



# FMCU-P SERIES, A.1

## MEDIUM-SIZED CONDENSING UNIT

PREMIUM SERIES, AIR COOLED CONDENSER

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

15 – 60 HP 



### COMMERCIAL REFRIGERATION LINE

The FMCU-P: FriconUSA Medium-Sized Condensing Unit, Premium series, air cooled condenser, is built with the best components in the market including Bitzer semi-hermetic compressors; available in capacities from 15 to 60 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 "CRII" between 10% and 100% or the implementation of an external VFD (Variable Frequency Drive) or "Varispeed Compressor" on the first compressor, we convert this condensing unit into an incredible VRF (Variable Refrigerant Flow) system resulting in a greater adaptability to the thermal load demand and maximizes energy savings at partial load.

For Extra "X" Low application temperature, the unit has a Bitzer two-stage semi-hermetic compressor with sub-cooling. The VRF (Variable Refrigerant Flow) option for this type of unit uses an external VFD (Variable Frequency Drive) on the first compressor.

#### Application Temperature:

"H" High: +45°F (+7.2°C) to +10°F (-12.2°C) SST

"M" Medium: +30°F (-1.1°C) to -20°F (-29°C) SST

"L" Low: +5°F (-15°C) to -40°F (-40°C) SST

"X" Extra Low, 2-stage: -15°F (-26°C) to -60°F (-51°C) SST



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



## STANDARD FEATURES & BENEFITS:

- Bitzer Ecoline semi-hermetic compressor(s) with spring mounted vibration insulation, crankcase heater and internal thermal protection. For Extra "X" Low application temperature, a Bitzer two-stage semi-hermetic compressor is used.
- Step unloader(s) on each compressor (4 cylinders: 50-100%, 6 cylinders: 33-66-100%).
- 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, powder coated, acoustically semi-insulated and weatherproof semi-enclosed compressor cabin.
- 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, two speed, AC type axial fans for a better operation.
- Horizontal liquid receiver with inlet and outlet insulate valves, stainless steel relief valve at 450 PSI and electronic low liquid level indicator.
- Liquid sight glass and solenoid valve.
- Suction filter and liquid drier with replaceable core.
- Suction accumulator.
- Flexible joint on suction and discharge lines on each compressor.
- Helical oil separator with discharge check valve and replaceable 5 micron oil filter, additionally, for units with dual or triple compressors, built-in oil reservoir.
- 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 with protection module for each compressor.
- Control: 208-230V / 1PH / 60HZ
- Power Supply Voltage 460V / 3PH / 60HZ with single point power connection.
- Electronic Control System; compressor(s) and condenser fans operational management: alarms, measurement of pressure and temperature variables, 132x64 LCD backlit built-in display with 6-button keypad.
- Alarm management: 3 alarms for compressor(s) (overload, pressure and oil) and 1 overload alarm for condenser fans.
- Fixed high pressure controls on each compressor.
- BMS (Building Management System): ModBus protocol for supervisor or HMI (Human Machine Interface).
- 2-year warranty.

## BENEFITS

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

**Easy access:** Doors (front and sides) with nylon hinges and locks with a universal key allow for a secure, quick and easy access to the control panel, compressor(s) and other system components without having to remove screws.

**Easy maintenance:** The horizontal liquid receiver, filters, liquid solenoid and sight glass are secured on the sides of the unit with sufficient space for service ensuring better condenser cleaning.

**Waterproof:** Compressor cabinet and electrical control panel located on the front of the unit and are designed to operate outdoors.

## STANDARD OPTIONS:

- Different compressor brand.
- Condenser coil with E-Coating for greater resistance to corrosion.
- Protective mesh for the condenser.
- EC type fans with variable speed (for 575V a VFD is used).
- Refrigerants: R-407a, R-407c, R-448a, R-449a, R-507a
- Different power supply voltage.

## ADDITIONAL OPTIONS:

- VRF (Variable Refrigerant Flow) package to maximize the efficiency and capacity adaptability to the demand:
  - VRF-I: CR11 Unloader. Infinite capacity control on the first compressor (4 cylinders: 10≈100%, 6 cylinders: 33≈100%).
  - VRF-II\*: VFD (Variable Frequency Drive). Infinite capacity control on the lead compressor in each circuit (42~116%).
  - VRF-III: Bitzer Varispeed Compressor. Infinite capacity control on the first compressor (25~145%). Available for certain models only.  
*\*Certain limitations apply.*
- 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.
  - LAHPC-I: +110°F (+43.3°C) to 0°F (-18°C), Includes: Sporlan head pressure control valves ORI & ORD.
  - LAHPC-II: +110°F (+43.3°C) to -20°F (-28.9°C), Includes: same as LAHPC-I plus Split condenser and Variable Speed fan on the first fan.
  - LAHPC-III\*: +110°F (+43.3°C) to -35°F (-37.2°C). Includes: same as LAHPC-II plus insulated liquid receiver with electric heater, thermally insulated compressor cabin and control panel with ventilated heating.  
*\*Requires FECC-II (Fully Enclosed Compressor Cabin) package.*
- 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: air exhaust duct to the condenser plenum for cooling of the control panel and filter for the air inlet.
- EMSP (External Mechanical Sub-Cooling Package):
  - EMSP-I: Includes: brazed plate sub-cooling heat exchanger, liquid and suction connection ball valve, liquid solenoid valve, sealed drier, sight glass and thermostatic expansion valve.
  - EMSP-II: same as EMSP-I except that in place of a thermostatic expansion valve is an electronic expansion valve drive and sensors.
- Suction accumulator with heat exchanger.
- MDS (Main Disconnect Switch).
- Electronic Control System:
  - BACnet Communication board.
  - Remote LCD display.
  - Local or remote touch screen display.
  - Energy Management Module.
- Extended 5-year warranty on the compressor (U.S. only).

**Less space:** Because we use high efficiency V-shaped with micro-channel condenser coils with vertical air discharge and a strong but lightweight aluminum structure our FMCU occupy less space compared to similar equipment on the market, significantly reducing the need for costly wasted space in mechanical rooms or mezzanines.

**Cost effective:** The dual or triple FMCU's are a parallel system, with 2 or 3 compressors respectively, with all the components necessary to operate a suction group as efficiently as a conventional parallel "Rack" system but at a lower cost.

**Quiet operation:** Using external rotor motors fans with cast aluminum curved wing impeller, optimized venturi plate offers high performance air volume, low energy consumption and noise reduction; combined with an acoustically isolated compressor cabin permits a quiet operation.



- |                            |                             |                    |                                |
|----------------------------|-----------------------------|--------------------|--------------------------------|
| 1. Compressor(s)           | 4. Electrical control panel | 7. Oil separator   | 10. Electronic oil regulator   |
| 2. Micro-channel condenser | 5. Liquid receiver          | 8. Liquid drier(s) | 11. Service doors              |
| 3. Fans                    | 6. Suction accumulator      | 9. Suction filters | 12. Mesh protection (optional) |



NOMENCLATURE

MODEL										
F: FRICONUSA	FMCU	P	A.1	M	0200	S	1	1	44	2
M: MEDIUM-SIZED										<b>VOLTAGE</b>
C: CONDENSING										1: 208-230V / 3PH / 60HZ
U: UNIT										2: 460V / 3PH / 60HZ
										3: 575V / 3PH / 60HZ
										4: 220V / 3PH / 50HZ
										5: 380V / 3PH / 50HZ
										9: 380V / 3PH / 60HZ
										S: SPECIAL VOLTAGE
										<b>REFRIGERANT</b>
										13: R-134A†
										47: R-407C
										57: R-507A
										44: R-404A
										48: R-448A
										SR: SPECIAL REFRIGERANT
										46: R-407A
										49: R-449A
										† VALID ONLY FOR LOW TEMP. UNITS - NOTE: LOW TEMP. UNITS WITH R-134A CONVERT TO HIGH TEMP.
										<b>CONDENSER, PROTECTION OPTION &amp; FAN TYPE</b>
										MCHX: MICRO-CHANNEL CONDENSER
										1: MCHX & AC FAN
										6: MCHX WITH E-COATING, MESH PROTECTION & AC FAN
										2: MCHX WITH E-COATING & AC FAN
										7: MCHX WITH MESH PROTECTION & EC FAN
										3: MCHX & EC FAN
										8: MCHX WITH E-COATING, MESH PROTECTION & EC FAN
										4: MCHX WITH E-COATING & EC FAN
										5: MCHX WITH MESH PROTECTION & AC FAN
										<b>COMPRESSOR BRAND &amp; TYPE</b>
										**ONLY FOR EXTRA LOW TEMPERATURE APPLICATION
										1: BITZER SEMI-HERMETIC
										S: SPECIAL COMPRESSOR
										7: BITZER SEMI-HERMETIC RECIPI. 2-STAGE**



TECHNICAL DATA - APPLICATION TEMPERATURE

Performance based on Bitzer EcoLine Compressor

SINGLE SEMI-HERMETIC COMPRESSOR

R-404a

**H: HIGH/MEDIUM: +45°F (+7.2°C) TO +10°F (-12.2°C) SST.**

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	+45°F	+40°F	+35°F	+30°F	+25°F	+20°F	+15°F	+10°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT		
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LIQUID		SUCTION				
	UNIT	HP	MODEL	CFM	+7.2°C	+4.4°C	+1.7°C	-1.1°C	-3.9°C	-6.7°C	-9.4°C	-12°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)	
H-0200-S	20	1	4NE-20Y	2	19000	242.0	221.0	198.7	178.5	159.9	144.5	128.7	114.3	57.7	82.7	28.8	41.4	23.6	33.3	102	(46)	7/8	(22)	1 5/8	(41)	1,596	(726)
H-0220-S	22	1	4JE-22Y	2	19000	262.0	240.0	216.0	196.9	176.9	158.5	141.5	127.4	61.5	87.5	30.8	43.9	24.4	34.3	102	(46)	7/8	(22)	1 5/8	(41)	1,678	(763)
H-0250-S	25	1	4HE-25Y	2	19000	296.0	271.0	248.0	224.0	203.0	182.6	163.3	147.3	75.6	105.1	37.8	52.7	30.1	41.4	122	(56)	1 1/8	(29)	2 1/8	(54)	1,771	(805)
H-0300-S	30	1	4GE-30Y	2	22750	342.0	310.0	284.0	259.0	233.0	210.0	189.8	169.4	89.7	126.5	44.9	63.5	35.9	50.5	156	(71)	1 1/8	(29)	2 1/8	(54)	1,816	(825)
H-0330-S	33	1	6JE-33Y	2	26500	382.0	349.0	314.0	286.0	257.0	232.0	207.0	184.0	100.0	143.2	50.0	71.9	39.7	57.1	156	(71)	1 1/8	(29)	2 1/8	(54)	1,889	(858)
H-0340-S	35	1	4FE-35Y	2	26500	395.0	363.0	333.0	302.0	276.0	248.0	223.0	202.0	95.0	137.0	47.5	68.8	38.0	55.0	189	(86)	1 1/8	(29)	2 1/8	(54)	1,866	(848)
H-0350-S*	35	1	6HE-35Y	2	37000	449.0	407.0	372.0	336.0	302.0	274.0	245.0	219.0	105.1	153.0	52.6	76.8	41.7	60.9	189	(86)	1 1/8	(29)	2 1/8	(54)	1,963	(892)
H-0400-S*	40	1	6GE-40Y	2	37000	490.0	449.0	412.0	372.0	335.0	305.0	273.0	244.0	141.0	197.9	70.5	99.1	56.4	79.3	222	(101)	1 3/8	(29)	2 1/8	(54)	2,000	(909)
H-0500-S*	50	1	6FE-50Y	2	37000	567.0	521.0	478.0	438.0	395.0	359.0	322.0	292.0	143.6	201.1	71.8	100.8	57.1	80.2	268	(122)	1 3/8	(29)	2 1/8	(54)	2,048	(931)

**"M" MEDIUM: +30°F (-1.1°C) TO -20°F (-29°C) SST**

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	+30°F	+20°F	+15°F	+5°F	0°F	-10°F	-15°F	-20°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT		
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LIQUID		SUCTION				
	UNIT	HP	MODEL	CFM	-1.1°C	-7°C	-10°C	-15°C	-18°C	-23°C	-26°C	-29°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)	
M-0150-S	15	1	4JE-15Y	2	19000	198.8	162.2	145.2	113.8	101.8	80.4	70.9	58.5	50.0	73.1	25.0	36.7	20.0	28.8	101.5	(46)	7/8	(22)	1 5/8	(42)	1,651	(750)
M-0180-S	18	1	4HE-18Y	2	19000	227.0	189.6	166.1	132.1	118.4	93.9	83.0	72.0	54.1	78.2	27.1	39.3	21.7	30.9	122.1	(56)	7/8	(22)	1 5/8	(42)	1,679	(763)
M-0230-S	23	1	4GE-23Y	2	22750	262.0	215.0	192.5	151.8	136.3	108.6	96.3	84.9	57.7	86.5	28.8	43.4	23.1	34.6	156.2	(71)	1 1/8	(28)	2 1/8	(42)	1,792	(814)
M-0250-S	25	1	6JE-25Y	2	22750	284.0	234.0	209.0	165.2	174.8	116.6	102.8	90.0	71.0	103.2	35.5	51.8	28.4	43.1	156.2	(71)	1 1/8	(28)	2 1/8	(52)	1,839	(836)
M-0270-S	28	1	4FE-28Y	2	26500	304.0	251.0	225.0	180.2	162.1	129.6	115.0	101.5	76.9	114.3	38.5	57.5	30.8	46.1	156.2	(71)	1 1/8	(28)	2 1/8	(52)	1,801	(819)
M-0280-S	28	1	6HE-28Y	2	26500	326.0	267.0	241.0	189.6	170.0	134.8	119.2	104.7	77.6	115.2	38.8	57.9	31.0	46.4	188.6	(86)	1 1/8	(28)	2 1/8	(52)	1,904	(865)
M-0340-S*	34	1	6GE-34Y	2	37000	364.0	299.0	272.0	218.0	201.0	159.2	141.5	125.2	84.6	127.4	42.3	63.9	33.3	50.4	188.6	(86)	1 1/8	(28)	2 1/8	(52)	1,948	(885)
M-0440-S*	44	1	6FE-44Y	2	37000	441.0	367.0	330.0	264.0	238.0	189.9	168.5	148.6	97.4	143.4	48.7	71.9	39.1	57.7	221.7	(101)	1 1/8	(28)	2 1/8	(52)	2,002	(910)

**"L" LOW: +5°F (-15°C) TO -20°F (-29°C) SST**

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	+10°F	+5°F	0°F	-10°F	-15°F	-20°F	-30°F	-40°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT		
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LIQUID		SUCTION				
	UNIT	HP	MODEL	CFM	-12°C	-15°C	-18°C	-23°C	-26°C	-29°C	-35°C	-40°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)	
L-0270-S	28	1	4FE-28Y	2	19000	190.2	173.9	156.5	125.1	112.3	99.1	75.5	54.7	76.9	106.7	38.5	53.5	30.8	46.1	122.1	(56)	7/8	(22)	2 1/8	(52)	1,749	(795)
L-0280-S	28	1	6HE-28Y	2	19000	200.0	182.7	163.8	131.5	116.2	103.4	76.9	55.9	77.6	107.6	38.8	53.9	31.0	46.4	122.1	(56)	7/8	(22)	2 1/8	(52)	1,838	(836)
L-0340-S	34	1	6GE-34Y	2	22750	235.0	213.0	193.9	155.5	138.2	123.7	95.0	69.7	84.6	120.2	42.3	60.3	33.3	49.2	156.2	(71)	1 1/8	(28)	2 1/8	(52)	1,889	(859)
L-0440-S	44	1	6FE-44Y	2	26500	278.0	251.0	229.0	183.2	164.5	145.0	113.2	80.9	97.4	140.0	48.7	70.3	39.1	56.5	188.6	(86)	1 1/8	(28)	2 1/8	(52)	1,953	(888)

\*Models with 900mm EC Fan as Standard (for 575V a VFD is used).

\*\*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

H: HIGH/MEDIUM: +45°F (+7.2°C) TO +10°F (-12.2°C) SST.																								
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA					
	SIZE	QTY	BITZER	QTY	ACTYPE	+45°F	+40°F	+35°F	+30°F	+25°F	+20°F	+15°F	+10°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. WEIGHT	
						UNIT	HP	MODEL	CFM	+7.2°C	+4.4°C	+1.7°C	-1.1°C	-3.9°C	-6.7°C	-9.4°C	-12°C	COMP. RLA	SYSTEM MCA		COMP. RLA	SYSTEM MCA		COMP. RLA
H-0160-D	14	2	4DE-7	2	19000	230.0	209.0	188.5	171.7	156.1	138.5	123.9	110.5	31.0	80.4	15.3	39.8	11.0	28.6	101.5 (46)	7/8 (22)	1 5/8 (41)	1,877 (853)	
H-0180-D	18	2	4CE-9	2	19000	273.0	246.0	224.0	202.0	183.2	164.0	146.4	130.3	34.2	87.6	17.1	43.9	13.7	34.6	122.1 (56)	7/8 (22)	1 5/8 (41)	1,906 (867)	
H-0200-D	20	2	4VE-10	2	19000	285.0	257.0	234.0	212.0	189.6	169.0	152.1	134.7	38.5	97.2	19.2	48.6	15.4	38.5	122.1 (56)	7/8 (22)	1 5/8 (41)	2,194 (997)	
H-0240-D	24	2	4TE-12	2	22750	340.0	310.0	279.0	253.0	227.0	205.0	182.3	163.7	42.3	109.6	21.2	55.1	16.9	43.7	156.2 (71)	1 1/8 (29)	2 1/8 (54)	2,233 (1,015)	
H-0300-D	30	2	4PE-15	2	26500	387.0	352.0	320.0	290.0	259.0	230.0	207.0	183.1	48.7	127.8	24.4	64.3	19.6	51.6	156.2 (71)	1 1/8 (29)	2 1/8 (54)	2,280 (1,036)	
H-0350-D*	40	2	4NE-20	2	37000	469.0	423.0	385.0	349.0	313.0	279.0	249.0	223.0	57.7	151.4	28.8	75.8	23.6	61.9	188.6 (86)	1 1/8 (29)	2 1/8 (54)	2,361 (1,073)	
H-0400-D*	44	2	4JE-22	2	37000	508.0	464.0	419.0	381.0	346.0	310.0	277.0	246.0	61.5	160.0	30.8	80.3	26.3	68.0	221.7 (101)	1 1/8 (29)	2 1/8 (54)	2,525 (1,148)	

DUAL COMPRESSORS

"M" MEDIUM: +30°F (-1.1°C) TO -20°F (-29°C) SST																								
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA					
	SIZE	QTY	BITZER	QTY	ACTYPE	+30°F	+20°F	+15°F	+5°F	0°F	-10°F	-15°F	-20°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. WEIGHT	
						UNIT	HP	MODEL	CFM	-1.1°C	-7°C	-10°C	-15°C	-18°C	-23°C	-26°C	-29°C	COMP. RLA	SYSTEM MCA		COMP. RLA	SYSTEM MCA		COMP. RLA
M-0150-D	12	2	4CE-6	2	19000	202.0	164.0	148.0	115.6	102.2	78.8	68.7	59.6	25.0	66.9	14.2	38.4	11.2	29.0	101.5 (46)	7/8 (22)	1 5/8 (42)	1,917 (872)	
M-0160-D	14	2	4VE-7	2	19000	209.0	168.7	151.8	118.7	104.3	78.2	68.5	57.9	24.4	65.5	12.2	33.9	9.6	25.4	122.1 (56)	7/8 (22)	1 5/8 (42)	2,136 (971)	
M-0180-D	18	2	4TE-9	2	19000	245.0	200.0	178.3	141.5	124.6	95.2	82.5	71.1	28.2	74.1	14.1	38.1	12.2	31.3	122.1 (56)	7/8 (22)	1 5/8 (42)	2,263 (1,029)	
M-0240-D	24	2	4PE-12	2	22750	281.0	229.0	203.0	160.2	140.5	107.9	93.1	79.7	34.6	92.3	17.3	47.3	14.4	38.1	156.2 (71)	1 1/8 (28)	1 5/8 (42)	2,301 (1,046)	
M-0280-D	28	2	4NE-14	2	26500	329.0	270.0	240.0	190.2	169.5	129.5	112.3	96.7	39.7	107.5	19.9	55.2	15.9	43.3	156.2 (71)	1 1/8 (28)	2 1/8 (52)	2,322 (1,055)	
M-0320-D*	30	2	4JE-15	2	37000	402.0	317.0	284.0	225.0	198.8	153.4	133.7	115.7	50.0	134.1	25.0	68.3	20.0	53.8	188.6 (86)	1 1/8 (28)	2 1/8 (52)	2,629 (1,195)	
M-0360-D*	36	2	4HE-18	2	37000	434.0	359.0	325.0	258.0	231.0	179.2	156.5	135.9	54.1	143.3	27.1	73.0	21.7	57.6	221.7 (101)	1 1/8 (28)	2 1/8 (52)	2,549 (1,159)	

DUAL COMPRESSORS

"L" LOW: +10°F (-12°C) TO -40°F (-40°C) SST																								
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA					
	SIZE	QTY	BITZER	QTY	ACTYPE	+10°F	+5°F	0°F	-10°F	-15°F	-20°F	-30°F	-40°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. WEIGHT	
						UNIT	HP	MODEL	CFM	-12°C	-15°C	-18°C	-23°C	-26°C	-29°C	-35°C	-40°C	COMP. RLA	SYSTEM MCA		COMP. RLA	SYSTEM MCA		COMP. RLA
L-0280-D	28	2	4NE-14	2	19000	205.0	182.9	160.7	124.1	109.0	93.8	67.9	46.4	39.7	99.9	19.9	50.2	15.9	39.6	122.1 (56)	1 1/8 (28)	2 1/8 (52)	2,128 (967)	
L-0300-D	30	2	4JE-15	2	19000	232.0	209.0	184.1	143.4	126.4	109.2	80.7	56.3	50.0	123.1	25.0	61.7	20.0	48.8	156.2 (71)	1 1/8 (28)	2 1/8 (52)	2,431 (1,105)	
L-0360-D	36	2	4HE-18	2	22750	269.0	242.0	217.0	169.9	150.3	130.3	95.7	66.4	54.1	136.1	27.1	68.4	21.7	54.5	156.2 (71)	1 1/8 (28)	2 1/8 (52)	2,449 (1,113)	
L-0460-D	46	2	4GE-23	2	26500	313.0	278.0	250.0	196.8	176.9	154.0	114.4	82.0	57.7	148.0	28.8	74.2	23.1	59.5	188.6 (86)	1 1/8 (28)	2 1/8 (52)	2,516 (1,144)	
L-0500-D	50	2	6JE-25	2	26500	333.0	299.0	267.0	210.0	182.8	160.2	118.7	83.1	71.0	178.0	35.5	89.3	28.4	71.4	188.6 (86)	1 1/8 (28)	2 1/8 (52)	2,614 (1,188)	
L-0540-D*	54	2	4FE-28	2	37000	376.0	340.0	302.0	238.0	212.0	184.3	136.9	98.0	76.9	194.6	38.5	97.6	30.8	78.1	221.7 (101)	1 1/8 (28)	2 5/8 (67)	2,573 (1,170)	
L-0560-D*	56	2	6HE-28	2	37000	396.0	356.0	315.0	250.0	218.0	191.9	141.2	100.0	77.6	196.2	38.8	98.3	31.0	78.6	221.7 (101)	1 3/8 (35)	2 5/8 (67)	2,699 (1,227)	

DUAL COMPRESSORS

"X" EXTRA LOW, 2-STAGE: -15°F (-26°C) TO -60°F (-51°C) SST																								
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA					
	SIZE	QTY	BITZER	QTY	ACTYPE	-15°F	-20°F	-25°F	-30°F	-35°F	-40°F	-50°F	-60°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS		APROX. WEIGHT	
						UNIT	HP	MODEL	CFM	-26°C	-29°C	-32°C	-35°C	-37°C	-40°C	-46°C	-51°C	COMP. RLA	SYSTEM MCA		COMP. RLA	SYSTEM MCA		COMP. RLA
X-0320-D	32	2	S6J-16	2	19000	192.4	175.8	160.4	145.4	131.2	118.0	93.8	73.0	53.8	127.4	28.3	69.1	21.5	52.2	189 (86)	7/8 (22)	2 1/8 (54)	2,575 (1,171)	
X-0400-D	40	2	S6H-20	2	22750	221.4	202.4	184.8	167.6	150.4	136.0	108.4	84.2	61.0	151.7	32.1	79.6	24.4	60.6	222 (101)	7/8 (22)	2 1/8 (54)	2,633 (1,197)	
X-0500-D	50	2	S6G-25	2	26500	251.6	229.8	210.0	190.6	172.6	155.4	123.8	96.4	74.4	185.6	38.7	96.5	29.7	74.3	268 (122)	7/8 (22)	2 5/8 (67)	2,758 (1,254)	
X-0600-D*	60	2	S6F-30	2	37000	299.0	273.4	249.2	226.2	202.2	184.8	147.4	115.0	86.2	215.6	45.3	112.9	34.3	86.0	312 (142)	1 1/8 (28)	2 5/8 (67)	2,844 (1,293)	

DUAL COMPRESSORS

\* Models with 900mm EC Fan as Standard (for 575V a VFD is used).

\*\* 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

H: HIGH/MEDIUM: +45°F (+7.2°C) TO +10°F (-12.2°C) SST.																												
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	ACTYPE	+45°F	+40°F	+35°F	+30°F	+25°F	+20°F	+15°F	+10°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS		APROX. WEIGHT				
						UNIT	HP	MODEL	CFM	+7.2°C	+4.4°C	+1.7°C	-1.1°C	-3.9°C	-6.7°C	-9.4°C	-12°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	IN	(mm)
TRIPLE COMPRESSORS	H-0160-T	15	3	4FE-5	2	19000	227.0	206.0	188.5	170.0	153.0	137.2	122.7	109.4	24.2	89.3	13.1	48.0	8.7	30.6	101.5	(46)	7/8	(22)	1 5/8	(41)	2,277	(1,035)
	H-0200-T	18	3	4EE-6	2	19000	275.0	251.0	230.0	207.0	185.8	166.5	150.4	133.9	28.1	101.9	13.4	49.0	9.4	34.4	122.1	(56)	7/8	(22)	1 5/8	(41)	2,297	(1,044)
	H-0230-T	21	3	4DE-7	2	22750	332.0	300.0	274.0	247.0	224.0	201.0	179.8	162.0	31.0	115.2	15.3	57.1	11.0	41.4	156.2	(71)	1 1/8	(29)	2 1/8	(54)	2,441	(1,110)
	H-0270-T	27	3	4CE-9	2	26500	397.0	362.0	326.0	297.0	266.0	241.0	215.0	191.1	34.2	129.4	17.1	65.0	13.7	52.0	156.2	(71)	1 1/8	(29)	2 1/8	(54)	2,456	(1,116)
	H-0300-T	30	3	4VE-10	2	37000	432.0	394.0	354.0	321.0	288.0	260.0	231.0	205.0	38.5	146.7	19.2	73.4	15.4	58.9	188.6	(86)	1 1/8	(29)	2 1/8	(54)	2,838	(1,290)
	H-0360-T	36	3	4TE-12	2	37000	504.0	460.0	414.0	376.0	336.0	304.0	270.0	243.0	42.3	159.1	21.2	79.9	16.9	63.7	221.7	(101)	1 1/8	(29)	2 1/8	(54)	2,857	(1,299)

"M" MEDIUM: +30°F (-1.1°C) TO -20°F (-29°C) SST																												
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	ACTYPE	+30°F	+20°F	+15°F	+5°F	0°F	-10°F	-15°F	-20°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS		APROX. WEIGHT				
						UNIT	HP	MODEL	CFM	-1.1°C	-7°C	-10°C	-15°C	-18°C	-23°C	-26°C	-29°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	IN	(mm)
TRIPLE COMPRESSORS	M-0160-T	12	3	4EE-4	2	19000	209.0	168.5	150.7	120.7	106.8	81.6	70.4	61.9	20.1	75.9	9.2	35.3	7.4	27.9	101.5	(46)	7/8	(22)	1 5/8	(42)	2,257	(1,026)
	M-0180-T	15	3	4DE-5	2	19000	241.0	196.6	175.7	140.6	124.4	96.2	84.0	73.0	20.6	77.6	10.8	40.5	9.0	33.1	122.1	(56)	7/8	(22)	1 5/8	(42)	2,290	(1,041)
	M-0220-T	18	3	4CE-6	2	22750	290.0	235.0	212.0	167.4	147.8	115.2	100.4	87.0	25.0	95.7	14.2	53.6	11.2	43.9	156.2	(71)	1 1/8	(28)	2 1/8	(42)	2,366	(1,076)
	M-0230-T	21	3	4VE-7	2	26500	306.0	247.0	222.0	173.5	154.4	117.3	101.3	86.8	24.4	97.5	12.2	49.1	9.6	36.9	156.2	(71)	1 1/8	(28)	2 1/8	(52)	2,699	(1,227)
	M-0280-T	27	3	4TE-9	2	37000	354.0	290.0	261.0	207.0	182.1	140.8	122.0	105.1	28.2	113.3	14.1	54.8	12.2	48.5	188.6	(86)	1 1/8	(28)	2 1/8	(52)	2,797	(1,272)
	M-0360-T	36	3	4PE-12	2	37000	421.0	339.0	305.0	237.0	211.0	159.5	137.5	117.7	34.6	132.9	17.3	65.2	14.4	55.6	221.7	(101)	1 1/8	(28)	2 1/8	(52)	2,955	(1,343)

"L" LOW: +10°F (-12°C) TO -40°F (-40°C) SST																												
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	ACTYPE	+10°F	+5°F	0°F	-10°F	-15°F	-20°F	-30°F	-40°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS		APROX. WEIGHT				
						UNIT	HP	MODEL	CFM	-12°C	-15°C	-18°C	-23°C	-26°C	-29°C	-35°C	-40°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	IN	(mm)
TRIPLE COMPRESSORS	L-0200-T	18	3	4CE-6	2	19000	184.5	165.4	146.0	112.3	99.1	85.8	62.1	43.2	25.0	91.9	14.2	51.6	11.2	40.2	101.5	(46)	7/8	(28)	2 1/8	(52)	2,392	(1,087)
	L-0260-T	21	3	4VE-7	2	19000	189.4	166.8	148.3	113.9	98.3	84.2	60.0	39.2	24.4	89.9	12.2	45.1	9.6	35.0	101.5	(46)	7/8	(28)	2 1/8	(52)	2,692	(1,224)
	L-0300-T	27	3	4TE-9	2	22750	228.0	204.0	179.7	138.9	120.3	103.5	74.8	51.0	28.2	106.1	14.1	53.2	12.2	45.3	156.2	(71)	1 1/8	(28)	2 1/8	(52)	2,809	(1,277)
	L-0350-T	36	3	4PE-12	2	22750	252.0	224.0	199.3	152.5	131.2	112.1	81.0	53.8	34.6	126.9	17.3	63.6	14.4	52.5	156.2	(71)	1 1/8	(28)	2 1/8	(52)	2,876	(1,307)
	L-0420-T	42	3	4NE-14	2	26500	299.0	267.0	235.0	183.5	158.8	138.6	100.2	69.6	39.7	147.2	19.9	74.1	15.9	59.2	188.6	(86)	1 1/8	(28)	2 1/8	(52)	2,882	(1,310)
	L-0500-T	45	3	4JE-15Y	2	37000	335.0	301.0	269.0	212.0	184.2	161.3	117.1	81.3	50.0	184.1	25.0	92.3	20.0	73.8	188.6	(86)	1 1/8	(35)	2 5/8	(67)	3,296	(1,498)
L-0560-T	56	3	4HE-18Y	2	37000	404.0	363.0	321.0	255.0	222.0	195.4	143.6	101.4	54.1	197.4	27.1	99.1	21.7	79.3	268	(122)	1 3/8	(35)	2 5/8	(67)	3,240	(1,473)	

"X" EXTRA LOW, 2-STAGE: -15°F (-26°C) TO -60°F (-51°C) SST																												
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-404A / R-507A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA									
	SIZE	QTY	BITZER	QTY	ACTYPE	-15°F	-20°F	-25°F	-30°F	-35°F	-40°F	-50°F	-60°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS		APROX. WEIGHT				
						UNIT	HP	MODEL	CFM	-26°C	-29°C	-32°C	-35°C	-37°C	-40°C	-46°C	-51°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	IN	(mm)
TRIPLE COMPRESSORS	X-0360-T	36	3	S4G-12	2	19000	207.3	189.3	171.9	156.0	140.4	126.6	99.9	77.1	35.9	127.3	18.8	66.5	14.4	50.6	222	(101)	7/8	(22)	2 1/8	(54)	3,102	(1,410)
	X-0480-T*	48	3	S6J-16	2	37000	289.5	265.2	241.2	218.7	197.4	177.6	141.3	109.8	53.8	196.5	28.3	103.0	21.5	78.7	312	(142)	7/8	(22)	2 5/8	(67)	3,413	(1,552)
	X-0600-T*	60	3	S6H-20	2	37000	331.2	302.4	276.3	250.5	226.2	204.0	162.6	126.3	61.0	219.9	32.1	115.3	24.4	88.1	312	(142)	1 1/8	(35)	2 5/8	(67)	3,460	(1,573)

\*Models with 900mm EC Fan as Standard (for 575V a VFD is used).

\*\*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 COMPRESSORS

R-407a

H: HIGH/MEDIUM: +45°F (+7.2°C) TO +10°F (-12.2°C) SST.

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	+45°F	+40°F	+35°F	+30°F	+25°F	+20°F	+15°F	+10°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS				APROX. WEIGHT	
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA			LIQUID	IN	SUCTION	IN		
UNIT	HP	MODEL	CFM	+7.2°C	+4.4°C	+1.7°C	-1.1°C	-3.9°C	-6.7°C	-9.4°C	-12°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)		
H-0200-S	20	1	4NE-20Y	2	19000	231.0	208.0	188.1	168.3	150.0	134.5	119.1	104.9	57.7	82.7	28.8	41.4	23.6	33.3	111	(51)	7/8	(22)	1 5/8	(41)	1,596	(726)
H-0220-S	22	1	4JE-22Y	2	19000	251.0	228.0	204.0	184.5	164.4	145.9	130.3	114.7	61.5	87.5	30.8	43.9	24.4	34.3	111	(51)	7/8	(22)	1 5/8	(41)	1,678	(763)
H-0250-S	25	1	4HE-25Y	2	19000	283.0	256.0	232.0	209.0	186.3	167.0	147.5	131.1	75.6	105.1	37.8	52.7	30.1	41.4	134	(61)	1 1/8	(29)	2 1/8	(54)	1,771	(805)
H-0300-S	30	1	4GE-30Y	2	22750	331.0	300.0	270.0	244.0	218.0	195.4	174.8	155.8	89.7	126.5	44.9	63.5	35.9	50.5	171	(78)	1 1/8	(29)	2 1/8	(54)	1,816	(825)
H-0330-S	33	1	6JE-33Y	2	26500	367.0	333.0	301.0	269.0	239.0	217.0	191.5	170.2	100.0	143.2	50.0	71.9	39.7	57.1	171	(78)	1 1/8	(29)	2 1/8	(54)	1,889	(858)
H-0340-S	35	1	4FE-35Y	2	26500	387.0	351.0	318.0	288.0	259.0	230.0	206.0	181.7	95.0	137.0	47.5	68.8	38.0	55.0	207	(94)	1 1/8	(29)	2 1/8	(54)	1,866	(848)
H-0350-S*	35	1	6HE-35Y	2	37000	439.0	399.0	358.0	323.0	289.0	259.0	232.0	202.0	105.1	153.0	52.6	76.8	41.7	60.9	207	(94)	1 1/8	(29)	2 1/8	(54)	1,963	(892)
H-0400-S*	40	1	6GE-40Y	2	37000	492.0	447.0	405.0	366.0	326.0	293.0	260.0	231.0	141.0	197.9	70.5	99.1	56.4	79.3	243	(111)	1 1/8	(29)	2 1/8	(54)	2,000	(909)
H-0500-S*	50	1	6FE-50Y	2	37000	565.0	513.0	464.0	423.0	378.0	339.0	303.0	267.0	143.6	201.1	71.8	100.8	57.1	80.2	294	(134)	1 1/8	(29)	2 1/8	(54)	2,048	(931)

SINGLE COMPRESSOR

"M" MEDIUM: +30°F (-1.1°C) TO -20°F (-29°C) SST

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	+30°F	+20°F	+15°F	+5°F	0°F	-10°F	-15°F	-20°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS				APROX. WEIGHT	
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA			LIQUID	IN	SUCTION	IN		
UNIT	HP	MODEL	CFM	-1.1°C	-7°C	-10°C	-15°C	-18°C	-23°C	-26°C	-29°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)		
M-0150-S	15	1	4JE-15Y	2	19000	185.8	148.8	131.8	102.9	89.7	66.7	56.0	46.4	50.0	73.1	25.0	36.7	20.0	28.8	111	(51)	7/8	(22)	1 5/8	(42)	1,651	(750)
M-0180-S	18	1	4HE-18Y	2	19000	215.0	172.3	152.8	119.7	104.6	79.1	66.8	56.4	54.1	78.2	27.1	39.3	21.7	30.9	134	(61)	7/8	(22)	1 5/8	(42)	1,679	(763)
M-0230-S	23	1	4GE-23Y	2	22750	251.0	202.0	179.5	141.5	124.1	93.7	80.5	68.5	57.7	86.5	28.8	43.4	23.1	34.6	171	(78)	1 1/8	(28)	2 1/8	(42)	1,792	(814)
M-0250-S	25	1	6JE-25Y	2	22750	268.0	217.0	191.7	149.4	131.6	97.7	82.9	69.6	71.0	103.2	35.5	51.8	28.4	43.1	171	(78)	1 1/8	(28)	2 1/8	(52)	1,839	(836)
M-0270-S	28	1	4FE-28Y	2	26500	293.0	236.0	211.0	164.3	145.3	109.2	93.5	79.3	76.9	114.3	38.5	57.5	30.8	46.1	171	(78)	1 1/8	(28)	2 1/8	(52)	1,801	(819)
M-0280-S	28	1	6HE-28Y	2	26500	313.0	254.0	225.0	175.9	155.2	116.0	98.9	83.5	77.6	115.2	38.8	57.9	31.0	46.4	207	(94)	1 1/8	(28)	2 1/8	(52)	1,904	(865)
M-0340-S*	34	1	6GE-34Y	2	37000	367.0	297.0	264.0	207.0	180.7	135.4	115.7	97.8	84.6	127.4	42.3	63.9	33.3	50.4	207	(94)	1 1/8	(28)	2 1/8	(52)	1,948	(885)
M-0440-S*	44	1	6FE-44Y	2	37000	428.0	347.0	308.0	244.0	213.0	160.1	138.6	117.4	97.4	143.4	48.7	71.9	39.1	57.7	243	(111)	1 1/8	(28)	2 1/8	(52)	2,002	(910)

SINGLE COMPRESSOR

"L" LOW: +10°F (-12°C) TO -40°F (-40°C) SST

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	+10°F	+5°F	0°F	-10°F	-15°F	-20°F	-30°F	-40°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY		CONNECTIONS				APROX. WEIGHT	
														COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA			LIQUID	IN	SUCTION	IN		
UNIT	HP	MODEL	CFM	-12°C	-15°C	-18°C	-23°C	-26°C	-29°C	-35°C	-40°C	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	LB	(KG)	IN	(mm)	IN	(mm)	LB	(KG)		
L-0270-S	28	1	4FE-28Y	2	19000	181.3	159.3	140.8	106.7	91.3	77.3	56.3	36.4	76.9	106.7	38.5	53.5	30.8	46.1	134	(61)	7/8	(22)	2 1/8	(52)	1,749	(795)
L-0280-S	28	1	6HE-28Y	2	19000	192.1	170.3	150.2	113.2	96.5	82.4	58.2	37.1	77.6	107.6	38.8	53.9	31.0	46.4	134	(61)	7/8	(22)	2 1/8	(52)	1,838	(836)
L-0340-S	34	1	6GE-34Y	2	22750	221.0	194.0	173.0	129.1	111.5	95.3	71.7	47.0	84.6	120.2	42.3	60.3	33.3	49.2	171	(78)	1 1/8	(28)	2 1/8	(52)	1,889	(859)
L-0440-S	44	1	6FE-44Y	2	26500	264.0	234.0	207.0	156.4	133.7	114.5	83.1	54.6	97.4	140.0	48.7	70.3	39.1	56.5	207	(94)	1 1/8	(28)	2 1/8	(52)	1,953	(888)

SINGLE COMPRESSOR

\*Models with 900mm EC Fan as Standard (for 575V a VFD is used).

\*\*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

H: HIGH/MEDIUM: +45°F (+7.2°C) TO +10°F (-12.2°C) SST.																									
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA						
	SIZE	QTY	BITZER	QTY	ACTYPE	+45°F	+40°F	+35°F	+30°F	+25°F	+20°F	+15°F	+10°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT
						UNIT	HP	MODEL	CFM	+7.2°C	+4.4°C	+1.7°C	-1.1°C	-3.9°C	-6.7°C	-9.4°C	-12°C	COMP. RLA	SYSTEM MCA		COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	
DUAL COMPRESSORS	H-0160-D	14	2	4DE-7	2	19000	220.0	199.4	178.8	161.3	145.2	129.0	113.2	99.8	31.0	80.4	15.3	39.8	11.0	28.6	111 (51)	7/8 (22)	1 5/8 (41)	1,877 (853)	
	H-0180-D	18	2	4CE-9	2	19000	263.0	239.0	214.0	193.4	172.5	154.9	137.3	121.3	34.2	87.6	17.1	43.9	13.7	34.6	134 (61)	7/8 (22)	1 5/8 (41)	1,906 (867)	
	H-0200-D	20	2	4VE-10	2	19000	272.0	246.0	222.0	198.4	178.3	158.0	142.4	125.2	38.5	97.2	19.2	48.6	15.4	38.5	134 (61)	7/8 (22)	1 5/8 (41)	2,194 (997)	
	H-0240-D	24	2	4TE-12	2	22750	327.0	297.0	269.0	240.0	216.0	193.9	171.7	152.9	42.3	109.6	21.2	55.1	16.9	43.7	171 (78)	1 1/8 (29)	2 1/8 (54)	2,233 (1,015)	
	H-0300-D	30	2	4PE-15	2	26500	373.0	341.0	305.0	274.0	246.0	218.0	194.7	172.9	48.7	127.8	24.4	64.3	19.6	51.6	171 (78)	1 1/8 (29)	2 1/8 (54)	2,280 (1,036)	
	H-0350-D*	40	2	4NE-20	2	33000	447.0	405.0	366.0	327.0	294.0	261.0	233.0	206.0	57.7	151.4	28.8	75.8	23.6	61.9	207 (94)	1 1/8 (29)	2 1/8 (54)	2,361 (1,073)	
H-0400-D*	44	2	4JE-22	2	37000	485.0	439.0	405.0	359.0	322.0	286.0	255.0	227.0	61.5	160.0	30.8	80.3	26.3	68.0	243 (111)	1 1/8 (29)	2 1/8 (54)	2,525 (1,148)		

"M" MEDIUM: +30°F (-1.1°C) TO -20°F (-29°C) SST																									
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA						
	SIZE	QTY	BITZER	QTY	ACTYPE	+30°F	+20°F	+15°F	+5°F	0°F	-10°F	-15°F	-20°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT
						UNIT	HP	MODEL	CFM	-1.1°C	-7°C	-10°C	-15°C	-18°C	-23°C	-26°C	-29°C	COMP. RLA	SYSTEM MCA		COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	
DUAL COMPRESSORS	M-0150-D	12	2	4CE-6	2	19000	193.4	153.5	137.3	106.7	93.4	70.4	60.6	51.1	25.0	66.9	14.2	38.4	11.2	29.0	111 (51)	7/8 (22)	1 5/8 (42)	1,917 (872)	
	M-0160-D	14	2	4VE-7	2	19000	198.4	158.0	140.9	108.2	94.0	69.5	59.0	48.8	24.4	65.5	12.2	33.9	9.6	25.4	134 (61)	7/8 (22)	1 5/8 (42)	2,136 (971)	
	M-0180-D	18	2	4TE-9	2	19000	236.0	188.3	168.2	131.3	114.5	86.6	74.0	62.7	28.2	74.1	14.1	38.1	12.2	31.3	134 (61)	7/8 (22)	1 5/8 (42)	2,263 (1,029)	
	M-0240-D	24	2	4PE-12	2	22750	269.0	216.0	192.6	147.7	129.8	95.8	81.3	68.2	34.6	92.3	17.3	47.3	14.4	38.1	171 (78)	1 1/8 (28)	1 5/8 (42)	2,301 (1,046)	
	M-0280-D	28	2	4NE-14	2	26500	316.0	254.0	225.0	175.0	154.1	114.8	97.9	83.8	39.7	107.5	19.9	55.2	15.9	43.3	171 (78)	1 1/8 (28)	2 1/8 (52)	2,322 (1,055)	
	M-0320-D*	30	2	4JE-15	2	33000	348.0	280.0	250.0	194.9	173.5	127.0	109.1	91.5	50.0	134.1	25.0	68.3	20.0	53.8	207 (94)	1 1/8 (28)	2 1/8 (52)	2,629 (1,195)	
M-0360-D*	36	2	4HE-18	2	37000	418.0	335.0	300.0	234.0	207.0	154.6	131.9	111.3	54.1	143.3	27.1	73.0	21.7	57.6	243 (111)	1 1/8 (28)	2 1/8 (52)	2,549 (1,159)		

"L" LOW: +5°F (-15°C) TO -40°F (-40°C) SST																									
MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA						
	SIZE	QTY	BITZER	QTY	ACTYPE	+10°F	+5°F	0°F	-10°F	-15°F	-20°F	-30°F	-40°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT
						UNIT	HP	MODEL	CFM	-12°C	-15°C	-18°C	-23°C	-26°C	-29°C	-35°C	-40°C	COMP. RLA	SYSTEM MCA		COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	
DUAL COMPRESSORS	L-0280-D	28	2	4NE-14	2	19000	191.2	169.1	148.9	111.9	95.3	81.5	54.5	34.0	39.7	99.9	19.9	50.2	15.9	39.6	134 (61)	1 1/8 (28)	2 1/8 (52)	2,128 (967)	
	L-0300-D	30	2	4JE-15	2	19000	211.0	186.2	163.6	123.7	104.8	88.9	64.4	41.1	50.0	123.1	25.0	61.7	20.0	48.8	171 (78)	1 1/8 (28)	2 1/8 (52)	2,431 (1,105)	
	L-0360-D	36	2	4HE-18	2	22750	251.0	222.0	195.7	147.3	127.0	106.9	77.5	50.2	54.1	136.1	27.1	68.4	21.7	54.5	171 (78)	1 1/8 (28)	2 1/8 (52)	2,449 (1,113)	
	L-0460-D	46	2	4GE-23	2	26500	294.0	261.0	231.0	175.3	151.9	129.0	91.0	60.8	57.7	148.0	28.8	74.2	23.1	59.5	207 (94)	1 1/8 (28)	2 1/8 (52)	2,516 (1,144)	
	L-0500-D	50	2	6JE-25	2	37000	309.0	273.0	240.0	180.8	155.1	129.6	94.6	61.8	71.0	178.0	35.5	89.3	28.4	71.4	207 (94)	1 1/8 (28)	2 1/8 (52)	2,614 (1,188)	
	L-0540-D*	54	2	4FE-28	2	37000	352.0	312.0	273.0	211.0	178.3	152.7	110.8	72.8	76.9	194.6	38.5	97.6	30.8	78.1	243 (111)	1 1/8 (28)	2 5/8 (67)	2,573 (1,170)	
L-0560-D*	56	2	6HE-28	2	37000	372.0	329.0	290.0	221.0	188.1	160.4	114.3	74.3	77.6	196.2	38.8	98.3	31.0	78.6	243 (111)	1 3/8 (35)	2 5/8 (67)	2,699 (1,227)		

\*Models with 900mm EC Fan as Standard (for 575V a VFD is used).

\*\*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

**H: HIGH/MEDIUM: +45°F (+7.2°C) TO +10°F (-12.2°C) SST.**

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	CFM	+45°F	+40°F	+35°F	+30°F	+25°F	+20°F	+15°F	+10°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT	
							+45°F	+40°F	+35°F	+30°F	+25°F	+20°F	+15°F	+10°F	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	IN	(mm)		IN
H-0160-T	15	3	4FE-5	2	19000	223.0	202.0	181.5	162.4	146.3	130.1	115.3	101.8	24.2	89.3	13.1	48.0	8.7	30.6	111	(51)	7/8	(22)	1 5/8	(41)	2,277	(1,035)
H-0200-T	18	3	4EE-6	2	19000	271.0	245.0	222.0	198.3	178.4	158.5	141.7	124.9	28.1	101.9	13.4	49.0	9.4	34.4	134	(61)	7/8	(22)	1 5/8	(41)	2,297	(1,044)
H-0230-T	21	3	4DE-7	2	22750	319.0	289.0	259.0	233.0	208.0	186.3	164.8	146.7	31.0	115.2	15.3	57.1	11.0	41.4	171	(78)	1 1/8	(29)	2 1/8	(54)	2,441	(1,110)
H-0270-T	27	3	4CE-9	2	26500	385.0	349.0	313.0	282.0	254.0	226.0	202.0	178.4	34.2	129.4	17.1	65.0	13.7	52.0	171	(78)	1 1/8	(29)	2 1/8	(54)	2,456	(1,116)
H-0300-T	30	3	4VE-10	2	37000	415.0	376.0	337.0	303.0	273.0	244.0	216.0	189.8	38.5	146.7	19.2	73.4	15.4	58.9	207	(94)	1 1/8	(29)	2 1/8	(54)	2,838	(1,290)
H-0360-T	36	3	4TE-12	2	37000	487.0	441.0	399.0	360.0	321.0	288.0	258.0	227.0	42.3	159.1	21.2	79.9	16.9	63.7	243	(111)	1 1/8	(29)	2 1/8	(54)	2,857	(1,299)

TRIPLE COMPRESSORS

**"M" MEDIUM: +30°F (-1.1°C) TO -20°F (-29°C) SST**

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	CFM	+30°F	+20°F	+15°F	+5°F	0°F	-10°F	-15°F	-20°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT	
							+30°F	+20°F	+15°F	+5°F	0°F	-10°F	-15°F	-20°F	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	IN	(mm)		IN
M-0160-T	12	3	4EE-4	2	19000	198.3	158.5	140.3	109.7	95.8	71.9	61.6	51.7	20.1	75.9	9.2	35.3	7.4	27.9	111	(51)	7/8	(22)	1 5/8	(42)	2,257	(1,026)
M-0180-T	15	3	4DE-5	2	19000	227.0	182.7	163.2	126.0	111.1	83.1	71.1	60.4	20.6	77.6	10.8	40.5	9.0	33.1	134	(61)	7/8	(22)	1 5/8	(42)	2,290	(1,041)
M-0220-T	18	3	4CE-6	2	22750	277.0	224.0	198.2	156.8	137.1	103.2	88.7	75.7	25.0	95.7	14.2	53.6	11.2	43.9	171	(78)	1 1/8	(28)	1 5/8	(41)	2,366	(1,076)
M-0230-T	21	3	4VE-7	2	26500	292.0	232.0	207.0	158.6	139.4	102.9	87.3	73.3	24.4	97.5	12.2	49.1	9.6	36.9	171	(78)	1 1/8	(28)	2 1/8	(52)	2,699	(1,227)
M-0280-T	27	3	4TE-9	2	37000	344.0	277.0	247.0	192.7	169.9	126.7	109.6	92.8	28.2	113.3	14.1	54.8	12.2	48.5	207	(94)	1 1/8	(28)	2 1/8	(52)	2,797	(1,272)
M-0360-T	36	3	4PE-12	2	37000	404.0	321.0	286.0	222.0	192.3	143.8	121.9	102.3	34.6	132.9	17.3	65.2	14.4	55.6	243	(111)	1 1/8	(28)	2 1/8	(52)	2,955	(1,343)

TRIPLE COMPRESSORS

**"L" LOW: +5°F (-15°C) TO -40°F (-40°C) SST**

MODEL	COMPRESSOR		FAN		EVAPORATION CAPACITY MBH AT 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA								
	SIZE	QTY	BITZER	QTY	ACTYPE	CFM	+10°F	+5°F	0°F	-10°F	-15°F	-20°F	-30°F	-40°F	230 VOLT		460 VOLT		575 VOLT		LIQUID RECEIVER CAPACITY	CONNECTIONS				APROX. WEIGHT	
							+10°F	+5°F	0°F	-10°F	-15°F	-20°F	-30°F	-40°F	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA	COMP. RLA	SYSTEM MCA		LB	(KG)	IN	(mm)		IN
L-0200-T	18	3	4CE-6	2	19000	165.9	153.5	134.2	102.0	87.7	74.7	52.8	34.4	25.0	91.9	14.2	51.6	11.2	40.2	111	(51)	7/8	(22)	1 5/8	(42)	2,392	(1,087)
L-0260-T	21	3	4VE-7	2	19000	175.6	155.0	134.4	100.2	84.9	72.2	47.9	29.1	24.4	89.9	12.2	45.1	9.6	35.0	111	(51)	7/8	(22)	1 5/8	(42)	2,692	(1,224)
L-0300-T	27	3	4TE-9	2	22750	213.0	190.6	166.0	125.2	108.2	91.5	60.4	37.5	28.2	106.1	14.1	53.2	12.2	45.3	171	(78)	7/8	(22)	1 5/8	(42)	2,809	(1,277)
L-0350-T	36	3	4PE-12	2	22750	237.0	209.0	183.0	136.2	116.8	97.8	64.2	38.7	34.6	126.9	17.3	63.6	14.4	52.5	171	(78)	7/8	(22)	2 1/8	(42)	2,876	(1,307)
L-0420-T	42	3	4NE-14	2	26500	280.0	248.0	218.0	163.6	141.1	120.6	78.7	48.6	39.7	147.2	19.9	74.1	15.9	59.2	207	(94)	1 1/8	(28)	2 1/8	(42)	2,882	(1,310)
L-0500-T*	45	3	4JE-15Y	2	37000	309.0	273.0	239.0	180.8	155.1	129.6	94.9	60.3	50.0	184.1	25.0	92.3	20.0	73.8	207	(94)	1 1/8	(28)	2 1/8	(42)	3,296	(1,498)
L-0560-T*	56	3	4HE-18Y	2	37000	372.0	329.0	290.0	221.0	188.0	160.4	114.3	75.3	54.1	197.4	27.1	99.1	21.7	79.3	294	(134)	1 1/8	(28)	2 1/8	(42)	3,240	(1,473)

TRIPLE COMPRESSORS

\*Models with 900mm EC Fan as Standard (for 575V a VFD is used).

\*\*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.

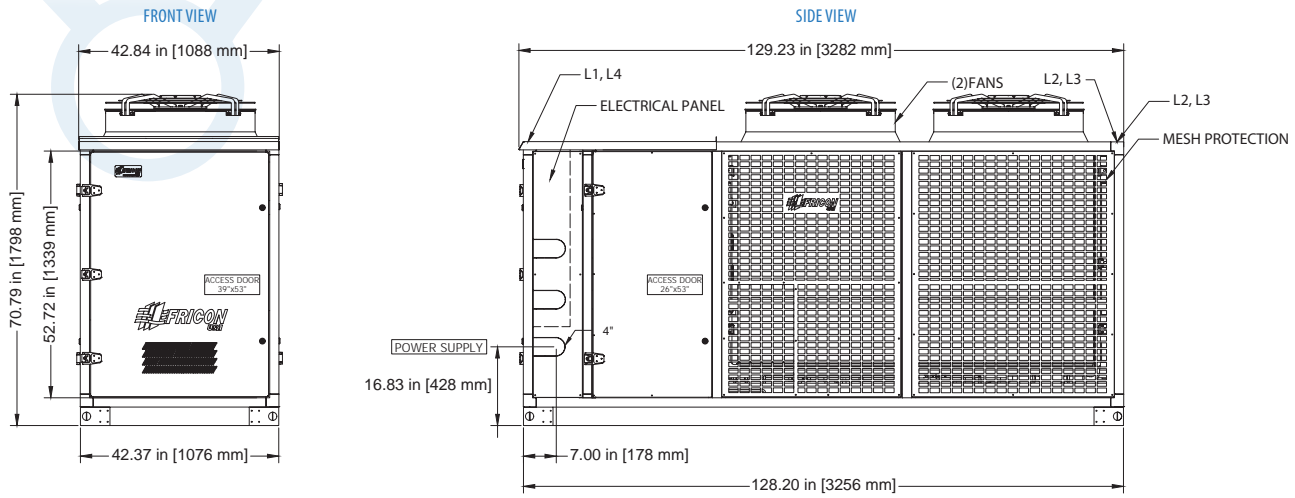
HAOP (High Ambient Operation Package) required for operation above +110°F

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

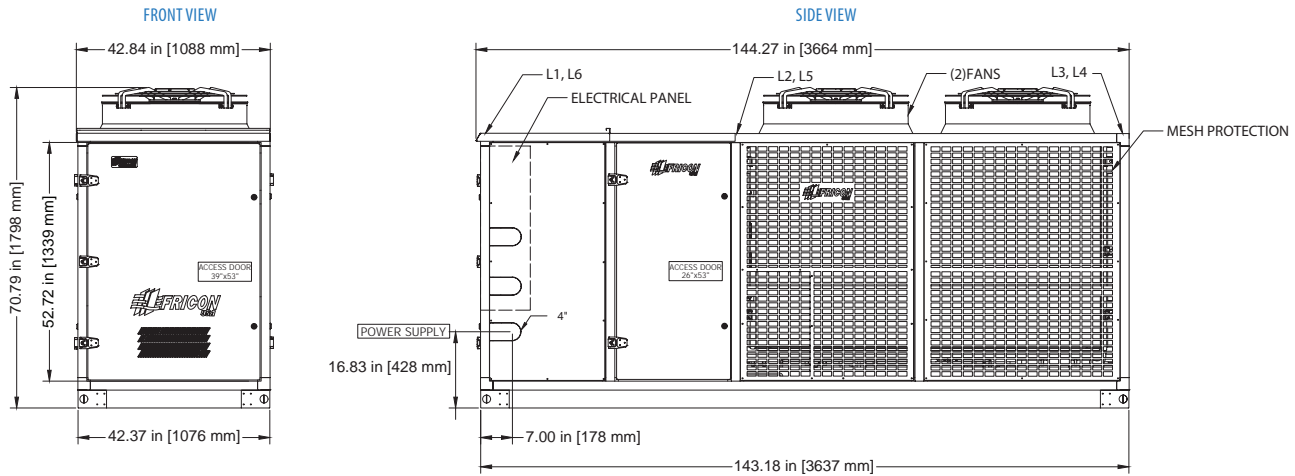
All capacities are calculated at 20°F return gas temperature and dew point values

# DRAWINGS

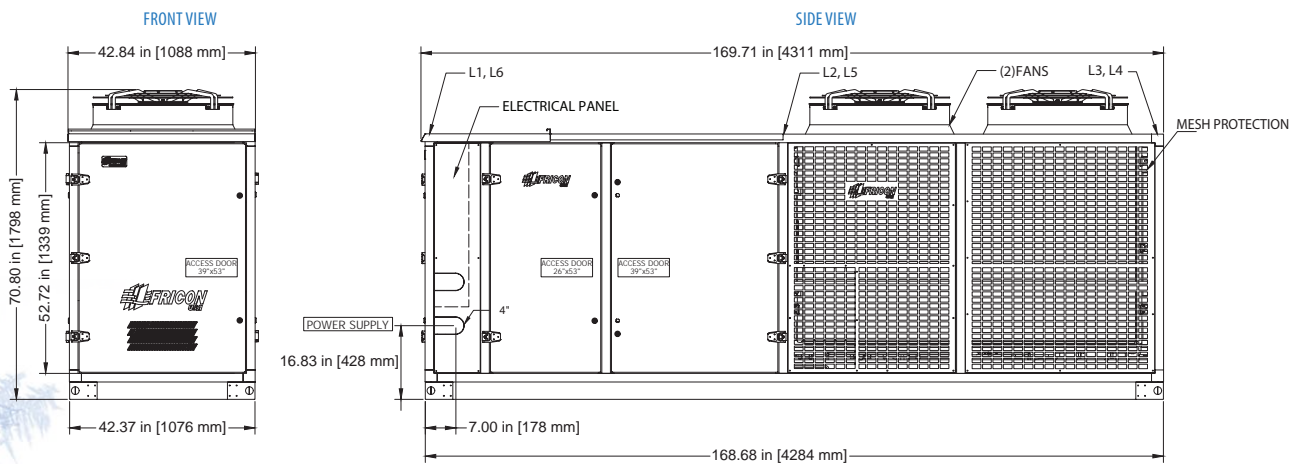
## SINGLE COMPRESSOR



## DUAL COMPRESSORS



## TRIPLE COMPRESSORS



SUBJECT TO CHANGE ACCORDING TO ACCESSORIES/OPTIONS. PLEASE CONSULT THE FACTORY FOR SPECIFIC INFORMATION.

A large grid of dotted lines for taking notes, covering most of the page area.



**FRICONUSA AIR COOLED CONDENSING UNITS**

**COMMERCIAL REFRIGERATION LINE**

