



PROCESS COOLING LINE

The FMCH-P: FriconUSA Medium-Sized Chiller, 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 50 TR in configurations of a single or dual parallel compressor(s). The quality, high efficiency up to 11.3 EER and excellent IPLV, according to AHRI Standard 550/590, assure our customers reliability, low operating costs and long equipment life.

The most common applications are for oil cooling systems in plastic processes such as injection molding, extrusion and blow molding, laser cutting, medical equipment, chemical processing, beverage industry, glycol cooling systems, industrial laundry and for demanding air conditioning such as data centers.

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 unit into an incredible VRF (Variable Refrigerant Flow) system resulting in a greater adaptability to the thermal load, stabilizing the fluid temperature and maximizes energy savings at partial load.

Standard ambient operating temperature range: +110°F (+43.3°C) to +40°F (4.4°C)
Extended ambient operating temperature range: +125°F (+51.7°C) to -35°F (-37.2°C)*
**See optional packages.*

Application / Leaving Fluid Temperature Range:

H: High/Medium: +55°F (+12.8°C) to +15°F (-9.4°C)
M: Medium/Low: +40°F (+4.6°C) to -17°F (-27.4°C)

STANDARD FEATURES & BENEFITS:

- Bitzer semi-hermetic compressor(s) with unloader and with spring mounted vibration insulation, crankcase heater and internal thermal protection.
- 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 applications at different working ambient temperatures.
- Quiet, high efficiency, external rotor motor, two speed, AC type axial fans for a better operation.
- Built-in, Direct Expansion (DX) brazed plate Evaporator, one circuit with reduced internal volume requires less refrigerant charge.
- Electronic expansion valve, liquid sight glass and solenoid valve.
- Mechanical flow switch.
- Liquid drier with replaceable core and inlet/outlet ball valve.

FMCH-P SERIES, A.1

MEDIUM-SIZED CHILLER

PREMIUM SERIES, AIR COOLED CONDENSER
SINGLE OR DUAL SEMI-HERMETIC COMPRESSOR(S)

15-50 TR

PREMIUM
SERIES



PROCESS COOLING: PLASTIC
INJECTION MOLDING, MEDICAL
EQUIPMENT, GLYCOL COOLING
SYSTEMS & MORE



DESIGNED • ENGINEERED • ASSEMBLED
IN THE USA

UL US LISTED
508A

ECOFriendly
BY FRICONUSA

POWERED BY:

STANDARD FEATURES & BENEFITS (CONT.):

- Flexible joint on suction and discharge lines on each compressor.
- Helical oil separator with oil reservoir, discharge check valve and replaceable 5 micron oil filter for units with dual compressors.
- Refrigerant: R-407c for High Temperature application or R-407a for Medium Temperature application.
- Factory pre-charged and individually 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 fan 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.

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).
- Evaporator option:
 - Remote evaporator
- Built-In, insulated Hydronic Package with TEFC type motors:
 - Recirculation pump
 - Recirculation pump with VFD
 - Recirculation pump & polyethylene buffer tank
 - Recirculation pump with VFD & polyethylene buffer tank
 - Stainless steel recirculation pump
 - Stainless steel recirculation pump with VFD
 - Stainless steel recirculation pump & polyethylene buffer tank
 - Stainless steel recirculation pump with VFD & polyethylene buffer tank
 - Recirculation pump & stainless steel closed buffer tank with additional expansion tank
 - Recirculation pump w/VFD & stainless steel closed buffer tank with additional expansion tank
 - Stainless steel recirculation pump & stainless steel closed buffer tank with additional expansion tank
 - Stainless steel recirculation pump w/VFD stainless steel closed buffer tank with additional expansion tank
- Note: stainless steel for potable water.
- Refrigerants: R-404a, 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: CRII 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.
- Refrigerant and oil evacuated for non-hazardous shipping.
- LAOP (Low Ambient Operation Package) required for operation below +40°F:
 - LAOP-I: +110°F (+43.3°C) to +10°F (-12.2°C), Includes: split condenser with variable speed fan on the first fan and electrical antifreeze heater on the evaporator.
 - LAOP-II: +110°F (+43.3°C) to -20°F (-28.9°C), Includes: same as LAOP-I plus liquid receiver and flooded condenser with head pressure control valve.
 - LAOP-III*: +110°F (+43.3°C) to -35°F (-37.2°C), Includes: same as LAOP-II plus insulated liquid receiver with electric heater and 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.
- Suction pressure regulator valve "EPR" required for applications with a water temperature range below +40°F (+4.4°C) or when a greater precision in the fluid temperature is necessary.
- Suction accumulator.
- Helical oil separator, discharge check valve and replaceable 5 micron oil filter for units with single compressor.
- MDS (Main Disconnect Switch)
- Electronic Control System:
 - BACnet Communication board.
 - Remote LCD display.
 - Local or remote touch screen display.
 - Energy Management Module.
 - CHSM (Chiller System Manager) controls the sequence between various units.
- Extended 5-year compressor warranty (U.S. only).



Single Compressor



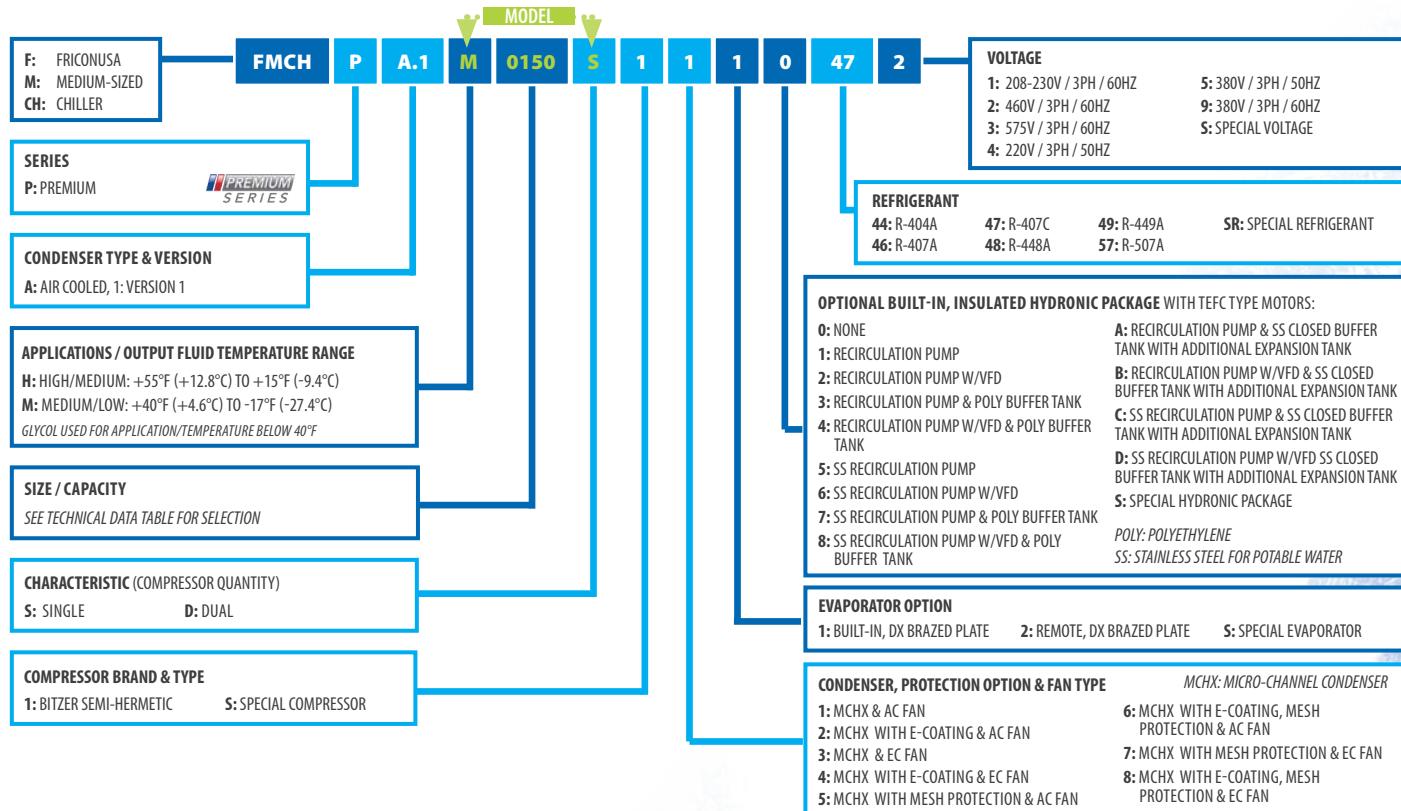
Dual Compressors

1. Compressor(s)
4. Brazed plate evaporator
7. Fluid inlet/outlet
10. Access doors
2. Micro-channel condenser
5. Liquid drier
8. Electrical control panel
11. Protective mesh (optional)
3. Fans
6. Electronic expansion valve
9. Electronic Control System
12. Recirculation pump & buffer tank (hydronic package, optional)



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

NOMENCLATURE





TECHNICAL DATA - APPLICATION / LEAVING FLUID TEMPERATURE RANGE

SINGLE SEMI-HERMETIC COMPRESSOR

Performance based on Bitzer Ecoline compressor

CAPACITY IN ACCORDANCE TO AHRI STANDARD 550/590.

R-407c

H: HIGH/MEDIUM TEMPERATURE: +56°F (+13.4°C) TO +15°F (-9.4°C)																											
MODEL		COMPRESSOR		FAN AC TYPE	CAPACITIES IN TR @ 95°F AMBIENT R-407C** LEAVING FLUID TEMPERATURE							ELECTRICAL DATA 60HZ					MECHANICAL DATA										
					WATER		GLYCOL					230 VOLT	460 VOLT	575 VOLT [†]	CENTRIFUGAL PUMP			CONNECTIONS & WATER TANK CAPACITY			REFRIGERANT CHARGE		APROX WEIGHT.				
SIZE		BITZER			56°F	50°F	44°F	38°F	32°F	27°F	21°F	15°F	RLA COMP.	SYSTEM MCA	RLA COMP.	SYSTEM MCA	RLA COMP.	SYSTEM MCA	HP	HEAD PRESSURE PSI	FLOW		In/ Out in.	gal. (l)	LB (KG)	LB (KG)	
UNIT	HP	QTY	MODEL		CFM	13.4°C	10.0°C	6.7°C	3.4°C	0.1°C	-3.1°C	-6.2°C	-9.4°C								GPM	M3H					
H-0200-S	20	1	4NE-20Y	2	19000	CAP. 19.4	17.5	15.8	14.1	12.6	11.3	10.0	8.8	57.7	82.7	28.8	41.4	23.6	33.3	2	Up to 35	37.6	8.5	2	55 (208)	29.8 (14)	1542 (701)
H-0220-S	22	1	4JE-22Y	2	19000	CAP. 21.1	19.2	17.1	15.5	13.8	12.3	10.9	9.6	61.5	87.5	30.8	43.9	24.4	34.3	2	Up to 35	40.8	9.3	2	55 (208)	32.3 (15)	1633 (742)
H-0250-S	25	1	4HE-25Y	2	19000	CAP. 23.8	21.5	19.5	17.6	15.6	14.0	12.4	11.0	75.6	105.1	37.8	52.7	30.1	41.4	2	Up to 35	46.4	10.5	2	55 (208)	36.7 (17)	1672 (760)
H-0300-S	30	1	4GE-30Y	2	22750	CAP. 27.8	25.2	22.7	20.5	18.3	16.4	14.7	13.1	89.7	126.5	44.9	63.5	35.9	50.5	2	Up to 35	54	12.3	2	55 (208)	42.8 (19)	1690 (768)
H-0330-S	33	1	6JE-33Y	2	26500	CAP. 30.8	28.0	25.3	22.6	20.1	18.2	16.1	14.3	100	143.2	50	71.9	39.7	57.1	2	Up to 35	60.2	13.7	2	55 (208)	47.7 (22)	1774 (806)
H-0340-S	35	1	4FE-35Y	2	26500	CAP. 32.5	29.5	26.7	24.2	21.8	19.3	17.3	15.3	95	137	47.5	68.8	38	55	3	Up to 35	63.6	13.7	2 ½	55 (208)	50.4 (23)	1721 (782)
H-0350-S*	35	1	6HE-35Y	2	37000	CAP. 36.9	33.5	30.1	27.1	24.3	21.8	19.5	17.0	105.1	153	52.6	76.8	41.7	60.9	3	Up to 35	71.6	13.7	2 ½	55 (208)	56.7 (26)	1832 (833)
H-0400-S*	40	1	6GE-40Y	2	37000	CAP. 41.3	37.5	34.0	30.7	27.4	24.6	21.8	19.4	141	197.9	70.5	99.1	56.4	79.3	5	Up to 45	81	13.7	2 ½	55 (208)	64.1 (29)	1850 (841)
H-0500-S*	50	1	6FE-50Y	2	37000	CAP. 47.5	43.1	39.0	35.5	31.8	28.5	25.5	22.4	143.6	201.1	71.8	100.8	57.1	80.2	5	Up to 45	92.8	13.7	2 ½	55 (208)	73.5 (33)	1875 (852)
H-0500-S*																											

R-407a

M: MEDIUM/LOW TEMPERATURE: +40°F (+4.6°C) TO +17°F (-27.4°C)																											
MODEL		COMPRESSOR		FAN AC TYPE	CAPACITIES IN TR @ 95°F AMBIENT R-407A** LEAVING FLUID TEMPERATURE							ELECTRICAL DATA 60HZ					MECHANICAL DATA										
					WATER		GLYCOL					230 VOLT	460 VOLT	575 VOLT [†]	CENTRIFUGAL PUMP			CONNECTIONS & WATER TANK CAPACITY			REFRIGERANT CHARGE		APROX WEIGHT.				
SIZE		BITZER			40°F	28°F	22°F	11°F	5°F	-6°F	-12°F	-17°F	RLA COMP.	SYSTEM MCA	RLA COMP.	SYSTEM MCA	RLA COMP.	SYSTEM MCA	HP	HEAD PRESSURE PSI	FLOW		In/ Out in.	gal. (l)	LB (KG)	LB (KG)	
UNIT	HP	QTY	MODEL		CFM	4.6°C	-2.1°C	-5.4°C	-11.8°C	-15.0°C	-21.2°C	-24.3°C	-27.4°C								GPM	M3H					
M-0150-S	15	1	4JE-15Y	2	19000	CAP. 15.9	12.8	11.3	8.8	7.7	5.7	4.8	4.0	50.0	73.1	25.0	36.7	20.0	28.8	2	Up to 45	29.8	6.8	1 ½	55.0 (208)	20.9 (9)	1644 (747)
M-0180-S	18	1	4HE-18Y	2	19000	CAP. 18.4	14.8	13.1	10.3	9.0	6.8	5.7	4.8	54.1	78.2	27.1	39.3	21.7	30.9	2	Up to 35	34.5	7.8	2	55.0 (208)	24.2 (11)	1669 (759)
M-0230-S	23	1	4GE-23Y	2	22750	CAP. 21.5	17.3	15.4	12.1	10.6	8.0	6.9	5.9	57.7	86.5	28.8	43.4	23.1	34.6	2	Up to 35	40.4	9.2	2	55.0 (208)	28.4 (13)	1716 (780)
M-0250-S	25	1	6JE-25Y	2	22750	CAP. 23	18.6	16.4	12.8	11.3	8.4	7.1	6.0	71.0	103.2	35.5	51.8	28.4	43.1	2	Up to 35	43.4	9.9	2	55.0 (208)	30.4 (14)	1776 (807)
M-0270-S	28	1	4FE-28Y	2	26500	CAP. 25.1	20.2	18.1	14.1	12.5	9.4	8	6.8	76.9	114.3	38.5	57.5	30.8	46.1	2	Up to 35	47.2	10.7	2	55.0 (208)	33.4 (15)	1749 (795)
M-0280-S	28	1	6HE-28Y	2	26500	CAP. 26.8	21.8	19.3	15.1	13.3	9.9	8.5	7.2	77.6	115.2	38.8	57.9	31.0	46.4	3	Up to 35	50.8	10.7	2	55.0 (208)	35.6 (16)	1823 (828)
M-0340-S*	34	1	6GE-34Y	2	37000	CAP. 31.5	25.5	22.6	17.8	15.5	11.6	9.9	8.4	84.6	127.4	42.3	63.9	33.3	50.4	3	Up to 35	59.4	10.7	2	55.0 (208)	41.8 (19)	1885 (857)
M-0440-S*	44	1	6FE-44Y	2	37000	CAP. 36.7	29.8	26.4	20.9	18.3	13.7	11.9	10.1	97.4	143.4	48.7	71.9	39.1	57.7	5	Up to 45	69.4	10.7	2 ½	55.0 (208)	48.8 (22)	1939 (881)
M-0440-S*																											

R-404a

M: MEDIUM/LOW TEMPERATURE: +41°F (+4.9°C) TO +17°F (-27.4°C)																											
MODEL		COMPRESSOR		FAN AC TYPE	CAPACITIES IN TR @ 95°F AMBIENT R-404A** LEAVING FLUID TEMPERATURE							ELECTRICAL DATA 60HZ					MECHANICAL DATA										
					WATER		GLYCOL					230 VOLT	460 VOLT	575 VOLT [†]	CENTRIFUGAL PUMP			CONNECTIONS & WATER TANK CAPACITY			REFRIGERANT CHARGE		APROX WEIGHT.				
SIZE		BITZER			41°F	29°F	23°F	11°F	6°F	-5°F	-11°F	-17°F	RLA COMP.	SYSTEM MCA	RLA COMP.	SYSTEM MCA	RLA COMP.	SYSTEM MCA	HP	HEAD PRESSURE PSI	FLOW		In/ Out in.	gal. (l)	LB (KG)	LB (KG)	
UNIT	HP	QTY	MODEL		CFM	4.9°C	-1.6°C	-5.0°C	-11.5°C	-14.6°C	-20.8°C	-23.9°C	-27.4°C								GPM	M3H	In/ Out in.	gal. (l)	LB (KG)	LB (KG)	
M-0150-S	15	1	4JE-15Y	2	19000	CAP. 17.6	14.4	12.8	10.1	9.0	7.1	6.3	5.2	50.0	73.1	25.0	36.7	20.0	28.8	2	Up to 45	32.4	7.4	2	55.0 (208)	23.0 (10)	1644 (747)
M-0180-S	18	1	4HE-18Y	2	19000	CAP. 20.1	16.8	14.7	11.7	10.5	8.3	7.3	6.4	54.1	78.2	27.1	39.3	21.7	30.9	2	Up to 35	37.9	8.6	2	55.0 (208)	26.3 (12)	1669 (759)
M-0230-S	23	1	4GE-23Y	2	22750	CAP. 23.2	19.0	17.0	13.4	12.1	9.6	8.5	7.5	57.7	86.5	28.8	43.4	23.1	34.6	2	Up to 35	43.0	9.8	2	55.0 (208)	30.5 (14)	1716 (780)
M-0250-S	25	1	6JE-25Y	2	22750	CAP. 25.1	20.7																				

Performance based on Bitzer Ecoline compressors

CAPACITY IN ACCORDANCE TO AHRI STANDARD 550/590.

TECHNICAL DATA - APPLICATION / LEAVING FLUID TEMPERATURE RANGE



DUAL SEMI-HERMETIC COMPRESSORS

R-407c

H: HIGH/MEDIUM TEMPERATURE: +56°F (+13.4°C) TO +15°F (-9.4°C)

Model		Compressor		Fan Type	Capacities in TR @ 95°F Ambient R-407C** Leaving Fluid Temperature								Electrical Data 60Hz						Mechanical Data													
					Water				Glycol				230 Volt			460 Volt		575 Volt			Centrifugal Pump			Connections & Water Tank Capacity		Refrigerant Charge		Aprox Weight.				
Size		Bitzer			56°F	50°F	44°F	38°F	32°F	27°F	21°F	15°F	RLA Comp.	System	RLA Comp.	System	RLA Comp.	System	HF	Head Pressure PSi	GPM	M3H	In/Out in.	gal.	(l)	LB	(KG)	LB	(KG)	Frame Type		
Unit	HP	QTY	Model		13.4°C	10.0°C	6.7°C	3.4°C	0.1°C	-3.1°C	-6.2°C	-9.4°C																				
H-0160-D	14	2	4DE-7	2	19000	CAP. EER	18.5 12.3	16.7 11.6	15.0 10.7	13.5 10.1	12.2 9.5	10.8 8.8	9.5 8.1	8.4 7.5	31	80.4	15.3	39.8	11	28.6	2	Up to 35	35.8	8.1	2	55	(208)	14.9	(7)	2,063	(938)	A
H-0180-D	18	2	4CE-9	2	19000	CAP. EER	22.1 11.8	20.1 11.2	18.0 10.4	16.2 9.9	14.5 9.2	13.0 8.7	11.5 8.0	10.2 7.5	34.2	87.6	17.1	43.9	13.7	34.6	2	Up to 35	42.8	9.7	2	55	(208)	17.8	(8)	2,085	(948)	B
H-0200-D	20	2	4VE-10	2	19000	CAP. EER	22.8 12.5	20.7 11.8	18.6 11.1	16.7 10.3	15.0 9.7	13.3 9.0	12.0 8.6	10.5 8.0	38.5	97.2	19.2	48.6	15.4	38.5	2	Up to 35	44.4	10.1	2	55	(208)	18.5	(8)	2,328	(1,058)	A
H-0240-D	24	2	4TE-12	2	22750	CAP. EER	27.5 11.8	24.9 11.2	22.6 10.5	20.2 9.8	18.1 9.2	16.3 8.7	14.4 8.1	12.8 7.6	42.3	109.6	21.2	55.1	16.9	43.7	2	Up to 35	53.8	12.2	2	55	(208)	22.4	(10)	2,328	(1,058)	B
H-0300-D	30	2	4PE-15	2	26500	CAP. EER	31.3 11.5	28.6 11.0	25.6 10.2	23.0 9.6	20.7 9.0	18.3 8.4	16.4 7.8	14.5 7.4	48.7	127.8	24.4	64.3	19.6	51.6	2	Up to 35	61.0	13.9	2	55	(208)	25.4	(12)	2,387	(1,085)	A
H-0400-D*	40	2	4NE-20	2	37000	CAP. EER	37.5 11.9	34.0 11.2	30.7 10.5	27.5 9.8	24.7 9.2	21.9 8.5	19.6 8.0	17.3 7.4	57.7	151.4	28.8	75.8	23.6	61.9	3	Up to 35	73.2	13.9	2 1/2	55	(208)	30.5	(14)	2,441	1,110	B
H-0440-D*	44	2	4JE-22	2	37000	CAP. EER	40.7 11.5	36.9 10.8	34.0 10.4	30.2 9.7	27.0 9.1	24.0 8.5	21.4 8.0	19.1 7.5	61.5	160	30.8	80.3	26.3	68	3	Up to 35	81.0	13.9	2 1/2	55	(208)	33.8	(15)	2,624	(1,193)	A

R-407g

M: MEDIUM/LOW TEMPERATURE: +41°F (+5.2°C) TO +17°F (-27.4°C)

MEDIUM/LOW TEMPERATURE: +41°F (+5.2°C) TO +17°F (-7.4°C)												FAN		CAPACITIES IN TR @ 95°F AMBIENT R-407A**								ELECTRICAL DATA 60HZ						MECHANICAL DATA							
MODEL		COMPRESSOR		LEAVING FLUID TEMPERATURE	230 VOLT	460 VOLT	575 VOLT	CENTRIFUGAL PUMP	CONNECTIONS & WATER TANK	REFRIGERANT CHARGE	APROX WEIGHT.			FRAME TYPE																					
				AC TYPE	WATER	GLYCOL	RЛА COMP.	SYSTEM MCA	RЛА COMP.	SYSTEM MCA	RЛА COMP.	SYSTEM MCA	HP		HEAD PRESSURE PSI	GPM	M3H	In/Out in.	gal. (l)	LB (KG)	LB (KG)														
SIZE	QTY	BITZER	QTY	41°F	29°F	23°F	11°F	5°F	-6°F	-12°F	-17°F	RЛА COMP.	SYSTEM MCA	RЛА COMP.	SYSTEM MCA	RЛА COMP.	SYSTEM MCA	HP	HEAD PRESSURE PSI	GPM	M3H	In/Out in.	gal. (l)	LB (KG)	LB (KG)	APPROX WEIGHT.	FRAME TYPE								
UNIT	HP	MODEL	CFM	5.2°C	-1.6°C	-4.9°C	-11.5°C	-14.8°C	-21.1°C	-24.2°C	-27.4°C	RЛА COMP.	SYSTEM MCA	RЛА COMP.	SYSTEM MCA	RЛА COMP.	SYSTEM MCA	HP	HEAD PRESSURE PSI	GPM	M3H	In/Out in.	gal. (l)	LB (KG)	LB (KG)	APPROX WEIGHT.	FRAME TYPE								
M-0150-D	12	2	4CE-6	2	19000	16.6	13.2	11.8	9.1	8.0	6.0	5.2	4.4	25.0	66.9	14.2	38.4	11.2	29.0	2	Up to 35	30.7	7.0	2	55 (208)	11.4	(5)	1,946 (885)	A DUAL COMPRESSORS						
M-0160-D	14	2	4VE-7	2	19000	17.0	13.5	12.1	9.3	8.1	6.0	5.1	4.2	24.4	65.5	12.2	33.9	9.6	25.4	2	Up to 35	31.6	7.2	2	55 (208)	11.7	(5)	2,153 (979)							
M-0180-D	18	2	4TE-9	2	19000	20.2	16.1	14.4	11.3	9.8	7.4	6.3	5.4	28.2	74.1	14.1	38.1	12.2	31.3	2	Up to 35	37.7	8.6	2	55 (208)	14.0	(6)	2,259 (1,027)							
M-0240-D	24	2	4PE-12	2	22750	23.1	18.5	16.5	12.7	11.1	8.2	7.0	5.8	34.6	92.3	17.3	47.3	14.4	38.1	2	Up to 35	43.2	9.8	2	55 (208)	16.1	(7)	2,313 (1,051)							
M-0280-D	28	2	4NE-14	2	26500	27.1	21.8	19.3	15.0	13.2	9.8	8.4	7.2	39.7	107.5	19.9	55.2	15.9	43.3	2	Up to 35	50.8	11.5	2	55 (208)	18.8	(9)	2,322 (1,055)							
M-0300-D*	30	2	4JE-15	2	37000	29.8	24.0	21.4	16.7	14.9	10.9	9.4	7.8	50.0	134.1	25.0	68.3	20.0	53.8	3	Up to 35	56.0	11.5	2 1/2	55 (208)	20.8	(9)	2,631 (1,196)							
M-0360-D*	36	2	4HE-18	2	37000	35.8	28.7	25.7	20.1	17.8	13.3	11.3	9.5	54.1	143.3	27.1	73.0	21.7	57.6	3	Up to 35	67.0	11.5	2 1/2	55 (208)	25.0	(11)	2,648 (1,204)							

R-404a

M: MEDIUM/LOW TEMPERATURE: +40°F (+4.6°C) TO +17°F (-27.4°C)

Model		Compressor		Fan	Capacities in TR @ 95°F Ambient R-404A** Leaving Fluid Temperature								Electrical Data 60Hz						Mechanical Data								Frame Type				
					AC Type	Water	Glycol						230 Volt			460 Volt			575 Volt			Centrifugal Pump			Connections & Water Tank Capacity		Refrigerant Charge		Aprox Weight.		
Size	Qty	Bitzer	QTY	41°F	29°F	23°F	11°F	6°F	-6°F	-12°F	-17°F	R/L Comp.	System MCA	R/L Comp.	System MCA	R/L Comp.	System MCA	HP	Head Pressure PSI	GPM	M3H	In/Out in	gal.	(l)	LB	(KG)	LB	(KG)			
Unit	HP	Model	CFM	5.2°C	-1.6°C	-4.9°C	-11.5°C	-14.7°C	-21.1°C	-24.1°C	-27.4°C	R/L Comp.	System MCA	R/L Comp.	System MCA	R/L Comp.	System MCA	HP	Head Pressure PSI	GPM	M3H	In/Out in	gal.	(l)	LB	(KG)	LB	(KG)	Dual Compressors		
M-0150-D	12	2	4CE-6	2	19000	17.9	14.5	13.1	10.2	9.0	7.0	6.1	5.3	25.0	66.9	14.2	38.4	11.2	29.0	2.0	Up to 35	32.8	7.4	2	55	(208)	12.3	(6)	1,946	(885)	
M-0160-D	14	2	4VE-7	2	19000	18.5	14.9	13.4	10.5	9.2	6.9	6.1	5.1	24.4	65.5	12.2	33.9	9.6	25.4	2.0	Up to 35	33.7	7.7	2	55	(208)	12.7	(6)	2,153	(979)	
M-0180-D	18	2	4TE-9	2	19000	21.7	17.7	15.8	12.5	11.0	8.4	7.3	6.3	28.2	74.1	14.1	38.1	12.2	31.3	2.0	Up to 35	40.0	9.1	2	55	(208)	14.9	(7)	2,259	(1,027)	A
M-0240-D	24	2	4PE-12	2	22750	24.9	20.3	18.0	14.2	12.4	9.5	8.2	7.1	34.6	92.3	17.3	47.3	14.4	38.1	2.0	Up to 35	45.8	10.4	2	55	(208)	16.9	(8)	2,313	(1,051)	B
M-0280-D	28	2	4NE-14	2	26500	29.1	23.9	21.2	16.8	15.0	11.5	9.9	8.6	39.7	107.5	19.9	55.2	15.9	43.3	2.0	Up to 35	54.0	12.3	2	55	(208)	20.0	(9)	2,322	(1,055)	
M-0300-D*	30	2	4JE-15	2	37000	35.6	28.0	25.1	19.9	17.6	13.6	11.8	10.2	50.0	134.1	25.0	68.3	20.0	53.8	3.0	Up to 35	63.4	12.3	2 1/2	55	(208)	23.7	(11)	2,631	(1,196)	B
M-0360-D*	36	2	4HE-18	2	37000	38.4	31.8	28.8	22.8	20.4	15.9	13.8	12.0	54.1	143.3	27.1	73.0	21.7	57.6	3.0	Up to 35	71.8	12.3	2 1/2	55	(208)	27.1	(12)	2,648	(1,204)	

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

***See Capacity Correction Factors on PG.6*

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 others 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

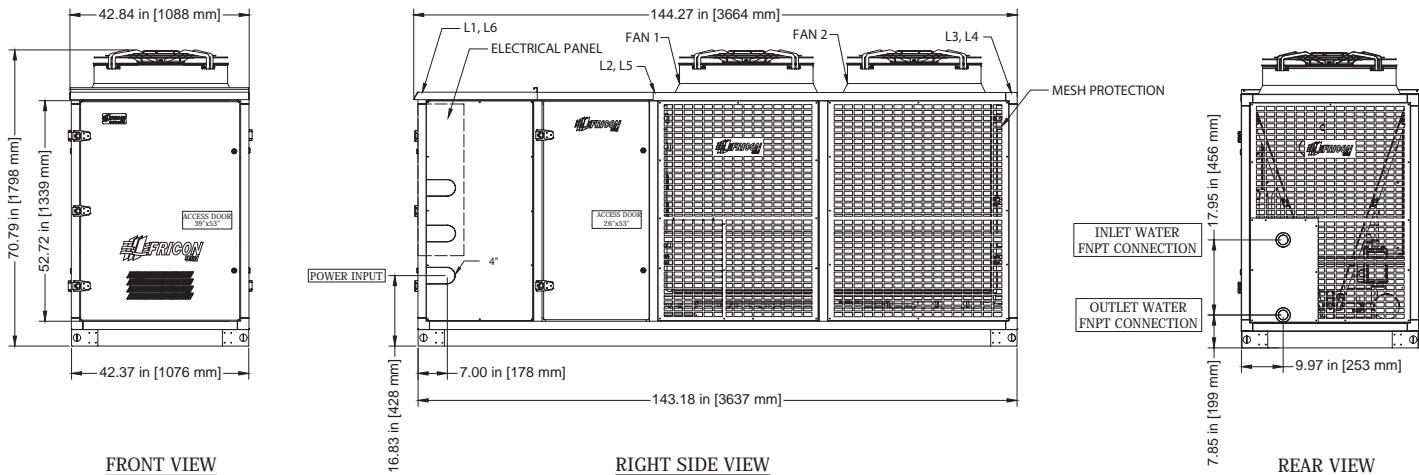
HAOP (High Ambient Operation Package) required for operation above +110°F

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

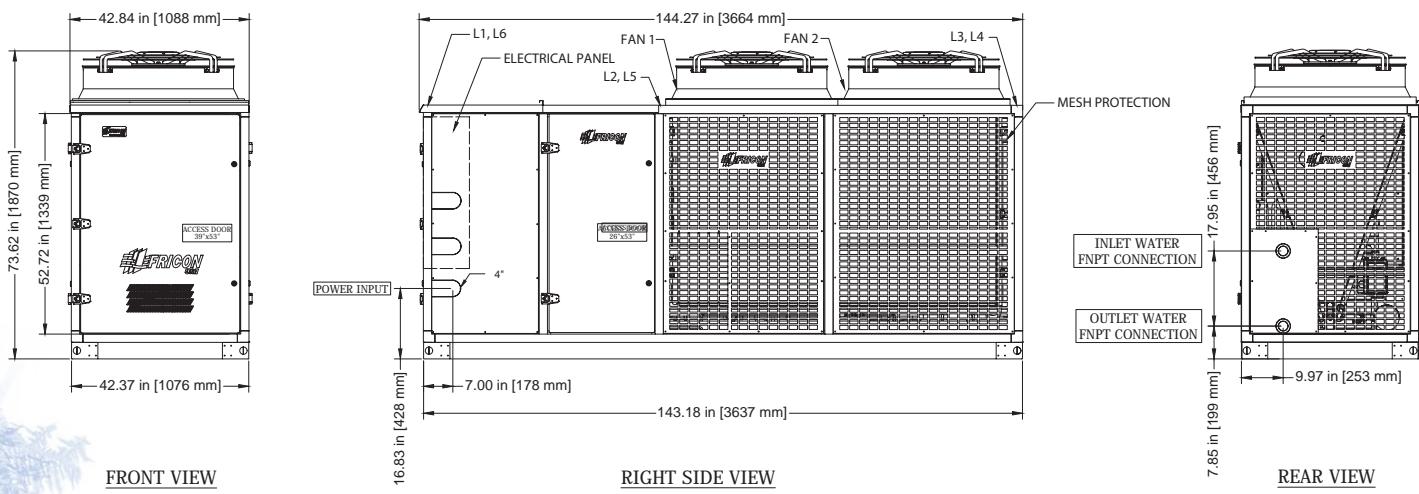
All capacities are calculated at 20°F return gas temperature and dew point values

FRAME TYPE / DRAWING REFERENCE

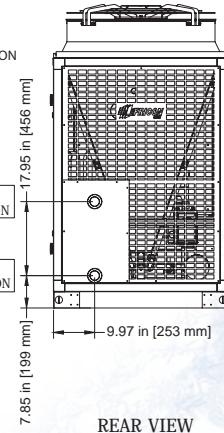
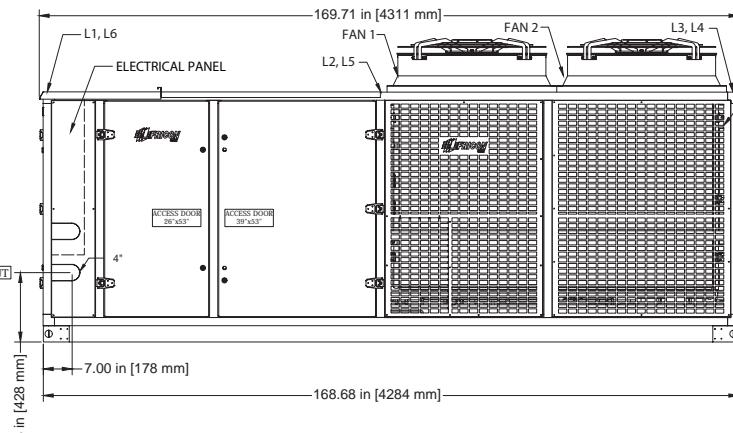
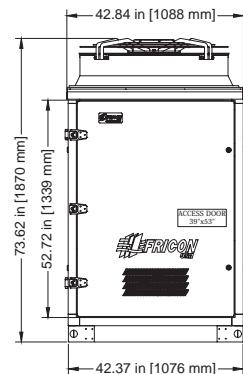
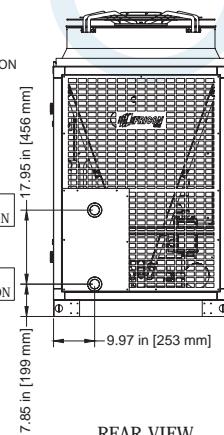
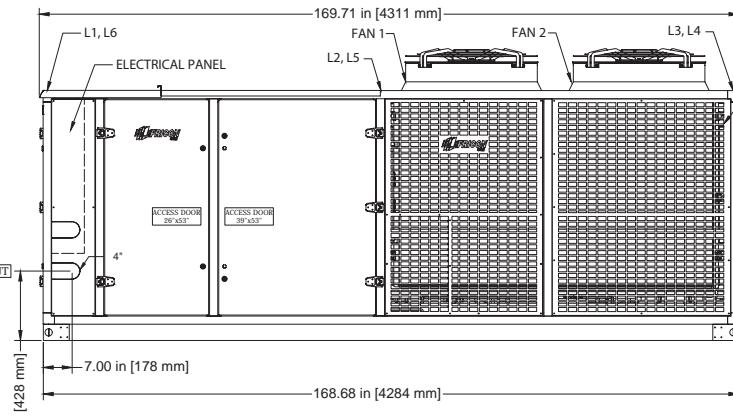
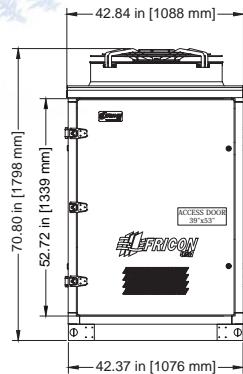
A) Single semi-hermetic compressor, 800mm AC type fans



B) Single semi-hermetic compressor, 900mm EC type fans



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

C) Single or dual semi-hermetic compressor(s), 800mm AC type fans with hydronic package

SUBJECT TO CHANGE ACCORDING TO
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FRICONUSA AIR COOLED CHILLERS FOR PROCESSES

PROCESS COOLING LINE

