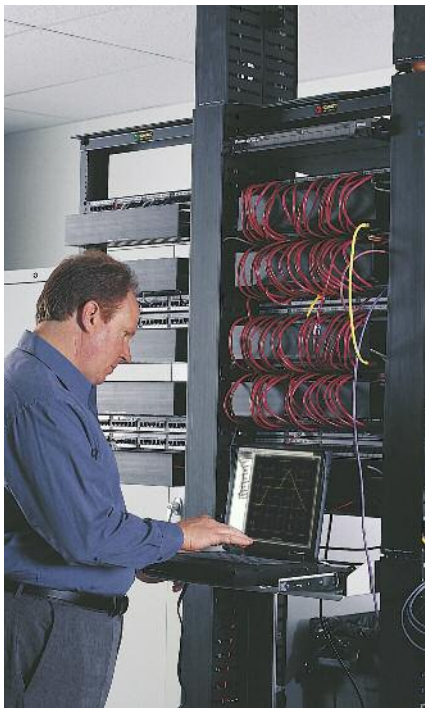
Precision Cooling
For *Business-Critical Continuity™*

Liebert Mini-Mate2™ 1 To 8 Tons

Overhead Precision Cooling And Humidity Control



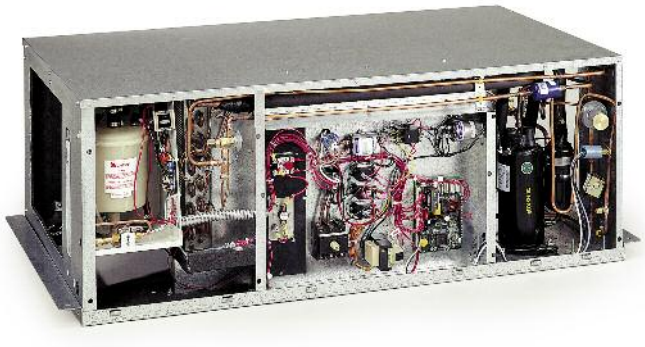
EMERSON™
Network Power

Precision Cooling In A Space-Saving, Ceiling-Installed System

When IT equipment needs precision cooling and humidity control, but floor space is limited, the Liebert Mini-Mate2™ can provide the overhead answer. This flexible, space-saving system is the ideal solution for small areas where space is at a premium:

- Network Closets
- VoIP
- IDF
- Telecommunications Equipment
- Data Processing
- Control Rooms
- Desktop Publishing
- Network Facilities
- Laboratories
- Other Critical Electronic Systems

The components in units are located for easy service (1 ton self-contained unit shown)



Liebert Mini-Mate2 Offers:

Higher Reliability:

High Sensible Cooling Capacity. Unlike "comfort" air conditioners, Liebert systems are designed for the cooling requirements of electronic equipment – 80% of the capacity dedicated to the removal of dry "sensible" heat, and 20% for the control of humidity.

Reliable. Based on a field-proven system, the Liebert Mini-Mate2 is manufactured with rugged, efficient components. To ensure 365 days x 24 hours operation at your site, each system is factory tested.

Warranty Protection. In addition to the standard one-year warranty, your Liebert Representative can offer extended warranties on the unit, compressor, parts and labor.

Preventive Maintenance Programs. Liebert factory-certified personnel provide regular inspections and service to extend the life of the system.

Liebert Spare Parts. Highest-quality parts, designed for your system, are easily available through your Liebert service representative.

Flexibility:

Uses Zero Floor Space. The evaporator and indoor condensing units are mounted above the dropped ceiling, requiring minimal site disturbance.

Simple Control. Split systems require simple thermostat-type wiring to controls and condensing units.

Designed For Easy Component Access. Most units can be serviced from the front.

Option Kits. Single-point power kits, sweat adapters, condensate pumps, duct adapters and other options are ordered as kits, ensuring availability of required parts and complete compatibility with your system.

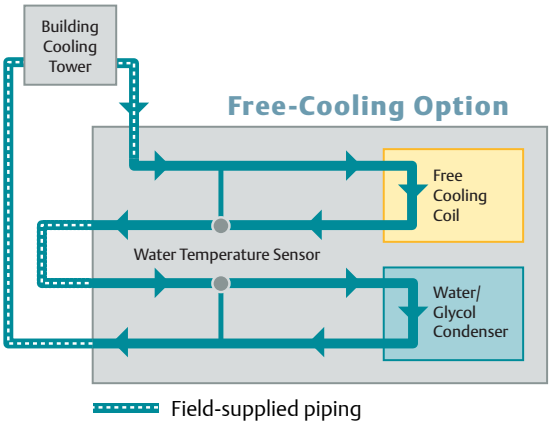
Agency Listed. Standard 60Hz units are CSA certified to the harmonized U.S. and Canadian product safety standard, CSA C22.2 No 236/UL1995 for "Heating and Cooling Equipment" and are marked with the CSA c-us logo. The units are also MEA listed for New York City applications.

Liebert Monitoring Solutions: When You Need To Know

Low Total Cost Of Ownership:

High-Efficiency Compressor. The rotary or scroll compressors are both energy-efficient and rugged, to ensure continuous operation.

Free-Cooling Option. A second cooling coil allows the system to take advantage of colder outdoor temperatures and bypass compressor operation.



When water temperature goes below 45˚F, cooling switches over to Free-Cooling operation. A separate chilled water source can also be used with Air-Cooled system. Note: Special cupro-nickel free-cooling coil must be specified when applied to open cooling tower.

You will find a full-range of monitoring and control systems, communications modules designed to interface Liebert equipment with a variety of building management systems, plus stand-alone monitoring, control and leak detection devices.

Local And Remote Monitoring Panels

These units provide basic monitoring and control for a single unit or small groups of equipment either at the equipment location or to a remote site.

Products include:
- Liebert Universal Monitor
- Liebert Controllers

Leak Detection

Liebert Liqui-tect® leak detection systems alert facility personnel to the presence of leaking fluids before serious damage results. They provide quick sensing and accurate reporting of leaks below the floor, above the ceiling or at the perimeter of a room.

Products include:
- Liebert Liqui-tect Panel Two Channel Direct Read Leak Detection
- Liebert Zone Leak Detection Kits
- Liebert Point Leak Detection Sensor

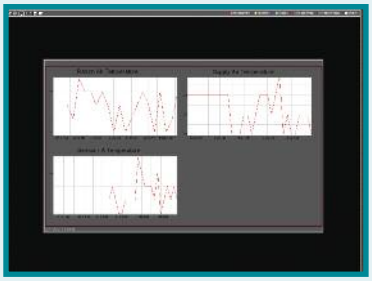
Fundamental Monitoring

Liebert Nform™ is a centralized monitoring and communications software package that combines full-scale monitoring with cost-effective deployment through the use of the existing network infrastructure.

Products include:
- Liebert Nform Software
- Liebert IntelliSlot Web/485 Card ADPT

Advanced Monitoring

Liebert SiteScan® Web offers comprehensive, centralized monitoring, control, data analysis and reporting for a full-range of computer support systems. It provides web-based site monitoring, alarm management and trending/analysis for critical sites.



For further information, please refer to www.liebert.com

Third Party Monitoring System Connectivity

The use of open protocols allows you to interface Liebert units and monitoring systems with other types and brands of control equipment including BMS, NMS, SCADA and fire alarm systems.

Protocols supported:
- Modbus
- BACnet
- SNMP

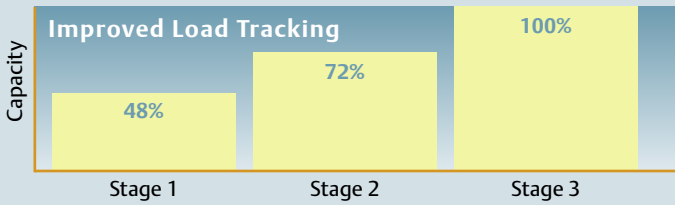
The Right Size To Fit Your Space And Application

With more than 10,000 possible configurations, there is a Liebert Mini-Mate2 system available to fit the needs of many room cooling or spot cooling requirements.

Liebert Mini-Mate2™ Product Features Include:

- Available in 1,1.5, 2, 3, 5 & 8 ton capacities (3-stage cooling on 8-ton)
- Self-contained or split systems allow for fitting systems with a variety of architectures
- Reliable refrigeration components featuring rotary or scroll compressors with copper tube aluminum fin coils provide high-efficiency
- Units are fully charged with refrigerant and come standard with quick-connect fittings to reduce installation time.
- Available in air-cooled, water-cooled, glycol-cooled or chilled-water configurations
- Easy-to-use menu-driven microprocessor control
- Optional room sensors available
- Hot gas bypass for low load applications

3-Stage Cooling (8 ton system only)



A unique compressor staging system utilizes independent 3-ton and 5-ton circuits to provide better control of room conditions. The unit microprocessor continuously monitors recent cooling operation, and selects the most economical cooling stage to satisfy demand.

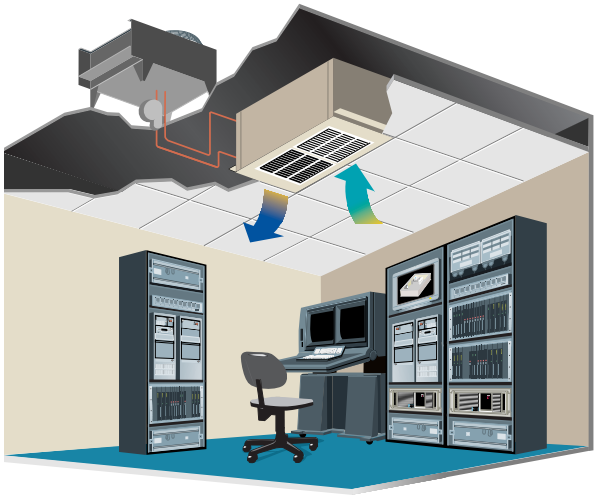
Microprocessor Control Features:

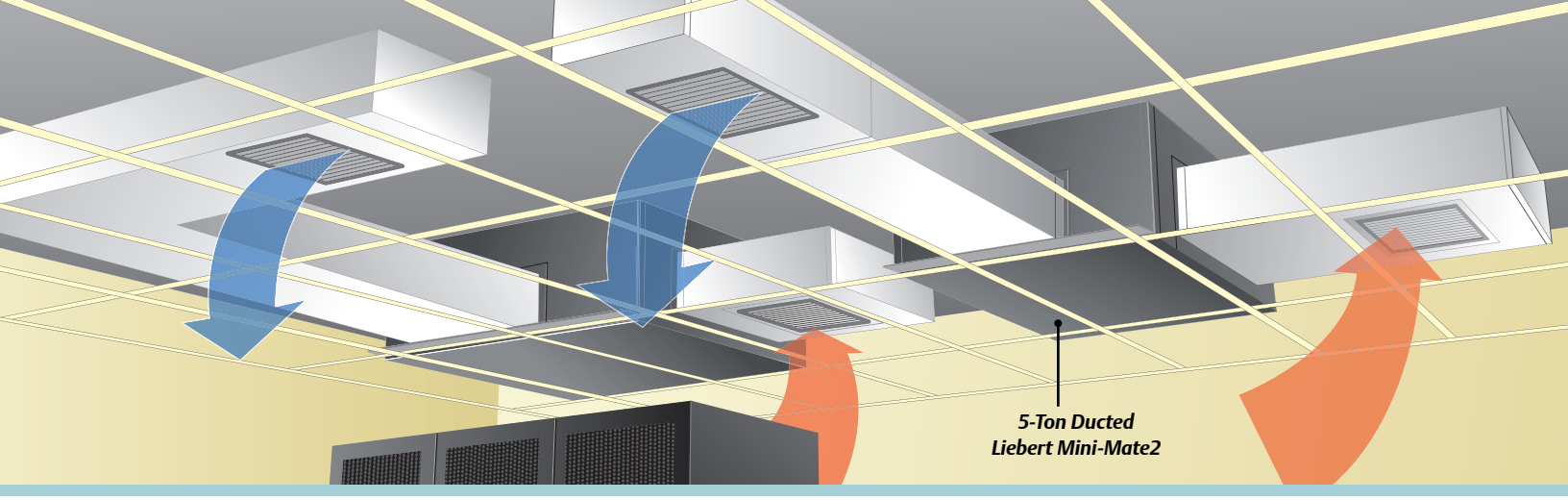
- User-friendly wall-mount display
- Provides precise control of all unit functions
- Temperature Control
- Humidity Control
- Alarm Indication
- Programming
- Auto Restart

A Variety Of Options Help You Meet Numerous Applications:

- Grille (1-1.5 tons) or Plenum (2-3 tons) that fits 2'x4' ceiling grid for direct supply & return air distribution
- Fan speed and/or blower options to handle supply air ductwork with higher external static pressures
- Filter box or duct kits to connect to ducted sites
- Hot water reheat to utilize building hot water for energy savings
- Stainless steel electric reheat and/or canister humidifier for humidity control
- High-pressure chilled water systems
- Single-point power connection kit to facilitate close coupled evaporator & condensing unit wiring
- Multiple air-cooled heat rejection solutions: indoor ducted and outdoor (standard ambient, high ambient and Quiet-Line)
- 2-way or 3-way water regulating valves rated for standard or high-pressure applications
- Unit disconnect, smoke sensor, and/or high-temp sensor options
- Site monitoring and communication devices to meet monitoring needs
- R407C refrigerant

1-1.5 Ton with grille



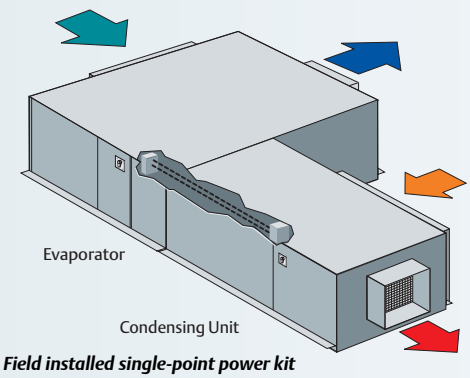


Product Option Availability

		Capacity (Tons)					
		1	1.5	2	3	5	8
System Types	Chilled Water (rated @ 300 psi static pressure)		•		•	•	
	Chilled Water (rated @ 400 psi static pressure)					•	•
	Self-Contained Air-Cooled	•	•				
	Self-Contained Water/Glycol-Cooled	•	•				
	Split System Air-Cooled w/Centrifugal Indoor Condensing Unit			•	•	•	•
	Split System Air-Cooled w/Outdoor High Ambient Prop Fan Condensing Unit			•	•	•	
	Split System Air-Cooled w/Outdoor Prop Fan Condensing Unit	•	•	•	•	•	•
	Split System Air-Cooled w/Outdoor Quiet-Line Prop Fan Condensing Unit			•	•	•	
	Split System Water/Glycol-Cooled (2- or 3-way Valve, 150 or 350 psi)			•	•	•	•
Factory Installed Options[1]	50 & 60 Hz voltages	•	•	•	•	•	•
	Canister Humidifier	•	•	•	•	•	•
	Chilled Water w/High Close-Off Pressure Valve		•		•	•	•
	Direct-Drive Motor/Two-Speed	•	•	•	•		
	Filter Clog Alarm	•	•	•	•	•	•
	High Temp Sensor (Firestat)	•	•	•	•	•	•
	Free-Cooling Coil	•	•	•	•	•	•
	Hot Gas Reheat (self-contained systems only)	•	•				
	Hot Water Reheat (chilled water systems only)		•		•	•	•
	Internal Disconnect Switch	•	•	•	•	•	•
	SCR Reheat	•	•	•	•	•	•
	Smoke Sensor	•	•	•	•	•	•
	Stainless Steel Electric Reheat	•	•	•	•	•	•
	R407C	•	•	•	•	•	•
	High External Static Option			•	•	•	•
Ship Loose Accessories[1]	15' or 30' Refrigerant Line Sets (R-407C)	•	•	•	•		
	Condensate Pump Kit	•	•	•	•	•	•
	Duct Kit	•	•	•	•	•	•
	Filter Box	•	•	•	•	•	•
	Remote Sensors	•	•	•	•	•	•
	Single Point Power Kit			•	•	•	•
	Supply & Return Grille/Plenum	•	•	•	•		
Monitoring[2]	Liebert Liqui-tect 410 Point Detection Leak Detection Sensor	•	•	•	•	•	•
	Liebert LT460-K Zone Leak Detection Kits	•	•	•	•	•	•
	Liebert IntelliSlot Web/485 Card ADPT	•	•	•	•	•	•
	Liebert ENV-DO Environmental Interface Card	•	•	•	•	•	•
	Liebert AC8 Controller	•	•	•	•	•	•
	Liebert RCM4 Four-Point Dry Contact Monitor	•	•	•	•	•	•
	Liebert Universal Monitor Remote Dry Contact Monitor	•	•	•	•	•	•
	Liebert Site Scan Monitoring	•	•	•	•	•	•
	Liebert AC4 Autochangeover Controller	•	•	•	•	•	•

Single-Point Power Kit

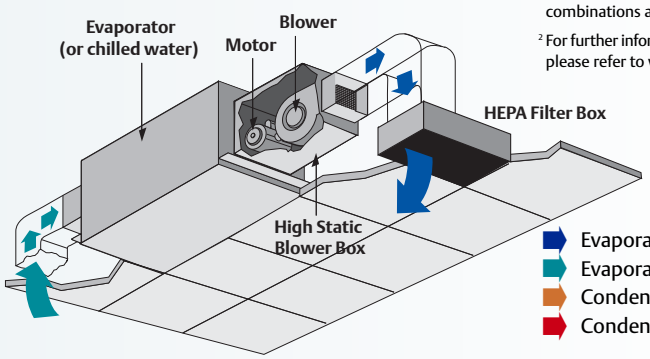
8-ton Configuration Shown



Field installed single-point power kit simplifies connection and installation.

High Static Pressure Option

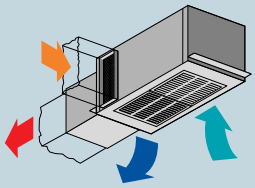
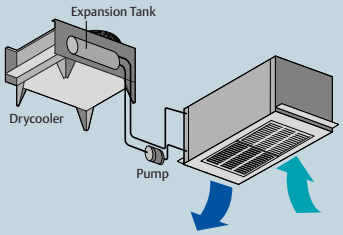
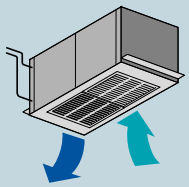
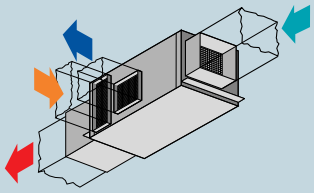
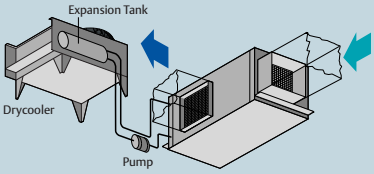
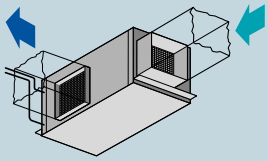
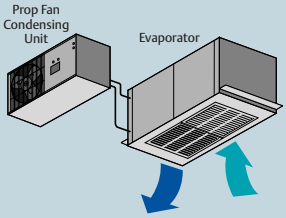
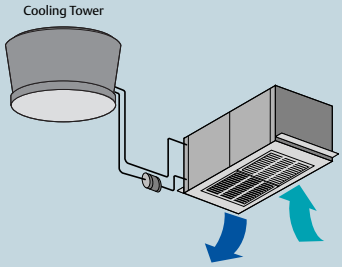
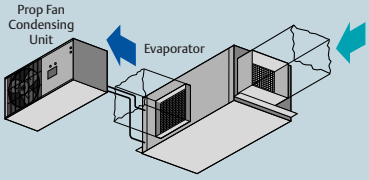
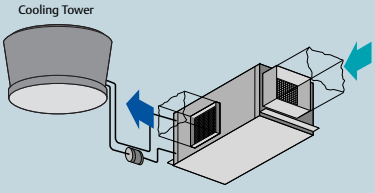
2-3 Ton Shown



[1] Some option/accessory combinations are not available.

[2] For further information, please refer to www.liebert.com

1 And 1-1/2 Ton Systems

Air-Cooled	Water/Glycol	Chilled-Water
 Self-Contained Air-Cooled with Grille	 Self-Contained Glycol System with Grille	 Chilled-Water with Grille
 Self-Contained Air-Cooled Ducted Optional Filter Box, Duct Connection Available	 Self-Contained Glycol System Ducted Optional Filter Box, Duct Connection Available	 Chilled-Water Ducted Optional Filter Box, Duct Connection Available
 Split System with Grille	 Self-Contained Water-Cooled with Grille	
 Split System Ducted Optional Filter Box, Duct Connection Available	 Self-Contained Water-Cooled Ducted Optional Filter Box, Duct Connection Available	Evaporator Supply Evaporator Return Condenser Return Condenser Supply

Specifications
1 And 1-1/2 Ton Systems

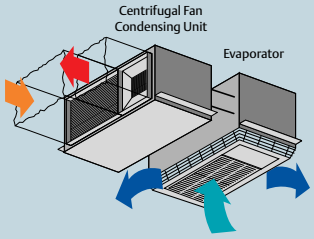
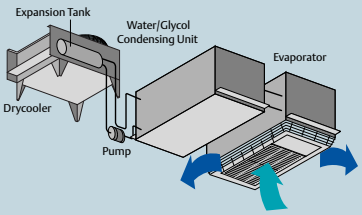
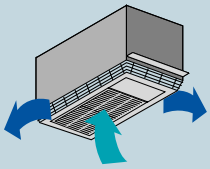
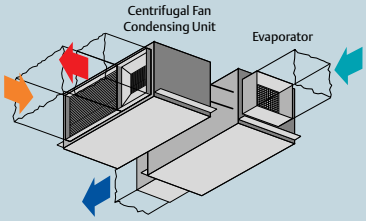
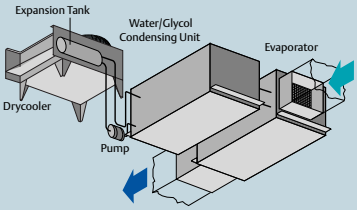
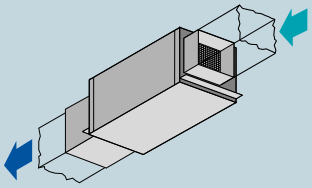
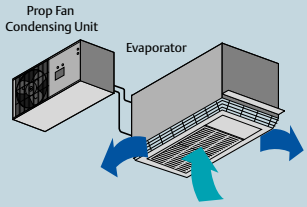
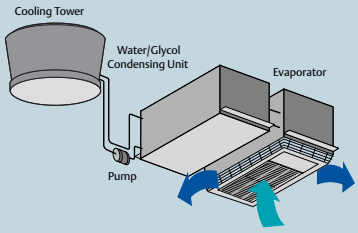
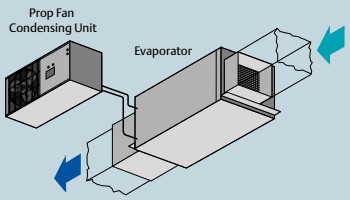
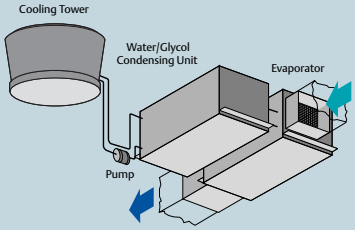
		60HZ				50HZ			
		AIR COOLED SYSTEM							
		Split System with Outdoor Condensing Unit		Self-Contained		Split System with Outdoor Condensing Unit		Self-Contained	
		1 Ton	1.5 Tons	1 Ton	1.5 Tons	1 Ton	1.5 Tons	1 Ton	1.5 Tons
Evaporator		MMD12E	MMD18E	MMD12A	MMD18A	MMD11E	MMD17E	MMD11A	MMD17A
Condensing Unit or Fan		PFH014A	PFH020A	MM2CF	MM2CF	PFH013A	PFH019A	MM2CF	MM2CF
Net Capacity Data* - kW (Btuh) @ High Fan Speed CFM									
80°F DB, 62.8°F WB (26.7°C DB,17.1°C WB) 38% RH	Total	4.45 (15,200)	5.65 (19,300)	3.70 (12,600)	5.55 (18,900)	4.45 (15,200)	5.55 (18,900)	4.45 (15,100)	5.55 (18,900)
	Sensible	4.10 (14,000)	5.35 (18,300)	3.60 (12,300)	5.30 (18,100)	4.10 (14,000)	5.35 (18,200)	4.10 (14,000)	5.35 (18,200)
75°F DB, 61°F WB (23.9°C DB,16.1°C WB) 45% RH	Total	4.25 (14,500)	5.35 (18,300)	3.50 (12,000)	5.30 (18,100)	4.25 (14,600)	5.35 (18,200)	4.25 (14,500)	5.35 (18,200)
	Sensible	3.65 (12,500)	4.85 (16,500)	3.20 (11,000)	4.75 (16,200)	3.65 (12,500)	4.80 (16,300)	3.65 (12,500)	4.85 (16,600)
72°F DB, 60°F WB (22.2°C DB,15.5°C WB) 50% RH	Total	4.15 (14,100)	5.25 (18,000)	3.45 (11,700)	5.15 (17,600)	4.15 (14,200)	5.20 (17,800)	4.15 (14,200)	5.20 (17,800)
	Sensible	3.35 (11,500)	4.45 (15,200)	3.00 (10,200)	4.40 (15,000)	3.40 (11,600)	4.40 (15,000)	3.40 (11,600)	4.40 (15,000)

		60HZ				50HZ			
		WATER-COOLED		GLYCOL-COOLED		WATER-COOLED		GLYCOL-COOLED	
		Self-Contained		Self-Contained		Self-Contained		Self-Contained	
		1 Ton	1.5 Tons	1 Ton	1.5 Tons	1 Ton	1.5 Tons	1 Ton	1.5 Tons
Unit		MMD14W	MMD20W	MMD14W	MMD20W	MMD13W	MMD19W	MMD13W	MMD19W
Net Capacity Data* - kW (Btuh) @ High Fan Speed CFM									
80°F DB, 62.8°F WB (26.7°C DB,17.1°C WB) 38% RH	Total	4.05 (13,800)	6.40 (21,800)	3.50 (11,900)	5.20 (17,800)	4.90 (16,800)	6.35 (21,700)	4.15 (14,200)	5.20 (17,800)
	Sensible	3.85 (13,100)	5.80 (19,800)	3.45 (11,800)	5.10 (17,400)	4.35 (14,900)	5.80 (19,800)	3.95 (13,500)	5.10 (17,400)
75°F DB, 61°F WB (23.9°C DB,16.1°C WB) 45% RH	Total	3.85 (13,100)	6.15 (21,000)	3.30 (11,300)	5.00 (17,000)	4.75 (16,200)	6.15 (20,900)	4.00 (13,700)	5.00 (17,000)
	Sensible	3.45 (11,800)	5.20 (17,700)	3.10 (10,600)	4.55 (15,600)	3.90 (13,300)	5.20 (17,700)	3.55 (12,100)	4.60 (15,700)
72°F DB, 60°F WB (22.2°C DB,15.5°C WB) 50% RH	Total	3.80 (12,900)	6.00 (20,500)	3.20 (11,000)	4.85 (16,600)	4.65 (15,900)	6.00 (20,500)	3.90 (13,300)	4.85 (16,600)
	Sensible	3.15 (10,800)	4.80 (16,400)	2.90 (9,800)	4.10 (14,000)	3.60 (12,300)	4.80 (16,300)	3.25 (11,100)	4.20 (14,400)

		60HZ	50HZ
		CHILLED WATER	
		Self-Contained	Self-Contained
		1.5 Tons	1.5 Tons
Chilled Water Unit		MMD23C	MMD22C
Net Capacity Data* - kW (Btuh) 45°F (7.2°C) EWT & 10°F (5.6°C) temp. rise - High Fan Speed CFM			
80°F DB, 62.8°F WB (26.7°C DB,17.1°C WB) 38% RH	Total	4.85 (16,500)	4.85 (16,500)
	Sensible	4.80 (16,300)	4.80 (16,300)
75°F DB, 61°F WB (23.9°C DB,16.1°C WB) 45% RH	Total	3.80 (13,000)	3.80 (13,000)
	Sensible	3.80 (13,000)	3.80 (13,000)
72°F DB, 60°F WB (22.2°C DB,15.5°C WB) 50% RH	Total	3.20 (11,000)	3.20 (11,000)
	Sensible	3.20 (10,900)	3.20 (10,900)

*The net capacity data has fan motor heat factored in for all ratings and the entering air conditions of 75°F (23.9°C), 45% RH, is the standard rating condition for ASHRAE 127-2007.
All capacities are nominal values; actual performance will be ±5%.

2 And 3 Ton Systems

Air-Cooled Utilizes Split System Evaporator	Water/Glycol Utilizes Split System Evaporator	Chilled-Water
 Remote Air-Cooled Condensing Unit Supply & Return Air Plenum	 Remote Water/Glycol-Condensing Unit Supply & Return Air Plenum	 Chilled-Water Supply & Return Plenum
 Remote Air-Cooled Condensing Unit Supply & Return Air Ducted Optional Filter Box, Duct Connection Available	 Remote Water/Glycol-Condensing Unit Supply & Return Air Ducted Optional Filter Box, Duct Connection Available	 Chilled-Water Supply & Return Air Ducted Optional Filter Box, Duct Connection Available
 Outdoor Prop Fan Condensing Unit Supply & Return Air Plenum	 Remote Water/Glycol-Condensing Unit Supply & Return Air Plenum	Note: All split systems may be close-coupled or configured with condensing unit located remotely from the evaporator.
 Outdoor Prop Fan Condensing Unit Supply & Return Air Ducted Optional Filter Box, Duct Connection Available	 Remote Water/Glycol-Condensing Unit Supply & Return Air Ducted Optional Filter Box, Duct Connection Available	Evaporator Supply Evaporator Return Condenser Return Condenser Supply

Specifications
2 And 3 Ton Systems

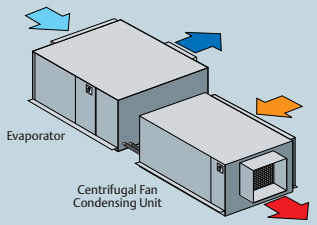
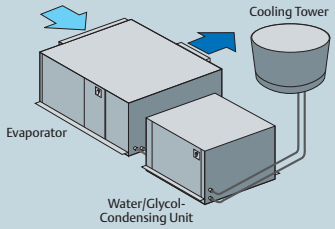
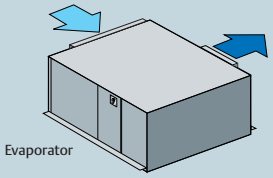
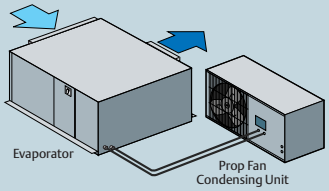
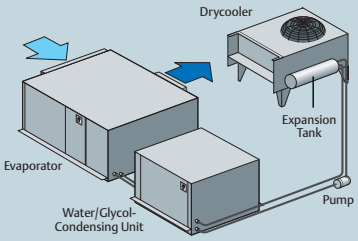
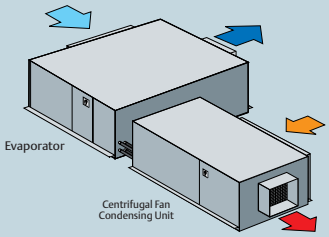
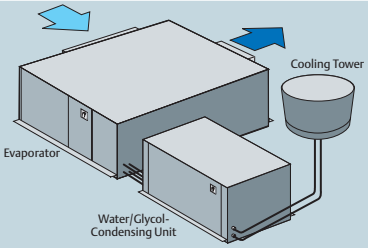
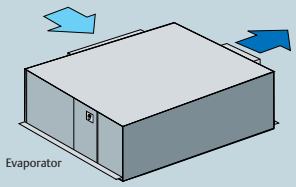
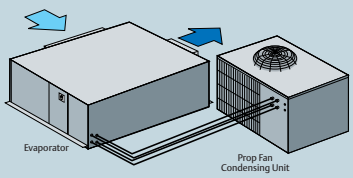
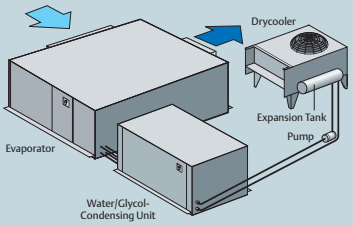
		60HZ				50HZ			
		AIR COOLED SYSTEM							
		with Outdoor Condensing Unit		with Centrifugal Condensing Unit		with Outdoor Condensing Unit		with Centrifugal Condensing Unit	
		2 Tons	3 Tons	2 Tons	3 Tons	2 Tons	3 Tons	2 Tons	3 Tons
Evaporator		MMD24E	MMD36E	MMD24E	MMD36E	MMD23E	MMD23E	MMD35E	MMD35E
Condensing Unit		PFH - Outdoor	PFH - Outdoor	MCD - Indoor	MCD - Indoor	PFH - Outdoor	PFH - Outdoor	MCD - Indoor	MCD - Indoor
Net Capacity Data* - kW (Btuh) @ High Fan Speed CFM									
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB) 38 %RH	Total	6.70 (22,900)	9.90 (33,800)	6.50 (22,200)	9.35 (31,900)	6.40 (21,900)	9.95 (34,000)	6.25 (21,400)	9.50 (32,400)
	Sensible	6.50 (22,200)	9.40 (32,100)	6.35 (21,700)	9.10 (31,000)	6.35 (21,600)	9.40 (32,100)	6.25 (21,300)	9.15 (31,300)
75°F DB, 61°F WB (23.9°C DB, 16.1°C WB) 45 %RH	Total	6.40 (21,800)	9.55 (32,500)	6.15 (20,900)	8.95 (30,600)	6.15 (20,900)	9.60 (32,700)	6.00 (20,400)	9.10 (31,100)
	Sensible	5.70 (19,500)	8.30 (28,400)	5.60 (19,100)	8.05 (27,500)	5.60 (19,100)	8.35 (28,500)	5.50 (18,800)	8.15 (27,800)
72°F DB, 60°F WB (22.2°C DB, 15.5°C WB) 50 %RH	Total	6.20 (21,200)	9.30 (31,800)	5.95 (20,300)	8.75 (29,900)	5.95 (20,300)	9.35 (31,900)	5.80 (19,800)	8.90 (30,400)
	Sensible	5.20 (17,800)	7.70 (26,200)	5.10 (17,400)	7.40 (25,300)	5.10 (17,400)	7.70 (26,200)	5.05 (17,200)	7.45 (25,500)

		60HZ				50HZ			
		WATER-COOLED		GLYCOL-COOLED		WATER-COOLED		GLYCOL-COOLED	
		2 Tons	3 Tons	2 Tons	3 Tons	2 Tons	3 Tons	2 Tons	3 Tons
Evaporator		MMD24E	MMD36E	MMD24E	MMD36E	MMD23E	MMD23E	MMD35E	MMD35E
Condensing Unit		MCD26W	MCD38W	MCD26W	MCD38W	MCD25W	MCD37W	MCD25W	MCD37W
Net Capacity Data* - kW (Btuh) @ High Fan Speed CFM									
80°F DB, 62.8°F WB (26.7°C DB,17.1°C WB) 38 %RH	Total	7.60 (26,000)	11.0 (37,600)	6.25 (21,300)	9.05 (30,900)	7.50 (25,500)	11.3 (38,700)	6.05 (20,700)	9.20 (31,400)
	Sensible	6.95 (23,700)	9.95 (33,900)	6.20 (21,200)	8.95 (30,500)	6.90 (23,500)	10.1 (34,400)	6.05 (20,700)	9.00 (30,700)
75°F DB, 61°F WB (23.9°C DB, 16.1°CWB) 45 %RH	Total	7.30 (24,900)	10.6 (36,300)	5.90 (20,200)	8.70 (29,600)	7.20 (24,500)	11.0 (37,400)	5.75 (19,600)	8.80 (30,100)
	Sensible	6.15 (20,900)	8.85 (30,200)	5.50 (18,800)	7.95 (27,100)	6.05 (20,700)	9.00 (30,700)	5.40 (18,500)	8.00 (27,300)
72°F DB, 60°F WB (22.2°C DB, 15.5°CWB) 50 %RH	Total	7.10 (24,300)	10.4 (35,500)	5.75 (19,700)	8.45 (28,900)	7.00 (23,900)	10.7 (36,600)	5.60 (19,100)	8.60 (29,400)
	Sensible	5.65 (19,300)	8.20 (27,900)	5.00 (17,100)	7.30 (24,900)	5.60 (19,100)	8.30 (28,400)	4.95 (16,900)	7.35 (25,100)

		60HZ	50HZ
		CHILLED WATER	
		3 Tons	3 Tons
Chilled Water Unit		MMD40C	MMD39C
Net Capacity Data* - kW (Btuh) 45°F (7.2°C) EWT & 10°F (5.6°C) temp. rise - High Fan Speed CFM			
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB) 38 %RH	Total	10.1 (34,600)	10.1 (34,600)
	Sensible	9.40 (32,100)	9.40 (32,100)
75°F DB, 61°F WB (23.9°C DB, 16.1°C WB) 45 %RH	Total	8.25 (28,200)	8.25 (28,200)
	Sensible	7.60 (26,000)	7.60 (26,000)
72°F DB, 60°F WB (22.2°C DB, 15.5°C WB) 50 %RH	Total	7.10 (24,200)	7.10 (24,200)
	Sensible	6.50 (22,200)	6.50 (22,200)

*The net capacity data has fan motor heat factored in for all ratings and the entering air conditions of 75°F (23.9°C), 45% RH, is the standard rating condition for ASHRAE 127-2007.
All capacities are nominal values; actual performance will be ±5%.

5 And 8 Ton Systems

	Air-Cooled Utilizes Split System Evaporator	Water/Glycol Utilizes Split System Evaporator	Chilled-Water
5 Ton System	 Indoor Air-Cooled Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	 Remote Water/Glycol-Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	 Chilled-Water Coil Supply & Return Air Ducted Optional Filter Box/Duct Connection Available
	 Outdoor Prop Fan Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	 Remote Water/Glycol Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	
8 Ton System	 Indoor Air-Cooled Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	 Remote Water/Glycol-Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	 Chilled Water-Coil Supply & Return Air Ducted Optional Filter Box/Duct Connection Available
	 Outdoor Prop Fan Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	 Remote Water/Glycol-Condensing Unit Supply & Return Air Ducted Optional Filter Box/Duct Connection Available	Evaporator Supply Evaporator Return Condenser Return Condenser Supply

Specifications
5 And 8 Ton Systems

		60HZ		50HZ	
		AIR COOLED SYSTEM			
Evaporator Condensing Unit		with Outdoor Condensing Unit 5 Tons MMD60E PFH - Outdoor	with Centrifugal Condensing Unit 5 Tons MMD60E MCD - Indoor	with Outdoor Condensing Unit 5 Tons MMD59E PFH - Outdoor	with Centrifugal Condensing Unit 5 Tons MMD59E MCD - Indoor
Net Capacity Data* - kW (Btuh)					
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB) 38% RH	Total	19.2 (65,400)	19.3 (65,700)	18.1 (61,600)	17.9 (61,000)
	Sensible	18.5 (63,000)	18.5 (63,200)	17.8 (60,700)	17.7 (60,400)
75°F DB, 61°F WB (23.9°C DB, 16.1°C WB) 45% RH	Total	18.4 (62,700)	18.5 (63,000)	17.2 (58,800)	17.1 (58,300)
	Sensible	16.4 (55,800)	16.4 (56,000)	15.8 (53,900)	15.7 (53,700)
72°F DB, 60°F WB (22.2°C DB, 15.5°C WB) 50% RH	Total	17.9 (61,200)	18.0 (61,500)	16.8 (57,300)	16.7 (56,900)
	Sensible	15.0 (51,300)	15.1 (51,500)	14.5 (49,500)	14.4 (49,300)

		WATER-COOLED 5 Tons MMD60E MCD69W	GLYCOL-COOLED 5 Tons MMD60E MCD69W	CHILLED WATER 5 Tons MMD92C	WATER-COOLED 5 Tons MMD59E MCD68W	GLYCOL-COOLED 5 Tons MMD59E MCD68W	CHILLED WATER 5 Tons MMD91C
Evaporator Condensing Unit							
Net Capacity Data* - kW (Btuh)							
80°F DB, 62.8°F WB (26.7°C DB,17.1°C WB) 38 %RH	Total	21.5 (73,500)	18.2 (62,200)	20.1 (68,700)	20.7 (70,700)	16.9 (57,800)	20.1 (68,700)
	Sensible	19.6 (67,000)	17.9 (61,200)	18.7 (63,900)	19.3 (65,700)	16.9 (57,800)	18.7 (63,900)
75°F DB, 61°F WB (23.9°C DB, 16.1°CWB) 45 %RH	Total	20.8 (70,800)	17.4 (59,500)	16.3(55,600)	19.9 (68,000)	16.1 (54,900)	16.3(55,600)
	Sensible	17.5 (59,600)	15.9 (54,300)	15.1 (51,500)	17.1 (58,300)	15.2 (52,000)	15.1 (51,500)
72°F DB, 60°F WB (22.2°C DB, 15.5°CWB) 50 %RH	Total	20.3 (69,200)	17.0 (58,000)	13.8 (47,200)	19.5 (66,500)	15.7 (53,500)	13.8 (47,200)
	Sensible	16.1 (55,000)	14.6 (49,800)	12.8 (43,700)	15.7 (53,700)	14.0 (47,700)	12.8 (43,700)

		60HZ		50HZ	
		AIR COOLED SYSTEM			
Evaporator Condensing Unit		with Outdoor Condensing Unit 8 Tons MMD96E PFH - Outdoor	with Centrifugal Condensing Unit 8 Tons MMD96E MCD - Indoor	with Outdoor Condensing Unit 8 Tons MMD95E PFH - Outdoor	with Centrifugal Condensing Unit 8 Tons MMD95E MCD - Indoor
Net Capacity Data* - kW (Btuh)					
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB) 38% RH	Total	28.4 (96,900)	28.1 (96,000)	27.9 (95,100)	27.6 (94,200)
	Sensible	27.9 (95,200)	27.8 (94,800)	27.5 (94,000)	27.3 (93,300)
75°F DB, 61°F WB (23.9°C DB, 16.1°C WB) 45% RH	Total	27.2 (92,700)	26.9 (91,800)	26.6 (90,600)	26.3 (89,900)
	Sensible	24.9 (84,900)	24.9 (84,800)	24.6 (84,100)	24.5 (83,700)
72°F DB, 60°F WB (22.2°C DB, 15.5°C WB) 50% RH	Total	26.5 (90,400)	26.3 (89,700)	25.9 (88,400)	25.7 (87,700)
	Sensible	22.8 (77,900)	22.8 (77,700)	22.7 (77,300)	22.5 (76,900)

		WATER-COOLED 8 Tons MMD96E MCD98W	GLYCOL-COOLED 8 Tons MMD96E MCD98W	CHILLED WATER 8 Tons MMD8TC	WATER-COOLED 8 Tons MMD95E MCD97W	GLYCOL-COOLED 8 Tons MMD95E MCD97W	CHILLED WATER 8 Tons MMD8TC
Evaporator Condensing Unit							
Net Capacity Data* - kW (Btuh)							
80°F DB, 62.8°F WB (26.7°C DB, 17.1°C WB) 38% RH	Total	31.1 (106,000)	27.0 (92,000)	29.8 (101,800)	30.5 (104,000)	26.5 (90,300)	29.8 (101,800)
	Sensible	29.6 (101,000)	26.8 (91,600)	27.9 (95,100)	29.2 (99,600)	26.4 (90,100)	27.9 (95,100)
75°F DB, 61°F WB (23.9°C DB, 16.1°C WB) 45% RH	Total	29.9 (102,000)	25.6 (87,500)	24.0 (82,000)	29.3 (100,000)	25.1 (85,600)	24.0 (82,000)
	Sensible	26.2 (89,400)	24.2 (82,400)	22.5 (76,700)	25.9 (88,500)	23.9 (81,500)	22.5 (76,700)
72°F DB, 60°F WB (22.2°C DB, 15.5°C WB) 50% RH	Total	29.2 (99,800)	24.9 (85,100)	20.5 (69,900)	28.7 (98,000)	24.4 (83,200)	20.5 (69,900)
	Sensible	24.2 (82,600)	22.2 (75,600)	19.1 (65,300)	23.9 (81,600)	21.9 (74,800)	19.1 (65,300)

*The net capacity data has fan motor heat factored in for all ratings and the entering air conditions of 75°F (23.9°C), 45% RH, is the standard rating condition for ASHRAE 127-2007.
All capacities are nominal values; actual performance will be ±5%.

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