	108000
				R-407A	36000	40900	46200	52000	58000	65000	71500	73000	80500	88000	95500	104000
				R-407C		40200	45400	51000	57000	63500	70500	71500	79000	87000	96000	105000
9	FFAM-091Z	ZB66K5E	TFC, TFD	R-448A	34700	40200	45900	52000	58000	64500	71500	73000	80500	88000	96000	104000
				R-449A	36700	42300	48200	54500	61000	67500	74500	76000	83000	90500	98000	106000
				R-134a			35900	40400	45200	50500	56000	57000	63000	69500	76500	83500
				R-404A	50500	56000	61500	67500	73500	79500	86000	90000	97000	104000	112000	120000
				R-407A	42900	49400	56000	62000	68500	75500	82500	84000	91500	99500	108000	117000
				R-407C			52500	58500	65000	71500	79000	80000	87500	96000	104000	113000
10	FFAM-101Z	ZB76K5E	TFC, TFD	R-448A	39500	46200	53000	59500	66500	74000	81500	83000	91000	99000	108000	117000
				R-449A	42300	48700	55500	62000	69500	76500	84500	86000	94000	102000	110000	119000

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

100° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
3/4	FFAM-A08Z	ZB06KAE	CFV	R-134a			2690	3050	3450	3900	4380	4480	5020	5590	6220	6880
				R-404A	3570	4010	4490	5020	5580	6180	6810	7120	7800	8500	9220	9950
				R-407A	3330	3690	4120	4610	5160	5770	6430	6570	7300	8070	8880	9730
				R-407C	2830	3300	3800	4320	4870	5450	6070	6180	6840	7540	8280	9060
				R-448A	3300	3730	4200	4720	5270	5870	6510	6660	7350	8070	8830	9620
				R-449A	3300	3730	4200	4720	5280	5870	6510	6660	7350	8070	8830	9620
			TFC	R-134a			2690	3050	3450	3900	4380	4480	5020	5600	6220	6890
				R-404A	3570	4010	4490	5020	5590	6190	6820	7130	7810	8510	9220	9940
				R-407A	3330	3690	4120	4610	5170	5770	6430	6580	7300	8070	8880	9740
				R-407C	2830	3300	3800	4320	4870	5450	6070	6180	6840	7550	8290	9070
				R-448A	3300	3730	4200	4720	5280	5880	6510	6660	7350	8070	8830	9610
				R-449A	3300	3730	4200	4720	5280	5880	6510	6670	7350	8070	8830	9610
1	FFAM-A10Z	ZB07KAE	CFV	R-134a			3270	3710	4190	4710	5280	5400	6020	6690	7400	8150
				R-404A	4250	4810	5400	6010	6660	7340	8050	8420	9200	10000	10900	11700
				R-407A	3680	4280	4920	5590	6290	7010	7760	7940	8720	9510	10300	11100
				R-407C	3440	3960	4520	5120	5760	6430	7140	7270	8020	8810	9610	10400
				R-448A	3930	4420	4970	5570	6220	6920	7650	7840	8630	9450	10300	11200
				R-449A	3930	4430	4970	5570	6220	6920	7650	7840	8630	9450	10300	11200
			TFC	R-134a			3270	3710	4190	4710	5280	5400	6030	6690	7400	8160
				R-404A	4260	4820	5410	6030	6670	7350	8070	8440	9220	10100	10900	11800
				R-407A	3690	4280	4920	5590	6290	7010	7760	7930	8720	9520	10300	11100
				R-407C	3440	3960	4530	5130	5760	6430	7140	7280	8020	8800	9610	10400
				R-448A	3930	4420	4970	5570	6220	6920	7660	7840	8630	9450	10300	11200
				R-449A	3930	4420	4970	5570	6220	6920	7650	7840	8630	9450	10300	11200
	FPAK-010Z	ZS09KAE	CFV	R-134a		4020	4520	5060	5620	6230	6870	6670	7340	8040	8790	9580
				R-404A	5430	5960	6520	7120	7740	8380	9050	9530	10300	11000		
			TFC, TFD	R-134a		4020	4520	5060	5620	6230	6870	6670	7340	8040	8790	9580
				R-404A	5370	5900	6460	7050	7670	8310	8990	9470	10200	11000		
				R-134a			3900	4420	4980	5600	6270	6400	7140	7930	8770	9660
				R-404A	5120	5760	6420	7090	7820	8600	9450	9890	10900	11900	13100	14400
1 1/4	FFAM-A12Z	ZB08KAE	CFV	R-407A	4600	5320	6060	6820	7600	8400	9210	9410	10300	11100	12000	12900
				R-407C	4270	4870	5500	6160	6880	7640	8450	8610	9490	10400	11400	12500
				R-448A	4770	5350	5990	6700	7470	8300	9180	9380	10300	11300	12300	13400
				R-449A	4730	5310	5950	6660	7440	8270	9150	9360	10300	11300	12300	13400
			TFC	R-134a			3910	4420	4980	5600	6270	6400	7140	7930	8770	9670
				R-404A	5130	5770	6420	7090	7820	8600	9460	9890	10900	12000	13100	14400
				R-407A	4600	5330	6070	6820	7600	8400	9210	9410	10300	11100	12000	12900
				R-407C	4270	4870	5500	6160	6880	7640	8450	8600	9490	10400	11400	12500
				R-448A	4770	5350	5990	6710	7480	8300	9180	9390	10300	11300	12300	13400
				R-449A	4740	5310	5960	6670	7440	8270	9150	9370	10300	11300	12300	13400
	FPAK-012Z	ZS11KAE	CFV	R-134a			4980	5550	6140	6780	7450	7740	8480	9270	10100	11000
				R-404A	6190	6760	7360	7980	8610	9270	9940	10500				
			TFC, TFD	R-134a			4980	5550	6140	6780	7450	7740	8480	9270	10100	11000
				R-404A	6280	6860	7460	8080	8730	9380	10100	10600				
			CFV	R-134a			7040	7870	8750	9690	10700	11100	12200	13400	14600	16000
				R-404A	9130	10000	11000	12000	13000	14100	15100	15800	16800			
	FPAK-013Z	ZS15KAE	TFC, TFD	R-134a			7040	7870	8750	9690	10700	11100	12200	13400	14600	16000
				R-404A	9050	9950	10900	11900	12900	14000	15000	15700	16800			

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

100° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
1 1/2	FFAP-A15Z	ZS09KAE	CFV	R-134a	3560	4050	4580	5150	5760	6420	7140	7290	8070	8910	9820	10800
				R-404A	5930	6590	7300	8070	8900	9790	10700	11000	11900	12900	13900	14900
				R-407A	5580	6230	6910	7630	8420	9260	10200	10400	11400	12500	13700	15000
				R-407C	4520	5370	6240	7130	8040	8970	9940	10100	11100	12200	13200	14400
				R-448A	5270	5840	6450	7120	7870	8710	9640	9870	10900	12100	13400	14800
				R-449A	5240	5800	6410	7080	7830	8670	9600	9840	10900	12100	13400	14800
			TFC, TFD	R-134a	3560	4050	4580	5150	5760	6420	7140	7290	8070	8910	9810	10800
				R-404A	5860	6510	7220	7980	8800	9690	10600	10900	11800	12800	13800	14800
				R-407A	5580	6230	6910	7630	8420	9260	10200	10400	11400	12500	13700	15000
				R-407C	4520	5370	6240	7130	8040	8970	9940	10100	11100	12200	13200	14400
				R-448A	5250	5840	6480	7190	7970	8830	9780	10000	11100	12200	13500	14800
				R-449A	5220	5800	6440	7140	7920	8790	9750	9980	11100	12200	13500	14900
1 1/2	FPAK-015Z	ZS19KAE	CFV TFC, TFD	R-134a			7840	8750	9710	10700	11800	12300	13500	14800	16100	17600
				R-404A	10000	11000	12000	13000	14000	15000	15900	16600				
				R-134a			7840	8750	9710	10700	11800	12300	13500	14800	16100	17600
				R-404A	9950	10900	11900	12900	13900	14900	15800	16500				
1 3/4	FFAP-A17Z	ZS11KAE	CFV	R-134a	4220	4800	5420	6080	6800	7570	8400	8580	9490	10500	11500	12600
				R-404A	6870	7620	8430	9300	10200	11200	12300	12600	13600	14600	15700	16800
				R-407A	6580	7330	8110	8950	9850	10800	11900	12100	13300	14500	15900	17300
				R-407C	5330	6330	7350	8390	9450	10500	11700	11900	13000	14200	15500	16700
				R-448A	6280	6940	7650	8430	9290	10300	11300	11600	12800	14100	15500	17100
				R-449A	6240	6900	7610	8390	9260	10200	11300	11600	12800	14100	15600	17100
			TFC, TFD	R-134a	4220	4800	5420	6080	6800	7570	8400	8580	9490	10500	11500	12600
				R-404A	6980	7740	8560	9440	10400	11400	12500	12800	13800	14800	15900	17000
				R-407A	6580	7330	8110	8950	9850	10800	11900	12100	13300	14500	15900	17300
				R-407C	5330	6330	7350	8390	9450	10500	11700	11900	13000	14200	15500	16700
				R-448A	6260	6940	7690	8510	9410	10400	11500	11800	13000	14300	15700	17200
				R-449A	6230	6900	7640	8460	9370	10400	11500	11700	13000	14300	15700	17200
2	FFAP-A20Z	ZS13KAE	CFV	R-134a	4850	5510	6220	6990	7810	8700	9660	9870	10900	12000	13200	14500
				R-404A	8040	8920	9880	10900	12000	13200	14500	15400	16500	17600	18800	19900
				R-407A	7570	8440	9350	10300	11400	12500	13700	14000	15400	16800	18400	20100
				R-407C	6150	7300	8470	9670	10900	12200	13400	13700	15000	16400	17900	19300
				R-448A	7210	7980	8810	9710	10700	11800	13100	13400	14800	16300	18000	19900
				R-449A	7210	7970	8800	9700	10700	11800	13100	13400	14800	16300	18000	19900
			TFC, TFD	R-134a	4850	5510	6220	6990	7810	8700	9660	9870	10900	12000	13200	14500
				R-404A	8030	8910	9870	10900	12000	13200	14500	15700	17000	18400	19900	21400
				R-407A	7570	8440	9350	10300	11400	12500	13700	14000	15400	16800	18400	20100
				R-407C	6150	7300	8470	9670	10900	12200	13400	13700	15000	16400	17900	19300
				R-448A	7250	8030	8830	9690	10600	11700	12900	13200	14500	16100	17800	19700
				R-449A	7250	8020	8820	9680	10600	11700	12800	13200	14500	16100	17800	19700
	FPAK-020Z	ZS21KAE	CFV	R-134a			10600	11900	13200	14600	16100	16700	18400	20200	22100	24100
				R-404A	13700	15000	16500	17900	19400	20900	22300	23200				
			TFC, TFD	R-134a			10600	11900	13200	14600	16100	16700	18400	20200	22100	24100
				R-404A	13600	15000	16400	17900	19400	20800	22200	23200				
2 1/4	FFAP-A22Z	ZS15KAE	CFV	R-134a	5890	6700	7590	8540	9570	10700	11900	12100	13500	14900	16400	18100
				R-404A	9940	11100	12300	13600	15000	16500	18200	19300	20700	22300	23900	25500
				R-407A	8650	9830	11100	12400	13900	15500	17200	17500	19300	21300	23400	25600
				R-407C	7520	8940	10400	11900	13400	15000	16600	16800	18600	20400	22200	24200
				R-448A	8770	9740	10800	11900	13200	14600	16200	16600	18400	20400	22700	25100
				R-449A	8770	9730	10800	11900	13200	14600	16200	16600	18400	20400	22700	25100
			TFC, TFD	R-134a	5890	6700	7590	8540	9570	10700	11900	12100	13500	14900	16400	18100
				R-404A	9850	11000	12200	13500	14900	16400	18000	20100	21900	23800	25800	27900
				R-407A	9260	10300	11500	12700	14000	15500	17100	17400	19100	21000	23100	25300
				R-407C	7520	8940	10400	11900	13400	15000	16600	16800	18600	20400	22200	24200
				R-448A	8740	9730	10800	12000	13400	14800	16500	16800	18600	20600	22800	25200
				R-449A	8730	9720	10800	12000	13400	14800	16500	16800	18600	20600	22800	25200

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

100° Ambient																		
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling													
					-5	0	5	10	15	20	25	25	30	35	40	45		
3	FFAP-A30Z	ZS19KAE	CFV	R-134a	6620	7530	8520	9580	10700	12000	13300	13600	15100	16600	18300	20200		
				R-404A	11100	12300	13600	15000	16600	18200	20000	20500	22300	24100	26000	28000		
				R-407A	10400	11600	12900	14200	15700	17300	19000	19400	21300	23400	25700	28100		
				R-407C	8420	10000	11600	13300	15000	16700	18500	18800	20700	22700	24800	26900		
				R-448A	9800	10900	12100	13400	14800	16300	18000	18400	20300	22500	24900	27600		
				R-449A	9800	10900	12100	13400	14700	16300	18000	18400	20300	22500	24900	27600		
			TFC, TFD	R-134a	6940	7860	8840	9890	11000	12200	13600	13800	15300	16800	18400	20200		
				R-404A	11000	12200	13500	14900	16500	18100	19900	20400	22100	24000	25900	27900		
				R-407A	10400	11600	12900	14200	15700	17300	19000	19400	21300	23400	25700	28100		
				R-407C	8420	10000	11600	13300	15000	16700	18500	18800	20700	22700	24800	26900		
				R-448A	9810	11000	12100	13400	14700	16300	18000	18400	20300	22500	24900	27700		
				R-449A	9810	10900	12100	13400	14700	16200	17900	18400	20300	22500	24900	27700		
3 1/4	FFAP-A32Z	ZS21KAE	CFV	R-134a		10000	11300	12700	14200	15800	17500	17900	19800	21800	23900	26300		
				R-404A	14400	16000	17600	19400	21300	23400	25500	27500	29400	31300	33300	35300		
				R-407A	13400	15000	16600	18300	20100	22100	24200	24700	27100	29600	32400	35300		
				R-407C	11100	13200	15300	17500	19700	21900	24200	24600	27100	29500	32100	34700		
				R-448A	12800	14500	16300	18200	20100	22200	24300	24800	27100	29400	31800	34300		
				R-449A	12800	14500	16300	18100	20100	22100	24200	24800	27000	29400	31800	34200		
			TFC, TFD	R-134a		10000	11300	12700	14200	15800	17500	17900	19800	21800	23900	26300		
				R-404A	14400	15900	17500	19300	21200	23200	25400	26100	28300	30400	32700	35100		
				R-407A	13400	15000	16600	18300	20100	22100	24200	24700	27100	29600	32400	35300		
				R-407C	11100	13200	15300	17500	19700	21900	24200	24600	27100	29500	32100	34700		
				R-448A	12700	14500	16400	18400	20400	22600	24900	25400	27900	30400	33100	35900		
				R-449A	12700	14500	16400	18300	20400	22600	24900	25400	27900	30400	33100	35900		
4	FFAP-A03Z	ZS29KAE	CFV	R-134a		10700	12100	13500	15000	16700	18500	21100	23300	25600	28000	30700		
				R-404A	17000	18700	20500	22500	24500	26700	29000	30500	33100	35900	38800			
			TFC, TFD	R-134a		10700	12100	13500	15000	16700	18500	21100	23300	25600	28000	30700		
				R-404A	17100	18800	20700	22600	24600	26800	29100	30700	33300	36100	39100			
			FFAP-A40Z	ZS26KAE	CFV	R-134a	9900	11300	12700	14300	16000	17900	19900	20300	22500	24900	27500	30200
						R-404A	16300	18200	20100	22300	24600	27200	29900	31800	34200	36700	39400	42100
	R-407A	14200				16200	18300	20600	23100	25700	28600	29100	32300	35600	39100	42900		
	R-407C	12500				14800	17300	19800	22300	25000	27700	28100	31000	34000	37100	40400		
	R-448A	14200			15800	17700	19700	22000	24500	27200	27800	30700	33900	37300	41000			
	R-449A	14200			15800	17600	19700	22000	24400	27100	27700	30700	33900	37300	40900			
	TFC, TFD	R-134a	9900	11300	12700	14300	16000	17900	19900	20300	22500	24900	27500	30200				
		R-404A	16400	18200	20200	22400	24700	27300	30000	30800	33500	36300	39300	42400				
R-407A		14600	16500	18500	20700	23100	25600	28300	28900	31900	35000	38400	42000					
R-407C		12500	14800	17300	19800	22300	25000	27700	28100	31000	34000	37100	40400					
R-448A		14100	15800	17800	19900	22400	25000	27900	28400	31600	35000	38700	42600					
R-449A		14100	15800	17700	19900	22300	24900	27800	28400	31600	35000	38700	42600					
4 1/4	FFAP-A42Z	ZS33KAE	CFV	R-134a	12200	13900	15700	17600	19700	21900	24300	24900	27500	30400	33400	36700		
				R-404A	20400	22600	25000	27600	30500	33500	36700	37700	40800	44100	47500	51000		
				R-407A	19100	21300	23600	26100	28800	31600	34800	35500	39000	42700	46800	51000		
				R-407C	15200	18200	21100	24200	27300	30500	33800	34300	37800	41400	45100	48900		
				R-448A	17900	20300	22900	25600	28500	31500	34600	35400	38700	42200	45800	49500		
				R-449A	17800	20300	22900	25600	28400	31400	34500	35300	38600	42100	45700	49400		
			TFC, TFD	R-134a	12200	13900	15700	17600	19700	21900	24300	24900	27500	30400	33400	36700		
				R-404A	20200	22400	24800	27400	30200	33200	36400	37700	40800	44100	47500	51000		
				R-407A	19100	21300	23600	26100	28800	31600	34800	35500	39000	42700	46800	51000		
				R-407C	15200	18200	21100	24200	27300	30500	33800	34300	37800	41400	45100	48900		
				R-448A	17800	20300	23100	25900	28900	32100	35500	36200	39800	43600	47600	52000		
				R-449A	17700	20300	23000	25900	28900	32100	35400	36200	39800	43600	47600	51500		
5	FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-134a	14000	15800	17800	19900	22200	24700	27400	28000	30900	34000	37300	40700		
				R-404A	23400	25700	28200	30900	33700	36700	39800	41700	45100	48600	52500	56000		
				R-407A	21000	23700	26600	29700	33000	36400	40000	40900	44600	48500	52500	56500		
				R-407C	20600	23300	26200	29300	32500	36000	39500	40200	43900	47800	51500	55500		
				R-448A	20500	23200	26100	29400	32800	36400	40200	41100	45100	49200	53500	57500		
				R-449A	20500	23200	26100	29400	32800	36400	40200	41100	45100	49200	53500	57500		

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

100° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
6	FFAP-060Z	ZS45K4E	TFC, TFD	R-134a	16500	18700	21000	23500	26200	29100	32200	32900	36300	39900	43800	47800
				R-404A	27600	30300	33100	36000	39200	42400	45900	48100	52000	56000	60000	64000
				R-407A	25000	28100	31500	35000	38800	42700	46800	47900	52000	56500	61000	66000
				R-407C		27700	31100	34600	38300	42200	46200	47100	51500	56000	60500	65000
				R-448A	24500	27500	30800	34500	38400	42500	46700	47900	52500	57000	62000	67000
				R-449A	24500	27500	30800	34500	38400	42500	46700	47900	52500	57000	62000	67000
7	FFAM-071Z	ZB48KCE	TFC	R-134a			23800	26700	29800	33200	36800	37600	41500	45600	50000	54500
				R-404A	30300	33600	37200	41000	44900	49100	53500	56000	61000	66000	71500	77000
				R-407A	25900	29400	33300	37500	42000	46800	52000	53000	58500	64500	70000	76500
				R-407C						40600	46000	46900	52500	58500	65000	72000
				R-448A	25600	29700	33900	38200	42700	47500	52500	53500	59000	65000	71000	77500
				R-449A	25600	29700	33900	38200	42700	47500	52500	53500	59000	65000	71000	77500
			TFD	R-134a			23700	26500	29600	32900	36400	37200	41000	45100	49400	54000
				R-404A	29900	33300	36800	40400	44300	48400	52500	55500	60000	65000	70000	75000
				R-407A	25600	29100	32900	36900	41300	46000	51000	52000	57500	63000	68500	74500
				R-407C							45300	46200	52000	57500	64000	70500
				R-448A	25800	29400	33200	37200	41400	45900	50500	52000	57000	62500	68500	74500
				R-449A	25400	29400	33500	37700	42100	46700	51500	53000	58000	63500	69500	76000
8	FFAM-081Z	ZB57KCE	TFC	R-134a			25100	28500	32400	36600	41100	42000	46900	52000	57500	63500
				R-404A	34700	38400	42200	46200	50500	55000	59500	62500	67500	73000	78000	84000
				R-407A	30500	34600	38800	43200	47800	52500	58000	59500	65000	71000	77000	83500
				R-407C							56000	57000	63000	69500	76500	83500
				R-448A	29700	34200	38800	43600	48400	53500	59000	60000	66000	72000	78500	85000
				R-449A	29700	34200	38800	43500	48400	53500	59000	60000	66000	72000	78500	85000
			TFD	R-134a			24900	28300	32100	36200	40600	41500	46400	51500	57000	62500
				R-404A	34400	37900	41700	45700	49800	54000	58500	61500	66000	71000	76000	81000
				R-407A	30200	34100	38200	42500	47000	52000	57000	58000	63500	69000	75000	81500
				R-407C							55000	56000	62000	68500	75000	82000
				R-448A	30000	33800	37900	42100	46600	51500	56500	57500	63000	69000	75000	81000
				R-449A	29400	33800	38300	42900	47600	52500	57500	59000	64500	70000	76000	82500
9	FFAM-091Z	ZB66K5E	TFC, TFD	R-134a			29400	33000	37000	41400	46200	47200	52500	58000	63500	69500
				R-404A	40100	44700	49300	54000	59000	64500	70000	73500	79500	85500	91500	98000
				R-407A	33500	37700	42400	47600	53500	59500	65500	67000	74000	81000	88500	96000
				R-407C			42000	47300	53000	59000	66000	67000	74000	82000	90000	99000
				R-448A	29900	35400	41000	46700	52500	59000	65500	67000	74000	81000	89000	96500
				R-449A		38200	44100	50000	56000	62500	68500	70500	77000	83500	90000	97000
10	FFAM-101Z	ZB76K5E	TFC, TFD	R-134a			33400	37600	42200	47100	52500	53500	59500	65500	72000	78500
				R-404A	46600	51500	56500	61500	67000	72500	78500	82500	88500	95000	102000	109000
				R-407A	38500	45200	51500	57500	64000	70000	76500	78500	85000	92000	99500	108000
				R-407C				55000	60500	67000	73500	75000	82500			
				R-448A	33200	39900	46600	53500	60000	67000	74500	76000	83500	91500	99500	
				R-449A		44400	51000	57500	64000	71000	77500	79500	86500	93500	101000	

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

110° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
3/4	FFAM-A08Z	ZB06KAE	CFV	R-134a			2510	2850	3220	3630	4080	4190	4690	5230	5810	6440
				R-404A	3220	3630	4070	4540	5040	5550	6090	6420	7000	7580	8170	8750
				R-407A	3100	3430	3820	4270	4770	5330	5930	6100	6760	7470	8210	9000
				R-407C	2610	3070	3540	4030	4550	5090	5650	5780	6390	7030	7710	8410
				R-448A		3400	3850	4330	4850	5410	6000	6180	6820	7500	8210	8950
				R-449A	3030	3430	3870	4350	4870	5420	6010	6190	6830	7500	8210	8940
			TFC	R-134a			2510	2850	3220	3630	4080	4200	4700	5240	5820	6440
				R-404A	3230	3630	4070	4550	5040	5560	6100	6430	7010	7600	8190	8770
				R-407A	3100	3440	3830	4270	4780	5330	5930	6100	6760	7470	8220	9000
				R-407C	2610	3070	3540	4030	4540	5080	5650	5780	6390	7040	7710	8420
				R-448A		3400	3850	4330	4850	5410	6010	6180	6830	7500	8210	8950
				R-449A	3030	3430	3870	4350	4870	5420	6010	6190	6830	7510	8210	8940
1	FFAM-A10Z	ZB07KAE	CFV	R-134a			3050	3460	3910	4390	4920	5050	5630	6250	6910	7610
				R-404A	3910	4420	4940	5460	6000	6550	7120	7530	8160	8820	9490	10200
				R-407A	3180	3790	4430	5090	5770	6470	7180	7390	8130	8880	9630	10400
				R-407C	3180	3680	4220	4780	5360	5980	6620	6790	7470	8170	8900	9640
				R-448A		4100	4610	5160	5760	6400	7070	7280	8010	8760	9550	10400
				R-449A		4120	4620	5170	5770	6400	7070	7280	8000	8750	9530	10300
			TFC	R-134a			3050	3460	3910	4390	4920	5060	5640	6260	6920	7610
				R-404A	3930	4440	4950	5480	6020	6580	7150	7560	8190	8860	9530	10200
				R-407A	3200	3800	4440	5100	5770	6470	7180	7380	8120	8870	9620	10400
				R-407C	3180	3690	4220	4790	5380	5990	6630	6790	7470	8170	8890	9640
				R-448A		4100	4600	5160	5760	6400	7070	7280	8010	8760	9540	10300
				R-449A		4110	4620	5170	5760	6400	7070	7280	8000	8750	9520	10300
	FPAK-010Z	ZS09KAE	CFV	R-134a				4410	4900	5410	5960	6210	6820	7470	8160	8900
				R-404A	4810	5250	5700	6190	6700	7240						
			TFC, TFD	R-134a				4410	4900	5410	5960	6210	6820	7470	8160	8900
				R-404A	4760	5200	5660	6140	6650	7180						
				R-134a			3630	4100	4630	5200	5830	5980	6670	7400	8180	9020
				R-404A	4780	5350	5920	6490	7080	7720	8400	8860	9650	10500	11500	12500
1 1/4	FFAM-A12Z	ZB08KAE	CFV	R-407A	4250	4920	5600	6310	7030	7770	8520	8750	9550	10400	11200	12000
				R-407C	4030	4590	5180	5790	6440	7130	7860	8040	8840	9680	10600	11500
				R-448A		4920	5520	6170	6880	7630	8430	8680	9540	10400	11400	12300
				R-449A	4430	4960	5560	6210	6910	7660	8450	8700	9550	10400	11400	12300
			TFC	R-134a			3630	4110	4630	5210	5830	5980	6670	7400	8190	9020
				R-404A	4790	5360	5920	6490	7090	7730	8420	8880	9670	10500	11500	12500
				R-407A	4250	4920	5600	6310	7030	7770	8520	8750	9540	10400	11200	12000
				R-407C	4030	4590	5180	5790	6440	7130	7860	8040	8830	9680	10600	11500
				R-448A		4920	5520	6170	6880	7630	8440	8680	9540	10400	11400	12300
				R-449A	4430	4960	5560	6210	6910	7660	8460	8700	9560	10400	11400	12300
	FPAK-012Z	ZS11KAE	CFV	R-134a					5680	6260	6880	7160	7850	8570	9350	10200
				R-404A	5410	5870	6350	6840								
			TFC, TFD	R-134a					5680	6260	6880	7160	7850	8570	9350	10200
				R-404A	5490	5950	6430	6930								
	FPAK-013Z	ZS15KAE	CFV	R-134a				7320	8130	9000	9920	10300	11400	12500	13600	14900
				R-404A	7770	8380	9000	9590								
			TFC, TFD	R-134a				7320	8130	9000	9920	10300	11400	12500	13600	14900
				R-404A	7710	8330	8940	9540								

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

110° Ambient																	
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling												
					-5	0	5	10	15	20	25	25	30	35	40	45	
1 1/2	FFAP-A15Z	ZS09KAE	CFV	R-134a			4300	4830	5400	6020	6680	6850	7590	8370	9220	10100	
				R-404A	5470	6030	6620	7250	7930	8650	9410	9980	10700	11500	12300	13200	
				R-407A	5160	5750	6370	7040	7750	8520	9360	9620	10600	11600	12700	13900	
				R-407C			5770	6640	7510	8400	9310	9500	10500	11400	12400	13500	
				R-448A		5330	5860	6440	7100	7840	8680	8950	9910	11000	12200	13500	
				R-449A	4910	5400	5920	6510	7160	7890	8720	8990	9930	11000	12100	13400	
			TFC, TFD	R-134a			4300	4830	5400	6010	6680	6850	7580	8370	9220	10100	
				R-404A	5410	5960	6550	7180	7850	8560	9320	9910	10700	11400	12200	13100	
				R-407A	5160	5750	6370	7040	7750	8520	9360	9620	10600	11600	12700	13900	
				R-407C			5770	6640	7510	8400	9310	9510	10500	11400	12400	13500	
				R-448A		5330	5870	6480	7170	7940	8800	9070	10000	11100	12300	13500	
				R-449A	4910	5400	5950	6560	7240	8000	8840	9110	10100	11100	12200	13400	
	FPAK-015Z	ZS19KAE	CFV	R-134a				8120	9010	9950	11000	11400	12500	13700	15000	16300	
				R-404A	8320	8900											
			TFC, TFD	R-134a				8120	9010	9950	11000	11400	12500	13700	15000	16300	
				R-404A	8280	8870											
1 3/4	FFAP-A17Z	ZS11KAE	CFV	R-134a			5080	5700	6360	7080	7850	8060	8900	9810	10800	11800	
				R-404A	6260	6880	7530	8220	8950	9720	10500	11400	12300	13100	14000		
				R-407A		6760	7480	8240	9060	9940	10900	11200	12300	13400	14600		
				R-407C			6790	7800	8820	9850	10900	11100	12200	13300	14500	15700	
				R-448A		6310	6920	7590	8340	9190	10100	10500	11500	12700	14000	15400	
				R-449A		6370	6980	7640	8390	9210	10100	10500	11500	12700	13900	15300	
			TFC, TFD	R-134a			5080	5700	6360	7080	7850	8060	8900	9810	10800	11800	
				R-404A	6360	6980	7640	8340	9080	9860	10700	11600	12500	13300	14200		
				R-407A		6760	7480	8240	9060	9940	10900	11200	12300	13400	14600		
				R-407C			6790	7800	8820	9850	10900	11100	12200	13300	14500	15700	
				R-448A		6310	6940	7640	8420	9300	10300	10600	11700	12800	14100	15400	
				R-449A		6380	7000	7700	8470	9330	10300	10600	11600	12800	14000	15300	
2	FFAP-A20Z	ZS13KAE	CFV	R-134a			5830	6550	7320	8140	9040	9270	10300	11300	12400	13700	
				R-404A	7350	8110	8930	9810	10700	11700	12800	14300	15200	16100	16900	17800	
				R-407A	6990	7790	8630	9520	10500	11500	12600	13000	14200	15600	17000	18600	
				R-407C			7830	9000	10200	11400	12600	12900	14100	15400	16800	18200	
				R-448A	6730	7380	8080	8860	9740	10700	11800	12200	13400	14800	16300	17900	
				R-449A	6730	7380	8080	8860	9730	10700	11800	12200	13400	14800	16300	17900	
			TFC, TFD	R-134a			5830	6550	7320	8140	9040	9270	10300	11300	12400	13700	
				R-404A	7340	8100	8930	9800	10700	11700	12800	14100	15200	16300	17400	18600	
				R-407A	6990	7790	8630	9520	10500	11500	12600	13000	14200	15600	17000	18600	
				R-407C			7830	9000	10200	11400	12600	12900	14100	15400	16800	18200	
				R-448A	6730	7360	8030	8750	9570	10500	11500	11900	13100	14500	16100	17900	
				R-449A	6730	7360	8030	8750	9560	10500	11500	11900	13100	14500	16100	17900	
FPAK-020Z	ZS21KAE	CFV	R-134a				11100	12300	13600	15000	15600	17200	18800	20600	22500		
			R-404A	11800	12800	13700	14700										
		TFC, TFD	R-134a				11100	12300	13600	15000	15600	17200	18800	20600	22500		
			R-404A	11800	12700	13700	14600										
2 1/4	FFAP-A22Z	ZS15KAE	CFV	R-134a			7130	8010	8970	10000	11100	11400	12600	14000	15400	17000	
				R-404A	8950	9950	11100	12200	13600	15000	16500	18100	19400	20800	22200	23700	
				R-407A	7930	9030	10200	11500	12800	14200	15800	16200	17900	19700	21600	23700	
				R-407C			9630	11100	12500	14000	15600	15900	17500	19200	20900	22700	
				R-448A	8230	9070	9980	11000	12100	13400	14800	15200	16900	18700	20700	23000	
				R-449A	8230	9070	9980	11000	12100	13400	14800	15200	16900	18700	20700	23000	
			TFC, TFD	R-134a			7130	8010	8970	10000	11100	11400	12600	14000	15400	17000	
				R-404A	8870	9860	11000	12100	13400	14800	16400	17100	18600	20200	21800	23500	
				R-407A	8560	9550	10600	11700	12900	14300	15700	16100	17700	19400	21400	23400	
				R-407C			9630	11100	12500	14000	15600	15900	17500	19200	20900	22700	
				R-448A	8230	9080	10000	11100	12300	13600	15000	15400	17100	18900	20900	23100	
				R-449A	8230	9070	10000	11100	12200	13600	15000	15400	17100	18900	20900	23100	

Medium Temp – Air Cooled

110° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
3	FFAP-A30Z	ZS19KAE	CFV	R-134a			8000	8980	10100	11200	12500	12800	14100	15600	17200	18900
				R-404A	9970	11100	12300	13600	15000	16600	18300	19200	20800	22500	24200	26100
				R-407A	9590	10700	11900	13100	14400	15900	17500	17900	19700	21600	23700	26000
				R-407C			10800	12400	14000	15700	17400	17700	19500	21400	23300	25200
				R-448A	9070	10100	11100	12200	13400	14800	16300	16800	18500	20500	22700	25200
				R-449A	9060	10100	11100	12200	13400	14800	16300	16800	18500	20500	22700	25200
			TFC, TFD	R-134a			8360	9340	10400	11500	12700	13000	14400	15800	17300	18900
				R-404A	9890	11000	12200	13500	14900	16500	18100	19100	20700	22400	24100	26000
				R-407A	9590	10700	11900	13100	14400	15900	17500	17900	19700	21600	23700	26000
				R-407C			10800	12400	14000	15700	17400	17700	19500	21400	23300	25200
				R-448A	9080	10100	11100	12200	13400	14800	16300	16800	18500	20500	22700	25200
				R-449A	9070	10100	11100	12200	13400	14800	16300	16800	18500	20500	22700	25200
3 1/4	FFAP-A32Z	ZS21KAE	CFV	R-134a			10600	11900	13200	14700	16300	16800	18500	20400	22400	24600
				R-404A	13100	14500	16000	17700	19500	21400	23400	26300	27900	29600	31200	32700
				R-407A		13800	15300	16800	18500	20300	22200	22800	25000	27300	29800	
				R-407C			14100	16200	18300	20500	22600	23100	25400	27700	30100	32500
				R-448A		12800	14500	16300	18100	20000	22000	22600	24600	26800	29000	
				R-449A		12800	14500	16300	18100	20000	21900	22600	24600	26700	28900	
			TFC, TFD	R-134a			10600	11900	13200	14700	16300	16800	18500	20400	22400	24600
				R-404A	13000	14400	15900	17600	19400	21300	23300	24700	26700	28600	30600	32500
				R-407A		13800	15300	16800	18500	20300	22200	22800	25000	27300	29800	
				R-407C			14100	16200	18300	20500	22600	23100	25400	27700	30100	32500
				R-448A		12800	14600	16500	18500	20500	22700	23300	25600	27900		
				R-449A		12800	14600	16500	18500	20500	22600	23300	25600	27900		
4	FPAK-039Z	ZS29KAE	CFV	R-134a				12600	14000	15600	17200	19700	21700	23900	26200	28600
				R-404A	15400	16900	18500	20100	21900	23700	25500					
			TFC, TFD	R-134a				12600	14000	15600	17200	19700	21700	23900	26200	28600
				R-404A	15500	17000	18600	20200	22000	23800	25700					
	FFAP-A40Z	ZS26KAE	CFV	R-134a			12000	13500	15100	16800	18700	19100	21200	23400	25800	28400
				R-404A	14900	16600	18300	20300	22300	24600	27000	29600	31700	33800	36000	38200
				R-407A	12700	14600	16700	18800	21200	23700	26300	27000	29900	33100	36400	40000
				R-407C			16000	18400	20900	23400	26000	26500	29200	32100	35000	38000
				R-448A	12200	13600	15300	17100	19200	21500	24000	24700	27500	30500	33700	37100
				R-449A	12300	13700	15300	17200	19300	21600	24100	24700	27500	30500	33600	37000
			TFC, TFD	R-134a			12000	13500	15100	16800	18700	19100	21200	23400	25800	28400
				R-404A	15000	16600	18400	20300	22400	24700	27100	28500	30800	33300	35800	38400
				R-407A	13500	15200	17100	19100	21200	23600	26100	26700	29500	32400	35500	38800
				R-407C			16000	18400	20900	23400	26000	26500	29200	32100	35000	38000
				R-448A	12100	13600	15400	17400	19600	22100	24800	25500	28500	31700	35200	39000
				R-449A	12200	13700	15500	17500	19700	22100	24800	25500	28500	31700	35200	38900
4 1/4	FFAP-A42Z	ZS33KAE	CFV	R-134a			14700	16500	18400	20500	22800	23300	25800	28500	31400	34400
				R-404A	18600	20500	22700	25000	27400	30000	32800	34900	37600	40400	43200	46100
				R-407A		19700	21800	24000	26400	29000	31900	32700	35900	39400	43200	47300
				R-407C			19500	22500	25500	28600	31700	32400	35600	39000	42500	46000
				R-448A		18000	20500	23100	25800	28600	31500	32400	35500	38700	42000	45500
				R-449A		18000	20500	23100	25700	28500	31400	32300	35400	38600	41900	45300
			TFC, TFD	R-134a			14700	16500	18400	20500	22800	23300	25800	28500	31400	34400
				R-404A	18400	20400	22500	24800	27200	29800	32600	34900	37600	40400	43200	46100
				R-407A		19700	21800	24000	26400	29000	31900	32700	35900	39400	43200	47300
				R-407C			19500	22500	25500	28600	31700	32400	35600	39000	42500	46000
				R-448A		18000	20600	23400	26300	29300	32500	33300	36800	40400	44100	48000
				R-449A		18000	20600	23400	26200	29300	32400	33300	36700	40300	44000	47900
5	FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-134a	13100	14800	16700	18600	20800	23100	25600	26300	29000	31900	35000	38300
				R-404A	21100	23100	25300	27600	30100	32600	35200	37200	40100	43000	46000	
				R-407A		21800	24500	27300	30400	33500	36800	37900	41400	45000	48800	
				R-407C		21500	24200	27100	30100	33300	36600	37400	40900	44500	48200	52000
				R-448A		21500	24100	26900	30000	33300	36800	37900	41600	45500	49400	53500
				R-449A		21500	24100	26900	30000	33300	36800	37900	41600	45500	49400	53500

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Medium Temp – Air Cooled

110° Ambient																
HP	Model	Compressor	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG (65°F RG in Bold), 5°F Subcooling											
					-5	0	5	10	15	20	25	25	30	35	40	45
6	FFAP-060Z	ZS45K4E	TFC, TFD	R-134a	15500	17500	19700	22100	24600	27200	30100	30900	34100	37500	41100	44900
				R-404A	25000	27200	29600	32200	34800	37500	40200	42600	45500			
				R-407A		25900	29000	32300	35700	39300	43100	44400	48400			
				R-407C			28700	32000	35400	39100	42800	43800	47800	52000	56000	60500
				R-448A			28800	31900	35400	39200	43100	44400	48700	53000	57500	62000
				R-449A			28800	31900	35400	39200	43100	44400	48700	53000	57500	62000
7	FFAM-071Z	ZB48KCE	TFC	R-134a				25000	27900	31000	34300	35300	38900	42700	46800	51000
				R-404A			33200	36600	40200	44000	48000	51000	55000	60000	64500	69500
				R-407A		26700	30200	34000	38100	42500	47200	48500	53500	59000	64500	70500
				R-407C									48400	54000	60000	66500
				R-448A		26800	30800	34900	39200	43700	48400	49800	55000	60500	66000	
				R-449A		26800	30800	34900	39200	43600	48300	49700	55000	60500	66000	
			TFD	R-134a				24800	27700	30700	34000	34900	38400	42200	46100	50500
				R-404A				35800	39300	42800	46600	49400	53500	58000	62500	67000
				R-407A		26300	29800	33500	37400	41700	46200	47600	52500	57500		
				R-407C										53000	59000	65000
				R-448A			30200	34000	37900	42100	46600	48000	53000			
				R-449A			30300	34400	38500	42800	47400	48900	54000			
8	FFAM-081Z	ZB57KCE	TFC	R-134a				26400	30000	33900	38200	39200	43900	48800	54000	59500
				R-404A			38100	41700	45400	49300	53000	56500	61000	65000	70000	74500
				R-407A		31500	35400	39500	43800	48400	53000	54500	60000	65500		
				R-407C										65000	71500	78500
				R-448A			35600	40000	44500	49200	54000	55500	61000	66000		
				R-449A			35600	40000	44500	49100	54000	55500	61000	66000		
			TFD	R-134a				26100	29700	33500	37600	38700	43200	48000	53000	58500
				R-404A				40600	44100	47700	51500	54500	58500	62500		
				R-407A			34900	38800	43000	47400	52000	53500				
				R-407C										63500	70000	76500
				R-448A			34400	38300	42400	46800	51500	53000				
				R-449A			35000	39300	43600	48100	52500	54500				
9	FFAM-091Z	ZB66K5E	TFC, TFD	R-134a				30500	34200	38300	42700	43900	48700	54000	59000	65000
				R-404A		39500	43700	47900	52500	57000	61500	65500	70500	76000	82000	
				R-407A			38900	43400	48400	53500	59500	61500	67500			
				R-407C					48900	54500	61000	62500	69500			
				R-448A			35500	41100	46800	53000	59000	61000	67500			
				R-449A			38500	44300	50000	55500	61500	63000				
10	FFAM-101Z	ZB76K5E	TFC, TFD	R-134a				34700	39000	43600	48500	49900	55500	61000	67000	73000
				R-404A			50500	55000	59500	64500	69500	74000	79500			
				R-407A			50500	55000	59500	64500	69500	74000	79500			
				R-407C												
				R-448A			39300	46000	53000	59500						
				R-449A				51000	57000	63000						

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

90° Ambient																					
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling																
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30		
1	FFAL-A10Z	ZF03KAE	CFV	R-404A	2050	2280	2550	2850	3200	3600	4050	4550	5110	5730	6410						
				R-407A	1770	1980	2220	2480	2780	3130	3510	3950	4430	4970	5570						
				R-448A	1810	2040	2300	2580	2890	3230	3620	4060	4550	5110	5730						
				R-449A	1830	2070	2320	2600	2910	3260	3650	4090	4590	5140	5760						
			R-507	2120	2360	2640	2950	3310	3720	4180	4700	5270									
			TFC	R-404A	2050	2280	2550	2860	3210	3600	4050	4550	5110	5730	6410						
				R-407A	1770	1980	2220	2480	2780	3130	3510	3950	4430	4970	5570						
				R-448A	1810	2040	2300	2580	2890	3230	3620	4060	4560	5110	5730						
	R-449A	1830		2070	2320	2600	2910	3260	3650	4090	4590	5150	5770								
	R-507	2120	2360	2640	2950	3310	3720	4180	4700	5270											
	FPAK-010Z	ZS09KAE	CFV	R-134a									4020	4520	5060	5620	6230	6870			
				R-404A				3880	4340	4840	5370	5940	6540	7190	7860	8570	9310	10100			
			TFC, TFD	R-134a									4020	4520	5060	5620	6230	6870			
				R-404A				3830	4290	4780	5310	5870	6470	7110	7780	8490	9230	10000			
	1 1/4	FPAK-012Z	ZS11KAE	CFV	R-134a									4730	5300	5920	6560	7250	7980		
					R-404A				4490	5010	5570	6170	6790	7450	8150	8880	9630	10400	11200		
TFC, TFD				R-134a									4730	5300	5920	6560	7250	7980			
				R-404A				4560	5090	5660	6260	6890	7570	8260	9000	9760	10500	11400			
FFAL-A13Z				ZF04KAE	CFV	R-404A	2620	2930	3310	3750	4260	4820	5440	6110	6840	7610	8430				
						R-407A	2200	2460	2780	3180	3640	4160	4750	5390	6090	6840	7640				
						R-448A	2250	2540	2890	3300	3780	4300	4890	5530	6210	6950	7730				
						R-449A	2270	2560	2920	3330	3810	4340	4920	5560	6240	6970	7750				
		R-507	2710		3030	3420	3880	4400	4970	5610	6300	7040									
		TFC	R-404A		2620	2930	3310	3750	4260	4820	5440	6120	6840	7620	8440						
			R-407A		2200	2450	2780	3180	3640	4160	4740	5390	6090	6840	7640						
			R-448A		2250	2540	2890	3300	3770	4300	4890	5530	6210	6950	7730						
R-449A			2270	2560	2910	3330	3800	4330	4920	5560	6240	6980	7750								
R-507		2710	3030	3420	3880	4400	4980	5610	6300	7050											
FPAK-013Z		ZS15KAE	CFV	R-134a									6640	7470	8360	9300	10300	11400			
				R-404A				6470	7250	8080	8980	9940	11000	12000	13200	14400	15700	17000			
	TFC, TFD		R-134a									6640	7470	8360	9300	10300	11400				
			R-404A				6410	7180	8010	8900	9860	10900	11900	13100	14300	15600	16900				
1 1/2	FFAL-A14Z	ZF05KAE	CFV	R-404A	3200	3640	4140	4710	5340	6020	6770	7560	8410	9300	10200						
				R-407A	2520	2870	3300	3800	4380	5020	5740	6520	7360	8270	9240						
				R-448A	2650	3030	3490	4010	4600	5240	5950	6710	7540	8410	9340						
				R-449A	2660	3050	3510	4030	4620	5270	5980	6740	7560	8440	9360						
			R-507	3310	3760	4290	4870	5520	6230	6990	7810	8680									
			TFC, TFD	R-404A	3200	3630	4140	4700	5330	6020	6760	7560	8410	9300	10200						
				R-407A	2520	2870	3300	3800	4380	5020	5740	6520	7360	8270	9240						
				R-448A	2650	3030	3490	4010	4590	5240	5950	6720	7540	8410	9340						
	R-449A	2660		3050	3510	4030	4620	5270	5980	6740	7570	8440	9370								
	R-507	3310	3760	4280	4870	5520	6220	6990	7810	8680											
	FFAL-A15Z	ZF06KAE	CFV	R-404A	4340	4960	5640	6380	7190	8060	8990	9980	11000								
				R-407A	3500	4060	4680	5350	6090	6900	7790	8760	9820								
				R-448A	3640	4190	4790	5460	6200	7010	7890	8850	9900								
				R-449A	3660	4210	4810	5480	6220	7030	7910	8880	9920								
			R-507	4370	4980	5670	6410	7230	8100	9040	10000	11100									
			TFC, TFD	R-404A	4340	4930	5590	6310	7100	7960	8900	9900	11000								
R-407A				3500	4070	4680	5350	6090	6900	7790	8760	9820									
R-448A				3630	4180	4790	5460	6190	7000	7880	8850	9890									
R-449A	3650	4200		4810	5480	6220	7020	7910	8870	9920											
R-507	4360	4960	5620	6340	7140	8010	8940	9950	11000												

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

90° Ambient																	
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling												
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
1 1/2	FFAP-A15Z	ZS09KAE	CFV	R-134a								3680	4210	4790	5420	6100	6810
				R-404A				4080	4590	5150	5770	6430	7150	7940	8780	9690	10700
				R-407A				3470	4100	4720	5350	6010	6700	7430	8220	9070	9990
				R-407C								4910	5770	6660	7580	8530	9520
				R-448A				3130	3730	4310	4890	5490	6130	6810	7560	8390	9310
				R-449A				3130	3730	4310	4890	5490	6130	6810	7560	8390	9310
			TFC, TFD	R-134a								3680	4210	4790	5410	6100	6810
				R-404A				4020	4530	5090	5690	6350	7070	7840	8680	9570	10500
				R-407A				3470	4100	4720	5350	6010	6700	7430	8220	9070	9990
				R-407C								4910	5770	6660	7580	8530	9520
				R-448A				3180	3710	4260	4830	5440	6110	6820	7610	8470	9420
				R-449A				3180	3710	4260	4830	5450	6110	6830	7610	8470	9420
	FFAK-015Z	ZS19KAE	CFV	R-134a									7410	8330	9310	10300	11500
				R-404A				7180	8030	8940	9910	10900	12000	13200	14400	15700	17000
			TFC, TFD	R-134a									7410	8330	9310	10300	11500
				R-404A				7120	7970	8870	9840	10900	12000	13100	14300	15600	16900
				R-404A	4810	5620	6440	7290	8180	9130	10100	11200	12400	13700	15100		
				R-407A	4030	4710	5430	6180	6990	7870	8820	9860	11000	12200	13600		
1 3/4	FFAL-A17Z	ZF07KAE	CFV	R-448A	4160	4840	5530	6260	7040	7890	8830	9870	11000	12300	13800		
				R-449A	4180	4860	5560	6280	7070	7920	8850	9890	11000	12300	13800		
				R-507	4980	5810	6650	7530	8450	9430	10500	11600	12800				
				R-404A	4820	5620	6440	7290	8190	9140	10200	11300	12400	13700	15100		
				R-407A	4030	4720	5430	6190	7000	7870	8820	9860	11000	12200	13600		
			TFC	R-448A	4160	4840	5530	6260	7040	7890	8830	9880	11000	12300	13800		
				R-449A	4180	4860	5560	6280	7070	7920	8850	9900	11100	12300	13800		
				R-507	4980	5810	6660	7530	8450	9430	10500	11600	12800				
				R-134a								4400	5030	5720	6440	7210	8030
				R-404A				4750	5340	5990	6690	7450	8270	9160	10100	11100	12200
	FFAP-A17Z	ZS11KAE	CFV	R-407A				4110	4850	5580	6320	7090	7890	8740	9650	10600	11700
				R-407C								5800	6820	7860	8940	10000	11200
				R-448A				3800	4500	5170	5860	6560	7310	8110	8990	9950	11000
				R-449A				3800	4490	5170	5860	6560	7310	8110	8980	9950	11000
				R-134a								4400	5030	5720	6440	7210	8030
			TFC, TFD	R-404A				4820	5430	6080	6800	7570	8410	9300	10300	11300	12400
				R-407A				4110	4850	5580	6320	7090	7890	8740	9650	10600	11700
				R-407C								5800	6820	7860	8940	10000	11200
				R-448A				3870	4490	5120	5800	6510	7290	8130	9050	10100	11200
				R-449A				3870	4480	5120	5790	6510	7290	8130	9050	10100	11200
				R-134a								5020	5750	6530	7390	8280	9230
				R-404A				5540	6240	7000	7820	8710	9680	10700	11800	13100	14300
				R-407A				4720	5560	6410	7260	8150	9080	10100	11100	12300	13500
				R-407C								6670	7840	9040	10300	11600	12900
				R-448A				4310	5120	5910	6700	7510	8370	9300	10300	11400	12700
				R-449A				4310	5120	5910	6700	7510	8370	9300	10300	11400	12700
2	FFAP-A20Z	ZS13KAE	CFV	R-134a								5020	5750	6530	7390	8280	9230
				R-404A				5540	6240	7000	7820	8710	9680	10700	11800	13100	14300
				R-407A				4720	5560	6410	7260	8150	9080	10100	11100	12300	13500
				R-407C								6670	7840	9040	10300	11600	12900
				R-448A				4310	5120	5910	6700	7510	8370	9300	10300	11400	12700
				R-449A				4310	5120	5910	6700	7510	8370	9300	10300	11400	12700
			TFC, TFD	R-134a								5020	5750	6530	7390	8280	9230
				R-404A				5540	6230	6990	7810	8710	9670	10700	11800	13000	14300
				R-407A				4720	5560	6410	7260	8150	9080	10100	11100	12300	13500
				R-407C								6670	7840	9040	10300	11600	12900
				R-448A				3590	4730	5760	6710	7620	8530	9460	10400	11500	12700
				R-449A				3590	4730	5750	6710	7620	8530	9460	10400	11500	12700
	FFAK-020Z	ZS21KAE	CFV	R-134a									10000	11300	12600	14000	15500
				R-404A				9680	10900	12100	13500	14900	16500	18100	19800	21600	23500
			TFC, TFD	R-134a									10000	11300	12600	14000	15500
				R-404A				9630	10800	12100	13400	14800	16400	18000	19700	21500	23400
				R-404A	5830	6730	7670	8680	9760	10900	12200	13500	15000				
				R-407A	4670	5460	6330	7280	8330	9470	10700	12100	13600				
				R-448A	4950	5800	6670	7600	8590	9670	10800	12100	13600				
				R-449A	4950	5800	6680	7600	8600	9670	10900	12100	13600				
2 1/4	FFAL-A22Z	ZF09KAE	CFV	R-507	5910	6810	7760	8770	9840	11000	12200	13600	15000				
				R-404A	5820	6730	7670	8680	9760	10900	12200	13500	15000				
				R-407A	4670	5470	6340	7290	8330	9470	10700	12100	13500				
				R-448A	4950	5800	6680	7600	8590	9670	10800	12100	13500				
				R-449A	4950	5800	6680	7600	8600	9670	10800	12100	13500				
			TFC, TFD	R-507	5910	6810	7760	8770	9840	11000	12200	13600	15000				
				R-404A	5820	6730	7670	8680	9760	10900	12200	13500	15000				
				R-407A	4670	5470	6340	7290	8330	9470	10700	12100	13500				
				R-448A	4950	5800	6680	7600	8590	9670	10800	12100	13500				
				R-449A	4950	5800	6680	7600	8600	9670	10800	12100	13500				

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

90° Ambient																			
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling														
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30
2 1/4	FFAP-A22Z	ZS15KAE	CFV	R-134a								6060	6930	7870	8910	10000	11300	12600	
				R-404A				6790	7660	8610	9640	10800	12000	13300	14800	16300	18000	19800	
				R-407A				5170	6110	7110	8180	9330	10600	11900	13400	14900	16600	18500	
				R-407C								8130	9560	11000	12600	14200	15800	17600	
				R-448A				5170	6170	7140	8110	9120	10200	11300	12600	14000	15600	17300	
				R-449A				5170	6160	7130	8110	9110	10200	11300	12600	14000	15600	17300	
			TFC, TFD	R-134a								6060	6930	7870	8910	10000	11300	12600	
				R-404A				6730	7590	8530	9550	10700	11900	13200	14700	16200	17900	19700	
				R-407A				5740	6770	7810	8860	9960	11100	12400	13700	15100	16700	18400	
				R-407C								8130	9560	11000	12600	14200	15800	17600	
2 1/2	FFAL-A26Z	ZF11K4E	CFV	R-404A	8180	9290	10500	11700	13100	14500	16000	17700	19400	21100	23000	24900	26900	28900	30900
				R-407A	5760	6750	7820	8990	10300	11800	13400	15300	17300						
				R-448A	6910	7830	8860	9990	11200	12600	14100	15600	17300	19200	21100	23100	25200	27400	29600
				R-449A	6910	7830	8850	9990	11200	12600	14100	15600	17300	19100	21000	23100	25200	27400	29600
				R-507	8470	9600	10800	12100	13400	14900	16400	18000	19700	21500	23300	25200	27100	29200	31200
			TFC	R-404A	8040	9130	10300	11500	12900	14300	15800	17400	19100	20900	22700	24600	26600	28600	30600
				R-407A	6640	7400	8430	9670	11100	12600	14100	15600	17100						
				R-448A	6880	7870	8960	10100	11500	12900	14400	16000	17800	19600	21600	23700	25900	28100	
				R-449A	6870	7860	8950	10100	11500	12900	14400	16000	17800	19600	21600	23700	25800	28100	30400
				R-507	8340	9450	10600	11900	13200	14700	16200	17800	19500	21200	23000	24900	26900	28900	31000
			TFD	R-404A	8040	9130	10300	11500	12900	14300	15800	17400	19100	20900	22700	24600	26600	28600	30600
				R-407A	6640	7410	8440	9670	11100	12600	14100	15600	17100						
				R-448A	6880	7870	8960	10100	11500	12900	14400	16000	17800	19600	21600	23700	25900	28100	
				R-449A	6880	7870	8960	10200	11500	12900	14400	16000	17800	19600	21600	23700	25800	28100	30400
				R-507	8340	9450	10600	11900	13300	14700	16200	17800	19500	21200	23000	24900	26900	28900	31000
3	FFAL-A30Z	ZF13K4E	CFV	R-404A	9140	10400	11900	13400	15000	16800	18700	20600	22700	24800	27100	29300	31700	34100	36500
				R-407A	7650	8580	9800	11300	13000	14800	16800	18800	21000						
				R-448A	8060	8990	10100	11500	13100	14800	16700	18700	20900	23200	25600	28100	30800	33500	36300
				R-449A	8060	8990	10100	11500	13100	14800	16700	18700	20900	23200	25600	28100	30700	33500	36300
				507	9420	10800	12200	13800	15500	17300	19200	21200	23300	25500	27800	30100	32500	34900	37400
			TFC, TFD	R-404A	9060	10400	11800	13200	14800	16500	18300	20200	22200	24300	26500	28800	31200	33600	36200
				R-407A	7660	8520	9640	11000	12600	14300	16200	18200	20300						
				R-448A	7880	8990	10300	11700	13300	15000	16900	18900	21000	23300	25600	28100	30600	33300	
				R-449A	7870	8990	10300	11700	13300	15000	16900	18900	21000	23300	25600	28100	30600	33300	
				507	9340	10700	12100	13600	15300	17000	18900	20800	22800	25000	27200	29600	32000	34500	37100
	FFAP-A30Z	ZS19KAE	CFV	R-134a								6840	7820	8880	10000	11300	12700	14100	
				R-404A				7580	8540	9590	10700	12000	13300	14800	16400	18100	19900	21900	
				R-407A				6440	7600	8760	9940	11200	12500	13800	15300	16900	18600	20500	
				R-407C								9110	10700	12400	14100	15900	17700	19700	
				R-448A				4850	6370	7750	9040	10300	11600	12900	14300	15800	17400	19300	
			TFC, TFD	R-449A				4850	6360	7740	9040	10300	11600	12900	14200	15800	17400	19300	
				R-134a								7140	8120	9190	10300	11600	12900	14300	
				R-404A				7510	8470	9510	10600	11900	13200	14700	16300	18000	19800	21700	
				R-407A				6440	7600	8760	9940	11200	12500	13800	15300	16900	18600	20500	
				R-407C								9110	10700	12400	14100	15900	17700	19700	
3 1/4	FFAP-A32Z	ZS21KAE	CFV	R-448A				4830	6370	7760	9050	10300	11600	12900	14200	15700	17400	19300	
				R-449A				4830	6360	7750	9050	10300	11600	12800	14200	15700	17400	19200	
				R-134a								9190	10500	11900	13400	15000	16700	18600	
				R-404A				10000	11300	12600	14100	15700	17400	19300	21200	23400	25600	28000	
				R-407A				8390	9900	11400	12900	14500	16100	17900	19700	21700	23900	26200	
			TFC, TFD	R-407C								12100	14200	16300	18600	20900	23300	25700	
				R-448A				7820	9290	10800	12400	14100	15900	17800	19800	21900	24100	26400	
				R-449A				7810	9280	10800	12400	14100	15900	17800	19800	21900	24100	26400	
				R-134a								9190	10500	11900	13400	15000	16700	18600	
				R-404A				9960	11200	12500	14000	15600	17300	19100	21100	23200	25500	27900	
				R-407A				8390	9900	11400	12900	14500	16100	17900	19700	21700	23900	26200	
				R-407C								12100	14200	16300	18600	20900	23300	25700	
				R-448A				7610	9110	10700	12300	14100	15900	17900	20000	22200	24500	26900	
				R-449A				7600	9100	10700	12300	14100	15900	17900	20000	22200	24500	26900	

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

90° Ambient																	
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling												
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
4	FFAK-039Z	ZS29KAE	CFV	R-134a									11300	12800	14300	16000	17800
				R-404A				12100	13600	15200	16900	18700	20700	22800	25000	27300	29800
			TFC, TFD	R-134a									11300	12800	14300	16000	17800
				R-404A				12200	13700	15300	17000	18800	20800	22900	25100	27500	29900
				R-404A	11600	13100	14700	16400	18200	20200	22200	24300	26600	28900	31400	33900	36500
				R-407A	9810	10900	12300	13900	15800	17900	20100	22500	24900				
	FFAL-A40Z	ZF15K4E	CFV	R-448A	9610	10900	12400	14000	15900	17900	20000	22300	24800	27400	30100	32900	35800
				R-449A	9600	10900	12400	14000	15900	17900	20000	22300	24800	27300	30000	32900	35800
				507	11900	13500	15100	16900	18800	20700	22800	25000	27300	29700	32200	34700	40000
				R-404A	11400	12900	14500	16200	18000	19900	21900	24000	26300	28600	31100	33600	36200
				R-407A	9670	10700	11900	13500	15300	17300	19500	21900	24400				
			TFC, TFD	R-448A	9920	11200	12700	14400	16200	18200	20300	22600	25000	27500	30200	32900	35700
				R-449A	9910	11200	12700	14400	16200	18200	20300	22600	25000	27500	30100	32900	35700
				507	11700	13300	14900	16600	18500	20500	22500	24700	27000	29400	31900	34400	37000
				R-134a								10200	11700	13200	15000	16900	18900
				R-404A				11100	12600	14100	15800	17700	19700	21900	24300	26800	29600
				R-407A				8510	10100	11800	13600	15500	17600	19800	22200	24800	27700
	FFAP-A40Z	ZS26KAE	CFV	R-407C								13600	16000	18500	21000	23700	26500
				R-448A				10300	11300	12600	14000	15600	17400	19400	21700	24200	26800
				R-449A				10300	11300	12600	14000	15600	17400	19400	21700	24100	26800
				R-134a								10200	11700	13200	15000	16900	18900
				R-404A				11200	12600	14200	15900	17700	19800	22000	24400	26900	29700
				R-407A				9120	10600	12100	13800	15700	17700	19900	22200	24700	27500
			TFC, TFD	R-407C								13600	16000	18500	21000	23700	26500
				R-448A				10100	11200	12400	13900	15500	17400	19500	21900	24400	27200
				R-449A				10100	11200	12400	13900	15500	17400	19500	21900	24400	27200
				R-134a								12700	14500	16400	18600	20800	23200
				R-404A				14000	15800	17700	19800	22100	24600	27200	30100	33200	36500
				R-407A				11900	14000	16200	18400	20600	23000	25500	28100	31000	34200
4 1/4	FFAP-A42Z	ZS33KAE	CFV	R-407C								16600	19600	22600	25800	29000	32400
				R-448A				10900	12900	15100	17400	19800	22400	25100	28000	31000	34200
				R-449A				10900	13000	15100	17400	19800	22400	25100	27900	30900	34100
				R-134a								12700	14500	16400	18600	20800	23200
				R-404A				13900	15700	17600	19600	21900	24400	27000	29900	33000	36300
				R-407A				11900	14000	16200	18400	20600	23000	25500	28100	31000	34200
			TFC, TFD	R-407C								16600	19600	22600	25800	29000	32400
				R-448A				10500	12700	14900	17300	19700	22400	25200	28200	31400	34700
				R-449A				10600	12700	14900	17300	19800	22400	25200	28200	31300	34700
				R-134a	13500	15300	17200	19200	21200	23400	25600	28000	30400	32900	35500	38200	40900
				R-404A	11500	12700	14300	16100	18300	20600	23200	25800	28700				
				R-407A	11900	13500	15300	17200	19300	21600	24000	26500	29100	31900	34800	37700	
	FFAL-A50Z	ZF18K4E	TFC, TFD	R-448A	11900	13500	15300	17200	19300	21600	23900	26500	29100	31900	34700	37700	
				R-449A	11900	13500	15300	17200	19300	21600	23900	26500	29100	31900	34700	37700	
				507	13900	15800	17700	19700	21800	24000	26300	28700	31200	33800	36400	39100	41900
				R-134a								13100	14800	16800	18800	21100	23600
				R-22											32500	35800	39300
				R-404A				16700	18700	20800	23100	25600	28200	31000	33900	37000	40300
	FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-407A				13500	15400	17500	20000	22600	25500	28700	32000	35500	39200
				R-407C					15200	17300	19700	22300	25200	28300	31600	35000	38700
				R-448A					15000	17100	19500	22300	25300	28600	32100	35800	39700
				R-449A					15000	17100	19500	22300	25300	28600	32100	35800	39700
				R-134a							15400	17500	19800	22300	24900	27800	30900
				R-22											42200	46300	50500
6	FFAP-060Z	ZS45K4E	TFC, TFD	R-404A				20000	22300	24700	27400	30100	33100	36200	39500	43000	46700
				R-407A				16200	18400	21000	23800	26900	30300	33900	37700	41700	45900
				R-407C								29900	33400	37200	41200	45300	49600
				R-448A					18100	20400	23200	26300	29800	33500	37500	41700	46100
				R-449A					18100	20400	23200	26300	29800	33500	37500	41700	46100
				R-134a								15400	17500	19800	22300	24900	27800
				R-22											42200	46300	50500
				R-404A													
				R-407A													
				R-407C													
				R-448A													
				R-449A													

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

100° Ambient																				
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling															
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	
1	FFAL-A10Z	ZF03KAE	CFV	R-404A	1910	2120	2360	2630	2940	3300	3700	4150	4660	5220	5840					
				R-407A	1650	1850	2080	2330	2610	2920	3270	3660	4100	4590	5130					
				R-448A	1700	1940	2180	2440	2730	3050	3410	3810	4270	4770	5340					
				R-449A	1670	1910	2150	2420	2700	3020	3380	3780	4230	4730	5300					
			507	1970	2190	2430	2720	3040	3400	3820	4280	4800								
			R-404A	1910	2120	2360	2630	2940	3300	3700	4150	4660	5220	5850						
			R-407A	1650	1850	2080	2330	2610	2920	3270	3660	4100	4590	5130						
			R-448A	1700	1940	2180	2440	2730	3050	3410	3810	4270	4770	5340						
	R-449A	1670	1910	2150	2420	2700	3020	3380	3780	4230	4730	5300								
	507	1970	2190	2440	2720	3040	3400	3820	4280	4800										
	FFAK-010Z	ZS09KAE	CFV	R-134a										4260	4750	5280	5840	6440		
				R-404A				3600	4020	4460	4930	5430	5960	6520	7120	7740	8380	9050		
TFC, TFD			R-134a										4260	4750	5280	5840	6440			
			R-404A				3560	3970	4410	4880	5370	5900	6460	7050	7670	8310	8990			
1 1/4	FFAK-012Z	ZS11KAE	CFV	R-134a									4980	5550	6140	6780	7450			
				R-404A				4150	4620	5120	5640	6190	6760	7360	7980	8610	9270	9940		
			TFC, TFD	R-134a									4980	5550	6140	6780	7450			
				R-404A				4220	4700	5200	5720	6280	6860	7460	8080	8730	9380	10100		
			FFAL-A13Z	ZF04KAE	CFV	R-404A	2420	2690	3030	3420	3880	4390	4960	5580	6250	6960	7710			
						R-407A	2070	2300	2600	2960	3380	3860	4400	4990	5630	6330	7070			
	R-448A	2140				2410	2730	3110	3550	4040	4570	5160	5800	6480	7190					
	R-449A	2120				2380	2700	3080	3510	4000	4530	5120	5760	6450	7170					
	507	2500			2780	3120	3530	4000	4530	5110	5750	6440								
	R-404A	2420			2690	3030	3420	3880	4390	4960	5580	6250	6960	7720						
	R-407A	2070			2300	2590	2950	3370	3860	4390	4990	5630	6330	7070						
	R-448A	2140			2410	2730	3110	3550	4030	4570	5160	5800	6480	7200						
	R-449A	2120	2380	2700	3070	3510	3990	4530	5120	5760	6450	7180								
	507	2500	2780	3120	3530	4000	4530	5120	5750	6440										
	FFAK-013Z	ZS15KAE	CFV	R-134a										7040	7870	8750	9690	10700		
				R-404A				6010	6720	7470	8270	9130	10000	11000	12000	13000	14100	15100		
			TFC, TFD	R-134a										7040	7870	8750	9690	10700		
				R-404A				5950	6660	7400	8200	9050	9950	10900	11900	12900	14000	15000		
	1 1/2	FFAL-A14Z	ZF05KAE	CFV	R-404A	2960	3360	3820	4340	4920	5540	6220	6950	7720	8540	9390				
					R-407A	2370	2680	3070	3530	4060	4660	5320	6050	6840	7700	8610				
					R-448A	2480	2840	3260	3740	4280	4880	5540	6250	7020	7840	8700				
					R-449A	2480	2840	3260	3740	4280	4880	5540	6250	7020	7830	8700				
				507	3070	3480	3960	4490	5080	5730	6430	7170	7970							
				R-404A	2960	3360	3820	4330	4910	5540	6220	6940	7720	8540	9400					
R-407A				2370	2680	3070	3530	4060	4660	5320	6050	6840	7700	8610						
R-448A				2480	2840	3260	3740	4280	4880	5540	6250	7020	7840	8700						
R-449A		2480	2840	3260	3740	4280	4880	5540	6250	7020	7830	8700								
507		3060	3480	3950	4480	5080	5720	6420	7170	7970										
FFAL-A15Z		ZF06KAE	CFV	R-404A	4020	4580	5200	5870	6600	7380	8220	9110	10000							
				R-407A	3310	3830	4410	5030	5720	6470	7290	8190	9160							
	R-448A			3440	3950	4520	5140	5820	6570	7380	8270	9230								
	R-449A			3440	3950	4520	5140	5820	6570	7380	8270	9230								
	507		4040	4610	5230	5900	6640	7420	8260	9150	10100									
	R-404A		4030	4570	5160	5810	6530	7300	8140	9040	10000									
	R-407A		3300	3830	4400	5030	5710	6460	7280	8180	9160									
	R-448A		3420	3940	4510	5140	5820	6560	7380	8270	9230									
R-449A	3420	3940	4510	5140	5820	6560	7380	8260	9230											
507	4060	4590	5190	5840	6560	7340	8180	9080	10100											
FFAP-A15Z	ZS09KAE	CFV	R-134a									3560	4050	4580	5150	5760	6420	7140		
			R-404A				3790	4260	4770	5330	5930	6590	7300	8070	8900	9790	10700			
			R-407A						4370	4970	5580	6230	6910	7630	8420	9260	10200			
			R-407C								4520	5370	6240	7130	8040	8970	9940			
		R-448A						4210	4730	5270	5840	6450	7120	7870	8710	9640				
		R-449A						4190	4710	5240	5800	6410	7080	7830	8670	9600				
		R-134a									3560	4050	4580	5150	5760	6420	7140			
		R-404A				3740	4200	4710	5260	5860	6510	7220	7980	8800	9690	10600				
R-407A						4370	4970	5580	6230	6910	7630	8420	9260	10200						
R-407C								4520	5370	6240	7130	8040	8970	9940						
R-448A						4220	4710	5250	5840	6480	7190	7970	8830	9780						
R-449A						4210	4690	5220	5800	6440	7140	7920	8790	9750						

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

100° Ambient																						
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling																	
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30			
1 1/2	FFAK-015Z	ZS19KAE	CFV	R-134a										7840	8750	9710	10700	11800				
				R-404A				6660	7440	8250	9110	10000	11000	12000	13000	14000	15000	15900				
			TFC, TFD	R-134a											7840	8750	9710	10700	11800			
				R-404A				6610	7380	8190	9050	9950	10900	11900	12900	13900	14900	15800				
1 3/4	FFAL-A17Z	ZF07KAE	CFV	R-404A	4410	5170	5920	6690	7500	8350	9250	10200	11300	12400	13600							
				R-407A	3750	4400	5070	5770	6520	7330	8200	9160	10200	11300	12600							
				R-448A	3910	4550	5200	5870	6590	7370	8230	9180	10300	11400	12800							
				R-449A	3910	4550	5200	5870	6590	7370	8220	9180	10200	11400	12800							
				507	4570	5340	6110	6910	7740	8610	9530	10500	11600									
				R-404A	4420	5170	5920	6700	7500	8350	9260	10200	11300	12400	13600							
			TFC	R-407A	3750	4400	5070	5780	6530	7330	8210	9160	10200	11400	12600							
				R-448A	3910	4550	5200	5870	6590	7370	8230	9190	10300	11400	12800							
				R-449A	3910	4550	5200	5870	6590	7370	8230	9180	10200	11400	12800							
				507	4570	5340	6120	6910	7740	8610	9540	10500	11600									
				CFV	R-134a								4220	4800	5420	6080	6800	7570	8400			
					R-404A				4410	4960	5540	6180	6870	7620	8430	9300	10200	11200	12300			
	R-407A								5160	5860	6580	7330	8110	8950	9850	10800	11900					
	R-407C									5330	6330	7350	8390	9450	10500	11700						
	FFAP-A17Z	ZS11KAE	CFV	R-448A						5050	5660	6280	6940	7650	8430	9290	10300	11300				
				R-449A							5630	6240	6900	7610	8390	9260	10200	11300				
				R-134a								4220	4800	5420	6080	6800	7570	8400				
				R-404A				4490	5040	5630	6280	6980	7740	8560	9440	10400	11400	12500				
			TFC, TFD	R-407A						5160	5860	6580	7330	8110	8950	9850	10800	11900				
				R-407C							5330	6330	7350	8390	9450	10500	11700					
R-448A									5070	5640	6260	6940	7690	8510	9410	10400	11500					
R-449A									5050	5620	6230	6900	7640	8460	9370	10400	11500					
2	FFAP-A20Z	ZS13KAE	CFV	R-134a									4850	5510	6220	6990	7810	8700	9660			
				R-404A				5140	5780	6470	7220	8040	8920	9880	10900	12000	13200	14500				
				R-407A						5940	6740	7570	8440	9350	10300	11400	12500	13700				
				R-407C								6150	7300	8470	9670	10900	12200	13400				
				R-448A						5790	6490	7210	7980	8810	9710	10700	11800	13100				
				R-449A						5780	6480	7210	7970	8800	9700	10700	11800	13100				
			TFC, TFD	R-134a								4850	5510	6220	6990	7810	8700	9660				
				R-404A				5140	5770	6460	7210	8030	8910	9870	10900	12000	13200	14500				
				R-407A						5940	6740	7570	8440	9350	10300	11400	12500	13700				
				R-407C								6150	7300	8470	9670	10900	12200	13400				
				R-448A						5680	6480	7250	8030	8830	9690	10600	11700	12900				
				R-449A						5670	6470	7250	8020	8820	9680	10600	11700	12800				
FFAP-020Z	ZS21KAE	CFV	R-134a										10600	11900	13200	14600	16100					
			R-404A				9000	10100	11200	12400	13700	15000	16500	17900	19400	20900	22300					
		TFC, TFD	R-134a										10600	11900	13200	14600	16100					
			R-404A				8950	10000	11100	12300	13600	15000	16400	17900	19400	20800	22200					
2 1/4	FFAL-A22Z	ZF09KAE	CFV	R-404A	5360	6190	7060	7970	8950	10000	11100	12300	13700									
				R-407A	4430	5160	5950	6810	7770	8810	9950	11200	12500									
				R-448A	4670	5470	6290	7140	8060	9040	10100	11300	12600									
				R-449A	4680	5480	6290	7150	8060	9040	10100	11300	12600									
				507	5380	6210	7080	8000	8990	10000	11200	12400	13800									
				R-404A	5360	6190	7060	7970	8950	10000	11100	12300	13700									
			TFC, TFD	R-407A	4430	5160	5950	6820	7770	8810	9940	11200	12500									
				R-448A	4670	5470	6290	7150	8060	9040	10100	11300	12600									
				R-449A	4680	5480	6300	7150	8060	9050	10100	11300	12600									
				507	5370	6210	7080	8000	8990	10000	11200	12400	13700									
				FFAP-A22Z	ZS15KAE	CFV	R-134a									5890	6700	7590	8540	9570	10700	11900
							R-404A				6330	7130	7990	8920	9940	11100	12300	13600	15000	16500	18200	
R-407A									6540	7560	8650	9830	11100	12400	13900	15500	17200					
TFC, TFD	R-407C										7520	8940	10400	11900	13400	15000	16600					
	R-448A								6980	7860	8770	9740	10800	11900	13200	14600	16200					
	R-449A								6980	7860	8770	9730	10800	11900	13200	14600	16200					

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

100° Ambient																				
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling															
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	
2 1/2	FFAL-A26Z	ZF11K4E	CFV	R-404A	7550	8560	9640	10800	12000	13300	14700	16100	17600	19200	20900	22600	24300	26100	27800	
				R-407A	5510	6370	7320	8390	9600	11000	12500	14200	16200							
				R-448A	6510	7370	8330	9380	10500	11800	13100	14600	16100	17800	19500	21400	23300	25300	27300	
				R-449A	6510	7370	8320	9370	10500	11800	13100	14600	16100	17800	19500	21300	23300	25200	27300	
				507	7770	8810	9920	11100	12400	13700	15100	16600	18200	19800	21400	23100	24800	26500	27900	
			TFC	R-404A	7430	8420	9490	10600	11800	13100	14500	15900	17400	19000	20700	22400	24100	25900	27700	
				R-407A	6190	6920	7900	9070	10400	11800	13200	14600	15900							
				R-448A	6520	7440	8460	9570	10800	12100	13500	15000	16600	18300	20100					
				R-449A	6510	7440	8450	9560	10800	12100	13500	15000	16600	18300	20100	22000	24000	26000	28100	
				507	7640	8670	9770	10900	12200	13500	14900	16400	17900	19500	21200	22900	24700	26300	27900	
			TFD	R-404A	7490	8480	9530	10600		13100	14400	15800	17200	19000	20700	22400	24100	25900	27700	
				R-407A	6190	6930	7900	9070	10400	11800	13200	14600	15900							
				R-448A	6520	7450	8460	9570	10800	12100	13500	15000	16600	18300	20100					
				R-449A	6510	7440	8450	9560	10800	12100	13500	15000	16600	18300	20100	22000	24000	26000	28100	
				507	7640	8670	9770	10900	12200	13500	14900	16400	17900	19500	21200	22900	24700	26300	27900	
3	FFAL-A30Z	ZF13K4E	CFV	R-404A	8290	9500	10800	12200	13700	15300	17000	18800	20600	22600	24500	26600	28700	30800	33000	
				R-407A	7120	7950	9070	10400	12000	13700	15600	17600	19500							
				R-448A	8920	9450	10200	11300	12500	14000	15600	17400	19300	21400	23600	25900	28400	30900	33500	
				R-449A	8910	9440	10200	11300	12500	13900	15600	17400	19300	21400	23600	25900	28400	30900	33500	
				507	8500	9760	11100	12600	14100	15800	17500	19400	21300	23300	25400	27400	29600	31700	33800	
			TFC, TFD	R-404A	8390	9530	10800	12100	13500	15000	16600	18300	20100	22000	24000	26100	28300	30500	32800	
				R-407A	7230	7930	8910	10100	11600	13200	15000	16900	18900							
				R-448A	7630	8550	9640	10900	12300	13800	15500	17300	19200	21300	23500	25700	28100			
				R-449A	7620	8540	9630	10900	12300	13800	15500	17300	19200	21300	23500	25700	28100			
				507	8610	9790	11100	12400	13900	15500	17100	18900	20800	22800	24800	27000	29200	31500	33800	
	FFAP-A30Z	ZS19KAE	CFV	R-134a								6620	7530	8520	9580	10700	12000	13300		
				R-404A				7060	7940	8890	9930	11100	12300	13600	15000	16600	18200	20000		
				R-407A						8120	9230	10400	11600	12900	14200	15700	17300	19000		
				R-407C								8420	10000	11600	13300	15000	16700	18500		
				R-448A						7460	8660	9800	10900	12100	13400	14800	16300	18000		
			TFC, TFD	R-449A						7460	8650	9800	10900	12100	13400	14700	16300	18000		
				R-134a								6940	7860	8840	9890	11000	12200	13600		
				R-404A				7010	7880	8820	9850	11000	12200	13500	14900	16500	18100	19900		
				R-407A						8120	9230	10400	11600	12900	14200	15700	17300	19000		
				R-407C								8420	10000	11600	13300	15000	16700	18500		
3 1/4	FFAP-A32Z	ZS21KAE	CFV	R-448A						7460	8660	9810	11000	12100	13400	14700	16300	18000		
				R-449A						7450	8660	9810	10900	12100	13400	14700	16200	17900		
				R-134a								10000	11300	12700	14200	15800	17500			
				R-404A				9330	10500	11700	13000	14400	16000	17600	19400	21300	23400	25500		
				R-407A						10500	12000	13400	15000	16600	18300	20100	22100	24200		
			TFC, TFD	R-407C								11100	13200	15300	17500	19700	21900	24200		
				R-448A						9550	11100	12800	14500	16300	18200	20100	22200	24300		
				R-449A						9550	11100	12800	14500	16300	18100	20100	22100	24200		
				R-134a								10000	11300	12700	14200	15800	17500			
				R-404A				9270	10400	11600	12900	14400	15900	17500	19300	21200	23200	25400		

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

100° Ambient																						
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling																	
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30			
4	FFAK-039Z	ZS29KAE	CFV	R-134a									10700	12100	13500	15000	16700	18500				
				R-404A			10000	11200	12600	14000	15400	17000	18700	20500	22500	24500	26700	29000				
			R-134a									10700	12100	13500	15000	16700	18500					
		TFC, TFD	R-404A			10100	11300	12600	14000	15500	17100	18800	20700	22600	24600	26800	29100					
			R-404A	10600	12000	13400	15000	16600	18300	20100	22000	24000	26100	28200	30500	32700	35100	37400				
			R-407A	9210	10100	11400	12900	14700	16600	18700	20900	23200										
	FFAL-A40Z	ZF15K4E	CFV	R-448A	9240	10400	11700	13200	14900	16700	18700	20800	23000	25300								
				R-449A	9230	10400	11700	13200	14900	16700	18600	20700	23000	25300								
				507	10900	12300	13900	15500	17100	18900	20800	22800	24800	26900	29100	31300	33500	35700	37900			
			TFC, TFD	R-404A	10500	11800	13200	14800	16400	18100	19900	21800	23800	25800	28000	30200	32500	34900	37300			
				R-407A	8980	9850	11000	12400	14100	16000	18100	20300	22700									
				R-448A	9500	10600	12000	13400	15000	16800	18700	20700	22800	25100								
		FFAP-A40Z	ZS26KAE	CFV	R-449A	9490	10600	11900	13400	15000	16800	18700	20700	22800	25100							
					507	10800	12200	13600	15200	16900	18700	20600	22500	24600	26700	28900	31100	33400	35600	37900		
					R-134a								9900	11300	12700	14300	16000	17900	19900			
				TFC, TFD	R-404A				10400	11700	13100	14600	16300	18200	20100	22300	24600	27200	29900			
					R-407A						10600	12300	14200	16200	18300	20600	23100	25700	28600			
					R-407C							12500	14800	17300	19800	22300	25000	27700				
	4 1/4	FFAP-A42Z	ZS33KAE	CFV	R-448A						11500	12800	14200	15800	17700	19700	22000	24500	27200			
					R-449A						11500	12700	14200	15800	17600	19700	22000	24400	27100			
					R-134a							9900	11300	12700	14300	16000	17900	19900				
				TFC, TFD	R-404A				10400	11700	13200	14700	16400	18200	20200	22400	24700	27300	30000			
					R-407A						11300	12900	14600	16500	18500	20700	23100	25600	28300			
					R-407C							12500	14800	17300	19800	22300	25000	27700				
					R-448A							11400	12600	14100	15800	17800	19900	22400	25000	27900		
			FFAP-A42Z	ZS33KAE	CFV	R-449A						11300	12600	14100	15800	17700	19900	22300	24900	27800		
						R-134a							12200	13900	15700	17600	19700	21900	24300			
						R-404A				13100	14700	16400	18300	20400	22600	25000	27600	30500	33500	36700		
					TFC, TFD	R-407A						15000	17000	19100	21300	23600	26100	28800	31600	34800		
						R-407C							15200	18200	21100	24200	27300	30500	33800			
						R-448A							15500	17900	20300	22900	25600	28500	31500	34600		
						R-449A							15500	17800	20300	22900	25600	28400	31400	34500		
5	FFAL-A50Z	ZF18K4E	TFC, TFD	R-134a								12200	13900	15700	17600	19700	21900	24300				
				R-404A								12200	13900	15700	17600	19700	21900	24300				
				R-407A								12200	13900	15700	17600	19700	21900	24300				
			FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-407C								15200	18200	21100	24200	27300	30500	33800		
						R-448A								15300	17800	20300	23100	25900	28900	32100	35500	
						R-449A								15300	17700	20300	23000	25900	28900	32100	35400	
					FFAL-A50Z	ZF18K4E	TFC, TFD	R-404A	12500	14200	15900	17600	19500	21400	23400	25400	27600	29800	32000	34400	36800	39200
		R-407A	10800	11800				13300	15000	17000	19100	21500	24000	26700								
		R-448A	11600	13000				14500	16200	18000	20000	22100	24300	26600								
		FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE			R-449A	11600	13000	14500	16200	18000	20000	22100	24300	26600						
							507	12900	14600	16400	18200	20100	22100	24100	26200	28400	30600	32900	35200	37400	39600	
							R-134a								12300	14000	15800	17800	19900	22200	24700	27400
				FFAP-050Z			ZS38K4E	CFV, TFC, TFD, TFE	R-22													37200
		R-404A							15400	17200	19100	21200	23400	25700	28200	30900	33700	36700	39800			
R-407A									16300	18500	21000	23700	26600	29700	33000	36400	40000					
FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-407C										18200	20600	23300	26200	29300	32500	36000	39500		
			R-448A								18100	20500	23200	26100	29400	32800	36400	40200				
			R-449A								18100	20500	23200	26100	29400	32800	36400	40200				
		6	FFAP-060Z	ZS45K4E	TFC, TFD	R-134a																
R-22																						
R-404A								18500	20600	22800	25100	27600	30300	33100	36000	39200	42400	45900				
R-407A											22100	25000	28100	31500	35000	38800	42700	46800				
R-407C													27700	31100	34600	38300	42200	46200	50500			
R-448A													24500	27500	30800	34500	38400	42500	46700			
R-449A													24500	27500	30800	34500	38400	42500	46700			
FFAP-060Z	ZS45K4E					TFC, TFD	R-134a															
							R-22															
							R-404A															
							R-407A															
							R-407C															
							R-448A															
							R-449A															
		R-449A																				

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

110° Ambient																				
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling															
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	
1	FFAL-A10Z	ZF03KAE	CFV	R-404A	1790	1980	2190	2430	2710	3020	3370	3770	4210	4710	5250					
				R-407A	1540	1740	1960	2190	2450	2730	3050	3410	3800	4240	4720					
				R-448A	1550	1780	2020	2270	2530	2820	3150	3510	3920	4380	4890					
				R-449A	1570	1800	2040	2290	2560	2850	3180	3540	3950	4410	4930					
				507	1860	2060	2280	2520	2810	3120	3480	3890	4340							
			TFC	R-404A	1790	1980	2190	2430	2710	3020	3370	3770	4210	4710	5260					
				R-407A	1540	1740	1960	2190	2450	2730	3050	3410	3800	4240	4720					
				R-448A	1550	1780	2020	2270	2530	2820	3150	3510	3920	4380	4890					
				R-449A	1570	1800	2040	2290	2560	2850	3180	3540	3950	4410	4930					
				507	1860	2060	2280	2530	2810	3130	3490	3890	4340							
	FPAK-010Z	ZS09KAE	CFV	R-134a										4410	4900	5410	5960			
				R-404A						4000	4390	4810	5250	5700	6190	6700	7240			
			TFC, TFD	R-134a											4410	4900	5410	5960		
				R-404A						3950	4350	4760	5200	5660	6140	6650	7180			
1 1/4	FPAK-012Z	ZS11KAE	CFV	R-134a												5680	6260	6880		
				R-404A						4540	4970	5410	5870	6350	6840					
				R-134a												5680	6260	6880		
			TFC, TFD	R-134a													5680	6260	6880	
				R-404A							4610	5040	5490	5950	6430	6930				
				R-404A	2240	2470	2760	3110	3510	3970	4470	5020	5600	6230	6900					
	FFAL-A13Z	ZF04KAE	CFV	R-407A	1940	2140	2400	2730	3110	3540	4030	4570	5160	5800	6480					
				R-448A	1990	2220	2510	2850	3240	3690	4180	4720	5310	5940	6620					
				R-449A	2010	2250	2540	2880	3280	3720	4220	4760	5340	5970	6630					
				507	2320	2560	2860	3220	3630	4090	4590	5140	5740							
				R-404A	2240	2470	2760	3110	3520	3970	4470	5020	5610	6240	6900					
			TFC	R-407A	1940	2140	2400	2720	3100	3540	4030	4570	5160	5800	6480					
				R-448A	1990	2220	2510	2850	3240	3690	4180	4720	5310	5940	6620					
				R-449A	2010	2250	2540	2880	3280	3720	4220	4760	5340	5970	6630					
507				2320	2560	2860	3220	3630	4090	4600	5150	5740								
R-404A																				
FPAK-013Z	ZS15KAE	CFV	R-134a										7320	8130	9000	9920				
			R-404A						6560	7160	7770	8380	9000	9590						
		TFC, TFD	R-134a											7320	8130	9000	9920			
			R-404A						6510	7110	7710	8330	8940	9540						
1 1/2	FFAL-A14Z	ZF05KAE	CFV	R-404A	2750	3110	3520	3990	4500	5050	5650	6290	6970	7690	8430					
				R-407A	2220	2500	2850	3260	3750	4290	4900	5570	6310	7100	7940					
				R-448A	2310	2630	3020	3460	3960	4510	5120	5770	6480	7240	8040					
				R-449A	2320	2650	3030	3480	3980	4530	5140	5800	6500	7260	8060					
				507	2810	3180	3600	4080	4610	5190	5810	6480	7180							
			TFC, TFD	R-404A	2750	3110	3520	3980	4490	5050	5650	6290	6970	7690	8440					
				R-407A	2220	2500	2850	3260	3740	4290	4900	5570	6310	7100	7940					
				R-448A	2310	2630	3010	3460	3950	4510	5120	5770	6480	7240	8040					
				R-449A	2320	2650	3030	3470	3970	4530	5140	5800	6500	7260	8060					
				507	2810	3180	3600	4070	4600	5180	5800	6470	7180							
	FFAL-A15Z	ZF06KAE	CFV	R-404A	3720	4220	4760	5350	5980	6650	7360	8110	8910							
				R-407A	3110	3600	4130	4710	5330	6020	6760	7580	8460							
				R-448A	3230	3710	4240	4810	5440	6120	6860	7670	8550							
				R-449A	3240	3730	4250	4830	5450	6140	6880	7690	8560							
				507	3710	4210	4760	5350	5990	6670	7400	8160	8980							
			TFC, TFD	R-404A	3750	4220	4740	5300	5920	6580	7300	8080	8910							
				R-407A	3100	3590	4130	4700	5330	6010	6760	7570	8460							
				R-448A	3210	3700	4230	4810	5440	6120	6860	7670	8560							

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

110° Ambient																						
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling																	
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30			
1 1/2	FFAP-A15Z	ZS09KAE	CFV	R-134a										4300	4830	5400	6020	6680				
				R-404A				3600	4020	4470	4950	5470	6030	6620	7250	7930	8650	9410				
				R-407A								5160	5750	6370	7040	7750	8520	9360				
				R-407C									5770	6640	7510	8400	9310					
				R-448A									5330	5860	6440	7100	7840	8680				
				R-449A								4910	5400	5920	6510	7160	7890	8720				
			TFC, TFD	R-134a										4300	4830	5400	6010	6680				
				R-404A				3550	3970	4420	4900	5410	5960	6550	7180	7850	8560	9320				
				R-407A								5160	5750	6370	7040	7750	8520	9360				
				R-407C									5770	6640	7510	8400	9310					
				R-448A									5330	5870	6480	7170	7940	8800				
				R-449A								4910	5400	5950	6560	7240	8000	8840				
	FPAK-015Z	ZS19KAE	CFV	R-134a											8120	9010	9950	11000				
				R-404A						7730	8320	8900										
			TFC, TFD	R-134a											8120	9010	9950	11000				
				R-404A							7680	8280	8870									
				FFAL-A17Z	ZF07KAE	CFV	R-404A	4020	4700	5370	6040	6730	7450	8200	9020	9890	10800	11900				
							R-407A	3420	4040	4670	5310	6000	6730	7510	8370	9310	10300	11500				
R-448A	3650	4250	4850				5460	6120	6830	7610	8480	9450	10500	11800								
R-449A	3660	4270	4870				5480	6140	6840	7620	8490	9460	10500	11800								
507	4120	4830	5520				6210	6930	7680	8470	9310	10200										
R-404A	4030	4710	5370				6050	6740	7460	8210	9030	9910	10900	11900								
TFC	R-407A	3430	4050			4670	5320	6000	6730	7520	8380	9320	10300	11500								
	R-448A	3650	4250			4850	5470	6120	6830	7610	8480	9450	10500	11800								
	R-449A	3660	4270			4870	5480	6140	6840	7620	8490	9460	10500	11800								
	507	4130	4830			5520	6220	6940	7690	8480	9320	10200										
	FFAP-A17Z	ZS11KAE	CFV			R-134a										5080	5700	6360	7080	7850		
						R-404A				4160	4640	5150	5690	6260	6880	7530	8220	8950	9720	10500		
R-407A												6760	7480	8240	9060	9940	10900					
R-407C													6790	7800	8820	9850	10900					
R-448A												6310	6920	7590	8340	9190	10100					
R-449A												6370	6980	7640	8390	9210	10100					
TFC, TFD			R-134a										5080	5700	6360	7080	7850					
			R-404A				4230	4710	5230	5780	6360	6980	7640	8340	9080	9860	10700					
			R-407A									6760	7480	8240	9060	9940	10900					
			R-407C									6790	7800	8820	9850	10900						
			R-448A									6310	6940	7640	8420	9300	10300					
			R-449A									6380	7000	7700	8470	9330	10300					
2	FFAP-A20Z	ZS13KAE	CFV	R-134a										5830	6550	7320	8140	9040				
				R-404A				4800	5370	5980	6640	7350	8110	8930	9810	10700	11700	12800				
				R-407A								6990	7790	8630	9520	10500	11500	12600				
				R-407C									7830	9000	10200	11400	12600					
				R-448A								6730	7380	8080	8860	9740	10700	11800				
				R-449A								6730	7380	8080	8860	9730	10700	11800				
			TFC, TFD	R-134a										5830	6550	7320	8140	9040				
				R-404A				4790	5360	5970	6630	7340	8100	8930	9800	10700	11700	12800				
				R-407A								6990	7790	8630	9520	10500	11500	12600				
				R-407C									7830	9000	10200	11400	12600					
				R-448A								6730	7360	8030	8750	9570	10500	11500				
				R-449A								6730	7360	8030	8750	9560	10500	11500				
	FPAK-020Z	ZS21KAE	CFV	R-134a											11100	12300	13600	15000				
				R-404A						9930	10900	11800	12800	13700	14700							
			TFC, TFD	R-134a											11100	12300	13600	15000				
				R-404A						9880	10800	11800	12700	13700	14600							
				FFAL-A22Z	ZF09KAE	CFV	R-404A	4920	5670	6450	7270	8140	9070	10100	11200	12300						
							R-407A	4220	4860	5560	6330	7180	8110	9130	10300	11500						
R-448A	4390	5140	5890				6670	7490	8380	9340	10400	11600										
R-449A	4390	5140	5890				6670	7490	8380	9340	10400	11600										
507	4940	5700	6480				7300	8170	9100	10100	11200	12400										
R-404A	4910	5670	6450				7270	8140	9070	10100	11100	12300										
TFC, TFD	R-407A	4220	4870			5570	6340	7190	8110	9130	10200	11500										
	R-448A	4390	5140			5900	6670	7500	8380	9340	10400	11600										
	R-449A	4400	5140			5900	6680	7500	8380	9340	10400	11600										
	507	4930	5700			6480	7300	8170	9100	10100	11200	12400										
	Area Restrictions: 20°F Max Superheat									Area Restrictions: 40°F Max Return Gas Temp												

Extended Medium Temp/Low Temp – Air Cooled

110° Ambient																					
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling																
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30		
2 1/4	FFAP-A22Z	ZS15KAE	CFV	R-134a										7130	8010	8970	10000	11100			
				R-404A				5730	6430	7200	8040	8950	9950	11100	12200	13600	15000	16500			
				R-407A								7930	9030	10200	11500	12800	14200	15800			
				R-407C									9630	11100	12500	14000	15600				
				R-448A								8230	9070	9980	11000	12100	13400	14800			
				R-449A								8230	9070	9980	11000	12100	13400	14800			
			TFC, TFD	R-134a										7130	8010	8970	10000	11100			
				R-404A				5680	6370	7130	7960	8870	9860	11000	12100	13400	14800	16400			
				R-407A								8560	9550	10600	11700	12900	14300	15700			
				R-407C									9630	11100	12500	14000	15600				
				R-448A								8230	9080	10000	11100	12300	13600	15000			
				R-449A								8230	9070	10000	11100	12200	13600	15000			
2 1/2	FFAL-A26Z	ZF11K4E	CFV	R-404A	6880	7790	8750	9770	10900	12000	13200	14500	15800	17200	18600	20000	21400	22700			
				R-407A	5180	5890	6710	7630	8710	9940	11300	12900	14700								
				R-448A	6070	6870	7750	8710	9760	10900	12100	13400	14800	16300	17900	19600					
				R-449A	6060	6860	7740	8700	9750	10900	12100	13400	14800	16300	17900	19500					
				507	7080	8010	9000	10000	11100	12300	13500	14800	16200	17500	19000	20400	21800	23100			
			TFC	R-404A	6770	7670	8620	9620	10700	11800	13000	14300	15600	17000	18400	19900	21300	22700			
				R-407A	5760	6460	7380	8470	9670	10900	12200	13500	14600								
				R-448A	6120	6980	7910	8930	10000	11200	12500	13900	15300								
				R-449A	6120	6970	7910	8920	10000	11200	12500	13900	15300	16900	18500	20200					
				507	6960	7890	8860	9890	11000	12100	13400	14700	16000	17400	18800	20300	21700	23100			
			TFD	R-404A	6810	7700	8630	9620	10700	11800	12900	14200	15500	17000	18400	19900	21300	22700			
				R-407A	5770	6460	7380	8470	9680	10900	12200	13500	14600								
R-448A	6120	6980		7920	8930	10000	11200	12500	13900	15400											
R-449A	6120	6980		7910	8930	10000	11200	12500	13900	15300	16900	18500	20200								
507	6970	7890		8870	9900	11000	12200	13400	14700	16000	17400	18800	20300	21700	23100						
3	FFAL-A30Z	ZF13K4E	CFV	R-404A	7490	8590	9780	11100	12400	13900	15500	17100	18800	20600	22400	24300	26100	27800	29400		
				R-407A	6780	7480	8480	9720	11200	12800	14500	16300	18200								
				R-448A	10300	10300	10600	11200	12100	13200	14400	15900	17600	19400	21300	23400	25600				
				R-449A	10300	10300	10600	11200	12100	13100	14400	15900	17600	19400	21300	23400	25600				
				507	7790	8910	10100	11400	12800	14200	15800	17400	19000	20800	22600	24400	26300	28100	30100		
			TFC, TFD	R-404A	7700	8660	9710	10900	12100	13500	15000	16600	18300	20100	21900	23900	25800	27800	29600		
				R-407A	6740	7280	8110	9190	10500	12000	13700	15500	17400								
				R-448A	7500	8200	9060	10100	11300	12600	14000	15600	17400								
				R-449A	7490	8190	9050	10100	11300	12600	14000	15600	17300								
				507	8000	8990	10100	11200	12500	13900	15300	16900	18500	20200	22100	24000	25900	28000	30100		
			3	FFAP-A30Z	ZS19KAE	CFV	R-134a										8000	8980	10100	11200	12500
							R-404A				6400	7180	8030	8960	9970	11100	12300	13600	15000	16600	18300
R-407A												9590	10700	11900	13100	14400	15900	17500			
R-407C														10800	12400	14000	15700	17400			
R-448A												9070	10100	11100	12200	13400	14800	16300			
R-449A												9060	10100	11100	12200	13400	14800	16300			
TFC, TFD	R-134a													8360	9340	10400	11500	12700			
	R-404A							6340	7120	7960	8880	9890	11000	12200	13500	14900	16500	18100			
	R-407A											9590	10700	11900	13100	14400	15900	17500			
	R-407C													10800	12400	14000	15700	17400			
	R-448A											9080	10100	11100	12200	13400	14800	16300			
	R-449A											9070	10100	11100	12200	13400	14800	16300			
3 1/4	FFAP-A32Z	ZS21KAE	CFV	R-134a										10600	11900	13200	14700	16300			
				R-404A					9500	10600	11800	13100	14500	16000	17700	19500	21400	23400			
				R-407A									13800	15300	16800	18500	20300	22200			
				R-407C										14100	16200	18300	20500	22600			
				R-448A									12800	14500	16300	18100	20000	22000			
				R-449A									12800	14500	16300	18100	20000	21900			
			TFC, TFD	R-134a										10600	11900	13200	14700	16300			
				R-404A					9440	10500	11700	13000	14400	15900	17600	19400	21300	23300			
				R-407A									13800	15300	16800	18500	20300	22200			
				R-407C										14100	16200	18300	20500	22600			
				R-448A									12800	14600	16500	18500	20500	22700			
				R-449A									12800	14600	16500	18500	20500	22600			

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Extended Medium Temp/Low Temp – Air Cooled

110° Ambient																					
HP	Model	Comp.	Electrical	Refrigerant	Capacity (BTU/Hr) @ SST, 40°F RG, 5°F Subcooling																
					-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30		
4	FFAK-039Z	ZS29KAE	CFV	R-134a											12600	14000	15600	17200			
				R-404A					11400	12700	14000	15400	16900	18500	20100	21900	23700	25500			
			TFC, TFD	R-134a												12600	14000	15600	17200		
				R-404A					11500	12700	14100	15500	17000	18600	20200	22000	23800	25700			
	FFAL-A40Z	ZF15K4E	CFV	R-404A	9580	10800	12200	13600	15100	16700	18300	20100	21900	23700	25500	27200					
				R-407A	8640	9430	10500	11900	13500	15300	17200	19300	21400								
				R-448A	8950	9960	11100	12400	13900	15500	17300	19200	21200								
				R-449A	8940	9950	11100	12400	13900	15500	17300	19200	21200								
				507	9910	11200	12500	13900	15400	16900	18500	20200	22000	23800	25700	27600	29600				
				R-404A	9420	10700	12000	13400	14900	16400	18100	19900	21700	23500	25400	27200	28700				
			TFC, TFD	R-407A	8130	8880	9910	11200	12800	14500	16400	18500	20700								
				R-448A	9130	10100	11200	12400	13800	15300	16900	18600	20500								
				R-449A	9120	10100	11200	12400	13800	15300	16900	18600	20500								
				507	9760	11000	12300	13700	15200	16700	18300	20000	21800	23600	25500	27500	29500				
				R-134a										12000	13500	15100	16800	18700			
				R-404A				9620	10800	12100	13400	14900	16600	18300	20300	22300	24600	27000			
	FFAP-A40Z	ZS26KAE	CFV	R-407A									12700	14600	16700	18800	21200	23700	26300		
				R-407C										16000	18400	20900	23400	26000			
				R-448A								12200	13600	15300	17100	19200	21500	24000			
				R-449A								12300	13700	15300	17200	19300	21600	24100			
				R-134a										12000	13500	15100	16800	18700			
				R-404A				9660	10800	12100	13500	15000	16600	18400	20300	22400	24700	27100			
			TFC, TFD	R-407A								13500	15200	17100	19100	21200	23600	26100			
				R-407C										16000	18400	20900	23400	26000			
				R-448A								12100	13600	15400	17400	19600	22100	24800			
				R-449A								12200	13700	15500	17500	19700	22100	24800			
R-134a													14700	16500	18400	20500	22800				
R-404A							12100	13500	15100	16800	18600	20500	22700	25000	27400	30000	32800				
4 1/4	FFAP-A42Z	ZS33KAE	CFV	R-407A									19700	21800	24000	26400	29000	31900			
				R-407C										19500	22500	25500	28600	31700			
				R-448A									18000	20500	23100	25800	28600	31500			
				R-449A									18000	20500	23100	25700	28500	31400			
				R-134a										14700	16500	18400	20500	22800			
				R-404A				12000	13400	15000	16600	18400	20400	22500	24800	27200	29800	32600			
			TFC, TFD	R-407A									19700	21800	24000	26400	29000	31900			
				R-407C										19500	22500	25500	28600	31700			
				R-448A									18000	20600	23400	26300	29300	32500			
				R-449A									18000	20600	23400	26200	29300	32400			
				R-404A	11500	13000	14600	16200	17900	19700	21500	23300	25100	26900	28400						
				R-407A	9850	10800	12100	13700													
	FFAL-A50Z	ZF18K4E	TFC, TFD	R-448A																	
				R-449A																	
				507	11800	13400	14900	16500	18200	19900	21600	23400	25300	27200	29200						
				R-134a							11600	13100	14800	16700	18600	20800	23100	25600			
				R-404A				14000	15600	17300	19100	21100	23100	25300	27600	30100	32600	35200			
				R-407A									21800	24500	27300	30400	33500	36800			
				R-407C									21500	24200	27100	30100	33300	36600			
				R-448A									21500	24100	26900	30000	33300	36800			
				R-449A									21500	24100	26900	30000	33300	36800			
				FFAP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-134a						13600	15500	17500	19700	22100	24600	27200	30100	
							R-404A					18800	20700	22800	25000	27200	29600	32200	34800	37500	40200
							R-407A									25900	29000	32300	35700	39300	43100
	R-407C													28700	32000	35400	39100	42800	46700		
	R-448A													28800	31900	35400	39200	43100			
R-449A													28800	31900	35400	39200	43100				
FFAP-060Z	ZS45K4E	TFC, TFD	R-134a							13600	15500	17500	19700	22100	24600	27200	30100				
			R-404A					18800	20700	22800	25000	27200	29600	32200	34800	37500	40200				
			R-407A									25900	29000	32300	35700	39300	43100				
			R-407C										28700	32000	35400	39100	42800	46700			
			R-448A										28800	31900	35400	39200	43100				
			R-449A										28800	31900	35400	39200	43100				

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Physical and Electrical Data

Copeland F-Line air-cooled condensing units

Model	Comp.	Voltage	L	W	H	Ref. Conn.		Receiver Capacity (lbs @ 90% volume)								MCA	Max Over-Current	Ship Wt.
						Liq.	Suc.	22	134a	404A	407A	407C	448A	449A	507			
FFAL-A10Z-CFV-072	ZF03KAE	208/230-1	24.91	18.82	17.77	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	8.6	15.0	110
FFAL-A10Z-CFV-075	ZF03KAE	208/230-1	24.91	19.46	17.77	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	8.6	15.0	134
FFAL-A10Z-TFC-072	ZF03KAE	208/230-3	24.91	18.82	17.77	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	6.1	15.0	116
FFAL-A10Z-TFC-075	ZF03KAE	208/230-3	24.91	19.46	17.77	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	6.1	15.0	134
FFAL-A13Z-CFV-072	ZF04KAE	208/230-1	24.91	18.82	17.77	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	10.3	15.0	121
FFAL-A13Z-CFV-075	ZF04KAE	208/230-1	24.91	19.46	17.77	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	10.3	15.0	118
FFAL-A13Z-TFC-072	ZF04KAE	208/230-3	24.91	18.82	17.77	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	9.3	15.0	118
FFAL-A13Z-TFC-075	ZF04KAE	208/230-3	24.91	19.46	17.77	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	9.3	15.0	118
FFAL-A14Z-CFV-072	ZF05KAE	208/230-1	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	12.2	15.0	124
FFAL-A14Z-CFV-075	ZF05KAE	208/230-1	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	12.2	15.0	96
FFAL-A14Z-TFC-072	ZF05KAE	208/230-3	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	10.7	15.0	122
FFAL-A14Z-TFC-075	ZF05KAE	208/230-3	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	10.7	15.0	96
FFAL-A14Z-TFD-072	ZF05KAE	460-3	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	5.7	15.0	106
FFAL-A14Z-TFD-075	ZF05KAE	460-3	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	5.7	15.0	106
FFAL-A15Z-CFV-072	ZF06KAE	208/230-1	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	18.4	30.0	120
FFAL-A15Z-CFV-075	ZF06KAE	208/230-1	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	18.4	30.0	147
FFAL-A15Z-TFC-072	ZF06KAE	208/230-3	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	11.7	15.0	119
FFAL-A15Z-TFC-075	ZF06KAE	208/230-3	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	11.7	15.0	153
FFAL-A15Z-TFD-072	ZF06KAE	460-3	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	6.7	15.0	99
FFAL-A15Z-TFD-075	ZF06KAE	460-3	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	6.7	15.0	120
FFAL-A17Z-CFV-072	ZF07KAE	208/230-1	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	18.7	30.0	123
FFAL-A17Z-CFV-075	ZF07KAE	208/230-1	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	18.7	30.0	125
FFAL-A17Z-TFC-072	ZF07KAE	208/230-3	24.86	20.42	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	12.1	15.0	122
FFAL-A17Z-TFC-075	ZF07KAE	208/230-3	24.86	20.97	19.08	3/8 S	7/8 S	15.0	15.2	13.0	14.3	14.2	13.8	13.8	13.0	12.1	15.0	125
FFAL-020Z-CFV-071	ZF08K4E	208-230-1	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	23.3	35.0	202
FFAL-020Z-TFC-071	ZF08K4E	208-230-3	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	14.8	20.0	137
FFAL-020Z-TFD-071	ZF08K4E	460-3	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	8.0	15.0	133
FFAL-022Z-CFV-071	ZF09K4E	208-230-1	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	24.1	35.0	207
FFAL-A22Z-CFV-072	ZF09KAE	208/230-1	34.03	25.09	18.87	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	21.9	35.0	166
FFAL-A22Z-CFV-075	ZF09KAE	208/230-1	34.12	25.09	23.1	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	21.9	35.0	160
FFAL-022Z-TFC-071	ZF09K4E	208-230-3	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	16.6	20.0	196
FFAL-A22Z-TFC-072	ZF09KAE	208/230-3	34.03	25.09	18.87	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	15.7	20.0	213
FFAL-A22Z-TFC-075	ZF09KAE	208/230-3	34.12	25.09	23.1	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	15.7	20.0	213
FFAL-022Z-TFD-071	ZF09K4E	460-3	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	8.9	15.0	207
FFAL-A22Z-TFD-072	ZF09KAE	460-3	34.03	25.09	18.87	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	8.4	15.0	217
FFAL-A22Z-TFD-075	ZF09KAE	460-3	34.12	25.09	23.1	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	8.4	15.0	220
FFAL-026Z-CFV-071	ZF11K4E	208-230-1	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	28.7	45.0	191
FFAL-A26Z-CFV-072	ZF11K4E	208/230-1	34.03	25.09	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	28.0	45.0	208
FFAL-A26Z-CFV-075	ZF11K4E	208/230-1	34.12	25.09	23.1	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	19.8	30.0	208
FFAL-026Z-TFC-071	ZF11K4E	208-230-3	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	20.5	30.0	158
FFAL-A26Z-TFC-072	ZF11K4E	208/230-3	34.03	25.09	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	19.8	30.0	176
FFAL-A26Z-TFC-075	ZF11K4E	208/230-3	34.12	25.09	23.1	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	19.8	30.0	182
FFAL-026Z-TFD-071	ZF11K4E	460-3	34.06	25	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	10.6	15.0	203
FFAL-A26Z-TFD-072	ZF11K4E	460-3	34.03	25.09	19.29	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	11.2	15.0	221
FFAL-A26Z-TFD-075	ZF11K4E	460-3	34.12	25.09	23.1	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	11.2	15.0	227
FFAL-030Z-CFV-071	ZF13K4E	208-230-1	34.06	25	20.01	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	36.2	60.0	226
FFAL-A30Z-CFV-072	ZF13K4E	208/230-1	34.06	25.04	20.01	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	36.2	60.0	226
FFAL-A30Z-CFV-075	ZF13K4E	208/230-1	34.06	25.04	23.09	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	36.2	60.0	228
FFAL-030Z-TFC-071	ZF13K4E	208-230-3	34.06	25	20.01	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	21.5	30.0	220
FFAL-A30Z-TFC-072	ZF13K4E	208/230-3	34.06	25.04	20.01	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	21.5	30.0	220
FFAL-A30Z-TFC-075	ZF13K4E	208/230-3	34.06	25.04	23.09	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	21.5	30.0	174
FFAL-030Z-TFD-071	ZF13K4E	460-3	34.06	25	20.01	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	12.0	15.0	133
FFAL-A30Z-TFD-072	ZF13K4																	

Physical and Electrical Data

Copeland F-Line air-cooled condensing units

Model	Comp.	Voltage	L	W	H	Ref. Conn.		Receiver Capacity (lbs @ 90% volume)								MCA	Max Over-Current	Ship Wt.
						Liq.	Suc.	22	134a	404A	407A	407C	448A	449A	507			
FFAL-050Z-TFD-071	ZF18K4E	460-3	34.06	25	20.01	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	13.4	20.0	170
FFAL-A50Z-TFD-072	ZF18K4E	460-3	34.06	25.04	20.01	3/8 S	7/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	14.8	20.0	170
FFAL-A50Z-TFD-075	ZF18K4E	460-3	34.06	25.04	23.09	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	14.8	20.0	172
FFAM-A08Z-CFV-072	ZB06KAE	208/230-1	24.12	18.33	16.46	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	8.5	15.0	102
FFAM-A08Z-CFV-075	ZB06KAE	208/230-1	24.08	18.92	16.31	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	8.5	15.0	103
FFAM-A08Z-TFC-072	ZB06KAE	208/230-3	24.12	18.33	16.46	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	7.0	15.0	93
FFAM-A08Z-TFC-075	ZB06KAE	208/230-3	24.08	18.92	16.31	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	7.0	15.0	104
FFAM-A10Z-CFV-075	ZB07KAE	208/230-1	24.08	18.92	16.31	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	8.9	15.0	104
FFAM-A10Z-TFC-072	ZB07KAE	208/230-3	24.12	18.33	16.46	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	7.5	15.0	94
FFAM-A10Z-TFC-075	ZB07KAE	208/230-3	24.08	18.92	16.31	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	7.5	15.0	104
FFAM-A12Z-CFV-072	ZB08KAE	208/230-1	24.12	18.33	16.46	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	11.4	15.0	72
FFAM-A12Z-CFV-075	ZB08KAE	208/230-1	24.08	18.92	16.31	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	11.4	15.0	72
FFAM-A12Z-TFC-072	ZB08KAE	208/230-3	24.12	18.33	16.45	3/8 S	7/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	8.0	15.0	104
FFAM-A12Z-TFC-075	ZB08KAE	208/230-3	24.08	18.92	16.31	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	8.0	15.0	104
FFAM-071Z-TFC-071	ZB48KCE	208/230-3	44	27.78	36.65	5/8	1-3/8 S	46.5	47.2	40.3	44.5	44.2	42.7	43.0	40.5	40.7	50.0	312
FFAM-071Z-TFC-076	ZB48KCE	208/230-3	44.25	27.78	36.65	5/8	1-3/8 S	69.9	71.0	60.7	66.9	66.5	64.3	64.6	60.9	40.7	50.0	325
FFAM-071Z-TFD-071	ZB48KCE	460-3	44	27.78	36.65	5/8	1-3/8 S	46.5	47.2	40.3	44.5	44.2	42.7	43.0	40.5	21.4	30.0	362
FFAM-071Z-TFD-076	ZB48KCE	460-3	44.24	27.78	36.65	5/8	1-3/8 S	69.9	71.0	60.7	66.9	66.5	64.3	64.6	60.9	21.4	30.0	375
FFAM-081Z-TFC-071	ZB57KCE	208/230-3	44	27.78	36.65	5/8	1-3/8 S	46.5	47.2	40.3	44.5	44.2	42.7	43.0	40.5	53.3	70.0	337
FFAM-081Z-TFC-076	ZB57KCE	208/230-3	44.25	27.78	36.65	5/8	1-3/8 S	69.9	71.0	60.7	66.9	66.5	64.3	64.6	60.9	53.3	70.0	350
FFAM-081Z-TFD-071	ZB57KCE	460-3	44	27.78	36.65	5/8	1-3/8 S	46.5	47.2	40.3	44.5	44.2	42.7	43.0	40.5	23.4	30.0	488
FFAM-081Z-TFD-076	ZB57KCE	460-3	44.24	27.78	36.65	5/8	1-3/8 S	69.9	71.0	60.7	66.9	66.5	64.3	64.6	60.9	23.4	30.0	501
FFAM-091Z-TFC-071	ZB66K5E	208/230-3	44	27.78	36.66	5/8	1-3/8 S	55.0	55.8	47.7	52.6	52.3	50.5	50.8	47.8	58.1	80.0	465
FFAM-091Z-TFC-076	ZB66K5E	208/230-3	44.27	27.78	36.66	5/8	1-3/8 S	78.4	79.6	68.1	75.0	74.6	72.1	72.5	68.2	58.1	80.0	478
FFAM-091Z-TFD-071	ZB66K5E	460-3	44	27.78	36.66	5/8	1-3/8 S	55.0	55.8	47.7	52.6	52.3	50.5	50.8	47.8	26.0	35.0	483
FFAM-091Z-TFD-076	ZB66K5E	460-3	44.23	27.78	36.66	5/8	1-3/8 S	78.4	79.6	68.1	75.0	74.6	72.1	72.5	68.2	26.0	35.0	496
FFAM-101Z-TFC-071	ZB76K5E	208/230-3	44	27.78	36.66	5/8	1-3/8 S	55.0	55.8	47.7	52.6	52.3	50.5	50.8	47.8	62.7	90.0	514
FFAM-101Z-TFC-076	ZB76K5E	208/230-3	44.27	27.78	36.66	5/8	1-3/8 S	78.4	79.6	68.1	75.0	74.6	72.1	72.5	68.2	62.7	90.0	527
FFAM-101Z-TFD-071	ZB76K5E	460-3	44	27.78	36.66	5/8	1-3/8 S	55.0	55.8	47.7	52.6	52.3	50.5	50.8	47.8	30.2	45.0	327
FFAM-101Z-TFD-076	ZB76K5E	460-3	44.23	27.78	36.66	5/8	1-3/8 S	78.4	79.6	68.1	75.0	74.6	72.1	72.5	68.2	30.2	45.0	340
FFAP-050Z-CFV-071	ZS38K4E	208/230-1	44.06	28.29	26.62	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	43.3	70.0	260.5
FFAP-050Z-CFV-072	ZS38K4E	208/230-1	44.06	28.29	26.62	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	43.3	70.0	244.5
FFAP-050Z-TFC-071	ZS38K4E	208/230-3	44.06	28.29	26.62	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	30.3	45.0	247.5
FFAP-050Z-TFC-072	ZS38K4E	208/230-3	44.06	28.29	26.62	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	30.3	45.0	229.5
FFAP-050Z-TFD-071	ZS38K4E	460-3	44.06	28.29	26.62	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	14.4	20.0	250.5
FFAP-050Z-TFE-075	ZS38K4E	575-3	44.06	28.19	26.8	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	11.8	15.0	299.5
FFAP-060Z-TFC-071	ZS45K4E	208/230-3	44.06	28.29	26.62	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	33.4	50.0	295.5
FFAP-060Z-TFD-071	ZS45K4E	460-3	44.06	28.29	26.62	1/2 S	1-1/8 S	31.5	31.9	27.3	30.1	29.9	28.9	29.1	27.4	14.0	20.0	317.5
FFAP-A15Z-CFV-072	ZS09KAE	208/230-1	24.1	18.42	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	13.9	20.0	110
FFAP-A15Z-CFV-075	ZS09KAE	208/230-1	24.09	18.98	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	13.9	20.0	139
FFAP-A15Z-TFC-072	ZS09KAE	208/230-3	24.1	18.42	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	11.4	15.0	110
FFAP-A15Z-TFC-075	ZS09KAE	208/230-3	24.09	18.98	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	11.4	15.0	139
FFAP-A15Z-TFD-072	ZS09KAE	460-3	24.1	18.42	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	6.3	15.0	110
FFAP-A15Z-TFD-075	ZS09KAE	460-3	24.09	18.98	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	6.3	15.0	113
FFAP-A17Z-CFV-072	ZS11KAE	208/230-1	24.1	18.42	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	17.1	25.0	109
FFAP-A17Z-CFV-075	ZS11KAE	208/230-1	24.09	18.98	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	17.1	25.0	111
FFAP-A17Z-TFC-072	ZS11KAE	208/230-3	24.1	18.42	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	14.4	20.0	109
FFAP-A17Z-TFC-075	ZS11KAE	208/230-3	24.09	18.98	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	14.4	20.0	111
FFAP-A17Z-TFD-072	ZS11KAE	460-3	24.1	18.42	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	6.9	15.0	109
FFAP-A17Z-TFD-075	ZS11KAE	460-3	24.09	18.98	16.62	3/8 S	7/8 S	13.8	14.0	12.0	13.2	13.2	12.7	12.8	12.0	6.9	15.0	109
FFAP-A20Z-CFV-072	ZS13KAE	208/230-1	34.06	25.02	18.88	3/8 S	7/8 S	15.6	15.8	13.5	14.9	14.8	14.3	14.4	13.5	16.8	25.0	157
FFAP-A20Z-CFV-075	ZS13KAE	208/230-1	34.14	25.04	18.86	3/8 S	7/8 S	15.6	15.8	13.5	14.9	14.8						

Physical and Electrical Data

Copeland F-Line air-cooled condensing units

Model	Comp.	Voltage	L	W	H	Ref. Conn.		Receiver Capacity (lbs @ 90% volume)								MCA	Max Over-Current	Ship Wt.
						Liq.	Suc.	22	134a	404A	407A	407C	448A	449A	507			
FFAP-A30Z-TFD-075	ZS19KAE	460-3	34.06	25.06	23.09	3/8 S	7/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	11.3	15.0	220
FFAP-A32Z-CFV-072	ZS21KAE	208/230-1	34.06	25.06	18.88	3/8 S	1-1/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	31.8	50.0	171
FFAP-A32Z-CFV-075	ZS21KAE	208/230-1	34.06	25.1	23.1	3/8 S	1-1/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	31.8	50.0	153
FFAP-A32Z-TFC-072	ZS21KAE	208/230-3	34.06	25.06	18.88	3/8 S	1-1/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	21.8	30.0	171
FFAP-A32Z-TFC-075	ZS21KAE	208/230-3	34.06	25.1	23.1	3/8 S	1-1/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	21.8	30.0	171
FFAP-A32Z-TFD-072	ZS21KAE	460-3	34.06	25.06	18.88	3/8 S	1-1/8 S	17.9	18.1	15.5	17.1	17.0	16.4	16.5	15.5	11.8	15.0	220
FFAP-A32Z-TFD-075	ZS21KAE	460-3	34.06	25.1	23.1	3/8 S	1-1/8 S	27.9	28.4	24.2	26.7	26.6	25.7	25.8	24.3	11.8	15.0	151
FFAP-A40Z-CFV-072	ZS26KAE	208/230-1	44.06	28.26	26.65	1/2 S	1-1/8 S	33.4	33.9	32.0	32.0	31.8	30.7	30.9	29.1	33.1	50.0	222.5
FFAP-A40Z-CFV-075	ZS26KAE	208/230-1	44.06	28.19	27.44	1/2 S	1-1/8 S	39.6	40.2	34.4	37.9	37.7	36.4	36.6	34.5	33.1	50.0	190.5
FFAP-A40Z-TFC-072	ZS26KAE	208/230-3	44.06	28.26	26.65	1/2 S	1-1/8 S	33.4	33.9	32.0	32.0	31.8	30.7	30.9	29.1	22.9	30.0	222.5
FFAP-A40Z-TFC-075	ZS26KAE	460-3	44.06	28.19	27.44	1/2 S	1-1/8 S	39.6	40.2	34.4	37.9	37.7	36.4	36.6	34.5	22.9	30.0	220.5
FFAP-A40Z-TFD-072	ZS26KAE	460-3	44.06	28.26	26.65	1/2 S	1-1/8 S	33.4	33.9	32.0	32.0	31.8	30.7	30.9	29.1	11.0	15.0	212.5
FFAP-A40Z-TFD-075	ZS26KAE	460-3	44.06	28.19	27.44	1/2 S	1-1/8 S	39.6	40.2	34.4	37.9	37.7	36.4	36.6	34.5	11.0	15.0	212.5
FFAP-A42Z-CFV-072	ZS33KAE	208/230-1	44.06	28.26	26.65	1/2 S	1-1/8 S	33.4	33.9	32.0	32.0	31.8	30.7	30.9	29.1	38.8	60.0	230.5
FFAP-A42Z-CFV-075	ZS33KAE	208/230-1	44.06	28.19	27.44	1/2 S	1-1/8 S	39.6	40.2	34.4	37.9	37.7	36.4	36.6	34.5	38.8	60.0	190.5
FFAP-A42Z-TFC-072	ZS33KAE	208/230-3	44.06	28.26	26.65	1/2 S	1-1/8 S	33.4	33.9	32.0	32.0	31.8	30.7	30.9	29.1	31.4	50.0	220.5
FFAP-A42Z-TFC-075	ZS33KAE	208/230-3	44.06	28.19	27.44	1/2 S	1-1/8 S	39.6	40.2	34.4	37.9	37.7	36.4	36.6	34.5	31.4	50.0	212.5
FFAP-A42Z-TFD-072	ZS33KAE	460-3	44.06	28.26	26.65	1/2 S	1-1/8 S	33.4	33.9	32.0	32.0	31.8	30.7	30.9	29.1	14.9	20.0	230.5
FFAP-A42Z-TFD-075	ZS33KAE	460-3	44.06	28.19	27.44	1/2 S	1-1/8 S	39.6	40.2	34.4	37.9	37.7	36.4	36.6	34.5	14.9	20.0	212.5
FPAK-010Z-CFV-072	ZS09KAE	208/230-1	24	17.06	16.62	3/8 S	5/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	13.6	20.0	94
FPAK-010Z-TFC-072	ZS09KAE	208/230-3	24	17.06	16.62	3/8 S	5/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	11.1	15.0	97
FPAK-010Z-TFD-072	ZS09KAE	460-3	24	17.06	16.62	3/8 S	5/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	5.4	15.0	104
FPAK-012Z-CFV-072	ZS11KAE	208/230-1	24	17.06	16.62	3/8 S	5/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	16.9	25.0	95
FPAK-012Z-TFC-072	ZS11KAE	208/230-3	24	17.06	16.62	3/8 S	5/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	14.1	20.0	94
FPAK-012Z-TFD-072	ZS11KAE	460-3	24	17.06	16.62	3/8 S	5/8 S	8.5	8.6	7.3	8.1	8.0	7.8	7.8	7.4	6.1	15.0	97
FPAK-013Z-CFV-072	ZS15KAE	208/230-1	24.14	18.33	16.62	3/8 S	7/8 S	9.3	9.4	8.0	8.9	8.8	8.5	8.6	8.1	21.0	35.0	100
FPAK-013Z-CFV-075	ZS15KAE	208/230-1	24.09	18.33	16.62	3/8 S	7/8 S	14.3	14.5	12.4	13.6	13.6	13.1	13.2	12.4	21.0	35.0	75
FPAK-013Z-TFC-072	ZS15KAE	208/230-3	24.14	18.33	16.62	3/8 S	7/8 S	9.3	9.4	8.0	8.9	8.8	8.5	8.6	8.1	14.6	20.0	105
FPAK-013Z-TFC-075	ZS15KAE	208/230-3	24.09	18.33	16.62	3/8 S	7/8 S	14.3	14.5	12.4	13.6	13.6	13.1	13.2	12.4	14.6	20.0	113
FPAK-013Z-TFD-072	ZS15KAE	460-3	24.14	18.33	16.62	3/8 S	7/8 S	9.3	9.4	8.0	8.9	8.8	8.5	8.6	8.1	8.3	15.0	100
FPAK-013Z-TFD-075	ZS15KAE	460-3	24.09	18.33	16.62	3/8 S	7/8 S	14.3	14.5	12.4	13.6	13.6	13.1	13.2	12.4	8.3	15.0	122
FPAK-015Z-CFV-072	ZS19KAE	208/230-1	24.14	18.33	16.62	3/8 S	7/8 S	9.3	9.4	8.0	8.9	8.8	8.5	8.6	8.1	23.9	40.0	107
FPAK-015Z-CFV-075	ZS19KAE	208/230-1	24.09	18.33	16.62	3/8 S	7/8 S	14.3	14.5	12.4	13.6	13.6	13.1	13.2	12.4	23.9	40.0	116
FPAK-015Z-TFC-072	ZS19KAE	208/230-3	24.14	18.33	16.62	3/8 S	7/8 S	9.3	9.4	8.0	8.9	8.8	8.5	8.6	8.1	18.5	30.0	105
FPAK-015Z-TFC-075	ZS19KAE	208/230-3	24.09	18.33	16.62	3/8 S	7/8 S	14.3	14.5	12.4	13.6	13.6	13.1	13.2	12.4	18.5	30.0	114
FPAK-015Z-TFD-072	ZS19KAE	460-3	24.14	18.33	16.62	3/8 S	7/8 S	9.3	9.4	8.0	8.9	8.8	8.5	8.6	8.1	9.7	15.0	109
FPAK-015Z-TFD-075	ZS19KAE	460-3	24.09	18.33	16.62	3/8 S	7/8 S	14.3	14.5	12.4	13.6	13.6	13.1	13.2	12.4	9.7	15.0	109
FPAK-020Z-CFV-071	ZS21KAE	208/230-1	34.03	25.06	18.88	3/8 S	1-1/8 S	16.0	16.2	13.9	15.3	15.2	14.7	14.8	13.9	31.8	50.0	198
FPAK-020Z-CFV-072	ZS21KAE	208/230-1	34.03	25.06	18.88	3/8 S	1-1/8 S	16.0	16.2	13.9	15.3	15.2	14.7	14.8	13.9	31.8	50.0	146
FPAK-020Z-TFC-071	ZS21KAE	208/230-3	34.03	25.06	18.88	3/8 S	1-1/8 S	16.0	16.2	13.9	15.3	15.2	14.7	14.8	13.9	21.8	30.0	190
FPAK-020Z-TFC-072	ZS21KAE	208/230-3	34.03	25.06	18.88	3/8 S	1-1/8 S	16.0	16.2	13.9	15.3	15.2	14.7	14.8	13.9	21.8	30.0	139
FPAK-020Z-TFD-071	ZS21KAE	460-3	34.03	25.06	18.88	3/8 S	1-1/8 S	16.0	16.2	13.9	15.3	15.2	14.7	14.8	13.9	11.8	15.0	193
FPAK-020Z-TFD-072	ZS21KAE	460-3	34.03	25.06	18.88	3/8 S	1-1/8 S	16.0	16.2	13.9	15.3	15.2	14.7	14.8	13.9	11.8	15.0	144
FPAK-039Z-CFV-071	ZS29KAE	208/230-1	34.06	25.1	18.9	3/8 S	1-1/8 S	18.3	18.5	15.9	17.5	17.4	16.8	16.9	15.9	35.4	50.0	161
FPAK-039Z-TFC-071	ZS29KAE	208/230-3	34.06	25.1	18.9	3/8 S	1-1/8 S	18.3	18.5	15.9	17.5	17.4	16.8	16.9	15.9	28.4	45.0	149
FPAK-039Z-TFD-071	ZS29KAE	460-3	34.06	25.1	18.9	3/8 S	1-1/8 S	18.3	18.5	15.9	17.5	17.4	16.8	16.9	15.9	14.9	20.0	162

*Not all available models are listed. Please visit Emerson.com/CopelandOPI to see all available models.

Hoods for Low Temp AWEF Models

Unit	Hood
FFAL-A10Z-***-072/075	505-7093-04
FFAL-A13Z-***-072/075	
FFAL-A14Z-***-072/075	In Development
FFAL-A15Z-***-072-075	
FFAL-A17Z-***-072-075	
FFAL-A22Z-***-072-075	505-7093-05
FFAL-A26Z-***-072-075	
FFAL-A30Z-***-072-075	
FFAL-A40Z-***-072-075	
FFAL-A50Z-***-072-075	

Hoods for Medium Temp AWEF Models

Unit	Hood
FFAM-A08Z-***-072/075	505-7093-04
FFAM-A10Z-***-072/075	
FFAM-A12Z-***-072/075	
FFAM-A15Z-***-072/075	
FFAM-A17Z-***-072/075	
FFAM-A20Z-***-072/075	505-7093-05
FFAM-A22Z-***-072/075	
FFAM-A30Z-***-072/075	
FFAM-A32Z-***-072/075	
FFAM-A40Z-***-072/075	505-7093-06
FFAM-A42Z-***-072/075	

AWEF Cooler Scores

Copeland F-Line air-cooled condensing units

Refrigeration systems in this table are 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-072	5.61		5.61		5.61	
FFAM-A10Z-CFV-075	5.61	7.6	5.61	7.6	5.61	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
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						
FFAP-A50Z-CFV-075						
FFAP-A50Z-TFC-072						
FFAP-A50Z-TFC-075						
FFAP-A50Z-TFD-072						
FFAP-A50Z-TFD-075						

In Development

AWEF Freezer Scores

Copeland F-Line air-cooled condensing units

Refrigeration systems in this table are designed and certified for use in walk-in freezer applications

Model Number	R-404A		R-407A		R-448A		R-449A	
	Indoor	Outdoor	Indoor	Outdoor	Indoor	Outdoor		
FFAL-A10Z-CFV-072	2.07		2.04		2.06		2.05	
FFAL-A10Z-CFV-075	2.07	2.91	2.04	2.89	2.06	2.9	2.05	2.90
FFAL-A10Z-TFC-072	2.07		2.04		2.06		2.05	
FFAL-A10Z-TFC-075	2.07	2.91	2.04	2.89	2.06	2.9	2.05	2.90
FFAL-A13Z-CFV-072	2.15		2.11		2.13		2.13	
FFAL-A13Z-CFV-075	2.15	2.96	2.11	2.94	2.13	2.95	2.13	2.95
FFAL-A13Z-TFC-072	2.16		2.11		2.13		2.13	
FFAL-A13Z-TFC-075	2.16	2.96	2.11	2.94	2.13	2.95	2.13	2.95
FFAL-A14Z-CFV-072	2.22		2.15		2.17		2.18	
FFAL-A14Z-CFV-075	2.22	3.01	2.15	2.97	2.17	2.98	2.18	2.98
FFAL-A14Z-TFC-072	2.22		2.15		2.17		2.17	
FFAL-A14Z-TFC-075	2.22	3.01	2.15	2.97	2.17	2.98	2.17	2.98
FFAL-A14Z-TFD-072	2.22		2.15		2.17		2.17	
FFAL-A14Z-TFD-075	2.22	3.01	2.15	2.97	2.17	2.98	2.17	2.98
FFAL-A15Z-CFV-072	2.37		2.29		2.30		2.30	
FFAL-A15Z-CFV-075	2.37	3.11	2.29	3.07	2.30	3.07	2.30	3.07
FFAL-A15Z-TFC-072	2.36		2.29		2.30		2.30	
FFAL-A15Z-TFC-075	2.36	3.11	2.29	3.07	2.30	3.07	2.30	3.07
FFAL-A15Z-TFD-072	2.36		2.29		2.30		2.30	
FFAL-A15Z-TFD-075	2.36	3.11	2.29	3.07	2.30	3.07	2.30	3.07
FFAL-A17Z-CFV-072	2.40		2.37		2.37		2.37	
FFAL-A17Z-CFV-075	2.40	3.15	2.37	3.12	2.37	3.12	2.37	3.12
FFAL-A17Z-TFC-072	2.40		2.37		2.37		2.37	
FFAL-A17Z-TFC-075	2.40	3.15	2.37	3.12	2.37	3.12	2.37	3.12
FFAL-A22Z-CFV-072	2.40		2.40		2.40		2.40	
FFAL-A22Z-CFV-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A22Z-TFC-072	2.40		2.40		2.40		2.40	
FFAL-A22Z-TFC-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A22Z-TFD-072	2.40		2.40		2.40		2.40	
FFAL-A22Z-TFD-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A26Z-CFV-072	2.40		2.40		2.40		2.40	
FFAL-A26Z-CFV-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A26Z-TFC-072	2.40		2.40		2.40		2.40	
FFAL-A26Z-TFC-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A26Z-TFD-072	2.40		2.40		2.40		2.40	
FFAL-A26Z-TFD-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A30Z-CFV-072	2.40		2.40		2.40		2.40	
FFAL-A30Z-CFV-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A30Z-TFC-072	2.40		2.40		2.40		2.40	
FFAL-A30Z-TFC-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A30Z-TFD-072	2.40		2.40		2.40		2.40	
FFAL-A30Z-TFD-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A40Z-CFV-072	2.40		2.40		2.40		2.40	
FFAL-A40Z-CFV-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A40Z-TFC-072	2.40		2.40		2.40		2.40	
FFAL-A40Z-TFC-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A40Z-TFD-072	2.40		2.40		2.40		2.40	
FFAL-A40Z-TFD-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A50Z-TFC-072	2.40		2.40		2.40		2.40	
FFAL-A50Z-TFC-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15
FFAL-A50Z-TFD-072	2.40		2.40		2.40		2.40	
FFAL-A50Z-TFD-075	2.40	3.15	2.40	3.15	2.40	3.15	2.40	3.15

Medium Temp/High Temp – Water Cooled

HP	Model	Comp.	Electrical	Refrigerant	BTU/H at 105° Condensing, 75° Water Inlet - Evaporator Temp (°F), Capacities rated at 40°F return gas (65° return gas for capacities in bold), 5°F subcooling										Water Flow (GPM) at @evap temp (°F)		
					0	5	10	15	20	25	30	35	40	45	0	25	45
1 1/2	FFWP-015Z	ZS09KAE	CFV, TFC, TFD	R-134a	4070	4620	5220	5870	6590	7620	8500	9460	10500	11600	0.6	1.0	1.4
				R-22	6770	7740	8720	9750	10800	12100	13300	14700	16100	17700	0.9	1.5	2.1
				R-404A	6590	7370	8230	9180	10200	12300	13600	14900	16400	18000	1.0	1.6	2.2
				R-407A	6630	7410	8250	9170	10200	12000	13300	14700	16300	18300	0.9	1.4	2.1
				R-407C	5750	6670	7620	8630	9700	11100	12300	13600	15000	16500	0.8	1.4	2.0
				R-448A/449A	6150	6870	7670	8570	9580	10900	12200	13700	15300	17200	0.9	1.4	2.1
1 3/4	FFWP-017Z	ZS11KAE	CFV, CFZ, TFC, TFD	R-134a	4850	5510	6230	7010	7870	9090	10100	11300	12500	13900	0.7	1.2	1.7
				R-22	7890	9040	10200	11400	12700	14000	15500	17100	18800	21000	1.1	1.8	2.5
				R-404A	8180	9150	10200	11400	12700	14400	15900	17500	19300	21100	1.1	1.8	2.5
				R-407A	7920	8850	9850	11000	12200	14300	15900	17600	19500	21800	1.1	1.7	2.5
				R-407C	6870	7960	9100	10300	11600	13300	14700	16300	18000	19700	1.0	1.7	2.3
				R-448A/449A	7390	8250	9220	10300	11500	13100	14700	16400	18400	20600	1.0	1.7	2.5
2	FFWP-020Z	ZS13KAE	CFV, TFC, TFD	R-134a	5540	6290	7110	8010	8990	10400	11600	12900	14300	15900	0.8	1.3	1.9
				R-22	9160	10500	11800	13200	14600	16400	18000	19900	21800	24000	1.2	2.0	2.9
				R-404A	8980	10000	11200	12500	13900	16800	18500	20400	22400	24600	1.3	2.1	2.9
				R-407A	9050	10100	11300	12500	13900	16300	18100	20100	22200	24900	1.2	2.0	2.8
				R-407C	7840	9090	10400	11800	13200	15100	16800	18600	20500	22500	1.1	1.9	2.7
				R-448A/449A	8420	9410	10500	11700	13100	15000	16700	18800	21000	23500	1.2	1.9	2.9
2 1/4	FFWP-022Z	ZS15KAE	CFV, TFC, TFD	R-134a	6680	7590	8570	9650	10800	12500	14000	15600	17300	19100	0.9	1.6	2.3
				R-22	10800	12300	13900	15500	17200	19200	21200	23400	25700	28200	1.5	2.4	3.4
				R-404A	10900	12200	13600	15200	16900	20400	22500	24700	27200	29900	1.5	2.6	3.5
				R-407A	10900	12200	13600	15100	16700	19700	21800	24200	26800	30000	1.5	2.3	3.4
				R-407C	9450	11000	12500	14200	15900	18300	20300	22400	24700	27200	1.3	2.3	3.2
				R-448A/449A	10200	11400	12700	14200	15900	18000	20200	22600	25300	28400	1.4	2.3	3.4
3	FFWP-030Z	ZS19KAE	CFV, TFC, TFD, TFE	R-134a	7540	8560	9680	10900	12200	14100	15800	17500	19500	21600	1.1	1.8	2.5
				R-22	12200	14000	15800	17600	19600	21900	24100	26500	29200	32000	1.7	2.7	3.8
				R-404A	12900	14500	16200	18000	20100	22900	25200	27700	30500	33400	1.7	2.8	4.0
				R-407A	12300	13700	15300	17000	18900	22200	24600	27300	30200	33800	1.7	2.6	3.8
				R-407C	10800	12500	14300	16200	18200	20400	22800	25300	27800	30600	1.5	2.6	3.6
				R-448A/449A	11600	13000	14500	16100	17900	20300	22700	25400	28400	31900	1.6	2.6	3.8
3 1/4	FFWP-032Z	ZS21KAE	CFV, TFC, TFD	R-134a	10100	11500	13000	14600	16400	19000	21200	23600	26200	29000	1.4	2.3	3.4
				R-22	16300	18700	21100	23600	26200	29100	32100	35400	39000	42900	2.2	3.6	5.1
				R-404A	16400	18300	20500	22800	25400	30700	34100	37900	42100	46700	2.3	3.9	5.5
				R-407A	15600	17700	19900	22300	25000	28600	31800	35300	39100	43200	2.1	3.5	5.0
				R-407C	14300	16600	19000	21500	24200	27700	30700	34000	37500	41200	2.0	3.4	4.8
				R-448A/449A	16500	18700	20900	23400	26000	29200	32300	35600	39100	42900	2.2	3.7	5.2
4	FFWP-040Z	ZS26KAE	CFV, TFC, TFD	R-134a	11600	13200	14900	16800	18900	21000	23500	26100	29000	32200	1.5	2.6	3.8
				R-22	18200	20800	23500	26200	29100	32600	35900	39500	43400	47700	2.4	4.0	5.7
				R-404A	19200	21400	23900	26700	29700	32900	36500	40400	44700	49300	2.6	4.1	5.9
				R-407A	17400	19600	22100	24800	27700	32700	36400	40400	44700	49900	2.4	3.9	5.6
				R-407C	16300	18900	21600	24500	27500	30600	34000	37600	41500	45600	2.2	3.8	5.3
				R-448A/449A	17600	19800	22200	24900	27900	31500	35100	38900	43000	47400	2.4	4.0	5.7
4 1/4	FFWP-042Z	ZS33KAE	CFV, TFC, TFD	R-134a	14000	15800	17900	20200	22600	26100	29200	32500	36100	40000	1.9	3.2	4.7
				R-22	6770	7740	8720	9750	10800	12100	13300	14700	16100	17700	0.9	1.5	2.1
				R-404A	22900	25600	28600	31900	35500	43000	47700	53000	58800	65300	3.1	5.3	7.6
				R-407A	22800	25800	29000	32600	36400	41700	46400	51500	57000	63500	3.0	5.0	7.1
				R-407C	19700	22900	26200	29600	33300	38100	42300	46800	51600	56800	2.7	4.7	6.6
				R-448A/449A	23100	26100	29300	32700	36400	40900	45200	49800	54500	60000	3.1	5.1	7.2
5	FFWP-050Z	ZS38K4E	CFV, TFC, TFD, TFE	R-134a	16000	18100	20400	23000	25800	30800	34300	38100	42300	47200	2.1	3.8	5.7
				R-22	26200	29300	32600	36300	40200	44800	49400	54300	59500	65100	3.5	5.6	8.0
				R-404A	27600	30600	33900	37500	41400	51600	56800	62300	68300	75700	3.8	6.5	9.3
				R-407A	25500	28900	32500	36400	40600	45600	50000	55000	60000	65500	3.5	5.8	8.2
				R-407C	26100	29600	33300	37300	41600	44900	50500	56000	61500	67000	3.5	5.3	7.8
				R-448A/449A	26800	30600	34800	39200	43900	47400	52500	57500	63000	68500	3.6	6.0	8.6

Low Temp – Water Cooled

HP	Model	Comp.	Electrical	Refrigerant	BTU/H at 105°Condensing, 75° Water Inlet - Evaporator Temp (°F), Capacities rated at 40°F return gas, 5°F subcooling								Water Flow (GPM) at @evap temp (°F)		
					-30	-25	-20	-15	-10	-5	0	5	-25	-10	5
1 1/2	FFWP-015Z	ZS09KAE	CFV, TFC TFD	R-404A	3230	3670	4140	4670	5240	5890	6590	7370	0.6	0.8	1.0
				R-407A		3330	3960	4590	5240	5910	6630	7410	0.5	0.8	1.0
				R-448A/449A		3140	3720	4290	4880	5490	6150	6870	0.5	0.7	1.0
1 3/4	FFWP-017Z	ZS11KAE	CFV, CFZ TFC, TFD	R-404A	4010	4540	5130	5790	6500	7300	8180	9150	0.7	0.9	1.2
				R-407A		3980	4720	5480	6250	7060	7920	8850	0.6	0.9	1.2
				R-448A/449A		3810	4490	5170	5870	6600	7390	8250	0.6	0.9	1.1
2	FFWP-020Z	ZS13KAE	CFV, TFC TFD	R-404A	4400	4990	5640	6350	7140	8010	8980	10000	0.8	1.0	1.4
				R-407A		4540	5390	6250	7140	8060	9050	10100	0.7	1.0	1.4
				R-448A/449A		4330	5110	5890	6690	7520	8420	9410	0.7	1.0	1.3
2 1/4	FFWP-022Z	ZS15KAE	CFV, TFC TFD	R-404A	5350	6070	6860	7720	8680	9740	10900	12200	0.9	1.2	1.7
				R-407A		5470	6500	7540	8610	9720	10900	12200	0.8	1.2	1.6
				R-448A/449A		5180	6150	7100	8070	9090	10200	11400	0.8	1.2	1.6
3	FFWP-030Z	ZS19KAE	CFV, TFC TFD, TFE	R-404A	6340	7190	8120	9150	10300	11500	12900	14500	1.1	1.4	1.9
				R-407A		6180	7340	8510	9710	11000	12300	13700	1.0	1.4	1.8
				R-448A/449A		4820	6320	7700	9010	10300	11600	13000	0.8	1.3	1.8
3 1/4	FFWP-032Z	ZS21KAE	CFV, TFC TFD	R-404A	8030	9100	10300	11600	13000	14600	16400	18300	1.4	1.8	2.5
				R-407A		7160	8680	10300	11900	13700	15600	17700	1.2	1.7	2.4
				R-448A/449A		7700	9270	10900	12700	14500	16500	18700	1.2	1.8	2.5
4	FFWP-040Z	ZS26KAE	CFV, TFC TFD	R-404A	9390	10600	12000	13600	15200	17100	19200	21400	1.6	2.2	2.9
				R-407A		7940	9640	11400	13300	15200	17400	19600	1.3	1.9	2.6
				R-448A/449A		10300	11300	12500	14000	15700	17600	19800	1.5	1.9	2.6
4 1/4	FFWP-042Z	ZS33KAE	CFV, TFC TFD	R-404A	11200	12700	14400	16200	18200	20400	22900	25600	1.9	2.6	3.4
				R-407A		10400	12700	15000	17400	20000	22800	25800	1.7	2.4	3.4
				R-448A/449A		10800	13000	15300	17700	20400	23100	26100	1.7	2.5	3.4
5	FFWP-050Z	ZS38K4E	CFV, TFC TFD, TFE	R-404A	14000	15800	17700	19900	22200	24800	27600	30600	2.3	3.1	4.1
				R-407A		13000	14900	17100	19600	22400	25500	28900	2.0	2.8	3.9
				R-448A/449A		13400	15200	17500	20200	23300	26800	30600	2.1	2.9	4.0

Area Restrictions: 20°F Max Superheat

Area Restrictions: 40°F Max Return Gas Temp

Physical and Electrical Data

Copeland F-Line water-cooled condensing units

Model*	Comp.	Voltage	L	W	H	Ref. Conn.		Receiver Capacity (lbs @ 90% volume)								MCA	Max Over- Current	Ship Wt.
						Liq.	Suc.	134	22	404A	407A	407C	448	449	507			
FFWP-015Z-CFV-020	ZS09KAE	208/230-1	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	12.5	20	67
FFWP-015Z-TFC-020	ZS09KAE	208/230-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	10	15	72
FFWP-015Z-TFD-020	ZS09KAE	460-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	4.7	15	107
FFWP-017Z-CFV-020	ZS11KAE	208/230-1	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	15.7	25	72
FFWP-017Z-TFC-020	ZS11KAE	208/230-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	13	20	71
FFWP-017Z-TFD-020	ZS11KAE	460-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	5.3	15	105
FFWP-020Z-CFV-020	ZS13KAE	208/230-1	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	15	25	73
FFWP-020Z-TFC-020	ZS13KAE	208/230-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	12.1	20	72
FFWP-020Z-TFD-020	ZS13KAE	460-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	6	15	75
FFWP-022Z-CFV-020	ZS15KAE	208/230-1	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	19.6	35	72
FFWP-022Z-TFC-020	ZS15KAE	208/230-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	13.2	20	60
FFWP-022Z-TFD-020	ZS15KAE	460-3	24.05	16.1	16.63	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	6.7	15	70
FFWP-030Z-CFV-020	ZS19KAE	208/230-1	24.06	16.1	16.66	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	22.5	40	75
FFWP-030Z-TFC-020	ZS19KAE	208/230-3	24.06	16.1	16.66	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	17.1	30	73
FFWP-030Z-TFD-020	ZS19KAE	460-3	24.06	16.1	16.66	3/8	7/8	12.5	12.3	10.7	11.8	11.7	11.3	11.4	10.7	8.1	15	106
FFWP-032Z-CFV-020	ZS21KAE	208/230-1	27.34	21	18.2	3/8	1-1/8	13.4	13.2	11.4	12.6	12.5	12.1	12.2	11.5	29	50	123.9
FFWP-032Z-TFC-020	ZS21KAE	208/230-3	27.34	21	18.2	3/8	1-1/8	13.4	13.2	11.4	12.6	12.5	12.1	12.2	11.5	19	30	65.9
FFWP-032Z-TFD-020	ZS21KAE	460-3	27.34	21	18.2	3/8	1-1/8	13.4	13.2	11.4	12.6	12.5	12.1	12.2	11.5	8.6	15	120.9
FFWP-040Z-CFV-020	ZS26KAE	208/230-1	27.6	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	29.5	50	181.9
FFWP-040Z-TFC-020	ZS26KAE	208/230-3	27.6	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	19.3	30	132.9
FFWP-040Z-TFD-020	ZS26KAE	460-3	27.6	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	8.6	15	185.9
FFWP-042Z-CFV-020	ZS33KAE	208/230-1	27.47	21	21.13	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	35.2	60	187.9
FFWP-042Z-TFC-020	ZS33KAE	208/230-3	27.47	21	21.13	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	27.8	50	142.9
FFWP-042Z-TFD-020	ZS33KAE	460-3	27.6	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	12.5	20	210.9
FFWP-050Z-CFV-020	ZS38K4E	208/230-1	27.74	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	39.7	70	210.9
FFWP-050Z-TFC-020	ZS38K4E	208/230-3	27.74	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	26.7	45	157.9
FFWP-050Z-TFD-020	ZS38K4E	460-3	27.74	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	12	20	199.9
FFWP-050Z-TFE-020	ZS38K4E	575-3	27.84	21	21.12	1/2	1-1/8	21.7	21.4	18.6	20.5	20.4	19.7	19.8	18.6	9.8	15	217.9

*Not all available models are listed. Please visit Emerson.com/CopelandOPI to see all available models.

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