

FSCU-S SERIES, A.1

SMALL-SIZED CONDENSING UNIT

STANDARD SERIES, AIR COOLED CONDENSER

SINGLE, DUAL OR TRIPLE SEMI-HERMETIC COMPRESSOR(S)

4 – 27 HP 

The FSCU-S: FriconUSA Small-Sized Condensing Units Standard Series are built with the best components in the market including Bitzer semi-hermetic compressors; available in capacities from 4 to 27 HP in configurations of a single compressor, or dual and triple parallel compressors. The high quality and efficiency of our products allow us to ensure our clients a highly reliable operation, low energy consumption and long equipment service life.

The most common commercial refrigeration applications are centralized refrigeration for small and medium-sized supermarkets, cold rooms, blast coolers or freezers, continuous rapid cooling tunnels, block or flake ice making machines, thermal ice storage, etc.

By using Bitzer Ecoline semi-hermetic compressors with infinite variable capacity control "CRIL" between 10% and 100% we convert this condensing unit into an incredible Variable Refrigerant Flow system (VRF) resulting in a greater adaptability to the thermal load demand and maximizes energy savings at partial load.

Application Temperature:

"M" Medium: +35°F (+1.7°C) to 0°F (-18°C)

"L" Low: 0°F (-18°C) to -40°F (-40°C)



10% **VRF** 100%
VARIABLE REFRIGERANT FLOW
VARIABLE REFRIGERANT FLOW "LOOP"
Optional



1-fan version



2-fan version



3-fan version

STANDARD FEATURES & BENEFITS:

- Bitzer Ecoline Semi-Hermetic compressor(s) with spring mounted vibration insulation, crankcase heater and internal thermal protection.
- Aluminum structure with galvanized steel reinforcement, high efficiency condenser with reinforced structure and aluminum micro-channel coils. Its low weight and size reduces the costs of transportation, installation and construction.
- Galvanized and powder coated cabinet designed for outdoor use.
- EcoFriendly; Air cooled micro-channel condenser coil with internal volume reduced requires between 40% and 60% less refrigerant charge and results in a significant reduction of the refrigerant charge necessary for normal or flooded operations.
- Wide range of SST (Saturated Suction Temperature).
- Quiet, high efficiency, external rotor motor, AC type axial fan(s) for a better operation.
- Vertical liquid receiver with inlet and outlet insulate valves, stainless steel relief valve at 450 PSI.
- Sealed suction filter and liquid drier for single compressor units. Replaceable core filter for units over 15 HP and all units with dual and triple compressors.
- Flexible joint on suction and discharge lines on each compressor.
- Helical oil separator with discharge check valve, replaceable 5 micron oil filter and built-in oil reservoir for units with dual or triple compressors.
- Electronic oil level regulator for units with dual or triple compressors.
- Electronic oil pressure switch.
- Refrigerant: R-404a
- Factory pre-charged with nitrogen and electrical work tested.
- UL 508A listed built-in electrical control panel.
- Compressor and fan circuit breakers.
- Voltage and phase-loss monitor for each compressor.
- Control: 208-230V / 1PH / 60HZ
- Power Supply Voltage 208-230V / 3PH / 60HZ with single point power connection.
- Electronic Control System; compressor(s) and condenser fan(s) operational management: alarms, measurement of pressure and temperature variables, 132x64 LCD backlit built-in display with 6-button keypad.
- Alarm management: 1 general alarm for compressor(s) and 1 overload alarm for condenser fan(s).
- Fixed high pressure controls on each compressor.
- BMS (Building Management System): ModBus protocol for supervisor or HMI (Human Machine Interface).
- 1-year warranty.

STANDARD OPTIONS:

- Different compressor brands.
- Condenser coil with E-Coating for greater resistance to corrosion.
- Cabinet with integrated mesh protection.
- EC type fan(s) with variable speed.
- Fan configuration in horizontal position.
- Refrigerants: R-407a, R-448a, R-449a, R-507a
- Different power supply voltage.

ADDITIONAL OPTIONS:

- Electric unloader for compressor: one step for 4 cylinders (50-100%) or two steps for 6 cylinders (33-66-100%).
- VRF (Variable Refrigerant Flow) package to maximize the efficiency and capacity adaptability to the demand:
 - VRF-I: CRII Unloader. Infinite capacity control on the first compressor (4 cylinders: 10≈100%, 6 cylinders: 33≈100%).
- FECC (Fully Enclosed Compressor Cabin) package for better soundproofing:
 - FECC-I: Fully enclosed metal compressor cabin.
 - FECC-II: Same as FECC-I with internal convoluted acoustic foam panel lining.
- LAHPC (Low Ambient Head Pressure Control). Required for ambient temperature operation below +40°F. Note: variable speed EC fans are recommended.
 - LAHPC-I: +110°F (+43.3°C) to 0 °F (-18°C), Includes: Sporlan head pressure control valves ORI & ORD.
- HAOP (High Ambient Operation Package) required for operation above +110°F:
 - HAOP-I: +125°F (+51.7°C) to +40°F (4.4°C), Includes: control panel air extractor fan and filter for air intake.
- Electronic low liquid level indicator.
- Suction accumulator.
- Suction accumulator with heat exchanger.
- Liquid sight glass and solenoid valve.
- Helical oil separator with discharge check valve and replaceable 5 micron oil filter for single compressor units.
- MDS (Main Disconnect Switch)
- Electronic control system:
 - BACnet Communication board.
 - Remote LCD display.
 - Local or remote touch screen display.
- Extended 5-year warranty on the compressor (U.S. only).

BENEFITS:

VRF (Variable Refrigerant Flow): Maximum adaptability to the thermal load demand and extraordinary energy savings at partial load.

Easy Access and maintenance: The top and rear fan covers are designed to be interchangeable. Nylon hinges permit a quick change to the fan position (vertical or horizontal) and easy access for maintenance to the units coils and fan(s). The electrical panel is located on the top front with nylon hinged doors that lock with a universal key for easy and secure access. The vertical liquid receiver, suction filters, liquid solenoid, drier and sight glass are accessed from the front of the unit with sufficient space for service.

Small footprint and installation versatility: Side access for maintenance is not necessary which permits installing the units next to or on top of each other significantly reducing costly wasted space in machine rooms.

Waterproof: Cabinet designed for outdoor use with optional integrated protective mesh offers integral protection to the unit with low additional cost.

Cost effective: The triple or dual FSCU, with 2 or 3 compressors respectively, are a parallel system with all the components necessary to operate a suction group as efficiently as a traditional parallel system "Racks" but at a lower cost.

Quiet operation: Using external rotor fans with cast aluminum curved wing impeller and optimized venturi plate offers high performance air volume, low energy consumption and noise reduction; combined with low noise Bitzer semi-hermetic compressors, permits a very quiet operation.

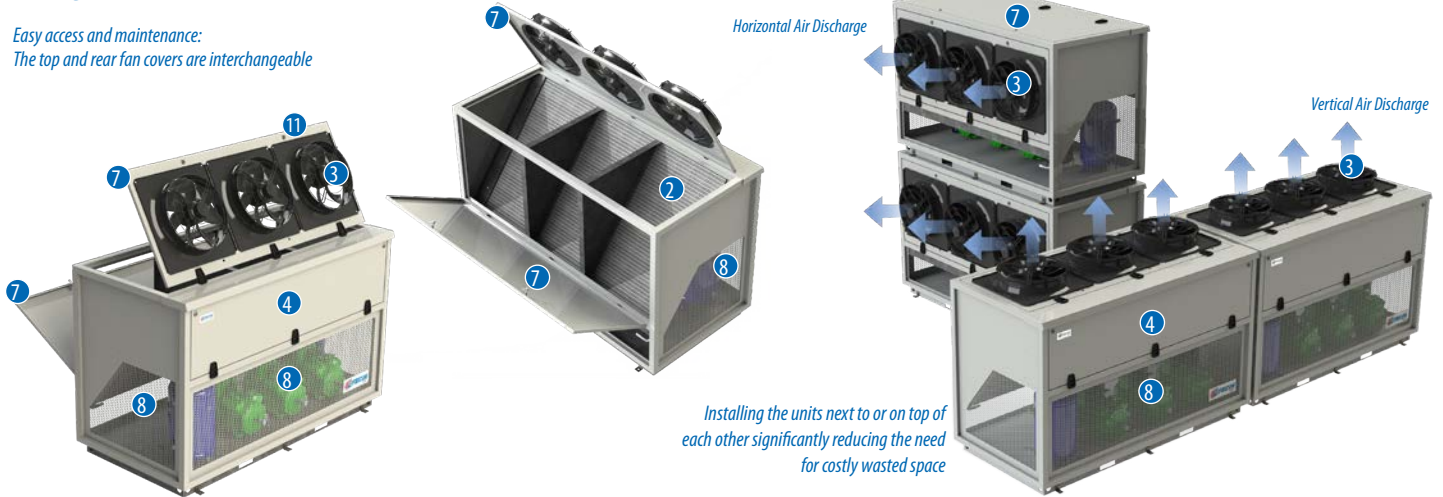
REFERENCE

- | | | |
|-----------------------------|-----------------------------------|-------------------------|
| 1. Compressor | 5. Liquid receiver | 9. Liquid filter |
| 2. Microchannel condenser | 6. Suction accumulator (optional) | 10. Suction filter |
| 3. Fan | 7. Access doors | 11. Universal key locks |
| 4. Electric panel & control | 8. Cabinet with protective grille | |



VERSATILITY

Easy access and maintenance:
The top and rear fan covers are interchangeable



Installing the units next to or on top of each other significantly reducing the need for costly wasted space

NOMENCLATURE

MODEL											
F: FRICONUSA	FSCU	S	A.1	M	0450	S	1	1	44	1	VOLTAGE
S: SMALL-SIZED											1: 208-230V / 3PH / 60HZ
C: CONDENSING											5: 380V / 3PH / 50HZ
U: UNIT											2: 460V / 3PH / 60HZ
											3: 575V / 3PH / 60HZ
											4: 220V / 3PH / 50HZ
											S: SPECIAL VOLTAGE
SERIES (EFFICIENCY)											REFRIGERANT
S: STANDARD											13: R-134A [†]
CONDENSER TYPE & VERSION											44: R-404A
A: AIR COOLED, 1: VERSION 1											46: R-407A
											47: R-407C
											48: R-448A
											49: R-449A
											57: R-507A
											SR: SPECIAL REFRIGERANT
											[†] VALID ONLY FOR LOW TEMP. UNITS - NOTE: LOW TEMP. UNITS WITH R-134A CONVERT TO HIGH TEMP.
APPLICATION TEMPERATURE											CONDENSER, PROTECTION OPTION & FAN TYPE & POSITION: VERTICAL HORIZONTAL °
M: MEDIUM/LOW: +35°F (-1.7°C) TO 0°F (-18°C) SST.											1 A: MCHX & AC FAN(S)
L: LOW: +0°F (-18°C) TO -40°F (-40°C) SST.											2 B: MCHX WITH E-COATING & AC FAN
											3 C: MCHX & EC FAN(S)
											4 D: MCHX WITH E-COATING & EC FAN(S)
											5 E: MCHX WITH MESH PROTECTION & AC FAN(S)
											6 F: MCHX WITH E-COATING, MESH PROTECTION & AC FAN(S)
SIZE / CAPACITY											7 G: MCHX WITH MESH PROTECTION & EC FAN(S)
SEE TECHNICAL DATA TABLE FOR SELECTION											8 H: MCHX WITH E-COATING, MESH PROTECTION & EC FAN(S)
											[°] FOR VERTICAL AIR DISCHARGE SELECT A NUMBER (1-8). FOR HORIZONTAL DISCHARGE SELECT A LETTER (A-H). MCHX: MICRO-CHANNEL CONDENSER
CHARACTERISTIC											COMPRESSOR BRAND & TYPE
S: SINGLE											1: BITZER SEMI-HERMETIC
D: DUAL											S: SPECIAL COMPRESSOR
T: TRIPLE											



TECHNICAL DATA - APPLICATION TEMPERATURE

Performance based on Bitzer Ecoline Compressor

SINGLE SEMI-HERMETIC COMPRESSOR

R-404a

M: MEDIUM/LOW: +35°F (+1.7°C) TO 0°F (-17.8°C)

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA						FRAME TYPE			
	SIZE	QTY	BITZER	QTY	AC TYPE	+35F	+30F	+25F	+20F	+15F	+10F	+5F	0F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. DRY WEIGHT					
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LIQUID	SUCTION	LB	(KG)				
	UNIT	HP	MODEL	CFM	+1.7C	-1.1C	-3.9C	-6.7C	-9.4C	-12C	-15C	-18C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)		LB	(KG)	
M-0040-S	4	1	2CE-4	1	3950	55.8	47.4	43.3	39.4	35.4	32.0	28.5	25.3	18.2	26.6	8.1	12.2	6.5	9.8	36.2	(16)	5/8	(16)	7/8	(22)	808	(367)	FS-FM-A-1
M-0050-S	5	1	4FE-5	1	5000	62.9	53.5	48.7	43.7	39.1	34.8	31.3	27.7	24.2	36.3	13.1	19.4	8.7	13.3	36.2	(16)	5/8	(16)	7/8	(22)	844	(384)	FS-FM-A-1
M-0060-S	6	1	4EE-6	1	5000	75.0	64.2	58.4	52.3	47.2	42.0	37.7	33.3	28.1	41.1	13.4	19.8	9.4	14.2	36.2	(16)	5/8	(16)	1 1/8	(29)	854	(388)	FS-FM-A-1
M-0070-S	7	1	4DE-7	1	5300	90.0	76.9	69.8	63.3	56.5	50.9	45.2	40.5	31.0	44.8	15.3	22.1	11.0	16.2	57.6	(26)	5/8	(16)	1 1/8	(29)	1,157	(526)	FS-FM-B-1
M-0090-S	9	1	4CE-9	2	8200	114.5	97.8	87.7	79.4	70.8	63.7	56.5	49.9	34.2	48.4	17.1	24.5	13.7	19.6	57.6	(26)	5/8	(16)	1 1/8	(29)	1,201	(546)	FS-FM-B-2
M-0100-S	10	1	4VE-10Y	2	8200	120.0	101.2	91.5	82.5	73.3	65.7	57.9	50.8	38.5	53.7	19.2	28.1	15.4	21.7	57.6	(26)	7/8	(22)	1 1/8	(29)	1,312	(597)	FS-FM-B-2
M-0120-S	12	1	4TE-12	2	9200	140.4	119.5	108.2	97.7	87.9	77.9	69.7	61.3	42.3	60.7	21.2	30.6	16.9	24.4	83.7	(38)	7/8	(22)	1 3/8	(35)	1,351	(614)	FS-FM-B-2
M-0150-S	15	1	4PE-15	2	10000	156.9	134.8	121.7	109.6	98.4	86.9	77.5	67.8	48.7	70.9	24.4	35.5	19.6	28.5	83.7	(38)	7/8	(22)	1 5/8	(41)	1,359	(618)	FS-FM-B-2
M-0200-S	20	1	4NE-20	2	11100	187.4	161.1	145.8	130.0	117.0	105.0	92.7	82.6	57.7	82.1	28.8	41.0	23.6	33.5	83.7	(38)	7/8	(22)	1 5/8	(41)	1,595	(725)	FS-FM-C-2
M-0220-S	22	1	4JE-22	3	13500	213.0	182.1	165.2	147.8	133.4	118.5	106.2	93.6	61.5	88.7	30.8	44.6	24.4	35.3	103	(47)	7/8	(22)	1 5/8	(41)	1,769	(804)	FS-FM-C-3
M-0250-S	25	1	4HE-25	3	15000	244.0	209.0	189.9	172.2	153.9	138.7	124.6	110.2	75.6	108.5	37.8	54.3	30.1	43.2	103	(47)	7/8	(22)	2 1/8	(54)	1,798	(817)	FS-FM-C-3

L: LOW: 0°F (-17.8°C) TO -40°F (-40°C)

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA						FRAME TYPE			
	SIZE	QTY	BITZER	QTY	AC TYPE	0F	-5F	-10F	-15F	-20F	-25F	-30F	-40F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. DRY WEIGHT					
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LIQUID	SUCTION	LB	(KG)				
	UNIT	HP	MODEL	CFM	-18C	-21C	-23C	-26C	-29C	-32C	-35C	-40C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)		LB	(KG)	
L-0070-S	7	1	4VE-7	1	3950	43.4	38.9	34.2	29.8	25.4	21.9	18.6	12.8	24.4	34.3	12.2	17.3	9.6	13.6	21	(10)	1/2	(13)	1 1/8	28	938	(426)	FS-FM-A-1
L-0090-S	9	1	4TE-9	1	5000	54.3	48.1	42.4	37.2	31.9	27.6	23.3	16.4	28.2	41.3	14.1	20.6	12.2	17.7	39	(18)	5/8	(16)	1 3/8	35	949	(431)	FS-FM-A-1
L-0120-S	12	1	4PE-12	1	5300	60.7	53.6	47.0	41.0	35.5	30.5	25.5	17.5	34.6	49.3	17.3	24.6	14.4	20.4	39	(18)	5/8	(16)	1 3/8	35	1,247	(567)	FS-FM-B-1
L-0140-S	14	1	4NE-14	2	8200	77.1	69.3	60.3	52.9	45.5	38.8	33.4	23.2	39.7	55.2	19.9	28.0	15.9	22.4	39	(18)	5/8	(16)	1 3/8	35	1,312	(597)	FS-FM-B-2
L-0150-S	15	1	4JE-15	2	8200	88.4	78.7	69.7	61.4	52.9	42.2	39.0	27.6	50.0	68.1	25.0	34.4	20.0	27.5	39	(18)	5/8	(16)	1 5/8	41	1,396	(635)	FS-FM-B-2
L-0180-S	18	1	4HE-18Y	2	10000	104.3	93.1	81.5	72.0	63.3	54.4	47.1	33.2	54.1	77.6	27.1	38.9	21.7	31.1	85	(39)	7/8	(22)	1 5/8	41	1,444	(656)	FS-FM-B-2
L-0230-S	23	1	4GE-23Y	3	12250	123.4	110.5	98.4	86.1	76.0	65.7	56.4	41.0	57.7	81.7	28.8	41.1	23.1	33.0	85	(39)	7/8	(22)	2 1/8	54	1,669	(759)	FS-FM-C-3
L-0250-S	25	1	6JE-25Y	3	12250	131.7	117.1	103.7	91.4	78.9	68.7	58.4	41.5	71.0	98.4	35.5	49.5	28.4	39.6	85	(39)	7/8	(22)	2 1/8	54	1,805	(820)	FS-FM-C-3
L-0270-S	28	1	4FE-28Y	3	13500	143.3	128.4	114.5	101.6	88.4	77.5	66.4	48.2	76.9	107.2	38.5	54.2	30.8	43.3	86	(39)	7/8	(22)	2 1/8	54	1,782	(810)	FS-FM-C-3
L-0280-S	28	1	6HE-28	3	15000	153.5	137.0	121.7	106.1	93.2	80.2	69.5	49.1	77.6	111.0	38.8	55.5	31.0	44.4	130	(59)	7/8	(22)	2 1/8	54	1,844	(838)	FS-FM-C-3

*See Capacity Correction Factors on PG.9

Compressor RLA: Rated Load Amperage (RLA) estimated to the full load of the compressor RLA = Maximum Continuous Current (MCC) /1.56
Compressor MCC: Maximum Continuous Current (MCC) of the compressor(s)

MCA: Minimum Circuit Amperage (MCA) = RLA of the largest compressor X 1.25 + SUM RLA other compressor(s) + Total FLA Fans + Control panel load
FLA Fan: Full Load Amperage (FLA) of the fans

Performance based on Bitzer EcoLine Compressor

TECHNICAL DATA - APPLICATION TEMPERATURE



DUAL SEMI-HERMETIC COMPRESSORS

R-404a

M: MEDIUM/LOW: +35°F (+1.7°C) TO 0°F (-17.8°C)																												
MODEL		COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
		QTY	BITZER	QTY	AC TYPE	CFM	+35F	+30F	+25F	+20F	+15F	+10F	+5F	0F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS				APROX. DRY WEIGHT	
COMP. RLA	SYSTEM MCA														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LIQUID	LIQUID			LIQUID	LIQUID	LIQUID	LIQUID		
UNIT	HP	MODEL	CFM	+1.7C	-1.1C	-3.9C	-6.7C	-9.4C	-12C	-15C	-18C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)	FRAME TYPE
M-0060-D	6	2	2DE-3	1	4200	77.9	71.2	64.9	59.1	53.5	48.4	42.9	38.5	15.3	38.2	7.2	18.3	5.1	13.1	36	(16)	5/8	(16)	1 3/8	35	1,466	(666)	FS-FM-B-1
M-0080-D	8	2	2CE-4	1	5300	96.0	87.9	80.3	73.1	66.4	60.1	53.4	48.0	18.2	47.0	8.1	21.2	6.5	17.0	58	(26)	5/8	(16)	1 3/8	35	1,514	(688)	FS-FM-B-1
M-0100-D	10	2	4FE-5	2	8200	114.4	104.5	94.0	85.3	76.3	68.8	61.1	54.1	24.2	60.1	13.1	32.6	8.7	22.1	58	(26)	5/8	(16)	1 3/8	35	1,353	(615)	FS-FM-B-2
M-0120-D	12	2	4EE-6	2	9200	139.1	126.8	115.3	104.5	93.3	84.0	74.5	66.6	28.1	71.0	13.4	34.2	9.4	24.4	84	(38)	7/8	(22)	1 3/8	35	1,415	(643)	FS-FM-B-2
M-0140-D	14	2	4DE-7	2	10000	162.7	148.2	134.7	122.1	110.3	99.4	88.2	78.9	31.0	79.8	15.3	39.4	11.0	28.8	84	(38)	7/8	(22)	1 5/8	41	1,425	(648)	FS-FM-B-2
M-0180-D	18	2	4CE-9	3	13500	206.0	187.1	169.6	151.6	136.7	123.0	108.9	97.3	34.2	88.8	17.1	44.5	13.7	35.7	103	(47)	7/8	(22)	1 5/8	41	1,698	(772)	FS-FM-C-3
M-0200-D	20	2	4VE-10Y	3	13500	213.0	192.7	174.2	157.0	141.1	126.4	111.3	99.0	38.5	98.4	19.2	49.3	15.4	39.5	103	(47)	7/8	(22)	1 5/8	41	1,920	(873)	FS-FM-C-3
M-0240-D	24	2	4TE-12	3	15000	248.0	228.0	203.0	185.9	167.3	150.0	134.1	117.8	42.3	109.2	21.2	54.7	16.9	43.6	103	(47)	7/8	(22)	2 1/8	54	1,957	(889)	FS-FM-C-3

DUAL COMPRESSORS

L: LOW: 0°F (-17.8°C) TO -40°F (-40°C)																												
MODEL		COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
		QTY	BITZER	QTY	AC TYPE	CFM	0F	-5F	-10F	-15F	-20F	-25F	-30F	-40F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS				APROX. DRY WEIGHT	
COMP. RLA	SYSTEM MCA														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LIQUID	LIQUID			LIQUID	LIQUID	LIQUID	LIQUID		
UNIT	HP	MODEL	CFM	-18C	-21C	-23C	-26C	-29C	-32C	-35C	-40C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)	FRAME TYPE
L-0060-D	6	2	4FE-3	1	4200	48.0	42.8	38.0	33.6	29.1	25.5	21.8	15.9	18.0	44.3	8.1	20.3	6.2	15.6	36	(16)	1/2	(13)	1 1/8	28	1,016	(462)	FS-FM-A-1
L-0080-D	8	2	4EE-4	1	5300	61.0	54.4	48.3	42.0	36.9	32.3	27.6	20.0	20.1	51.2	9.2	23.7	7.4	19.1	36	(16)	5/8	(16)	1 3/8	35	1,024	(465)	FS-FM-A-1
L-0100-D	10	2	4DE-5	2	8200	76.9	67.7	60.1	52.4	46.0	39.7	34.0	24.3	20.6	52.0	10.8	27.4	9.0	22.7	58	(26)	5/8	(16)	1 3/8	35	1,349	(613)	FS-FM-B-1
L-0120-D	12	2	4CE-6	2	8200	88.9	79.0	69.9	60.7	53.2	46.3	39.5	27.8	25.0	61.9	14.2	35.1	11.2	27.7	58	(26)	5/8	(16)	1 3/8	35	1,401	(637)	FS-FM-B-2
L-0140-D	14	2	4VE-7	2	8200	89.5	79.0	69.4	60.6	52.6	44.5	37.9	25.6	24.4	60.5	12.2	30.6	9.6	24.1	58	(26)	5/8	(16)	1 5/8	41	1,583	(720)	FS-FM-B-2
L-0180-D	18	2	4TE-9	2	10000	107.1	96.2	84.8	74.4	63.8	55.2	47.4	32.7	28.2	73.5	14.1	36.7	12.2	31.5	84	(38)	7/8	(22)	1 5/8	41	1,630	(741)	FS-FM-B-2
L-0240-D	24	2	4PE-12	2	11100	121.4	108.8	95.5	83.3	71.0	61.1	51.1	35.1	34.6	53.3	17.3	26.6	14.4	22.0	84	(38)	7/8	(22)	2 1/8	54	1,833	(833)	FS-FM-C-2
L-0280-D	28	2	4NE-14	3	15000	149.7	132.7	117.0	102.6	88.1	75.0	64.5	45.5	39.7	63.6	19.9	31.9	15.9	25.5	103	(47)	7/8	(22)	2 1/8	54	1,971	(896)	FS-FM-C-3

DUAL COMPRESSORS

*See Capacity Correction Factors on PG.9

Compressor RLA: Rated Load Amperage (RLA) estimated to the full load of the compressor RLA = Maximum Continuous Current (MCC) / 1.56
Compressor MCC: Maximum Continuous Current (MCC) of the compressor(s)

MCA: Minimum Circuit Amperage (MCA) = RLA of the largest compressor X 1.25 + SUM RLA other compressor(s) + Total FLA Fans + Control panel load
FLA Fan: Full Load Amperage (FLA) of the fans



TECHNICAL DATA - APPLICATION TEMPERATURE

Performance based on Bitzer EcoLine Compressor

TRIPLE SEMI-HERMETIC COMPRESSORS



R-404a

M: MEDIUM/LOW: +35°F (+1.7°C) TO 0°F (-17.8°C)																												
MODEL		COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A*							ELECTRICAL DATA 60HZ						MECHANICAL DATA									
		QTY	BITZER	QTY	AC TYPE	+35F	+30F	+25F	+20F	+15F	+10F	+5F	0F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. DRY WEIGHT		FRAME TYPE			
SIZE	UNIT	HP	MODEL	CFM	+1.7C	-1.1C	-3.9C	-6.7C	-9.4C	-12C	-15C	-18C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB		(KG)	LIQUID	SUCTION	LB		(KG)		
																					IN (mm)	IN (mm)						
TRIPLE COMPRESSORS	M-0080-T	9	3	2FE-3	1	4250	76.1	69.5	63.4	57.6	52.2	46.4	41.7	37.4	11.3	40.5	5.1	18.6	4.4	15.9	36	(16)	5/8 (16)	1 3/8	35	1,393	(633)	FS-FM-C-1
	M-0085-T	9	3	2EE-3	1	5800	101.7	92.9	83.6	75.9	68.7	62.0	55.0	49.2	14.0	51.5	6.5	24.1	6.0	21.9	58	(26)	5/8 (16)	1 3/8	35	1,586	(721)	FS-FM-C-1
	M-0080-T	9	3	2DE-3	2	8200	124.7	114.0	102.7	93.4	84.6	75.5	67.9	60.1	15.3	55.3	7.2	26.5	5.1	19.1	58	(26)	7/8 (22)	1 5/8	41	1,633	(742)	FS-FM-C-2
	M-0120-T	12	3	2CE-4	2	9550	153.6	138.8	126.8	115.4	103.5	93.6	83.4	74.9	18.2	67.0	8.1	30.4	6.5	24.4	84	(38)	7/8 (22)	1 5/8	41	1,694	(770)	FS-FM-C-2
	M-0150-T	15	3	4FE-5	2	9550	163.1	149.0	135.7	121.7	110.2	99.4	88.3	79.1	24.2	86.5	13.1	46.6	8.7	31.5	84	(38)	7/8 (22)	1 5/8	41	1,802	(819)	FS-FM-C-2
	M-0180-T	18	3	4EE-6	3	13500	206.0	187.9	170.8	154.8	139.9	124.5	111.7	98.6	28.1	103.1	13.4	49.6	9.4	35.4	103	(47)	7/8 (22)	1 5/8	41	1,898	(863)	FS-FM-C-3
	M-0210-T	21	3	4DE-7	3	15000	244.0	222.0	202.0	183.1	165.5	149.1	132.3	118.4	31.0	114.8	15.3	56.7	11.0	41.4	103	(47)	7/8 (22)	2 1/8	54	1,913	(870)	FS-FM-C-3

L: LOW: 0°F (-17.8°C) TO -40°F (-40°C)																												
MODEL		COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A*							ELECTRICAL DATA 60HZ						MECHANICAL DATA									
		QTY	BITZER	QTY	AC TYPE	0F	-5F	-10F	-15F	-20F	-25F	-30F	-40F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. DRY WEIGHT		FRAME TYPE			
SIZE	UNIT	HP	MODEL	CFM	-18C	-21C	-23C	-26C	-29C	-32C	-35C	-40C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB		(KG)	LIQUID	SUCTION	LB		(KG)		
																					IN (mm)	IN (mm)						
TRIPLE COMPRESSORS	L-0080-T	9	3	2CE-3	1	5800	67.1	59.9	53.3	47.1	41.4	35.5	30.6	21.2	13.4	49.6	6.3	23.5	5.1	19.0	58	(26)	5/8 (16)	1 3/8	35	1,583	(720)	FS-FM-C-1
	L-0085-T	9	3	4FE-3	1	5800	70.9	63.3	56.2	49.7	43.7	37.7	32.7	23.4	18.0	64.5	8.1	29.3	6.2	22.6	58	(26)	5/8 (16)	1 3/8	35	1,664	(756)	FS-FM-C-1
	L-0090-T	9	3	4EE-3(4)	2	8200	91.5	81.6	72.4	64.0	55.4	47.7	41.4	30.0	20.1	70.9	9.2	33.0	7.4	26.5	84	(38)	5/8 (16)	1 5/8	41	1,759	(799)	FS-FM-C-2
	L-0150-T	15	3	4DE-5	2	11100	112.3	100.1	88.9	77.4	68.1	58.6	50.2	36.4	20.6	77.0	10.8	40.1	9.0	33.3	84	(38)	5/8 (16)	1 5/8	41	1,796	(816)	FS-FM-C-2
	L-0180-T	18	3	4CE-6	3	12250	133.3	116.8	103.4	91.1	79.8	68.4	59.2	41.8	25.0	90.9	14.2	51.3	11.2	40.5	103	(47)	7/8 (22)	1 5/8	41	1,923	(874)	FS-FM-C-3
	L-0210-T	21	3	4VE-7	3	12250	134.2	118.5	104.1	90.9	78.9	67.9	55.9	38.3	24.4	88.9	12.2	44.8	9.6	35.3	103	(47)	7/8 (22)	2 1/8	54	2,201	(1,001)	FS-FM-C-3
	L-0270-T	27	3	4TE-9	3	15000	160.6	142.2	127.2	111.6	95.7	82.8	71.1	49.1	28.2	105.7	14.1	52.8	12.2	45.3	103	(47)	7/8 (22)	2 1/8	54	2,213	(1,006)	FS-FM-C-3

*See Capacity Correction Factors on PG.9

Compressor RLA: Rated Load Amperage (RLA) estimated to the full load of the compressor RLA = Maximum Continuous Current (MCC) / 1.56
Compressor MCC: Maximum Continuous Current (MCC) of the compressor(s)

MCA: Minimum Circuit Amperage (MCA) = RLA of the largest compressor X 1.25 + SUM RLA other compressor(s) + Total FLA Fans + Control panel load
FLA Fan: Full Load Amperage (FLA) of the fans

Performance based on Bitzer EcoLine Compressor

TECHNICAL DATA - APPLICATION TEMPERATURE

SINGLE SEMI-HERMETIC COMPRESSOR

R-407a

M: MEDIUM/LOW: +35°F (+1.7°C) TO 0°F (-17.8°C)																												
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	AC TYPE	+35F	+30F	+25F	+20F	+15F	+10F	+5F	0F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. DRY WEIGHT	FRAME TYPE		
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	LIQUID	SUCTION			LI	(mm)
UNIT	HP	MODEL	CFM	+1.7C	-1.1C	-3.9C	-6.7C	-9.4C	-12C	-15C	-18C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)			
M-0040-S	4	1	2CE-4	1	3950	51.7	46.6	41.6	37.3	33.4	29.4	26.1	22.9	18.2	26.6	8.1	12.2	6.5	9.8	40.6	(18)	5/8	(16)	7/8	(22)	808	(367)	FS-FM-A-1
M-0050-S	5	1	4FE-5	1	5000	57.9	52.2	47.0	41.8	37.0	32.9	28.9	25.3	24.2	36.3	13.1	19.4	8.7	13.3	40.6	(18)	5/8	(16)	7/8	(22)	844	(384)	FS-FM-A-1
M-0060-S	6	1	4EE-6	1	5000	70.0	63.1	56.7	50.8	44.9	39.9	35.0	30.9	28.1	41.1	13.4	19.8	9.4	14.2	40.6	(18)	5/8	(16)	1 1/8	(29)	854	(388)	FS-FM-A-1
M-0070-S	7	1	4DE-7	1	5300	81.6	73.5	66.0	59.1	52.7	46.9	41.5	36.2	31.0	44.8	15.3	22.1	11.0	16.2	64.6	(29)	5/8	(16)	1 1/8	(29)	1,157	(526)	FS-FM-B-1
M-0090-S	9	1	4CE-9	2	8200	104.3	94.1	84.7	75.3	67.4	59.5	52.8	46.2	34.2	48.4	17.1	24.5	13.7	19.6	64.6	(29)	5/8	(16)	1 1/8	(29)	1,201	(546)	FS-FM-B-2
M-0100-S	10	1	4VE-10Y	2	8200	108.0	97.3	87.4	77.4	69.0	60.6	53.5	46.5	38.5	53.7	19.2	28.1	15.4	21.7	64.6	(29)	7/8	(22)	1 1/8	(29)	1,312	(597)	FS-FM-B-2
M-0120-S	12	1	4TE-12	2	9200	129.4	116.8	105.0	93.2	83.3	74.1	65.0	57.3	42.3	60.7	21.2	30.6	16.9	24.4	93.9	(43)	7/8	(22)	1 3/8	(35)	1,351	(614)	FS-FM-B-2
M-0150-S	15	1	4PE-15	2	10000	145.0	130.5	117.1	104.7	92.2	82.7	72.1	63.3	48.7	70.9	24.4	35.5	19.6	28.5	93.9	(43)	7/8	(22)	1 5/8	(41)	1,359	(618)	FS-FM-B-2
M-0200-S	20	1	4NE-20	2	11100	171.4	154.4	138.7	124.2	110.8	98.5	86.2	75.9	57.7	82.1	28.8	41.0	23.6	33.5	93.9	(43)	7/8	(22)	1 5/8	(41)	1,595	(725)	FS-FM-C-2
M-0220-S	22	1	4JE-22	3	13500	191.2	172.4	154.9	138.6	123.6	108.6	95.9	83.2	61.5	88.7	30.8	44.6	24.4	35.3	115.6	(53)	7/8	(22)	1 5/8	(41)	1,769	(804)	FS-FM-C-3
M-0250-S	25	1	4HE-25	3	15000	219.0	197.2	177.1	158.5	141.3	125.5	109.5	96.1	75.6	108.5	37.8	54.3	30.1	43.2	115.6	(53)	7/8	(22)	2 1/8	(54)	1,798	(817)	FS-FM-C-3

SINGLE COMPRESSOR

L: LOW: 0°F (-17.8°C) TO -40°F (-40°C)																												
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	AC TYPE	0F	-5F	-10F	-15F	-20F	-25F	-30F	-40F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. DRY WEIGHT	FRAME TYPE		
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	LIQUID	SUCTION			LI	(mm)
UNIT	HP	MODEL	CFM	-18C	-21C	-23C	-26C	-29C	-32C	-35C	-40C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)			
L-0070-S	7	1	4VE-7	1	3950	40.9	35.6	30.7	26.3	22.3	18.1	15.0	9.7	24.4	34.3	12.2	17.3	9.6	13.6	21	(10)	1/2	(13)	1 1/8	28	945	(429)	FS-FM-A-1
L-0090-S	9	1	4TE-9	1	5000	50.9	45.0	39.1	33.7	28.9	23.1	19.0	12.5	28.2	41.3	14.1	20.6	12.2	17.7	39	(18)	5/8	(16)	1 3/8	35	949	(431)	FS-FM-A-1
L-0120-S	12	1	4PE-12	1	5300	57.2	50.4	43.5	37.3	31.1	25.2	21.0	13.2	34.6	49.3	17.3	24.6	14.4	20.4	39	(18)	5/8	(16)	1 3/8	35	1,207	(549)	FS-FM-B-1
L-0140-S	14	1	4NE-14	2	8200	72.7	63.6	54.5	47.0	39.6	32.5	26.7	17.0	39.7	55.2	19.9	28.0	15.9	22.4	39	(18)	5/8	(16)	1 3/8	35	1,312	(597)	FS-FM-B-2
L-0150-S	15	1	4JE-15	2	8200	79.8	69.6	60.3	51.7	43.2	37.7	31.6	20.6	50.0	68.1	25.0	34.4	20.0	27.5	39	(18)	5/8	(16)	1 5/8	41	1,396	(635)	FS-FM-B-2
L-0180-S	18	1	4HE-18Y	2	10000	94.5	82.7	71.8	61.9	52.7	45.2	37.4	25.1	54.1	77.6	27.1	38.9	21.7	31.1	85	(39)	7/8	(22)	1 5/8	41	1,444	(656)	FS-FM-B-2
L-0230-S	23	1	4GE-23Y	3	12250	114.1	99.2	87.6	76.0	64.5	54.5	45.5	30.4	57.7	81.7	28.8	41.1	23.1	33.0	85	(39)	7/8	(22)	2 1/8	54	1,669	(759)	FS-FM-C-3
L-0250-S	25	1	6JE-25Y	3	12250	119.8	104.5	90.4	77.5	64.8	56.2	47.5	30.9	71.0	98.4	35.5	49.5	28.4	39.6	85	(39)	7/8	(22)	2 1/8	54	1,753	(797)	FS-FM-C-3
L-0270-S	28	1	4FE-28Y	3	13500	131.8	115.5	100.6	87.0	73.5	64.3	53.6	36.4	76.9	107.2	38.5	54.2	30.8	43.3	86	(39)	7/8	(22)	2 1/8	54	1,782	(810)	FS-FM-C-3
L-0280-S	28	1	6HE-28	3	15000	141.8	122.6	107.8	92.8	79.1	66.6	56.2	37.1	77.6	111.0	38.8	55.5	31.0	44.4	130	(59)	7/8	(22)	2 1/8	54	1,844	(838)	FS-FM-C-3

SINGLE COMPRESSOR

*See Capacity Correction Factors on PG.9

Compressor RLA: Rated Load Amperage (RLA) estimated to the full load of the compressor RLA = Maximum Continuous Current (MCC) /1.56
Compressor MCC: Maximum Continuous Current (MCC) of the compressor(s)

MCA: Minimum Circuit Amperage (MCA) = RLA of the largest compressor X 1.25 + SUM RLA other compressor(s) + Total FLA Fans + Control panel load
FLA Fan: Full Load Amperage (FLA) of the fans



TECHNICAL DATA - APPLICATION TEMPERATURE

Performance based on Bitzer EcoLine Compressor

DUAL SEMI-HERMETIC COMPRESSORS



R-407a

"M" MEDIUM: +35°F (+1.7°C) TO 0°F (-17.8°C)

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA							
	SIZE		QTY	BITZER	QTY	AC TYPE	+35F	+30F	+25F	+20F	+15F	+10F	+5F	0F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. DRY WEIGHT		FRAME TYPE
	UNIT	HP													MODEL	CFM	+1.7C	-1.1C	-3.9C	-6.7C		-9.4C	-12C	-15C	-18C	
																						IN (mm)	IN (mm)			
M-0060-D	6	2	2DE-3	1	4200	77.7	70.0	63.4	56.8	50.6	44.9	39.7	35.0	15.3	38.2	7.2	18.3	5.1	13.1	41	(18)	5/8 (16)	1 3/8 (35)	1,466 (666)		FS-FM-B-1
M-0080-D	8	2	2CE-4	1	5300	95.9	87.3	78.5	70.3	62.8	56.5	49.6	43.8	18.2	47.0	8.1	21.2	6.5	17.0	41	(18)	5/8 (16)	1 3/8 (35)	1,474 (670)		FS-FM-B-1
M-0100-D	10	2	4FE-5	2	8200	112.7	101.6	91.3	81.9	73.2	64.5	56.6	50.0	24.2	60.1	13.1	32.6	8.7	22.1	41	(18)	5/8 (16)	1 3/8 (35)	1,560 (709)		FS-FM-B-2
M-0120-D	12	2	4EE-6	2	9200	137.4	125.0	112.3	100.6	89.8	79.1	70.0	61.8	28.1	71.0	13.4	34.2	9.4	24.4	65	(29)	7/8 (22)	1 3/8 (35)	1,623 (738)		FS-FM-B-2
M-0140-D	14	2	4DE-7	2	10000	158.5	142.7	129.4	115.8	103.3	91.8	80.3	70.8	31.0	79.8	15.3	39.4	11.0	28.8	65	(29)	7/8 (22)	1 5/8 (41)	1,791 (814)		FS-FM-B-2
M-0180-D	18	2	4CE-9	3	13500	201.0	181.4	161.6	146.3	130.8	115.3	102.3	89.5	34.2	88.8	17.1	44.5	13.7	35.7	94	(43)	7/8 (22)	1 5/8 (41)	2,054 (934)		FS-FM-C-3
M-0200-D	20	2	4VE-10Y	3	13500	206.0	185.0	165.9	149.9	133.5	117.1	103.3	89.6	38.5	98.4	19.2	49.3	15.4	39.5	94	(43)	7/8 (22)	1 5/8 (41)	2,092 (951)		FS-FM-C-3
M-0240-D	24	2	4TE-12	3	15000	244.0	220.0	199.7	178.9	159.7	141.9	125.6	110.7	42.3	109.2	21.2	54.7	16.9	43.6	94	(43)	7/8 (22)	2 1/8 (54)	2,223 (1,010)		FS-FM-C-3

"L" LOW: 0°F (-17.8°C) TO -40°F (-40°C)

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA							
	SIZE		QTY	BITZER	QTY	AC TYPE	0F	-5F	-10F	-15F	-20F	-25F	-30F	-40F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. DRY WEIGHT		FRAME TYPE
	UNIT	HP													MODEL	CFM	-18C	-21C	-23C	-26C		-29C	-32C	-35C	-40C	
																						IN (mm)	IN (mm)			
L-0060-D	6	2	4FE-3	1	4200	61.9	54.2	48.4	41.9	36.5	31.1	26.2	18.0	18.0	44.3	8.1	20.3	6.2	15.6	41	(19)	1/2 (13)	1 1/8 (28)	1,016 (462)		FS-FM-A-1
L-0080-D	8	2	4EE-4	1	5300	76.1	67.3	59.2	51.0	44.2	37.5	31.4	21.1	20.1	51.2	9.2	23.7	7.4	19.1	41	(19)	5/8 (16)	1 3/8 (35)	1,024 (465)		FS-FM-A-1
L-0100-D	10	2	4DE-5	2	8200	95.1	84.1	73.1	63.0	53.9	45.7	38.3	25.3	20.6	52.0	10.8	27.4	9.0	22.7	65	(30)	5/8 (16)	1 3/8 (35)	1,349 (613)		FS-FM-B-1
L-0120-D	12	2	4CE-6	2	8200	112.4	99.6	87.9	77.1	66.2	59.8	51.3	32.7	25.0	61.9	14.2	35.1	11.2	27.7	65	(30)	5/8 (16)	1 3/8 (35)	1,401 (637)		FS-FM-B-2
L-0140-D	14	2	4VE-7	2	8200	111.3	97.9	85.5	74.1	61.0	51.0	42.2	27.6	24.4	60.5	12.2	30.6	9.6	24.1	65	(30)	5/8 (16)	1 5/8 (41)	1,583 (720)		FS-FM-B-2
L-0180-D	18	2	4TE-9	2	10000	137.4	121.4	106.6	87.2	73.8	63.1	52.5	34.8	28.2	73.5	14.1	36.7	12.2	31.5	94	(43)	7/8 (22)	1 5/8 (41)	1,630 (741)		FS-FM-B-2
L-0240-D	24	2	4PE-12	2	11100	155.5	136.7	115.7	101.8	83.5	69.8	57.6	37.7	34.6	53.3	17.3	26.6	14.4	22.0	94	(43)	7/8 (22)	2 1/8 (54)	1,833 (833)		FS-FM-C-2
L-0280-D	28	2	4NE-14	3	15000	189.3	167.1	146.6	127.7	103.8	87.3	72.7	48.6	39.7	63.6	19.9	31.9	15.9	25.5	115	(52)	7/8 (22)	2 1/8 (54)	1,971 (896)		FS-FM-C-3

*See Capacity Correction Factors on PG.9

Compressor RLA: Rated Load Amperage (RLA) estimated to the full load of the compressor RLA = Maximum Continuous Current (MCC) / 1.56
Compressor MCC: Maximum Continuous Current (MCC) of the compressor(s)

MCA: Minimum Circuit Amperage (MCA) = RLA of the largest compressor X 1.25 + SUM RLA other compressor(s) + Total FLA Fans + Control panel load
FLA Fan: Full Load Amperage (FLA) of the fans

Performance based on Bitzer EcoLine Compressor

TECHNICAL DATA - APPLICATION TEMPERATURE



TRIPLE SEMI-HERMETIC COMPRESSORS

R-407a

M: MEDIUM/LOW: +35°F (+1.7°C) TO 0°F (-17.8°C)

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	AC TYPE	+35F	+30F	+25F	+20F	+15F	+10F	+5F	0F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS		APROX. DRY WEIGHT		FRAME TYPE		
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)		LB	(KG)
M-0080-T	9	3	2FE-3	1	4250	84.2	76.2	68.7	61.7	55.2	49.7	44.1	38.6	11.3	40.5	5.1	18.6	4.4	15.9	36	(16)	5/8	(16)	13/8	35	1,393	(633)	FS-FM-C-1
M-0085-T	9	3	2EE-3	1	5800	99.4	89.6	80.5	72.1	64.3	56.5	49.9	43.9	14.0	51.5	6.5	24.1	6.0	21.9	58	(26)	5/8	(16)	13/8	35	1,586	(721)	FS-FM-C-1
M-0080-T	9	3	2DE-3	2	8200	120.4	108.6	97.7	87.5	77.4	68.8	60.8	53.0	15.3	55.3	7.2	26.5	5.1	19.1	58	(26)	7/8	(22)	15/8	41	1,633	(742)	FS-FM-C-2
M-0120-T	12	3	2CE-4	2	9550	147.4	133.1	119.8	107.4	95.1	84.6	75.0	65.5	18.2	67.0	8.1	30.4	6.5	24.4	84	(38)	7/8	(22)	15/8	41	1,694	(770)	FS-FM-C-2
M-0150-T	15	3	4FE-5	2	9550	155.1	139.6	125.2	111.8	99.5	87.2	76.9	67.4	24.2	86.5	13.1	46.6	8.7	31.5	84	(38)	7/8	(22)	15/8	41	1,802	(819)	FS-FM-C-2
M-0180-T	18	3	4EE-6	3	13500	195.2	177.4	157.6	140.8	124.0	110.9	97.8	84.8	28.1	103.1	13.4	49.6	9.4	35.4	103	(47)	7/8	(22)	15/8	41	1,898	(863)	FS-FM-C-3
M-0210-T	21	3	4DE-7	3	15000	229.0	206.0	186.9	167.2	148.9	132.0	115.3	101.2	31.0	114.8	15.3	56.7	11.0	41.4	103	(47)	7/8	(22)	2 1/8	54	1,913	(870)	FS-FM-C-3

TRIPLE COMPRESSORS

L: LOW: 0°F (-17.8°C) TO -40°F (-40°C)

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A*								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	AC TYPE	0F	-5F	-10F	-15F	-20F	-25F	-30F	-40F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS		APROX. DRY WEIGHT		FRAME TYPE		
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)		LB	(KG)
L-0080-T	9	3	2CE-3	1	5800	93.3	81.4	70.6	60.9	51.8	43.8	36.6	24.2	13.4	49.6	6.3	23.5	5.1	19.0	65	(30)	5/8	(16)	13/8	(35)	1,583	(720)	FS-FM-C-1
L-0085-T	9	3	4FE-3	1	5800	103.1	89.9	78.0	67.3	57.4	48.4	40.9	27.3	18.0	64.5	8.1	29.3	6.2	22.6	65	(30)	5/8	(16)	13/8	(35)	1,664	(756)	FS-FM-C-1
L-0090-T	9	3	4EE-3(4)	2	8200	126.6	110.2	95.4	81.5	69.6	58.5	48.7	32.2	20.1	70.9	9.2	33.0	7.4	26.5	94	(43)	5/8	(16)	15/8	(41)	1,759	(799)	FS-FM-C-2
L-0150-T	15	3	4DE-5	2	11100	150.9	131.3	113.0	97.3	82.5	69.4	57.1	37.3	20.6	77.0	10.8	40.1	9.0	33.3	94	(43)	5/8	(16)	15/8	(41)	1,796	(816)	FS-FM-C-2
L-0180-T	18	3	4CE-6	3	12250	186.8	162.9	141.4	121.3	104.1	88.0	73.7	49.3	25.0	90.9	14.2	51.3	11.2	40.5	115	(52)	7/8	(22)	15/8	(41)	1,923	(874)	FS-FM-C-3
L-0210-T	21	3	4VE-7	3	12250	184.4	159.6	137.2	116.1	96.2	79.9	65.7	40.9	24.4	88.9	12.2	44.8	9.6	35.3	115	(52)	7/8	(22)	2 1/8	(54)	2,201	(1,001)	FS-FM-C-3
L-0270-T	27	3	4TE-9	3	15000	230.0	200.0	173.1	148.6	119.2	99.5	82.2	38.0	28.2	105.7	14.1	52.8	12.2	45.3	115	(52)	7/8	(22)	2 1/8	(54)	2,213	(1,006)	FS-FM-C-3

TRIPLE COMPRESSORS

*See Capacity Correction Factors on PG.9

Compressor RLA: Rated Load Amperage (RLA) estimated to the full load of the compressor RLA = Maximum Continuous Current (MCC) / 1.56
Compressor MCC: Maximum Continuous Current (MCC) of the compressor(s)

MCA: Minimum Circuit Amperage (MCA) = RLA of the largest compressor X 1.25 + SUM RLA other compressor(s) + Total FLA Fans + Control panel load
FLA Fan: Full Load Amperage (FLA) of the fans

CAPACITY CORRECTION FACTORS

Ambient Temperature in °F	60	65	70	75	80	85	90	95	100	105	110	115	120	125
Capacity Factor R-404A & R-507A	1.32	1.28	1.23	1.19	1.15	1.10	1.05	1.00	0.95	0.90	0.85	0.81	0.76	0.72
Capacity Factor R-407A & R-407C	1.29	1.25	1.21	1.17	1.12	1.08	1.04	1.00	0.97	0.92	0.87	0.83	0.79	0.75

Some limitations on models with high SST.

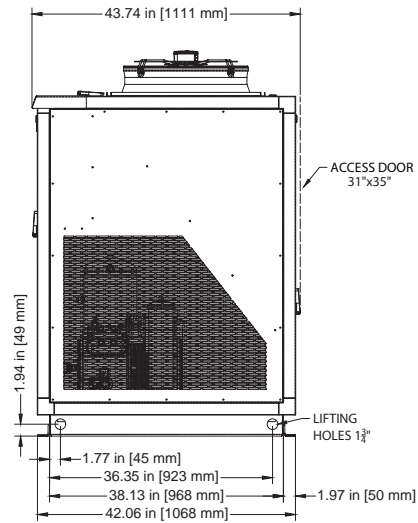
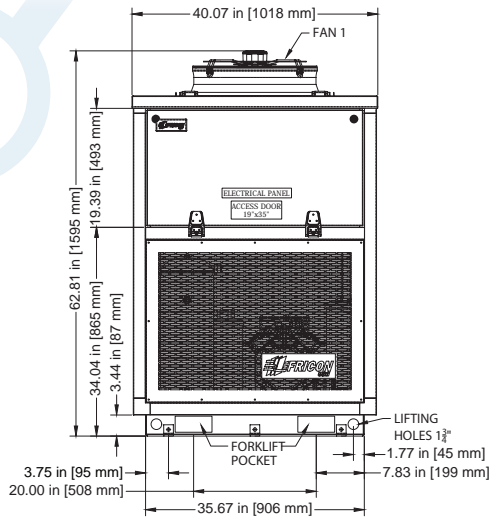
HAOP (High Ambient Operation Package) required for operation above +110°F

‡ Multiply capacity by .83 when used with 50 Hz power.

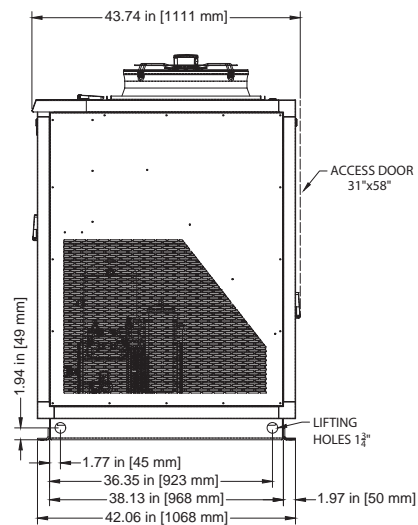
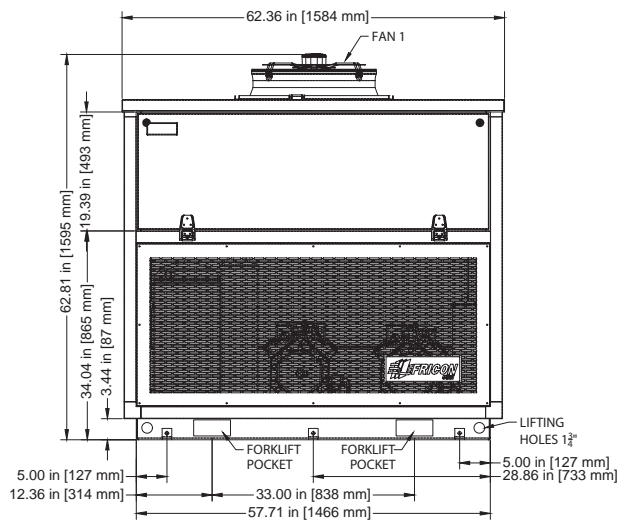
All capacities are calculated at 20°F return gas temperature and dew point values

DRAWING REFERENCE - FRAME TYPE

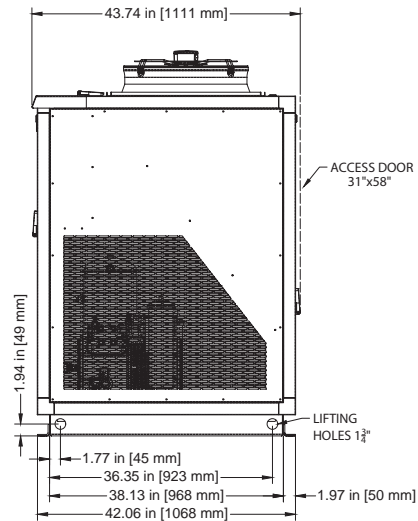
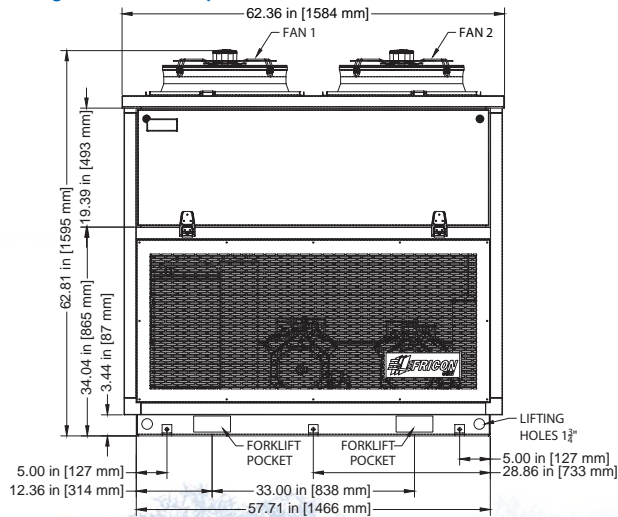
FS-FM-A-1: Single Compressor, 1 Fan



FS-FM-B-1: Single or Dual Compressor(s), 1 Fan

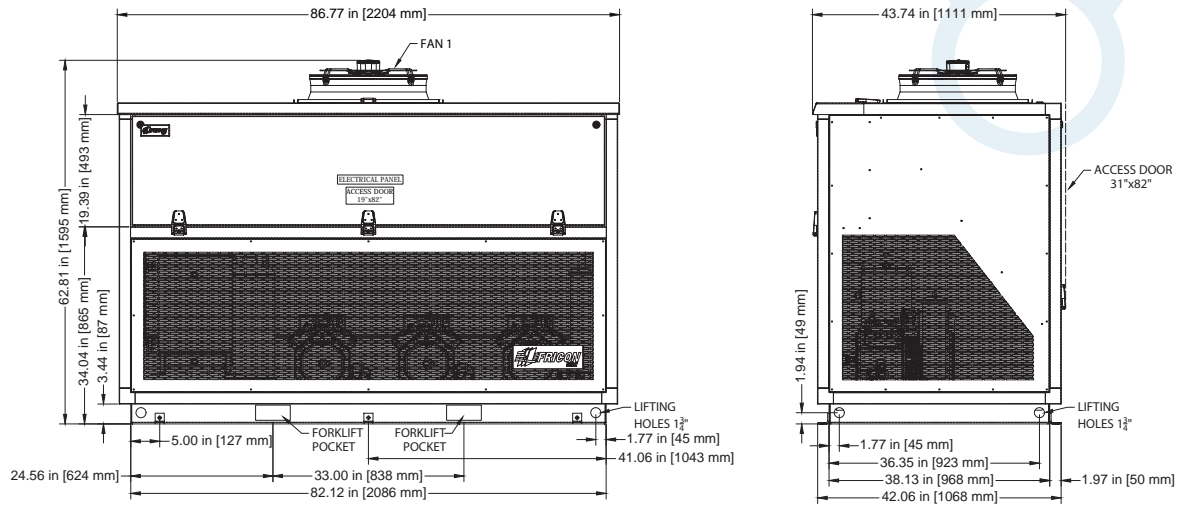


FS-FM-B-2: Single or Dual Compressor(s), 2 Fans

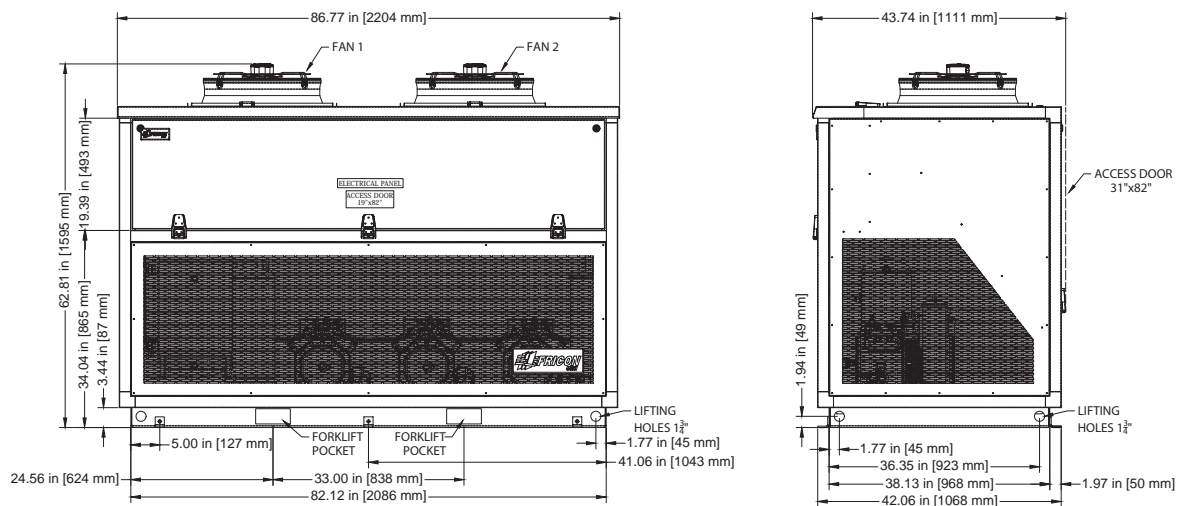


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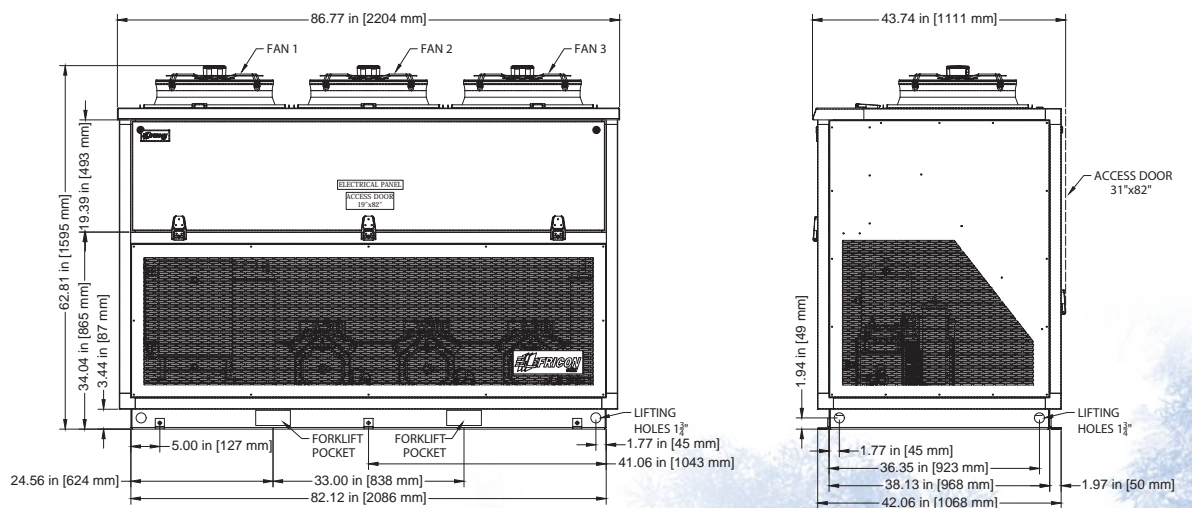
FS-FM-C-1: FS-FM-A-1: Triple Compressors, 1 Fan



FS-FM-C-2: Dual or Triple Compressors, 2 Fans



FS-FM-C-3: Dual or Triple Compressors, 3 Fans



FRICONUSA AIR COOLED CONDENSING UNITS

