

# Copeland Scroll™ X-Line

## Outdoor Refrigeration Units



### Product Information

Horsepower: 3/4 – 6  
Temperature Applications: Low/Medium/High  
Refrigerants: R-134a, R-22, R-404A, R-407A, R-407C, R-448A, R-449A, R-507  
Installation Applications: A variety of applications including walk-in boxes, display cases, island cases, soft serve

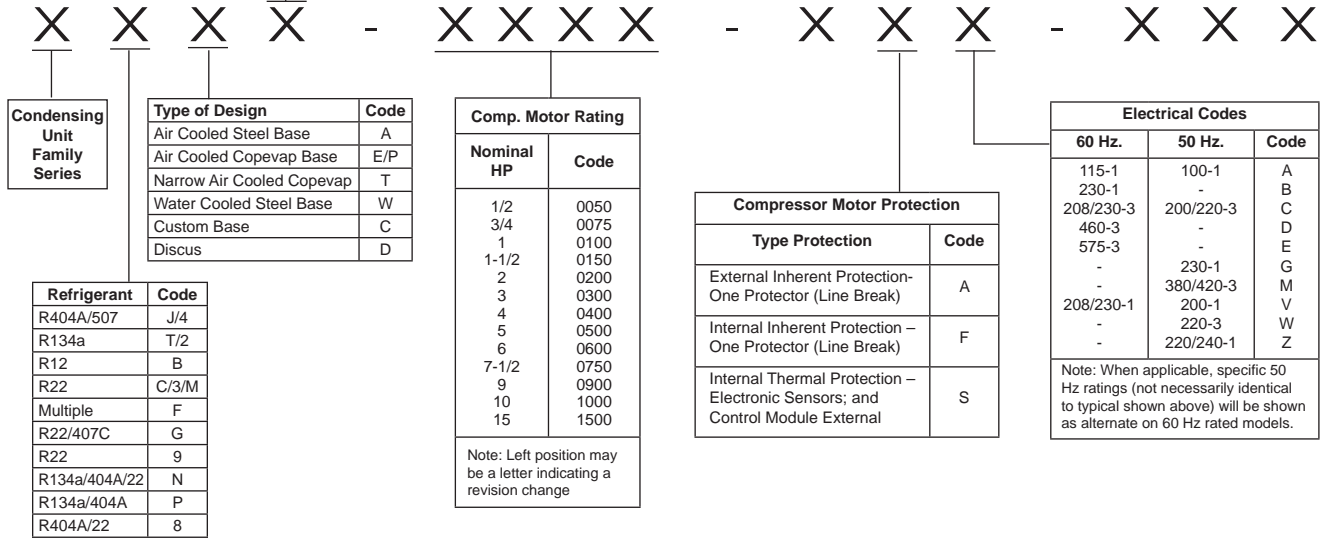


# Nomenclature • Welded Condensing Units

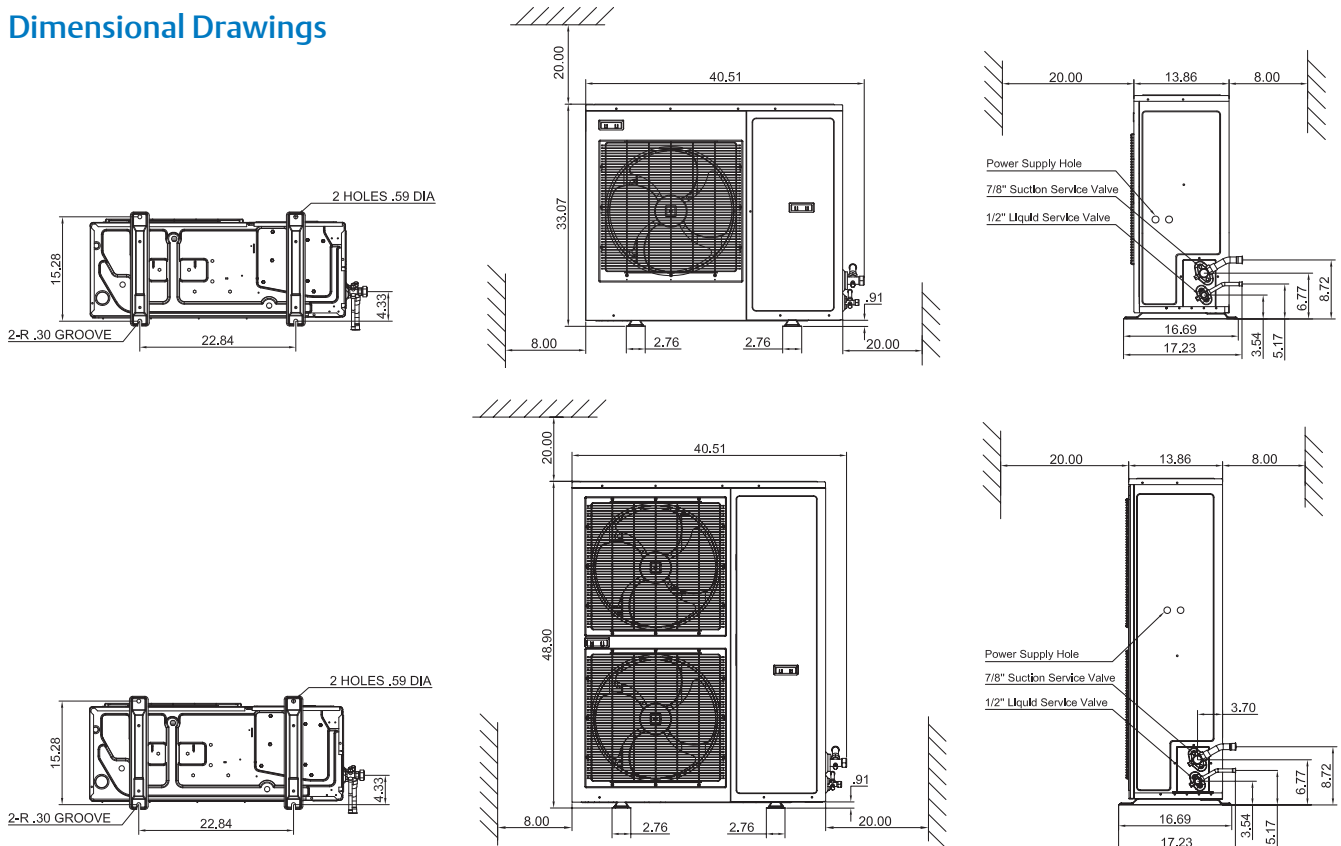
Temperature Application	Code
High Temperature	H
Medium Temperature	M
Low Temperature	L
Extended Medium Temp.	F
Extra Low Temperature	E
Multiple	S
Multiple	N
Multiple	P
R-404A LT and R-134a HT	K

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



## Dimensional Drawings



## Copeland Scroll™ outdoor condensing units

Features	Benefits
Copeland Scroll Compressor Variable Speed Fan Motor	Reliability
	High Energy Efficiency
	Low Sound & Vibration
Advanced Diagnostics and Protection Features	Faster Troubleshooting Warranty Reduction
Factory Installed EK Filter Drier and HMI Moisture Indicator	Fewer Leaks, Reduced Callbacks, Lower Installation Costs, Increased Equipment Reliability, Lower Warranty
Slim Profile Design and Light Weight	Application Flexibility

### Resources and Support

#### EmersonClimate.com/CopelandOutdoorUnit

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

- Application Engineering Bulletins
- Instruction Sheets
- Marketing Brochures
- Videos

##### ■ Product Selection Tools

- Walk-In Box Load Calculator
- Energy Savings Calculator

##### ■ Where to Buy

### Application Engineering Bulletins

- 4-1273 Factors to Consider in Converting Compressor Rated Capacity to Actual Capacity
- 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
- 4-1327 Economized Vapor Injection (EVI) Compressors
- 4-1387 Application Guidelines for ZS\*\*KAE Copeland Scroll™ Refrigeration Compressors 1.3-4.5 HP
- 5-1412 Copeland Scroll Outdoor Refrigeration Unit Installation and Reference Manual
- 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

### Sound Data

	Model	dBa*
<b>MED TEMP</b>	Single fan	55
	Double fan	58
<b>LOW TEMP</b>	Single fan	53
	Double fan	59

Sound pressure values are 10 feet from the unit at 25°F evap for MT and -10°F evap for LT at 90°F ambient. A sound reduction of up to 3 dBA will occur in ambient temperatures below 70°F. This data is typical of “free field” conditions for horizontal air cooled condensing units and may vary depending on the condensing unit installation. There are many factors that affect the sound reading of a condensing unit such as unit mounting, reflecting walls, background noise and operating condition.

Correction Factor	Refrigerant Liquid Temperature °F														
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
R-12	1.60	1.54	1.48	1.42	1.36	1.30	1.24	1.18	1.12	1.06	1.00	.94	.88	.82	.75
R-134a	1.70	1.63	1.56	1.49	1.42	1.36	1.29	1.21	1.14	1.07	1.00	.93	.85	.78	.71
R-22	1.56	1.51	1.45	1.40	1.34	1.29	1.23	1.17	1.12	1.06	1.00	.94	.88	.82	.76
R-404A/R-507	2.00	1.90	1.80	1.70	1.60	1.50	1.40	1.30	1.20	1.10	1.00	.90	.80	.70	.50

### Bill of Materials Matrix

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

Base Model	MT Indoor AWEF						
	R-134a	R-22	R-404A	R-407A	R-407C	R-448A	R-449A
XFAM-008Z	7.74	-	7.79	7.45	7.33	7.47	7.49
XFAM-010Z	7.88	-	7.84	7.59	7.34	7.38	7.39
XFAM-012Z	8.37	-	8.12	7.80	7.67	7.55	7.61
XFAM/P-015Z	7.23	7.84	7.28	7.55	6.76	6.75	6.75
XFAM/P-017Z	7.51	7.84	7.40	7.55	7.00	6.99	6.99
XFAM-020Z	7.45	7.84	7.57	7.39	6.87	6.75	6.78
XFAM/P-022Z	7.74	7.73	7.49	7.36	7.01	6.94	6.97
XFAM-025Z	7.75	7.63	7.46	7.53	6.99	6.89	6.89
XFAM/P-030Z	8.31	8.07	7.24	7.49	7.43	7.08	7.08
XFAM-033Z	8.34	8.01	7.21	7.32	7.40	6.86	6.84
XFAM-037Z	8.29	7.85	7.00	7.18	7.28	7.06	7.02
XFAM/P-045Z	8.00	7.85	7.09	7.05	7.20	7.09	7.08
XFAM/P-050Z	7.98	7.54	6.63	6.92	6.97	7.11	7.11
XFAM/P-060Z	7.96	7.46	6.88	7.12	7.06	6.98	6.98

Base Model	MT Outdoor AWEF (Factory Settings)							MT Outdoor AWEF (With 50°F Min. Cond. Temp. Settings)						
	R-134a	R-22	R-404A	R-407A	R-407C	R-448A	R-449A	R-134a	R-22	R-404A	R-407A	R-407C	R-448A	R-449A
9.00	-	10.59	10.01	9.94	10.00	10.00	9.00	-	11.53	10.55	10.50	11.00	11.00	
9.00	-	10.84	10.39	10.34	10.00	10.00	9.00	-	11.88	11.02	10.93	11.00	11.00	
10.00	-	11.32	10.37	11.00	10.00	10.00	10.00	-	12.31	10.86	11.00	11.00	11.00	
8.87	9.79	9.78	9.82	9.66	9.07	9.11	8.87	10.32	10.16	10.28	9.99	9.45	9.52	9.54
9.29	9.97	10.08	9.98	10.01	9.51	9.51	9.29	10.45	10.42	10.44	10.36	10.08	10.08	10.08
9.36	10.07	10.42	9.89	9.94	9.38	9.38	9.36	10.51	10.92	10.35	10.26	9.76	9.77	10.23
10.08	9.87	10.43	10.19	10.22	9.66	9.68	10.51	9.87	10.78	10.89	10.53	10.13	10.16	10.76
9.99	10.07	10.61	10.27	10.22	9.69	9.69	9.99	10.49	11.12	10.60	10.54	10.06	10.06	10.66
10.93	10.81	10.43	10.50	10.96	10.24	10.23	10.93	11.22	10.74	10.82	11.30	10.58	10.58	9.25
11.06	10.87	10.49	10.55	10.95	10.05	10.05	11.06	11.24	10.90	10.96	11.30	10.23	10.23	9.54
11.06	10.79	10.36	10.33	10.86	10.41	10.41	11.06	11.06	10.63	10.55	11.19	10.54	10.54	
10.46	10.51	10.26	9.93	10.57	10.21	10.21	10.46	10.90	10.52	10.21	10.90	10.49	10.49	
9.59	9.22	8.71	8.93	9.07	9.31	9.28	9.59	9.22	8.68	9.16	9.27	9.25	9.25	
9.90	9.45	9.36	9.43	9.42	9.48	9.48	9.90	9.45	9.33	9.74	9.62	9.56	9.54	

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

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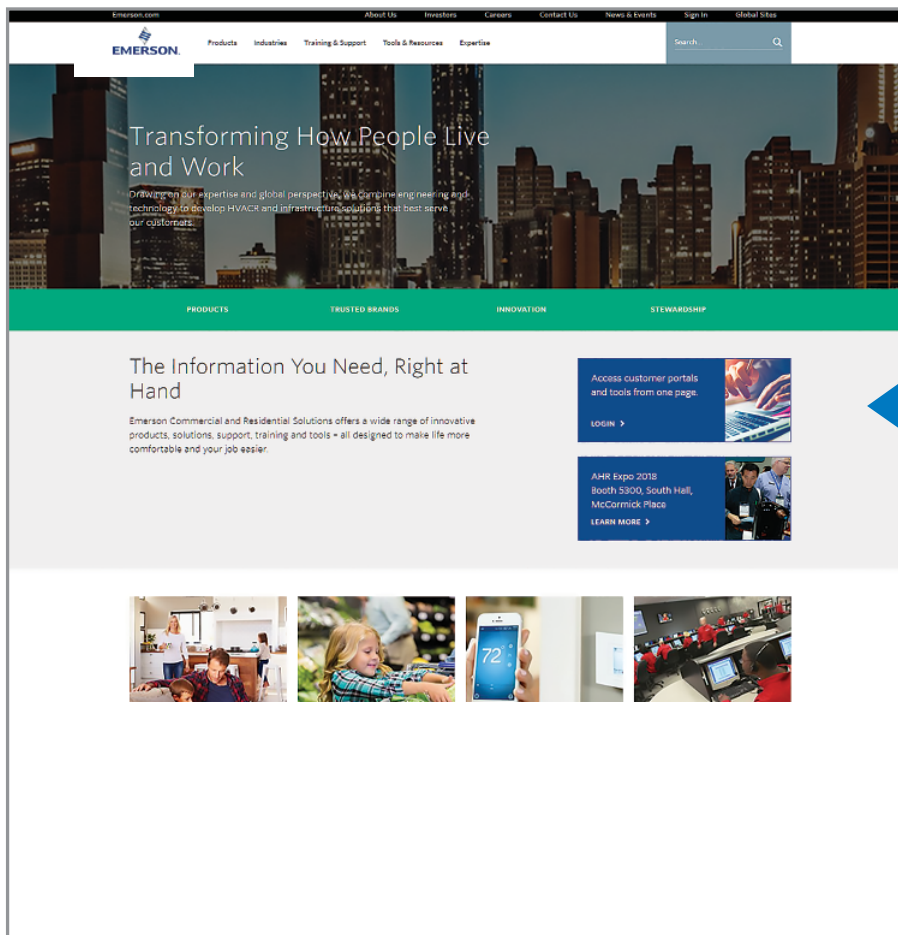


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## XFAM Competitive Cross (R-404A)

Emerson (Copeland)					Heatcraft (Bohn, Chandler, Climate Control, Larkin)			
Model	compressor	Voltage	Capacity @25/90 Amb	AWEF	Model	Compressor	Capacity @25/90 Amb	AWEF
XFAM-008Z-CFV-081	ZB06KAE	208-230/1/60	8,280	10.59	*Z*005M6B	ZB06KAE	7,830	7.15
XFAM-008Z-TFC-081	ZB06KAE	208-230/3/60	8,280	10.59	*Z*005M6C	ZB06KAE	7,830	7.15
XFAM-010Z-CFV-081	ZB07KAE	208-230/1/60	10,000	10.84	*Z*008M6B	ZB07KAE	9,200	7.60
XFAM-010Z-TFC-081	ZB07KAE	208-230/3/60	10,000	10.84	*Z*008M6C	ZB07KAE	9,200	7.60
XFAM-012Z-CFV-081	ZB08KAE	208-230/1/60	11,400	11.32	*Z*009M6B	ZB08KAE	10,160	8.02
XFAM-012Z-TFC-081	ZB08KAE	208-230/3/60	11,400	11.32	*Z*009M6C	ZB08KAE	10,160	8.02
XFAM-015Z-CFV-081	ZS09KAE	208-230/1/60	12,700	9.78	*Z*010M6B	ZS09KAE	13,420	8.32
XFAM-015Z-TFC-081	ZS09KAE	208-230/3/60	12,700	9.78	*Z*010M6C	ZS09KAE	13,420	8.32
XFAM-017Z-CFV-081	ZS11KAE	208-230/1/60	15,200	10.08				
XFAM-017Z-TFC-081	ZS11KAE	208-230/3/60	15,200	10.08				
XFAM-020Z-CFV-081	ZS13KAE	208-230/1/60	17,600	10.42	*Z*015M6B	ZS13KAE	17,490	8.63
XFAM-020Z-TFC-081	ZS13KAE	208-230/3/60	17,600	10.42	*Z*015M6C	ZS13KAE	17,490	8.63
XFAM-022Z-CFV-081	ZS15KAE	208-230/1/60	20,400	10.43	*Z*020M6B	ZS15KAE	20,560	8.04
XFAM-022Z-TFC-081	ZS15KAE	208-230/3/60	20,400	10.43	*Z*020M6C	ZS15KAE	20,560	8.04
XFAM-025Z-CFV-081	ZS19KAE	208-230/1/60	22,700	10.61	*Z*025M6B	ZS19KAE	22,410	7.64
XFAM-025Z-TFC-081	ZS19KAE	208-230/3/60	22,700	10.61	*Z*025M6C	ZS19KAE	22,410	7.64
XFAM-030Z-CFV-081	ZS21KAE	208-230/1/60	29,300	10.43	*Z*030M6B	ZS21KAE	32,260	9.04
XFAM-030Z-TFC-081	ZS21KAE	208-230/3/60	29,300	10.43	*Z*030M6C	ZS21KAE	32,260	9.04
XFAM-033Z-CFV-081	ZS26KAE	208-230/1/60	33,000	10.49	*Z*035M6B	ZS26KAE	34,960	9.15
XFAM-033Z-TFC-081	ZS26KAE	208-230/3/60	33,000	10.49	*Z*035M6C	ZS26KAE	34,960	9.15
XFAM-037Z-CFV-081	ZS29KAE	208-230/1/60	36,700	10.36	*Z*045M6B	ZS29KAE	38,830	9.08
XFAM-037Z-TFC-081	ZS29KAE	208-230/3/60	36,700	10.36	*Z*045M6C	ZS29KAE	38,830	9.08
XFAM-045Z-CFV-081	ZS33KAE	208-230/1/60	40,700	10.26	*Z*050M6B	ZS33KAE	41,980	9.13
XFAM-045Z-TFC-081	ZS33KAE	208-230/3/60	40,700	10.26	*Z*050M6C	ZS33KAE	41,980	9.13
XFAM-050Z-CFV-081	ZS38K4E	208-230/1/60	47,300	8.71	*Z*055M6B	ZS38K4E	46,970	7.89
XFAM-050Z-TFC-081	ZS38K4E	208-230/3/60	47,300	8.71	*Z*055M6C	ZS38K4E	46,970	7.89
XFAM-060Z-TFC-081	ZS45K4E	208-230/3/60	55,500	9.36	*Z*060M6C	ZS45K4E	54,430	8.35

Competitive capacity and AWEF values sourced from publicly available published data. For reference only.  
XFAM data also applies to XFAP models.

	HTPG (ColdZone, Kramer, Russell, Witt)				United (Keep-Rite, Trenton)			
	Model	Compressor	Capacity @25/90 Amb	AWEF	Model	Compressor	Capacity @25/90 Amb	AWEF
	**O060M4SD	ZB06KAE	7,350	7.80	*QZA007H8-HS2	ZB06KAE	8,230	8.98
	**O060M4SE	ZB06KAE	7,350	7.80	*QZA007H8-HT3	ZB06KAE	8,230	8.98
	**O080M4SD	ZB07KAE	9,100	8.10	*QZA008H8-HS2	ZB07KAE	9,850	9.09
	**O080M4SE	ZB07KAE	9,100	8.10	*QZA008H8-HT3	ZB07KAE	9,850	9.09
	**O100M4SD	ZB08KAE	10,400	8.07	*QZA009H8-HS2	ZB08KAE	11,100	9.24
	**O100M4SE	ZB08KAE	10,400	8.07	*QZA009H8-HT3	ZB08KAE	11,100	9.24
	**O130E4SD	ZS09KAE	11,130	7.60	*QZA010H8-HS2	ZS09KAE	12,400	8.98
	**O130E4SE	ZS09KAE	11,130	7.60	*QZA010H8-HT3	ZS09KAE	12,400	8.98
	**O150E4SD	ZS11KAE	14,270	8.73	*QZA011H8-HS2	ZS11KAE	14,700	9.09
	**O150E4SE	ZS11KAE	14,270	8.73	*QZA011H8-HT3	ZS11KAE	14,700	9.09
	**O180E4SD	ZS13KAE	15,990	8.47	*QZA015H8-HS2	ZS13KAE	16,900	9.24
	**O180E4SE	ZS13KAE	15,990	8.47	*QZA015H8-HT3	ZS13KAE	16,900	9.24
	**O200E4SD	ZS15KAE	20,050	9.07	*QZA020H8-HS2	ZB15KCE	19,280	9.07
	**O200E4SE	ZS15KAE	20,050	9.07	*QZA020H8-HT3	ZB15KCE	19,280	9.07
	**O250E4SD	ZS19KAE	21,960	9.07	*QZA025H8-HS2	ZB19KCE	23,070	9.11
	**O250E4SE	ZS19KAE	21,960	9.07	*QZA025H8-HT3	ZB19KCE	23,070	9.11
	**O300E4SD	ZS21KAE	30,480	10.04	*QZA030H8-HS2	ZB21KCE	27,430	9.00
	**O300E4SE	ZS21KAE	30,480	10.04	*QZA030H8-HT3	ZB21KCE	27,430	9.00
	**O350E4SD	ZS26KAE	33,600	9.91	*QZA035H8-HS2	ZB26KCE	34,200	9.20
	**O350E4SE	ZS26KAE	33,600	9.91	*QZA035H8-HT3	ZB26KCE	34,200	9.20
	**O400E4SD	ZS29KAE	37,710	9.06	*QZA040H8-HS2	ZB30KCE	39,290	9.27
	**O400E4SE	ZS29KAE	37,710	9.06	*QZA040H8-HT3	ZB30KCE	39,290	9.27
	**O450E4SD	ZS33KAE	42,490	9.63				
	**O450E4SE	ZS33KAE	42,490	9.63				
	**O500E4SD	ZS38K4E	46,660	8.38	*QZA050H8-HS2	ZB38KCE	47,130	9.25
	**O500E4SE	ZS38K4E	46,660	8.38	*QZA050H8-HT3	ZB38KCE	47,130	9.25
	**O600E4SE	ZS45K4E	55,630	8.49	*QZA060H8-HT3	ZB45KCE	55,400	9.67

## XFAL /XFAP Competitive Cross (R-404A only)

Emerson (Copeland)				Heatcraft (Bohn, Chandler, Climate Control, Larkin)		
Model	compressor	Voltage	"Capacity @ -10/90 Amb"	Model	Compressor	"Capacity @ -10/90 Amb"
XFAL-008Z-CFV-081	ZF03KAE	208-230/1/60	4,180	*Z*006L6B	ZF03KAE	4,000
XFAL-008Z-TFC-081	ZF03KAE	208-230/3/60	4,180	*Z*006L6C	ZF03KAE	4,000
XFAL-009Z-CFV-081	ZF04KAE	208-230/1/60	5,720	*Z*008L6C	ZF04KAE	5,390
XFAL-009Z-TFC-081	ZF04KAE	208-230/3/60	5,720	*Z*008L6D	ZF04KAE	5,390
XFAP-015Z-CFV-081	ZS09KAE	208-230/1/60	5,910			
XFAP-015Z-TFC-081	ZS09KAE	208-230/3/60	5,910			
XFAL-010Z-CFV-081	ZF05KAE	208-230/1/60	6,910	*Z*010L6C	ZF05KAE	6,460
XFAL-010Z-TFC-081	ZF05KAE	208-230/3/60	6,910	*Z*010L6D	ZF05KAE	6,460
XFAP-017Z-CFV-081	ZS11KAE	208-230/1/60	7,100			
XFAP-017Z-TFC-081	ZS11KAE	208-230/3/60	7,100			
XFAP-020Z-CFV-081	ZS13KAE	208-230/1/60	June, 2018			
XFAP-020Z-TFC-081	ZS13KAE	208-230/3/60	June, 2018			
XFAP-022Z-CFV-081	ZS15KAE	208-230/1/60	9,640	*B*022L6B	ZF07K4E	9,620
XFAP-022Z-TFC-081	ZS15KAE	208-230/3/60	9,640	*B*022L6C	ZF07K4E	9,620
XFAP-025Z-CFV-081	ZS19KAE	208-230/1/60	June, 2018			
XFAP-025Z-TFC-081	ZS19KAE	208-230/3/60	June, 2018			
XFAL-012Z-CFV-081	ZF07KAE	208-230/1/60	10,600	*B*025L6B	ZF08K4E	11,880
XFAL-012Z-TFC-081	ZF07KAE	208-230/3/60	10,600	*B*025L6C	ZF08K4E	11,880
XFAL-020Z-CFV-081	ZXI06KCE	208-230/1/60	13,140	*B*030L6B	ZF09K4E	13,220
XFAL-020Z-TFC-081	ZXI06KCE	208-230/3/60	13,140	*B*030L6C	ZF09K4E	13,220
XFAP-030Z-CFV-081	ZS21KAE	208-230/1/60	14,200	*B*035L6B	ZF11K4E	15,810
XFAP-030Z-TFC-081	ZS21KAE	208-230/3/60	14,200	*B*035L6C	ZF11K4E	15,810
XFAP-033Z-CFV-081	ZS26KAE	208-230/1/60	June, 2018			
XFAP-033Z-TFC-081	ZS26KAE	208-230/3/60	June, 2018			
XFAP-037Z-CFV-081	ZS29KAE	208-230/1/60	June, 2018			
XFAP-037Z-TFC-081	ZS29KAE	208-230/3/60	June, 2018			
XFAL-030Z-TFC-081	ZXI09KCE	208-230/3/60	17,170			
XFAP-045Z-CFV-081	ZS33KAE	208-230/1/60	19,700			
XFAP-045Z-TFC-081	ZS33KAE	208-230/3/60	19,700	*B*045L6C	ZF13K4E	19,380
XFAL-035Z-CFV-081	ZXI11KCE	208-230/1/60	19,700	*B*045L6B	ZF13K4E	19,380
XFAP-050Z-CFV-081	ZS38K4E	208-230/1/60	23,800	*B*055L6B	ZF15L4E	23,520
XFAP-050Z-TFC-081	ZS38K4E	208-230/3/60	23,800	*B*055L6C	ZF15L4E	23,520
XFAL-040Z-CFV-081	ZXI14KCE	208-230/1/60	24,740			
XFAL-040Z-TFC-081	ZXI14KCE	208-230/3/60	24,740			
XFAL-050Z-CFV-081	ZXI15KCE	208-230/1/60	27,570			
XFAL-050Z-TFC-081	ZXI15KCE	208-230/3/60	27,570	*B*060L6C	ZF18K4E	27,230
XFAP-060Z-TFC-081	ZS45K4E	208-230/3/60	28,300			
XFAL-060Z-TFC-081	ZXI18KCE	208-230/3/60	34,700			

XFAP models require R-404A to operate Low Temp conditions.

Competitive capacity and AWEF values sourced from publicly available published data. For reference only.



	HTPG (ColdZone, Kramer, Russell, Witt)			United (Keep-Rite, Trenton)		
	Model	Compressor	"Capacity @ -10/90 Amb"	Model	Compressor	"Capacity @ -10/90 Amb"
	**O100L4SD	ZF03KAE	3,780	*QZA008L8-HS2	ZF03KAE	4,210
	**O100L4SE	ZF03KAE	3,780	*QZA008L8-HT3	ZF03KAE	4,210
	**O130L4SD	ZF04KAE	5,220	*QZA010L8-HS2	ZF04KAE	5,690
	**O130L4SE	ZF04KAE	5,220	*QZA010L8-HT3	ZF04KAE	5,690
	**O160L4SD	ZF05KAE	6,360	*QZA015L8-HS2	ZF05KAE	6,810
	**O160L4SE	ZF05KAE	6,360	*QZA015L8-HT3	ZF05KAE	6,810
	**O230L4SD	ZF07KAE	9,980	*QZA020L8-HS2	ZF06K4E	9,860
	**O230L4SE	ZF07KAE	9,980	*QZA020L8-HT3	ZF06K4E	9,860
	**O250L4SD	ZF08K4E	11,910	*QZA025L8-HS2	ZF08K4E	12,530
	**O250L4SE	ZF08K4E	11,910	*QZA025L8-HT3	ZF08K4E	12,530
	**O300L4SD	ZF09K4E	13,130	*QZA030L8-HS2	ZF09K4E	13,720
	**O300L4SE	ZF09K4E	13,130	*QZA030L8-HT3	ZF09K4E	13,720
	**O350L4SD	ZF11K4E	15,830	*QZA035L8-HS2	ZF11K4E	16,410
	**O350L4SE	ZF11K4E	15,830	*QZA035L8-HT3	ZF11K4E	16,410
	**O400L4SE	ZF13K4E	19,190	*QZA045L8-HT3	ZF13K4E	20,630
	**O400L4SD	ZF13K4E	19,190	*QZA045L8-HS2	ZF13K4E	20,630
	**O500L4SD	ZF15K4E	23,200			
	**O500L4SE	ZF15K4E	23,200			
				*QZA055L8-HS2	ZF15K4E	24,590
				*QZA055L8-HT3	ZF15K4E	24,590
	**O600L4SE	ZF18K4E	26,560	*QZA060L8-HT3	ZF18K4E	29,170

## XFAL Competitive Cross (R-407A, R-407C, R-448A/449A)

Emerson (Copeland)						Heatcraft (Bohn, Chandler, Climate Control, Larkin)				
Model	Compressor	Voltage	"Capacity @ -10/90 Amb"			Model	Compressor	"Capacity @ -10/90 Amb"		
			R-407A	R-407C	R-448A R-449A			R-407A	R-407C	R-448A R-449A
XFAL-008Z-CFV-081	ZF03KAE	208-230/1/60	3,620		3,770	*Z*006L6B	ZF03KAE	3,650	3,200	3,610
XFAL-008Z-TFC-081	ZF03KAE	208-230/3/60	3,620		3,770	*Z*006L6C	ZF03KAE	3,650	3,200	3,610
XFAL-009Z-CFV-081	ZF04KAE	208-230/1/60	4,950		5,150	*Z*008L6C	ZF04KAE	4,910	4,300	4,860
XFAL-009Z-TFC-081	ZF04KAE	208-230/3/60	4,950		5,150	*Z*008L6D	ZF04KAE	4,910	4,300	4,860
XFAL-010Z-CFV-081	ZF05KAE	208-230/1/60	5,860		6,100	*Z*010L6C	ZF05KAE	5,740	5,060	5,700
XFAL-010Z-TFC-081	ZF05KAE	208-230/3/60	5,860		6,100	*Z*010L6D	ZF05KAE	5,740	5,060	5,700
XFAL-012Z-CFV-081	ZF07KAE	208-230/1/60	9,130		9,180	*B*022L6B	ZF07K4E	8,620	7,510	8,340
XFAL-012Z-TFC-081	ZF07KAE	208-230/3/60	9,130		9,180	*B*022L6C	ZF07K4E	8,620	7,510	8,340
						*B*025L6B	ZF08K4E	10,450	-	10,270
						*B*025L6C	ZF08K4E	10,450	-	10,270
XFAL-020Z-CFV-081	ZXI06KCE	208-230/1/60	9,453	9,407	11,488	*B*030L6B	ZF09K4E	11,570	10,260	11,250
XFAL-020Z-TFC-081	ZXI06KCE	208-230/3/60	9,453	9,407	11,488	*B*030L6C	ZF09K4E	11,570	10,260	11,250
						*B*035L6B	ZF11K4E	13,730	12,360	13,510
XFAL-030Z-TFC-081	ZXI09KCE	208-230/1/60	13,575	12,265	14,341	*B*035L6C	ZF11K4E	13,730	12,360	13,510
						*B*045L6C	ZF13K4E	17,140	14,870	16,980
XFAL-035Z-CFV-081	ZXI11KCE	208-230/3/60	16,685	15,076	17,389	*B*045L6B	ZF13K4E	17,140	14,870	16,980
XFAL-040Z-CFV-081	ZXI14KCE	208-230/1/60	21,664	20,208	23,490	*B*055L6B	ZF15L4E	20,370	17,870	20,200
XFAL-040Z-TFC-081	ZXI14KCE	208-230/3/60	21,664	20,208	23,490	*B*055L6C	ZF15L4E	20,370	17,870	20,200
XFAL-050Z-CFV-081	ZXI15KCE	208-230/1/60	22,698	21,233	26,337					
XFAL-050Z-TFC-081	ZXI15KCE	208-230/3/60	23,545	23,939	24,664	*B*060L6C	ZF18K4E	23,840	21,000	23,440
XFAL-060Z-TFC-081	ZXI18KCE	208-230/3/60	29,902	26,023	28,252					

Competitive capacity and AWEF values sourced from publicly available published data. For reference only.

HTPG (ColdZone, Kramer, Russell, Witt)						United (Keep-Rite, Trenton)				
	Model	Compressor	"Capacity @ -10/90 Amb"			Model	Compressor	"Capacity @ -10/90 Amb"		
			R-407A	R-407C	R-448A R-449A			R-407A	R-407C	R-448A/ 449A
	**O100L4SD	ZF03KAE	3,240	3,060	3,400	*QZA008L8-HS2	ZF03KAE	3,870	-	4,050
	**O100L4SE	ZF03KAE	3,240	3,060	3,400	*QZA008L8-HT3	ZF03KAE	3,870	-	4,050
	**O130L4SD	ZF04KAE	4,450	4,160	4,670	*QZA010L8-HS2	ZF04KAE	5,230	-	5,480
	**O130L4SE	ZF04KAE	4,450	4,160	4,670	*QZA010L8-HT3	ZF04KAE	5,230	-	5,480
	**O160L4SD	ZF05KAE	5,300	4,980	5,570	*QZA015L8-HS2	ZF05KAE	6,130	-	6,450
	**O160L4SE	ZF05KAE	5,300	4,980	5,570	*QZA015L8-HT3	ZF05KAE	6,130	-	6,450
	**O230L4SD	ZF07KAE	8,430	7,680	8,500	*QZA020L8-HS2	ZF06K4E	9,000	-	9,200
	**O230L4SE	ZF07KAE	8,430	7,680	8,500	*QZA020L8-HT3	ZF06K4E	9,000	-	9,200
	**O250L4SD	ZF08K4E	10,170	9,610	10,590	*QZA025L8-HS2	ZF08K4E	11,100	-	11,700
	**O250L4SE	ZF08K4E	10,170	9,610	10,590	*QZA025L8-HT3	ZF08K4E	11,100	-	11,700
	**O300L4SD	ZF09K4E	11,470	10,840	11,830	*QZA030L8-HS2	ZF09K4E	12,500	-	12,900
	**O300L4SE	ZF09K4E	11,470	10,840	11,830	*QZA030L8-HT3	ZF09K4E	12,500	-	12,900
	**O350L4SD	ZF11K4E	14,210	13,420	14,640	*QZA035L8-HS2	ZF11K4E	15,200	-	15,800
	**O350L4SE	ZF11K4E	14,210	13,420	14,640	*QZA035L8-HT3	ZF11K4E	15,200	-	15,800
	**O400L4SE	ZF13K4E	16,440	15,330	17,610	*QZA045L8-HT3	ZF13K4E	18,200	-	19,300
	**O400L4SD	ZF13K4E	16,440	15,330	17,610	*QZA045L8-HS2	ZF13K4E	18,200	-	19,300
	**O500L4SD	ZF15K4E	20,070	18,760	21,540	*QZA055L8-HS2	ZF15K4E	21,900	-	23,300
	**O500L4SE	ZF15K4E	20,070	18,760	21,540	*QZA055L8-HT3	ZF15K4E	21,900	-	23,300
								-		
	**O600L4SE	ZF18K4E	24,110	22,510	25,830	*QZA060L8-HT3	ZF18K4E	26,500	-	28,000
								-		

Physical and Electrical Data

Copeland Scroll Outdoor Refrigeration Units - XF Series

Model	Compressor	Chassis Size (# Fans)	Dimensions			Refrigerant Connections		Receiver Capacity (Lbs @ 90% Volume)						MCA	Max Fuse	Defrost Relay Rating <sup>†</sup> (Amps)	Ship Weight	
			L	W	H	Liquid	Suction	134a	22	404A	407A	407C	448A					449A
XFAL-008Z-CFV	ZF03KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	9.1	15	40	246
XFAL-008Z-TFC	ZF03KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	6.2	15	40	246
XFAL-009Z-CFV	ZF04KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	10.3	15	40	246
XFAL-009Z-TFC	ZF04KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	9.3	15	40	246
XFAL-010Z-CFV	ZF05KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	11.9	15	40	246
XFAL-010Z-TFC	ZF05KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	10.4	15	40	246
XFAL-012Z-CFV	ZF07KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	18.4	30	40	246
XFAL-012Z-TFC	ZF07KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	11.8	15	40	246
XFAL-020Z-CFV	ZX106KCE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	21.55	35	40	246
XFAL-020Z-TFC	ZX106KCE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	16.18	25	40	246
XFAL-030Z-TFC	ZX109KCE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	17.18	25	40	246
XFAL-035Z-CFV	ZX111KCE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	N/A	N/A	9.1	10	10	9.7	9.7	34.05	50	40	272
XFAL-040Z-CFV	ZX114KCE-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	N/A	N/A	13.4	14.8	14.7	14.2	14.3	40.1	60	40	274
XFAL-040Z-TFC	ZX114KCE-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	N/A	N/A	13.4	14.8	14.7	14.2	14.3	27.1	45	40	312
XFAL-050Z-TFC	ZX115KCE-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	N/A	N/A	13.4	14.8	14.7	14.2	14.3	28.85	45	40	323
XFAL-051Z-CFV	ZX116KCE-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	N/A	N/A	13.4	14.8	14.7	14.2	14.3	44.73	70	40	343
XFAL-060Z-TFC	ZX118KCE-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	N/A	N/A	13.4	14.8	14.7	14.2	14.3	33.98	50	40	341
XFAM-008Z-CFV	ZB06KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	9.3	15	40	218
XFAM-008Z-TFC	ZB06KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	8.05	15	40	218
XFAM-010Z-CFV	ZB07KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	9.3	15	40	218
XFAM-010Z-TFC	ZB07KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	8.1	15	40	218
XFAM-012Z-CFV	ZB08KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	11.1	15	40	218
XFAM-012Z-TFC	ZB08KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	8.1	15	40	218
XFAM-015Z-CFV	ZS09KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	13.55	20	40	218
XFAM-015Z-TFC	ZS09KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	11.05	15	40	219
XFAM-017Z-CFV	ZS11KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	16.8	25	40	219
XFAM-017Z-TFC	ZS11KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	14.05	20	40	219
XFAM-020Z-CFV	ZS13KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	16.1	25	40	219
XFAM-020Z-TFC	ZS13KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	13.2	20	40	219
XFAM-022Z-CFV	ZS15KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	20.68	35	40	220
XFAM-022Z-TFC	ZS15KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	14.3	20	40	219
XFAM-025Z-CFV	ZS19KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	23.6	40	40	219
XFAM-025Z-TFC	ZS19KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	18.2	30	40	219
XFAM-030Z-CFV	ZS21KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	30.05	50	40	236

Physical and Electrical Data

Copeland Scroll Outdoor Refrigeration Units - XF Series

Model	Compressor	Chassis Size (# Fans)	Dimensions			Refrigerant Connections		Receiver Capacity (Lbs @ 90% Volume)							MCA	Max Fuse	Defrost Relay Rating† (Amps)	Ship Weight
			L	W	H	Liquid	Suction	134a	22	404A	407A	407C	448A	449A				
XFAM-030Z-TFC	ZS21KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	20.05	30	40	236
XFAM-033Z-CFV	ZS26KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	30.6	50	40	236
XFAM-033Z-TFC	ZS26KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	20.4	30	40	236
XFAM-037Z-CFV	ZS29KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	33.7	50	40	236
XFAM-037Z-TFC	ZS29KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	26.7	45	40	236
XFAM-045Z-CFV	ZS33KAE-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	37.35	60	40	285
XFAM-045Z-TFC	ZS33KAE-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	29.98	50	40	280
XFAM-050Z-CFV	ZS38K4E-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	41.85	70	40	292
XFAM-050Z-TFC	ZS38K4E-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	28.85	45	40	292
XFAM-060Z-TFC	ZS45K4E-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	31.98	50	40	299
XFAP-015Z-CFV	ZS09KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	13.55	20	40	233
XFAP-015Z-TFC	ZS09KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	11.05	15	40	234
XFAP-017Z-CFV	ZS11KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	16.8	25	40	234
XFAP-017Z-TFC	ZS11KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	14.05	20	40	234
XFAP-020Z-CFV	ZS13KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	16.1	25	40	234
XFAP-020Z-TFC	ZS13KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	13.2	20	40	234
XFAP-022Z-CFV	ZS15KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	20.68	35	40	235
XFAP-022Z-TFC	ZS15KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	14.3	20	40	234
XFAP-025Z-CFV	ZS19KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	23.6	40	40	234
XFAP-025Z-TFC	ZS19KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	18.2	30	40	234
XFAP-030Z-CFV	ZS21KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	30.05	50	40	251
XFAP-030Z-TFC	ZS21KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	20.05	30	40	251
XFAP-033Z-CFV	ZS26KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	30.6	50	40	251
XFAP-033Z-TFC	ZS26KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	20.4	30	40	251
XFAP-037Z-CFV	ZS29KAE-PFV	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	33.7	50	40	251
XFAP-037Z-TFC	ZS29KAE-TF5	1 FAN	16.7	40.5	33.1	1/2 S	7/8 S	10.7	10.5	9.1	10	10	9.7	9.7	26.7	45	40	251
XFAP-045Z-CFV	ZS33KAE-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	37.35	60	40	300
XFAP-045Z-TFC	ZS33KAE-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	29.98	50	40	295
XFAP-050Z-CFV	ZS38K4E-PFV	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	41.85	70	40	307
XFAP-050Z-TFC	ZS38K4E-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	28.85	45	40	307
XFAP-060Z-TFC	ZS45K4E-TF5	2 FAN	16.7	40.5	48.9	1/2 S	7/8 S	15.7	15.5	13.4	14.8	14.7	14.2	14.3	31.98	50	40	314

\*\* Max Over-current rating applies to the condensing unit only. Additional evaporator fan or defrost heater loads must be considered. See evaporator manufacturer literature for additional load requirements.

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

# R-134a Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45	50
90° Ambient													
XFAM-008Z-CFV	ZB06KAE-PFV	2600	2960		3830	4340	4900	<b>4980</b>	5600	6280	7010	7800	7010
XFAM-008Z-TFC	ZB06KAE-TF5	2600	2960	3370	3830	4340	4900		5600	6280	7010	7800	7010
XFAM-010Z-CFV	ZB07KAE-PFV	3180	3620	4110	4660	5270	5940	<b>6030</b>	6770	7580	8440	9380	8440
XFAM-010Z-TFC	ZB07KAE-TF5	3180	3620	4110	4660	5270	5940	<b>6030</b>	6770	7580	8440	9380	8440
XFAM-012Z-CFV	ZB08KAE-PFV	3770	4280	4850	5490	6200	6970	<b>7080</b>	7930	8850	9850	10900	9850
XFAM-012Z-TFC	ZB08KAE-TF5	3770	4280	4850	5490	6200	6970	<b>7080</b>	7930	8850	9850	10900	9850
XFAM-015Z-CFV	ZS09KAE-PFV	4380	4970	5610	6310	7070	7900	<b>8020</b>	8920	9900	11000	<b>12100</b>	11000
XFAM-015Z-TFC	ZS09KAE-TF5	4380	4970	5610	6310	7070	7900	<b>8020</b>	8920	9900	11000	<b>12100</b>	11000
XFAM-017Z-CFV	ZS11KAE-PFV	5210	5920	6680	7510	8400		<b>9520</b>	10600	11700	13000	<b>14300</b>	13000
XFAM-017Z-TFC	ZS11KAE-TF5	5210	5920	6680	7510	8400	9380	<b>9520</b>	10600	11700	13000	<b>14300</b>	13000
XFAM-020Z-CFV	ZS13KAE-PFV	5930	6730	7590	8530	9550	10600	<b>10800</b>	12000	13300	14700	<b>16200</b>	14700
XFAM-020Z-TFC	ZS13KAE-TF5	5930	6730	7590	8530	9550	10600	<b>10800</b>	12000	13300	14700	<b>16200</b>	14700
XFAM-022Z-CFV	ZS15KAE-PFV	7120	8070	9100	10200	11400	12700	<b>12900</b>	14400	15900	17500	<b>19300</b>	17500
XFAM-022Z-TFC	ZS15KAE-TF5	7120	8070	9100	10200	11400	12700	<b>12900</b>	14400	15900	17500	<b>19300</b>	17500
XFAM-025Z-CFV	ZS19KAE-PFV	8010	9070	10200	11500	12800	14300	<b>14500</b>	16100	17800	19600	<b>21600</b>	19600
XFAM-025Z-TFC	ZS19KAE-TF5	8010	9070	10200	11500	12800	14300	<b>14500</b>	16100	17800	19600	<b>21600</b>	19600
XFAM-030Z-CFV	ZS21KAE-PFV	10700	12100	13600	15200	17000	18900	<b>19200</b>	21300	23500	25900	<b>28400</b>	25900
XFAM-030Z-TFC	ZS21KAE-TF5	10700	12100	13600	15200	17000	18900	<b>19200</b>	21300	23500	25900	<b>28400</b>	25900
XFAM-033Z-CFV	ZS26KAE-PFV	11800	13300	15000	16800	18700	20800	<b>21100</b>	23400	25800	28400	<b>31200</b>	28400
XFAM-033Z-TFC	ZS26KAE-TF5	11800	13300	15000	16800	18700	20800	<b>21100</b>	23400	25800	28400	<b>31200</b>	28400
XFAM-037Z-CFV	ZS29KAE-PFV	13100	14800	16700	18700	20800	23100	<b>23500</b>	25900	28600	31400	<b>34500</b>	31400
XFAM-037Z-TFC	ZS29KAE-TF5	13100	14800	16700	18700	20800	23100	<b>23500</b>	25900	28600	31400	<b>34500</b>	
XFAM-045Z-CFV	ZS33KAE-PFV	14700	16600	18600	20900	23300	25900	<b>26400</b>	29200	32300	35500	<b>39000</b>	
XFAM-045Z-TFC	ZS33KAE-TF5	14700	16600	18600	20900	23300	25900	<b>26400</b>	29200	32300	35500	<b>39000</b>	
XFAM-050Z-CFV	ZS38K4E-PFV	17000	19200	21500	24100	26800	29800	<b>30300</b>	33500	37000	40600	44500	
XFAM-050Z-TFC	ZS38K4E-TF5	17000	19200	21500	24100	26800	29800	<b>30300</b>	33500	37000	40600	44500	
XFAM-060Z-TFC	ZS45K4E-TF5	20200	22800	25600	28600	31800	35300	<b>35900</b>	39800	43900	48200	53000	
95 Ambient													
XFAM-008Z-CFV	ZB06KAE-PFV	2515	2865	3160	3710	4205	4745	<b>4835</b>	5435	6095	6805	7575	
XFAM-008Z-TFC	ZB06KAE-TF5	2515	2865	3265	3710	4205	4745	<b>4835</b>	5435	6095	6805	7575	
XFAM-010Z-CFV	ZB07KAE-PFV	3080	3510	3985	4520	5115	5765	<b>5860</b>	6580	7360	8200	9105	
XFAM-010Z-TFC	ZB07KAE-TF5	3080	3510	3985	4520	5115	5765	<b>5860</b>	6580	7360	8200	9105	
XFAM-012Z-CFV	ZB08KAE-PFV	3655	4150	4705	5325	6010	6755	<b>6875</b>	7700	8590	9560	10600	
XFAM-012Z-TFC	ZB08KAE-TF5	3655	4150	4705	5325	6010	6755	<b>6875</b>	7700	8590	9560	10600	
XFAM-015Z-CFV	ZS09KAE-PFV	4265	4840	5460	6135	6875	7675	<b>7805</b>	8680	9635	10700	<b>11750</b>	
XFAM-015Z-TFC	ZS09KAE-TF5	4265	4840	5460	6135	6875	7675	<b>7805</b>	8680	9635	10700	<b>11750</b>	
XFAM-017Z-CFV	ZS11KAE-PFV	5075	5760	6495	7300	8165	8850	<b>9265</b>	10300	11400	12650	<b>13950</b>	
XFAM-017Z-TFC	ZS11KAE-TF5	5075	5760	6495	7300	8165	9115	<b>9265</b>	10300	11400	12650	<b>13950</b>	
XFAM-020Z-CFV	ZS13KAE-PFV	5775	6550	7385	8295	9280	10300	<b>10500</b>	11700	12950	14300	<b>15800</b>	
XFAM-020Z-TFC	ZS13KAE-TF5	5775	6550	7385	8295	9280	10300	<b>10500</b>	11700	12950	14300	<b>15800</b>	
XFAM-022Z-CFV	ZS15KAE-PFV	6935	7855	8850	9925	11100	12350	<b>12550</b>	14000	15450	17050	<b>18800</b>	
XFAM-022Z-TFC	ZS15KAE-TF5	6935	7855	8850	9925	11100	12350	<b>12550</b>	14000	15450	17050	<b>18800</b>	
XFAM-025Z-CFV	ZS19KAE-PFV	7800	8825	9930	11150	12450	13850	<b>14100</b>	15650	17300	19100	<b>21000</b>	
XFAM-025Z-TFC	ZS19KAE-TF5	7800	8825	9930	11150	12450	13850	<b>14100</b>	15650	17300	19100	<b>21000</b>	
XFAM-030Z-CFV	ZS21KAE-PFV	10400	11750	13200	14800	16500	18350	<b>18700</b>	20700	22850	25200	<b>27650</b>	
XFAM-030Z-TFC	ZS21KAE-TF5	10400	11750	13200	14800	16500	18350	<b>18700</b>	20700	22850	25200	<b>27650</b>	
XFAM-033Z-CFV	ZS26KAE-PFV	11500	12950	14600	16300	18150	20200	<b>20550</b>	22750	25100	27600	<b>30350</b>	
XFAM-033Z-TFC	ZS26KAE-TF5	11500	12950	14600	16300	18150	20200	<b>20550</b>	22750	25100	27600	<b>30350</b>	
XFAM-037Z-CFV	ZS29KAE-PFV	12750	14400	16250	18150	20200	22400	<b>22850</b>	25200	27800	30550	<b>33500</b>	
XFAM-037Z-TFC	ZS29KAE-TF5	12750	14400	16250	18150	20200	22400	<b>22850</b>	25200	27800	30550	<b>33500</b>	
XFAM-045Z-CFV	ZS33KAE-PFV	14300	16150	18100	20300	22650	25150	<b>25650</b>	28400	31400	34550	<b>37950</b>	
XFAM-045Z-TFC	ZS33KAE-TF5	14300	16150	18100	20300	22650	25150	<b>25650</b>	28400	31400	34550	<b>37950</b>	
XFAM-050Z-CFV	ZS38K4E-PFV	16500	18650	20900	23400	26050	28950	<b>29450</b>	32600	36000	39500	43300	
XFAM-050Z-TFC	ZS38K4E-TF5	16500	18650	20900	23400	26050	28950	<b>29450</b>	32600	36000	39500	43300	
XFAM-060Z-TFC	ZS45K4E-TF5	19650	22150	24850	27800	30900	34300	<b>34950</b>	38700	42700	46950	51500	

Capacities rated at 40°F return gas (65°F return gas for capacities in **bold**), 5°F subcooling  
 All capacities shown for XFAM models also apply to XFAP models

**Shaded area = 20°F max superheat**

# R-134a Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45	50
100° Ambient													
XFAM-008Z-CFV	ZB06KAE-PFV	2430	2770	3160	3590	4070	4590	4690	5270	5910	6600	7350	
XFAM-008Z-TFC	ZB06KAE-TF5	2430	2770	3160	3590	4070	4590	4690	5270	5910	6600	7350	
XFAM-010Z-CFV	ZB07KAE-PFV	2980	3400	3860	4380	4960	5590	5690	6390	7140	7960	8830	
XFAM-010Z-TFC	ZB07KAE-TF5	2980	3400	3860	4380	4960	5590	5690	6390	7140	7960	8830	
XFAM-012Z-CFV	ZB08KAE-PFV	3540	4020	4560	5160	5820	6540	6670	7470	8330	9270	10300	
XFAM-012Z-TFC	ZB08KAE-TF5	3540	4020	4560	5160	5820	6540	6670	7470	8330	9270	10300	
XFAM-015Z-CFV	ZS09KAE-PFV	4150	4710	5310	5960	6680	7450	7590	8440	9370	10400	11400	
XFAM-015Z-TFC	ZS09KAE-TF5	4150	4710	5310	5960	6680	7450	7590	8440	9370	10400	11400	
XFAM-017Z-CFV	ZS11KAE-PFV	4940	5600	6310	7090	7930	8850	9010	10000	11100	12300	13600	
XFAM-017Z-TFC	ZS11KAE-TF5	4940	5600	6310	7090	7930	8850	9010	10000	11100	12300	13600	
XFAM-020Z-CFV	ZS13KAE-PFV	5620	6370	7180	8060	9010	10000	10200	11400	12600	13900	15400	
XFAM-020Z-TFC	ZS13KAE-TF5	5620	6370	7180	8060	9010	10000	10200	11400	12600	13900	15400	
XFAM-022Z-CFV	ZS15KAE-PFV	6750	7640	8600	9650	10800	12000	12200	13600	15000	16600	18300	
XFAM-022Z-TFC	ZS15KAE-TF5	6750	7640	8600	9650	10800	12000	12200	13600	15000	16600	18300	
XFAM-025Z-CFV	ZS19KAE-PFV	7590	8580	9660	10800	12100	13400	13700	15200	16800	18600	20400	
XFAM-025Z-TFC	ZS19KAE-TF5	7590	8580	9660	10800	12100	13400	13700	15200	16800	18600	20400	
XFAM-030Z-CFV	ZS21KAE-PFV	10100	11400	12800	14400	16000	17800	18200	20100	22200	24500	26900	
XFAM-030Z-TFC	ZS21KAE-TF5	10100	11400	12800	14400	16000	17800	18200	20100	22200	24500	26900	
XFAM-033Z-CFV	ZS26KAE-PFV	11200	12600	14200	15800	17600	19600	20000	22100	24400	26800	29500	
XFAM-033Z-TFC	ZS26KAE-TF5	11200	12600	14200	15800	17600	19600	20000	22100	24400	26800	29500	
XFAM-037Z-CFV	ZS29KAE-PFV	12400	14000	15800	17600	19600	21700	22200	24500	27000	29700	32500	
XFAM-037Z-TFC	ZS29KAE-TF5	12400	14000	15800	17600	19600	21700	22200	24500	27000	29700	32500	
XFAM-045Z-CFV	ZS33KAE-PFV	13900	15700	17600	19700	22000	24400	24900	27600	30500	33600	36900	
XFAM-045Z-TFC	ZS33KAE-TF5	13900	15700	17600	19700	22000	24400	24900	27600	30500	33600	36900	
XFAM-050Z-CFV	ZS38K4E-PFV	16000	18100	20300	22700	25300	28100	28600	31700	35000	38400	42100	
XFAM-050Z-TFC	ZS38K4E-TF5	16000	18100	20300	22700	25300	28100	28600	31700	35000	38400	42100	
XFAM-060Z-TFC	ZS45K4E-TF5	19100	21500	24100	27000	30000	33300	34000	37600	41500	45700	50000	
100° Ambient													
XFAM-008Z-CFV	ZB06KAE-PFV	2270	2590	2950	3360	3800	4290	4400	4950	5550	6200	6900	
XFAM-008Z-TFC	ZB06KAE-TF5	2270	2590	2950	3360	3800	4290	4400	4950	5550	6200	6900	
XFAM-010Z-CFV	ZB07KAE-PFV	2790	3180	3620	4100	4640	5230	5350	6010	6710	7470	8290	
XFAM-010Z-TFC	ZB07KAE-TF5	2790	3180	3620	4100	4640	5230	5350	6010	6710	7470	8290	
XFAM-012Z-CFV	ZB08KAE-PFV	3290	3750	4250	4810	5430	6100	6250	7000	7800	8670	9610	
XFAM-012Z-TFC	ZB08KAE-TF5	3290	3750	4250	4810	5430	6100	6250	7000	7800	8670	9610	
XFAM-015Z-CFV	ZS09KAE-PFV	3920	4440	5000	5620	6280	7010	7170	7970	8840	9780	10800	
XFAM-015Z-TFC	ZS09KAE-TF5	3920	4440	5000	5620	6280	7010	7170	7970	8840	9780	10800	
XFAM-017Z-CFV	ZS11KAE-PFV	4660	5280	5950	6670	7460	8310	8510	9450	10500	11600	12800	
XFAM-017Z-TFC	ZS11KAE-TF5	4660	5280	5950	6670	7460	8310	8510	9450	10500	11600	12800	
XFAM-020Z-CFV	ZS13KAE-PFV	5300	6000	6760	7580	8470	9430	9660	10700	11900	13100	14500	
XFAM-020Z-TFC	ZS13KAE-TF5	5300	6000	6760	7580	8470	9430	9660	10700	11900	13100	14500	
XFAM-022Z-CFV	ZS15KAE-PFV	6360	7190	8090	9060	10100	11300	11500	12800	14200	15600	17200	
XFAM-022Z-TFC	ZS15KAE-TF5	6360	7190	8090	9060	10100	11300	11500	12800	14200	15600	17200	
XFAM-025Z-CFV	ZS19KAE-PFV	7140	8070	9080	10200	11300	12600	12900	14300	15800	17500	19200	
XFAM-025Z-TFC	ZS19KAE-TF5	7140	8070	9080	10200	11300	12600	12900	14300	15800	17500	19200	
XFAM-030Z-CFV	ZS21KAE-PFV		10700	12000	13500	15000	16700	17100	18900	20900	23000	25200	
XFAM-030Z-TFC	ZS21KAE-TF5		10700	12000	13500	15000	16700	17100	18900	20900	23000	25200	
XFAM-033Z-CFV	ZS26KAE-PFV		11800	13300	14800	16500	18300	18800	20800	22900	25200	27600	
XFAM-033Z-TFC	ZS26KAE-TF5		11800	13300	14800	16500	18300	18800	20800	22900	25200	27600	
XFAM-037Z-CFV	ZS29KAE-PFV		13200	14800	16500	18300	20300	20800	23000	25300	27800	30500	
XFAM-037Z-TFC	ZS29KAE-TF5		13200	14800	16500	18300	20300	20800	23000	25300	27800	30500	
XFAM-045Z-CFV	ZS33KAE-PFV		14700	16500	18500	20600	22900	23400	25900	28600	31500	34700	
XFAM-045Z-TFC	ZS33KAE-TF5		14700	16500	18500	20600	22900	23400	25900	28600	31500	34700	
XFAM-050Z-CFV	ZS38K4E-PFV	15100	17000	19000	21300	23700	26300	27000	29800	32900	36200	39700	
XFAM-050Z-TFC	ZS38K4E-TF5	15100	17000	19000	21300	23700	26300	27000	29800	32900	36200	39700	
XFAM-060Z-TFC	ZS45K4E-TF5	17900	20200	22700	25300	28200	31300	32100	35500	39100	43000	47200	

Capacities rated at 40°F return gas (65°F return gas for capacities in **bold**), 5°F subcooling  
 All capacities shown for XFAM models also apply to XFAP models

Shaded area = 20°F max superheat

## R-22 Medium Temp

## Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	15	20	25@40	25@65	30	35	40	45
90° Ambient									
XFAM-015Z-CFV	ZS09KAE-PFV	9990	11100	12200	12200	13400	14700	16200	17700
XFAM-015Z-TFC	ZS09KAE-TF5	9990	11100	12200	12200	13400	14700	16200	17700
XFAM-017Z-CFV	ZS11KAE-PFV	11800	13100	14500	14400	15900	17400	19100	20900
XFAM-017Z-TFC	ZS11KAE-TF5	11800	13100	14500	14400	15900	17400	19100	20900
XFAM-020Z-CFV	ZS13KAE-PFV	13500	15000	16500	16500	18100	19800	21700	23700
XFAM-020Z-TFC	ZS13KAE-TF5	13500	15000	16500	16500	18100	19800	21700	23700
XFAM-022Z-CFV	ZS15KAE-PFV	15800	17400	19200	19200	21000	23000	25200	27500
XFAM-022Z-TFC	ZS15KAE-TF5	15800	17400	19200	19200	21000	23000	25200	27500
XFAM-025Z-CFV	ZS19KAE-PFV	17700	19600	21600	21600	23600	25900	28200	30800
XFAM-025Z-TFC	ZS19KAE-TF5	17700	19600	21600	21600	23600	25900	28200	30800
XFAM-030Z-CFV	ZS21KAE-PFV	23400	25900	28400	28400	31000	33900	36900	40100
XFAM-030Z-TFC	ZS21KAE-TF5	23400	25900	28400	28400	31000	33900	36900	40100
XFAM-033Z-CFV	ZS26KAE-PFV	25700	28400	31200	31100	34000	37100	40400	43800
XFAM-033Z-TFC	ZS26KAE-TF5	25700	28400	31200	31100	34000	37100	40400	43800
XFAM-037Z-CFV	ZS29KAE-PFV	28500	31400	34400	34400	37600	40900	44400	48100
XFAM-037Z-TFC	ZS29KAE-TF5	28500	31400	34400	34400	37600	40900	44400	48100
XFAM-045Z-CFV	ZS33KAE-PFV	32100	35500	39000	39000	42700	46600	50500	55000
XFAM-045Z-TFC	ZS33KAE-TF5	32100	35500	39000	39000	42700	46600	50500	55000
XFAM-050Z-CFV	ZS38K4E-PFV	36600	40300	44200	44200	48300	52500	57500	62000
XFAM-050Z-TFC	ZS38K4E-TF5	36600	40300	44200	44200	48300	52500	57500	62000
XFAM-060Z-TFC	ZS45K4E-TF5	43600	48000	53000	52500	57500	63000	68500	74000
95° Ambient									
XFAM-015Z-CFV	ZS09KAE-PFV	9725	10800	11900	11900	13050	14350	15750	17250
XFAM-015Z-TFC	ZS09KAE-TF5	9725	10800	11900	11900	13050	14350	15750	17250
XFAM-017Z-CFV	ZS11KAE-PFV	11500	12750	14100	14050	15500	16950	18600	20350
XFAM-017Z-TFC	ZS11KAE-TF5	11500	12750	14100	14050	15500	16950	18600	20350
XFAM-020Z-CFV	ZS13KAE-PFV	13150	14600	16050	16050	17650	19300	21150	23100
XFAM-020Z-TFC	ZS13KAE-TF5	13150	14600	16050	16050	17650	19300	21150	23100
XFAM-022Z-CFV	ZS15KAE-PFV	15350	16950	18700	18700	20450	22400	24500	26750
XFAM-022Z-TFC	ZS15KAE-TF5	15350	16950	18700	18700	20450	22400	24500	26750
XFAM-025Z-CFV	ZS19KAE-PFV	17250	19050	21000	21000	23000	25200	27450	29950
XFAM-025Z-TFC	ZS19KAE-TF5	17250	19050	21000	21000	23000	25200	27450	29950
XFAM-030Z-CFV	ZS21KAE-PFV	22750	25150	27600	27600	30200	33000	35900	39000
XFAM-030Z-TFC	ZS21KAE-TF5	22750	25150	27600	27600	30200	33000	35900	39000
XFAM-033Z-CFV	ZS26KAE-PFV	25000	27600	30300	30300	33100	36100	39250	42600
XFAM-033Z-TFC	ZS26KAE-TF5	25000	27600	30300	30300	33100	36100	39250	42600
XFAM-037Z-CFV	ZS29KAE-PFV	27650	30500	33400	33450	36550	39750	43150	46750
XFAM-037Z-TFC	ZS29KAE-TF5	27650	30500	33400	33450	36550	39750	43150	46750
XFAM-045Z-CFV	ZS33KAE-PFV	31200	34500	37900	37950	41550	45350	49250	53500
XFAM-045Z-TFC	ZS33KAE-TF5	31200	34500	37900	37950	41550	45350	49250	53500
XFAM-050Z-CFV	ZS38K4E-PFV	35650	39250	43050	43100	47100	51250	56000	60500
XFAM-050Z-TFC	ZS38K4E-TF5	35650	39250	43050	43100	47100	51250	56000	60500
XFAM-060Z-TFC	ZS45K4E-TF5	43600	46750	51500	51250	56250	61250	66750	72250



## R-22 Medium Temp

## Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	15	20	25@40	25@65	30	35	40	45
100° Ambient									
XFAM-015Z-CFV	ZS09KAE-PFV	9460	10500	11600	11600	12700	14000	15300	16800
XFAM-015Z-TFC	ZS09KAE-TF5	9460	10500	11600	11600	12700	14000	15300	16800
XFAM-017Z-CFV	ZS11KAE-PFV	11200	12400	13700	13700	15100	16500	18100	19800
XFAM-017Z-TFC	ZS11KAE-TF5	11200	12400	13700	13700	15100	16500	18100	19800
XFAM-020Z-CFV	ZS13KAE-PFV	12800	14200	15600	15600	17200	18800	20600	22500
XFAM-020Z-TFC	ZS13KAE-TF5	12800	14200	15600	15600	17200	18800	20600	22500
XFAM-022Z-CFV	ZS15KAE-PFV	14900	16500	18200	18200	19900	21800	23800	26000
XFAM-022Z-TFC	ZS15KAE-TF5	14900	16500	18200	18200	19900	21800	23800	26000
XFAM-025Z-CFV	ZS19KAE-PFV	16800	18500	20400	20400	22400	24500	26700	29100
XFAM-025Z-TFC	ZS19KAE-TF5	16800	18500	20400	20400	22400	24500	26700	29100
XFAM-030Z-CFV	ZS21KAE-PFV	22100	24400	26800	26800	29400	32100	34900	37900
XFAM-030Z-TFC	ZS21KAE-TF5	22100	24400	26800	26800	29400	32100	34900	37900
XFAM-033Z-CFV	ZS26KAE-PFV	24300	26800	29400	29500	32200	35100	38100	41400
XFAM-033Z-TFC	ZS26KAE-TF5	24300	26800	29400	29500	32200	35100	38100	41400
XFAM-037Z-CFV	ZS29KAE-PFV	26800	29600	32400	32500	35500	38600	41900	45400
XFAM-037Z-TFC	ZS29KAE-TF5	26800	29600	32400	32500	35500	38600	41900	45400
XFAM-045Z-CFV	ZS33KAE-PFV	30300	33500	36800	36900	40400	44100	48000	52000
XFAM-045Z-TFC	ZS33KAE-TF5	30300	33500	36800	36900	40400	44100	48000	52000
XFAM-050Z-CFV	ZS38K4E-PFV	34700	38200	41900	42000	45900	50000	54500	59000
XFAM-050Z-TFC	ZS38K4E-TF5	34700	38200	41900	42000	45900	50000	54500	59000
XFAM-060Z-TFC	ZS45K4E-TF5		45500	50000	50000	55000	59500	65000	70500
110° Ambient									
XFAM-015Z-CFV	ZS09KAE-PFV	8900	9890	10900	10900	12000	13200	14500	15800
XFAM-015Z-TFC	ZS09KAE-TF5	8900	9890	10900	10900	12000	13200	14500	15800
XFAM-017Z-CFV	ZS11KAE-PFV	10500	11700	12900	12900	14200	15600	17100	18700
XFAM-017Z-TFC	ZS11KAE-TF5	10500	11700	12900	12900	14200	15600	17100	18700
XFAM-020Z-CFV	ZS13KAE-PFV	12000	13300	14700	14800	16200	17800	19400	21200
XFAM-020Z-TFC	ZS13KAE-TF5	12000	13300	14700	14800	16200	17800	19400	21200
XFAM-022Z-CFV	ZS15KAE-PFV	14000	15500	17100	17100	18800	20600	22500	24500
XFAM-022Z-TFC	ZS15KAE-TF5	14000	15500	17100	17100	18800	20600	22500	24500
XFAM-025Z-CFV	ZS19KAE-PFV	15700	17400	19200	19300	21100	23100	25200	27400
XFAM-025Z-TFC	ZS19KAE-TF5	15700	17400	19200	19300	21100	23100	25200	27400
XFAM-030Z-CFV	ZS21KAE-PFV	20700	22900	25200	25300	27700	30200	32800	35700
XFAM-030Z-TFC	ZS21KAE-TF5	20700	22900	25200	25300	27700	30200	32800	35700
XFAM-033Z-CFV	ZS26KAE-PFV	22700	25100	27600	27700	30300	33000	35900	38900
XFAM-033Z-TFC	ZS26KAE-TF5	22700	25100	27600	27700	30300	33000	35900	38900
XFAM-037Z-CFV	ZS29KAE-PFV	25100	27700	30400	30600	33400	36300	39400	42700
XFAM-037Z-TFC	ZS29KAE-TF5	25100	27700	30400	30600	33400	36300	39400	42700
XFAM-045Z-CFV	ZS33KAE-PFV	28400	31400	34600	34800	38000	41500	45200	49100
XFAM-045Z-TFC	ZS33KAE-TF5	28400	31400	34600	34800	38000	41500	45200	49100
XFAM-050Z-CFV	ZS38K4E-PFV			39500	39700	43400	47300	51500	56000
XFAM-050Z-TFC	ZS38K4E-TF5			39500	39700	43400	47300	51500	56000
XFAM-060Z-TFC	ZS45K4E-TF5			47100	47300	51500	56500	61500	66500

Capacities rated at 40°F return gas (65°F return gas for capacities in **bold**), 5°F subcooling

All capacities shown for XFAM models also apply to XFAP models

# R-404A Low Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
90° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	2070	2310	2590	2910	3280	3700	4180	4730	5340
XFAL-008Z-TFC	ZF03KAE-TF5	2070	2310	2590	2910	3280	3700	4180	4730	5340
XFAL-009Z-CFV	ZF04KAE-PFV	2670	3000	3400	3870	4420	5040	5720	6480	7300
XFAL-009Z-TFC	ZF04KAE-TF5	2670	3000	3400	3870	4420	5040	5720	6480	7300
XFAP-015Z-CFV	ZS09KAE-PFV				4130	4670	5260	5910	6620	7400
XFAP-015Z-TFC	ZS09KAE-TF5				4130	4670	5260	5910	6620	7400
XFAL-010Z-CFV	ZF05KAE-PFV	3200	3650	4170	4750	5410	6130	6910	7760	8670
XFAL-010Z-TFC	ZF05KAE-TF5	3200	3650	4170	4750	5410	6130	6910	7760	8670
XFAP-017Z-CFV	ZS11KAE-PFV				4970	5610	6320	7100	7950	8880
XFAP-017Z-TFC	ZS11KAE-TF5				4970	5610	6320	7100	7950	8880
XFAP-022Z-CFV	ZS15KAE-PFV				6770	7640	8600	9640	10800	12000
XFAP-022Z-TFC	ZS15KAE-TF5				6770	7640	8600	9640	10800	12000
XFAL-012Z-CFV	ZF07KAE-PFV	4880	5710	6580	7480	8450	9490	10600	11900	13200
XFAL-012Z-TFC	ZF07KAE-TF5	4880	5710	6580	7480	8450	9490	10600	11900	13200
XFAL-020Z-CFV	ZXI06KCE-PFV	5700	6960	8210	9450	10690	11920	13140	14360	15570
XFAL-020Z-TFC	ZXI06KCE-TF5	5700	6960	8210	9450	10690	11920	13140	14360	15570
XFAP-030Z-CFV	ZS21KAE-PFV				10100	11300	12700	14200	15900	17600
XFAP-030Z-TFC	ZS21KAE-TF5				10100	11300	12700	14200	15900	17600
XFAL-030Z-TFC	ZXI09KCE-TF5	7840	9390	10950	12500	14060	15620	17170	18730	20280
XFAP-045Z-CFV	ZS33KAE-PFV				13900	15700	17600	19700	22000	24400
XFAP-045Z-TFC	ZS33KAE-TF5				13900	15700	17600	19700	22000	24400
XFAL-035Z-CFV	ZXI11KCE-PFV	9700	11100	12600	14200	15900	17700	19700	21700	23900
XFAP-050Z-CFV	ZS38K4E-PFV				17100	19200	21400	23800	26300	29100
XFAP-050Z-TFC	ZS38K4E-TF5				17100	19200	21400	23800	26300	29100
XFAL-040Z-CFV	ZXI14KCE-PFV	12690	14430	16280	18240	20300	22470	24740	27120	29610
XFAL-040Z-TFC	ZXI14KCE-TF5	12690	14430	16280	18240	20300	22470	24740	27120	29610
XFAL-050Z-TFC	ZXI15KCE-TF5	14030	16040	18140	20350	22660	25060	27570	30170	32880
XFAP-060Z-TFC	ZS45K4E-TF5				20600	23000	25600	28300	31300	34500
XFAL-060Z-TFC	ZXI18KCE-TF5	18000	20500	23000	25700	28600	31600	34700	38100	41500
95° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	2000	2230	2495	2800	3150	3550	4005	4530	5110
XFAL-008Z-TFC	ZF03KAE-TF5	2000	2230	2495	2800	3150	3550	4005	4530	5110
XFAL-009Z-CFV	ZF04KAE-PFV	2570	2880	3260	3710	4230	4825	5480	6205	6995
XFAL-009Z-TFC	ZF04KAE-TF5	2570	2880	3260	3710	4230	4825	5480	6205	6995
XFAP-015Z-CFV	ZS09KAE-PFV				3995	4510	5075	5700	6380	7125
XFAP-015Z-TFC	ZS09KAE-TF5				3995	4510	5075	5700	6380	7125
XFAL-010Z-CFV	ZF05KAE-PFV	3075	3505	4000	4555	5185	5875	6625	7440	8315
XFAL-010Z-TFC	ZF05KAE-TF5	3075	3505	4000	4555	5185	5875	6625	7440	8315
XFAP-017Z-CFV	ZS11KAE-PFV				4810	5425	6100	6845	7660	8550
XFAP-017Z-TFC	ZS11KAE-TF5				4810	5425	6100	6845	7660	8550
XFAP-022Z-CFV	ZS15KAE-PFV				6550	7385	8295	9290	10390	11550
XFAP-022Z-TFC	ZS15KAE-TF5				6550	7385	8295	9290	10390	11550
XFAL-012Z-CFV	ZF07KAE-PFV	4670	5475	6310	7180	8105	9100	10170	11400	12650
XFAL-012Z-TFC	ZF07KAE-TF5	4670	5475	6310	7180	8105	9100	10170	11400	12650
XFAL-020Z-CFV	ZXI06KCE-PFV	5670	6900	8115	9325	10530	11725	12910	14095	15270
XFAL-020Z-TFC	ZXI06KCE-TF5	5670	6900	8115	9325	10530	11725	12910	14095	15270
XFAP-030Z-CFV	ZS21KAE-PFV				9755	10950	12250	13700	15300	16950
XFAP-030Z-TFC	ZS21KAE-TF5				9755	10950	12250	13700	15300	16950
XFAL-030Z-TFC	ZXI09KCE-TF5	7390	8955	10525	12090	13660	15230	16795	18365	19930
XFAP-045Z-CFV	ZS33KAE-PFV	9090	10300	11700	13500	15200	16950	18900	21000	23150
XFAP-045Z-TFC	ZS33KAE-TF5				13450	15150	17000	19000	21150	23450
XFAL-035Z-CFV	ZXI11KCE-PFV	9700	11100	12600	13600	15250	17050	19000	21000	23200
XFAP-050Z-CFV	ZS38K4E-PFV				16450	18450	20550	22800	25200	27850
XFAP-050Z-TFC	ZS38K4E-TF5				16450	18450	20550	22800	25200	27850
XFAL-040Z-CFV	ZXI14KCE-PFV	12530	14205	15995	17890	19890	22000	24210	26530	28955
XFAL-040Z-TFC	ZXI14KCE-TF5	12530	14205	15995	17890	19890	22000	24210	26530	28955
XFAL-050Z-TFC	ZXI15KCE-TF5	13570	15500	17520	19645	21870	24190	26615	29135	31760
XFAP-060Z-TFC	ZS45K4E-TF5				19850	22150	24600	27200	30050	33100
XFAL-060Z-TFC	ZXI18KCE-TF5	17620	19990	22465	25040	27815	30690	33720	36950	39850

Capacities rated at 40°F return gas (65°F return gas for capacities in **bold**), 5°F subcooling

# R-404A Low Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
100° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1930	2150	2400	2690	3020	3400	3830	4330	4880
XFAL-008Z-TFC	ZF03KAE-TF5	1930	2150	2400	2690	3020	3400	3830	4330	4880
XFAL-009Z-CFV	ZF04KAE-PFV	2470	2760	3120	3550	4040	4610	5240	5930	6690
XFAL-009Z-TFC	ZF04KAE-TF5	2470	2760	3120	3550	4040	4610	5240	5930	6690
XFAP-015Z-CFV	ZS09KAE-PFV				3860	4350	4890	5490	6140	6850
XFAP-015Z-TFC	ZS09KAE-TF5				3860	4350	4890	5490	6140	6850
XFAL-010Z-CFV	ZF05KAE-PFV	2950	3360	3830	4360	4960	5620	6340	7120	7960
XFAL-010Z-TFC	ZF05KAE-TF5	2950	3360	3830	4360	4960	5620	6340	7120	7960
XFAP-017Z-CFV	ZS11KAE-PFV				4650	5240	5880	6590	7370	8220
XFAP-017Z-TFC	ZS11KAE-TF5				4650	5240	5880	6590	7370	8220
XFAP-022Z-CFV	ZS15KAE-PFV				6330	7130	7990	8940	9980	11100
XFAP-022Z-TFC	ZS15KAE-TF5				6330	7130	7990	8940	9980	11100
XFAL-012Z-CFV	ZF07KAE-PFV	4460	5240	6040	6880	7760	8710	9740	10900	12100
XFAL-012Z-TFC	ZF07KAE-TF5	4460	5240	6040	6880	7760	8710	9740	10900	12100
XFAL-020Z-CFV	ZXI06KCE-PFV	<b>5640</b>	<b>6840</b>	<b>8020</b>	<b>9200</b>	<b>10370</b>	<b>11530</b>	<b>12680</b>	<b>13830</b>	<b>14970</b>
XFAL-020Z-TFC	ZXI06KCE-TF5	<b>5640</b>	<b>6840</b>	<b>8020</b>	<b>9200</b>	<b>10370</b>	<b>11530</b>	<b>12680</b>	<b>13830</b>	<b>14970</b>
XFAP-030Z-CFV	ZS21KAE-PFV				9410	10600	11800	13200	14700	16300
XFAP-030Z-TFC	ZS21KAE-TF5				9410	10600	11800	13200	14700	16300
XFAL-030Z-TFC	ZXI09KCE-TF5	<b>6940</b>	<b>8520</b>	<b>10100</b>	<b>11680</b>	<b>13260</b>	<b>14840</b>	<b>16420</b>	<b>18000</b>	<b>19580</b>
XFAL-035Z-CFV	ZXI11KCE-PFV	<b>9090</b>	<b>10300</b>	<b>11700</b>	<b>13100</b>	<b>14700</b>	<b>16300</b>	<b>18100</b>	<b>20000</b>	<b>21900</b>
XFAP-045Z-CFV	ZS33KAE-PFV				13000	14600	16400	18300	20300	22500
XFAP-045Z-TFC	ZS33KAE-TF5				13000	14600	16400	18300	20300	22500
XFAP-050Z-CFV	ZS38K4E-PFV				15800	17700	19700	21800	24100	26600
XFAP-050Z-TFC	ZS38K4E-TF5				15800	17700	19700	21800	24100	26600
XFAL-040Z-CFV	ZXI14KCE-PFV	<b>12370</b>	<b>13980</b>	<b>15710</b>	<b>17540</b>	<b>19480</b>	<b>21530</b>	<b>23680</b>	<b>25940</b>	<b>28300</b>
XFAL-040Z-TFC	ZXI14KCE-TF5	<b>12370</b>	<b>13980</b>	<b>15710</b>	<b>17540</b>	<b>19480</b>	<b>21530</b>	<b>23680</b>	<b>25940</b>	<b>28300</b>
XFAL-050Z-TFC	ZXI15KCE-TF5	<b>13110</b>	<b>14960</b>	<b>16900</b>	<b>18940</b>	<b>21080</b>	<b>23320</b>	<b>25660</b>	<b>28100</b>	<b>30640</b>
XFAP-060Z-TFC	ZS45K4E-TF5				19100	21300	23600	26100	28800	31700
XFAL-060Z-TFC	ZXI18KCE-TF5	<b>17240</b>	<b>19480</b>	<b>21930</b>	<b>24380</b>	<b>27030</b>	<b>29780</b>	<b>32740</b>	<b>35800</b>	<b>38200</b>
110° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1790	1990	2210	2460	2750	3090	3470	3910	4410
XFAL-008Z-TFC	ZF03KAE-TF5	1790	1990	2210	2460	2750	3090	3470	3910	4410
XFAL-009Z-CFV	ZF04KAE-PFV	2260	2510	2830	3210	3650	4160	4730	5370	6070
XFAL-009Z-TFC	ZF04KAE-TF5	2260	2510	2830	3210	3650	4160	4730	5370	6070
XFAP-015Z-CFV	ZS09KAE-PFV				3570	4010	4500	5030	5620	6260
XFAP-015Z-TFC	ZS09KAE-TF5				3570	4010	4500	5030	5620	6260
XFAL-010Z-CFV	ZF05KAE-PFV	2670	3040	3470	3950	4500	5100	5760	6470	7240
XFAL-010Z-TFC	ZF05KAE-TF5	2670	3040	3470	3950	4500	5100	5760	6470	7240
XFAP-017Z-CFV	ZS11KAE-PFV				4290	4830	5410	6040	6740	7500
XFAP-017Z-TFC	ZS11KAE-TF5				4290	4830	5410	6040	6740	7500
XFAP-022Z-CFV	ZS15KAE-PFV				5850	6560	7340	8190	9110	10100
XFAP-022Z-TFC	ZS15KAE-TF5				5850	6560	7340	8190	9110	10100
XFAL-012Z-CFV	ZF07KAE-PFV	4020	4750	5490	6240	7040	7880	8800	9820	10900
XFAL-012Z-TFC	ZF07KAE-TF5	4020	4750	5490	6240	7040	7880	8800	9820	10900
XFAP-030Z-CFV	ZS21KAE-PFV				8670	9710	10800	12000	13400	14800
XFAP-030Z-TFC	ZS21KAE-TF5				8670	9710	10800	12000	13400	14800
XFAL-020Z-CFV	ZXI06KCE-PFV	<b>5500</b>	<b>6610</b>	<b>7710</b>	<b>8810</b>	<b>9890</b>	<b>10970</b>	<b>12040</b>	<b>13100</b>	<b>14160</b>
XFAL-020Z-TFC	ZXI06KCE-TF5	<b>5500</b>	<b>6610</b>	<b>7710</b>	<b>8810</b>	<b>9890</b>	<b>10970</b>	<b>12040</b>	<b>13100</b>	<b>14160</b>
XFAL-030Z-TFC	ZXI09KCE-TF5	<b>5830</b>	<b>7420</b>	<b>9010</b>	<b>10590</b>	<b>12180</b>	<b>13770</b>	<b>15350</b>	<b>16940</b>	<b>18530</b>
XFAP-045Z-CFV	ZS33KAE-PFV				12000	13400	15000	16700	18500	20500
XFAP-045Z-TFC	ZS33KAE-TF5				12000	13400	15000	16700	18500	20500
XFAL-035Z-CFV	ZXI11KCE-PFV	<b>9020</b>	<b>10140</b>	<b>11340</b>	<b>12720</b>	<b>14200</b>	<b>15690</b>	<b>17380</b>	<b>19190</b>	<b>21090</b>
XFAP-050Z-CFV	ZS38K4E-PFV				14400	16000	17800	19800	21800	24100
XFAP-050Z-TFC	ZS38K4E-TF5				14400	16000	17800	19800	21800	24100
XFAL-040Z-CFV	ZXI14KCE-PFV	<b>11850</b>	<b>13350</b>	<b>14950</b>	<b>16660</b>	<b>18480</b>	<b>20400</b>	<b>22420</b>	<b>24560</b>	<b>26800</b>
XFAL-040Z-TFC	ZXI14KCE-TF5	<b>11850</b>	<b>13350</b>	<b>14950</b>	<b>16660</b>	<b>18480</b>	<b>20400</b>	<b>22420</b>	<b>24560</b>	<b>26800</b>
XFAL-050Z-TFC	ZXI15KCE-TF5	<b>11920</b>	<b>13590</b>	<b>15370</b>	<b>17250</b>	<b>19220</b>	<b>21300</b>	<b>23470</b>	<b>25740</b>	<b>28110</b>
XFAP-060Z-TFC	ZS45K4E-TF5				17500	19500	21600	23800	26200	28700
XFAL-060Z-TFC	ZXI18KCE-TF5	<b>16170</b>	<b>18330</b>	<b>20500</b>	<b>22760</b>	<b>25130</b>	<b>27600</b>	<b>32960</b>	<b>34700</b>	

Capacities rated at 40°F return gas (65°F return gas for capacities in **bold**), 5°F subcooling

# R-404A Med/Ext Med Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
90° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	4540	5100	5730	6420	7180	8010	8280	9180	10200	11200	12300
XFAM-008Z-TFC	ZB06KAE-TF5	4540	5100	5730	6420	7180	8010	8280	9180	10200	11200	12300
XFAM-010Z-CFV	ZB07KAE-PFV	5430	6140	6910	7750	8670	9680	10000	11100	12400	13700	15200
XFAM-010Z-TFC	ZB07KAE-TF5	5430	6140	6910	7750	8670	9680	10000	11100	12400	13700	15200
XFAM-012Z-CFV	ZB08KAE-PFV	6430	7190	8010	8910	9900	11000	11400	12600	14100	15600	17400
XFAM-012Z-TFC	ZB08KAE-TF5	6430	7190	8010	8910	9900	11000	11400	12600	14100	15600	17400
XFAM-015Z-CFV	ZS09KAE-PFV	7310	8160	9090	10100	11200	12400	12700	14000	15300	16700	18300
XFAM-015Z-TFC	ZS09KAE-TF5	7310	8160	9090	10100	11200	12400	12700	14000	15300	16700	18300
XFAM-017Z-CFV	ZS11KAE-PFV	8780	9790	10900	12100	13400	14800	15200	16700	18300	19900	21700
XFAM-017Z-TFC	ZS11KAE-TF5	8780	9790	10900	12100	13400	14800	15200	16700	18300	19900	21700
XFAM-020Z-CFV	ZS13KAE-PFV	10700	11900	13100	14300	15700	17100	17600	19200	20800	22500	24300
XFAM-020Z-TFC	ZS13KAE-TF5	10700	11900	13100	14300	15700	17100	17600	19200	20800	22500	24300
XFAM-022Z-CFV	ZS15KAE-PFV	11900	13300	14700	16300	18000	19900	20400	22300	24300	26400	28600
XFAM-022Z-TFC	ZS15KAE-TF5	11900	13300	14700	16300	18000	19900	20400	22300	24300	26400	28600
XFAM-025Z-CFV	ZS19KAE-PFV	13400	14900	16500	18200	20000	21900	22700	24700	26900	29200	31600
XFAM-025Z-TFC	ZS19KAE-TF5	13400	14900	16500	18200	20000	21900	22700	24700	26900	29200	31600
XFAM-030Z-CFV	ZS21KAE-PFV	17600	19500	21600	23800	26200	28800	29300	31900	34500	37300	40200
XFAM-030Z-TFC	ZS21KAE-TF5	17600	19500	21600	23800	26200	28800	29300	31900	34500	37300	40200
XFAM-033Z-CFV	ZS26KAE-PFV	20700	22800	24900	27200	29400	31800	33000	35500	38100	40700	43400
XFAM-033Z-TFC	ZS26KAE-TF5	20700	22800	24900	27200	29400	31800	33000	35500	38100	40700	43400
XFAM-037Z-CFV	ZS29KAE-PFV	23200	25500	27900	30300	32800	35300	36700	39400	42100	44900	47700
XFAM-037Z-TFC	ZS29KAE-TF5	23200	25500	27900	30300	32800	35300	36700	39400	42100	44900	47700
XFAM-045Z-CFV	ZS33KAE-PFV	24300	27000	29800	32900	36200	39800	40700	44200	47900	52000	56000
XFAM-045Z-TFC	ZS33KAE-TF5	24300	27000	29800	32900	36200	39800	40700	44200	47900	52000	56000
XFAM-050Z-CFV	ZS38K4E-PFV	29000	31900	35000	38400	41900	45600	47300	51500	55500	60000	65000
XFAM-050Z-TFC	ZS38K4E-TF5	29000	31900	35000	38400	41900	45600	47300	51500	55500	60000	65000
XFAM-060Z-TFC	ZS45K4E-TF5	34400	37800	41400	45200	49300	53500	55500	60500	65500	70500	76000
95° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	4355	4900	5505	6170	6895	7680	7965	8830	9775	10750	11750
XFAM-008Z-TFC	ZB06KAE-TF5	4355	4900	5505	6170	6895	7680	7965	8830	9775	10750	11750
XFAM-010Z-CFV	ZB07KAE-PFV	5235	5915	6650	7450	8325	9280	9620	10700	11900	13150	14550
XFAM-010Z-TFC	ZB07KAE-TF5	5235	5915	6650	7450	8325	9280	9620	10700	11900	13150	14550
XFAM-012Z-CFV	ZB08KAE-PFV	6190	6920	7700	8550	9490	10550	10950	12100	13500	15000	16700
XFAM-012Z-TFC	ZB08KAE-TF5	6190	6920	7700	8550	9490	10550	10950	12100	13500	15000	16700
XFAM-015Z-CFV	ZS09KAE-PFV	7030	7845	8730	9700	10750	11900	12200	13400	14650	16000	17450
XFAM-015Z-TFC	ZS09KAE-TF5	7030	7845	8730	9700	10750	11900	12200	13400	14650	16000	17450
XFAM-017Z-CFV	ZS11KAE-PFV	8445	9410	10450	11600	12850	14200	14600	16000	17500	19050	20750
XFAM-017Z-TFC	ZS11KAE-TF5	8445	9410	10450	11600	12850	14200	14600	16000	17500	19050	20750
XFAM-020Z-CFV	ZS13KAE-PFV	10325	11450	12600	13800	15050	16400	16950	18450	19950	21500	23200
XFAM-020Z-TFC	ZS13KAE-TF5	10325	11450	12600	13800	15050	16400	16950	18450	19950	21500	23200
XFAM-022Z-CFV	ZS15KAE-PFV	11450	12750	14100	15650	17300	19100	19550	21350	23250	25250	27350
XFAM-022Z-TFC	ZS15KAE-TF5	11450	12750	14100	15650	17300	19100	19550	21350	23250	25250	27350
XFAM-025Z-CFV	ZS19KAE-PFV	12800	14250	15800	17450	19150	20950	21800	23700	25750	27950	30200
XFAM-025Z-TFC	ZS19KAE-TF5	12800	14250	15800	17450	19150	20950	21800	23700	25750	27950	30200
XFAM-030Z-CFV	ZS21KAE-PFV	16900	18700	20700	22800	25100	27550	28150	30600	33050	35700	38450
XFAM-030Z-TFC	ZS21KAE-TF5	16900	18700	20700	22800	25100	27550	28150	30600	33050	35700	38450
XFAM-033Z-CFV	ZS26KAE-PFV	19950	22000	24050	26200	28300	30550	31850	34200	36600	39050	41550
XFAM-033Z-TFC	ZS26KAE-TF5	19950	22000	24050	26200	28300	30550	31850	34200	36600	39050	41550
XFAM-037Z-CFV	ZS29KAE-PFV	22400	24650	26950	29250	31600	33950	35500	38000	40550	43100	45750
XFAM-037Z-TFC	ZS29KAE-TF5	22400	24650	26950	29250	31600	33950	35500	38000	40550	43100	45750
XFAM-045Z-CFV	ZS33KAE-PFV	23350	25900	28600	31550	34750	38200	39200	42600	46100	49900	53750
XFAM-045Z-TFC	ZS33KAE-TF5	23350	25900	28600	31550	34750	38200	39200	42600	46100	49900	53750
XFAM-050Z-CFV	ZS38K4E-PFV	27700	30500	33500	36700	40100	43650	45450	49450	53500	57750	62500
XFAM-050Z-TFC	ZS38K4E-TF5	27700	30500	33500	36700	40100	43650	45450	49450	53500	57750	62500
XFAM-060Z-TFC	ZS45K4E-TF5	32950	36150	39600	43250	47200	51250	53250	58000	62750	67750	73000

Capacities rated at 40°F return gas (65°F return gas for capacities in bold), 5°F subcooling

# R-404A Med/Ext Med Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
100° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	4170	4700	5280	5920	6610	7350	7650	8480	9350	10300	11200
XFAM-008Z-TFC	ZB06KAE-TF5	4170	4700	5280	5920	6610	7350	7650	8480	9350	10300	11200
XFAM-010Z-CFV	ZB07KAE-PFV	5040	5690	6390	7150	7980	8880	9240	10300	11400	12600	13900
XFAM-010Z-TFC	ZB07KAE-TF5	5040	5690	6390	7150	7980	8880	9240	10300	11400	12600	13900
XFAM-012Z-CFV	ZB08KAE-PFV	5950	6650	7390	8190	9080	10100	10500	11600	12900	14400	16000
XFAM-012Z-TFC	ZB08KAE-TF5	5950	6650	7390	8190	9080	10100	10500	11600	12900	14400	16000
XFAM-015Z-CFV	ZS09KAE-PFV	6750	7530	8370	9300	10300	11400	11700	12800	14000	15300	16600
XFAM-015Z-TFC	ZS09KAE-TF5	6750	7530	8370	9300	10300	11400	11700	12800	14000	15300	16600
XFAM-017Z-CFV	ZS11KAE-PFV	8110	9030	10000	11100	12300	13600	14000	15300	16700	18200	19800
XFAM-017Z-TFC	ZS11KAE-TF5	8110	9030	10000	11100	12300	13600	14000	15300	16700	18200	19800
XFAM-020Z-CFV	ZS13KAE-PFV	9950	11000	12100	13300	14400	15700	16300	17700	19100	20500	22100
XFAM-020Z-TFC	ZS13KAE-TF5	9950	11000	12100	13300	14400	15700	16300	17700	19100	20500	22100
XFAM-022Z-CFV	ZS15KAE-PFV	11000	12200	13500	15000	16600	18300	18700	20400	22200	24100	26100
XFAM-022Z-TFC	ZS15KAE-TF5	11000	12200	13500	15000	16600	18300	18700	20400	22200	24100	26100
XFAM-025Z-CFV	ZS19KAE-PFV	12200	13600	15100	16700	18300	20000	20900	22700	24600	26700	28800
XFAM-025Z-TFC	ZS19KAE-TF5	12200	13600	15100	16700	18300	20000	20900	22700	24600	26700	28800
XFAM-030Z-CFV	ZS21KAE-PFV	16200	17900	19800	21800	24000	26300	27000	29300	31600	34100	36700
XFAM-030Z-TFC	ZS21KAE-TF5	16200	17900	19800	21800	24000	26300	27000	29300	31600	34100	36700
XFAM-033Z-CFV	ZS26KAE-PFV	19200	21200	23200	25200	27200	29300	30700	32900	35100	37400	39700
XFAM-033Z-TFC	ZS26KAE-TF5	19200	21200	23200	25200	27200	29300	30700	32900	35100	37400	39700
XFAM-037Z-CFV	ZS29KAE-PFV	21600	23800	26000	28200	30400	32600	34300	36600	39000	41300	43800
XFAM-037Z-TFC	ZS29KAE-TF5	21600	23800	26000	28200	30400	32600	34300	36600	39000	41300	43800
XFAM-045Z-CFV	ZS33KAE-PFV	22400	24800	27400	30200	33300	36600	37700	41000	44300	47800	51500
XFAM-045Z-TFC	ZS33KAE-TF5	22400	24800	27400	30200	33300	36600	37700	41000	44300	47800	51500
XFAM-050Z-CFV	ZS38K4E-PFV	26400	29100	32000	35000	38300	41700	43600	47400	51500	55500	60000
XFAM-050Z-TFC	ZS38K4E-TF5	26400	29100	32000	35000	38300	41700	43600	47400	51500	55500	60000
XFAM-060Z-TFC	ZS45K4E-TF5	31500	34500	37800	41300	45100	49000	51000	55500	60000	65000	70000
110° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3770	4260	4800	5380	6000	6670	7010	7750	8530	9350	10200
XFAM-008Z-TFC	ZB06KAE-TF5	3770	4260	4800	5380	6000	6670	7010	7750	8530	9350	10200
XFAM-010Z-CFV	ZB07KAE-PFV	4640	5230	5870	6540	7270	8060	8480	9380	10400	11400	12600
XFAM-010Z-TFC	ZB07KAE-TF5	4640	5230	5870	6540	7270	8060	8480	9380	10400	11400	12600
XFAM-012Z-CFV	ZB08KAE-PFV	5470	6100	6760	7480	8260	9130	9610	10600	11800	13100	14600
XFAM-012Z-TFC	ZB08KAE-TF5	5470	6100	6760	7480	8260	9130	9610	10600	11800	13100	14600
XFAM-015Z-CFV	ZS09KAE-PFV	6160	6850	7620	8450	9360	10400	10700	11700	12800	13900	15100
XFAM-015Z-TFC	ZS09KAE-TF5	6160	6850	7620	8450	9360	10400	10700	11700	12800	13900	15100
XFAM-017Z-CFV	ZS11KAE-PFV	7390	8220	9130	10100	11200	12400	12900	14000	15300	16600	18000
XFAM-017Z-TFC	ZS11KAE-TF5	7390	8220	9130	10100	11200	12400	12900	14000	15300	16600	18000
XFAM-020Z-CFV	ZS13KAE-PFV	9300	10300	11300	12300	13300	14400	15200	16300	17500	18800	20100
XFAM-020Z-TFC	ZS13KAE-TF5	9300	10300	11300	12300	13300	14400	15200	16300	17500	18800	20100
XFAM-022Z-CFV	ZS15KAE-PFV	10000	11100	12300	13600	15000	16600	17300	18800	20400	22000	23800
XFAM-022Z-TFC	ZS15KAE-TF5	10000	11100	12300	13600	15000	16600	17300	18800	20400	22000	23800
XFAM-025Z-CFV	ZS19KAE-PFV	11200	12600	14000	15400	16800	18300	19300	20900	22600	24400	26300
XFAM-025Z-TFC	ZS19KAE-TF5	11200	12600	14000	15400	16800	18300	19300	20900	22600	24400	26300
XFAM-030Z-CFV	ZS21KAE-PFV	14700	16200	17900	19700	21700	23800	25100	27100	29200	31400	33600
XFAM-030Z-TFC	ZS21KAE-TF5	14700	16200	17900	19700	21700	23800	25100	27100	29200	31400	33600
XFAM-033Z-CFV	ZS26KAE-PFV	18200	20100	21900	23700	25500	27300	28900	30800	32700	34600	36500
XFAM-033Z-TFC	ZS26KAE-TF5	18200	20100	21900	23700	25500	27300	28900	30800	32700	34600	36500
XFAM-037Z-CFV	ZS29KAE-PFV	20600	22700	24700	26700	28600	30500	32500	34400	36400	38300	40200
XFAM-037Z-TFC	ZS29KAE-TF5	20600	22700	24700	26700	28600	30500	32500	34400	36400	38300	40200
XFAM-045Z-CFV	ZS33KAE-PFV	20300	22400	24700	27300	30000	32900	35000	37800	40700	43800	47000
XFAM-045Z-TFC	ZS33KAE-TF5	20300	22400	24700	27300	30000	32900	35000	37800	40700	43800	47000
XFAM-050Z-CFV	ZS38K4E-PFV	23900	26300	28800	31500	34400	37500	39500	43000	46600	50500	54500
XFAM-050Z-TFC	ZS38K4E-TF5	23900	26300	28800	31500	34400	37500	39500	43000	46600	50500	54500
XFAM-060Z-TFC	ZS45K4E-TF5	28500	31200	34200	37300	40600	44100	46500	50500	54500	59000	63500

Capacities rated at 40°F return gas (65°F return gas for capacities in **bold**), 5°F subcooling

## R-407A Low Temp

## Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
90° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1800	2010	2260	2530	2850	3210	3620	4090	4620
XFAL-008Z-TFC	ZF03KAE-TF5	1800	2010	2260	2530	2850	3210	3620	4090	4620
XFAL-009Z-CFV	ZF04KAE-PFV	2230	2510	2850	3270	3760	4320	4950	5650	6420
XFAL-009Z-TFC	ZF04KAE-TF5	2230	2510	2850	3270	3760	4320	4950	5650	6420
XFAL-010Z-CFV	ZF05KAE-PFV	2540	2900	3340	3860	4450	5120	5860	6680	7570
XFAL-010Z-TFC	ZF05KAE-TF5	2540	2900	3340	3860	4450	5120	5860	6680	7570
XFAL-012Z-CFV	ZF07KAE-PFV	4090	4790	5530	6320	7170	8100	9130	10300	11500
XFAL-012Z-TFC	ZF07KAE-TF5	4090	4790	5530	6320	7170	8100	9130	10300	11500
XFAL-020Z-CFV	ZXI06KCE-PFV	3742	4361	5147	6076	7120	8254	9453	10689	11937
XFAL-020Z-TFC	ZXI06KCE-TF5	3742	4361	5147	6076	7120	8254	9453	10689	11937
XFAL-030Z-TFC	ZXI09KCE-TF5	5735	6537	7698	8998	10422	11953	13575	15269	17022
XFAL-035Z-CFV	ZXI11KCE-PFV	7173	8417	9816	11356	13024	14805	16685	18652	20691
XFAL-040Z-CFV	ZXI14KCE-PFV	10387	11920	13592	15403	17352	19439	21664	24026	26526
XFAL-040Z-TFC	ZXI14KCE-TF5	10387	11920	13592	15403	17352	19439	21664	24026	26526
XFAL-050Z-TFC	ZXI15KCE-TF5	10486	12164	13982	15941	18045	20296	22698	25251	27960
XFAL-051Z-CFV	ZXI16KCE-CFV	10791	12486	14353	16392	18604	20988	23545	26275	29176
XFAL-060Z-TFC	ZXI18KCE-TF5	13901	16078	18450	21019	23784	26745	29902	33255	36804
95° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1740	1950	2190	2455	2760	3105	3500	3945	4450
XFAL-008Z-TFC	ZF03KAE-TF5	1740	1950	2190	2455	2760	3105	3500	3945	4450
XFAL-009Z-CFV	ZF04KAE-PFV	2170	2435	2760	3160	3635	4170	4780	5455	6200
XFAL-009Z-TFC	ZF04KAE-TF5	2170	2435	2760	3160	3635	4170	4780	5455	6200
XFAL-010Z-CFV	ZF05KAE-PFV	2465	2810	3230	3730	4295	4945	5660	6450	7310
XFAL-010Z-TFC	ZF05KAE-TF5	2465	2810	3230	3730	4295	4945	5660	6450	7310
XFAL-012Z-CFV	ZF07KAE-PFV	3960	4645	5365	6125	6945	7840	8830	9935	11100
XFAL-012Z-TFC	ZF07KAE-TF5	3960	4645	5365	6125	6945	7840	8830	9935	11100
XFAL-020Z-CFV	ZXI06KCE-PFV	3630	4224	4989	5899	6927	8047	9234	10462	11704
XFAL-020Z-TFC	ZXI06KCE-TF5	3630	4224	4989	5899	6927	8047	9234	10462	11704
XFAL-030Z-TFC	ZXI09KCE-TF5	5666	6544	7680	8955	10354	11859	13455	15124	16850
XFAL-035Z-CFV	ZXI11KCE-PFV	6948	8143	9495	10991	12616	14357	16201	18133	20139
XFAL-040Z-CFV	ZXI14KCE-PFV	10188	11664	13275	15023	16906	18925	21078	23366	25789
XFAL-040Z-TFC	ZXI14KCE-TF5	10188	11664	13275	15023	16906	18925	21078	23366	25789
XFAL-050Z-TFC	ZXI15KCE-TF5	10181	11835	13623	15548	17611	19816	22165	24661	27307
XFAL-051Z-CFV	ZXI16KCE-CFV	10588	12209	14008	15985	18140	20472	22982	25670	28536
XFAL-060Z-TFC	ZXI18KCE-TF5	13601	15675	17964	20468	23187	26121	29271	32635	36215

Capacities rated at 65°F return gas, 5°F subcooling

## R-407A Low Temp

## Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
100° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1680	1890	2120	2380	2670	3000	3380	3800	4280
XFAL-008Z-TFC	ZF03KAE-TF5	1680	1890	2120	2380	2670	3000	3380	3800	4280
XFAL-009Z-CFV	ZF04KAE-PFV	2110	2360	2670	3050	3510	4020	4610	5260	5980
XFAL-009Z-TFC	ZF04KAE-TF5	2110	2360	2670	3050	3510	4020	4610	5260	5980
XFAL-010Z-CFV	ZF05KAE-PFV	2390	2720	3120	3600	4140	4770	5460	6220	7050
XFAL-010Z-TFC	ZF05KAE-TF5	2390	2720	3120	3600	4140	4770	5460	6220	7050
XFAL-012Z-CFV	ZF07KAE-PFV	3830	4500	5200	5930	6720	7580	8530	9570	10700
XFAL-012Z-TFC	ZF07KAE-TF5	3830	4500	5200	5930	6720	7580	8530	9570	10700
XFAL-020Z-CFV	ZXI06KCE-PFV	3517	4088	4831	5722	6733	7840	9016	10235	11471
XFAL-020Z-TFC	ZXI06KCE-TF5	3517	4088	4831	5722	6733	7840	9016	10235	11471
XFAL-030Z-TFC	ZXI09KCE-TF5	5598	6551	7661	8911	10285	11765	13335	14979	16679
XFAL-035Z-CFV	ZXI11KCE-PFV	6722	7868	9174	10625	12209	13910	15716	17613	19587
XFAL-040Z-CFV	ZXI14KCE-PFV	9989	11407	12959	14644	16461	18411	20493	22707	25052
XFAL-040Z-TFC	ZXI14KCE-TF5	9989	11407	12959	14644	16461	18411	20493	22707	25052
XFAL-050Z-TFC	ZXI15KCE-TF5	9876	11507	13265	15155	17177	19336	21633	24072	26654
XFAL-051Z-CFV	ZXI16KCE-CFV	10385	11933	13664	15578	17675	19956	22419	25066	27895
XFAL-060Z-TFC	ZXI18KCE-TF5	13301	15272	17477	19916	22590	25497	28640	32016	35627
110° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1570	1780	2000	2240	2510	2810	3150	3540	3970
XFAL-008Z-TFC	ZF03KAE-TF5	1570	1780	2000	2240	2510	2810	3150	3540	3970
XFAL-009Z-CFV	ZF04KAE-PFV	1990	2200	2480	2830	3240	3720	4260	4860	5520
XFAL-009Z-TFC	ZF04KAE-TF5	1990	2200	2480	2830	3240	3720	4260	4860	5520
XFAL-010Z-CFV	ZF05KAE-PFV	2250	2540	2900	3330	3830	4400	5040	5750	6520
XFAL-010Z-TFC	ZF05KAE-TF5	2250	2540	2900	3330	3830	4400	5040	5750	6520
XFAL-012Z-CFV	ZF07KAE-PFV	3520	4160	4810	5500	6230	7010	7880	8830	9880
XFAL-012Z-TFC	ZF07KAE-TF5	3520	4160	4810	5500	6230	7010	7880	8830	9880
XFAL-020Z-CFV	ZS21KAE-PFV	3118	3651	4362	5225	6215	7305	8469	9682	10916
XFAL-020Z-TFC	ZS21KAE-TF5	3118	3651	4362	5225	6215	7305	8469	9682	10916
XFAL-030Z-TFC	ZXI09KCE-TF5	5354	6239	7281	8462	9767	11178	12679	14253	15884
XFAL-035Z-CFV	ZS33KAE-TF5	6235	7272	8473	9825	11313	12925	14646	16462	18361
XFAL-040Z-CFV	ZXI14KCE-PFV	9594	10950	12433	14044	15781	17646	19637	21754	23997
XFAL-040Z-TFC	ZXI14KCE-TF5	9594	10950	12433	14044	15781	17646	19637	21754	23997
XFAL-050Z-TFC	ZXI15KCE-TF5	9071	10643	12331	14140	16070	18125	20307	22619	25064
XFAL-051Z-CFV	ZXI16KCE-CFV	9586	11076	12737	14570	16576	18753	21102	23624	26317
XFAL-060Z-TFC	ZXI18KCE-TF5	12626	14472	16538	18826	21334	24063	27013	30184	33576

Capacities rated at 65°F return gas, 5°F subcooling

# R-407A Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
90° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	4090	4590	5170	5820	6550	7360	7460	8330	9280	10300	11400
XFAM-008Z-TFC	ZB06KAE-TF5	4090	4590	5170	5820	6550	7360	7460	8330	9280	10300	11400
XFAM-010Z-CFV	ZB07KAE-PFV	4970	5660	6390	7190	8030	8930	9050	10000	11000	12000	13100
XFAM-010Z-TFC	ZB07KAE-TF5	4970	5660	6390	7190	8030	8930	9050	10000	11000	12000	13100
XFAM-012Z-CFV	ZB08KAE-PFV	5920	6750	7620	8510	9430	10400	10500	11500	12500	13500	14600
XFAM-012Z-TFC	ZB08KAE-TF5	5920	6750	7620	8510	9430	10400	10500	11500	12500	13500	14600
XFAM-015Z-CFV	ZS09KAE-PFV	6940	7730	8590	9520	10500	11600	11800	13000	14400	15900	17500
XFAM-015Z-TFC	ZS09KAE-TF5	6940	7730	8590	9520	10500	11600	11800	13000	14400	15900	17500
XFAM-017Z-CFV	ZS11KAE-PFV	8240	9180	10200	11300	12500	13800	14000	15400	17000	18700	20600
XFAM-017Z-TFC	ZS11KAE-TF5	8240	9180	10200	11300	12500	13800	14000	15400	17000	18700	20600
XFAM-020Z-CFV	ZS13KAE-PFV	9360	10400	11600	12800	14100	15600	15800	17400	19200	21100	23300
XFAM-020Z-TFC	ZS13KAE-TF5	9360	10400	11600	12800	14100	15600	15800	17400	19200	21100	23300
XFAM-022Z-CFV	ZS15KAE-PFV	11200	12500	13800	15300	16900	18600	18800	20800	22800	25100	27500
XFAM-022Z-TFC	ZS15KAE-TF5	11200	12500	13800	15300	16900	18600	18800	20800	22800	25100	27500
XFAM-025Z-CFV	ZS19KAE-PFV	12600	14000	15500	17100	18800	20800	21100	23200	25500	28000	30700
XFAM-025Z-TFC	ZS19KAE-TF5	12600	14000	15500	17100	18800	20800	21100	23200	25500	28000	30700
XFAM-030Z-CFV	ZS21KAE-PFV	16400	18100	20100	22100	24400	26800	27200	29900	32800	35900	39200
XFAM-030Z-TFC	ZS21KAE-TF5	16400	18100	20100	22100	24400	26800	27200	29900	32800	35900	39200
XFAM-033Z-CFV	ZS26KAE-PFV	17300	19400	21800	24300	27000	29800	30300	33400	36700	40200	43900
XFAM-033Z-TFC	ZS26KAE-TF5	17300	19400	21800	24300	27000	29800	30300	33400	36700	40200	43900
XFAM-037Z-CFV	ZS29KAE-PFV	20000	22200	24500	26900	29600	32400	33000	36100	39500	43100	46900
XFAM-037Z-TFC	ZS29KAE-TF5	20000	22200	24500	26900	29600	32400	33000	36100	39500	43100	46900
XFAM-045Z-CFV	ZS33KAE-PFV	23000	25500	28200	31100	34200	37600	38200	41900	45900	50500	55000
XFAM-045Z-TFC	ZS33KAE-TF5	23000	25500	28200	31100	34200	37600	38200	41900	45900	50500	55000
XFAM-050Z-CFV	ZS38K4E-PFV	26100	29400	32800	36500	40300	44300	45000	49200	53500	58000	62500
XFAM-050Z-TFC	ZS38K4E-TF5	26100	29400	32800	36500	40300	44300	45000	49200	53500	58000	62500
XFAM-060Z-TFC	ZS45K4E-TF5	31200	35000	39000	43300	47800	52500	53500	58000	63500	68500	74000
95° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3960	4445	5000	5630	6335	7110	7225	8070	8990	9975	11050
XFAM-008Z-TFC	ZB06KAE-TF5	3960	4445	5000	5630	6335	7110	7225	8070	8990	9975	11050
XFAM-010Z-CFV	ZB07KAE-PFV	4770	5450	6175	6955	7775	8650	8785	9705	10650	11650	12700
XFAM-010Z-TFC	ZB07KAE-TF5	4770	5450	6175	6955	7775	8650	8785	9705	10650	11650	12700
XFAM-012Z-CFV	ZB08KAE-PFV	5715	6525	7370	8235	9130	10060	10200	11150	12150	13150	14200
XFAM-012Z-TFC	ZB08KAE-TF5	5715	6525	7370	8235	9130	10060	10200	11150	12150	13150	14200
XFAM-015Z-CFV	ZS09KAE-PFV	6710	7470	8300	9200	10160	11250	11450	12600	13950	15400	16950
XFAM-015Z-TFC	ZS09KAE-TF5	6710	7470	8300	9200	10160	11250	11450	12600	13950	15400	16950
XFAM-017Z-CFV	ZS11KAE-PFV	7965	8870	9845	10900	12050	13300	13550	14900	16450	18100	19950
XFAM-017Z-TFC	ZS11KAE-TF5	7965	8870	9845	10900	12050	13300	13550	14900	16450	18100	19950
XFAM-020Z-CFV	ZS13KAE-PFV	9045	10055	11200	12350	13650	15050	15300	16850	18600	20450	22550
XFAM-020Z-TFC	ZS13KAE-TF5	9045	10055	11200	12350	13650	15050	15300	16850	18600	20450	22550
XFAM-022Z-CFV	ZS15KAE-PFV	10800	12050	13350	14750	16300	17950	18200	20100	22050	24300	26650
XFAM-022Z-TFC	ZS15KAE-TF5	10800	12050	13350	14750	16300	17950	18200	20100	22050	24300	26650
XFAM-025Z-CFV	ZS19KAE-PFV	12150	13500	14950	16500	18150	20050	20400	22400	24650	27050	29650
XFAM-025Z-TFC	ZS19KAE-TF5	12150	13500	14950	16500	18150	20050	20400	22400	24650	27050	29650
XFAM-030Z-CFV	ZS21KAE-PFV	15800	17500	19350	21350	23500	25850	26300	28850	31650	34650	37900
XFAM-030Z-TFC	ZS21KAE-TF5	15800	17500	19350	21350	23500	25850	26300	28850	31650	34650	37900
XFAM-033Z-CFV	ZS26KAE-PFV	16600	18650	20950	23400	26000	28750	29300	32300	35550	38950	42500
XFAM-033Z-TFC	ZS26KAE-TF5	16600	18650	20950	23400	26000	28750	29300	32300	35550	38950	42500
XFAM-037Z-CFV	ZS29KAE-PFV	19300	21400	23600	25950	28500	31200	31850	34850	38100	41550	45250
XFAM-037Z-TFC	ZS29KAE-TF5	19300	21400	23600	25950	28500	31200	31850	34850	38100	41550	45250
XFAM-045Z-CFV	ZS33KAE-PFV	22200	24600	27200	29950	32950	36200	36900	40450	44350	48700	53250
XFAM-045Z-TFC	ZS33KAE-TF5	22200	24600	27200	29950	32950	36200	36900	40450	44350	48700	53250
XFAM-050Z-CFV	ZS38K4E-PFV	25200	28350	31700	35250	38950	42850	43600	47700	52000	56250	60750
XFAM-050Z-TFC	ZS38K4E-TF5	25200	28350	31700	35250	38950	42850	43600	47700	52000	56250	60750
XFAM-060Z-TFC	ZS45K4E-TF5	30150	33800	37700	41850	46200	50750	51750	56250	61500	66500	71750

Capacities rated at 65°F return gas (40°F return gas for capacities in **bold**), 5°F subcooling

All capacities shown for XFAM models also apply to XFAP models



# R-407A Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
100° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3830	4300	4830	5440	6120	6860	6990	7810	8700	9650	10700
XFAM-008Z-TFC	ZB06KAE-TF5	3830	4300	4830	5440	6120	6860	6990	7810	8700	9650	10700
XFAM-010Z-CFV	ZB07KAE-PFV	4570	5240	5960	6720	7520	8370	8520	9410	10300	11300	12300
XFAM-010Z-TFC	ZB07KAE-TF5	4570	5240	5960	6720	7520	8370	8520	9410	10300	11300	12300
XFAM-012Z-CFV	ZB08KAE-PFV	5510	6300	7120	7960	8830	9720	9900	10800	11800	12800	13800
XFAM-012Z-TFC	ZB08KAE-TF5	5510	6300	7120	7960	8830	9720	9900	10800	11800	12800	13800
XFAM-015Z-CFV	ZS09KAE-PFV	6480	7210	8010	8880	9820	10900	11100	12200	13500	14900	16400
XFAM-015Z-TFC	ZS09KAE-TF5	6480	7210	8010	8880	9820	10900	11100	12200	13500	14900	16400
XFAM-017Z-CFV	ZS11KAE-PFV	7690	8560	9490	10500	11600	12800	13100	14400	15900	17500	19300
XFAM-017Z-TFC	ZS11KAE-TF5	7690	8560	9490	10500	11600	12800	13100	14400	15900	17500	19300
XFAM-020Z-CFV	ZS13KAE-PFV	8730	9710	10800	11900	13200	14500	14800	16300	18000	19800	21800
XFAM-020Z-TFC	ZS13KAE-TF5	8730	9710	10800	11900	13200	14500	14800	16300	18000	19800	21800
XFAM-022Z-CFV	ZS15KAE-PFV	10400	11600	12900	14200	15700	17300	17600	19400	21300	23500	25800
XFAM-022Z-TFC	ZS15KAE-TF5	10400	11600	12900	14200	15700	17300	17600	19400	21300	23500	25800
XFAM-025Z-CFV	ZS19KAE-PFV	11700	13000	14400	15900	17500	19300	19700	21600	23800	26100	28600
XFAM-025Z-TFC	ZS19KAE-TF5	11700	13000	14400	15900	17500	19300	19700	21600	23800	26100	28600
XFAM-030Z-CFV	ZS21KAE-PFV	15200	16900	18600	20600	22600	24900	25400	27800	30500	33400	36600
XFAM-030Z-TFC	ZS21KAE-TF5	15200	16900	18600	20600	22600	24900	25400	27800	30500	33400	36600
XFAM-033Z-CFV	ZS26KAE-PFV	15900	17900	20100	22500	25000	27700	28300	31200	34400	37700	41100
XFAM-033Z-TFC	ZS26KAE-TF5	15900	17900	20100	22500	25000	27700	28300	31200	34400	37700	41100
XFAM-037Z-CFV	ZS29KAE-PFV	18600	20600	22700	25000	27400	30000	30700	33600	36700	40000	43600
XFAM-037Z-TFC	ZS29KAE-TF5	18600	20600	22700	25000	27400	30000	30700	33600	36700	40000	43600
XFAM-045Z-CFV	ZS33KAE-PFV	21400	23700	26200	28800	31700	34800	35600	39000	42800	46900	51500
XFAM-045Z-TFC	ZS33KAE-TF5	21400	23700	26200	28800	31700	34800	35600	39000	42800	46900	51500
XFAM-050Z-CFV	ZS38K4E-PFV	24300	27300	30600	34000	37600	41400	42200	46200	50500	54500	59000
XFAM-050Z-TFC	ZS38K4E-TF5	24300	27300	30600	34000	37600	41400	42200	46200	50500	54500	59000
XFAM-060Z-TFC	ZS45K4E-TF5	29100	32600	36400	40400	44600	49000	50000	54500	59500	64500	69500
110° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	<b>3570</b>	4000	4490	5050	5680	6370	6520	7280	8110	8990	9930
XFAM-008Z-TFC	ZB06KAE-TF5	<b>3570</b>	4000	4490	5050	5680	6370	6520	7280	8110	8990	9930
XFAM-010Z-CFV	ZB07KAE-PFV	<b>4110</b>	4780	5490	6230	7000	7800	7980	8830	9700	10600	11500
XFAM-010Z-TFC	ZB07KAE-TF5	<b>4110</b>	4780	5490	6230	7000	7800	7980	8830	9700	10600	11500
XFAM-012Z-CFV	ZB08KAE-PFV	<b>5110</b>	5840	6610	7390	8210	9050	9260	10100	11100	12000	13000
XFAM-012Z-TFC	ZB08KAE-TF5	<b>5110</b>	5840	6610	7390	8210	9050	9260	10100	11100	12000	13000
XFAM-015Z-CFV	ZS09KAE-PFV	6000	6680	7420	8210	9090	10000	10300	11400	12500	13800	15300
XFAM-015Z-TFC	ZS09KAE-TF5	6000	6680	7420	8210	9090	10000	10300	11400	12500	13800	15300
XFAM-017Z-CFV	ZS11KAE-PFV	7120	7920	8790	9720	10700	11900	12100	13400	14800	16300	18000
XFAM-017Z-TFC	ZS11KAE-TF5	<b>7120</b>	7920	8790	9720	10700	11900	12100	13400	14800	16300	18000
XFAM-020Z-CFV	ZS13KAE-PFV	8080	8980	9950	11000	12200	13400	13700	15200	16700	18400	20200
XFAM-020Z-TFC	ZS13KAE-TF5	8080	8980	9950	11000	12200	13400	13700	15200	16700	18400	20200
XFAM-022Z-CFV	ZS15KAE-PFV	9660	10700	11900	13100	14500	16000	16300	18000	19800	21800	23900
XFAM-022Z-TFC	ZS15KAE-TF5	9660	10700	11900	13100	14500	16000	16300	18000	19800	21800	23900
XFAM-025Z-CFV	ZS19KAE-PFV	10800	12000	13300	14700	16200	17800	18200	20100	22000	24200	26600
XFAM-025Z-TFC	ZS19KAE-TF5	10800	12000	13300	14700	16200	17800	18200	20100	22000	24200	26600
XFAM-030Z-CFV	ZS21KAE-PFV	14100	15600	17200	19000	20800	22900	23500	25800	28300	31000	33900
XFAM-030Z-TFC	ZS21KAE-TF5	14100	15600	17200	19000	20800	22900	23500	25800	28300	31000	33900
XFAM-033Z-CFV	ZS26KAE-PFV	14400	16300	18400	20700	23000	25600	26200	29000	31900	35100	38300
XFAM-033Z-TFC	ZS26KAE-TF5	14400	16300	18400	20700	23000	25600	26200	29000	31900	35100	38300
XFAM-037Z-CFV	ZS29KAE-PFV	17200	19000	20900	23000	25200	27600	28300	31000	33900	37000	
XFAM-037Z-TFC	ZS29KAE-TF5	17200	19000	20900	23000	25200	27600	28300	31000	33900	37000	
XFAM-045Z-CFV	ZS33KAE-PFV	19700	21900	24100	26600	29200	32100	32900	36100	39600	43400	47600
XFAM-045Z-TFC	ZS33KAE-TF5	19700	21900	24100	26600	29200	32100	32900	36100	39600	43400	47600
XFAM-050Z-CFV	ZS38K4E-PFV	22400	25300	28300	31500	34900	38400	39400	43100	47000	51000	55000
XFAM-050Z-TFC	ZS38K4E-TF5	22400	25300	28300	31500	34900	38400	39400	43100	47000	51000	55000
XFAM-060Z-TFC	ZS45K4E-TF5	26900	30200	33700	37500	41400	45500	46700	51000	55500	60500	65000

Capacities rated at 65°F return gas (40°F return gas for capacities in **bold**), 5°F subcooling  
**Superheat restrictions apply. See AE bulletin 4-1387 for full compressor operating envelope.**  
 All capacities shown for XFAM models also apply to XFAP models

## R-407C Low Temp

## Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
90° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1720	1910	2130	2380	2670	3010	3390	3830	4330
XFAL-008Z-TFC	ZF03KAE-TF5	1720	1910	2130	2380	2670	3010	3390	3830	4330
XFAL-009Z-CFV	ZF04KAE-PFV	2070	2330	2650	3040	3490	4010	4600	5260	5970
XFAL-009Z-TFC	ZF04KAE-TF5	2070	2330	2650	3040	3490	4010	4600	5260	5970
XFAL-010Z-CFV	ZF05KAE-PFV	2360	2700	3110	3590	4150	4780	5470	6240	7070
XFAL-010Z-TFC	ZF05KAE-TF5	2360	2700	3110	3590	4150	4780	5470	6240	7070
XFAL-012Z-CFV	ZF07KAE-PFV	3670	4420	5130	5840	6590	7400	8320	9370	10600
XFAL-012Z-TFC	ZF07KAE-TF5	3670	4420	5130	5840	6590	7400	8320	9370	10600
XFAL-020Z-CFV	ZXI06KCE-PFV	5046	5061	5769	6433	7408	8405	9407	10393	11342
XFAL-020Z-TFC	ZXI06KCE-TF5	5046	5061	5769	6433	7408	8405	9407	10393	11342
XFAL-030Z-TFC	ZXI09KCE-TF5	4831	5801	6882	8072	9368	10766	12265	13861	15551
XFAL-035Z-CFV	ZXI11KCE-PFV	6663	7698	8887	10224	11705	13324	15076	16957	18961
XFAL-040Z-CFV	ZXI14KCE-PFV	9664	10971	12469	14151	16007	18029	20208	22534	24999
XFAL-040Z-TFC	ZXI14KCE-TF5	9664	10971	12469	14151	16007	18029	20208	22534	24999
XFAL-050Z-TFC	ZXI15KCE-TF5	9603	11024	12689	14570	16640	18870	21233	23702	26247
XFAL-051Z-CFV	ZXI16KCE-CFV	7688	10396	13105	15813	18522	21230	23939	26647	29355
XFAL-060Z-TFC	ZXI18KCE-TF5	11842	13667	15707	17963	20434	23121	26023	29141	32475
95° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1675	1860	2075	2315	2595	2920	3290	3710	4190
XFAL-008Z-TFC	ZF03KAE-TF5	1675	1860	2075	2315	2595	2920	3290	3710	4190
XFAL-009Z-CFV	ZF04KAE-PFV	2025	2270	2575	2945	3380	3885	4450	5085	5775
XFAL-009Z-TFC	ZF04KAE-TF5	2025	2270	2575	2945	3380	3885	4450	5085	5775
XFAL-010Z-CFV	ZF05KAE-PFV	2300	2625	3015	3480	4020	4625	5295	6040	6845
XFAL-010Z-TFC	ZF05KAE-TF5	2300	2625	3015	3480	4020	4625	5295	6040	6845
XFAL-012Z-CFV	ZF07KAE-PFV	3560	4295	4990	5675	6395	7175	8055	9065	10245
XFAL-012Z-TFC	ZF07KAE-TF5	3560	4295	4990	5675	6395	7175	8055	9065	10245
XFAL-020Z-CFV	ZXI06KCE-PFV	4942	5003	5662	6350	7234	8161	9111	10064	11001
XFAL-020Z-TFC	ZXI06KCE-TF5	4942	5003	5662	6350	7234	8161	9111	10064	11001
XFAL-030Z-TFC	ZXI09KCE-TF5	4631	5584	6647	7819	9095	10473	11949	13522	15187
XFAL-035Z-CFV	ZXI11KCE-PFV	6361	7360	8512	9812	11257	12839	14555	16399	18367
XFAL-040Z-CFV	ZXI14KCE-PFV	9513	10791	12253	13890	15692	17652	19760	22007	24385
XFAL-040Z-TFC	ZXI14KCE-TF5	9513	10791	12253	13890	15692	17652	19760	22007	24385
XFAL-050Z-TFC	ZXI15KCE-TF5	9518	10835	12397	14175	16142	18270	20530	22897	25340
XFAL-051Z-CFV	ZXI16KCE-CFV	8512	10832	13220	15675	18196	20785	23440	26163	28952
XFAL-060Z-TFC	ZXI18KCE-TF5	11494	13301	15311	17524	19939	22557	25377	28400	31625

Capacities rated at 65°F return gas, 5°F subcooling

Shaded area = 20°F max superheat

## R-407C Low Temp

## Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
100° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1630	1810	2020	2250	2520	2830	3190	3590	4050
XFAL-008Z-TFC	ZF03KAE-TF5	1630	1810	2020	2250	2520	2830	3190	3590	4050
XFAL-009Z-CFV	ZF04KAE-PFV	1980	2210	2500	2850	3270	3760	4300	4910	5580
XFAL-009Z-TFC	ZF04KAE-TF5	1980	2210	2500	2850	3270	3760	4300	4910	5580
XFAL-010Z-CFV	ZF05KAE-PFV	2240	2550	2920	3370	3890	4470	5120	5840	6620
XFAL-010Z-TFC	ZF05KAE-TF5	2240	2550	2920	3370	3890	4470	5120	5840	6620
XFAL-012Z-CFV	ZF07KAE-PFV	3450	4170	4850	5510	6200	6950	7790	8760	9890
XFAL-012Z-TFC	ZF07KAE-TF5	3450	4170	4850	5510	6200	6950	7790	8760	9890
XFAL-020Z-CFV	ZXI06KCE-PFV	4838	4946	5555	6266	7060	7916	8815	9736	10661
XFAL-020Z-TFC	ZXI06KCE-TF5	4838	4946	5555	6266	7060	7916	8815	9736	10661
XFAL-030Z-TFC	ZXI09KCE-TF5	4430	5367	6413	7566	8822	10179	11633	13182	14823
XFAL-035Z-CFV	ZXI11KCE-PFV	6060	7022	8137	9401	10808	12355	14034	15842	17773
XFAL-040Z-CFV	ZXI14KCE-PFV	9362	10612	12037	13628	15377	17275	19313	21481	23771
XFAL-040Z-TFC	ZXI14KCE-TF5	9362	10612	12037	13628	15377	17275	19313	21481	23771
XFAL-050Z-TFC	ZXI15KCE-TF5	9432	10647	12105	13780	15644	17669	19828	22091	24433
XFAL-051Z-CFV	ZXI16KCE-CFV	9336	11268	13335	15536	17871	20339	22942	25679	28549
XFAL-060Z-TFC	ZXI18KCE-TF5	11146	12936	14916	17085	19444	21993	24731	27658	30776
110° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1540	1710	1910	2120	2370	2660	2980	3350	3770
XFAL-008Z-TFC	ZF03KAE-TF5	1540	1710	1910	2120	2370	2660	2980	3350	3770
XFAL-009Z-CFV	ZF04KAE-PFV	1890	2090	2350	2670	3050	3500	4010	4570	5190
XFAL-009Z-TFC	ZF04KAE-TF5	1890	2090	2350	2670	3050	3500	4010	4570	5190
XFAL-010Z-CFV	ZF05KAE-PFV	2120	2400	2740	3150	3630	4170	4770	5440	6170
XFAL-010Z-TFC	ZF05KAE-TF5	2120	2400	2740	3150	3630	4170	4770	5440	6170
XFAL-012Z-CFV	ZF07KAE-PFV	3210	3910	4560	5180	5820	6500	7270	8160	9190
XFAL-012Z-TFC	ZF07KAE-TF5	3210	3910	4560	5180	5820	6500	7270	8160	9190
XFAL-020Z-CFV	ZS21KAE-PFV	4468	4741	5174	5749	6445	7242	8121	9061	10043
XFAL-020Z-TFC	ZS21KAE-TF5	4468	4741	5174	5749	6445	7242	8121	9061	10043
XFAL-030Z-TFC	ZXI09KCE-TF5	4015	4911	5915	7023	8232	9540	10942	12437	14022
XFAL-035Z-CFV	ZS33KAE-TF5	5503	6380	7411	8591	9914	11376	12972	14696	16544
XFAL-040Z-CFV	ZXI14KCE-PFV	8468	9718	11126	12684	14383	16213	18166	20233	22405
XFAL-040Z-TFC	ZXI14KCE-TF5	8468	9718	11126	12684	14383	16213	18166	20233	22405
XFAL-050Z-TFC	ZXI15KCE-TF5	8709	9793	11121	12666	14400	16295	18325	20460	22673
XFAL-051Z-CFV	ZXI16KCE-CFV	9623	11858	13870	15660	17228	18574	19698	20600	21280
XFAL-060Z-TFC	ZXI18KCE-TF5	10391	12079	13922	15920	18073	20381	22844	25462	28235

Capacities rated at 65°F return gas, 5°F subcooling

Shaded area = 20°F max superheat

# R-407C Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
90° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3710	4260	4850	5490	6170	6920	<b>6990</b>	7790	8660	9590	10600
XFAM-008Z-TFC	ZB06KAE-TF5	3710	4260	4850	5490	6170	6920	<b>6990</b>	7790	8660	9590	10600
XFAM-010Z-CFV	ZB07KAE-PFV	4470	5110	5800	6560	7380	8260	<b>8350</b>	9300	10300	11400	12500
XFAM-010Z-TFC	ZB07KAE-TF5	4470	5110	5800	6560	7380	8260	<b>8350</b>	9300	10300	11400	12500
XFAM-012Z-CFV	ZB08KAE-PFV	5340	6050	6830	7670	8590	9590	<b>9690</b>	10800	12000	13200	14600
XFAM-012Z-TFC	ZB08KAE-TF5	5340	6050	6830	7670	8590	9590	<b>9690</b>	10800	12000	13200	14600
XFAM-015Z-CFV	ZS09KAE-PFV	5960	6880	7850	8870	9940	11100	<b>11200</b>	12400	13600	15000	16400
XFAM-015Z-TFC	ZS09KAE-TF5	5960	6880	7850	8870	9940	11100	<b>11200</b>	12400	13600	15000	16400
XFAM-017Z-CFV	ZS11KAE-PFV	7080	8180	9330	10500	11800	13100	<b>13200</b>	14600	16100	17700	19300
XFAM-017Z-TFC	ZS11KAE-TF5	7080	8180	9330	10500	11800	13100	<b>13200</b>	14600	16100	17700	19300
XFAM-020Z-CFV	ZS13KAE-PFV	8050	9300	10600	12000	13400	14900	<b>15000</b>	16600	18300	20000	21900
XFAM-020Z-TFC	ZS13KAE-TF5	8050	9300	10600	12000	13400	14900	<b>15000</b>	16600	18300	20000	21900
XFAM-022Z-CFV	ZS15KAE-PFV	9650	11100	12700	14300	16000	17800	<b>17900</b>	19800	21800	23800	25900
XFAM-022Z-TFC	ZS15KAE-TF5	9650	11100	12700	14300	16000	17800	<b>17900</b>	19800	21800	23800	25900
XFAM-025Z-CFV	ZS19KAE-PFV	10800	12500	14200	16000	17900	19900	<b>20100</b>	22100	24300	26600	28900
XFAM-025Z-TFC	ZS19KAE-TF5	10800	12500	14200	16000	17900	19900	<b>20100</b>	22100	24300	26600	28900
XFAM-030Z-CFV	ZS21KAE-PFV	14400	16600	18900	21200	23700	26200	<b>26500</b>	29200	32000	34800	37800
XFAM-030Z-TFC	ZS21KAE-TF5	14400	16600	18900	21200	23700	26200	<b>26500</b>	29200	32000	34800	37800
XFAM-033Z-CFV	ZS26KAE-PFV	15900	18300	20800	23400	26000	28800	<b>29100</b>	32000	35000	38100	41400
XFAM-033Z-TFC	ZS26KAE-TF5	15900	18300	20800	23400	26000	28800	<b>29100</b>	32000	35000	38100	41400
XFAM-037Z-CFV	ZS29KAE-PFV	17600	20300	23100	25900	28900	31900	<b>32300</b>	35400	38700	42100	45500
XFAM-037Z-TFC	ZS29KAE-TF5	17600	20300	23100	25900	28900	31900	<b>32300</b>	35400	38700	42100	45500
XFAM-045Z-CFV	ZS33KAE-PFV	19700	22700	25800	29100	32500	36000	<b>36400</b>	40100	43900	47900	52000
XFAM-045Z-TFC	ZS33KAE-TF5	19700	22700	25800	29100	32500	36000	<b>36400</b>	40100	43900	47900	52000
XFAM-050Z-CFV	ZS38K4E-PFV	25900	29100	32500	36100	39900	43900	<b>44400</b>	48500	52500	57000	61500
XFAM-050Z-TFC	ZS38K4E-TF5	25900	29100	32500	36100	39900	43900	<b>44400</b>	48500	52500	57000	61500
XFAM-060Z-TFC	ZS45K4E-TF5	30900	34700	38600	42900	47300	52000	<b>52500</b>	57500	62500	67500	73000
95° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3580	4120	4690	5310	5970	6690	<b>6775</b>	7550	8385	9285	10255
XFAM-008Z-TFC	ZB06KAE-TF5	3580	4120	4690	5310	5970	6690	<b>6775</b>	7550	8385	9285	10255
XFAM-010Z-CFV	ZB07KAE-PFV	4320	4940	5615	6345	7135	7980	<b>8085</b>	9000	9965	11000	12100
XFAM-010Z-TFC	ZB07KAE-TF5	4320	4940	5615	6345	7135	7980	<b>8085</b>	9000	9965	11000	12100
XFAM-012Z-CFV	ZB08KAE-PFV	5175	5860	6610	7415	8295	9250	<b>9370</b>	10400	11550	12750	14100
XFAM-012Z-TFC	ZB08KAE-TF5	5175	5860	6610	7415	8295	9250	<b>9370</b>	10400	11550	12750	14100
XFAM-015Z-CFV	ZS09KAE-PFV	5770	6680	7635	8630	9670	10800	<b>10900</b>	12050	13250	14550	15900
XFAM-015Z-TFC	ZS09KAE-TF5	5770	6680	7635	8630	9670	10800	<b>10900</b>	12050	13250	14550	15900
XFAM-017Z-CFV	ZS11KAE-PFV	6855	7940	9070	10225	11450	12750	<b>12900</b>	14250	15700	17200	18750
XFAM-017Z-TFC	ZS11KAE-TF5	6855	7940	9070	10225	11450	12750	<b>12900</b>	14250	15700	17200	18750
XFAM-020Z-CFV	ZS13KAE-PFV	7790	9020	10300	11650	13000	14500	<b>14600</b>	16150	17800	19450	21250
XFAM-020Z-TFC	ZS13KAE-TF5	7790	9020	10300	11650	13000	14500	<b>14600</b>	16150	17800	19450	21250
XFAM-022Z-CFV	ZS15KAE-PFV	9330	10800	12350	13900	15550	17300	<b>17450</b>	19250	21200	23150	25200
XFAM-022Z-TFC	ZS15KAE-TF5	9330	10800	12350	13900	15550	17300	<b>17450</b>	19250	21200	23150	25200
XFAM-025Z-CFV	ZS19KAE-PFV	10450	12100	13800	15550	17400	19350	<b>19550</b>	21550	23650	25850	28100
XFAM-025Z-TFC	ZS19KAE-TF5	10450	12100	13800	15550	17400	19350	<b>19550</b>	21550	23650	25850	28100
XFAM-030Z-CFV	ZS21KAE-PFV	13900	16100	18350	20600	23000	25450	<b>25800</b>	28400	31100	33850	36750
XFAM-030Z-TFC	ZS21KAE-TF5	13900	16100	18350	20600	23000	25450	<b>25800</b>	28400	31100	33850	36750
XFAM-033Z-CFV	ZS26KAE-PFV	15350	17700	20150	22700	25250	27950	<b>28350</b>	31150	34050	37050	40200
XFAM-033Z-TFC	ZS26KAE-TF5	15350	17700	20150	22700	25250	27950	<b>28350</b>	31150	34050	37050	40200
XFAM-037Z-CFV	ZS29KAE-PFV	17000	19650	22400	25150	28050	30950	<b>31400</b>	34450	37600	40900	44200
XFAM-037Z-TFC	ZS29KAE-TF5	17000	19650	22400	25150	28050	30950	<b>31400</b>	34450	37600	40900	44200
XFAM-045Z-CFV	ZS33KAE-PFV	19000	22000	25050	28250	31550	34950	<b>35450</b>	39000	42700	46550	50550
XFAM-045Z-TFC	ZS33KAE-TF5	19000	22000	25050	28250	31550	34950	<b>35450</b>	39000	42700	46550	50550
XFAM-050Z-CFV	ZS38K4E-PFV	24950	28050	31400	34900	38550	42450	<b>43000</b>	47000	51050	55250	59750
XFAM-050Z-TFC	ZS38K4E-TF5	24950	28050	31400	34900	38550	42450	<b>43000</b>	47000	51050	55250	59750
XFAM-060Z-TFC	ZS45K4E-TF5	29850	33500	37350	41450	45750	50250	<b>50900</b>	55750	60500	65500	70750

Capacities rated at 65°F return gas (40°F return gas for capacities in **bold**), 5°F subcooling  
 All capacities shown for XFAM models also apply to XFAP models

# R-407C Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
100° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3450	3980	4530	5130	5770	6460	6560	7310	8110	8980	9910
XFAM-008Z-TFC	ZB06KAE-TF5	3450	3980	4530	5130	5770	6460	6560	7310	8110	8980	9910
XFAM-010Z-CFV	ZB07KAE-PFV	4170	4770	5430	6130	6890	7700	7820	8700	9630	10600	11700
XFAM-010Z-TFC	ZB07KAE-TF5	4170	4770	5430	6130	6890	7700	7820	8700	9630	10600	11700
XFAM-012Z-CFV	ZB08KAE-PFV	5010	5670	6390	7160	8000	8910	9050	10000	11100	12300	13600
XFAM-012Z-TFC	ZB08KAE-TF5	5010	5670	6390	7160	8000	8910	9050	10000	11100	12300	13600
XFAM-015Z-CFV	ZS09KAE-PFV	5580	6480	7420	8390	9400	10500	10600	11700	12900	14100	15400
XFAM-015Z-TFC	ZS09KAE-TF5	5580	6480	7420	8390	9400	10500	10600	11700	12900	14100	15400
XFAM-017Z-CFV	ZS11KAE-PFV	6630	7700	8810	9950	11100	12400	12600	13900	15300	16700	18200
XFAM-017Z-TFC	ZS11KAE-TF5	6630	7700	8810	9950	11100	12400	12600	13900	15300	16700	18200
XFAM-020Z-CFV	ZS13KAE-PFV	7530	8740	10000	11300	12600	14100	14200	15700	17300	18900	20600
XFAM-020Z-TFC	ZS13KAE-TF5	7530	8740	10000	11300	12600	14100	14200	15700	17300	18900	20600
XFAM-022Z-CFV	ZS15KAE-PFV	9010	10500	12000	13500	15100	16800	17000	18700	20600	22500	24500
XFAM-022Z-TFC	ZS15KAE-TF5	9010	10500	12000	13500	15100	16800	17000	18700	20600	22500	24500
XFAM-025Z-CFV	ZS19KAE-PFV	10100	11700	13400	15100	16900	18800	19000	21000	23000	25100	27300
XFAM-025Z-TFC	ZS19KAE-TF5	10100	11700	13400	15100	16900	18800	19000	21000	23000	25100	27300
XFAM-030Z-CFV	ZS21KAE-PFV	13400	15600	17800	20000	22300	24700	25100	27600	30200	32900	35700
XFAM-030Z-TFC	ZS21KAE-TF5	13400	15600	17800	20000	22300	24700	25100	27600	30200	32900	35700
XFAM-033Z-CFV	ZS26KAE-PFV	14800	17100	19500	22000	24500	27100	27600	30300	33100	36000	39000
XFAM-033Z-TFC	ZS26KAE-TF5	14800	17100	19500	22000	24500	27100	27600	30300	33100	36000	39000
XFAM-037Z-CFV	ZS29KAE-PFV	16400	19000	21700	24400	27200	30000	30500	33500	36500	39700	42900
XFAM-037Z-TFC	ZS29KAE-TF5	16400	19000	21700	24400	27200	30000	30500	33500	36500	39700	42900
XFAM-045Z-CFV	ZS33KAE-PFV	18300	21300	24300	27400	30600	33900	34500	37900	41500	45200	49100
XFAM-045Z-TFC	ZS33KAE-TF5	18300	21300	24300	27400	30600	33900	34500	37900	41500	45200	49100
XFAM-050Z-CFV	ZS38K4E-PFV	24000	27000	30300	33700	37200	41000	41600	45500	49600	53500	58000
XFAM-050Z-TFC	ZS38K4E-TF5	24000	27000	30300	33700	37200	41000	41600	45500	49600	53500	58000
XFAM-060Z-TFC	ZS45K4E-TF5	28800	32300	36100	40000	44200	48500	49300	54000	58500	63500	68500
95° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	<b>3200</b>	3700	4230	4790	5390	6030	6140	6840	7580	8380	9240
XFAM-008Z-TFC	ZB06KAE-TF5	<b>3200</b>	3700	4230	4790	5390	6030	6140	6840	7580	8380	9240
XFAM-010Z-CFV	ZB07KAE-PFV	<b>3870</b>	4450	5060	5720	6420	7170	7310	8120	8970	9880	10800
XFAM-010Z-TFC	ZB07KAE-TF5	<b>3870</b>	4450	5060	5720	6420	7170	7310	8120	8970	9880	10800
XFAM-012Z-CFV	ZB08KAE-PFV	<b>4710</b>	5330	5990	6700	7460	8280	8450	9360	10300	11400	12500
XFAM-012Z-TFC	ZB08KAE-TF5	<b>4710</b>	5330	5990	6700	7460	8280	8450	9360	10300	11400	12500
XFAM-015Z-CFV	ZS09KAE-PFV	5150	6040	6950	7880	8840	9840	10000	11100	12200	13300	14500
XFAM-015Z-TFC	ZS09KAE-TF5	5150	6040	6950	7880	8840	9840	10000	11100	12200	13300	14500
XFAM-017Z-CFV	ZS11KAE-PFV	6110	7170	8240	9350	10500	11700	11900	13100	14400	15800	17200
XFAM-017Z-TFC	ZS11KAE-TF5	6110	7170	8240	9350	10500	11700	11900	13100	14400	15800	17200
XFAM-020Z-CFV	ZS13KAE-PFV	6930	8130	9350	10600	11900	13200	13500	14900	16300	17800	19400
XFAM-020Z-TFC	ZS13KAE-TF5	6930	8130	9350	10600	11900	13200	13500	14900	16300	17800	19400
XFAM-022Z-CFV	ZS15KAE-PFV	8290	9720	11200	12700	14200	15800	16000	17700	19400	21200	23000
XFAM-022Z-TFC	ZS15KAE-TF5	8290	9720	11200	12700	14200	15800	16000	17700	19400	21200	23000
XFAM-025Z-CFV	ZS19KAE-PFV	9280	10900	12500	14200	15900	17600	17900	19800	21700	23600	25700
XFAM-025Z-TFC	ZS19KAE-TF5	9280	10900	12500	14200	15900	17600	17900	19800	21700	23600	25700
XFAM-030Z-CFV	ZS21KAE-PFV	14400	16600	18700	20900	23200	23700	26000	28400	30900	33500	
XFAM-030Z-TFC	ZS21KAE-TF5	14400	16600	18700	20900	23200	23700	26000	28400	30900	33500	
XFAM-033Z-CFV	ZS26KAE-PFV	15800	18200	20600	23000	25400	26000	28500	31100	33800	36600	
XFAM-033Z-TFC	ZS26KAE-TF5	15800	18200	20600	23000	25400	26000	28500	31100	33800	36600	
XFAM-037Z-CFV	ZS29KAE-PFV	17500	20100	22800	25400	28100	28700	31500	34300	37300	40200	
XFAM-037Z-TFC	ZS29KAE-TF5	17500	20100	22800	25400	28100	28700	31500	34300	37300	40200	
XFAM-045Z-CFV	ZS33KAE-PFV	19700	22600	25600	28700	31800	32500	35800	39100	42600	46200	
XFAM-045Z-TFC	ZS33KAE-TF5	19700	22600	25600	28700	31800	32500	35800	39100	42600	46200	
XFAM-050Z-CFV	ZS38K4E-PFV	22200	25000	28000	31200	34600	38100	38800	42500	46300	50000	54000
XFAM-050Z-TFC	ZS38K4E-TF5	<b>22200</b>	<b>25000</b>	28000	31200	34600	38100	38800	42500	46300	50000	54000
XFAM-060Z-TFC	ZS45K4E-TF5	<b>26700</b>	<b>30000</b>	33500	37100	41000	45100	46000	50500	55000	59500	64000

Capacities rated at 65°F return gas (40°F return gas for capacities in **bold**), 5°F subcooling  
**Superheat restrictions apply. See AE bulletin 4-1387 for full compressor operating envelope.**  
 All capacities shown for XFAM models also apply to XFAP models

# R-448A/R-449A Low Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
90° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1860	2100	2370	2660	2980	3350	3770	4250	4790
XFAL-008Z-TFC	ZF03KAE-TF5	1860	2100	2370	2660	2980	3350	3770	4250	4790
XFAL-009Z-CFV	ZF04KAE-PFV	2310	2620	2990	3430	3940	4510	5150	5840	6600
XFAL-009Z-TFC	ZF04KAE-TF5	2310	2620	2990	3430	3940	4510	5150	5840	6600
XFAL-010Z-CFV	ZF05KAE-PFV	2680	3080	3550	4080	4690	5360	6100	6910	7780
XFAL-010Z-TFC	ZF05KAE-TF5	2680	3080	3550	4080	4690	5360	6100	6910	7780
XFAL-012Z-CFV	ZF07KAE-PFV	4240	4940	5660	6420	7250	8160	9180	10300	11600
XFAL-012Z-TFC	ZF07KAE-TF5	4240	4940	5660	6420	7250	8160	9180	10300	11600
XFAL-020Z-CFV	ZXI06KCE-PFV	4705	5685	6724	7822	8981	10203	11488	12839	14255
XFAL-020Z-TFC	ZXI06KCE-TF5	4705	5685	6724	7822	8981	10203	11488	12839	14255
XFAL-030Z-TFC	ZXI09KCE-TF5	6316	7538	8805	10119	11480	12887	14341	15841	17387
XFAL-035Z-CFV	ZXI11KCE-PFV	7147	8630	10201	11860	13610	15452	17389	19422	21553
XFAL-040Z-CFV	ZXI14KCE-PFV	11313	12933	14722	16676	18792	21064	23490	26065	28786
XFAL-040Z-TFC	ZXI14KCE-TF5	11313	12933	14722	16676	18792	21064	23490	26065	28786
XFAL-050Z-TFC	ZXI15KCE-TF5	12334	14165	16198	18434	20870	23505	26337	29365	32588
XFAL-051Z-CFV	ZXI16KCE-CFV	13019	14673	16461	18368	20380	22484	24664	26908	29201
XFAL-060Z-TFC	ZXI18KCE-TF5	13050	15021	17217	19638	22285	25156	28252	31574	35120
95° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1800	2040	2300	2580	2890	3245	3650	4105	4625
XFAL-008Z-TFC	ZF03KAE-TF5	1800	2040	2300	2580	2890	3245	3650	4105	4625
XFAL-009Z-CFV	ZF04KAE-PFV	2250	2545	2900	3320	3810	4360	4975	5645	6375
XFAL-009Z-TFC	ZF04KAE-TF5	2250	2545	2900	3320	3810	4360	4975	5645	6375
XFAL-010Z-CFV	ZF05KAE-PFV	2600	2980	3435	3950	4535	5180	5895	6675	7515
XFAL-010Z-TFC	ZF05KAE-TF5	2600	2980	3435	3950	4535	5180	5895	6675	7515
XFAL-012Z-CFV	ZF07KAE-PFV	4115	4795	5490	6225	7020	7895	8870	9955	11200
XFAL-012Z-TFC	ZF07KAE-TF5	4115	4795	5490	6225	7020	7895	8870	9955	11200
XFAL-020Z-CFV	ZXI06KCE-PFV	4786	5721	6724	7798	8942	10158	11448	12812	14252
XFAL-020Z-TFC	ZXI06KCE-TF5	4786	5721	6724	7798	8942	10158	11448	12812	14252
XFAL-030Z-TFC	ZXI09KCE-TF5	6131	7268	8469	9737	11069	12468	13931	15461	17056
XFAL-035Z-CFV	ZXI11KCE-PFV	7135	8541	10053	11672	13400	15241	17196	19267	21456
XFAL-040Z-CFV	ZXI14KCE-PFV	10986	12576	14329	16240	18303	20515	22872	25369	28001
XFAL-040Z-TFC	ZXI14KCE-TF5	10986	12576	14329	16240	18303	20515	22872	25369	28001
XFAL-050Z-TFC	ZXI15KCE-TF5	12049	13845	15834	18012	20379	22930	25664	28578	31670
XFAL-051Z-CFV	ZXI16KCE-CFV	12493	14163	15976	17922	19988	22164	24438	26800	29237
XFAL-060Z-TFC	ZXI18KCE-TF5	12680	14629	16798	19187	21797	24627	27677	30948	34439

Capacities rated at 65°F return gas, 5°F subcooling

# R-448A/R-449A Low Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	-40	-35	-30	-25	-20	-15	-10	-5	0
100° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1740	1980	2230	2500	2800	3140	3530	3960	4460
XFAL-008Z-TFC	ZF03KAE-TF5	1740	1980	2230	2500	2800	3140	3530	3960	4460
XFAL-009Z-CFV	ZF04KAE-PFV	2190	2470	2810	3210	3680	4210	4800	5450	6150
XFAL-009Z-TFC	ZF04KAE-TF5	2190	2470	2810	3210	3680	4210	4800	5450	6150
XFAL-010Z-CFV	ZF05KAE-PFV	2520	2880	3320	3820	4380	5000	5690	6440	7250
XFAL-010Z-TFC	ZF05KAE-TF5	2520	2880	3320	3820	4380	5000	5690	6440	7250
XFAL-012Z-CFV	ZF07KAE-PFV	3990	4650	5320	6030	6790	7630	8560	9610	10800
XFAL-012Z-TFC	ZF07KAE-TF5	3990	4650	5320	6030	6790	7630	8560	9610	10800
XFAL-020Z-CFV	ZXI06KCE-PFV	4867	5756	6725	7773	8902	10113	11407	12785	14248
XFAL-020Z-TFC	ZXI06KCE-TF5	4867	5756	6725	7773	8902	10113	11407	12785	14248
XFAL-030Z-TFC	ZXI09KCE-TF5	5946	6997	8133	9354	10659	12048	13522	15081	16724
XFAL-035Z-CFV	ZXI11KCE-PFV	7124	8453	9905	11484	13191	15030	17002	19111	21359
XFAL-040Z-CFV	ZXI14KCE-PFV	10658	12220	13937	15803	17815	19966	22254	24672	27215
XFAL-040Z-TFC	ZXI14KCE-TF5	10658	12220	13937	15803	17815	19966	22254	24672	27215
XFAL-050Z-TFC	ZXI15KCE-TF5	11764	13525	15469	17591	19888	22356	24992	27792	30752
XFAL-051Z-CFV	ZXI16KCE-CFV	11966	13652	15491	17475	19596	21844	24212	26691	29273
XFAL-060Z-TFC	ZXI18KCE-TF5	12310	14237	16379	18736	21310	24098	27103	30323	33758
110° Ambient										
XFAL-008Z-CFV	ZF03KAE-PFV	1620	1850	2100	2360	2640	2950	3300	3700	4150
XFAL-008Z-TFC	ZF03KAE-TF5	1620	1850	2100	2360	2640	2950	3300	3700	4150
XFAL-009Z-CFV	ZF04KAE-PFV	2070	2320	2630	3000	3430	3920	4460	5060	5720
XFAL-009Z-TFC	ZF04KAE-TF5	2070	2320	2630	3000	3430	3920	4460	5060	5720
XFAL-010Z-CFV	ZF05KAE-PFV	2360	2700	3090	3550	4070	4650	5290	5990	6740
XFAL-010Z-TFC	ZF05KAE-TF5	2360	2700	3090	3550	4070	4650	5290	5990	6740
XFAL-012Z-CFV	ZF07KAE-PFV	3740	4370	5000	5650	6350	7110	7960	8920	10000
XFAL-012Z-TFC	ZF07KAE-TF5	3740	4370	5000	5650	6350	7110	7960	8920	10000
XFAL-020Z-CFV	ZS21KAE-PFV	4293	5123	6024	6994	8034	9142	10320	11566	12881
XFAL-020Z-TFC	ZS21KAE-TF5	4293	5123	6024	6994	8034	9142	10320	11566	12881
XFAL-030Z-TFC	ZXI09KCE-TF5	4812	5749	6768	7866	9046	10306	11647	13068	14570
XFAL-035Z-CFV	ZS33KAE-TF5	6085	7307	8643	10096	11666	13356	15166	17099	19155
XFAL-040Z-CFV	ZXI14KCE-PFV	9955	11463	13113	14900	16817	18860	21022	23298	25682
XFAL-040Z-TFC	ZXI14KCE-TF5	9955	11463	13113	14900	16817	18860	21022	23298	25682
XFAL-050Z-TFC	ZXI15KCE-TF5	11122	12821	14683	16702	18873	21190	23648	26241	28963
XFAL-051Z-CFV	ZXI16KCE-CFV	10895	12605	14488	16542	18763	21147	23692	26393	29248
XFAL-060Z-TFC	ZXI18KCE-TF5	11512	13396	15487	17786	20293	23007	25929	29059	32397

Capacities rated at 65°F return gas, 5°F subcooling

# R-448A/R-449A Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
90° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	4270	4810	5420	6070	6780	7540	7640	8460	9320	10200	11200
XFAM-008Z-TFC	ZB06KAE-TF5	4270	4810	5420	6070	6780	7540	7640	8460	9320	10200	11200
XFAM-010Z-CFV	ZB07KAE-PFV	5030	5680	6400	7180	8040	8950	9080	10100	11100	12200	13400
XFAM-010Z-TFC	ZB07KAE-TF5	5030	5680	6400	7180	8040	8950	9080	10100	11100	12200	13400
XFAM-012Z-CFV	ZB08KAE-PFV	5910	6660	7490	8400	9410	10500	10600	11800	13000	14400	15700
XFAM-012Z-TFC	ZB08KAE-TF5	5910	6660	7490	8400	9410	10500	10600	11800	13000	14400	15700
XFAM-015Z-CFV	ZS09KAE-PFV	6220	6990	7830	8760	9780	10900	11100	12300	13700	15200	16900
XFAM-015Z-TFC	ZS09KAE-TF5	6220	6990	7830	8760	9780	10900	11100	12300	13700	15200	16900
XFAM-017Z-CFV	ZS11KAE-PFV	7460	8370	9370	10500	11700	13000	13200	14700	16300	18100	20100
XFAM-017Z-TFC	ZS11KAE-TF5	7460	8370	9370	10500	11700	13000	13200	14700	16300	18100	20100
XFAM-020Z-CFV	ZS13KAE-PFV	8510	9490	10600	11800	13100	14600	14900	16600	18400	20500	22800
XFAM-020Z-TFC	ZS13KAE-TF5	8510	9490	10600	11800	13100	14600	14900	16600	18400	20500	22800
XFAM-022Z-CFV	ZS15KAE-PFV	10200	11400	12800	14200	15900	17700	17900	19900	22100	24500	27000
XFAM-022Z-TFC	ZS15KAE-TF5	10200	11400	12800	14200	15900	17700	17900	19900	22100	24500	27000
XFAM-025Z-CFV	ZS19KAE-PFV	11600	12900	14400	15900	17600	19500	19800	21900	24300	27000	30000
XFAM-025Z-TFC	ZS19KAE-TF5	11600	12900	14400	15900	17600	19500	19800	21900	24300	27000	30000
XFAM-030Z-CFV	ZS21KAE-PFV	16300	18300	20400	22700	25100	27600	28000	30700	33600	36600	39700
XFAM-030Z-TFC	ZS21KAE-TF5	16300	18300	20400	22700	25100	27600	28000	30700	33600	36600	39700
XFAM-033Z-CFV	ZS26KAE-PFV	17300	19200	21300	23700	26200	28900	29300	32300	35400	38600	42100
XFAM-033Z-TFC	ZS26KAE-TF5	17300	19200	21300	23700	26200	28900	29300	32300	35400	38600	42100
XFAM-037Z-CFV	ZS29KAE-PFV	20200	22500	25000	27600	30400	33200	33800	36800	40000	43200	46600
XFAM-037Z-TFC	ZS29KAE-TF5	20200	22500	25000	27600	30400	33200	33800	36800	40000	43200	46600
XFAM-045Z-CFV	ZS33KAE-PFV	22500	25300	28300	31500	34800	38400	39000	42800	46800	51000	55500
XFAM-045Z-TFC	ZS33KAE-TF5	22500	25300	28300	31500	34800	38400	39000	42800	46800	51000	55500
XFAM-050Z-CFV	ZS38K4E-PFV	26300	29700	33400	37300	41400	45600	46300	51000	55500	60000	64500
XFAM-050Z-TFC	ZS38K4E-TF5	26300	29700	33400	37300	41400	45600	46300	51000	55500	60000	64500
XFAM-060Z-TFC	ZS45K4E-TF5	31200	35200	39500	44100	48800	53500	54500	60000	65000	70500	76000
95° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	4110	4635	5225	5855	6540	7275	7390	8185	9025	9895	10850
XFAM-008Z-TFC	ZB06KAE-TF5	4110	4635	5225	5855	6540	7275	7390	8185	9025	9895	10850
XFAM-010Z-CFV	ZB07KAE-PFV	4860	5485	6180	6935	7760	8640	8785	9755	10750	11800	12950
XFAM-010Z-TFC	ZB07KAE-TF5	4860	5485	6180	6935	7760	8640	8785	9755	10750	11800	12950
XFAM-012Z-CFV	ZB08KAE-PFV	5715	6435	7235	8115	9080	10120	10260	11400	12550	13850	15150
XFAM-012Z-TFC	ZB08KAE-TF5	5715	6435	7235	8115	9080	10120	10260	11400	12550	13850	15150
XFAM-015Z-CFV	ZS09KAE-PFV	6095	6825	7635	8525	9515	10600	10800	12000	13350	14850	16450
XFAM-015Z-TFC	ZS09KAE-TF5	6095	6825	7635	8525	9515	10600	10800	12000	13350	14850	16450
XFAM-017Z-CFV	ZS11KAE-PFV	7300	8170	9130	10205	11350	12650	12850	14300	15900	17650	19600
XFAM-017Z-TFC	ZS11KAE-TF5	7300	8170	9130	10205	11350	12650	12850	14300	15900	17650	19600
XFAM-020Z-CFV	ZS13KAE-PFV	8320	9255	10300	11450	12700	14150	14450	16100	17900	19900	22150
XFAM-020Z-TFC	ZS13KAE-TF5	8320	9255	10300	11450	12700	14150	14450	16100	17900	19900	22150
XFAM-022Z-CFV	ZS15KAE-PFV	9980	11150	12450	13800	15400	17150	17400	19350	21450	23800	26250
XFAM-022Z-TFC	ZS15KAE-TF5	9980	11150	12450	13800	15400	17150	17400	19350	21450	23800	26250
XFAM-025Z-CFV	ZS19KAE-PFV	11300	12550	13950	15400	17000	18800	19150	21200	23500	26100	29000
XFAM-025Z-TFC	ZS19KAE-TF5	11300	12550	13950	15400	17000	18800	19150	21200	23500	26100	29000
XFAM-030Z-CFV	ZS21KAE-PFV	15550	17500	19600	21800	24150	26600	27050	29700	32450	35400	38400
XFAM-030Z-TFC	ZS21KAE-TF5	15550	17500	19600	21800	24150	26600	27050	29700	32450	35400	38400
XFAM-033Z-CFV	ZS26KAE-PFV	16450	18300	20300	22550	24950	27550	28000	30850	33850	36950	40300
XFAM-033Z-TFC	ZS26KAE-TF5	16450	18300	20300	22550	24950	27550	28000	30850	33850	36950	40300
XFAM-037Z-CFV	ZS29KAE-PFV	19250	21550	23950	26500	29150	31900	32500	35400	38450	41550	44800
XFAM-037Z-TFC	ZS29KAE-TF5	19250	21550	23950	26500	29150	31900	32500	35400	38450	41550	44800
XFAM-045Z-CFV	ZS33KAE-PFV	21450	24250	27150	30250	33500	37000	37650	41350	45250	49350	53750
XFAM-045Z-TFC	ZS33KAE-TF5	21450	24250	27150	30250	33500	37000	37650	41350	45250	49350	53750
XFAM-050Z-CFV	ZS38K4E-PFV	25150	28450	32000	35750	39700	43800	44600	49050	53500	58000	62500
XFAM-050Z-TFC	ZS38K4E-TF5	25150	28450	32000	35750	39700	43800	44600	49050	53500	58000	62500
XFAM-060Z-TFC	ZS45K4E-TF5	29950	33750	37900	42300	46850	51500	52500	57750	62750	68250	73500

Capacities rated at 65°F return gas (40°F return gas for capacities in **bold**), 5°F subcooling



# R-448A/R-449A Medium Temp

# Copeland Scroll Outdoor Refrigeration Units – XF Series

Model	Compressor	0	5	10	15	20	25@40	25@65	30	35	40	45
100° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3950	4460	5030	5640	6300	7010	7140	7910	8730	9590	10500
XFAM-008Z-TFC	ZB06KAE-TF5	3950	4460	5030	5640	6300	7010	7140	7910	8730	9590	10500
XFAM-010Z-CFV	ZB07KAE-PFV	4690	5290	5960	6690	7480	8330	8490	9410	10400	11400	12500
XFAM-010Z-TFC	ZB07KAE-TF5	4690	5290	5960	6690	7480	8330	8490	9410	10400	11400	12500
XFAM-012Z-CFV	ZB08KAE-PFV	5520	6210	6980	7830	8750	9740	9920	11000	12100	13300	14600
XFAM-012Z-TFC	ZB08KAE-TF5	5520	6210	6980	7830	8750	9740	9920	11000	12100	13300	14600
XFAM-015Z-CFV	ZS09KAE-PFV	5970	6660	7440	8290	9250	10300	10500	11700	13000	14500	16000
XFAM-015Z-TFC	ZS09KAE-TF5	5970	6660	7440	8290	9250	10300	10500	11700	13000	14500	16000
XFAM-017Z-CFV	ZS11KAE-PFV	7140	7970	8890	9910	11000	12300	12500	13900	15500	17200	19100
XFAM-017Z-TFC	ZS11KAE-TF5	7140	7970	8890	9910	11000	12300	12500	13900	15500	17200	19100
XFAM-020Z-CFV	ZS13KAE-PFV	8130	9020	10000	11100	12300	13700	14000	15600	17400	19300	21500
XFAM-020Z-TFC	ZS13KAE-TF5	8130	9020	10000	11100	12300	13700	14000	15600	17400	19300	21500
XFAM-022Z-CFV	ZS15KAE-PFV	9760	10900	12100	13400	14900	16600	16900	18800	20800	23100	25500
XFAM-022Z-TFC	ZS15KAE-TF5	9760	10900	12100	13400	14900	16600	16900	18800	20800	23100	25500
XFAM-025Z-CFV	ZS19KAE-PFV	11000	12200	13500	14900	16400	18100	18500	20500	22700	25200	28000
XFAM-025Z-TFC	ZS19KAE-TF5	11000	12200	13500	14900	16400	18100	18500	20500	22700	25200	28000
XFAM-030Z-CFV	ZS21KAE-PFV	14800	16700	18800	20900	23200	25600	26100	28700	31300	34200	37100
XFAM-030Z-TFC	ZS21KAE-TF5	14800	16700	18800	20900	23200	25600	26100	28700	31300	34200	37100
XFAM-033Z-CFV	ZS26KAE-PFV	15600	17400	19300	21400	23700	26200	26700	29400	32300	35300	38500
XFAM-033Z-TFC	ZS26KAE-TF5	15600	17400	19300	21400	23700	26200	26700	29400	32300	35300	38500
XFAM-037Z-CFV	ZS29KAE-PFV	18300	20600	22900	25400	27900	30600	31200	34000	36900	39900	43000
XFAM-037Z-TFC	ZS29KAE-TF5	18300	20600	22900	25400	27900	30600	31200	34000	36900	39900	43000
XFAM-045Z-CFV	ZS33KAE-PFV	20400	23200	26000	29000	32200	35600	36300	39900	43700	47700	52000
XFAM-045Z-TFC	ZS33KAE-TF5	20400	23200	26000	29000	32200	35600	36300	39900	43700	47700	52000
XFAM-050Z-CFV	ZS38K4E-PFV	24000	27200	30600	34200	38000	42000	42900	47100	51500	56000	60500
XFAM-050Z-TFC	ZS38K4E-TF5	24000	27200	30600	34200	38000	42000	42900	47100	51500	56000	60500
XFAM-060Z-TFC	ZS45K4E-TF5	28700	32300	36300	40500	44900	49500	50500	55500	60500	66000	71000
110° Ambient												
XFAM-008Z-CFV	ZB06KAE-PFV	3630	4110	4640	5220	5840	6500	6660	7380	8150	8970	9820
XFAM-008Z-TFC	ZB06KAE-TF5	<b>3630</b>	4110	4640	5220	5840	6500	6660	7380	8150	8970	9820
XFAM-010Z-CFV	ZB07KAE-PFV	4360	4920	5540	6220	6950	7730	7920	8780	9680	10600	11600
XFAM-010Z-TFC	ZB07KAE-TF5	<b>4360</b>	4920	5540	6220	6950	7730	7920	8780	9680	10600	11600
XFAM-012Z-CFV	ZB08KAE-PFV	5150	5790	6500	7280	8120	9020	9240	10200	11300	12400	13500
XFAM-012Z-TFC	ZB08KAE-TF5	<b>5150</b>	5790	6500	7280	8120	9020	9240	10200	11300	12400	13500
XFAM-015Z-CFV	ZS09KAE-PFV	5620	6240	6930	7710	8580	9560	9810	10900	12200	13500	15000
XFAM-015Z-TFC	ZS09KAE-TF5	<b>5620</b>	6240	6930	7710	8580	9560	9810	10900	12200	13500	15000
XFAM-017Z-CFV	ZS11KAE-PFV	6710	7440	8250	9170	10200	11400	11700	13000	14400	16000	17800
XFAM-017Z-TFC	ZS11KAE-TF5	<b>6710</b>	7440	8250	9170	10200	11400	11700	13000	14400	16000	17800
XFAM-020Z-CFV	ZS13KAE-PFV	7620	8400	9270	10300	11400	12600	13000	14400	16000	17900	19900
XFAM-020Z-TFC	ZS13KAE-TF5	<b>7620</b>	8400	9270	10300	11400	12600	13000	14400	16000	17900	19900
XFAM-022Z-CFV	ZS15KAE-PFV	9120	10100	11100	12400	13700	15200	15600	17300	19200	21200	23500
XFAM-022Z-TFC	ZS15KAE-TF5	<b>9120</b>	10100	11100	12400	13700	15200	15600	17300	19200	21200	23500
XFAM-025Z-CFV	ZS19KAE-PFV	10100	11200	12300	13600	15000	16500	17000	18800	20800	23100	25700
XFAM-025Z-TFC	ZS19KAE-TF5	<b>10100</b>	11200	12300	13600	15000	16500	17000	18800	20800	23100	25700
XFAM-030Z-CFV	ZS21KAE-PFV	13200	15100	17000	19100	21200	23400	24000	26500	29000	31600	34400
XFAM-030Z-TFC	ZS21KAE-TF5	<b>13200</b>	15100	17000	19100	21200	23400	24000	26500	29000	31600	34400
XFAM-033Z-CFV	ZS26KAE-PFV	13500	15000	16700	18600	20600	22800	23500	25900	28500	31200	34100
XFAM-033Z-TFC	ZS26KAE-TF5	<b>13500</b>	15000	16700	18600	20600	22800	23500	25900	28500	31200	34100
XFAM-037Z-CFV	ZS29KAE-PFV	16200	18400	20600	22900	25300	27700	28500	31100	33700		
XFAM-037Z-TFC	ZS29KAE-TF5	<b>16200</b>	18400	20600	22900	25300	27700	28500	31100	33700		
XFAM-045Z-CFV	ZS33KAE-PFV	18200	20800	23600	26500	29500	32600	33500	36900	40500	44300	48200
XFAM-045Z-TFC	ZS33KAE-TF5	<b>18200</b>	20800	23600	26500	29500	32600	33500	36900	40500	44300	48200
XFAM-050Z-CFV	ZS38K4E-PFV	22100	24900	28000	31300	34800	38500	39500	43400	47500	51500	56000
XFAM-050Z-TFC	ZS38K4E-TF5	<b>22100</b>	24900	28000	31300	34800	38500	39500	43400	47500	51500	56000
XFAM-060Z-TFC	ZS45K4E-TF5	26600	29800	33300	37100	41200	45500	46700	51500	56000	61000	66000

Capacities rated at 65°F return gas (40°F return gas for capacities in **bold**), 5°F subcooling  
**Superheat restrictions apply. See AE bulletin 4-1387 for full compressor operating envelope.**

## X-Line Service - Low Temp

Production Part	Description	XFAL-020Z-CFV-081	XFAL-020Z-TFC-081	XFAL-030Z-TFC-081	XFAL-035Z-CFV-081	XFAL-040Z-CFV-081	XFAL-040Z-TFC-081	XFAL-050Z-TFC-081	XFAL-051Z-CFV-081	XFAL-060Z-TFC-081
003-1220-00	Valve-plate	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00
003-1487-00	Plate-divider	903-1487-00	903-1487-00	903-1487-00	903-1487-00					
003-1576-00	Plate-divider					903-1576-00	903-1576-00	903-1576-00	903-1576-00	903-1576-00
005-1273-00	Cover-top	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00
005-1280-00	Hand-wide grip	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00
005-1331-00	Cover-right	905-1331-00	905-1331-00	905-1331-00	905-1331-00					
005-1332-00	Cover-right					905-1332-00	905-1332-00	905-1332-00	905-1332-00	905-1332-00
005-7193-00	Cover-handle	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00
005-7193-01	Hand-grip	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01
005-7214-00	Plate-front left					905-7214-00	905-7214-00	905-7214-00	905-7214-00	905-7214-00
005-7215-00	Plate-front left	905-7215-00	905-7215-00	905-7215-00	905-7215-00					
005-7230-00	Cover-electrical box	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00
010-0104-00	Valve-EXV	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00
010-0142-02	Valve-service	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02
010-0179-00	Valve-service	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01
010-0180-00	Valve-service	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00
010-7003-01	Valve-check	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01
012-1401-04	Contact	912-1401-04			912-1401-04	912-1401-04			912-1401-04	
012-1401-06	Contact		912-3040-02	912-3040-02			912-3040-02	912-3040-02		912-3040-02
013-7000-31	Filter-drier	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31
013-7026-00	Filter-screen	913-7026-00	913-7026-00	913-7026-00	913-7026-00	913-7026-00	913-7026-00	913-7026-00	913-7026-00	913-7026-00
014-0006-15	Capacitor-start								914-0006-10	
014-0061-27	Capacitor-start	914-0036-03			914-0036-03	914-0036-03				
014-0064-06	Capacitor-running									
014-0064-08	Capacitor-running									
014-0064-18	Capacitor-running				914-0037-22					
014-0064-25	Capacitor-running	914-0037-36								
014-0064-27	Capacitor-running					914-0037-38				
014-0064-28	Capacitor-running									
014-0064-35	Capacitor-running								914-0037-52	
014-0083-00	Capacitor-fan	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00
018-0094-05	Heater-crankcase	918-0052-05	918-0052-05	918-0052-05						
018-0095-04	Heater-crankcase				918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00
018-7013-00	Heater-receiver	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00
022-0644-00	Base-plate	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00
023-0068-00	Coil-EXV					923-0068-00	923-0068-00	923-0068-00	923-0068-00	923-0068-00
023-0068-04	Coil-EXV	923-0068-00	923-0068-00	923-0068-00	923-0068-00					
024-0262-00	Guard-cond coil					924-0262-00	924-0262-00	924-0262-00	924-0262-00	924-0262-00
024-0263-00	Guard-cond coil	924-0263-00	924-0263-00	924-0263-00	924-0263-00					
024-0264-00	Guard-fan	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00
032-0359-00	Clamp-capacitor									
032-0359-01	Clamp-capacitor	032-0359-01			032-0359-01	032-0359-01				
032-0359-02	Clamp-capacitor				032-0359-02				032-0359-02	
032-0359-04	Clamp-capacitor									
032-0592-00	Holder-sensor	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00
032-0688-02	Clip-pipe	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02
032-0731-00	Clip-divider plate	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00

### 980-0080-00 Master Service Kit

Component	Description
037-0038-01	Transformer control
039-0026-06	Transducer-pressure
529-0060-04	Power cable-molded plug
529-0060-25	Power cable-molded plug
529-0222-01	Cable-wire harness
529-0222-02	Cable-wire harness
912-1401-04	Contact
912-3040-02	Contact
914-0083-00	Capacitor-fan
923-0068-00	Coil-EXV
929-0304-00	Cable-sensor assembly
940-0181-00	Relay-defrost
943-0214-00	Controller-elect.unit
971-7018-00	Breaker-circuit
980-0086-00	Terminal block assembly
980-0086-01	Terminal block assembly

# X-Line Service - Low Temp

Production Part	Description	XFAL-020Z-CFV-081	XFAL-020Z-TFC-081	XFAL-030Z-TFC-081	XFAL-035Z-CFV-081	XFAL-040Z-CFV-081	XFAL-040Z-TFC-081	XFAL-050Z-TFC-081	XFAL-051Z-CFV-081	XFAL-060Z-TFC-081
032-0743-00	Clamp-capacitor	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00
032-7003-06	Clamp-tube									
032-7052-00	Clamp-heat exchanger	032-7052-00	032-7052-00	032-7052-00	032-7052-00	032-7052-00	032-7052-00	032-7052-00	032-7052-00	032-7052-00
037-0038-01	Transformer control	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01
039-0026-06	Transducer pressure	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06
040-0046-24	Relay-potential								940-0046-24	
040-0166-37	Relay-potential	940-0001-79			940-0001-79	940-0001-79				
040-0181-00	Relay-defrost	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00
050-0316-01	Motor-fan	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01
062-7053-00	Box-electrical	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00
066-0387-00	Condenser							066-0387-00	066-0387-00	
066-0388-00	Condenser					066-0388-00	066-0388-00			
066-0389-00	Condenser	066-0389-00	066-0389-00							
066-0393-00	Condenser									066-0393-00
066-0800-00	Condenser			066-0800-00	066-0800-00					
067-0029-00	Heat exchanger					967-0025-00	967-0025-00	967-0025-00	967-0025-00	967-0025-00
067-0029-01	Heat exchanger	967-0025-01	967-0025-01	967-0025-01						
071-7018-00	Breaker-circuit	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00
074-1205-00	Bracket-stabilizer top	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00
074-1207-01	Bracket-EXV									
074-1424-00	Bracket-control mtg	074-1424-00	074-1424-00	074-1424-00	074-1424-00					
074-1425-00	Bracket-control mtg					074-1425-00	074-1425-00	074-1425-00	074-1425-00	074-1425-00
074-7282-00	Bracket-mounting	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00
074-7283-00	Bracket-heat exchanger	074-7283-00	074-7283-00	074-7283-00	074-7283-00	074-7283-00	074-7283-00	074-7283-00	074-7283-00	074-7283-00
074-7284-00	Bracket-cover right	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00
077-0036-01	Tank-accumulator					977-0036-01	977-0036-01	977-0036-01	977-0036-01	977-0036-01
077-0037-01	Tank-accumulator	977-0037-01	977-0037-01	977-0037-01	977-0037-01					
077-0057-00	Tank-oil separator	977-0057-00	977-0057-00	977-0057-00	977-0057-00	977-0057-00	977-0057-00	977-0057-00	977-0057-00	977-0057-00
080-0139-08	Terminal block	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08
080-0139-09	Terminal block	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09
083-6931-00	Blade	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00
085-7031-06	Control-pressure	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06
100-7034-00	Screw-ambient holder									
505-7099-00	Door assembly	505-7099-00	505-7099-00	505-7099-00	505-7099-00					
505-7098-00	Door assembly					505-7098-00	505-7098-00	505-7098-00	505-7098-00	505-7098-00
510-0730-00	Valve - pressure relief	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00
510-7062-00	Valve-access	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00
529-0060-04	Power cable-molded plug	529-0060-04	529-0060-04	529-0060-04	529-0060-04					
529-0060-25	Power cable-molded plug					529-0060-25	529-0060-25	529-0060-25		
529-0114-08	Cable-transducer adapter									
529-0220-00	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-01	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00					
529-0220-02	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-03	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-04	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-05	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-08	Cable-sensor assembly					929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-09	Cable-sensor assembly					929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-10	Cable-sensor assembly					929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0222-01	Cable-wire harness	529-0222-01	529-0222-01	529-0222-01	529-0222-01					
529-0222-02	Cable-wire harness					529-0222-02	529-0222-02	529-0222-02	529-0222-02	529-0222-02
543-0214-00	Controller-elec. unit	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00
570-7003-06	Indicator-moisture	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06
577-0542-00	Receiver assembly	577-0542-00	577-0542-00	577-0542-00	577-0542-00					
577-0542-01	Receiver assembly					577-0542-01	577-0542-01	577-0542-01	577-0542-01	577-0542-01
580-0086-00	Terminal block assembly	980-0086-00			980-0086-00	980-0086-00			980-0086-00	
580-0086-01	Terminal block assembly		980-0086-01	980-0086-01			980-0086-01	980-0086-01		980-0086-01

# X-Line Service - Low Temp

Production Part	Description	XFAL-020Z-CFV-081	XFAL-020Z-TFC-081	XFAL-030Z-TFC-081	XFAL-035Z-CFV-081	XFAL-040Z-CFV-081	XFAL-040Z-TFC-081	XFAL-050Z-TFC-081	XFAL-051Z-CFV-081	XFAL-060Z-TFC-081
ZS09KAE-PFV-118	Welded compressor									
ZS09KAE-TF5-118	Welded compressor									
ZS11KAE-PFV-118	Welded compressor									
ZS11KAE-TF5-118	Welded compressor									
ZS15KAE-PFV-118	Welded compressor									
ZS15KAE-TF5-118	Welded compressor									
ZS21KAE-PFV-118	Welded compressor									
ZS21KAE-TF5-118	Welded compressor									
ZS33KAE-PFV-118	Welded compressor									
ZS33KAE-TF5-118	Welded compressor									
ZS38K4E-PFV-250	Welded compressor									
ZS38K4E-TF5-250	Welded compressor									
ZS45K4E-TF5-250	Welded compressor									
ZXI06KCE-PFV-687	Welded compressor	ZXI06KCE-PFV-887								
ZXI06KCE-TF5-687	Welded compressor		ZXI06KCE-TF5-887							
ZXI09KCE-TF5-687	Welded compressor			ZXI09KCE-TF5-887						
ZXI11KCE-PFV-647	Welded compressor				ZXI11KCE-PFV-847					
ZXI14KCE-PFV-647	Welded compressor					ZXI14KCE-PFV-847				
ZXI14KCE-TF5-647	Welded compressor						ZXI14KCE-TF5-847			
ZXI15KCE-TF5-647	Welded compressor							ZXI15KCE-TF5-847		
ZXI16KCE-PFV-557	Welded compressor								ZXI16KCE-PFV-957	
ZXI18KCE-TF5-557	Welded compressor									ZXI18KCE-TF5-957
Accessories	Master service kit	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00
	Wall bracket	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00
	Stand-adjustable	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00
	PC interface kit	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00
	Remote display	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00

# X-Line Service - Medium Temp

Production Part	Description	XFAM-017Z-TFC-081	XFAM-022Z-CFV-081	XFAM-022Z-TFC-081	XFAM-030Z-CFV-081	XFAM-030Z-TFC-081	XFAM-045Z-CFV-081	XFAM-045Z-TFC-081	XFAM-050Z-CFV-081	XFAM-050Z-TFC-081	XFAM-060Z-TFC-081
003-1220-00	Valve-plate	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00
003-1487-00	Plate-divider	903-1487-00	903-1487-00	903-1487-00	903-1487-00	903-1487-00					
003-1576-00	Plate-divider						903-1576-00	903-1576-00	903-1576-00	903-1576-00	903-1576-00
005-1273-00	Cover-top	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00
005-1280-00	Hand-wide grip	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00
005-1331-00	Cover-right	905-1331-00	905-1331-00	905-1331-00	905-1331-00	905-1331-00					
005-1332-00	Cover-right						905-1332-00	905-1332-00	905-1332-00	905-1332-00	905-1332-00
005-7193-00	Cover-handle	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00
005-7193-01	Hand-grip	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01
005-7214-00	Plate-front left						905-7214-00	905-7214-00	905-7214-00	905-7214-00	905-7214-00
005-7215-00	Plate-front left	905-7215-00	905-7215-00	905-7215-00	905-7215-00	905-7215-00					
005-7230-00	Cover-electrical box	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00
010-0104-00	Valve-EXV	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00
010-0142-02	Valve-service	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02
010-0179-00	Valve-service	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01
010-0180-00	Valve-service	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00
010-7003-01	Valve-check	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01
012-1401-04	Contact		912-1401-04		912-1401-04		912-1401-04		912-1401-04		
012-1401-06	Contact	912-3040-02		912-3040-02		912-3040-02		912-3040-02		912-3040-02	912-3040-02
013-7000-31	Filter-drier	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31
014-0006-15	Capacitor-start								914-0006-10		
014-0061-27	Capacitor-start		914-0036-03		914-0036-03		914-0036-03				
014-0064-06	Capacitor-running										
014-0064-08	Capacitor-running		914-0037-12								
014-0064-27	Capacitor-running						914-0037-38		914-0037-38		
014-0064-28	Capacitor-running				914-0037-39						
014-0083-00	Capacitor-fan	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00
018-0094-05	Heater-crankcase	918-0052-05	918-0052-05	918-0052-05							
018-0095-04	Heater-crankcase				918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00
018-7013-00	Heater-receiver	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00
022-0644-00	Base-plate	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00
023-0068-00	Coil-EXV						923-0068-00	923-0068-00	923-0068-00	923-0068-00	923-0068-00
023-0068-04	Coil-EXV	923-0068-00	923-0068-00	923-0068-00	923-0068-00	923-0068-00					
024-0262-00	Guard-cond coil						924-0262-00	924-0262-00	924-0262-00	924-0262-00	924-0262-00
024-0263-00	Guard-cond coil	924-0263-00	924-0263-00	924-0263-00	924-0263-00	924-0263-00					
024-0264-00	Guard-fan	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00
032-0359-00	Clamp-capacitor		032-0359-00								
032-0359-01	Clamp-capacitor		032-0359-01		032-0359-01						
032-0359-02	Clamp-capacitor								032-0359-02		
032-0359-04	Clamp-capacitor						032-0359-04		032-0359-04		
032-0592-00	Holder-sensor	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00
032-0688-02	Clip-pipe	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02
032-0731-00	Clip-divider plate	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00
032-0743-00	Clamp-capacitor	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00
032-7003-06	Clamp-tube	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06
037-0038-01	Transformer control	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01
039-0026-06	Transducer-pressure	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06

## 980-0080-00 Master Service Kit

Component	Description
037-0038-01	Transformer control
039-0026-06	Transducer-pressure
529-0060-04	Power cable-molded plug
529-0060-25	Power cable-molded plug
529-0222-01	Cable-wire harness
529-0222-02	Cable-wire harness
912-1401-04	Contact
912-3040-02	Contact
914-0083-00	Capacitor-fan
923-0068-00	Coil-EXV
929-0304-00	Cable-sensor assembly
940-0181-00	Relay-defrost
943-0214-00	Controller-elect.unit
971-7018-00	Breaker-circuit
980-0086-00	Terminal block assembly
980-0086-01	Terminal block assembly

# X-Line Service - Medium Temp

Production Part	Description	XFAM-017Z-TFC-081	XFAM-022Z-CFV-081	XFAM-022Z-TFC-081	XFAM-030Z-CFV-081	XFAM-030Z-TFC-081	XFAM-045Z-CFV-081	XFAM-045Z-TFC-081	XFAM-050Z-CFV-081	XFAM-050Z-TFC-081	XFAM-060Z-TFC-081
040-0166-37	Relay-potential	940-0001-79		940-0001-79		940-0001-79		940-0001-79			
040-0181-00	Relay-defrost	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00
050-0316-01	Motor-fan	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01
062-7053-00	Box-electrical	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00
066-0387-00	Condenser									066-0387-00	
066-0388-00	Condenser							066-0388-00		066-0388-00	
066-0389-00	Condenser	066-0389-00	066-0389-00	066-0389-00							
066-0393-00	Condenser										
066-0800-00	Condenser					066-0800-00		066-0800-00			
071-7018-00	Breaker-circuit	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00
074-1205-00	Bracket-stabilizer top	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00
074-1207-01	Bracket-EXV	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01
074-1424-00	Bracket-control mtg	074-1424-00	074-1424-00	074-1424-00	074-1424-00	074-1424-00					
074-1425-00	Bracket-control mtg							074-1425-00		074-1425-00	
074-7284-00	Bracket-cover right	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00
080-0139-08	Terminal block	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08
080-0139-09	Terminal block	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09
083-6931-00	Blade	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00
085-7031-06	Control-pressure	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06
505-7099-00	Door assembly	505-7099-00	505-7099-00	505-7099-00	505-7099-00	505-7099-00					
505-7098-00	Door assembly							505-7098-00		505-7098-00	
510-0730-00	Valve - pressure relief	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00
510-7062-00	Valve-access	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00
529-0060-04	Power cable-molded plug	529-0060-04	529-0060-04	529-0060-04	529-0060-04	529-0060-04					
529-0060-25	Power cable-molded plug							529-0060-25		529-0060-25	
529-0220-00	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-01	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00					
529-0220-02	Cable-sensor assembly	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-09	Cable-sensor assembly							929-0304-00		929-0304-00	
529-0222-01	Cable-wire harness	529-0222-01	529-0222-01	529-0222-01	529-0222-01	529-0222-01					
529-0222-02	Cable-wire harness							529-0222-02		529-0222-02	
543-0214-00	Controller-elec. unit	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00
570-7003-06	Indicator-moisture	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06
577-0542-00	Receiver assembly	577-0542-00	577-0542-00	577-0542-00	577-0542-00	577-0542-00					
577-0542-01	Receiver assembly							577-0542-01		577-0542-01	

# X-Line Service - Medium Temp

Production Part	Description	XFAM-017Z-TFC-081	XFAM-022Z-CFV-081	XFAM-022Z-TFC-081	XFAM-030Z-CFV-081	XFAM-030Z-TFC-081	XFAM-045Z-CFV-081	XFAM-045Z-TFC-081	XFAM-050Z-CFV-081	XFAM-050Z-TFC-081	XFAM-060Z-TFC-081
580-0086-00	Terminal block assembly		980-0086-00		980-0086-00		980-0086-00		980-0086-00		
580-0086-01	Terminal block assembly	980-0086-01		980-0086-01		980-0086-01		980-0086-01		980-0086-01	980-0086-01
ZS09KAE-PFV-118	Welded compressor										
ZS09KAE-TF5-118	Welded compressor										
ZS11KAE-PFV-118	Welded compressor										
ZS11KAE-TF5-118	Welded compressor	ZS11KAE-TF5-818									
ZS15KAE-PFV-118	Welded compressor		ZS15KAE-PFV-818								
ZS15KAE-TF5-118	Welded compressor			ZS15KAE-TF5-818							
ZS21KAE-PFV-118	Welded compressor				ZS21KAE-PFV-818						
ZS21KAE-TF5-118	Welded compressor					ZS21KAE-TF5-818					
ZS33KAE-PFV-118	Welded compressor						ZS33KAE-PFV-818				
ZS33KAE-TF5-118	Welded compressor							ZS33KAE-TF5-818			
ZS38K4E-PFV-250	Welded compressor								ZF15K4E-PFV-931		
ZS38K4E-TF5-250	Welded compressor									ZF15K4E-TF5-931	
ZS45K4E-TF5-250	Welded compressor										ZF18K4E-TF5-931
Accessories	Master service kit	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00
	Wall bracket	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00
	Stand-adjustable	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00
	PC interface kit	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00
	Remote display	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00

## X-Line Service - All Extended Medium Temp

Production Part	Description	XFAP-015Z-CFV-081	XFAP-015Z-TFC-081	XFAP-017Z-CFV-081	XFAP-017Z-TFC-081	XFAP-022Z-CFV-081	XFAP-022Z-TFC-081
003-1220-00	Valve-plate	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00
003-1487-00	Plate-divider	903-1487-00	903-1487-00	903-1487-00	903-1487-00	903-1487-00	903-1487-00
003-1576-00	Plate-divider						
005-1273-00	Cover-top	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00
005-1280-00	Hand-wide grip	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00
005-1331-00	Cover-right	905-1331-00	905-1331-00	905-1331-00	905-1331-00	905-1331-00	905-1331-00
005-1332-00	Cover-right						
005-7193-00	Cover-handle	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00
005-7193-01	Hand-grip	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01
005-7214-00	Plate-front left						
005-7215-00	Plate-front left	905-7215-00	905-7215-00	905-7215-00	905-7215-00	905-7215-00	905-7215-00
005-7230-00	Cover-electrical box	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00
010-0104-00	Valve-EXV	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00
010-0142-02	Valve-service	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02
010-0179-00	Valve-service	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01
010-0180-00	Valve-service	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00
010-7003-01	Valve-check	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01
012-1401-04	Contact	912-1401-04		912-1401-04		912-1401-04	
012-1401-06	Contact		912-3040-02		912-3040-02		912-3040-02
013-7000-31	Filter-drier	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31
013-7026-00	Filter-screen						
014-0006-15	Capacitor-start						
014-0061-27	Capacitor-start	914-0036-03		914-0036-03		914-0036-03	
014-0064-06	Capacitor-running	914-0037-10		914-0037-10			
014-0064-08	Capacitor-running					914-0037-12	
014-0064-18	Capacitor-running						
014-0064-25	Capacitor-running						
014-0064-27	Capacitor-running						
014-0064-28	Capacitor-running						
014-0064-35	Capacitor-running						
014-0083-00	Capacitor-fan	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00
018-0094-05	Heater-crankcase	918-0052-05	918-0052-05	918-0052-05	918-0052-05	918-0052-05	918-0052-05
018-0095-04	Heater-crankcase						
018-7013-00	Heater-receiver	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00
022-0644-00	Base-plate	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00
023-0068-00	Coil-EXV						
023-0068-04	Coil-EXV	923-0068-00	923-0068-00	923-0068-00	923-0068-00	923-0068-00	923-0068-00
024-0262-00	Guard-cond coil						
024-0263-00	Guard-cond coil	924-0263-00	924-0263-00	924-0263-00	924-0263-00	924-0263-00	924-0263-00
024-0264-00	Guard fan	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00
032-0359-00	Clamp-capacitor	032-0359-00		032-0359-00		032-0359-00	
032-0359-01	Clamp-capacitor	032-0359-01		032-0359-01		032-0359-01	
032-0359-02	Clamp-capacitor						
032-0359-04	Clamp-capacitor						

### 980-0080-00 Master Service Kit

Component	Description
037-0038-01	Transformer control
039-0026-06	Transducer-pressure
529-0060-04	Power cable-molded plug
529-0060-25	Power cable-molded plug
529-0222-01	Cable-wire harness
529-0222-02	Cable-wire harness
912-1401-04	Contact
912-3040-02	Contact
914-0083-00	Capacitor-fan
923-0068-00	Coil-EXV
929-0304-00	Cable-sensor assembly
940-0181-00	Relay-defrost
943-0214-00	Controller-elect.unit
971-7018-00	Breaker-circuit
980-0086-00	Terminal block assembly
980-0086-01	Terminal block assembly



Production Part	Description	XFAP-030Z-CFV-081	XFAP-030Z-TFC-081	XFAP-045Z-CFV-081	XFAP-045Z-TFC-081	XFAP-050Z-CFV-081	XFAP-050Z-TFC-081	XFAP-060Z-TFC-081
003-1220-00	Valve-plate	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00	903-1220-00
003-1487-00	Plate-divider	903-1487-00	903-1487-00					
003-1576-00	Plate-divider			903-1576-00	903-1576-00	903-1576-00	903-1576-00	903-1576-00
005-1273-00	Cover-top	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00	905-1273-00
005-1280-00	Hand-wide grip	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00	905-1280-00
005-1331-00	Cover-right	905-1331-00	905-1331-00					
005-1332-00	Cover-right			905-1332-00	905-1332-00	905-1332-00	905-1332-00	905-1332-00
005-7193-00	Cover-handle	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00	905-7193-00
005-7193-01	Hand-grip	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01	905-7193-01
005-7214-00	Plate-front left			905-7214-00	905-7214-00	905-7214-00	905-7214-00	905-7214-00
005-7215-00	Plate-front left	905-7215-00	905-7215-00					
005-7230-00	Cover-electrical box	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00	905-7230-00
010-0104-00	Valve-EXV	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00	910-0104-00
010-0142-02	Valve-service	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02	910-0142-02
010-0179-00	Valve-service	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01	910-7009-01
010-0180-00	Valve-service	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00	910-0180-00
010-7003-01	Valve-check	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01	910-7003-01
012-1401-04	Contact	912-1401-04		912-1401-04		912-1401-04		
012-1401-06	Contact		912-3040-02		912-3040-02		912-3040-02	912-3040-02
013-7000-31	Filter-drier	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31	913-7000-31
013-7026-00	Filter-screen							
014-0006-15	Capacitor-start					914-0006-10		
014-0061-27	Capacitor-start	914-0036-03		914-0036-03				
014-0064-06	Capacitor-running							
014-0064-08	Capacitor-running							
014-0064-18	Capacitor-running							
014-0064-25	Capacitor-running							
014-0064-27	Capacitor-running			914-0037-38		914-0037-38		
014-0064-28	Capacitor-running	914-0037-39						
014-0064-35	Capacitor-running							
014-0083-00	Capacitor-fan	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00	914-0083-00
018-0094-05	Heater-crankcase							
018-0095-04	Heater-crankcase	918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00	918-0043-00
018-7013-00	Heater-receiver	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00	918-0100-00
022-0644-00	Base-plate	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00	922-0644-00
023-0068-00	Coil-EXV			923-0068-00	923-0068-00	923-0068-00	923-0068-00	923-0068-00
023-0068-04	Coil-EXV	923-0068-00	923-0068-00					
024-0262-00	Guard-cond coil			924-0262-00	924-0262-00	924-0262-00	924-0262-00	924-0262-00
024-0263-00	Guard-cond coil	924-0263-00	924-0263-00					
024-0264-00	Guard fan	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00	924-0264-00
032-0359-00	Clamp-capacitor							
032-0359-01	Clamp-capacitor	032-0359-01						
032-0359-02	Clamp-capacitor					032-0359-02		
032-0359-04	Clamp-capacitor			032-0359-04		032-0359-04		

## X-Line Service - All Extended Medium Temp

Production Part	Description	XFAP-015Z-CFV-081	XFAP-015Z-TFC-081	XFAP-017Z-CFV-081	XFAP-017Z-TFC-081	XFAP-022Z-CFV-081	XFAP-022Z-TFC-081
032-0592-00	Holder-sensor	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00
032-0688-02	Clip-pipe	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02
032-0731-00	Clip-divider plate	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00
032-0743-00	Clamp-capacitor	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00
032-7003-06	Clamp-tube	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06
032-7052-00	Clamp-heat exchanger						
037-0038-01	Transformer control	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01
039-0026-06	Transducer-pressure	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06
040-0046-24	Relay-potential						
040-0166-37	Relay-potential	940-0001-79		940-0001-79		940-0001-79	
040-0181-00	Relay-defrost	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00
050-0316-01	Motor-fan	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01
062-7053-00	Box-electrical	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00
066-0387-00	Condenser						
066-0388-00	Condenser						
066-0389-00	Condenser	066-0389-00	066-0389-00	066-0389-00	066-0389-00	066-0389-00	066-0389-00
066-0393-00	Condenser						
066-0800-00	Condenser						
067-0029-00	Heat exchanger						
067-0029-01	Heat exchanger						
071-7018-00	Breaker-current	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00
074-1205-00	Bracket-stabilizer top	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00
074-1207-01	Bracket-EXV	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01
074-1424-00	Bracket-control mtg	074-1424-00	074-1424-00	074-1424-00	074-1424-00	074-1424-00	074-1424-00
074-1425-00	Bracket-control mtg						
074-7282-00	Bracket-mounting	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00
074-7283-00	Mounting-heat exchanger						
074-7284-00	Bracket-cover right	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00
077-0036-01	Tank-accumulator						
077-0037-01	Tank-accumulator	977-0037-01	977-0037-01	977-0037-01	977-0037-01	977-0037-01	977-0037-01
077-0057-00	Tank-oil separator						
080-0139-08	Terminal block	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08
080-0139-09	Terminal block	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09
083-6931-00	Blade	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00
085-7031-06	Control-pressure	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06
100-7034-00	Screw-ambient holder						
505-7099-00	Door assembly	505-7099-00	505-7099-00	505-7099-00	505-7099-00	505-7099-00	505-7099-00
505-7098-00	Door assembly						
510-0730-00	Valve - pressure relief	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00
510-7062-00	Valve-access	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00
529-0060-04	Power cable-molded plug	529-0060-04	529-0060-04	529-0060-04	529-0060-04	529-0060-04	529-0060-04
529-0060-25	Power cable-molded plug						
529-0114-08	Cable-transducer adapter						
529-0220-00	Cable-sensor assy.	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-01	Cable-sensor assy.	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-02	Cable-sensor assy.	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
529-0220-03	Cable-sensor assy.						
529-0220-04	Cable-sensor assy.						
529-0220-05	Cable-sensor assy.						
529-0220-08	Cable-sensor assy.						
529-0220-09	Cable-sensor assy.						
529-0220-10	Cable-sensor assy.						
529-0222-01	Cable-wire harness	529-0222-01	529-0222-01	529-0222-01	529-0222-01	529-0222-01	529-0222-01
529-0222-02	Cable-wire harness						
543-0214-00	Controller-elect. unit	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00
570-7003-06	Indicator-moisture	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06
577-0542-00	Receiver assembly	577-0542-00	577-0542-00	577-0542-00	577-0542-00	577-0542-00	577-0542-00
577-0542-01	Receiver assembly						
580-0086-00	Terminal block assy.	980-0086-00		980-0086-00		980-0086-00	
580-0086-01	Terminal block assy.		980-0086-01		980-0086-01		980-0086-01

	Production Part	Description	XFAP-030Z-CFV-081	XFAP-030Z-TFC-081	XFAP-045Z-CFV-081	XFAP-045Z-TFC-081	XFAP-050Z-CFV-081	XFAP-050Z-TFC-081	XFAP-060Z-TFC-081
	032-0592-00	Holder-sensor	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00	032-0592-00
	032-0688-02	Clip-pipe	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02	032-0688-02
	032-0731-00	Clip-divider plate	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00	032-0731-00
	032-0743-00	Clamp-capacitor	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00	032-0743-00
	032-7003-06	Clamp-tube	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06	032-7003-06
	032-7052-00	Clamp-heat exchanger							
	037-0038-01	Transformer control	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01	037-0038-01
	039-0026-06	Transducer-pressure	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06	039-0026-06
	040-0046-24	Relay-potential							
	040-0166-37	Relay-potential	940-0001-79		940-0001-79		940-0001-79		
	040-0181-00	Relay-defrost	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00	940-0181-00
	050-0316-01	Motor-fan	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01	050-0316-01
	062-7053-00	Box-electrical	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00	062-7053-00
	066-0387-00	Condenser					066-0387-00	066-0387-00	
	066-0388-00	Condenser			066-0388-00	066-0388-00			
	066-0389-00	Condenser							
	066-0393-00	Condenser							066-0393-00
	066-0800-00	Condenser	066-0800-00	066-0800-00					
	067-0029-00	Heat exchanger							
	067-0029-01	Heat exchanger							
	071-7018-00	Breaker-current	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00	971-7018-00
	074-1205-00	Bracket-stabilizer top	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00	074-1205-00
	074-1207-01	Bracket-EXV	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01	074-1207-01
	074-1424-00	Bracket-control mtg	074-1424-00	074-1424-00					
	074-1425-00	Bracket-control mtg			074-1425-00	074-1425-00	074-1425-00	074-1425-00	074-1425-00
	074-7282-00	Bracket-mounting	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00	074-7282-00
	074-7283-00	Mounting-heat exchanger							
	074-7284-00	Bracket-cover right	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00	074-7284-00
	077-0036-01	Tank-accumulator			977-0036-01	977-0036-01	977-0036-01	977-0036-01	977-0036-01
	077-0037-01	Tank-accumulator	977-0037-01	977-0037-01					
	077-0057-00	Tank-oil separator							
	080-0139-08	Terminal block	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08	980-0139-08
	080-0139-09	Terminal block	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09	980-0139-09
	083-6931-00	Blade	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00	983-6931-00
	085-7031-06	Control-pressure	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06	985-7031-06
	100-7034-00	Screw-ambient holder							
	505-7099-00	Door assembly	505-7099-00	505-7099-00					
	505-7098-00	Door assembly			505-7098-00	505-7098-00	505-7098-00	505-7098-00	505-7098-00
	510-0730-00	Valve - pressure relief	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00	910-0730-00
	510-7062-00	Valve-access	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00	910-7062-00
	529-0060-04	Power cable-molded plug	529-0060-04	529-0060-04					
	529-0060-25	Power cable-molded plug			529-0060-25	529-0060-25			
	529-0114-08	Cable-transducer adapter							
	529-0220-00	Cable-sensor assy.	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
	529-0220-01	Cable-sensor assy.	929-0304-00	929-0304-00					
	529-0220-02	Cable-sensor assy.	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
	529-0220-03	Cable-sensor assy.							
	529-0220-04	Cable-sensor assy.							
	529-0220-05	Cable-sensor assy.							
	529-0220-08	Cable-sensor assy.							
	529-0220-09	Cable-sensor assy.			929-0304-00	929-0304-00	929-0304-00	929-0304-00	929-0304-00
	529-0220-10	Cable-sensor assy.							
	529-0222-01	Cable-wire harness	529-0222-01	529-0222-01					
	529-0222-02	Cable-wire harness			529-0222-02	529-0222-02	529-0222-02	529-0222-02	529-0222-02
	543-0214-00	Controller-elect. unit	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00	943-0214-00
	570-7003-06	Indicator-moisture	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06	970-7003-06
	577-0542-00	Receiver assembly	577-0542-00	577-0542-00					
	577-0542-01	Receiver assembly			577-0542-01	577-0542-01	577-0542-01	577-0542-01	577-0542-01
	580-0086-00	Terminal block assy.	980-0086-00		980-0086-00		980-0086-00		
	580-0086-01	Terminal block assy.		980-0086-01		980-0086-01		980-0086-01	980-0086-01

## X-Line Service - All Extended Medium Temp

Production Part	Description	XFAP-015Z-CFV-081	XFAP-015Z-TFC-081	XFAP-017Z-CFV-081	XFAP-017Z-TFC-081	XFAP-022Z-CFV-081	XFAP-022Z-TFC-081
ZS09KAE-PFV-118	Welded compressor	ZS09KAE-PFV-818					
ZS09KAE-TF5-118	Welded compressor		ZS09KAE-TF5-818				
ZS11KAE-PFV-118	Welded compressor			ZS11KAE-PFV-818			
ZS11KAE-TF5-118	Welded compressor				ZS11KAE-TF5-818		
ZS15KAE-PFV-118	Welded compressor					ZS15KAE-PFV-818	
ZS15KAE-TF5-118	Welded compressor						ZS15KAE-TF5-818
ZS21KAE-PFV-118	Welded compressor						
ZS21KAE-TF5-118	Welded compressor						
ZS33KAE-PFV-118	Welded compressor						
ZS33KAE-TF5-118	Welded compressor						
ZS38K4E-PFV-250	Welded compressor						
ZS38K4E-TF5-250	Welded compressor						
ZS45K4E-TF5-250	Welded compressor						
ZX106KCE-PFV-687	Welded compressor						
ZX106KCE-TF5-687	Welded compressor						
ZX109KCE-TF5-687	Welded compressor						
ZX111KCE-PFV-647	Welded compressor						
ZX114KCE-PFV-647	Welded compressor						
ZX114KCE-TF5-647	Welded compressor						
ZX115KCE-TF5-647	Welded compressor						
ZX116KCE-PFV-557	Welded compressor						
ZX118KCE-TF5-557	Welded compressor						
Accessories	Master service kit	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00
	Wall bracket	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00
	Stand-adjustable	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00
	PC interface kit	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00
	Remote display	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00

	Production Part	Description	XFAP-030Z-CFV-081	XFAP-030Z-TFC-081	XFAP-045Z-CFV-081	XFAP-045Z-TFC-081	XFAP-050Z-CFV-081	XFAP-050Z-TFC-081	XFAP-060Z-TFC-081
	ZS09KAE-PFV-118	Welded compressor							
	ZS09KAE-TF5-118	Welded compressor							
	ZS11KAE-PFV-118	Welded compressor							
	ZS11KAE-TF5-118	Welded compressor							
	ZS15KAE-PFV-118	Welded compressor							
	ZS15KAE-TF5-118	Welded compressor							
	ZS21KAE-PFV-118	Welded compressor	ZS21KAE-PFV-818						
	ZS21KAE-TF5-118	Welded compressor		ZS21KAE-TF5-818					
	ZS33KAE-PFV-118	Welded compressor			ZS33KAE-PFV-818				
	ZS33KAE-TF5-118	Welded compressor				ZS33KAE-TF5-818			
	ZS38K4E-PFV-250	Welded compressor					ZF15K4E-PFV-931		
	ZS38K4E-TF5-250	Welded compressor						ZF15K4E-TF5-931	
	ZS45K4E-TF5-250	Welded compressor							ZF18K4E-TF5-931
	ZXI06KCE-PFV-687	Welded compressor							
	ZXI06KCE-TF5-687	Welded compressor							
	ZXI09KCE-TF5-687	Welded compressor							
	ZXI11KCE-PFV-647	Welded compressor							
	ZXI14KCE-PFV-647	Welded compressor							
	ZXI14KCE-TF5-647	Welded compressor							
	ZXI15KCE-TF5-647	Welded compressor							
	ZXI16KCE-PFV-557	Welded compressor							
	ZXI18KCE-TF5-557	Welded compressor							
	Accessories	Master service kit	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00	980-0080-00
Wall bracket		074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00	074-7286-00
Stand-adjustable		074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00	074-7289-00
PC interface kit		943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00	943-0224-00
Remote display		143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00	143-0023-00





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