



MINI-SPLIT SYSTEMS

MS8C/MS8H

Lennox® 8 Series
Single Zone - R-410A

Bulletin No. 210632
September 2016
Supersedes January 2016

PRODUCT SPECIFICATIONS



MS8-CI Air Conditioner Indoor Unit
MS8-HI Heat Pump Indoor Unit



MS8-CO Air Conditioner Outdoor Unit
MS8-HO Heat Pump Outdoor Unit

Wireless
Remote Control
(furnished)

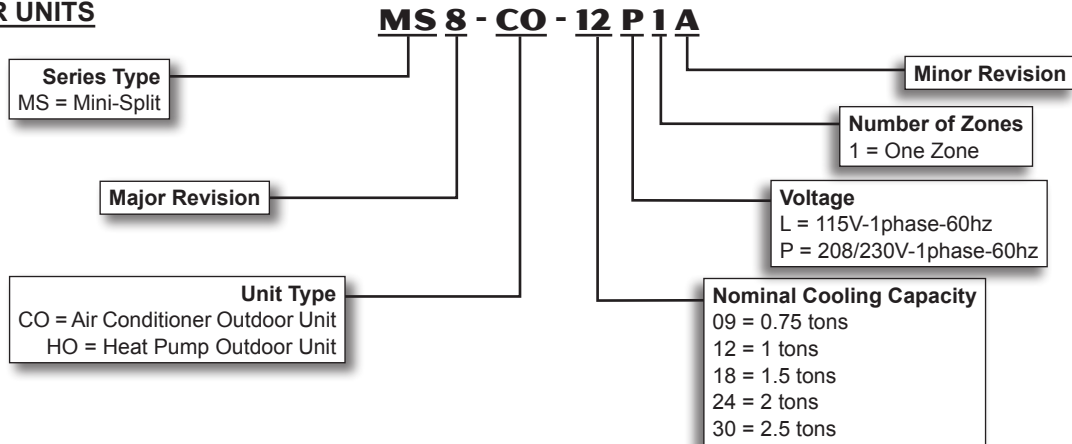


SEER up to 22.00
0.75 to 2.5 Tons

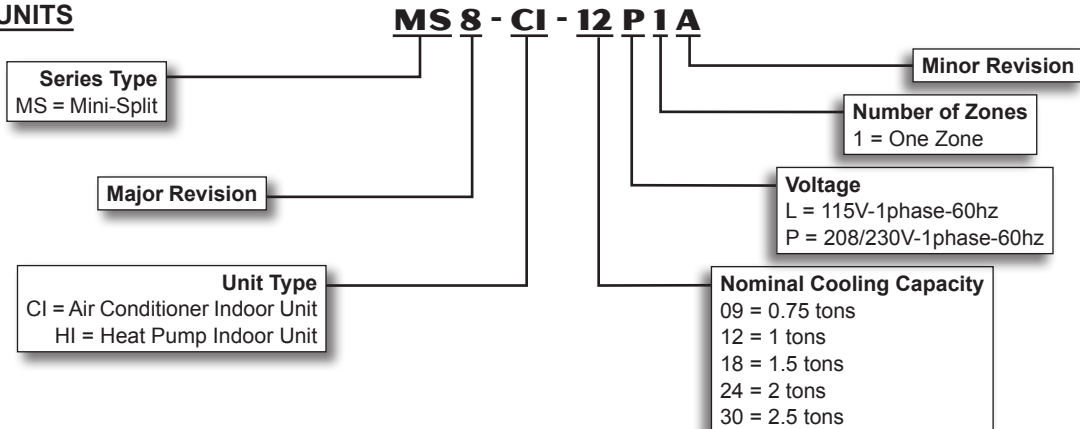
Cooling Capacity - 9,000 to 28,000 Btuh
Heat Pump Heating Capacity - 9,500 to 28,400 Btuh

MODEL NUMBER IDENTIFICATION

OUTDOOR UNITS



INDOOR UNITS



FEATURES - OUTDOOR UNITS

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EQUIPMENT WARRANTY

Compressor - limited warranty for five years in residential installations and one year in non-residential installations.

All other covered components - five years in residential installations and one year in non-residential installations.

Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details.

APPLICATIONS

SEER up to 22.00.

HSPF (Heat Pumps) up to 10.20.

0.75 through 2.5 ton.

Single phase power supply (115V and 208/230V).

Outdoor unit sound levels as low as 63 dB.

Ductless mini-split systems provide a wide range of capacities and applications and provide an alternative when a ducted system is impractical or cost prohibitive. See AHRI System Matches.

Units shipped completely factory assembled, internally piped, and wired.

Installer must set outdoor unit, hang indoor unit, connect refrigerant lines, and make electrical connections to complete job.

APPROVALS

AHRI Certified to AHRI Standard 210/240-2008.

Tested in the Lennox Research Laboratory environmental test room.

Rated according to U.S. Department of Energy (DOE) test procedures.

Indoor and outdoor units and components within bonded for grounding to meet safety standards for servicing required by UL and CEC.

Units are ETL certified for the U.S. and Canada.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment. Many Lennox home comfort systems meet ENERGY STAR requirements when used with matching components.

Meets 2014 Florida Building Code Wind Design Criteria:

- Ultimate Wind Speed – 186 miles per hour
- Risk Categories – III and IV
- Wind Exposures – C and D
- Mean Roof Heights – Up to 60 feet above ground

REFRIGERATION SYSTEM

R-410A Refrigerant

Non-chlorine, ozone friendly, R-410A.

Unit pre-charged with refrigerant.



Outdoor Coil

Aluminum fins fitted to copper tubes.

Wire grille guard provided.

Outdoor Fan

Direct drive fan moves large air volumes uniformly through entire outdoor coil for high refrigeration capacity.

Fan guard provided.

Refrigerant Line Connections, Service Valve

Flare connection lines are located on side of unit cabinet.

Fully serviceable brass service valve prevents corrosion and provides access to refrigerant system. Shut-off valve can be fully shut off while 2-way service valve (with service port) may be accessed to manage refrigerant charge while servicing system.

NOTE - Special Male Flare Adaptor is required to check operating pressures. See Optional Accessories table.

COMPRESSOR

Variable Frequency Rotary Compressor

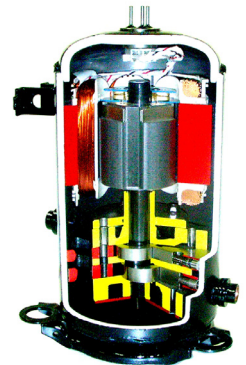
Twin rotary compressor features high efficiency operation.

Balanced for reduced vibration and quiet operation.

Brushless DC motor uses powerful Neodymium magnets, which are approximately 15-20 times stronger than ferrite magnets used in conventional AC compressors.

Compressor Crankcase Heater (Heat Pump Models only)

Protects against refrigerant migration that can occur during low ambient operation.



FEATURES - OUTDOOR UNITS

CONTROLS

DC Inverter Control

Provides continuous operation, while adjusting capacity according to room temperature.

The accurate sensing of cooling or heating loads prevents frequent changes in capacity and ensures efficient, economical operation.

Outdoor Unit Microprocessor

Electronic expansion valve control.

Automatic compressor timed-off protection (3 minutes).

Automatic indoor fan-on delay in heating mode (heat pump models) after coil is warm.

Temperature sensor.

LEDs on control display error codes and assist in troubleshooting.

Communication port to indoor unit.

4-Way reversing valve control (heat pump models).

Electronic Expansion Valve

Furnished on all models.

Compressor Overcurrent Protection

Overcurrent protection can result due to any of the following:

- Ambient temperature is too high
- Locked rotor on the compressor
- Outdoor air is blocked or restricted

Condenser High Temperature Protection

Condenser high temperature can occur due to any of the following conditions:

- High outdoor ambient
- Outdoor fan blocked
- Outdoor coil blocked

The outdoor coil thermistor continuously monitors the temperature and communicates with the microprocessor.

Depending on the temperature measured, the compressor will be allowed to increase the frequency if needed to meet the load or is forced to run at the current or reduced frequency. If the temperature becomes excessively high the compressor will be de-energized.

When the outdoor coil temperature drops to 124°F, the unit will resume normal operations.

NOTE - In heating mode (heat pump models) the indoor fan is de-energized 60 seconds after the compressor is de-energized.

Compressor Discharge Temperature Protection

The compressor discharge line thermistor continuously monitors the temperature and communicates with the microprocessor.

Depending on the temperature measured, the compressor will be allowed to increase the frequency to meet the load or is forced to run at the current or reduced frequency. If the temperature becomes excessively high, the compressor will be de-energized. When the compressor discharge temperature drops below 194°F, the unit will resume normal operations.

Intelligent Power Module (IPM) Protection

Protects the unit from any of the following conditions:

- Loss of cooling to the heat sink
- High ambient temperature
- Low voltage

Terminal Strip

Furnished for easy wiring connections.

Defrost Control (Heat Pump Models)

Defrost cycle is automatically enabled if there is a build-up of frost on the outdoor coil. Outdoor fan and indoor blower operation is terminated during the defrost cycle.

H1 is displayed on the indoor unit panel on the front cover during a defrost cycle.

Reversing Valve (Heat Pump Models)

4-way interchange reversing valve effects a rapid change in direction of refrigerant flow resulting in quick changeover from cooling to heating and vice versa.

Valve operates on pressure differential between outdoor unit and indoor unit of the system.

CABINET

Constructed of heavy gauge steel.

Tabs on unit base allow secure mounting to slab.

Condensate drain outlets furnished on unit base (heat pump models only). Drain must be field furnished.

Access cover for power and control wiring connections.

Access cover for service valves.

FEATURES - INDOOR UNITS

CABINET

High impact plastic cabinet.

Unit Display Panel (on Indoor Unit)

- Heat Indicator
- Cool Indicator
- Temperature/Error Code
- Power/Run
- Dehumidify Mode
- Infrared Signal Receptor (for wireless remote control)

Unit display can be turned off using the wireless remote control.

Wall Mounting Plate

Furnished for easy wall mounting of the indoor unit. See dimension drawing.

Air Deflection Louvers

The angle of the Horizontal Louvers defaults to the cooling or heating position when the unit is operating.

Horizontal louvers can be set to a preset oscillating range or fixed position by pushing the "LOUVER SETTING" button (➤) on the wireless remote control.

Four oscillating settings and five fixed position settings. Full oscillating is the default setting when button pushed.

Vertical louvers can be manually adjusted side-to-side to direct the airflow for optimal comfort.

Easy filter access.

INDOOR COIL

Copper tubes fitted to aluminum fins.

High efficiency wraparound design.

Condensate drain line (3 ft.) with barbed end is furnished with the indoor unit.

Drain line can be located on left side, right side, left rear, right rear (recommended) or bottom of unit.

BLOWER

Dual cross-flow centrifugal blower.

Aerodynamic spiralled blades for increased airflow and reduced sound levels.

Turbo Function

Unit runs at maximum speed to cool or heat the area quickly.

Cold Blow Prevention (Heat Pump Models)

Prevents cold air from blowing into a conditioned space during heating mode if the following occurs:

- If indoor coil temperature is less than 106°F and indoor air temperature is less than 75°F, there is a three-minute time delay before blower runs at low speed for five minutes.
- If indoor coil temperature is equal to or more than 106°F and room temperature is equal to or more than 75°F, blower runs at low speed for five minutes.

FILTER

Cleanable filter furnished as standard.

CONTROLS

Indoor Unit Microprocessor

Contains all necessary components to control system.

Terminal Strip

Furnished for easy wiring connections.

Indoor Coil Freeze Protection

When the unit is operating in the COOL or DEHUMIDIFICATION MODE, the indoor coil may freeze due to any of the following:

- Low system charge
- Reduced indoor airflow
- Restricted refrigerant flow
- Low ambient temperature (outdoor)
- Low load (indoor)

The indoor coil thermistor monitors the coil temperature continuously. Any time the coil temperature drops below 30°F, the compressor and the outdoor fan (30 seconds later) will be switched off until the coil temperature rises above 43°F and the compressor was off for a minimum of 3 minutes.

Auto Button Operation

If the wireless remote control is lost, damaged, or the batteries are exhausted, the AUTO button located inside the front cover on the indoor unit can be used to run the unit.

Auto Settings:

- Cooling Mode (setpoint 77°F)
- Heating Mode (setpoint 68°F)
- Fan Only Mode (runs continuously)
- Fan Speed (Auto)
- Oscillate (On)

FEATURES - INDOOR UNITS

WIRELESS REMOTE CONTROL (furnished)

Complete remote control of system. Maximum operating range is 25 ft.



POWER

Turns system on and off. Also overrides SLEEP function.

MODE

Select system operation modes (AUTO/COOL/ DEHUMIDIFICATION/FAN/HEAT). Default setting is AUTO.

+/- (Plus/Minus) BUTTONS

Increase or decrease temperature in one degree increments.

NOTE - Temperature cannot be adjusted in AUTO mode.

FAN

Select fan speed (AUTO/LOW/MEDIUM/HIGH). Default setting is AUTO. Fan speed is displayed at the top of the control display.

NOTE - Not adjustable during Dehumidification mode.

I FEEL

Allows remote temperature sensing of the room at the remote control location.

LOUVER SETTING

Sets the angle of the horizontal louvers. Four oscillating settings and five fixed position settings. Full oscillating is the default setting when button is first pushed.



CLOCK (24 Hour)

Set time on display. + and - buttons adjust time up or down.

TEMP

Set temperature and display current indoor ambient temperature.

TIMER ON / TIMER OFF

TIMER ON (to start the unit at a preset time) and TIMER OFF (to stop the unit at a preset time) can be

used separately or together. The clock on the wireless remote control must be set before using this function. Pressing the + (plus) or - (minus) buttons sets time in one-minute increments. Press continuously for ten-minute increments.

Press TIMER ON or TIMER OFF again to cancel setting.

BLOW

Operates the indoor blower in COOL or DEHUMIDIFICATION mode for ten minutes to dry the indoor unit when unit is not operating.

Not available in AUTO, FAN or HEAT mode.

SLEEP

Used to conserve energy.

Cool Mode

After one hour of operation setpoint will be increased by 2°F.

After two hours setpoint will be increased by another 2°F and fan will operate on low speed.

Canceled by pushing the "SLEEP" button again.

Heat Mode

After one hour of operation setpoint will be decreased by 2°F.

After two hours setpoint will be decreased by another 2°F and fan will operate on low speed.

Canceled by pushing the "SLEEP" button again.

NOTE - SLEEP function is only available when the unit is in COOL or HEAT mode.

TURBO

Turns on blower to the maximum speed setting.

Canceled when switching modes or changing blower speeds.

LIGHT

Turns the LCD display backlight on the indoor unit on or off.

Additional Features

Pressing the + (plus) and - (minus) buttons simultaneously locks or unlocks the keypad to prevent tampering.

Fahrenheit or Celsius temperature display. When system is off press MODE and - (minus) buttons simultaneously to switch between Fahrenheit and Celsius.

Operates on two AAA 1.5V batteries (furnished).

Optional Accessories

Wireless Remote Control Holder

Holder can be mounted on a wall for easy access. Mounting screws furnished.



OPTIONAL ACCESSORIES - ORDER SEPARATELY

OUTDOOR UNITS

Condenser Pad

Provides permanent foundation for outdoor units.

One-piece lightweight structural foam and molded from high-density polyethylene (HDPE), which makes them lightweight and easy to carry and install. The textured finish provides a non-skid surface so that the outdoor unit sits securely in one place. UV stable.

Disconnects

Positive unit disconnect. Single door enclosure. Fused and non-fused models available.

Fuses

30 and 60 amp fuses available.

Indoor/Outdoor Wiring Cable

14-gauge, 4-conductor wire. THHN (Thermoplastic High Heat-resistant Nylon-coated) wire. Suitable for wet or dry locations. Rated up to 600V.

Refrigerant Line Sets

Refrigerant lines are shipped refrigeration clean. Lines are cleaned, dried, pressurized and sealed at factory.

Wall Brackets

Heavy duty 1/8 in. thick steel brackets for supporting outdoor units. Mount at any height to allow for easy maintenance under units. Pre-punched holes for easy installation. Powder coated gray finish. Load rating 600 lbs. per pair.

Whips

Heavy duty electrical whips are available in 8 and 10 gauge sizes. 6 ft. lengths. Weatherproof metal conduit.

Universal Mini-Split Installation Kit



Kit includes two-valve service manifold, premium 5 ft. hoses with ball valve, clutch type flaring tool, 6-in-1 metric torque wrench, imperial/metric hex tool, valve core tool, brass adaptors and brass caps, tool bag.

INDOOR UNITS

Condensate Mini-Split Drain Line

Constructed of flexible reinforced polypropylene, 160 ft. roll.

Condensate Pump

Quietly and efficiently removes condensate.

Designed to be installed above a false ceiling, behind wall-mounted evaporators or in plastic conduit.

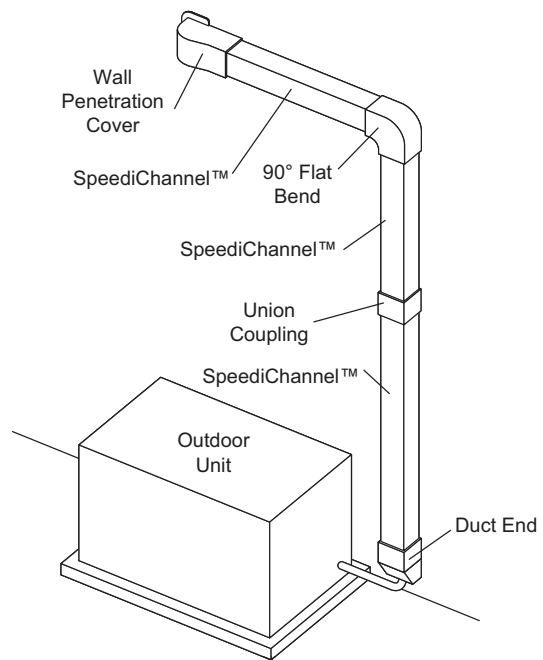
ETL listed.

SPEEDICHANNEL™ SYSTEM



SpeediChannel™ is a channel system used to cover system line sets. The two-part system has a base and a cover. The base is fastened to a wall or ceiling with plastic clips (SpeediClip™) that snap into a channel already molded into the base. The cover fits on top of the base. SpeediChannel is manufactured from rigid PVC, which is UL rated and resistant to UV light. The system is a natural color that closely matches typical mini-split outdoor units. However, it can be painted as desired to match any wall color.

Typical Application



OPTIONAL ACCESSORIES - ORDER SEPARATELY

SPEEDICHANNEL™ SYSTEM (continued)

SpeediChannel™ Starter Kit

The starter kit includes (1) Coupling, (1) Wall Penetration, (1) Inside Elbow, (1) Long Radius Flat Bend, (10) Speediclips™, (10) 11 in. Cable Ties, and (1) SpeediChannel Instruction Booklet.

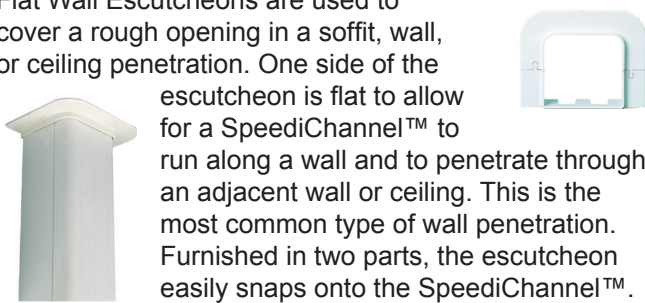
Duct End

Duct Ends are used to terminate a run of SpeediChannel™ to a small opening just large enough for the line set and condensate drain line to pass through.



Flat Wall Escutcheon

Flat Wall Escutcheons are used to cover a rough opening in a soffit, wall, or ceiling penetration. One side of the escutcheon is flat to allow for a SpeediChannel™ to run along a wall and to penetrate through an adjacent wall or ceiling. This is the most common type of wall penetration. Furnished in two parts, the escutcheon easily snaps onto the SpeediChannel™.

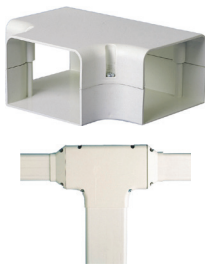


Flex Joint

A Flex Joint is an accordion-style piece of SpeediChannel™. The flex joint can be extremely flexible when routing a SpeediChannel™ system around an obstacle. Each joint is 20 in. long and can be combined together for longer flex runs. The flex joint does not require the use of a union coupling. The flex joint slides tightly inside the SpeediChannel™ system.

T-Joint

T-Joints are used for creating a tee connection between three pieces of SpeediChannel™. Each tee is individually packed and furnished with stainless steel screws.



Union Coupling

Union Couplings are used for joining two pieces of SpeediChannel™. Each coupling is individually packed and furnished with stainless steel screws.



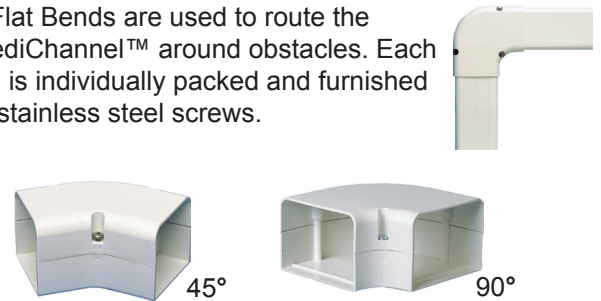
Wall Penetration Cover

Wall penetration covers are used to transition from the SpeediChannel™ system to a through wall penetration. Wall covers are designed to allow for easy installation, even after the line set has been installed. A hooking and fastening arrangement allows for quick installation. Each wall cover is individually packed, and furnished with stainless steel screws to attach the wall cover to the base. Three screws are necessary to fasten the wall cover to the wall construction, regardless of the type of installed system.



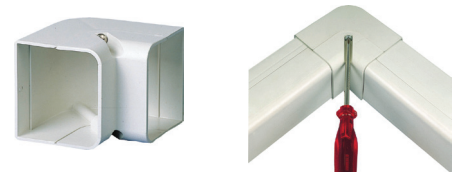
45° and 90° Flat Bend Elbows

45° Flat Bends are used to route the SpeediChannel™ around obstacles. Each bend is individually packed and furnished with stainless steel screws.



90° Inside Elbow

90° Inside Elbows are used to route the SpeediChannel™ around an inside corner. Each elbow is individually packed and furnished with stainless steel screws.



Mount Block White Qty. (2) 14 in. and (2) 36 in.

Mount Blocks are used as mounting bases when outdoor units must be bolted down. End caps (for aesthetics) come furnished with mounting bolts. Maximum load capacity is 900 pounds per mounting block. Installation temperatures range from -4°F to 140°F. Mount blocks fit all mini-split outdoor units with a sliding rail feature.



SPECIFICATIONS - AIR CONDITIONER SYSTEMS

OUTDOOR UNIT

Nominal Tonnage		0.75	0.75	1	1	1.5	2
Outdoor Unit Model No.		MS8-CO-09L	MS8-CO-09P	MS8-CO-12L	MS8-CO-12P	MS8-CO-18P	MS8-CO-24P
Cooling Capacity (Btuh)	Low	3,500	3,500	3,100	3,100	5,970	9,600
	Standard	9,000	9,000	12,000	12,000	18,000	21,400
	High	9,600	9,600	13,000	13,000	22,350	25,000
Connections (in.)	Small line o.d. - flare	1/4	1/4	1/4	1/4	1/4	1/4
	Large line o.d. - flare	3/8	3/8	3/8	3/8	1/2	5/8
Ambient Temperature Operating Range - °F		41 - 115	0 - 109	41 - 115	0 - 109	5 - 109	14 - 109
¹ Refrigerant (R-410A) furnished		2 lbs. 6 oz.	2 lbs. 14 oz.	2 lbs. 14 oz.	2 lbs. 14 oz.	3 lbs. 1 oz.	3 lbs. 9 oz.
Outdoor Coil	Net face area - sq. ft.	3.95	4.08	4.08	4.49	5.96	7.66
	Tube diameter - in.	1/4	1/4	3/8	3/8	1/4	1/4
	Number of rows	2	2	2	2	2	2
	Fins per inch	18	20	18	20	20	20
Outdoor Fan Motor	Diameter - in.	15-5/8	15-3/4	15-5/8	15-3/4	20-1/2	21-3/4
	No. of blades	3	3	3	3	3	3
	Cfm	1120	940	1120	940	1885	2355
	Rpm	650/900	680/900	680/900	680/900	800	800
Shipping Data - lbs.	Outdoor Unit	91	91	97	97	110	132

ELECTRICAL DATA

Line voltage data - 60 hz - 1ph		115V	208/230V	115V	208/230V	208/230V	208/230V
² Maximum overcurrent protection (amps)		35	15	40	15	20	25
³ Minimum circuit ampacity		22	10	23	10	13	16
Compressor	Rated load amps	16	7.2	17.5	6.5	9.7	11
⁴ Compressor Power Input (W)		1050	1075	1450	860	1200	1420
Outdoor Fan Motor	Rated load amps	0.17	0.13	0.17	0.13	0.28	1.1
	Output (W)	40	40	40	30	60	90

MATCHING INDOOR UNIT

Indoor Unit Model No.		MS8-CI-09L	MS8-CI-09P	MS8-CI-12L	MS8-CI-12P	MS8-CI-18P	MS8-CI-24P
Connections (in.)	Small line o.d. - flare	1/4	1/4	1/4	1/4	1/4	1/4
	Large line o.d. - flare	3/8	3/8	3/8	3/8	1/2	5/8
Indoor Blower Air Volume (cfm)	Turbo	330	305	300	335	500	590
	High	295	275	275	275	460	470
	Medium	255	255	255	255	385	410
	Low	220	220	215	220	325	355
Indoor Blower RPM	Turbo	1260	1260	1260	1330	1500	1500
	High	1050	1100	1070	1100	1200	1200
	Medium	920	950	900	950	1050	1050
	Low	730	750	730	750	900	900
Indoor Coil	Net face area - sq. ft.	1.85	1.65	1.85	1.65	2.33	3.23
	Tube diameter - in.	1/4	1/4	1/4	1/4	1/4	1/4
	Number of rows	2	2	2	2	2	2
	Fins per inch	18	20	18	20	20	18
Indoor Blower	Diameter x Length - in.	3.6 x 25.4	3.6 x 25.4	3.6 x 25.4	3.6 x 25.4	3.9 x 28	3.9 x 30
	Type	Cross-flow	Cross-flow	Cross-flow	Cross-flow	Cross-flow	Cross-flow
Shipping Data - lbs.	Indoor Unit	31	31	31	29	38	47

ELECTRICAL DATA

Line voltage data - 60 hz - 1ph		115V	208/230V	115V	208/230V	208/230V	208/230V
Rated Load Amps		0.38	0.20	0.38	0.20	0.32	0.24
Output (W)		20	20	20	20	20	60

NOTE - Extremes of operating range are plus 10% and minus 5% of line voltage.

¹ Refrigerant charge sufficient for 26 ft. of lineset.

² HACR type circuit breaker or fuse

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

⁴ Rated Input

SPECIFICATIONS - HEAT PUMP SYSTEMS

OUTDOOR UNIT

Nominal Tonnage		0.75	0.75	1	1	1.5	2	2.5
Outdoor Unit Model No.		MS8-HO-09L	MS8-HO-09P	MS8-HO-12L	MS8-HO-12P	MS8-HO-18P	MS8-HO-24P	MS8-HO-30P
Cooling Capacity (Btuh)	Low	3,500	3,500	3,100	3,100	5,970	9,600	9,500
	Standard	9,000	9,000	12,000	12,000	18,000	21,400	28,000
	High	9,600	9,600	13,000	13,000	22,350	25,000	30,000
Heating Capacity (Btuh)	Low	2,200	2,200	2,400	2,400	5,970	4,300	10,000
	Standard	9,800	9,800	13,000	13,000	18,000	23,000	28,400
	High	11,000	11,000	14,000	14,000	22,350	26,000	33,000
Connections (in.)	Small line o.d. - flare	1/4	1/4	1/4	1/4	1/4	1/4	1/4
	Large line o.d. - flare	3/8	3/8	3/8	3/8	1/2	5/8	5/8
Ambient Temperature Operating Range - °F	Cooling	41 - 115	0 - 109	41 - 115	0 - 109	14 - 109	14 - 109	5 - 109
	Heating	5 - 86	-5 - 75	5 - 86	-5 - 75	19 - 75	19 - 75	17 - 75
¹ Refrigerant (R-410A) furnished		2 lbs. 6 oz.	2 lbs. 14 oz.	2 lbs. 14 oz.	2 lbs. 14 oz.	3 lbs. 1 oz.	3 lbs. 9 oz.	5 lbs. 5 oz.
Outdoor Coil	Net face area - sq. ft.	3.95	4.08	4.08	4.49	5.96	7.66	7.66
	Tube diameter - in.	1/4	1/4	3/8	3/8	1/4	1/4	5/16
	Number of rows	2	2	2	2	2	2	2
	Fins per inch	18	20	18	20	20	20	18
Outdoor Fan Motor	Diameter - in.	15-5/8	15-3/4	15-5/8	15-3/4	20-1/2	21-3/4	21-3/4
	No. of blades	3	3	3	3	3	3	3
	Cfm	1120	940	1120	940	1885	2355	2355
	Rpm	650/900	680/900	680/900	680/900	800	800	830
Shipping Data - lbs. Outdoor Unit		110	110	119	119	110	135	164

ELECTRICAL DATA

Line voltage data - 60 hz - 1ph	115V	208/230V	115V	208/230V	208/230V	208/230V	208/230V
² Max. overcurrent protection (amps)	35	15	40	15	20	25	30
³ Minimum circuit ampacity	22	10	23	10	13	16	20
Compressor Rated load amps	16	7.2	17.5	6.5	9.7	11	13.5
⁴ Compressor Power Input (W)	600	860	1200	860	1200	1420	2450
Outdoor Fan Motor Rated load amps	0.17	0.13	0.17	0.13	0.28	1.1	0.45
Outdoor Fan Motor Output (W)	40	30	40	30	60	90	90

MATCHING INDOOR UNIT

Indoor Unit Model No.		MS8-HI-09L	MS8-HI-09P	MS8-HI-12L	MS8-HI-12P	MS8-HI-18P	MS8-HI-24P	MS8-HI-30P
Connections (in.)	Small line o.d. - flare	1/4	1/4	1/4	1/4	1/4	1/4	1/4
	Large line o.d. - flare	3/8	3/8	3/8	3/8	1/2	5/8	5/8
Indoor Blower Air Volume (cfm)	Turbo	330	306	300	335	500	590	---
	High	295	277	275	277	459	470	705
	Medium	255	253	255	253	383	410	675
	Low	220	218	215	218	324	355	645
Indoor Blower RPM (Cooling/Heating)	Turbo	1260/1320	1260/1320	1260/1280	1330/1350	1500/1500	1500/1450	---
	High	1050/1200	1100/1200	1070/1050	1100/1170	1200/1250	1200/1150	1410/1410
	Medium	920/1100	950/1100	900/980	950/1050	1050/1150	1050/1020	1280/1280
	Low	730/950	750/950	730/920	750/950	900/1050	900/950	1200/1200
Indoor Coil	Net face area - sq. ft.	1.85	1.65	1.85	1.65	2.33	3.23	14.8
	Tube diameter - in.	1/4	1/4	1/4	1/4	1/4	1/4	1/4
	Number of rows	2	2	2	2	2	2	2
	Fins per inch	18	20	18	20	20	18	18
Indoor Blower	Diameter x Length - in.	3.6 x 25.4	3.6 x 25.4	3.6 x 25.4	3.6 x 25.4	3.9 x 28	3.9 x 30	4.25 x 20.5
	Type	Cross-flow	Cross-flow	Cross-flow	Cross-flow	Cross-flow	Cross-flow	Cross-flow
Shipping Data - lbs. Indoor Unit		37	37	37	37	38	47	60

ELECTRICAL DATA

Line voltage data - 60 hz - 1ph	115V	208/230V	115V	208/230V	208/230V	208/230V	208/230V
Rated Load Amps	0.38	0.20	0.38	0.20	0.32	0.24	0.40
Output (W)	20	20	20	20	20	60	40

NOTE - Extremes of operating range are plus 10% and minus 5% of line voltage.

¹ Refrigerant charge sufficient for 26 ft. of lineset.

² HACR type circuit breaker or fuse

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

⁴ Rated Input

OPTIONAL ACCESSORIES - ORDER SEPARATELY

Description	Catalog No.	Size				
		09	12	18	24	30
OUTDOOR UNIT						
Condenser Pad (18 x 36 x 2)	48X92	•	•	•	•	•
Disconnects	30 amp, fused, 1 ph	27P37	•	•	•	•
	60 amp, non-fused, 1 ph	27P39	•	•	•	•
Fuses	30A	83P75	•	•	•	•
	60A	83P77	•	•	•	•
Line Sets	1/4 in. x 3/8 in. x 50 ft.	X0258	•	•		
	1/4 in. x 1/2 in. x 25 ft.	90X52			•	
	1/4 in. x 1/2 in. x 50 ft.	X0259			•	
	1/4 in. x 5/8 in. x 25 ft.	90X51				•
	1/4 in. x 5/8 in. x 50 ft.	X0260				•
Male Flare Adaptor	5/16 in. quick connect x 1/4 in. MF	Y0576	•	•	•	•
Wall Brackets	30 inch	Y5020	•	•		
	36 inch	Y5021			•	•
Whips	10 Gauge - 1/2 in. x 6 ft.	29P54	•	•	•	•
	8 Gauge - 3/4 in. x 6 ft.	27P44	•	•	•	•
INDOOR UNIT						
Condensate Pump - ClearVue Mini™ - 7.9 US gallons per hour, 35 ft. lift - 120/240V	Y5170	•	•	•	•	•
Condensate Mini-Split Drain Line - 5/8 in. I.D. 160 ft.	Y3401	•	•	•	•	•
Indoor/Outdoor Wiring Cable - 14 Gauge, 4 conductor wire, THHN, 250 ft.	Y2067	•	•	•	•	•
Wireless Remote Control Holder	Y5073	•	•	•	•	•
INSTALLATION KIT						
Universal Mini-Split Installation Kit	Y3247	•	•	•	•	•
SPEEDICHANNEL™ SYSTEM						
SpeediChannel™ Starter Kit - 4 in.	Y3387	•	•	•	•	•
SpeediChannel - 4 in. x 6-1/2 ft.	Y3388	•	•	•	•	•
Union Coupling - 4 in.	Y3389	•	•	•	•	•
90° Flat Bend Elbow - 4 in.	Y3390	•	•	•	•	•
90° Inside Elbow - 4 in.	Y3391	•	•	•	•	•
45° Flat Bend Elbow - 4 in.	Y3392	•	•	•	•	•
Flex Joint - 4 in.	Y3393	•	•	•	•	•
T-Joint - 4 in.	Y3394	•	•	•	•	•
Duct End - 4 in.	Y3395	•	•	•	•	•
Flat Wall Escutcheon - 4 in.	Y3396	•	•	•	•	•
Wall Penetration Cover - 4 in.	Y3399	•	•	•	•	•
Mount Block (White) Qty, 2 - 14 in.	Y3397	•	•	•	•	•
Mount Block (White) Qty, 2 - 36 in.	Y3398	•	•	•	•	•

SYSTEM MATCHES - AIR CONDITIONERS

NOTE - For the latest up-to-date system matches please visit the AHRI web site at <http://www.ahridirectory.org>

Outdoor Model	Capacity	SEER	EER	Indoor Model	AHRI Reference
MS8-CO-09L	9000	22.00	14.20	MS8-CI-09L	5625426
MS8-CO-09P	9000	22.00	14.20	MS8-CI-09P	5625428
MS8-CO-12L	12,000	20.00	12.50	MS8-CI-12L	5625427
MS8-CO-12P	12,000	20.00	12.20	MS8-CI-12P	5625429
MS8-CO-18P	18,000	18.00	12.20	MS8-CI-18P	5625430
MS8-CO-24P	21,400	18.00	12.20	MS8-CI-24P	5625431

NOTE:

Ratings are AHRI certified to AHRI Standard 210/240; 95°F outdoor air temperature, 80°F db / 67°F wb entering evaporator air.

SYSTEM MATCHES - HEAT PUMPS

NOTE - For the latest up-to-date system matches please visit the AHRI web site at <http://www.ahridirectory.org>

Outdoor Model	Capacity	SEER	EER	Heat Capacity		HSPF Region IV	Indoor Model	AHRI Reference
				High	Low			
MS8-HO-09L	9000	22.00	14.20	9500	5400	9.80	MS8-HI-09L	5625419
MS8-HO-09P	9000	22.00	14.20	9800	5500	9.20	MS8-HI-09P	5625421
MS8-HO-12L	12,000	20.00	12.00	13,000	7500	9.60	MS8-HI-12L	5625420
MS8-HO-12P	12,000	20.00	12.00	13,000	7600	9.20	MS8-HI-12P	5625422
MS8-HO-18P	18,000	18.00	12.00	19,800	12,700	10.00	MS8-HI-18P	5625423
MS8-HO-24P	21,400	18.00	12.00	23,000	15,000	10.00	MS8-HI-24P	5625424
MS8-HO-30P	28,000	16.00	9.30	28,400	18,400	8.20	MS8-HI-30P	5625425

NOTES:

Ratings are AHRI certified to AHRI Standard 210/240;

- Cooling Ratings - 95°F outdoor air temperature and 80 °F db/67° F wb entering indoor coil air.
- High Temperature Heating Ratings - 47° F db/43° F wb outdoor air temperature and 70 °F db entering indoor coil air.
- Low Temperature Heating Ratings - 17 °F db/15° F wb outdoor air temperature and 70 °F db entering indoor coil air.

To convert HSPF from Region IV to Region V - Divide by 1.15.

INDOOR UNIT AIR THROW DATA

Indoor Unit	Effective Throw - ft.				
	09	12	18	24	30
Low Speed	18	19	25	23	17.7
Medium Speed	20	21	30	27	18.5
High Speed	23	25	32	30	19.3
Turbo Speed	N/A	N/A	35	37	N/A

SOUND DATA - OUTDOOR

Unit Type	Outdoor Unit Model No.	Sound Rating Number (dBA)	
		Pressure	Power
Air Conditioner	MS8-CI-09L	53	63
	MS8-CO-09P	50	60
	MS8-CO-12L	55	65
	MS8-CO-12P	52	62
	MS8-CO-18P	55	65
	MS8-CO-24P	56	66
Heat Pump	MS8-HO-09L	53	63
	MS8-HO-09P	50	60
	MS8-HO-12L	55	65
	MS8-HO-12P	52	62
	MS8-HO-18P	55	65
	MS8-HO-24P	56	66
	MS8-HO-30P	62	72

SOUND DATA - INDOOR

Unit Type	Indoor Unit Model No.	Sound Rating Number (dBA)					
		Low		Medium		High	
		Pressure	Power	Pressure	Power	Pressure	Power
Air Conditioner	MS8-CI-09L	26	36	30	40	34	44
	MS8-CI-09P	32	42	35	45	38	48
	MS8-CI-12L	26	36	32	42	36	46
	MS8-CI-12P	33	43	36	46	39	49
	MS8-CI-18P	35	45	40	50	44	54
	MS8-CI-24P	37	47	41	51	45	55
Heat Pump	MS8-HI-09L	26	36	30	40	34	44
	MS8-HI-09P	32	42	35	45	38	48
	MS8-HI-12L	26	36	32	42	36	46
	MS8-HI-12P	33	43	36	46	39	49
	MS8-HI-18P	35	45	40	50	44	54
	MS8-HI-24P	37	47	41	51	45	55
	MS8-HI-30P	48	58	54	64	57	67

RATINGS

MS8-CO-09L + MS8-CI-09L / MS8-HO-09L + MS8-HI-09L - COOLING CAPACITY - 115V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	62°F		67°F		72°F	
	Total	Sensible	Total	Sensible	Total	Sensible
25°F	11,210	8,336	12,138	8,779	12,952	9,337
35°F	10,973	8,326	11,705	8,540	12,264	8,868
45°F	10,429	8,029	11,179	8,282	11,946	8,668
55°F	10,044	7,770	10,713	8,039	11,468	8,376
65°F	9,691	7,560	10,672	8,100	11,300	8,286
75°F	9,300	7,279	10,053	7,725	10,794	7,959
85°F	8,938	7,102	9,587	7,396	10,404	7,767
95°F	8,506	6,774	9,139	7,299	9,978	7,504
105°F	8,035	6,515	8,643	6,908	9,415	7,200
115°F	7,573	6,248	8,028	6,514	8,573	6,725

MS8-HO-09L + MS8-HI-09L - HEATING CAPACITY - 115V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	65°F		70°F		75°F	
	Total	Sensible	Total	Sensible	Total	Sensible
5°F	8,238	8,238	7,880	7,880	7,628	7,628
15°F	8,925	8,925	8,238	8,238	8,230	8,230
25°F	9,438	9,438	9,630	9,630	9,558	9,558
35°F	10,910	10,910	11,391	11,391	10,888	10,888
45°F	12,356	12,356	12,241	12,941	12,385	12,385
55°F	13,367	13,367	13,115	13,115	12,595	12,595
65°F	13,349	13,349	13,202	13,202	12,855	12,855

MS8-CO-09P + MS8-CI-09P / MS8-HO-09P + MS8-HI-09P - COOLING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	62°F		67°F		72°F	
	Total	Sensible	Total	Sensible	Total	Sensible
25°F	11,213	8,338	12,141	8,781	12,956	9,345
35°F	10,976	8,328	11,708	8,542	12,267	8,873
45°F	10,432	8,033	11,187	8,284	11,949	8,672
55°F	10,049	7,772	10,716	8,041	11,471	8,378
65°F	9,694	7,562	10,675	8,102	11,303	8,289
75°F	9,305	7,281	10,056	7,727	10,797	7,961
85°F	8,940	7,104	9,590	7,398	10,407	7,769
95°F	8,508	6,776	9,142	7,301	9,981	7,506
105°F	8,038	6,518	8,648	6,910	9,419	7,202
115°F	7,577	6,250	8,031	6,519	8,579	6,720

MS8-HO-09P + MS8-HI-09P - HEATING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	65°F		70°F		75°F	
	Total	Sensible	Total	Sensible	Total	Sensible
5°F	8,321	8,321	7,960	7,960	7,705	7,705
15°F	9,015	9,015	8,321	8,321	8,313	8,313
25°F	9,533	9,533	9,727	9,727	9,655	9,655
35°F	11,020	11,020	11,506	11,506	10,998	10,998
45°F	12,481	12,481	12,365	13,072	12,510	12,510
55°F	13,502	13,502	13,247	13,247	12,722	12,722
65°F	13,484	13,484	13,335	13,335	12,985	12,985

RATINGS

MS8-CO-12L + MS8-CI-12L / MS8-HO-12L + MS8-HI-12L - COOLING CAPACITY - 115V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	62°F		67°F		72°F	
	Total	Sensible	Total	Sensible	Total	Sensible
25°F	14,981	11,106	16,191	11,696	17,276	12,450
35°F	14,647	11,087	15,552	11,358	16,340	11,791
45°F	13,917	10,684	14,882	11,030	15,944	11,541
55°F	13,400	10,345	14,280	10,706	15,306	11,189
65°F	12,940	10,051	14,254	10,796	15,106	11,047
75°F	12,437	9,705	13,403	10,287	14,394	10,623
85°F	11,950	9,450	12,808	9,893	13,859	10,391
95°F	11,330	9,056	12,192	9,704	13,298	9,987
105°F	10,705	8,692	11,547	9,185	12,517	9,617
115°F	10,080	8,343	10,722	8,684	11,435	8,928

MS8-HO-12L + MS8-HI-12L - HEATING CAPACITY - 115V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	65°F		70°F		75°F	
	Total	Sensible	Total	Sensible	Total	Sensible
5°F	9,129	9,129	8,576	8,576	8,352	8,352
15°F	11,482	11,482	10,858	10,858	10,513	10,513
25°F	11,727	11,727	11,566	11,566	11,361	11,361
35°F	12,747	12,747	12,516	12,516	12,410	12,410
45°F	14,053	14,053	13,849	13,849	13,411	13,411
55°F	14,368	14,368	14,103	14,103	13,987	13,987
65°F	14,314	14,314	14,231	14,231	14,131	14,131

MS8-CO-12P + MS8-CI-12P / MS8-HO-12P + MS8-HI-12P - COOLING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	62°F		67°F		72°F	
	Total	Sensible	Total	Sensible	Total	Sensible
25°F	14,898	11,045	16,102	11,631	17,181	12,381
35°F	14,566	11,026	15,466	11,295	16,250	11,726
45°F	13,840	10,625	14,800	10,969	15,856	11,477
55°F	13,326	10,288	14,201	10,647	15,221	11,127
65°F	12,869	9,995	14,175	10,736	15,023	10,986
75°F	12,368	9,651	13,329	10,230	14,314	10,564
85°F	11,884	9,398	12,737	9,838	13,782	10,334
95°F	11,267	9,006	12,125	9,650	13,225	9,932
105°F	10,646	8,644	11,483	9,134	12,448	9,564
115°F	10,024	8,297	10,663	8,636	11,372	8,879

MS8-HO-12P + MS8-HI-12P - HEATING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	65°F		70°F		75°F	
	Total	Sensible	Total	Sensible	Total	Sensible
5°F	9,267	9,267	8,706	8,706	8,478	8,478
15°F	11,656	11,656	11,023	11,023	10,672	10,672
25°F	11,904	11,904	11,741	11,741	11,533	11,533
35°F	12,940	12,940	12,705	12,705	12,598	12,598
45°F	14,266	14,266	14,059	14,059	13,614	13,614
55°F	14,586	14,586	14,316	14,316	14,199	14,199
65°F	14,531	14,531	14,447	14,447	14,345	14,345

RATINGS

MS8-CO-18P + MS8-CI-18P / MS8-HO-18P + MS8-HI-18P - COOLING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	62°F		67°F		72°F	
	Total	Sensible	Total	Sensible	Total	Sensible
25°F	23,703	17,600	25,592	18,529	27,357	19,697
35°F	22,942	17,411	24,407	17,817	25,592	18,503
45°F	21,626	16,608	23,077	17,123	24,725	17,926
55°F	20,622	15,961	21,943	16,457	23,523	17,172
65°F	19,724	15,325	21,655	16,436	22,962	16,785
75°F	18,770	14,678	20,179	15,518	21,905	16,166
85°F	17,846	14,170	19,080	14,730	20,906	15,617
95°F	16,776	13,404	18,000	14,382	19,872	14,924
105°F	15,891	12,903	17,078	13,629	18,730	14,385
115°F	15,002	12,362	15,873	12,857	17,114	13,400

MS8-HO-18P + MS8-HI-18P - HEATING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	65°F		70°F		75°F	
	Total	Sensible	Total	Sensible	Total	Sensible
5°F	16,358	16,358	15,438	15,438	15,060	15,060
15°F	17,485	17,485	15,952	15,952	15,856	15,856
25°F	18,552	18,552	17,608	17,608	16,606	16,606
35°F	19,588	19,588	18,130	18,130	17,369	17,369
45°F	20,611	20,611	19,912	19,912	18,706	18,706
55°F	20,639	20,639	20,042	20,042	19,165	19,165
65°F	20,541	20,541	20,241	20,241	19,617	19,617

MS8-CO-24P + MS8-CI-24P / MS8-HO-24P + MS8-HI-24P - COOLING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	62°F		67°F		72°F	
	Total	Sensible	Total	Sensible	Total	Sensible
25°F	28,180	20,924	30,426	22,029	32,525	23,418
35°F	27,276	20,699	29,017	21,183	30,426	21,998
45°F	25,711	19,746	27,436	20,358	29,396	21,312
55°F	24,517	18,976	26,088	19,566	27,967	20,416
65°F	23,449	18,220	25,745	19,540	27,299	19,955
75°F	22,316	17,451	23,991	18,449	26,043	19,220
85°F	21,217	16,846	22,684	17,512	24,855	18,567
95°F	19,945	15,936	21,400	17,099	23,626	17,743
105°F	18,892	15,341	20,304	16,203	22,268	17,102
115°F	17,836	14,697	18,871	15,285	20,346	15,931

MS8-HO-24P + MS8-HI-24P - HEATING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	65°F		70°F		75°F	
	Total	Sensible	Total	Sensible	Total	Sensible
5°F	20,177	20,177	19,042	19,042	18,576	18,576
15°F	21,567	21,567	19,676	19,676	19,558	19,558
25°F	22,883	22,883	21,720	21,720	20,484	20,484
35°F	24,161	24,161	22,363	22,363	21,425	21,425
45°F	25,423	25,423	24,561	24,561	23,073	23,073
55°F	25,457	25,457	24,721	24,721	23,640	23,640
65°F	25,337	25,337	24,966	24,966	24,197	24,197

RATINGS

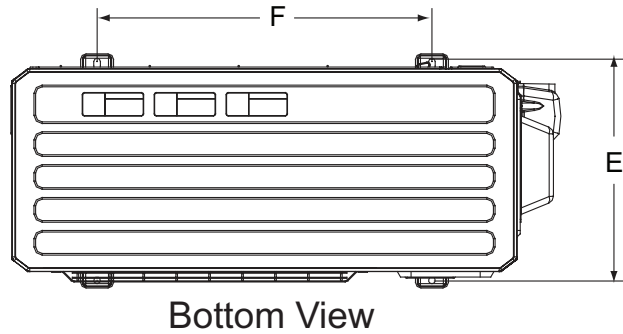
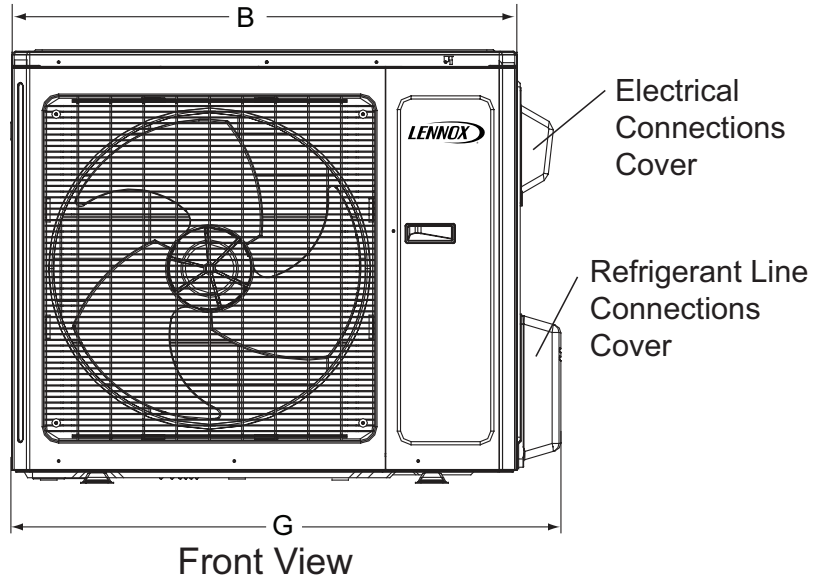
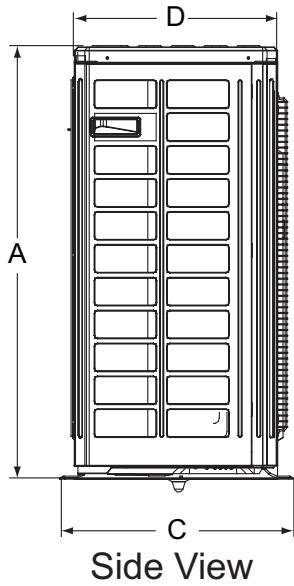
MS8-HO-30P + MS8-HI-30P - COOLING CAPACITY - 208/230V-1PH

Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	62°F		67°F		72°F	
	Total	Sensible	Total	Sensible	Total	Sensible
25°F	33,458	22,145	34,789	22,987	36,247	23,697
35°F	32,149	21,459	33,987	22,358	35,781	23,154
45°F	31,268	21,136	32,147	22,135	35,147	22,145
55°F	30,214	20,789	31,569	21,458	34,157	21,897
65°F	29,164	20,256	31,128	21,597	33,987	21,135
75°F	28,157	20,174	30,224	21,154	33,129	20,984
85°F	27,489	19,247	29,157	20,147	32,167	20,794
95°F	26,472	18,457	28,504	19,356	31,875	20,148
105°F	26,235	18,324	28,126	19,123	30,247	19,546
115°F	25,478	17,952	27,268	18,137	28,159	18,957

MS8-HO-30P + MS8-HI-30P - HEATING CAPACITY - 208/230V-1PH

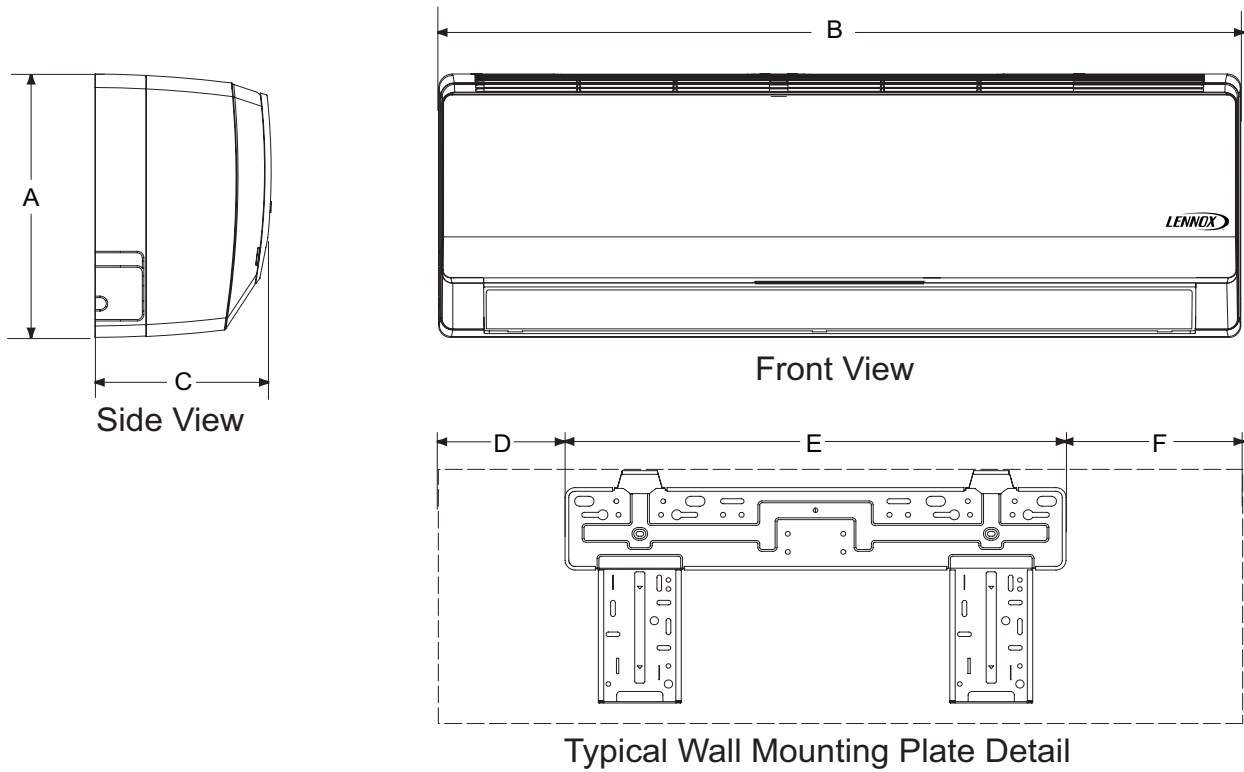
Outdoor Temperature °F (DB)	Indoor Entering Air Temperature					
	65°F		70°F		75°F	
	Total	Sensible	Total	Sensible	Total	Sensible
5°F	25,445	25,445	24,578	24,578	22,658	22,658
15°F	27,589	27,589	25,147	25,147	23,547	23,547
25°F	29,547	29,547	27,458	27,458	24,789	24,789
35°F	30,254	30,254	28,154	28,154	26,145	26,145
45°F	31,257	31,257	30,122	30,122	29,867	29,867
55°F	32,589	32,589	31,472	31,472	30,214	30,214
65°F	33,438	33,438	31,892	31,892	31,112	31,112

DIMENSIONS - OUTDOOR UNITS - INCHES (MM)



Model No.	A		B		C		D		E		F		G	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
-09, -012L	21-1/4	540	30	762	12-5/8	320	10	254	11-1/4	286	21-1/4	540	33-3/8	848
-12P	23-1/4	591	30	762	12-5/8	320	10	254	11-1/4	286	21-1/4	540	33-3/8	848
-18	27-5/8	702	35	890	15-5/8	397	13-3/8	340	14-1/2	368	22	560	37-1/2	955
-24, -30	31-1/8	790	36	914	16-7/8	427	14-5/8	371	15-3/4	399	24	610	38-5/8	981

DIMENSIONS - INDOOR UNITS - INCHES (MM)



Model No.	A		B		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
-09	10-7/8	275	33-3/8	848	7	180	5-1/8	130	21-3/8	542	6-7/8	175
-12	10-7/8	275	33-3/8	848	7	180	5-1/8	130	21-3/8	542	6-7/8	175
-18	11-3/4	298	37	940	8	203	2	51	27	685	8	203
-24	12-3/8	315	39-3/4	1008	8-5/8	219	5-1/2	140	27	685	7-1/4	184
-30	12-7/8	326	53-1/8	1349	10	253	10	253	29-3/8	746	13-7/8	351

INSTALLATION CLEARANCES - INCHES (MM)

OUTDOOR UNITS	In.	mm
Left Side	12	305
Right Side	12	305
Front	48	1219
Rear	12	305
Top	24	510
INDOOR UNITS	In.	mm
Left Side	6	152
Right Side	6	152
Top	6	152
Bottom	72	1829

NOTES:

If outdoor unit is mounted on a flat rooftop allow a minimum of 4 in. (102 mm) above the roof surface.

Locate the unit above a load bearing wall or area of the roof that can adequately support the unit. Consult local codes for rooftop applications.

REVISIONS

Sections	Description of Change
Features	Approvals - Meets 2014 Florida Building Code Wind Design Criteria.



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