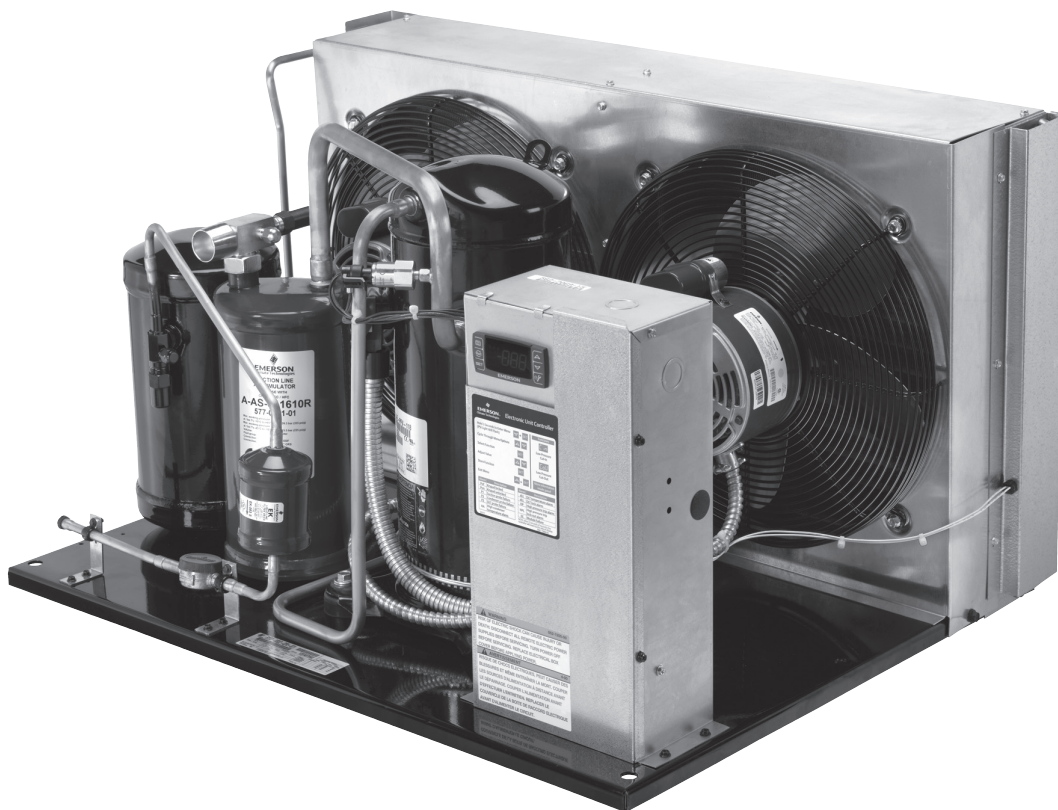


# FFAP, FFWP and FPAK Line

## Copeland Scroll™ air-cooled and water-cooled condensing units



## Product Information

Horsepower:	1 – 5
Temperature Applications:	Low/Medium/High
Refrigerants:	R-134a, R-404A, R-22, R-407A, R-407C
Installation Applications:	A variety of applications including bulk milk and walk-in boxes

# Nomenclature • Welded Condensing Units

Temperature Application	Code
High Temperature	H
Medium Temperature	M
Low Temperature	L
Extended Medium Temp.	F
Extra Low Temperature	E
Multiple	S
Multiple	N
Multiple	P
R-404A LT and R-134a HT	K

Compressor Motor Types		
Phase	Description	Code
1	Capacitor Run - Capacitor Start	C
1	Induction Run - Capacitor Start	I
1	Induction Run - Split Phase	S
1	Capacitor Run - Permanent Split	P
3	Three Phase - General 3 Lead Single Voltage 6 Lead Part Winding 575V 9 Lead Dual Voltage	T
3	Star (Wye) Delta	E
3	6 Lead - Part Winding or Across the Line	F

Bill Of Material (BOM)	
001 thru 099	Intended for UL Listing and CUL Certified
100 thru 299	Intended for UL Recognition and CUL Certified
300 thru 399	Not eligible for either UL Listing, UL Recognition or CUL Certified

**X X X X - X X X X - X X X - X X X**

Condensing Unit Family Series

Type of Design	Code
Air Cooled Steel Base	A
Air Cooled Copevap Base	E/P
Narrow Air Cooled Copevap	T
Water Cooled Steel Base	W
Custom Base	C
Discus	D

Comp. Motor Rating	
Nominal HP	Code
1/2	0050
3/4	0075
1	0100
1-1/2	0150
2	0200
3	0300
4	0400
5	0500
6	0600
7-1/2	0750
9	0900
10	1000
15	1500

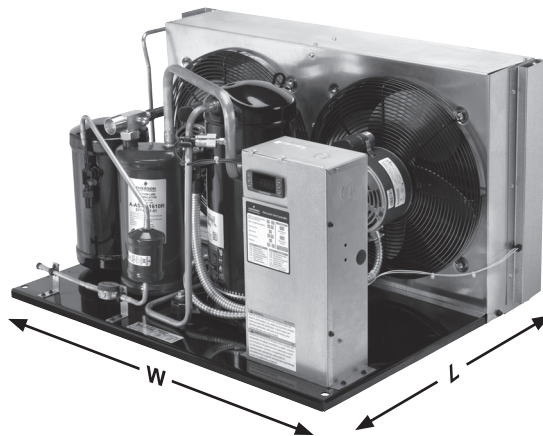
Note: Left position may be a letter indicating a revision change

Compressor Motor Protection	
Type Protection	Code
External Inherent Protection - One Protector (Line Break)	A
Internal Inherent Protection - One Protector (Line Break)	F
Internal Thermal Protection - Electronic Sensors; and Control Module External	S

Electrical Codes		
60 Hz.	50 Hz.	Code
115-1	100-1	A
230-1	-	B
208/230-3	200/220-3	C
460-3	-	D
575-3	-	E
-	230-1	G
-	380/420-3	M
208/230-1	200-1	V
-	220-3	W
-	220/240-1	Z

Note: When applicable, specific 50 Hz ratings (not necessarily identical to typical shown above) will be shown as alternate on 60 Hz rated models.

Refrigerant	Code
R404A/507	J/4
R134a	T/2
R12	B
R22	C/3/M
Multiple	F
R22/407C	G
R22	9
R134a/404A/22	N
R134a/404A	P
R404A/22	8



BOM	Suction Valve	Suction Accumulator	Receiver	BX Conduit	Fan Guard	Discharge-Line T'stat	High/ Low Pressure Control	Anti-Short Cycle Time Delay	Filter Drier	Moisture Indicator	Compressor Crankcase Heater	Head Pressure Control Valve	Fan Cycle Control	Water Valve
-020	•		•	•		•	•	•						•
-070	•	•	•	•	•	•	•	•	•	•				
-071	•	•	•	•	•	•	•	•	•	•	•		•	
-072	•		•	•	•	•	•	•	•	•				
-075	•	•	•	•	•	•	•	•	•	•	•	•		

BOM (bills of material) numbers apply only to the units listed in this section. All models are UL Listed. UL/UR are registered trademarks of Underwriters Laboratories, Inc.

## Copeland Scroll™ 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
Modular Components	Replacement Serviceability
Multi Refrigerant Approval for High/Med Models	Application Flexibility Inventory Consolidation

### Resources and Support

#### EmersonClimate.com

##### ■ Online Product Information and Technical Data

- Application Engineering Bulletins
- Instruction Sheets
- Marketing Brochures

##### ■ Product Selection Tools

- Walk-In Box Load Calculator

##### ■ Where to Buy

Optional Hood (refer to appendix of this catalog or form number 2010ECT-121 for more information)

### Application Engineering Bulletins

- 4-1273 Factors to Consider in Converting Compressor Rated Capacity to Actual Capacity
- 4-1299 Application Guidelines for K4 Refrigeration Copeland Scroll™ Compressors 2-8 Horsepower
- 4-1387 Application Guidelines for ZS\*\*KAE Copeland Scroll™ Refrigeration Compressors 1.3-4.5 HP
- 8-1347 Copeland PerformanceAlert™ Diagnostic Module
- 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

For more information, visit [EmersonClimate.com](http://EmersonClimate.com) and login to the Customer Portal to view Online Product Information

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 90° Ambient - Evaporator Temp (°F)							
Model	BOM	Refrig.	H.P.	-30	-25	-20	-15	-10	-5
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2						
		134a	1-1/2						
		404A	1-1/2	3,520	3,980	4,470	5,010	5,600	6,230
		407A	1-1/2		3,360	3,960	4,550	5,160	5,780
		407C	1-1/2						
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4						
		134a	1-3/4						
		404A	1-3/4	4,100	4,630	5,200	5,820	6,490	7,210
		407A	1-3/4		3,970	4,670	5,370	6,080	6,800
		407C	1-3/4						
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2						
		134a	2						
		404A	2	4,780	5,390	6,060	6,780	7,560	8,410
		407A	2		4,540	5,350	6,150	6,970	7,800
		407C	2						
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4						
		134a	2-1/4						
		404A	2-1/4	5,810	6,560	7,370	8,250	9,210	10,200
		407A	2-1/4		5,480	6,460	7,430	8,410	9,430
		407C	2-1/4						
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3						
		134a	3						
		404A	3	6,550	7,400	8,330	9,340	10,400	11,600
		407A	3		6,250	7,370	8,480	9,620	10,800
		407C	3						
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4						
		134a	3-1/4						
		404A	3-1/4	8,660	9,770	11,000	12,300	13,700	15,200
		407A	3-1/4		7,130	8,530	9,990	11,500	13,100
		407C	3-1/4						
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4						
		134a	4						
		404A	4	9,770	11,100	12,500	14,000	15,700	17,500
		407A	4		8,350	9,950	11,600	13,400	15,300
		407C	4						
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4						
		134a	4-1/4						
		404A	4-1/4	12,300	13,900	15,700	17,600	19,700	21,900
		407A	4-1/4		10,700	12,800	15,000	17,300	19,700
		407C	4-1/4						
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5						
		134a	5						
		404A	5	14,500	16,200	18,200	20,200	22,500	24,800
		407A	5						
		407C	5						

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only

# Copeland Scroll™ air-cooled condensing units

## Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 90° Ambient - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	0	+5	+10	+15	+20
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2	6,730	7,630	8,530	9,450	10,400
		134a	1-1/2	4,220	4,770	5,360	6,000	6,680
		404A	1-1/2	6,900	7,660	8,460	9,320	10,200
		407A	1-1/2	6,430	7,130	7,870	8,660	9,510
		407C	1-1/2	5,630	6,490	7,410	8,330	9,290
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4	7,790	8,830	9,860	10,900	12,000
		134a	1-3/4	5,000	5,640	6,340	7,080	7,880
		404A	1-3/4	7,970	8,830	9,730	10,700	11,700
		407A	1-3/4	7,550	8,360	9,210	10,100	11,100
		407C	1-3/4	6,860	7,880	8,970	10,100	11,200
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2	9,000	10,200	11,400	12,600	13,900
		134a	2	5,710	6,450	7,240	8,090	9,010
		404A	2	9,300	10,300	11,400	12,500	13,700
		407A	2	8,660	9,600	10,600	11,600	12,800
		407C	2	7,600	8,760	9,990	11,200	12,500
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4	10,700	12,100	13,500	15,000	16,500
		134a	2-1/4	6,810	7,690	8,640	9,660	10,800
		404A	2-1/4	11,300	12,600	13,900	15,200	16,700
		407A	2-1/4	10,500	11,600	12,800	14,100	15,400
		407C	2-1/4	9,400	10,800	12,200	13,700	15,200
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3	12,300	13,900	15,500	17,200	19,000
		134a	3	7,870	8,890	10,000	11,200	12,500
		404A	3	12,900	14,300	15,900	17,500	19,300
		407A	3	12,000	13,300	14,700	16,200	17,800
		407C	3	10,700	12,300	14,000	15,800	17,600
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4	16,000	18,200	20,300	22,500	24,700
		134a	3-1/4	10,400	11,800	13,200	14,700	16,400
		404A	3-1/4	16,800	18,600	20,500	22,500	24,700
		407A	3-1/4	14,800	16,700	18,600	20,600	22,700
		407C	3-1/4	13,900	16,000	18,200	20,400	22,700
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4	18,600	21,100	23,700	26,300	29,000
		134a	4	11,800	13,400	15,100	16,900	18,900
		404A	4	19,500	21,700	24,100	26,600	29,400
		407A	4	17,300	19,400	21,800	24,200	26,900
		407C	4	16,700	19,300	21,900	24,600	27,500
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4	22,800	25,900	28,900	32,100	35,400
		134a	4-1/4	14,600	16,500	18,500	20,700	23,100
		404A	4-1/4	24,400	27,000	29,900	33,000	36,400
		407A	4-1/4	22,300	25,100	28,000	31,100	34,500
		407C	4-1/4	19,600	22,700	25,800	29,000	32,400
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5	26,200	29,100	32,100	35,400	38,900
		134a	5	16,600	18,700	20,900	23,400	26,000
		404A	5	27,300	30,100	33,000	36,000	39,300
		407A	5					
		407C	5	21,200	24,500	28,100	32,000	36,100

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Cap. (BTU/Hr) at 90° F Ambient - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	+25	+30	+35	+40	+45
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2	<b>11,400</b>	<b>12,400</b>	<b>13,600</b>	<b>14,800</b>	<b>16,100</b>
		134a	1-1/2	<b>7,540</b>	<b>8,340</b>	<b>9,200</b>	<b>10,100</b>	<b>11,100</b>
		404A	1-1/2	<b>11,500</b>	<b>12,400</b>	<b>13,400</b>	<b>14,500</b>	<b>15,600</b>
		407A	1-1/2	<b>10,700</b>	<b>11,800</b>	<b>12,900</b>	<b>14,100</b>	<b>15,400</b>
		407C	1-1/2	<b>10,400</b>	<b>11,400</b>	<b>12,500</b>	<b>13,600</b>	<b>14,800</b>
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4	<b>13,100</b>	<b>14,300</b>	<b>15,600</b>	<b>17,000</b>	<b>18,400</b>
		134a	1-3/4	<b>8,900</b>	<b>9,840</b>	<b>10,800</b>	<b>11,900</b>	<b>13,100</b>
		404A	1-3/4	<b>13,100</b>	<b>14,300</b>	<b>15,500</b>	<b>16,900</b>	<b>18,500</b>
		407A	1-3/4	<b>12,500</b>	<b>13,700</b>	<b>15,000</b>	<b>16,300</b>	<b>17,800</b>
		407C	1-3/4	<b>12,500</b>	<b>13,700</b>	<b>14,900</b>	<b>16,200</b>	<b>17,500</b>
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2	<b>15,200</b>	<b>16,600</b>	<b>18,100</b>	<b>19,600</b>	<b>21,300</b>
		134a	2	<b>10,200</b>	<b>11,200</b>	<b>12,400</b>	<b>13,600</b>	<b>14,900</b>
		404A	2	<b>15,300</b>	<b>16,600</b>	<b>17,900</b>	<b>19,200</b>	<b>20,600</b>
		407A	2	<b>14,400</b>	<b>15,700</b>	<b>17,200</b>	<b>18,800</b>	<b>20,500</b>
		407C	2	<b>14,000</b>	<b>15,300</b>	<b>16,800</b>	<b>18,200</b>	<b>19,700</b>
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4	<b>18,300</b>	<b>20,000</b>	<b>21,700</b>	<b>23,600</b>	<b>25,600</b>
		134a	2-1/4	<b>12,300</b>	<b>13,600</b>	<b>15,000</b>	<b>16,500</b>	<b>18,100</b>
		404A	2-1/4	<b>18,900</b>	<b>20,600</b>	<b>22,500</b>	<b>24,400</b>	<b>26,800</b>
		407A	2-1/4	<b>17,400</b>	<b>19,100</b>	<b>20,900</b>	<b>22,800</b>	<b>24,900</b>
		407C	2-1/4	<b>17,300</b>	<b>19,000</b>	<b>20,700</b>	<b>22,500</b>	<b>24,400</b>
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3	<b>20,800</b>	<b>22,700</b>	<b>24,800</b>	<b>27,000</b>	<b>29,400</b>
		134a	3	<b>14,100</b>	<b>15,600</b>	<b>17,200</b>	<b>19,000</b>	<b>20,800</b>
		404A	3	<b>21,600</b>	<b>23,500</b>	<b>25,400</b>	<b>27,500</b>	<b>29,600</b>
		407A	3	<b>20,200</b>	<b>22,100</b>	<b>24,200</b>	<b>26,500</b>	<b>29,000</b>
		407C	3	<b>19,700</b>	<b>21,700</b>	<b>23,700</b>	<b>26,100</b>	<b>28,700</b>
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4	<b>27,400</b>	<b>29,800</b>	<b>32,400</b>	<b>35,100</b>	<b>38,000</b>
		134a	3-1/4	<b>18,500</b>	<b>20,400</b>	<b>22,500</b>	<b>24,700</b>	<b>27,100</b>
		404A	3-1/4	<b>27,300</b>	<b>29,500</b>	<b>31,800</b>	<b>34,200</b>	<b>36,700</b>
		407A	3-1/4	<b>25,700</b>	<b>28,200</b>	<b>30,700</b>	<b>33,400</b>	<b>36,300</b>
		407C	3-1/4	<b>25,400</b>	<b>27,900</b>	<b>30,400</b>	<b>33,000</b>	<b>35,800</b>
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4	<b>31,700</b>	<b>34,800</b>	<b>38,100</b>	<b>41,600</b>	<b>45,400</b>
		134a	4	<b>21,300</b>	<b>23,700</b>	<b>26,200</b>	<b>28,900</b>	<b>31,800</b>
		404A	4	<b>34,200</b>	<b>37,500</b>	<b>41,000</b>	<b>44,800</b>	<b>49,500</b>
		407A	4	<b>30,600</b>	<b>33,700</b>	<b>37,000</b>	<b>40,600</b>	<b>44,300</b>
		407C	4	<b>30,700</b>	<b>33,800</b>	<b>37,100</b>	<b>41,000</b>	<b>45,200</b>
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4	<b>38,700</b>	<b>42,400</b>	<b>46,400</b>	<b>50,500</b>	<b>55,000</b>
		134a	4-1/4	<b>26,100</b>	<b>29,000</b>	<b>32,000</b>	<b>35,200</b>	<b>38,700</b>
		404A	4-1/4	<b>40,800</b>	<b>44,800</b>	<b>49,100</b>	<b>54,000</b>	<b>59,000</b>
		407A	4-1/4	<b>39,200</b>	<b>43,100</b>	<b>47,200</b>	<b>51,500</b>	<b>57,000</b>
		407C	4-1/4	<b>36,300</b>	<b>39,900</b>	<b>43,800</b>	<b>47,700</b>	<b>51,900</b>
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5	<b>43,100</b>	<b>47,100</b>	<b>51,500</b>	<b>55,500</b>	<b>60,500</b>
		134a	5	<b>29,400</b>	<b>32,500</b>	<b>35,800</b>	<b>39,300</b>	<b>43,000</b>
		404A	5	<b>45,400</b>	<b>49,300</b>	<b>53,500</b>	<b>57,500</b>	<b>62,000</b>
		407A	5					
		407C	5	<b>41,600</b>	<b>46,100</b>	<b>50,800</b>	<b>55,500</b>	<b>60,100</b>

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* - TFD not available

\*\* - TFD or TFE not available

\*\*\* - TFE only

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 100° Ambient - Evaporator Temp (°F)							
Model	BOM	Refrig.	H.P.	-30	-25	-20	-15	-10	-5
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2						
		134a	1-1/2						
		404A	1-1/2		3,710	4,160	4,650	5,180	5,750
		407A	1-1/2				4,220	4,790	5,370
		407C	1-1/2						
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4						
		134a	1-3/4						
		404A	1-3/4		4,310	4,830	5,390	5,990	6,640
		407A	1-3/4					5,640	6,320
		407C	1-3/4						
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2						
		134a	2						
		404A	2		5,020	5,630	6,280	6,990	7,750
		407A	2					6,470	7,250
		407C	2						
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4						
		134a	2-1/4						
		404A	2-1/4		6,110	6,860	7,650	8,510	9,450
		407A	2-1/4					7,820	8,760
		407C	2-1/4						
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3						
		134a	3						
		404A	3	6,120	6,900	7,750	8,670	9,660	10,700
		407A	3				7,870	8,940	10,000
		407C	3						
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4						
		134a	3-1/4						
		404A	3-1/4		9,110	10,200	11,400	12,600	14,000
		407A	3-1/4					10,500	12,100
		407C	3-1/4						
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4						
		134a	4						
		404A	4	9,150	10,300	11,600	13,000	14,600	16,200
		407A	4				10,500	12,200	14,100
		407C	4						
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4						
		134a	4-1/4						
		404A	4-1/4	11,500	13,000	14,600	16,300	18,200	20,300
		407A	4-1/4				13,600	15,800	18,200
		407C	4-1/4						
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5						
		134a	5						
		404A	5		15,000	16,700	18,600	20,600	22,800
		407A	5						
		407C	5						

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only

# Copeland Scroll™ air-cooled condensing units

## Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 100° Ambient - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	0	+5	+10	+15	+20
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2	6,270	7,140	8,020	8,900	9,800
		134a	1-1/2	4,000	4,510	5,060	5,660	6,300
		404A	1-1/2	6,350	7,040	7,760	8,530	9,370
		407A	1-1/2	5,970	6,620	7,300	8,040	8,820
		407C	1-1/2	5,230	6,080	6,960	7,850	8,750
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4	7,240	8,250	9,250	10,300	11,300
		134a	1-3/4	4,730	5,330	5,980	6,670	7,420
		404A	1-3/4	7,320	8,090	8,900	9,770	10,700
		407A	1-3/4	7,010	7,760	8,550	9,380	10,300
		407C	1-3/4	6,390	7,380	8,420	9,450	10,500
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2	8,370	9,540	10,700	11,900	13,100
		134a	2	5,410	6,100	6,830	7,630	8,480
		404A	2	8,550	9,450	10,400	11,400	12,500
		407A	2	8,050	8,910	9,820	10,800	11,800
		407C	2	7,060	8,200	9,380	10,600	11,800
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4	9,940	11,300	12,700	14,100	15,600
		134a	2-1/4	6,450	7,270	8,160	9,110	10,100
		404A	2-1/4	10,400	11,500	12,700	14,000	15,300
		407A	2-1/4	9,730	10,800	11,900	13,100	14,300
		407C	2-1/4	8,770	10,100	11,500	12,900	14,400
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3	11,400	13,000	14,600	16,200	17,900
		134a	3	7,460	8,420	9,450	10,600	11,800
		404A	3	11,900	13,200	14,600	16,000	17,600
		407A	3	11,200	12,400	13,700	15,100	16,500
		407C	3	9,980	11,600	13,200	14,900	16,700
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4	14,900	17,000	19,100	21,100	23,300
		134a	3-1/4	9,860	11,100	12,400	13,900	15,400
		404A	3-1/4	15,400	17,100	18,800	20,600	22,600
		407A	3-1/4	13,700	15,500	17,300	19,200	21,200
		407C	3-1/4	12,900	14,900	17,000	19,200	21,400
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4	17,400	19,900	22,300	24,800	27,400
		134a	4	11,200	12,700	14,300	16,000	17,800
		404A	4	18,000	20,000	22,200	24,500	27,000
		407A	4	16,000	18,100	20,300	22,600	25,100
		407C	4	15,800	18,200	20,800	23,400	26,100
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4	21,300	24,300	27,300	30,300	33,400
		134a	4-1/4	13,800	15,600	17,500	19,600	21,800
		404A	4-1/4	22,400	24,900	27,500	30,300	33,400
		407A	4-1/4	20,700	23,400	26,200	29,200	32,300
		407C	4-1/4	18,300	21,300	24,300	27,400	30,600
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5	25,000	27,700	30,500	33,600	36,900
		134a	5	15,600	17,600	19,700	22,000	24,500
		404A	5	25,000	27,500	30,100	32,900	35,800
		407A	5					
		407C	5	19,500	22,500	25,800	29,500	33,400

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only



## Copeland Scroll™ air-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Cap. (BTU/Hr) at 100° F Ambient - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	+25	+30	+35	+40	+45
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2	<b>10,800</b>	<b>11,800</b>	<b>12,900</b>	<b>14,000</b>	<b>15,200</b>
		134a	1-1/2	<b>7,130</b>	<b>7,890</b>	<b>8,690</b>	<b>9,560</b>	<b>10,500</b>
		404A	1-1/2	<b>10,600</b>	<b>11,500</b>	<b>12,400</b>	<b>13,300</b>	<b>14,300</b>
		407A	1-1/2	<b>10,000</b>	<b>11,000</b>	<b>12,000</b>	<b>13,100</b>	<b>14,400</b>
		407C	1-1/2	<b>9,830</b>	<b>10,800</b>	<b>11,800</b>	<b>12,800</b>	<b>13,900</b>
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4	<b>12,400</b>	<b>13,600</b>	<b>14,800</b>	<b>16,100</b>	<b>17,500</b>
		134a	1-3/4	<b>8,400</b>	<b>9,280</b>	<b>10,200</b>	<b>11,200</b>	<b>12,300</b>
		404A	1-3/4	<b>12,000</b>	<b>13,100</b>	<b>14,200</b>	<b>15,500</b>	<b>17,000</b>
		407A	1-3/4	<b>11,600</b>	<b>12,700</b>	<b>13,900</b>	<b>15,200</b>	<b>16,600</b>
		407C	1-3/4	<b>11,800</b>	<b>12,900</b>	<b>14,100</b>	<b>15,300</b>	<b>16,500</b>
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2	<b>14,400</b>	<b>15,700</b>	<b>17,100</b>	<b>18,600</b>	<b>20,200</b>
		134a	2	<b>9,600</b>	<b>10,600</b>	<b>11,700</b>	<b>12,800</b>	<b>14,100</b>
		404A	2	<b>14,200</b>	<b>15,300</b>	<b>16,500</b>	<b>17,700</b>	<b>19,000</b>
		407A	2	<b>13,400</b>	<b>14,700</b>	<b>16,000</b>	<b>17,500</b>	<b>19,100</b>
		407C	2	<b>13,200</b>	<b>14,500</b>	<b>15,800</b>	<b>17,200</b>	<b>18,600</b>
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4	<b>17,300</b>	<b>18,900</b>	<b>20,600</b>	<b>22,300</b>	<b>24,200</b>
		134a	2-1/4	<b>11,600</b>	<b>12,900</b>	<b>14,200</b>	<b>15,600</b>	<b>17,100</b>
		404A	2-1/4	<b>17,400</b>	<b>19,000</b>	<b>20,700</b>	<b>22,500</b>	<b>24,700</b>
		407A	2-1/4	<b>16,200</b>	<b>17,800</b>	<b>19,400</b>	<b>21,200</b>	<b>23,200</b>
		407C	2-1/4	<b>16,400</b>	<b>18,000</b>	<b>19,600</b>	<b>21,300</b>	<b>23,100</b>
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3	<b>19,700</b>	<b>21,500</b>	<b>23,500</b>	<b>25,600</b>	<b>27,900</b>
		134a	3	<b>13,300</b>	<b>14,700</b>	<b>16,300</b>	<b>17,900</b>	<b>19,700</b>
		404A	3	<b>20,000</b>	<b>21,700</b>	<b>23,400</b>	<b>25,300</b>	<b>27,200</b>
		407A	3	<b>18,800</b>	<b>20,600</b>	<b>22,600</b>	<b>24,700</b>	<b>27,100</b>
		407C	3	<b>18,700</b>	<b>20,600</b>	<b>22,500</b>	<b>24,800</b>	<b>27,300</b>
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4	<b>25,800</b>	<b>28,100</b>	<b>30,600</b>	<b>33,100</b>	<b>35,800</b>
		134a	3-1/4	<b>17,400</b>	<b>19,300</b>	<b>21,200</b>	<b>23,300</b>	<b>25,500</b>
		404A	3-1/4	<b>25,300</b>	<b>27,300</b>	<b>29,400</b>	<b>31,600</b>	<b>33,800</b>
		407A	3-1/4	<b>24,100</b>	<b>26,400</b>	<b>28,800</b>	<b>31,300</b>	<b>33,900</b>
		407C	3-1/4	<b>24,000</b>	<b>26,300</b>	<b>28,700</b>	<b>31,200</b>	<b>33,700</b>
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4	<b>30,100</b>	<b>33,100</b>	<b>36,200</b>	<b>39,600</b>	<b>43,200</b>
		134a	4	<b>20,200</b>	<b>22,400</b>	<b>24,800</b>	<b>27,400</b>	<b>30,100</b>
		404A	4	<b>31,600</b>	<b>34,600</b>	<b>37,900</b>	<b>41,400</b>	<b>45,800</b>
		407A	4	<b>28,600</b>	<b>31,500</b>	<b>34,600</b>	<b>37,800</b>	<b>41,300</b>
		407C	4	<b>29,300</b>	<b>32,200</b>	<b>35,300</b>	<b>38,900</b>	<b>42,900</b>
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4	<b>36,800</b>	<b>40,300</b>	<b>44,000</b>	<b>48,000</b>	<b>52,500</b>
		134a	4-1/4	<b>24,700</b>	<b>27,400</b>	<b>30,300</b>	<b>33,300</b>	<b>36,600</b>
		404A	4-1/4	<b>37,800</b>	<b>41,400</b>	<b>45,400</b>	<b>49,900</b>	<b>54,500</b>
		407A	4-1/4	<b>36,900</b>	<b>40,500</b>	<b>44,400</b>	<b>48,500</b>	<b>53,500</b>
		407C	4-1/4	<b>34,400</b>	<b>37,900</b>	<b>41,400</b>	<b>45,200</b>	<b>49,000</b>
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5	<b>40,900</b>	<b>44,700</b>	<b>48,700</b>	<b>53,000</b>	<b>57,500</b>
		134a	5	<b>27,800</b>	<b>30,800</b>	<b>33,900</b>	<b>37,200</b>	<b>40,700</b>
		404A	5	<b>41,800</b>	<b>45,300</b>	<b>49,000</b>	<b>53,000</b>	<b>57,000</b>
		407A	5					
		407C	5	<b>38,600</b>	<b>43,000</b>	<b>47,400</b>	<b>51,900</b>	<b>56,300</b>

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 110° Ambient - Evaporator Temp (°F)							
Model	BOM	Refrig.	H.P.	-30	-25	-20	-15	-10	-5
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2						
		134a	1-1/2						
		404A	1-1/2		3,410	3,820	4,250	4,720	5,220
		407A	1-1/2						
		407C	1-1/2						
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4						
		134a	1-3/4						
		404A	1-3/4			4,420	4,910	5,440	6,010
		407A	1-3/4						
		407C	1-3/4						
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2						
		134a	2						
		404A	2			5,150	5,730	6,350	7,020
		407A	2						
		407C	2						
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4						
		134a	2-1/4						
		404A	2-1/4		5,630	6,290	6,990	7,750	8,580
		407A	2-1/4						
		407C	2-1/4						
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3						
		134a	3						
		404A	3				7,930	8,810	9,770
		407A	3						9,290
		407C	3						
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4						
		134a	3-1/4						
		404A	3-1/4			9,320	10,400	11,500	12,700
		407A	3-1/4						
		407C	3-1/4						
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4						
		134a	4						
		404A	4		9,560	10,700	12,000	13,400	14,800
		407A	4						13,100
		407C	4						
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4						
		134a	4-1/4						
		404A	4-1/4		12,000	13,400	15,000	16,700	18,500
		407A	4-1/4						
		407C	4-1/4						
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5						
		134a	5						
		404A	5			15,200	16,900	18,700	20,600
		407A	5						
		407C	5						

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 110° Ambient - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	0	+5	+10	+15	+20
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2	5,770	6,630	7,480	8,330	9,190
		134a	1-1/2	3,750	4,230	4,740	5,290	5,880
		404A	1-1/2	5,750	6,360	7,000	7,680	8,430
		407A	1-1/2	5,520	6,120	6,740	7,410	8,140
		407C	1-1/2	4,780	5,620	6,470	7,320	8,180
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4	6,660	7,650	8,620	9,600	10,600
		134a	1-3/4	4,430	4,990	5,590	6,230	6,920
		404A	1-3/4	6,600	7,290	8,000	8,770	9,590
		407A	1-3/4	6,480	7,170	7,890	8,650	9,480
		407C	1-3/4	5,860	6,820	7,820	8,810	9,820
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2	7,700	8,850	9,980	11,100	12,300
		134a	2	5,060	5,700	6,390	7,120	7,920
		404A	2	7,720	8,520	9,360	10,300	11,200
		407A	2	7,440	8,240	9,060	9,950	10,900
		407C	2	6,430	7,550	8,690	9,830	11,000
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4	9,160	10,500	11,900	13,200	14,600
		134a	2-1/4	6,040	6,810	7,630	8,520	9,480
		404A	2-1/4	9,430	10,400	11,500	12,600	13,800
		407A	2-1/4	9,000	9,970	11,000	12,100	13,200
		407C	2-1/4	8,050	9,390	10,700	12,100	13,500
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3	10,500	12,100	13,600	15,200	16,800
		134a	3	7,010	7,900	8,860	9,890	11,000
		404A	3	10,800	11,900	13,200	14,500	15,900
		407A	3	10,300	11,400	12,600	13,900	15,300
		407C	3	9,160	10,800	12,400	14,000	15,700
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4	13,700	15,800	17,800	19,800	21,800
		134a	3-1/4	9,230	10,400	11,600	13,000	14,400
		404A	3-1/4	13,900	15,400	16,900	18,500	20,200
		407A	3-1/4		14,700	16,400	18,100	20,000
		407C	3-1/4	11,700	13,700	15,800	17,800	19,900
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4	16,100	18,500	20,900	23,300	25,800
		134a	4	10,500	11,900	13,400	15,000	16,700
		404A	4	16,400	18,200	20,200	22,300	24,500
		407A	4	14,900	16,900	18,900	21,100	23,400
		407C	4	14,600	17,000	19,500	22,000	24,600
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4	19,700	22,600	25,500	28,400	31,400
		134a	4-1/4	12,900	14,600	16,400	18,400	20,400
		404A	4-1/4	20,400	22,600	25,000	27,500	30,200
		407A	4-1/4	19,500	22,100	24,700	27,500	30,400
		407C	4-1/4	16,800	19,700	22,600	25,600	28,700
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5	23,900	26,300	28,900	31,800	34,800
		134a	5	14,700	16,500	18,500	20,700	23,000
		404A	5	22,600	24,800	27,100	29,600	32,200
		407A	5					
		407C	5	17,900	20,600	23,600	26,900	30,600

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 110° Ambient - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	+25	+30	+35	+40	+45
FFAP-015Z-CFV, TFC, TFD	075, 072	22	1-1/2	<b>11,400</b>	<b>11,100</b>	<b>12,200</b>	<b>13,200</b>	
		134a	1-1/2	<b>6,690</b>	<b>7,390</b>	<b>8,150</b>	<b>8,970</b>	<b>9,840</b>
		404A	1-1/2	<b>9,910</b>	<b>10,700</b>	<b>11,500</b>	<b>12,300</b>	<b>13,200</b>
		407A	1-1/2	<b>9,270</b>	<b>10,200</b>	<b>11,100</b>	<b>12,200</b>	<b>13,300</b>
		407C	1-1/2	<b>9,060</b>	<b>10,080</b>	<b>11,100</b>	<b>12,100</b>	<b>13,100</b>
FFAP-017Z-CFV, TFC, TFD	075, 072	22	1-3/4	<b>11,700</b>	<b>12,800</b>			
		134a	1-3/4	<b>7,860</b>	<b>8,680</b>	<b>9,560</b>	<b>10,500</b>	<b>11,500</b>
		404A	1-3/4	<b>10,800</b>	<b>11,800</b>	<b>12,900</b>		
		407A	1-3/4	<b>10,800</b>	<b>11,800</b>	<b>12,900</b>	<b>14,100</b>	<b>15,400</b>
		407C	1-3/4	<b>10,800</b>	<b>12,000</b>	<b>13,200</b>	<b>14,300</b>	<b>15,500</b>
FFAP-020Z-CFV, TFC, TFD	071, 072	22	2	<b>13,500</b>	<b>14,800</b>	<b>16,200</b>		
		134a	2	<b>8,990</b>	<b>9,930</b>	<b>10,900</b>	<b>12,000</b>	<b>13,200</b>
		404A	2	<b>13,300</b>	<b>14,400</b>	<b>15,400</b>	<b>16,500</b>	<b>17,600</b>
		407A	2	<b>12,400</b>	<b>13,600</b>	<b>14,800</b>	<b>16,200</b>	<b>17,700</b>
		407C	2	<b>12,200</b>	<b>13,550</b>	<b>14,900</b>	<b>16,200</b>	<b>17,500</b>
FFAP-022Z-CFV, TFC, TFD	071, 072*	22	2-1/4	<b>16,300</b>	<b>17,800</b>	<b>19,400</b>	<b>21,100</b>	<b>22,800</b>
		134a	2-1/4	<b>10,900</b>	<b>12,100</b>	<b>13,300</b>	<b>14,600</b>	<b>16,100</b>
		404A	2-1/4	<b>15,800</b>	<b>17,300</b>	<b>18,800</b>	<b>20,600</b>	<b>22,600</b>
		407A	2-1/4	<b>15,000</b>	<b>16,500</b>	<b>18,000</b>	<b>19,700</b>	<b>21,500</b>
		407C	2-1/4	<b>15,400</b>	<b>17,000</b>	<b>18,500</b>	<b>20,100</b>	<b>21,700</b>
FFAP-030Z-CFV, TFC, TFD	071, 072*	22	3	<b>18,500</b>	<b>20,300</b>	<b>22,200</b>	<b>24,200</b>	<b>26,400</b>
		134a	3	<b>12,500</b>	<b>13,800</b>	<b>15,300</b>	<b>16,800</b>	<b>18,400</b>
		404A	3	<b>18,600</b>	<b>20,100</b>	<b>21,700</b>	<b>23,300</b>	<b>25,000</b>
		407A	3	<b>17,400</b>	<b>19,100</b>	<b>20,900</b>	<b>22,900</b>	<b>25,100</b>
		407C	3	<b>17,700</b>	<b>19,500</b>	<b>21,300</b>	<b>23,500</b>	<b>25,800</b>
FFAP-032Z-CFV, TFC, TFD	071, 072*	22	3-1/4	<b>24,300</b>	<b>26,500</b>	<b>28,800</b>	<b>31,200</b>	<b>33,700</b>
		134a	3-1/4	<b>16,300</b>	<b>18,000</b>	<b>19,800</b>	<b>21,800</b>	<b>23,800</b>
		404A	3-1/4	<b>23,800</b>	<b>25,600</b>	<b>27,500</b>	<b>29,400</b>	<b>31,400</b>
		407A	3-1/4	<b>22,900</b>	<b>25,000</b>	<b>27,200</b>	<b>29,500</b>	<b>32,000</b>
		407C	3-1/4	<b>22,500</b>	<b>24,700</b>	<b>27,000</b>	<b>29,300</b>	<b>31,700</b>
FFAP-040Z-CFV, TFC, TFD	071, 072*	22	4	<b>28,500</b>	<b>31,300</b>	<b>34,300</b>	<b>37,500</b>	<b>40,900</b>
		134a	4	<b>19,000</b>	<b>21,100</b>	<b>23,300</b>	<b>25,700</b>	<b>28,300</b>
		404A	4	<b>28,800</b>	<b>31,600</b>	<b>34,700</b>	<b>38,000</b>	<b>42,100</b>
		407A	4	<b>26,800</b>	<b>29,400</b>	<b>32,300</b>	<b>35,300</b>	<b>38,500</b>
		407C	4	<b>27,800</b>	<b>30,600</b>	<b>33,500</b>	<b>36,900</b>	<b>40,700</b>
FFAP-042Z-CFV, TFC, TFD	071, 072*	22	4-1/4	<b>34,700</b>	<b>38,100</b>	<b>41,700</b>	<b>45,500</b>	<b>49,600</b>
		134a	4-1/4	<b>23,300</b>	<b>25,800</b>	<b>28,500</b>	<b>31,300</b>	<b>34,400</b>
		404A	4-1/4	<b>34,500</b>	<b>37,900</b>	<b>41,600</b>	<b>45,700</b>	<b>50,000</b>
		407A	4-1/4	<b>34,900</b>	<b>38,300</b>	<b>41,900</b>	<b>45,700</b>	<b>50,000</b>
		407C	4-1/4	<b>32,400</b>	<b>35,700</b>	<b>39,100</b>	<b>42,600</b>	<b>46,200</b>
FFAP-050Z-CFV, TFC, TFD, TFE	071, 072** 075***	22	5	<b>38,600</b>	<b>42,200</b>	<b>45,900</b>	<b>49,900</b>	<b>54,000</b>
		134a	5	<b>26,200</b>	<b>29,000</b>	<b>31,900</b>	<b>35,100</b>	<b>38,400</b>
		404A	5	<b>37,900</b>	<b>41,100</b>	<b>44,500</b>	<b>48,100</b>	<b>52,000</b>
		407A	5					
		407C	5	<b>35,600</b>	<b>39,700</b>	<b>43,900</b>	<b>48,100</b>	<b>52,400</b>

Performance @ 40°F return gas (65°F return gas for performance in bold), 5°F subcooling.

\* -TFD not available

\*\* -TFD or TFE not available

\*\*\* -TFE only

# Copeland Scroll™ air-cooled condensing units

## Physical and Electrical Data

Model	Refrig.	Comp	Overall Dimensions (in)			Refrigerant Connecting Lines (in)		Minimum Circuit Ampacity - Max Fuse Size				Pump Down Capacity (lbs)	Ship Weight (lbs)
			L	W	H	Suction	Liquid	208/230-1	230-3	460-3	575-3		
FFAP-015Z-CFV, TFC, TFD	22	ZS09KAE-PFV, TF5, TFD	24.0	18.3	16.6	7/8 S	3/8 S	13.9 - 20	11.4 - 15	6.4 - 15		7.4	130
	134a											7.5	
	404A											6.4	
	407A											7.0	
	407C											6.9	
FFAP-017Z-CFV, TFC, TFD	22	ZS11KAE-PFV, TF5, TFD	24.1	18.3	16.6	7/8 S	3/8 S	17.2 - 25	14.4 - 20	7.0 - 15		13	191
	134a											13.1	
	404A											11.2	
	407A											12.2	
	407C											11.4	
FFAP-020Z-CFV, TFC, TFD	22	ZS13KAE-PFV, TF5, TFD	25.2	34	19	7/8 S	3/8 S	16.8 - 25	13.9 - 20	7.1 - 15		13	191
	134a											13.1	
	404A											11.2	
	407A											12.2	
	407C											11.4	
FFAP-022Z-CFV, TFC, TFD	22	ZS15KAE-PFV, TF5, TFD	25.2	34	19	7/8 S	3/8 S	22.4 - 35	16.1 - 20	10 - 15		13	209
	134a											13.1	
	404A											11.2	
	407A											12.2	
	407C											11.4	
FFAP-030Z-CFV, TFC, TFD	22	ZS19KAE-PFV, TF5, TFD	25.2	34.1	19	7/8 S	3/8 S	25.3 - 40	19.9 - 30	11.3 - 15		13	209
	134a											13.1	
	404A											11.2	
	407A											12.2	
	407C											11.4	
FFAP-032Z-CFV, TFC, TFD	22	ZS21KAE-PFV, TF5, TFD	25.2	34.1	19	7/8 S	3/8 S	31.8 - 50	21.8 - 30	11.8 - 15		21.5	290
	134a											21.8	
	404A											18.7	
	407A											20.3	
	407C											18.3	
FFAP-040Z-CFV, TFC, TFD	22	ZS26KAE-PFV, TF5, TFD	28.2	44.1	26.8	1 1/8 S	1/2 S	33.1 - 50	23 - 35	11 - 15		21.5	296
	134a											21.8	
	404A											18.7	
	407A											20.3	
	407C											18.3	
FFAP-042Z-CFV, TFC, TFD	22	ZS33KAE-PFV, TF5, TFD	28.2	44.1	26.8	1 1/8 S	1/2 S	38.9 - 60	31.5 - 50	14.9 - 20		21.5	296
	134a											21.8	
	404A											18.7	
	407A											20.3	
	407C											18.3	
FFAP-050Z-CFV, TFC, TFD, TFE	22	ZS38K4E-PFV, TF5, TFD, TFE	28.6	44.1	26.9	1 1/8 S	1/2 S	43.4 - 70	30.4 - 45	14.4 - 20	11.9 - 15	21.5	297
	134a											21.8	
	404A											18.7	
	407A											20.3	
	407C												

Pumpdown capacity is receiver volume only at 90%, 90°F ambient.

### Hood Selection

Copeland™ Model	Flex-Line Hood
FFAP-015Z	505-7066-01
FFAP-017Z	505-7066-01
FFAP-020Z	505-7066-02
FFAP-022Z	505-7066-02
FFAP-030Z	505-7066-02
FFAP-032Z	505-7066-02
FFAP-040Z	505-7066-03
FFAP-042Z	505-7066-03
FFAP-050Z	505-7066-03



NOTE: See appendix for Flex-Line hood information

### Emerson™ Electronic Unit Controller



Part #	Description
943-0152-00	115V Electronic Unit Controller
943-0153-00	230V Electronic Unit Controller
943-0154-00	115V Electronic Unit Controller with Fan Cycling
943-0155-00	230V Electronic Unit Controller with Fan Cycling
929-0114-00	Electronic Unit Controller Suction Pressure Transducer (150 PSIA)
929-0113-00	DLT Sensor Kit

## Copeland Scroll™ water-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 105° Condensing Temp - Evaporator Temp (°F)							
Model	BOM	Refrig.	H.P.	-30	-25	-20	-15	-10	-5
FFWP-015Z-CFV, TFC, TFD	020	22	1-1/2						
		134a	1-1/2						
		404A	1-1/2	3,230	3,670	4,140	4,670	5,240	5,890
		407A	1-1/2		3,330	3,960	4,590	5,240	5,910
		407C	1-1/2						
FFWP-017Z-CFV, TFC, TFD	020	22	1-3/4						
		134a	1-3/4						
		404A	1-3/4	3,990	4,520	5,110	5,750	6,470	7,260
		407A	1-3/4		3,980	4,720	5,480	6,250	7,060
		407C	1-3/4						
FFWP-020Z-CFV, TFC, TFD	020	22	2						
		134a	2						
		404A	2	4,400	4,990	5,630	6,350	7,140	8,010
		407A	2		4,540	5,390	6,250	7,140	8,060
		407C	2						
FFWP-022Z-CFV, TFC, TFD	020	22	2-1/4						
		134a	2-1/4						
		404A	2-1/4	5,300	6,010	6,790	7,650	8,600	9,650
		407A	2-1/4		5,470	6,500	7,540	8,610	9,720
		407C	2-1/4						
FFWP-030Z-CFV, TFC, CFZ, TFD	020	22	3						
		134a	3						
		404A	3	6,340	7,190	8,120	9,150	10,300	11,500
		407A	3		6,180	7,340	8,510	9,710	11,000
		407C	3						
FFWP-032Z-CFV, TFC, TFD	020	22	3-1/4						
		134a	3-1/4						
		404A	3-1/4	8,220	9,320	10,500	11,900	13,300	15,000
		407A	3-1/4		7,160	8,680	10,300	11,900	13,700
		407C	3-1/4						
FFWP-040Z-CFV,TFC,TFD	020	22	4						
		134a	4					8,850	10,200
		404A	4	9,390	10,600	12,000	13,600	15,200	17,100
		407A	4		7,940	9,640	11,400	13,300	15,200
		407C	4		4,430	6,730	9,050	11,400	13,800
FFWP-042Z-CFV, TFC, TFD	020	22	4-1/4						
		134a	4-1/4						
		404A	4-1/4	11,300	12,800	14,500	16,300	18,400	20,600
		407A	4-1/4		10,400	12,700	15,000	17,400	20,000
		407C	4-1/4						
FFWP-050Z-CFV, TFC, TFD, TFE	020	22	5						
		134a	5						
		404A	5	14,100	15,900	17,900	20,100	22,500	25,000
		407A	5						
		407C	5						

Performance @ 40°F return gas (65°F return gas for performance in **bold**), 5°F subcooling.

## Copeland Scroll™ water-cooled condensing units

### Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 105° Condensing Temp - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	0	+5	+10	+15	+20
FFWP-015Z-CFV, TFC, TFD	020	22	1-1/2	6,770	7,740	8,720	9,750	10,800
		134a	1-1/2	4,070	4,620	5,220	5,870	6,590
		404A	1-1/2	6,590	7,370	8,230	9,180	10,200
		407A	1-1/2	6,630	7,410	8,250	9,170	10,200
		407C	1-1/2	5,750	6,670	7,620	8,630	9,700
FFWP-017Z-CFV, TFC, TFD	020	22	1-3/4	7,970	9,100	10,300	11,500	12,700
		134a	1-3/4	4,850	5,510	6,230	7,010	7,870
		404A	1-3/4	8,130	9,090	10,200	11,300	12,600
		407A	1-3/4	7,920	8,850	9,850	11,000	12,200
		407C	1-3/4	6,870	7,960	9,100	10,300	11,600
FFWP-020Z-CFV, TFC, TFD	020	22	2	9,160	10,500	11,800	13,200	14,600
		134a	2	5,540	6,290	7,110	8,010	8,990
		404A	2	8,970	10,000	11,200	12,500	13,900
		407A	2	9,050	10,100	11,300	12,500	13,900
		407C	2	7,840	9,090	10,400	11,800	13,200
FFWP-022Z-CFV, TFC, TFD	020	22	2-1/4	10,800	12,300	13,900	15,500	17,200
		134a	2-1/4	6,680	7,590	8,570	9,650	10,800
		404A	2-1/4	10,800	12,100	13,500	15,100	16,800
		407A	2-1/4	10,900	12,200	13,600	15,100	16,700
		407C	2-1/4	9,450	11,000	12,500	14,200	15,900
FFWP-030Z-CFV, TFC, CFZ, TFD	020	22	3	12,200	14,000	15,800	17,600	19,600
		134a	3	7,540	8,560	9,680	10,900	12,200
		404A	3	12,900	14,500	16,200	18,000	20,100
		407A	3	12,300	13,700	15,300	17,000	18,900
		407C	3			14,500	16,400	18,500
FFWP-032Z-CFV, TFC, TFD	020	22	3-1/4	16,400	18,800	21,200	23,600	26,300
		134a	3-1/4	10,100	11,500	13,000	14,600	16,400
		404A	3-1/4	16,800	18,700	20,900	23,300	26,000
		407A	3-1/4	15,600	17,700	19,900	22,300	25,000
		407C	3-1/4	14,300	16,600	19,000	21,500	24,200
FFWP-040Z-CFV, TFC, TFD	020	22	4	18,200	20,800	23,500	26,200	29,100
		134a	4	11,600	13,200	14,900	16,800	18,900
		404A	4	19,200	21,400	23,900	26,700	29,700
		407A	4	17,400	19,600	22,100	24,800	27,700
		407C	4	16,300	18,900	21,600	24,500	27,500
FFWP-042Z-CFV, TFC, TFD	020	22	4-1/4	22,600	25,900	29,200	32,600	36,200
		134a	4-1/4	14,000	15,800	17,900	20,200	22,600
		404A	4-1/4	23,100	25,800	28,900	32,200	35,800
		407A	4-1/4	22,800	25,800	29,000	32,600	36,400
		407C	4-1/4	19,700	22,900	26,200	29,600	33,300
FFWP-050Z-CFV, TFC, TFD, TFE	020	22	5	26,200	29,300	32,600	36,300	40,200
		134a	5	16,000	18,100	20,400	23,000	25,800
		404A	5	27,900	30,900	34,300	37,900	41,900
		407A	5					
		407C	5	22,500	26,200	30,400	35,000	39,900

Performance @ 40°F return gas (65°F return gas for performance in **bold**), 5°F subcooling.

# Copeland Scroll™ water-cooled condensing units

## Capacity Data

LOW/MED/HIGH TEMP		Capacity (BTU/Hr) at 105° Condensing Temp - Evaporator Temp (°F)						
Model	BOM	Refrig.	H.P.	+25	+30	+35	+40	+45
FFWP-015Z-CFV, TFC, TFD	020	22	1-1/2	<b>12,100</b>	<b>13,300</b>	<b>14,700</b>	<b>16,100</b>	<b>17,700</b>
		134a	1-1/2	<b>7,620</b>	<b>8,500</b>	<b>9,460</b>	<b>10,500</b>	<b>11,600</b>
		404A	1-1/2	<b>11,400</b>	<b>13,600</b>	<b>14,900</b>	<b>16,400</b>	<b>18,000</b>
		407A	1-1/2	<b>12,000</b>	<b>13,300</b>	<b>14,700</b>	<b>16,300</b>	<b>18,300</b>
		407C	1-1/2	<b>11,100</b>	<b>12,300</b>	<b>13,600</b>	<b>15,000</b>	<b>16,500</b>
FFWP-017Z-CFV, TFC, TFD	020	22	1-3/4	<b>14,200</b>	<b>15,700</b>	<b>17,300</b>	<b>19,000</b>	<b>20,900</b>
		134a	1-3/4	<b>9,090</b>	<b>10,100</b>	<b>11,300</b>	<b>12,500</b>	<b>13,900</b>
		404A	1-3/4	<b>14,900</b>	<b>16,600</b>	<b>18,400</b>	<b>20,400</b>	<b>22,700</b>
		407A	1-3/4	<b>14,300</b>	<b>15,900</b>	<b>17,600</b>	<b>19,500</b>	<b>21,800</b>
		407C	1-3/4	<b>13,300</b>	<b>14,700</b>	<b>16,300</b>	<b>18,000</b>	<b>19,700</b>
FFWP-020Z-CFV, TFC, TFD	020	22	2	<b>16,400</b>	<b>18,000</b>	<b>19,900</b>	<b>21,800</b>	<b>24,000</b>
		134a	2	<b>10,400</b>	<b>11,600</b>	<b>12,900</b>	<b>14,300</b>	<b>15,900</b>
		404A	2	<b>17,000</b>	<b>18,800</b>	<b>20,900</b>	<b>23,200</b>	<b>25,800</b>
		407A	2	<b>16,300</b>	<b>18,100</b>	<b>20,100</b>	<b>22,200</b>	<b>24,900</b>
		407C	2	<b>15,100</b>	<b>16,800</b>	<b>18,600</b>	<b>20,500</b>	<b>22,500</b>
FFWP-022Z-CFV, TFC, TFD	020	22	2-1/4	<b>19,200</b>	<b>21,200</b>	<b>23,400</b>	<b>25,700</b>	<b>28,200</b>
		134a	2-1/4	<b>12,500</b>	<b>14,000</b>	<b>15,600</b>	<b>17,300</b>	<b>19,100</b>
		404A	2-1/4	<b>20,400</b>	<b>22,700</b>	<b>25,200</b>	<b>28,000</b>	<b>31,100</b>
		407A	2-1/4	<b>19,700</b>	<b>21,800</b>	<b>24,200</b>	<b>26,800</b>	<b>30,000</b>
		407C	2-1/4	<b>18,300</b>	<b>20,300</b>	<b>22,400</b>	<b>24,700</b>	<b>27,200</b>
FFWP-030Z-CFV, TFC, CFZ, TFD	020	22	3	<b>21,900</b>	<b>24,100</b>	<b>26,500</b>	<b>29,200</b>	<b>32,000</b>
		134a	3	<b>14,100</b>	<b>15,800</b>	<b>17,500</b>	<b>19,500</b>	<b>21,600</b>
		404A	3	<b>22,900</b>	<b>25,200</b>	<b>27,700</b>	<b>30,500</b>	<b>33,400</b>
		407A	3	<b>22,200</b>	<b>24,600</b>	<b>27,300</b>	<b>30,200</b>	<b>33,800</b>
		407C	3	<b>20,600</b>	<b>22,800</b>	<b>25,300</b>	<b>27,800</b>	<b>30,600</b>
FFWP-032Z-CFV, TFC, TFD	020	22	3-1/4	<b>29,400</b>	<b>32,400</b>	<b>35,600</b>	<b>39,200</b>	<b>43,000</b>
		134a	3-1/4	<b>19,000</b>	<b>21,200</b>	<b>23,600</b>	<b>26,200</b>	<b>29,000</b>
		404A	3-1/4	<b>30,700</b>	<b>34,100</b>	<b>37,900</b>	<b>42,100</b>	<b>46,700</b>
		407A	3-1/4	<b>28,600</b>	<b>31,800</b>	<b>35,300</b>	<b>39,100</b>	<b>43,200</b>
		407C	3-1/4	<b>27,700</b>	<b>30,700</b>	<b>34,000</b>	<b>37,500</b>	<b>41,200</b>
FFWP-040Z-CFV, TFC, TFD	020	22	4	<b>32,600</b>	<b>35,900</b>	<b>39,500</b>	<b>43,400</b>	<b>47,700</b>
		134a	4	<b>21,000</b>	<b>23,500</b>	<b>26,100</b>	<b>29,000</b>	<b>32,200</b>
		404A	4	<b>32,900</b>	<b>36,500</b>	<b>40,400</b>	<b>44,700</b>	<b>49,300</b>
		407A	4	<b>32,700</b>	<b>36,400</b>	<b>40,400</b>	<b>44,700</b>	<b>49,900</b>
		407C	4	<b>30,600</b>	<b>34,000</b>	<b>37,600</b>	<b>41,500</b>	<b>45,600</b>
FFWP-042Z-CFV, TFC, TFD	020	22	4-1/4	<b>40,500</b>	<b>44,600</b>	<b>49,100</b>	<b>54,000</b>	<b>59,300</b>
		134a	4-1/4	<b>26,100</b>	<b>29,200</b>	<b>32,500</b>	<b>36,100</b>	<b>40,000</b>
		404A	4-1/4	<b>43,000</b>	<b>47,700</b>	<b>53,000</b>	<b>58,800</b>	<b>65,300</b>
		407A	4-1/4	<b>41,700</b>	<b>46,400</b>	<b>51,500</b>	<b>57,000</b>	<b>63,500</b>
		407C	4-1/4	<b>38,100</b>	<b>42,300</b>	<b>46,800</b>	<b>51,600</b>	<b>56,800</b>
FFWP-050Z-CFV, TFC, TFD, TFE	020	22	5	<b>44,800</b>	<b>49,400</b>	<b>54,300</b>	<b>59,500</b>	<b>65,100</b>
		134a	5	<b>29,800</b>	<b>33,200</b>	<b>36,900</b>	<b>40,800</b>	<b>45,200</b>
		404A	5	<b>48,700</b>	<b>53,500</b>	<b>58,800</b>	<b>64,400</b>	<b>70,400</b>
		407A	5					
		407C	5	<b>45,000</b>	<b>50,400</b>	<b>55,900</b>	<b>61,500</b>	<b>67,200</b>

Performance @ 40°F return gas (65°F return gas for performance in **bold**), 5°F subcooling.



# Copeland Scroll™ water-cooled condensing units

## Physical and Electrical Data

Model	Refrig.	Comp	Overall Dimensions (In)			Connecting Lines		Water Connections		Minimum Circuit Ampacity - Max Fuse Size				Pump Down Capacity (lbs)	Ship Weight (lbs)
			L	W	H	Suction	Liquid	In	Out	208/230-1	230-3	460-3	575-3		
FFWP-015Z-CFV, TFC, TFD	22	ZS09KAE-PFV, TF5, TFD	24.0	16.1	16.6	7/8 S	3/8 S	3/8 FPT	5/8 OD	12.5 - 20	10 - 15	4.8 - 15		13	99
	134a													13.1	
	404A													11.2	
	407A													12.2	
	407C													11.4	
FFWP-017Z-CFV, TFC, TFD	22	ZS11KAE-PFV, TF5, TFD	24.0	16.1	16.6	7/8 S	3/8 S	3/8 FPT	5/8 OD	15.8 - 25	13 - 20	5.4 - 15		13	103
	134a													13.1	
	404A													11.2	
	407A													12.2	
	407C													11.4	
FFWP-020Z-CFV, TFC, TFD	22	ZS13KAE-PFV, TF5, TFD	24.0	16.1	16.6	7/8 S	3/8 S	3/8 FPT	5/8 OD	15 - 25	12.1 - 20	6 - 15		13	105
	134a													13.1	
	404A													11.2	
	407A													12.2	
	407C													11.4	
FFWP-022Z-CFV, TFC, TFD	22	ZS15KAE-PFV, TF5, TFD	24.0	16.1	16.6	7/8 S	3/8 S	3/8 FPT	5/8 OD	19.6 - 35	13.3 - 20	6.8-15		13	106
	134a													13.1	
	404A													11.2	
	407A													12.2	
	407C													11.4	
FFWP-030Z-CFV, TFC, TFD	22	ZS19KAE-PFV, TF5, TFD	24.1	16.1	16.6	7/8 S	3/8 S	3/8 FPT	5/8 OD	22.5-40	13.3-20	6.8-15		13	118
	134a													13.1	
	404A													11.2	
	407A													12.2	
	407C													11.4	
FFWP-032Z-CFV, TFC, TFD	22	ZS21KAE-PFV, TF5, TFD	27.2	21.5	18.2	1 1/8 S	3/8 S	1/2 FPT	7/8 OD	23.1 - 40	13.9 - 20	7 - 15		13	164
	134a													13.1	
	404A													11.2	
	407A													12.2	
	407C													11.4	
FFWP-040Z-CFV, TFC, TFD	22	ZS26KAE-PFV, TF5, TFD	27.5	21	21.1	1 1/8 S	1/2 S	3/4 FPT	7/8 OD	29.5-50	19.4-30	21-27.5		21.5	190
	134a													21.8	
	404A													18.7	
	407A													20.3	
	407C													18.3	
FFWP-042Z-CFV, TFC, TFD	22	ZS33KAE-PFV, TF5, TFD	27.2	21.6	21.1	1 1/8 S	1/2 S	3/4 FPT	7/8 OD	35.3 - 60	27.9-50	21-27.5		21.5	195
	134a													21.8	
	404A													18.7	
	407A													20.3	
	407C													18.3	
FFWP-050Z-CFV, TFC, TFD, TFE	22	ZS38K4E-PFV, TF5, TFD, TFE	27.5	21.7	21.1	1 1/8 S	1/2 S	3/4 FPT	7/8 OD	39.8 - 70	26.8 - 45	12 - 20	9.9-15	21.5	218
	134a													21.8	
	404A													18.7	
	407A													20.3	
	407C													18.3	

Pumpdown capacity is receiver volume only at 90%, 90°F ambient.

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

MED/HIGH TEMP		Capacity (BTU/Hr) at 90° Ambient - Evaporator Temp (°F)							
Model	BOM	Refrig.	H.P.	-30	-25	-20	-15	-10	-5
FPAK-010Z-CFV,TFC,TFD	072	134a	1						
		404A	1	3,410	3,830	4,290	4,770	5,290	5,840
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4						
		404A	1-1/4	3,950	4,430	4,940	5,490	6,060	6,670
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3						
		404A	1-1/3	5,680	6,390	7,150	7,970	8,850	9,780
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2						
		404A	1-1/2	6,310	7,090	7,930	8,810	9,760	10,800
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2						
		404A	2	8,520	9,580	10,700	12,000	13,300	14,700
FPAK-039Z-CFV,TFC,TFD	071	134a	4						
		404A	4	9,530	10,700	12,100	13,500	15,000	16,700

Model	BOM	Refrig.	H.P.	0	+5	+10	+15	+20
FPAK-010Z-CFV,TFC,TFD	072	134a	1	4,020	4,520	5,060	5,620	6,230
		404A	1	6,410				
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4	4,730	5,300	5,920	6,560	7,250
		404A	1-1/4	7,290				
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3	6,640	7,470	8,360	9,300	10,300
		404A	1-1/3	10,800				
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2	7,410	8,330	9,310	10,300	11,500
		404A	1-1/2	11,800				
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2	10,000	11,300	12,600	14,000	15,500
		404A	2	16,100				
FPAK-039Z-CFV,TFC,TFD	071	134a	4	12,600	14,200	15,900	17,700	19,700
		404A	4	18,400				

Model	BOM	Refrig.	H.P.	+25	+30	+35	+40	+45
FPAK-010Z-CFV,TFC,TFD	072	134a	1	<b>7,100</b>	<b>7,810</b>	<b>8,570</b>	<b>9,370</b>	<b>10,200</b>
		404A	1					
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4	<b>8,250</b>	<b>9,060</b>	<b>9,910</b>	<b>10,800</b>	<b>11,700</b>
		404A	1-1/4					
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3	<b>11,800</b>	<b>13,000</b>	<b>14,200</b>	<b>15,600</b>	<b>17,000</b>
		404A	1-1/3					
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2	<b>13,100</b>	<b>14,300</b>	<b>15,700</b>	<b>17,200</b>	<b>18,700</b>
		404A	1-1/2					
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2	<b>17,700</b>	<b>19,500</b>	<b>21,400</b>	<b>23,400</b>	<b>25,600</b>
		404A	2					
FPAK-039Z-CFV,TFC,TFD	071	134a	4	<b>22,500</b>	<b>24,800</b>	<b>27,200</b>	<b>29,800</b>	<b>32,600</b>
		404A	4					

Performance @ 40°F return gas (65°F return gas for performance in **bold**), 5°F subcooling.

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

MED/HIGH TEMP		Capacity (BTU/Hr) at 100° Ambient - Evaporator Temp (°F)							
Model	BOM	Refrig.	H.P.	-30	-25	-20	-15	-10	-5
FPAK-010Z-CFV,TFC,TFD	072	134a	1						
		404A	1		3,560	3,960	4,390	4,850	5,340
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4						
		404A	1-1/4		4,100	4,560	5,030	5,540	6,070
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3						
		404A	1-1/3		5,940	6,630	7,360	8,140	8,970
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2						
		404A	1-1/2		6,580	7,330	8,120	8,960	9,850
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2						
		404A	2		8,910	9,940	11,000	12,200	13,400
FPAK-039Z-CFV,TFC,TFD	071	134a	4						
		404A	4		10,000	11,200	12,500	13,800	15,300

Model	BOM	Refrig.	H.P.	0	+5	+10	+15	+20
FPAK-010Z-CFV,TFC,TFD	072	134a	1		4,260	4,750	5,280	5,840
		404A	1	5,830				
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4		4,980	5,550	6,140	6,780
		404A	1-1/4	6,600				
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3		7,040	7,870	8,750	9,690
		404A	1-1/3	9,820				
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2		7,840	8,750	9,710	10,700
		404A	1-1/2	10,800				
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2		10,600	11,900	13,200	14,600
		404A	2	14,700				
FPAK-039Z-CFV,TFC,TFD	071	134a	4	11,900	13,400	15,000	16,700	18,500
		404A	4	16,800				

Model	BOM	Refrig.	H.P.	+25	+30	+35	+40	+45
FPAK-010Z-CFV,TFC,TFD	072	134a	1	<b>6,670</b>	<b>7,340</b>	<b>8,040</b>	<b>8,790</b>	<b>9,580</b>
		404A	1					
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4	<b>7,740</b>	<b>8,480</b>	<b>9,270</b>	<b>10,100</b>	<b>11,000</b>
		404A	1-1/4					
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3	<b>11,100</b>	<b>12,200</b>	<b>13,400</b>	<b>14,600</b>	<b>16,000</b>
		404A	1-1/3					
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2	<b>12,300</b>	<b>13,500</b>	<b>14,800</b>	<b>16,100</b>	<b>17,600</b>
		404A	1-1/2					
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2	<b>16,700</b>	<b>18,400</b>	<b>20,200</b>	<b>22,100</b>	<b>24,100</b>
		404A	2					
FPAK-039Z-CFV,TFC,TFD	071	134a	4	<b>21,100</b>	<b>23,300</b>	<b>25,600</b>	<b>28,000</b>	<b>30,700</b>
		404A	4					

Performance @ 40°F return gas (65°F return gas for performance in **bold**), 5°F subcooling.

## Copeland Scroll™ air-cooled condensing units

### Capacity Data

MED/HIGH TEMP		Capacity (BTU/Hr) at 110° Ambient - Evaporator Temp (°F)							
Model	BOM	Refrig.	H.P.	-30	-25	-20	-15	-10	-5
FPAK-010Z-CFV,TFC,TFD	072	134a	1						
		404A	1				3,960	4,350	4,760
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4						
		404A	1-1/4					4,930	5,380
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3						
		404A	1-1/3			6,020	6,650	7,330	8,040
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2						
		404A	1-1/2				7,310	8,030	8,790
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2						
		404A	2			9,040	10,000	11,000	12,100
FPAK-039Z-CFV,TFC,TFD	071	134a	4						
		404A	4			11,400	12,700	14,000	15,400

Model	BOM	Refrig.	H.P.	0	+5	+10	+15	+20
FPAK-010Z-CFV,TFC,TFD	072	134a	1			4,410	4,900	5,410
		404A	1	5,180				
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4				5,680	6,260
		404A	1-1/4	5,820				
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3			7,320	8,130	9,000
		404A	1-1/3	8,770				
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2			8,120	9,010	9,950
		404A	1-1/2	9,560				
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2			11,100	12,300	13,600
		404A	2	13,200				
FPAK-039Z-CFV,TFC,TFD	071	134a	4			14,000	15,500	17,200
		404A	4	16,800				

Model	BOM	Refrig.	H.P.	+25	+30	+35	+40	+45
FPAK-010Z-CFV,TFC,TFD	072	134a	1	<b>6,210</b>	<b>6,820</b>	<b>7,470</b>	<b>8,160</b>	<b>8,900</b>
		404A	1					
FPAK-012Z-CFV,TFC,TFD	072	134a	1-1/4	<b>7,160</b>	<b>7,850</b>	<b>8,570</b>	<b>9,350</b>	<b>10,200</b>
		404A	1-1/4					
FPAK-013Z-CFV,TFC,TFD	072, 075	134a	1-1/3	<b>10,300</b>	<b>11,400</b>	<b>12,500</b>	<b>13,600</b>	<b>14,900</b>
		404A	1-1/3					
FPAK-015Z-CFV,TFC,TFD	072, 075	134a	1-1/2	<b>11,400</b>	<b>12,500</b>	<b>13,700</b>	<b>15,000</b>	<b>16,300</b>
		404A	1-1/2					
FPAK-020Z-CFV,TFC,TFD	071, 072	134a	2	<b>15,600</b>	<b>17,200</b>	<b>18,800</b>	<b>20,600</b>	<b>22,500</b>
		404A	2					
FPAK-039Z-CFV,TFC,TFD	071	134a	4	<b>19,700</b>	<b>21,700</b>	<b>23,900</b>	<b>26,200</b>	<b>28,600</b>
		404A	4					

Performance @ 40°F return gas (65°F return gas for performance in **bold**), 5°F subcooling.

# Copeland Scroll™ air-cooled condensing units

## Physical and Electrical Data

Model	Refrig.	Comp	Overall Dimensions (in)			Refrigerant Connecting Lines (in)		Minimum Circuit Ampacity - Max Fuse Size				Pump Down Capacity (lbs)	Ship Weight (lbs)
			L	W	H	Suction	Liquid	208/230-1	230-3	460-3	575-3		
FPAK-010Z-CFV,TFC,TFD	134a	ZS09KAE-PFV, TF5, TFD	24.0	17.1	16.6	5/8	3/8	13.7-20	11.2-15	5.5-15		7.4	98
	404A											6.3	
FPAK-012Z-CFV,TFC,TFD	134a	ZS11KAE-PFV, TF5, TFD	24.0	17.1	16.6	5/8	3/8	16.9-25	14.2-20	6.2-15		7.4	103
	404A											6.3	
FPAK-013Z-CFV,TFC,TFD	134a	ZS15KAE-PFV, TF5, TFD	24.1	18.3	16.6	5/8	3/8	21-35	14.7-20	8.4-15		7.4	109
	404A											6.3	
FPAK-015Z-CFV,TFC,TFD	134a	ZS19KAE-PFV, TF5, TFD	24.1	18.3	16.6	5/8	3/8	23.9-40	18.5-30	9.7-15		7.4	117
	404A											6.3	
FPAK-020Z-CFV,TFC,TFD	134a	ZS21KAE-PFV, TF5, TFD	25.0	34.1	19	5/8	3/8	31.8-50	21.8-30	11.8-15		12.9	197
	404A											11.1	
FPAK-039Z-CFV,TFC,TFD	134a	ZS29KAE-PFV, TF5, TFD	25.2	34.1	19	5/8	3/8	35.4-50	28.4-45	15-20		12.9	218
	404A											11.1	



NOTE:  
See appendix  
for Flex-Line  
hood information



### Hood Selection

Copeland™ Model	Flex-Line Hood
FPAK-010Z	505-7066-01
FFAK-012Z	505-7066-01
FFAK-013Z	505-7066-01
FFAK-015Z	505-7066-01
FFAK-020Z	505-7066-02
FFAK-039Z	505-7066-02

### Emerson™ Electronic Unit Controller

Part #	Description
943-0152-00	115V Electronic Unit Controller
943-0153-00	230V Electronic Unit Controller
943-0154-00	115V Electronic Unit Controller with Fan Cycling
943-0155-00	230V Electronic Unit Controller with Fan Cycling
929-0114-00	Electronic Unit Controller Suction Pressure Transducer (150 PSIA)
929-0113-00	DLT Sensor Kit

## Unit cross reference

Status	Product Number	Length (in)	Width (in)	Height (in)	Refrigerant	Application	Capacity	MCA / Fuse
Obsolete	F3AD-B151-CFV	24	18.3	16.9	22	HT	11300	14.2 - 20
Active	FFAP-015Z-CFV	24	18.3	16.6	22	HT	11400	13.9 - 20
Obsolete	FGAH-A151-CFV	24	18.3	16.9	22	HT	11300	14.2 - 20
Active	FFAP-015Z-CFV	24	18.3	16.6	22	HT	11400	13.9 - 20
Obsolete	F3AD-B151-TFC	24	18.3	16.9	22	HT	11300	10.4 - 15
Active	FFAP-015Z-TFC	24	18.3	16.6	22	HT	11400	11.4 - 15
Obsolete	FGAH-A151-TFC	24	18.3	16.9	22	HT	11300	10.4 - 15
Active	FFAP-015Z-TFC	24	18.3	16.6	22	HT	11400	11.4 - 15
Obsolete	F3AD-B151-TFD	24	18.3	16.9	22	HT	11100	5.4 - 15
Active	FFAP-015Z-TFD	24	18.3	16.6	22	HT	11400	6.4 - 15
Obsolete	FGAH-A151-TFD	24	18.3	16.9	22	HT	11300	5.4 - 15
Active	FFAP-015Z-TFD	24	18.3	16.6	22	HT	11400	6.4 - 15
Obsolete	F3WD-C151-CFV	24	16.1	15	22	HT	13500	11.3 - 20
Active	FFWP-015Z-CFV	24	16.1	16.6	22	HT	12100	12.5 - 20
Obsolete	FGWH-A151-CFV	24	16.7	14.3	22	HT	13500	11.3 - 20
Active	FFWP-015Z-CFV	24	16.1	16.6	22	HT	12100	12.5 - 20
Obsolete	F3WD-C151-TFC	24	16.1	14.2	22	HT	13500	7.5 - 15
Active	FFWP-015Z-TFC	24	16.1	16.6	22	HT	12100	10 - 15
Obsolete	FGWH-A151-TFC	24	16.7	14.3	22	HT	13500	7.5 - 15
Active	FFWP-015Z-TFC	24	16.1	16.6	22	HT	12100	10 - 15
Obsolete	F3WD-C151-TFD	24	16.1	15.4	22	HT	13500	3.8 - 15
Active	FFWP-015Z-TFD	24	16.1	16.6	22	HT	12100	4.8 - 15
Obsolete	FGWH-A151-TFD	24	16.7	15.4	22	HT	13500	3.8 - 15
Active	FFWP-015Z-TFD	24	16.1	16.6	22	HT	12100	4.8 - 15
Obsolete	F3AD-B201-CFV	25	34	19	22	HT	15400	19.2 - 30
Active	FFAP-020Z-CFV	25.2	34	19	22	HT	15200	16.8 - 25
Obsolete	FGAH-A201-CFV	25	34	19	22	HT	15400	19.2 - 30
Active	FFAP-020Z-CFV	25.2	34	19	22	HT	15200	16.8 - 25
Obsolete	FGAH-A201-TFD	25	34	19	22	HT	15400	6.1 - 15
Active	FFAP-020Z-TFD	25.2	34	19	22	HT	15200	7.1 - 15
Obsolete	FGAH-A201-TFC	25	34	19	22	HT	15400	11.7 - 15
Active	FFAP-020Z-TFC	25.2	34	19	22	HT	15200	13.9 - 20
Obsolete	F3AD-B201-TFD	25	34	19	22	HT	15800	6.1 - 15
Active	FFAP-020Z-TFD	25.2	34	19	22	HT	15200	7.1 - 15
Obsolete	F3AD-B201-TFC	25	34	19	22	HT	15800	11.7 - 15
Active	FFAP-020Z-TFC	25.2	34	19	22	HT	15200	13.9 - 20
Obsolete	F3WD-C201-CFV	24	16.1	15	22	HT	16900	16.9 - 30
Active	FFWP-020Z-CFV	24	16.1	16.6	22	HT	16400	15 - 25
Obsolete	FGWH-A201-CFV	24	16.7	15	22	HT	16900	16.9 - 30
Active	FFWP-020Z-CFV	24	16.1	16.6	22	HT	16400	15 - 25
Obsolete	F3WD-C201-TFC	24	16.1	14.2	22	HT	16900	9.4 - 15
Active	FFWP-020Z-TFC	24	16.1	16.6	22	HT	16400	12.1 - 20
Obsolete	FGWH-A201-TFC	24	16.7	14.3	22	HT	16900	9.4 - 15
Active	FFWP-020Z-TFC	24	16.1	16.6	22	HT	16400	12.1 - 20
Obsolete	F3WD-C201-TFD	24	16.1	15.4	22	HT	16900	4.6 - 15
Active	FFWP-020Z-TFD	24	16.1	16.6	22	HT	16400	6 - 15
Obsolete	FGWH-A201-TFD	24	16.7	15.4	22	HT	16900	4.6 - 15
Active	FFWP-020Z-TFD	24	16.1	16.6	22	HT	16400	6 - 15
Obsolete	F3AD-B225-CFV	25.1	34.1	19	22	HT	17100	21.1 - 30
Active	FFAP-022Z-CFV	25.2	34	19	22	HT	18300	22.4 - 35
Obsolete	F3AD-B225-TFD	25.1	34.1	19	22	HT	17100	7.0 - 15
Active	FFAP-022Z-TFD	25.2	34	19	22	HT	18300	10 - 15

Performance @ 25°F evaporator temp, 65°F return gas, 5°F subcooling, 90°F ambient.

## Unit cross reference

Status	Product Number	Length (in)	Width (in)	Height (in)	Refrigerant	Application	Capacity	MCA / Fuse
Obsolete	F3AD-B225-TFC	25.1	34.1	19	22	HT	17100	13.3 - 15
Active	FFAP-022Z-TFC	25.2	34	19	22	HT	18300	16.1 - 20
Obsolete	FGAH-A225-CFV	25.1	34.1	19	22	HT	18100	21.1 - 30
Active	FFAP-022Z-CFV	25.2	34	19	22	HT	18300	22.4 - 35
Obsolete	FGAH-A225-TFC	25.1	34.1	19	22	HT	18100	13.3 - 15
Active	FFAP-022Z-TFC	25.2	34	19	22	HT	18300	16.1 - 20
Obsolete	FGAH-A225-TFD	25.1	34.1	19	22	HT	18100	7.0 - 15
Active	FFAP-022Z-TFD	25.2	34	19	22	HT	18300	10 - 15
Obsolete	F3WD-C225-CFV	24	16.1	15	22	HT	19300	18.8 - 30
Active	FFWP-022Z-CFV	24	16.1	16.6	22	HT	19200	19.6 - 35
Obsolete	FGWH-A225-CFV	24	16.7	15	22	HT	19300	18.8 - 30
Active	FFWP-022Z-CFV	24	16.1	16.6	22	HT	19200	19.6 - 35
Obsolete	F3WD-C225-TFC	24	16.1	14.6	22	HT	19300	11.0 - 15
Active	FFWP-022Z-TFC	24	16.1	16.6	22	HT	19200	13.3 - 20
Obsolete	FGWH-A225-TFC	24	16.7	14.6	22	HT	19300	11.0 - 15
Active	FFWP-022Z-TFC	24	16.1	16.6	22	HT	19200	13.3 - 20
Obsolete	F3AD-B301-CFV	25.2	34.1	19.1	22	HT	24600	28.9 - 40
Active	FFAP-032Z-CFV	25.2	34.1	19	22	HT	27400	31.8 - 50
Obsolete	FGAH-A301-CFV	25.2	34.1	19.1	22	HT	24600	28.9 - 40
Active	FFAP-032Z-CFV	25.2	34.1	19	22	HT	27400	31.8 - 50
Obsolete	F3AD-B301-TFC	25.2	34.1	19.1	22	HT	24600	19.7 - 20
Active	FFAP-032Z-TFC	25.2	34.1	19	22	HT	27400	21.8 - 30
Obsolete	FGAH-A301-TFC	25.2	34.1	19.1	22	HT	24600	19.7 - 20
Active	FFAP-032Z-TFC	25.2	34.1	19	22	HT	27400	21.8 - 30
Obsolete	F3AD-B301-TFD	25.2	34.1	19.1	22	HT	24600	10.2 - 15
Active	FFAP-032Z-TFD	25.2	34.1	19	22	HT	27400	11.8 - 15
Obsolete	FGAH-A301-TFD	25.2	34.1	19.1	22	HT	24600	10.2 - 15
Active	FFAP-032Z-TFD	25.2	34.1	19	22	HT	27400	11.8 - 15
Obsolete	FGAH-A325-TFD	25.2	34.1	18.9	22	HT	26400	10.6 - 15
Active	FFAP-032Z-TFD	25.2	34.1	19	22	HT	27400	11.8 - 15
Obsolete	FGAH-A325-CFV	25.2	34.1	18.9	22	HT	26400	30.1 - 40
Active	FFAP-032Z-CFV	25.2	34.1	19	22	HT	27400	31.8 - 50
Obsolete	FGAH-A325-TFC	25.2	34.1	18.9	22	HT	26400	22.2 - 25
Active	FFAP-032Z-TFC	25.2	34.1	19	22	HT	27400	21.8 - 30
Obsolete	F3AD-B325-CFV	25.2	34.1	18.9	22	HT	26500	30.1 - 40
Active	FFAP-032Z-CFV	25.2	34.1	19	22	HT	27400	31.8 - 50
Obsolete	F3AD-B325-TFC	25.2	34.1	18.9	22	HT	26500	22.2 - 25
Active	FFAP-032Z-TFC	25.2	34.1	19	22	HT	27400	21.8 - 30
Obsolete	F3AD-B325-TFD	25.2	34.1	18.9	22	HT	26500	10.6 - 15
Active	FFAP-032Z-TFD	25.2	34.1	19	22	HT	27400	11.8 - 15
Obsolete	F3WD-C301-CFV	26.2	21	15.4	22	HT	27300	23.1 - 40
Active	FFWP-032Z-CFV	27.2	21.5	18.2	22	HT	29400	23.1 - 40
Obsolete	FGWH-A301-CFV	25	21	15.5	22	HT	27300	23.1 - 40
Active	FFWP-032Z-CFV	27.2	21.5	18.2	22	HT	29400	23.1 - 40
Obsolete	F3WD-C301-TFC	25	21	15.8	22	HT	27300	13.9 - 20
Active	FFWP-032Z-TFC	27.2	21.5	18.2	22	HT	29400	13.9 - 20
Obsolete	FGWH-A301-TFC	25	21	15.8	22	HT	27300	13.9 - 20
Active	FFWP-032Z-TFC	27.2	21.5	18.2	22	HT	29400	13.9 - 20
Obsolete	F3WD-C301-TFD	25	21	15.8	22	HT	27300	7.0 - 15
Active	FFWP-032Z-TFD	27.2	21.5	18.2	22	HT	29400	7 - 15
Obsolete	FGWH-A301-TFD	25	21	15.8	22	HT	27300	7.0 - 15
Active	FFWP-032Z-TFD	27.2	21.5	18.2	22	HT	29400	7 - 15

Performance @ 25°F evaporator temp, 65°F return gas, 5°F subcooling, 90°F ambient.

## Unit cross reference

Status	Product Number	Length (in)	Width (in)	Height (in)	Refrigerant	Application	Capacity	MCA / Fuse
Obsolete	F3WD-C325-CFV	26.2	21	15.4	22	HT	29700	24.3 - 40
Active	FFWP-032Z-CFV	27.2	21.5	18.2	22	HT	29400	23.1 - 40
Obsolete	F3WD-C325-TFC	25	21	16.1	22	HT	29700	16.4 - 25
Active	FFWP-032Z-TFC	27.2	21.5	18.2	22	HT	29400	13.9 - 20
Obsolete	F3WD-C325-TFD	25	21	16.1	22	HT	29700	7.4 - 15
Active	FFWP-032Z-TFD	27.2	21.5	18.2	22	HT	29400	7 - 15
Obsolete	FGWH-A325-TFD	25	21	15.5	22	HT	30200	7.4 - 15
Active	FFWP-032Z-TFD	27.2	21.5	18.2	22	HT	29400	7 - 15
Obsolete	FGWH-A325-TFC	25	21	15.5	22	HT	30200	16.4 - 25
Active	FFWP-032Z-TFC	27.2	21.5	18.2	22	HT	29400	13.9 - 20
Obsolete	FGWH-A325-CFV	25	21	15.5	22	HT	30200	24.3 - 40
Active	FFWP-032Z-CFV	27.2	21.5	18.2	22	HT	29400	23.1 - 40
Obsolete	FGAH-A401-CFV	24	18.3	16.1	22	HT	37500	39.9 - 60
Active	FFAP-042Z-CFV	24	18.3	16.1	22	HT	38700	38.9 - 60
Obsolete	FGAH-A401-CFV	24	18.3	16.1	22	HT	37500	39.9 - 60
Active	FFAP-042Z-CFV	24	18.3	16.1	22	HT	38700	38.9 - 60
Obsolete	FGAH-A401-TFC	28.2	44.1	26.8	22	HT	37500	26.1 - 40
Active	FFAP-042Z-TFC	24	18.3	16.1	22	HT	38700	31.5 - 50
Obsolete	F3AD-B401-TFC	28.2	44.1	26.9	22	HT	37600	26.1 - 40
Active	FFAP-042Z-TFC	24	18.3	16.1	22	HT	38700	31.5 - 50
Obsolete	F3WD-C401-CFV	26.8	21	21.1	22	HT	39400	36.3 - 60
Active	FFWP-042Z-CFV	27.2	21.6	21.1	22	HT	40500	35.3 - 60
Obsolete	FGWH-A401-CFV	26.8	21	21.1	22	HT	39400	36.3 - 60
Active	FFWP-042Z-CFV	27.2	21.6	21.1	22	HT	40500	35.3 - 60
Obsolete	F3WD-C401-TFC	26.8	21	21.1	22	HT	39400	22.5 - 40
Active	FFWP-042Z-TFC	27.2	21.6	21.1	22	HT	40500	27.9-50
Obsolete	FGWH-A401-TFC	26.8	21	21.1	22	HT	39400	22.5 - 40
Active	FFWP-042Z-TFC	27.2	21.6	21.1	22	HT	40500	27.9-50
Obsolete	F3AD-A501-TFC	28.6	44.1	26.9	22	HT	42700	30.3 - 45
Active	FFAP-050Z-TFC	28.6	44.1	26.9	22	HT	43100	30.4 -45
Obsolete	F3AD-A501-TFD	28.6	44.1	26.9	22	HT	42700	14.4 - 20
Active	FFAP-050Z-TFD	28.6	44.1	26.9	22	HT	43100	14.4 - 20
Obsolete	F3AD-A501-CFV	28.6	44.1	26.9	22	HT	42700	46.4 - 70
Active	FFAP-050Z-CFV	28.6	44.1	26.9	22	HT	43100	43.4 - 70
Obsolete	FGAH-A501-CFV	28.6	44.1	26.9	22	HT	43200	46.5 - 70
Active	FFAP-050Z-CFV	28.6	44.1	26.9	22	HT	43100	43.4 - 70
Obsolete	FGAH-A501-TFC	28.6	44.1	26.9	22	HT	43200	30.4 - 45
Active	FFAP-050Z-TFC	28.6	44.1	26.9	22	HT	43100	30.4 - 45
Obsolete	FGAH-A501-TFD	28.6	44.1	26.9	22	HT	43200	14.4 - 20
Active	FFAP-050Z-TFD	28.6	44.1	26.9	22	HT	43100	14.4 - 20
Obsolete	F3WD-C501-CFV	25.8	21.8	21.1	22	HT	45100	42.9 - 70
Active	FFWP-050Z-CFV	27.5	21.7	21.1	22	HT	44800	39.8 - 70
Obsolete	FGWH-A501-CFV	25.8	21.8	21.1	22	HT	45100	42.9 - 70
Active	FFWP-050Z-CFV	27.5	21.7	21.1	22	HT	44800	39.8 - 70
Obsolete	F3WD-C501-TFC	25.8	21.8	21.1	22	HT	45100	26.8 - 45
Active	FFWP-050Z-TFC	27.5	21.7	21.1	22	HT	44800	26.8 - 45
Obsolete	FGWH-A501-TFC	25.8	21.8	21.1	22	HT	45100	26.8 - 45
Active	FFWP-050Z-TFC	27.5	21.7	21.1	22	HT	44800	26.8 - 45
Obsolete	F3WD-C501-TFD	25.8	21.8	21.1	22	HT	45100	12.0 - 20
Active	FFWP-050Z-TFD	27.5	21.7	21.1	22	HT	44800	12 - 20
Obsolete	FGWH-A501-TFD	25.8	21.8	21.1	22	HT	45100	12.0 - 20
Active	FFWP-050Z-TFD	27.5	21.7	21.1	22	HT	44800	12 - 20

Performance @ 25°F evaporator temp, 65°F return gas, 5°F subcooling, 90°F ambient.



## Unit cross reference

Status	Product Number	Length (in)	Width (in)	Height (in)	Refrigerant	Application	Capacity	MCA / Fuse
Obsolete	FTAH-A101-CFV	24	16.8	15.9	134A	HT	7770	14.8-20
Active	FPAK-012Z-CFV	24	17.1	16.6	134A	HT	8250	16.9-25
Active	FFAP-015Z-CFV	24	18.3	16.6	134A	HT	7540	13.9 - 20
Obsolete	FTAH-A101-TFC	24	16.8	15.9	134A	HT	7770	10.5-15
Active	FPAK-012Z-TFC	24	17.1	16.6	134A	HT	8250	14.2-20
Active	FFAP-015Z-TFC	24	18.3	16.6	134A	HT	7540	11.4 - 15
Obsolete	FTAH-A101-TFD	24	16.8	15.9	134A	HT	7770	5.2-15
Active	FPAK-012Z-TFD	24	17.1	16.6	134A	HT	8250	6.2-15
Active	FFAP-015Z-TFD	24	18.3	16.6	134A	HT	7540	6.4 - 15
Obsolete	FPWN-C150-TFC	24	16.2	17	134A	HT	8900	9.4-15
Active	FFWP-017Z-TFC	24	16.1	16.6	134A	HT	9090	13 - 20
Obsolete	FPWN-C150-CFV	24	16.2	17	134A	HT	8900	13.6-20
Active	FFWP-017Z-CFV	24	16.1	16.6	134A	HT	9090	15.8 - 25
Obsolete	FPWN-C150-TFD	24	16.2	17	134A	HT	8900	4.5-15
Active	FFWP-017Z-TFD	24	16.1	16.6	134A	HT	9090	5.4 - 15
Obsolete	FTAH-A125-CFV	24	18.3	16.2	134A	HT	11200	18.4-25
Active	FPAK-013Z-CFV	24.1	18.3	16.6	134A	HT	11800	21-35
Active	FFAP-022Z-CFV	25.2	34	19	134A	HT	12300	22.4 - 35
Obsolete	FTAH-A125-TFC	24	18.3	16.2	134A	HT	11200	14.3-20
Active	FPAK-013Z-TFC	24.1	18.3	16.6	134A	HT	11800	14.7-20
Active	FFAP-022Z-TFC	25.2	34	19	134A	HT	12300	16.1 - 20
Obsolete	FTAH-A125-TFD	24	18.3	16.2	134A	HT	11200	7.5-15
Active	FPAK-013Z-TFD	24.1	18.3	16.6	134A	HT	11800	8.4-15
Active	FFAP-022Z-TFD	25.2	34	19	134A	HT	12300	10 - 15
Obsolete	FPWN-C225-TFD	24	16.1	14.6	134A	HT	12500	5.9-15
Active	FFWP-022Z-TFD	24	16.1	16.6	134A	HT	12500	6.8-15
Obsolete	FTAH-A150-CFV	24	18.3	16.2	134A	HT	13300	21.4-35
Active	FPAK-015Z-CFV	24.1	18.3	16.6	134A	HT	13100	23.9-40
Active	FFAP-030Z-CFV	25.2	34.1	19	134A	HT	14100	25.3 - 40
Obsolete	FTAH-A150-TFC	24	18.3	16.2	134A	HT	13300	15.9-20
Active	FPAK-015Z-TFC	24.1	18.3	16.6	134A	HT	13100	18.5-30
Active	FFAP-030Z-TFC	25.2	34.1	19	134A	HT	14100	19.9 - 30
Obsolete	FTAH-A150-TFD	24	18.3	16.2	134A	HT	13300	7.5-15
Active	FPAK-015Z-TFD	24.1	18.3	16.6	134A	HT	13100	9.7-15
Active	FFAP-030Z-TFD	25.2	34.1	19	134A	HT	14100	11.3 - 15
Obsolete	FPWN-C300-TFC	24	16.9	14.8	134A	HT	15900	13.0-20
Active	FFWP-030Z-TFC	24.1	16.1	16.6	134A	HT	14100	13.3-20
Obsolete	FPWN-C300-CFV	24	16.9	15	134A	HT	15900	20.0-35
Active	FFWP-030Z-CFV	24.1	16.1	16.6	134A	HT	14100	22.5-40
Obsolete	FPWN-C300-TFD	24	16.9	14.8	134A	HT	15900	5.9-15
Active	FFWP-030Z-TFD	24.1	16.1	16.6	134A	HT	14100	6.8-15
Obsolete	FTAH-A201-CFV	25.3	34.1	18.9	134A	HT	16400	29.1-40
Active	FPAK-020Z-CFV	25	34.1	19	134A	HT	17700	31.8-50
Active	FFAP-032Z-CFV	25.2	34.1	19	134A	HT	18500	31.8 - 50
Obsolete	FTAH-A201-TFC	25.3	34.1	18.9	134A	HT	16400	20.0-25
Active	FPAK-020Z-TFC	25	34.1	19	134A	HT	17700	21.8-30
Active	FFAP-032Z-TFC	25.2	34.1	19	134A	HT	18500	21.8 - 30
Obsolete	FTAH-A201-TFD	25.3	34.1	18.9	134A	HT	16400	9.6-15
Active	FPAK-020Z-TFD	25	34.1	19	134A	HT	17700	11.8-15
Active	FFAP-032Z-TFD	25.2	34.1	19	134A	HT	18500	11.8 - 15
Obsolete	FPWN-C325-CFV	26.2	21	15.5	134A	HT	17800	23.3-40
Active	FFWP-032Z-CFV	27.2	21.5	18.2	134A	HT	19000	23.1 - 40
Obsolete	FPWN-C325-TFC	25	21	15.8	134A	HT	17800	14.3-25
Active	FFWP-032Z-TFC	27.2	21.5	18.2	134A	HT	19000	13.9 - 20

Performance @ 25°F evaporator temp, 65°F return gas, 5°F subcooling, 90°F ambient.

## Unit cross reference

Status	Product Number	Length (in)	Width (in)	Height (in)	Refrigerant	Application	Capacity	MCA / Fuse
Obsolete	FJAL-A103-CFV	24	17.3	15	404A	LT	4950	13.2-20
Active	FPAK-010Z-CFV	24	17.1	16.6	404A	LT	5290	13.7-20
Active	FFAP-015Z-CFV	24	18.3	16.6	404A	LT	5600	13.9 - 20
Obsolete	FJAL-A103-TFC	24	17.3	15	404A	LT	4950	9.2-15
Active	FPAK-010Z-TFC	24	17.1	16.6	404A	LT	5290	11.2-15
Active	FFAP-015Z-TFC	24	18.3	16.6	404A	LT	5600	11.4 - 15
Obsolete	FJWL-C103-CFV	24	16.4	15	404A	LT	5550	12.6-20
Active	FFWP-015Z-CFV	24	16.1	16.6	404A	LT	5240	12.5 - 20
Obsolete	FJWL-C103-TFC	24	16.1	14.6	404A	LT	5550	8.6-15
Active	FFWP-015Z-TFC	24	16.1	16.6	404A	LT	5240	10 - 15
Obsolete	FJAL-A150-CFV	24	18.2	17.2	404A	LT	6290	18.4-30
Active	FPAK-012Z-CFV	24	17.1	16.6	404A	LT	6060	16.9-25
Active	FFAP-015Z-CFV	24	18.3	16.6	404A	LT	5600	13.9 - 20
Obsolete	FJAL-A250-CFV	24	16.8	13.6	404A	LT	8110	22.9-35
Active	FPAK-013Z-CFV	24.1	18.3	16.6	404A	LT	8850	21-35
Active	FFAP-020Z-CFV	25.2	34	19	404A	LT	7560	16.8 - 25
Obsolete	FJAL-A250-TFC	24	18.3	16.2	404A	LT	8110	15.9-20
Active	FPAK-013Z-TFC	24.1	18.3	16.6	404A	LT	8850	14.7-20
Active	FFAP-020Z-TFC	25.2	34	19	404A	LT	7560	13.9 - 20
Obsolete	FJAL-B200-CFV	24.1	18.3	16.2	404A	LT	8260	17.2-25
Active	FPAK-013Z-CFV	24.1	18.3	16.6	404A	LT	8850	21-35
Active	FFAP-020Z-CFV	25.2	34	19	404A	LT	7560	16.8 - 25
Obsolete	FJAL-B200-TFC	24.1	18.3	16.2	404A	LT	8260	11.7-15
Active	FPAK-013Z-TFC	24.1	18.3	16.6	404A	LT	8850	14.7-20
Active	FFAP-020Z-TFC	25.2	34	19	404A	LT	7560	13.9 - 20
Obsolete	FJAL-B200-TFD	24.1	16.2	16.2	404A	LT	8260	6.2-15
Active	FPAK-013Z-TFD	24.1	18.3	16.6	404A	LT	8850	8.4-15
Active	FFAP-020Z-TFD	25.2	34	19	404A	LT	7560	7.1 - 15
Obsolete	FJAL-A225-CFV	25.2	34	18.9	404A	LT	9010	16.6-25
Active	FFAP-022Z-CFV	25.2	34	19	404A	LT	9210	22.4 - 35
Active	FPAK-013Z-CFV	24.1	18.3	16.6	404A	LT	8850	21-35
Obsolete	FJAL-A225-TFD	25.2	34	18.9	404A	LT	9010	6.1-15
Active	FFAP-022Z-TFD	25.2	34	19	404A	LT	9210	10 - 15
Active	FPAK-013Z-TFD	24.1	18.3	16.6	404A	LT	8850	8.4-15
Obsolete	FJAL-A225-TFC	25.2	34	18.9	404A	LT	9010	11.1-15
Active	FFAP-022Z-TFC	25.2	34	19	404A	LT	9210	16.1 - 20
Active	FPAK-013Z-TFC	24.1	18.3	16.6	404A	LT	8850	14.7-20
Obsolete	FJWL-C200-TFD	24	16.4	15.4	404A	LT	9090	5.4-15
Active	FFWP-022Z-TFD	24	16.1	16.6	404A	LT	8600	6.8-15
Obsolete	FJWL-C200-TFC	24	16.4	14.6	404A	LT	9090	9.3-15
Active	FFWP-022Z-TFC	24	16.1	16.6	404A	LT	8600	13.3 - 20
Obsolete	FJWL-C200-CFV	24	16.4	15	404A	LT	9090	14.8-25
Active	FFWP-022Z-CFV	24	16.1	16.6	404A	LT	8600	19.6 - 35
Obsolete	FJWL-C301-TFC	25	21	21.1	404A	LT	9090	9.3-15
Active	FFWP-030Z-TFC	24.1	16.1	16.6	404A	LT	10300	13.3-20
Obsolete	FJAL-B301-TFC	25.2	34	19	404A	LT	13100	18.6-20
Active	FFAP-032Z-TFC	25.2	34.1	19	404A	LT	13700	21.8 - 30
Active	FPAK-020Z-TFC	25	34.1	19	404A	LT	13300	21.8-30
Obsolete	FJAL-B301-CFV	25.2	34	19	404A	LT	13100	26.7-35
Active	FFAP-032Z-CFV	25.2	34.1	19	404A	LT	13700	31.8 - 50
Active	FPAK-020Z-CFV	25	34.1	19	404A	LT	13300	31.8-50
Obsolete	FJAL-B301-TFD	25.2	34	19	404A	LT	13100	10.1-15
Active	FFAP-032Z-TFD	25.2	34.1	19	404A	LT	13700	11.8 - 15
Active	FPAK-039Z-TFD	25.2	34.1	19	404A	LT	16900	15-20
Obsolete	FJWL-C301-CFV	25	21	21.1	404A	LT	13200	21.4-35
Active	FFWP-032Z-CFV	27.2	21.5	18.2	404A	LT	13300	23.1 - 40
Obsolete	FJWL-C301-TFD	25	21	21.1	404A	LT	13200	7.6-15
Active	FFWP-032Z-TFD	27.2	21.5	18.2	404A	LT	13300	7 - 15
Obsolete	FJAL-A390-TFC	25.2	34	19	404A	LT	16000	21.2-25
Active	FPAK-039Z-TFC	25.2	34.1	19	404A	LT	16900	28.4-45
Active	FFAP-040Z-TFC	28.2	44.1	26.8	404A	LT	15700	23 - 35
Obsolete	FJAL-A390-CFV	25.2	34	19	404A	LT	16000	31.4-45
Active	FPAK-039Z-CFV	25.2	34.1	19	404A	LT	16900	35.4-50
Active	FFAP-040Z-CFV	28.2	44.1	26.8	404A	LT	15700	33.1 - 50
Obsolete	FJAL-A390-TFD	25.2	34	19	404A	LT	16000	11.5-15
Active	FPAK-039Z-TFD	25.2	34.1	19	404A	LT	16900	15-20
Active	FFAP-040Z-TFD	28.2	44.1	26.8	404A	LT	15700	11 - 15
Obsolete	FJWL-C390-TFC	25	21	21.1	404A	LT	16700	15.9-25
Active	FFWP-040Z-TFC	27.5	21	21.1	404A	LT	15200	19.4-30

Performance @ -10°F evaporator temp, 40°F return gas, 5°F subcooling, 90°F ambient.

## Unit cross reference

Status	Product Number	Length (in)	Width (in)	Height (in)	Refrigerant	Application	Capacity	MCA / Fuse
Obsolete	FJAM-A150-CFV	24	18.3	16.4	404A	MT	12500	16.5-20
Active	FFAP-017Z-CFV	24.1	18.3	16.6	404A	MT	13100	17.2 - 25
Obsolete	FJAM-A150-TFC	24	18.3	16.2	404A	MT	12500	12.2-15
Active	FFAP-017Z-TFC	24.1	18.3	16.6	404A	MT	13100	14.4 - 20
Obsolete	FJAM-A150-TFD	24.1	18.3	16.9	404A	MT	12500	6.1-15
Active	FFAP-017Z-TFD	24.1	18.3	16.6	404A	MT	13100	7.0 - 15
Obsolete	FJAM-A200-TFC	25.2	34	18.9	404A	MT	16100	11.7-15
Active	FFAP-020Z-TFC	25.2	34	19	404A	MT	15300	13.9 - 20
Obsolete	FJAM-A200-CFV	25.2	34	19	404A	MT	16100	15.9-20
Active	FFAP-020Z-CFV	25.2	34	19	404A	MT	15300	16.8 - 25
Obsolete	FJAM-A225-TFC	25	34	18.9	404A	MT	17900	13.7-20
Active	FFAP-022Z-TFC	25.2	34	19	404A	MT	18900	16.1 - 20
Obsolete	FJAM-A225-CFV	25	34	18.9	404A	MT	17900	17.8-25
Active	FFAP-022Z-CFV	25.2	34	19	404A	MT	18900	22.4 - 35
Obsolete	FJWM-C200-CFV	24	16.8	15	404A	MT	17900	13.6-20
Active	FFWP-020Z-CFV	24	16.1	16.6	404A	MT	17000	15 - 25
Obsolete	FJWM-C200-TFC	24	16.1	13.9	404A	MT	17900	9.4-15
Active	FFWP-020Z-TFC	24	16.1	16.6	404A	MT	17000	12.1 - 20
Obsolete	FJAM-A225-TFD	25	34	18.9	404A	MT	17900	7.4-15
Active	FFAP-022Z-TFD	25.2	34	19	404A	MT	18900	10 - 15
Obsolete	FPWN-C225-TFC	24	16.1	14.2	404A	MT	20900	11.4-20
Active	FFWP-022Z-TFC	24	16.1	16.6	404A	MT	20400	13.3 - 20
Obsolete	FPWN-C225-CFV	24	16.8	15	404A	MT	20900	15.5-25
Active	FFWP-022Z-CFV	24	16.1	16.6	404A	MT	20400	19.6 - 35
Obsolete	FJAM-A300-TFC	25.1	34	18.9	404A	MT	23800	18.8-20
Active	FFAP-030Z-TFC	25.2	34.1	19	404A	MT	21600	19.9 - 30
Obsolete	FJAM-A300-TFD	25.1	34	18.9	404A	MT	23800	9.1-15
Active	FFAP-030Z-TFD	25.2	34.1	19	404A	MT	21600	11.3 - 15
Obsolete	FJAM-A325-CFV	25.2	34	19	404A	MT	26100	29.1-40
Active	FFAP-032Z-CFV	25.2	34.1	19	404A	MT	27300	31.8 - 50
Obsolete	FJAM-A325-TFC	25.2	34	19	404A	MT	26100	20.1-25
Active	FFAP-032Z-TFC	25.2	34.1	19	404A	MT	27300	21.8 - 30
Obsolete	FJAM-A325-TFD	25.2	34	19	404A	MT	26100	9.6-15
Active	FFAP-032Z-TFD	25.2	34.1	19	404A	MT	27300	11.8 - 15
Obsolete	FJAM-B400-TFD	28.2	44.1	26.8	404A	MT	37800	12.0-15
Active	FFAP-040Z-TFD	28.2	44.1	26.8	404A	MT	34200	11 - 15
Obsolete	FJAM-B400-TFC	28.2	44.1	26.8	404A	MT	37800	23.1-35
Active	FFAP-040Z-TFC	28.2	44.1	26.8	404A	MT	34200	23 - 35
Obsolete	FJAM-B500-TFC	28.2	44.1	26.6	404A	MT	41200	27.0-40
Active	FFAP-042Z-TFC	24	18.3	16.1	404A	MT	40800	31.5 - 50
Obsolete	FJAM-B500-TFD	28.2	44.1	26.6	404A	MT	41200	14.8-20
Active	FFAP-042Z-TFD	24	18.3	16.1	404A	MT	40800	14.9 - 20
Obsolete	FJAM-B500-CFV	28.2	44.1	26.8	404A	MT	41200	42.0-60
Active	FFAP-042Z-CFV	24	18.3	16.1	404A	MT	40800	38.9 - 60
Obsolete	FJWM-C400-TFC	26.2	21	21.1	404A	MT	41400	19.5-35
Active	FFWP-042Z-TFC	27.2	21.6	21.1	404A	MT	43000	27.9-50
Obsolete	FJWM-C400-CFV	26.2	21	21.1	404A	MT	41400	29.9-50
Active	FFWP-042Z-CFV	27.2	21.6	21.1	404A	MT	43000	35.3 - 60
Obsolete	FJWM-C500-TFC	25	21.1	21.3	404A	MT	46300	23.4-40
Active	FFWP-042Z-TFC	27.2	21.6	21.1	404A	MT	43000	27.9-50

Performance @ 25°F evaporator temp, 65°F return gas, 5°F subcooling, 90°F ambient.

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