# **MINI-SPLIT SYSTEMS**



**Mini-Split** Single Zone Ductless Heat Pump Systems - R-410A - 60 Hz

RESIDENTIAL / COMMERCIAL **PRODUCT SPECIFICATIONS** 

Bulletin No. 210901 August 2019

**MHA** 



Wireless **Remote Control** (furnished with Wall-Mount Model)

TMER

LENNOX

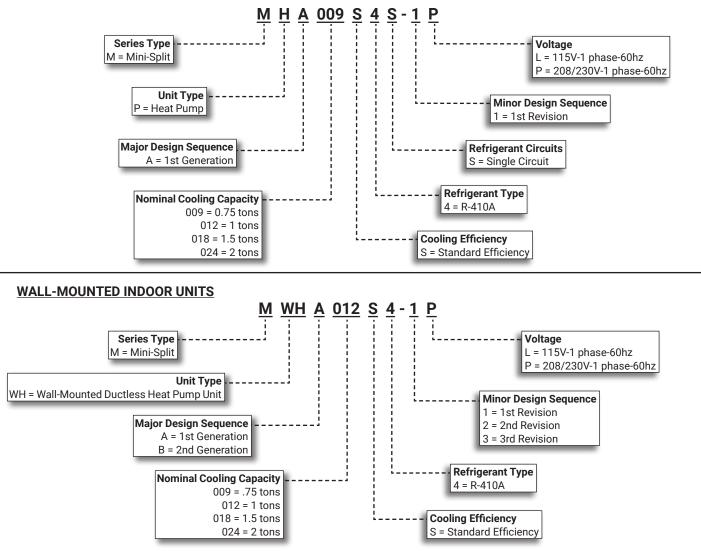


**MHA Outdoor Air Heat Pump Unit** 

> SEER up to 19.00 HSPF up to 10.0 0.75 to 2 Tons Cooling Capacity - 9,000 to 24,000 Btuh Heating Capacity - 9,000 to 24,000 Btuh

#### MODEL NUMBER IDENTIFICATION

#### **OUTDOOR SINGLE ZONE AIR CONDITIONING UNITS**



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# APPROVALS AND WARRANTY

#### **APPROVALS**

- AHRI Standard 210/240 certified with Addenda 1 and 2
- Rated According to U.S. Department of Energy (DOE) test procedures
- Indoor and outdoor units and components UL aned CEC bonded for grounding to meet safety standards for servicing
- ETL certified for the U.S. and Canada
- 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

#### WARRANTY

- · Compressor Limited seven years
- · All other covered components Limited five years

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

#### **FEATURES**

#### APPLICATIONS

- SEER Up to 19.00
- HSPF Up to 10.0
- 0.75 through 2 ton
- Single phase power supply 208/230V (all models)
- 115V (009-012 models only)
- Outdoor unit sound levels as low as 52 dBA
- · Indoor unit sound levels as low as 24 dBA
- 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
- 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
- **NOTE** Outdoor unit is designed for outdoor use.

#### **REFRIGERATION SYSTEM**

#### R-410A Refrigerant

- Non-chlorine, ozone friendly
- Unit is factory pre-charged

#### 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 3-way service valve (with service port) may be accessed to manage refrigerant charge while servicing system

#### COMPRESSOR

#### Variable Frequency Rotary Compressor

- 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

• Protects against liquid refrigerant migration that can occur during low ambient operation

#### CONTROLS

#### DC Inverter Control

- Provides continuous operation, while adjusting capacity according to room temperature
- The accurate sensing of cooling loads prevents frequent changes in capacity and ensures efficient, economical operation

#### Inverter Module Protection

- Protects against differences in current, voltage and temperature
- Displays code on the indoor unit indicating a need for servicing

#### Outdoor Unit Microprocessor

- Electronic expansion valve control
- Automatic compressor timed-off protection (3 minutes)
- Temperature sensor
- LEDs on control display error codes and assist in troubleshooting
- · 4-Way reversing valve control

#### **FEATURES**

#### **REFRIGERATION SYSTEM (continued)**

#### Capillary Tube Refrigerant Metering

- Refrigerant metering device consisting of small diameter tubes feeding liquid refrigerant into the evaporator coil
- Furnished on all units

#### Check Valve

- Bypasses refrigerant during the reverse heating cycle
- 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

#### **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

#### Voltage Protection

Protects unit from low or high voltage fluctuations

#### **Terminal Strip**

· Furnished for easy wiring connections

#### **Defrost Control**

- Defrost cycle is automatically enabled if there is a buildup of frost on the outdoor coil
- Outdoor fan and indoor blower operation is terminated during the defrost cycle
- Defrost LED is lit on the indoor unit panel on the front cover during a defrost cycle

#### **Reversing Valve**

- Rapid changeover of refrigerant flow direction from cooling to heating and vice versa
- Operates on pressure differential between outdoor unit and indoor unit

#### **CABINET**

- Constructed of heavy gauge steel
- · Tabs on unit base allow secure mounting to slab
- Condensate drain outlets furnished on unit base
- **NOTE** Drain must be field furnished.
- Access cover for power and control wiring connections
- Access cover for service valves

#### WALL-MOUNTED INDOOR UNITS

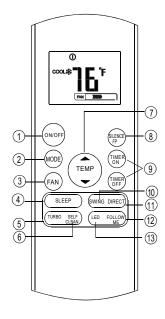
LENNOX	

- Low-sound, three-speed Wall Mount with LED display offers three access points for refrigerant outlet pipes: left, right or rear
- The front panel can be raised for accessible wiring and maintenance
- Swing louver angles to 90°
- · Unit installs horizontally on a vertical wall
- **Pre-Heat Function** Delays the operation of the fan until the indoor coil has reached a pre-determined temperature which prevents the discharge of cold air while the system is operating in the "heating" mode
- LED Readout Mounted on unit. LED displays unit operation status, and codes for maintenance and servicing
- Auto Restart Automatically restores the previous function setting if power is interrupted
- Cooling Override Button on the indoor unit allows a temporary 30 minute override of the system for forced "AUTO" or "COOLING" operation
- Flare Connections Equipped with liquid and gas flare fittings for quick and secure piping
- Multi-Refrigerant Outlet Allows left, right, or rear access for refrigeration line connection
- Three Speed Fan Fan functions at three speeds: low, medium and high
- · Air Filter Cleanable air filter is furnished as standard

# FEATURES

#### WIRELESS REMOTE CONTROLLER

- Furnished with Indoor Unit
- Complete remote control of system
- Maximum operating range is 25 ft.
- Operates on two AAA 1.5V batteries (furnished)
- Wireless remote controller holder furnished
- Holder can be mounted on a wall for easy access
- Mounting screws furnished



# **ON/OFF Button**

Turns system on and off

#### MODE Button

- Select system operation modes
- Push button to cycle through each setting

r→ AUTO ---> COOL---> DRY---> HEAT --> FAN ◀

#### 3 FAN Button

- Select fan speed
- Push button to cycle through each setting

 $AUTO \rightarrow LOW \rightarrow MED \rightarrow HIGH$ 

**NOTE** - Not available in AUTO or DRY modes.

#### 4 SLEEP Button

- Enables the system to automatically increase cooling or decrease heating (in 2°F increments) per hour for the first 2 hours, then maintain a steady temperature for 5 hours
- System reverts back to previous operation mode after 7 total hours of operation
- NOTE To cancel, push the "MODE", "FAN SPEED" or "ON/ OFF" buttons.
- **NOTE** SLEEP mode is only available when the unit is in COOL, HEAT or AUTO mode.



• Enables the unit to reach the preset temperature during cooling or heating operation in the shortest time



Automatically cleans and dries the evaporator coil at the end of the cooling season, preventing any odors or mildew



 Increase or decrease the indoor temperature in one degree increments (maximum 86°F, minimum 62°F)

**NOTE** - Temperature cannot be adjusted in FAN mode.

**NOTE** - Press and hold and buttons together for 3 seconds to alternate the temperature display between the °C and °F scale.

#### 8 SILENCE/FP Button

- Silence Operates the compressor at low frequency and low fan speed to reduce operating sound levels to a minimum
- FP Only available during heating operation. Unit will operate at a set temperature of 46°F
- NOTE To cancel, push the "ON/OFF", "SLEEP", "FP", "MODE", "FAN SPEED", "UP/DOWN" buttons.

#### 9 TIMER ON / TIMER OFF Buttons

- TIMER ON (initiates an auto-on time sequence)
- TIMER OFF (initiates an auto-off time sequence)
- Can be used separately or together
- Each press of the button increases the time in 30 minute increments up to 10 hours
- Above 10 hours each press of the button will increase the auto-timed setting by 60 minutes up to 24 hours
- NOTE To cancel, set timer to 0.0 or turn remote off and on

#### **(II)** SWING Button

· Used to stop or start horizontal louver auto swing feature

#### DIRECT Button

- Used to change the louver movement and set the desired up/down air flow direction
- The louver angle changes 6° for each press of the button

#### 12 FOLLOW ME Button

 Allows remote temperature sensing of the room at the remote controller location

#### **13** LED Button

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

#### WIRELESS REMOTE CONTROLLER OPERATION

C C F	ON OFF AUTO ON SET TEMP. COOL OFF <pcool off<="" p=""> COOL OFF <pcool off<="" p=""> COOL OFF <pcool o<="" th=""></pcool></pcool></pcool>
AUTO ( HEAT	COOL 🛠 DRY 🌢
<b>?</b> □	Displayed when data transmitted. Displayed when remote controller is ON. Battery display (low battery detection)
ON	Displayed when TIMER ON time is set.
	Displayed when TIMER OFF time is set.
<b>8.8</b> %	Show set temperature or room temperature, or time under TIMER setting.
ど	Displayed in Sleep Mode operation.
0	Indicated that the air conditioner is operating in Follow me mode
Fan sp	beed indication
FAN	Low speed
FAN	Medium speed
FAN	High speed
FAN	Auto fan speed

Note - During unit operation only the active functions will be shown on the display.

#### Auto Operation

- 1. Press the MODE button to select Auto.
- 2. Press the **UP/DOWN** button to set the desired temperature.
- 3. Press the **ON/OFF** button to start the air conditioner.

#### Cooling /Heating/Fan Operation

- 1. Press the MODE button to select COOL, HEAT or FAN mode.
- 2. Press the **UP/DOWN** buttons to set the desired temperature.
- 3. Press the **FAN** button to select the fan speed in four steps- Auto, Low, Med,or High.
- 4. Press the **ON/OFF** button to start the air conditioner.

#### **Dehumidifying Operation**

- 1. Press the **MODE** button to select **DRY** mode.
- 2. Press the **UP/DOWN** buttons to set the desired temperature.
- 3. Press the ON/OFF button to start the air conditioner.

#### Timer ON/OFF Operation

- 1. Press the **TIMER ON** or **TIMER OFF** button. The remote controller shows TIMER ON or TIMER OFF icon, the previous Auto-on time setting and the signal "H" will be shown on the LCD display area.
- 2. Push the TIMER ON or TIMER OFF button again to set desired time. Each time you press the button, the time increases by 30 minutes between 0 and 10 hours and by 60 minutes between 10 and 24 hours.
- 3. After setting the **TIMER ON** or **TIMER OFF** there will be a one second delay before the remote controller transmits the signal to the unit. After approximately 2 seconds, the signal "H" will disappear and the set temperature will re-appear on the LCD display window.

# **OPTIONAL ACCESORIES - ORDER SEPARATELY**

#### WIRED PROGRAMMABLE CONTROLLER

#### M0STAT64Q-1



- Wired programmable local controller for mini-split indoor units with convenient timed schedules for daily operation
- Up to 8 events per day
- · Schedule start time, mode, setpoint, and fan speed
- · Compatible with all indoor units
- Copy/paste function for easy duplication of events to other days
- Built-in system diagnostics
- Large, back-lit, easy-to-read LCD screen with digital display

#### BUTTONS AND FUNCTIONS

#### **POWER Button**

Turn system on and off

#### FAN SPEED Button

Scroll through fan speeds (Auto - Low - Med - High)

#### MODE Button

 Use + and – buttons to scroll through available operation modes (Auto / Cool / Dry / Fan / Heat)

#### PLUS (+) and MINUS (-) Buttons

- Setpoint adjustment (62-86°F)
- · Select days of the week when setting a schedule
- Select mode of operation

#### SWING Button

- Stop or start horizontal (up/down) louver auto swing
- Controls swing oscillation and louver angle in 6° increments

#### TIMER Button

- Sets current time of day (24 hour clock)
- Setup weekly schedules or to setup timed operation for the indoor unit
- Stop/Stop timed operation

#### DAY OFF / DEL Button

- Disable specific days/schedules of the week
- Delete a specific event

#### **CONFIRM Button**

Confirms each step when managing schedules

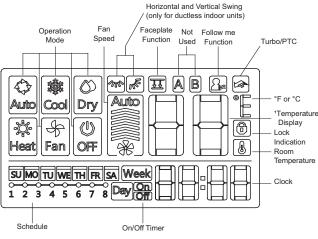
#### BACK/TURBO Button

• Turbo sets indoor unit fan speed to high for a factory-set time period

#### COPY/FOLLOW ME Button

• Toggles between room temperature sensing from the indoor unit or the controller

#### **DISPLAY**





- Audible tone when a button is pressed (can be disabled)
- · Lock function disables buttons to prevents tampering
- Controller uses 4-wire shielded 20 ft. (6 m) cable (furnished) for easy low voltage connection to the indoor unit
- Adaptor cables are furnished for various indoor unit connections
- **NOTE** Cable for longer lengths must be ordered separately.
- NOTE Maximum cable length is 164 ft. (50 m).
- · Hardware for mounting furnished
- Mounts to standard electrical junction box (not furnished)
- Lithium battery furnished
- Power Supply: 5 VDC
- Dimensions (H x W x D): 4-7/8 x 4-3/4 x 3/4 in. (124 x 121 x 19 mm)

#### OPTIONAL ACCESSORIES

#### Extension Cable for Wired Programmable Controller

- 20 ft. cable for easy low voltage connection to the indoor unit
- Extends cable to 40 ft. (12 m) length

# **OPTIONAL ACCESORIES - ORDER SEPARATELY**

#### WIRED NON-PROGRAMMABLE CONTROLLER

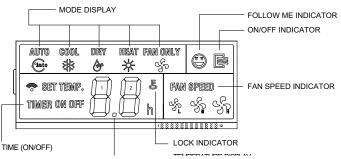
#### M0STAT61Q-1



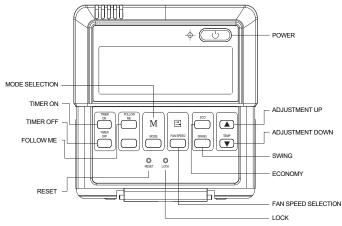
- Permanent Memory Maintains clock, fan speed and mode of operation settings following power outages
- Dimensions (H x W x D) 4-3/4 x 4-3/4 x 7/8 in.
- · Additional hardware is furnished for installation
- Controller uses 5-wire shielded 20 ft. (6 m) cable (furnished) for easy low voltage connection to the indoor unit

NOTE - Maximum cable length is 40 ft. (12 m).

#### **DISPLAY**



#### **BUTTONS AND FUNCTIONS**



#### MODE Button

• Select system operation modes. Push button to cycle through each setting

→ AUTO ---> COOL---> DRY---> HEAT --> FAN ◆

#### POWER Button

Turns system on and off

#### Fan Speed Button

• Selects fan speed. Each button press cycles through the following settings on display



NOTE - Not available in AUTO mode.

#### TIMER ON / TIMER OFF Buttons

- TIMER ON (initiates an auto-on time sequence)
- TIMER OFF (initiates an auto-off time sequence)
- · Can be used separately or together
- Each press of the button increases the time in 30 minute increments up to 10 hours
- Above 10 hours each press of the button will increase the auto-timed setting by 60 minutes up to 24 hours

NOTE - To cancel, set timer to 0.0.

#### UP / DOWN Buttons 📥 🕶

- Increase or decrease the indoor temperature in two degree increments (maximum 88°F, minimum 62°F)
- **NOTE** Temperature cannot be adjusted in FAN mode.
- **NOTE** Press and hold and buttons together for 3 seconds to alternate the temperature display between the °C and °F scale.

#### SWING Button

Used to stop or start horizontal louver auto swing feature

#### **ECONOMY Button**

Maintains the most comfortable temperature and saves energy

#### **RESET Button (Recessed)**

• Resets Controller to factory settings. Recessed to prevent tampering.

#### LOCK Button (Recessed)

• Locks Controller buttons to prevent tampering with settings.

#### OPTIONAL ACCESSORIES

#### Extension Cable for Wired Remote Controller

- 20 ft. cable for easy low voltage connection to the indoor unit
- Extends cable to maximum 40 ft. (12 m) length

# **OPTIONAL ACCESORIES - ORDER SEPARATELY**

#### OUTDOOR UNITS

#### **Condenser Pad**

- · Provides permanent foundation for outdoor units
- One-piece lightweight structural foam and molded from high-density polyethylene (HDPE)
- · Lightweight, easy to carry and install
- Textured finish provides a non-skid surface so 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

#### Hail Guards

- Protects outdoor coils on all sides without inhibiting airflow or performance
- · Self-tapping screws provided for installation
- Flat shape allows for outdoor units to be placed close together
- · Each kit contains all required guards
- Order one hail guard kit per outdoor unit module

#### 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

#### **INDOOR UNITS**

#### **Condensate Pumps**

- Quietly and efficiently removes condensate
- See Optional Accessories Table for available pumps

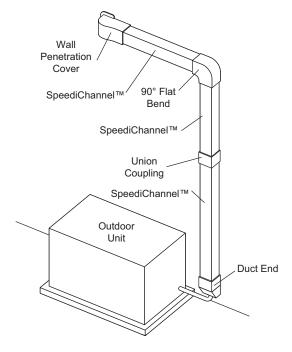
#### A/C Easy Tee® Condensate Cleanout

- Condensate drain service port
- · Flexible and easy to use with nitrogen, water or shop vac
- Screw cap on top allows easy access to condensate drain line

#### SPEEDICHANNEL<sup>™</sup> SYSTEM



- SpeediChannel<sup>™</sup> is a channel system covers system line sets
- Two-part system has a base and a cover
- Base is fastened to a wall or ceiling with plastic clips (SpeediClip<sup>™</sup>) that snap into a channel already molded into the base
- Cover fits on top of the base
- Manufactured from rigid PVC, which is UL rated and resistant to UV light
- System is a natural color that closely matches typical mini-split outdoor units
- Can be painted as desired to match any wall color
   Typical Application



#### SPEEDICHANNEL<sup>™</sup> SYSTEM (continued)

#### SpeediChannel<sup>™</sup> Starter Kit

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

#### Duct End

 Duct Ends are used to terminate a run of SpeediChannel<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup>

#### Flex Joint

- A Flex Joint is an accordion-style piece of SpeediChannel<sup>™</sup>
- The flex joint can be extremely flexible when routing a SpeediChannel<sup>™</sup> 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<sup>™</sup> system

#### T-Joint

 T-Joints are used for creating a tee connection between three pieces of SpeediChannel<sup>™</sup>



 Each tee is individually packed and furnished with stainless steel screws

#### Union Coupling

- Union Couplings are used for joining two pieces of SpeediChannel<sup>™</sup>
- Each coupling is individually packed and furnished with stainless steel screws





#### Wall Penetration Cover

 Wall penetration covers are used to transition from the SpeediChannel<sup>™</sup> 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

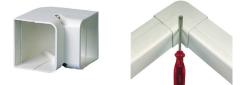
- 45° Flat Bends are used to route the SpeediChannel<sup>™</sup> around obstacles
- Each bend is individually packed and furnished with stainless steel screws





#### 90° Inside Elbow

- 90° Inside Elbows are used to route the SpeediChannel<sup>™</sup> 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
- nstallation temperatures range from -4°F to 140°F
- Mount blocks fit all mini-split outdoor units with a sliding rail feature

Outdoor Unit Mo	del No.		MHAC	09S4S	MHA0	12S4S	MHA018S4S	MHA024S4S
Nominal Size - T	ons		0	.75		1	1.5	2
Ambient Temper	ature	Cooling	5 -	122	5 -	122	5 - 122	5 - 122
Operating Range	e - °F	Heating	5 -	- 86	5 -	86	5 - 86	5 - 86
Sound Data (dB)	A)		ţ	52	5	55	57.5	58
Refrigerant (R-4	10A)	Charge furnished	1 lb.	14 oz.	1 lb.	14 oz.	2 lbs. 12 oz.	3 lbs. 15 oz.
Maximum line l	ength w	ith furnished charge - ft.	2	25	2	25	25	25
Additio	onal cha	rge required per ft oz.	0	.16	0.	16	0.16	0.32
Compressor		No. and Type	(1) F	Rotary	(1) F	Rotary	(1) Rotary	(1) Rotary
		Refrigerant oil type		er Oil G74		er Oil 974	Ester Oil VG74	Ester Oil VG74
	Re	frigerant oil charge - oz.	1	0.5	1(	0.5	14.9	22.7
Connections - in		Liquid/Gas pipe (flare)	1/4	- 3/8	1/4	- 1/2	1/4 - 1/2	3/8 - 5/8
Maxi	mum re	frigerant pipe length - ft.	8	32	8	32	98	98
Max. diffe	erence i	n level of indoor unit - ft.	:	33	3	33	66	66
Outdoor		(No.) Diameter - in.	(1) 1	6-3/4	(1) 1	6-7/8	(1) 16-7/8	(1) 19-1/4
Fan		Total air volume - cfm	11	175	11	75	1175	1825
		rpm	850	/ 650	800 / 7	50 (115V) 50 / 650 230V)	800 / 750 / 650	800 / 750 / 650
Outdoor Coil		Number of rows		1		1	2	2
		Fins per inch	2	21	2	21	21	21
		Fin type			Hy	/drophilic al	uminium	
	Tul	be outside diameter - in.	1	/4	1	/4	1/4	1/4
		Tube type			F	Rifled coppe	r tubing	
		Net face area - ft. <sup>2</sup>	4	.04	4.	72	4.67	5.12
		Application area - ft. <sup>2</sup>	129	- 189	172	- 252	251 - 368	330 - 484
Design Pressure	)	PSIG	550	/ 340	550	/ 340	550 / 340	550 / 340
	let/Shipp	oing weight (lbs.) (115V)	67	/ 72	71	/ 77		
Data		(208/230V)	67	/ 72	67	/ 73	80 / 86	106 / 113
ELECTRICAL DA	ATA	· · · · · · · · · · · · · · · · · · ·		·		·		
Electrical Chara	cteristic	s - 60 Hz - 1 Phase	115V	208/230V	115V	208/230V	208/230V	208/230V
<sup>1</sup> Maximum	n Overcu	urrent Protection (amps)	20	15	20	15	20	25
	<sup>2</sup> M	inimum circuit ampacity	16	10	15	15	15	20
	Comp	ressor Rated load amps	11.5	6.4	10.1	6.8	10.0	15.0
Outdoor Fan		Rated load amps	0.6	0.5	0.55	0.45	0.5	0.6
Motor		Output - W	34	34	34	34	34	115

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

<sup>1</sup> HACR type circuit breaker or fuse.

<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

#### **SPECIFICATIONS - WALL-MOUNTED INDOOR UNITS**

009-012

Indoor Unit Model No.		MWHA	00954	MWHA	<b>012S4</b>
Nominal Size - Tons		0.	75		1
Power Supply - 60 hz - 1	phase	115V	208/230V	115V	208/230V
Rated load	d amps	0.7	0.06	0.7	0.06
Outp	out (W)	20	20	20	20
Room Temperature Range (°F)	Cooling	62 - 90	62 - 90	62 - 90	62 - 90
F	leating	32 - 86	32 - 86	32 - 86	32 - 86
Air Volume - cfm (High/Mediur	m/Low)	247 / 182 / 129	309 / 285 / 187	294 / 212 / 171	324 / 282 / 212
Sound Data (dBA) - Low/Mediu	m/High	38 / 32 / 25	38 / 32 / 25	38 / 30 / 28	38 / 32 / 24
Piping Connections - Liquid/Gas - o.d fla	are - in.	1/4 / 3/8	1/4 / 3/8	1/4 / 1/2	1/4 / 1/2
Drain connection o	.d in.	1	1	1	1
Net/Shipping weight	s - Ibs.	18 / 23	18 / 23	19 / 25	19 / 25
SPECIFICATIONS - WALL-MO	оинт	ED INDOOR UI	NITS		018-024

Indoor Unit Model No.	MWHA018S4	MWHA024S4
Nominal Size - Tons	1.5	2
Power Supply - 60 hz - 1 phas	e 208/230V	208/230V
Rated load amp	s 0.11	0.37
Output (W	30	60
Room Temperature Range (°F) Coolin	g 62 - 90	62 - 90
Heatin	g 32 - 86	32 - 86
Air Volume - cfm (High/Medium/Lov	) 449 / 393 / 262	706 / 588 / 450
Sound Data (dBA) - Low/Medium/Hig	n 43 /35 / 30.5	48 / 42.5 / 34
Piping Connections - Liquid/Gas - o.d flare - in	. 1/4 / 1/2	3/8 / 5/8
Drain connection o.d ir	. 1	1
Net/Shipping weights - Ibs	25 / 33	31 / 40

# **AHRI SYSTEM MATCHES**

Indoor Unit Typo	Quide or Unit	Indoor Unit	Cooling	eeed	EER	Heat Cap	acity	HSPF	AHRI
Indoor Unit Type	Outdoor Onit	indoor Unit	Capacity	SEEK	EEK	High	Low	(IV)	Reference
Wall-Mounted	MHA009S4S-1L	MWHA009S4-1L	9000	19	11.5	10,000	6000	10	204014488
Non-Ducted	MHA009S4S-1P	MWHA009S4-1P	9000	18	11	9000	6000	9.5	204014490
	MHA012S4S-1L	MWHA012S4-1L	12,000	19	10.5	12,000	7500	9.5	204014489
	MHA012S4S-1P	MWHA012S4-1P	12,000	19	11	12,000	6800	9.5	204014491
	MHA018S4S-1P	MWHA018S4-1P	18,000	19	11	18,000	11,000	10	204014492
	MHA024S4S-1P	MWHA024S4-1P	24,000	17	9.5	24,000	14,400	9.5	204014493

Ratings are AHRI certified to AHRI Standard 210/240 with Addenda 1 and 2;

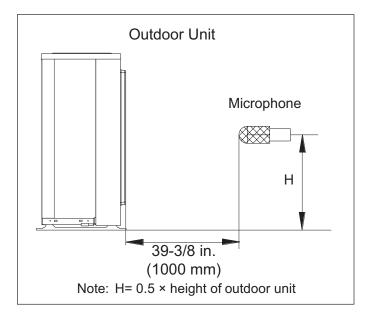
Cooling Ratings - 80°F dry bulb/67°F wet bulb entering indoor coil air and 95°F wet bulb/75°F dry bulb outdoor air temperature.
High Temperature Heating Ratings - 70°F dry bulb/60°F wet bulb entering indoor coil air and 47°F dry bulb/43°F wet bulb outdoor air temperature.
Low Temperature Heating Ratings - 70°F dry bulb/60°F wet bulb entering indoor coil air and 17°F dry bulb/15°F wet bulb outdoor air temperature.

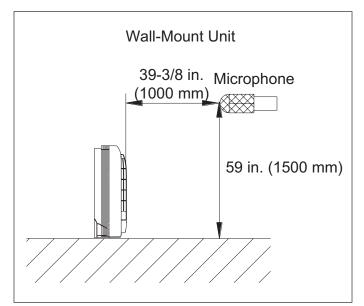
To convert HSPF from Region IV to Region V - Divide by 1.15.

# **OPTIONAL ACCESSORIES - ORDER SEPARATELY**

Description		Catalog		Si	ze	
Description		No.	09	12	18	24
	OUTDOOR UNIT	· ·		1	J	
Condenser Pad (18 x 38	x 3)	Y5014	•	•	•	•
Disconnects	30 amp, fused, 1 ph	27P37	•	•	•	•
	60 amp, non-fused, 1 ph	27P39	•	•	•	•
Fuses	30A	83P75	•	•	•	•
	60A	83P77	•	•	•	•
Hail Guards	M9GARD14Q-1	15D25	N/A	•	N	I/A
	M9GARD19Q-1	15D32	•		N/A	
	M9GARD15Q-1	15D26	N	I/A	•	N/A
	M9GARD17Q-1	15D28		N/A	1	•
Line Sets	1/4 in. x 3/8 in. x 25 ft.	90X53	•		N/A	1
	1/4 in. x 3/8 in. x 50 ft.	X0258	•		N/A	
	1/4 in. x 1/2 in. x 25 ft.	90X52	N/A	•	•	N/A
	1/4 in. x 1/2 in. x 50 ft.	X0259	N/A	•	•	N/A
	3/8 in. x 5/8 in. x 25 ft.	X8406		N/A	1	•
	3/8 in. x 5/8 in. x 50 ft.	X8407		N/A		•
Wall Brackets	30 inch	X1727	•	•	•	•
Whips	10 Gauge - 1/2 in. x 6 ft.	29P54	•	•	•	•
I	8 Gauge - 3/4 in. x 6 ft.	27P44	•	•	•	•
	INDOOR UNIT	<u> </u>				
Diversitech Cle	earVue Mini™ - 7.9 US gallons per hour, 35 ft. lift - 120/240V	Y5170	•	•	•	•
Condensate	Mini-Split Pump - 4 US gallons per hour, 20 ft. lift - 115V	Y7946	N/A	•	N	I/A
Pumps with Reservoir	Mini-Split Pump - 4 US gallons per hour, 20 ft. lift - 230V	Y7949	•	•	•	•
Blue Diamond <sup>®</sup> N	licroBlue® - 1.3 US gallons per hour, 6 ft. lift - 110v-230V	14T74	٠	•	•	N/A
Condensate Ma	xiBlue® - 3.7 US gallons per hour, 16.5 ft. lift - 208-230V	14T69		N/A		•
Pumps with Reservoir	MultiTank Kit	14T75		N/A		•
	Sensor Cable Extension - 16 ft.	14T76	•	•	•	•
A/C Easy Tee <sup>®</sup> Condensa	te Cleanout	Y7947	•	•	•	•
	CONTROLS					
Wired Programmable Co	ntroller M0STAT64Q-1	15D30	٠	•	•	•
Wired Non-Programmab	le Remote Controller M0STAT61Q-1	14A66	•	•	•	•
Extension Cable for Wire	d Programmable Controller - 20 ft. M0CTRL64Q-1	Y8738	•	•	•	•
Indoor/Outdoor Wiring C	able - 14 Gauge, 4 conductor wire, THHN, 250 ft.	Y2067	•	•	•	•
	SPEEDICHANNEL™ SYSTEM			1		
				•	•	•
SpeediChannel™ Starte	r Kit - 4 in.	Y3387	•			
SpeediChannel™ Starte SpeediChannel - 4 in. x 6		Y3387 Y3388	•	•	•	•
•				•	•	•
SpeediChannel - 4 in. x 6 Union Coupling - 4 in.	6-1/2 ft. (qty. 6)	Y3388	٠		•	
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4	6-1/2 ft. (qty. 6)	Y3388 Y3389	•	•	•	•
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4 90° Inside Elbow - 4 in.	6-1/2 ft. (qty. 6) n.	Y3388 Y3389 Y3390	• •	•	•	•
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4 90° Inside Elbow - 4 in. 45° Flat Bend Elbow - 4	6-1/2 ft. (qty. 6) n.	Y3388 Y3389 Y3390 Y3391	• • • •	•	•	•
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4 90° Inside Elbow - 4 in.	6-1/2 ft. (qty. 6) n.	Y3388 Y3389 Y3390 Y3391 Y3392	• • • • • • • • • • • • • • • • • • • •	•	•	•
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4 90° Inside Elbow - 4 in. 45° Flat Bend Elbow - 4 Flex Joint - 4 in. T-Joint - 4 in.	6-1/2 ft. (qty. 6) n.	Y3388 Y3389 Y3390 Y3391 Y3392 Y3393	• • • • • • • •	• • • • • •	• • • • • •	•
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4 90° Inside Elbow - 4 in. 45° Flat Bend Elbow - 4 Flex Joint - 4 in. T-Joint - 4 in. Duct End - 4 in.	6-1/2 ft. (qty. 6) n.	Y3388 Y3389 Y3390 Y3391 Y3392 Y3393 Y3394	• • • • •	• • • • • •	• • • • • •	• • • • • • • • • • • • • • • • • • • •
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4 90° Inside Elbow - 4 in. 45° Flat Bend Elbow - 4 Flex Joint - 4 in. T-Joint - 4 in. Duct End - 4 in. Flat Wall Escutcheon - 4	6-1/2 ft. (qty. 6) in. in.	Y3388 Y3389 Y3390 Y3391 Y3392 Y3393 Y3394 Y3395 Y3396	• • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • •
SpeediChannel - 4 in. x 6 Union Coupling - 4 in. 90° Flat Bend Elbow - 4 90° Inside Elbow - 4 in. 45° Flat Bend Elbow - 4 Flex Joint - 4 in.	6-1/2 ft. (qty. 6) in. in. 4 in.	Y3388 Y3389 Y3390 Y3391 Y3392 Y3393 Y3394 Y3395	• • • • • • •	• • • • •	• • • • •	• • • • • •

<sup>1</sup> Y7946, Y7949 and 14T74 condensate pumps can be installed inside the indoor units. All other pumps must be installed external to the indoor unit.





COOLING CAPAC	CITY						00	9 (115V)
Outdoor			Indoor Te	mperature - °	F (Dry Bulb /	Wet Bulb)		
Temperature - °F	65°F	/ 54°F	70°F	/ 59°F	75°F	/ 63°F	80°F	/ 67°F
(Dry Bulb)	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh
5	8.99	6.21	9.56	6.61	9.93	6.82	10.39	7.17
15	9.03	6.39	9.61	6.80	10.08	7.19	10.50	7.42
25	9.22	6.54	9.65	6.84	10.23	7.28	10.60	7.60
35	9.37	6.57	9.74	6.84	10.23	7.26	10.71	7.56
45	9.30	6.85	9.95	7.33	10.43	7.80	10.81	7.94
55	9.50	7.33	9.99	7.71	10.43	7.90	10.92	8.27
65	9.65	6.82	10.14	7.17	10.64	7.52	11.02	7.79
75	9.57	6.88	10.18	7.32	10.63	7.64	11.13	8.00
85	9.77	7.12	10.22	7.44	10.78	7.85	11.23	8.18
95	9.89	6.94	10.35	7.25	10.91	7.65	11.31	7.93
105	9.29	6.74	9.78	7.09	10.26	7.44	10.74	7.79
110	8.59	6.70	9.09	7.09	9.64	7.52	9.99	7.79
115	8.08	6.87	8.55	7.27	8.87	7.54	9.29	7.90
122	7.48	6.66	7.78	6.92	8.16	7.26	8.55	7.61

# 009 (115V)

Outdoor		Indoor Temperatu	ure - °F (Dry Bulb)	· · · · ·
Temperature - °F	60°F	65°F	70°F	75°F
(Dry Bulb)	Total mBtuh	Total mBtuh	Total mBtuh	Total mBtuh
5	6.90	6.70	6.32	6.07
17	8.23	7.95	7.53	7.26
19.4	8.57	8.23	7.83	7.55
24.8	8.97	8.62	8.19	7.86
32	9.33	9.01	8.54	8.20
35	9.68	9.35	8.84	8.53
39.2	10.50	10.21	9.64	9.16
44.6	11.71	11.39	10.74	10.21
47	12.79	12.33	11.68	11.03
53.6	13.77	13.28	12.56	12.00
57	14.21	13.76	13.00	12.48

009 (208/230V)
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COOLING	CAPACITY	

Outdoor

Outdoor								
Temperature - °F	65°F / 54°F		70°F / 59°F		75°F	/ 63°F	80°F / 67°F	
(Dry Bulb)	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh
5	8.42	6.03	8.93	6.47	9.64	6.91	10.15	7.26
15	8.50	6.22	9.12	6.74	9.89	7.24	10.30	7.54
25	8.73	5.94	9.20	6.20	9.93	6.76	10.46	7.04
35	8.97	6.18	9.39	6.44	10.08	6.95	10.61	7.33
45	9.04	6.17	9.42	6.45	10.23	6.98	10.77	7.31
55	9.12	6.63	9.61	6.99	10.49	7.62	10.92	7.90
65	9.25	6.74	9.75	7.10	10.52	7.66	11.08	8.07
75	9.50	6.66	9.95	6.97	10.62	7.45	11.24	7.88
85	9.58	6.81	10.04	7.09	10.84	7.71	11.41	8.04
95	9.71	7.15	10.29	7.58	10.99	8.09	11.62	8.69
105	9.12	7.12	9.62	7.50	10.38	8.10	10.93	8.52
110	8.58	7.29	9.09	7.73	9.71	8.25	10.27	8.73
115	8.01	7.13	8.50	7.56	9.17	8.16	9.66	8.59
122	7.43	6.83	7.87	7.24	8.54	7.85	8.89	8.18

Indoor Temperature - °F (Dry Bulb / Wet Bulb)

Outdoor	Indoor Temperature - °F (Dry Bulb)						
Temperature - °F	60°F	65°F	70°F	75°F			
(Dry Bulb)	Total mBtuh	Total mBtuh	Total mBtuh	Total mBtuh			
5	8.96	8.69	8.23	7.94			
17	10.80	10.48	9.91	9.52			
19.4	10.86	10.53	9.96	9.56			
24.8	10.94	10.61	10.02	9.67			
32	10.98	10.67	10.07	9.56			
35	11.10	10.73	10.16	9.60			
39.2	11.61	11.23	10.62	10.14			
44.6	12.56	12.14	11.47	11.01			
47	13.11	12.58	11.96	11.54			
53.6	13.55	13.00	12.35	11.86			
57	13.82	13.34	12.66	12.03			

COOLING CAPA	COOLING CAPACITY 012 (115V)											
Outdoor		Indoor Temperature - °F (Dry Bulb / Wet Bulb)										
Temperature - °F	65°F	/ 54°F	70°F	/ 59°F	75°F	/ 63°F	80°F	/ 67°F				
(Dry Bulb)	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh				
5	10.91	7.54	11.60	8.02	12.04	8.28	12.61	8.70				
15	10.99	7.78	11.69	8.28	12.26	8.75	12.77	9.03				
25	11.24	7.97	11.76	8.34	12.47	8.88	12.92	9.25				
35	11.46	8.04	11.92	8.36	12.51	8.88	13.10	9.25				
45	11.36	8.37	12.15	8.95	12.75	9.53	13.21	9.70				
55	11.55	8.91	12.14	9.37	12.68	9.60	13.27	10.05				
65	11.52	8.14	12.12	8.56	12.71	8.98	13.17	9.31				
75	11.53	8.29	12.26	8.82	12.80	9.20	13.40	9.64				
85	11.28	8.22	11.80	8.59	12.45	9.07	12.97	9.44				
95	10.96	7.69	11.46	8.04	12.09	8.48	12.53	8.78				
105	10.08	7.31	10.60	7.69	11.13	8.07	11.65	8.45				
110	9.27	7.23	9.81	7.65	10.40	8.11	10.78	8.41				
115	8.72	7.41	9.22	7.84	9.57	8.14	10.02	8.52				
122	7.98	7.10	8.30	7.39	8.71	7.75	9.12	8.12				

# 012 (115V)

Outdoor	Indoor Temperature - °F (Dry Bulb)						
Temperature - °F	60°F	65°F	70°F	75°F			
(Dry Bulb)	Total mBtuh	Total mBtuh	Total mBtuh	Total mBtuh			
5	7.13	6.89	6.47	6.21			
17	8.50	8.21	7.70	7.39			
19.4	8.96	8.70	8.15	7.86			
24.8	9.70	9.42	8.81	8.37			
32	10.42	10.05	9.46	8.94			
35	11.21	10.81	10.16	9.71			
39.2	11.75	11.36	10.66	10.18			
44.6	12.65	12.22	11.46	11.01			
47	13.37	12.90	12.11	11.69			
53.6	13.94	13.51	12.67	12.23			
57	14.37	13.92	13.05	12.53			

# 65 11.06 8.05 75 11.20 7.85

# 122 7.92 7.21 8.25

65°F / 54°F

Total mBtuh

10.33

10.35

10.44

10.68

10.64

10.78

11.40

11.60

10.84

9.25

8.56

Sensible

mBtuh

7.43

7.54

7.32

7.74

7.86

7.84

8.06

9.05

9.00

7.87

7.61

# HEATING CAPACITY

# 012 (208/230V)

Outdoor	Indoor Temperature - °F (Dry Bulb)						
Temperature - °F	60°F	65°F	70°F	75°F			
(Dry Bulb)	Total mBtuh	Total mBtuh	Total mBtuh	Total mBtuh			
5	8.74	8.38	8.02	7.70			
17	10.26	9.86	9.43	8.96			
19.4	10.98	10.54	10.08	9.68			
24.8	11.93	11.45	10.94	10.56			
32	12.86	12.36	11.79	11.26			
35	13.65	13.09	12.50	12.00			
39.2	14.09	13.58	12.96	12.50			
44.6	15.08	14.54	13.86	13.30			
47	15.79	15.17	14.50	13.78			
53.6	16.37	15.73	15.02	14.20			
57	16.88	16.22	15.47	14.70			

Indoor Temperature - °F (Dry Bulb / Wet Bulb)

75°F / 63°F

Sensible

mBtuh

8.46

8.55

8.34

8.76

8.91

8.98

9.17

8.90

9.18

10.36

10.13

8.96

8.68

8.20

Total

mBtuh

11.77

11.73

11.90

12.08

12.05

12.35

12.59

12.69

12.99

13.29

12.20

10.54

9.75

9.02

70°F / 59°F

Sensible

mBtuh

7.83

7.95

7.67

8.07

8.20

8.17

8.49

8.28

8.45

9.49

9.37

8.20

7.94

7.51

Total

mBtuh

10.89

10.92

10.95

11.13

11.09

11.24

11.66

11.81

11.96

12.16

11.29

9.65

8.92

# COOLING CAPACITY

Outdoor Temperature - °F

(Dry Bulb)

5

15

25

35

45

55

85

95

105

110

115

# 012 (208/230V)

Sensible

mBtuh

8.95

9.14

8.87

9.27

9.48

9.50

9.70

9.51

9.77

10.97

10.77

9.48

9.23

8.68

80°F / 67°F

Total

mBtuh

12.45

12.55

12.66

12.79

12.82

13.07

13.32

13.57

13.82

14.06

12.98

11.15

10.37

9.54

COOLING CAPAC	018 (2	08/230V)									
Outdoor		Indoor Temperature - °F (Dry Bulb / Wet Bulb)									
Temperature - °F	65°F	/ 54°F	70°F	/ 59°F	75°F	/ 63°F	80°F	/ 67°F			
(Dry Bulb)	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh	Total mBtuh	Sensible mBtuh			
5	16.98	12.31	17.97	13.03	18.87	13.67	19.86	14.39			
15	17.00	12.75	18.00	13.50	18.90	14.18	20.00	15.00			
25	16.68	11.92	17.96	12.83	18.75	13.40	19.74	14.10			
35	16.75	11.75	17.63	12.36	18.40	12.91	19.48	13.66			
45	16.54	12.04	17.41	12.67	18.38	13.37	19.35	14.08			
55	16.33	11.84	17.20	12.46	18.06	13.09	19.22	13.93			
65	16.13	11.60	17.27	12.42	18.04	12.97	19.09	13.72			
75	16.21	11.80	17.06	12.43	18.01	13.12	18.96	13.81			
85	16.00	11.82	16.85	12.45	17.79	13.15	18.83	13.91			
95	15.81	12.49	16.93	13.38	17.78	14.04	18.71	14.78			
105	15.36	12.44	16.17	13.09	16.97	13.75	17.96	14.55			
110	14.35	11.91	15.28	12.68	16.04	13.31	16.89	14.01			
115	13.34	12.01	14.21	12.79	14.84	13.36	15.79	14.21			
122	12.42	11.55	13.00	12.09	13.73	12.76	14.52	13.51			

# 018 (208/230V)

Outdoor	Indoor Temperature - °F (Dry Bulb)							
Temperature - °F	60°F	65°F	70°F	75°F				
(Dry Bulb)	Total mBtuh	Total mBtuh	Total mBtuh	Total mBtuh				
5	10.25	9.81	9.50	9.21				
17	11.92	11.42	11.04	10.54				
19.4	12.40	11.90	11.49	10.97				
24.8	13.12	12.60	12.15	11.67				
32	13.84	13.29	12.80	12.29				
35	14.77	14.23	13.70	13.22				
39.2	16.28	15.58	15.05	14.45				
44.6	18.33	17.54	16.93	16.08				
47	19.81	18.88	18.28	17.27				
53.6	21.20	20.20	19.54	18.56				
57	21.79	20.85	20.12	19.32				

# 1521.1817.102521.2216.54

65°F / 54°F

Total

mBtuh

21.53

20.90

20.59

20.64

20.33

20.02

Sensible

mBtuh

17.12

16.27

15.52

14.98

14.66

15.92

#### 85 20.17 16.28 21.25 17.16 22.46 18.13 95 19.95 15.55 21.28 16.58 22.48 17.52 105 18.94 14.75 20.43 15.91 21.47 16.71 110 18.02 14.67 19.32 15.72 20.18 16.34 115 16.75 15.44 17.96 16.56 18.77 17.08 122 15.32 14.68 16.62 15.93 17.36 16.64

# HEATING CAPACITY

# 024 (208/230V)

Outdoor		Indoor Temperature - °F (Dry Bulb)						
Temperature - °F	60°F	65°F	70°F	75°F				
(Dry Bulb)	Total mBtuh	Total mBtuh	Total mBtuh	Total mBtuh				
5	17.95	17.20	16.67	16.00				
17	21.14	20.26	19.61	18.53				
19.4	21.54	20.60	19.96	18.96				
24.8	22.07	21.09	20.44	19.52				
32	22.55	21.59	20.90	20.06				
35	23.23	22.24	21.51	20.75				
39.2	25.25	24.15	23.36	22.42				
44.6	28.28	27.15	26.24	25.32				
47	29.63	28.33	27.46	26.36				
53.6	30.72	29.39	28.45	27.02				
57	31.83	30.44	29.44	27.82				

Indoor Temperature - °F (Dry Bulb / Wet Bulb)

75°F / 63°F

Sensible

mBtuh

19.25

19.29

18.36

18.34

17.59

16.68

16.51

18.04

Total

mBtuh

24.25

24.01

23.63

23.55

23.33

22.99

22.90

22.69

70°F / 59°F

Sensible

mBtuh

18.36

18.55

17.43

17.35

16.75

16.06

15.72

17.27

Total

mBtuh

23.08

22.98

22.36

22.29

22.21

22.13

21.80

21.72

Outdoor Temperature - °F

(Dry Bulb)

5

35

45

55

65

75

# 024 (208/230V)

Sensible

mBtuh

20.46

20.55

19.45

19.31

18.82

17.94

17.66

19.30

19.50

18.73

17.88

17.33

18.29

17.80

80°F / 67°F

Total

mBtuh

25.94

25.68

25.41

25.18

24.95

24.72

24.49

24.26

24.15

24.04

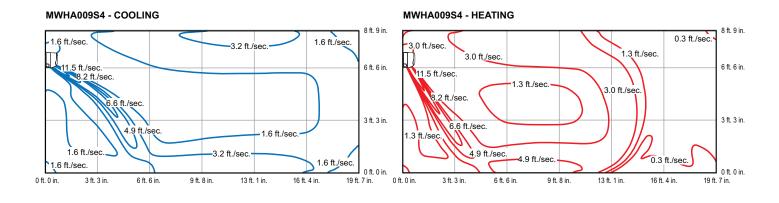
22.96

21.58

20.18

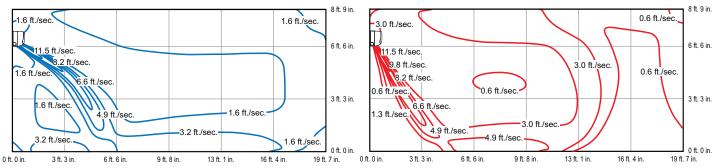
18.56

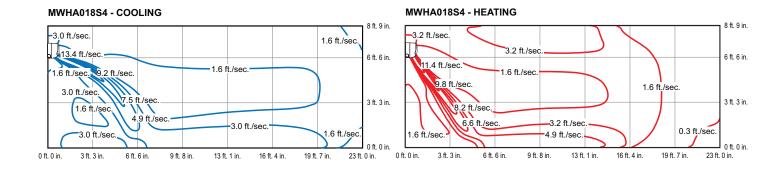
#### **AIR THROW DATA**

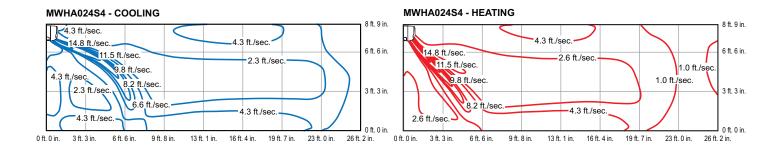


MWHA012S4 - COOLING

MWHA012S4 - HEATING

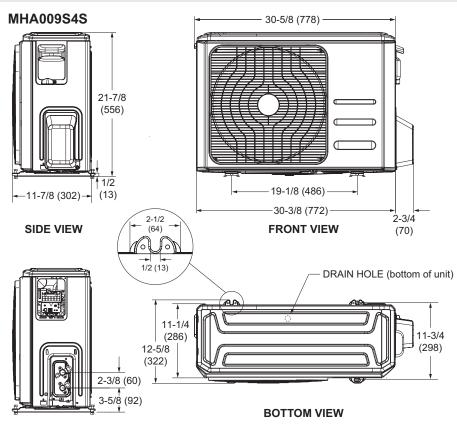






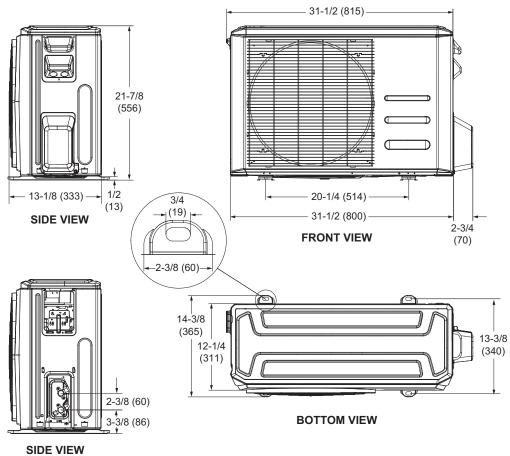
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#### **DIMENSIONS - OUTDOOR UNITS**

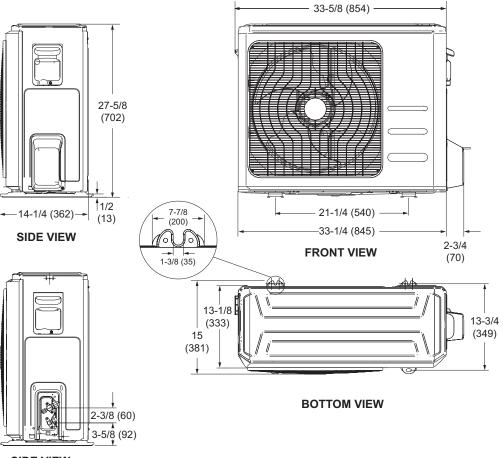


SIDE VIEW





#### MHA024S4S



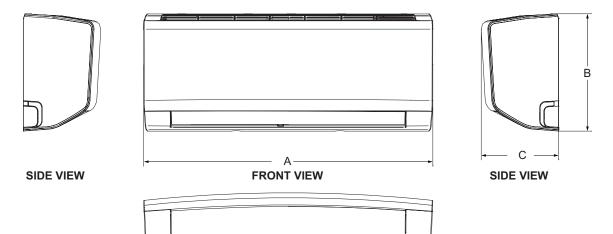
SIDE VIEW

#### **DIMENSIONS - WALL-MOUNTED INDOOR UNITS**

#### MWHA009S4, MWHA012S4, MWHA018S4, MWHA024S4



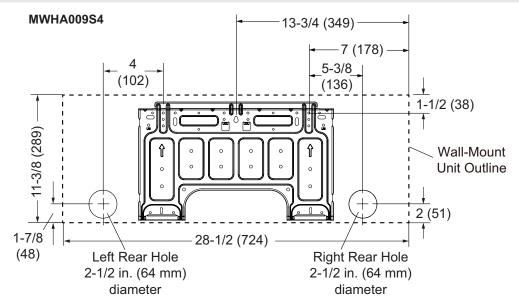
**TOP VIEW** 



BOTTOM VIEW

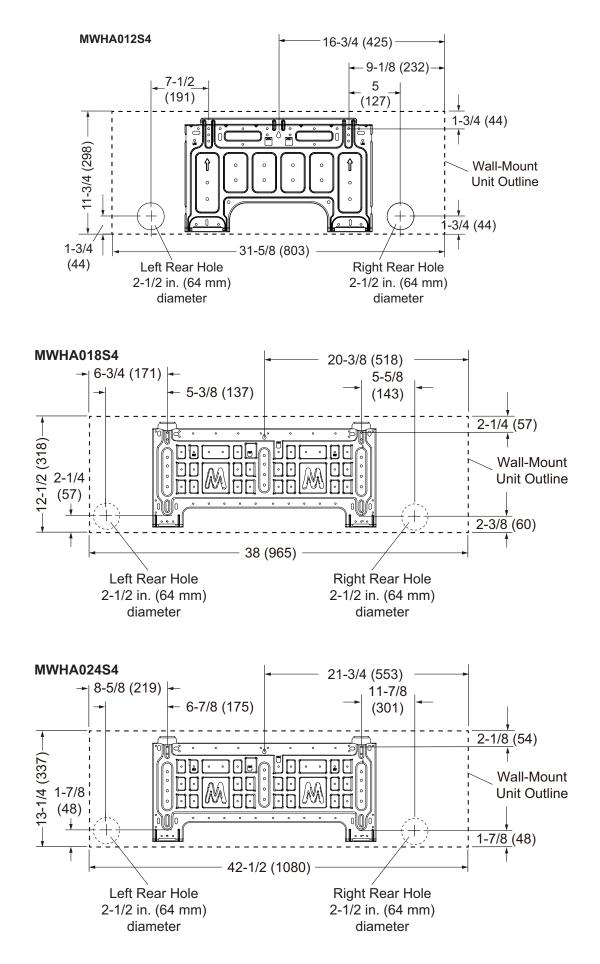
Size		4	E	3	(	2
3120	in.	mm	in.	mm	in.	mm
MWHA009S4	29-5/8	752	11-3/8	289	8-5/8	219
MWHA012S4	32-3/4	832	11-3/4	298	8-3/4	222
MWHA018S4	39-1/8	994	12-1/2	318	9-7/8	251
MWHA024S4	44	1118	13-1/4	337	10-1/4	260

#### **DIMENSIONS - WALL-MOUNTED INDOOR UNITS - WALL PLATES**

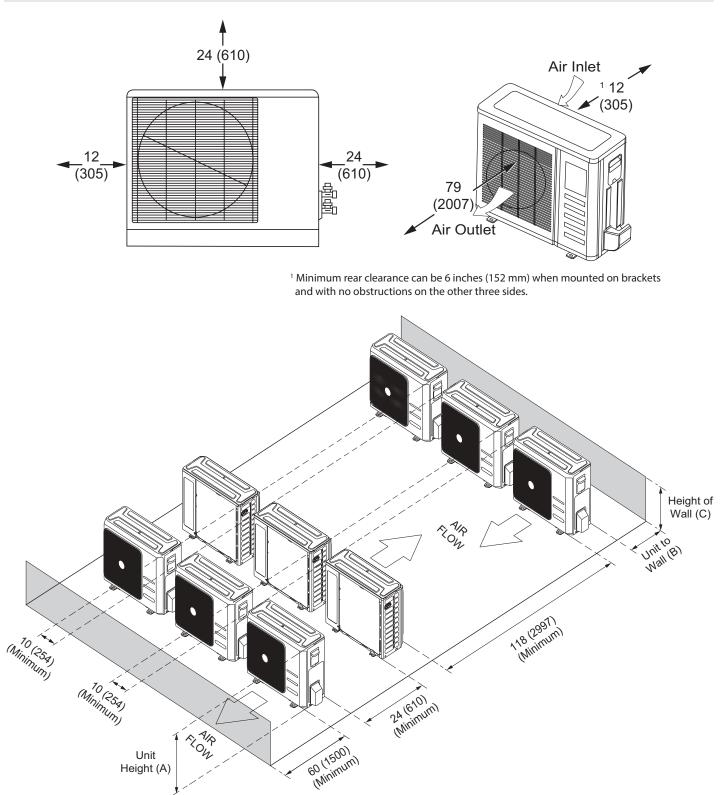


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#### **DIMENSIONS - WALL-MOUNTED INDOOR UNITS - WALL PLATES**



# **INSTALLATION CLEARANCES - OUTDOOR UNITS**



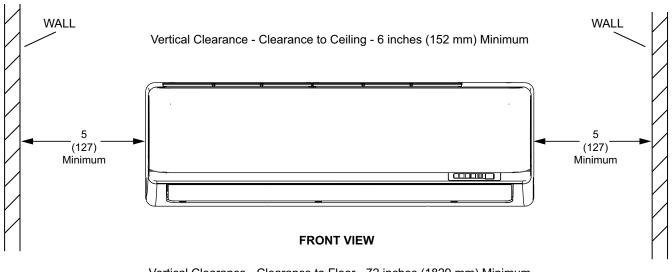
#### **CLEARANCE NOTES FOR MULTIPLE UNITS:**

If the height of the wall (C) is less than or equal to the height of the smallest unit (A), the distance from the unit to the wall (B) must be a minimum of 10 inches (254 mm).

If 1/2 the height of the unit (A) is less than the height of the wall (C), the distance from the unit to the wall (B) must be a minimum of 12 inches (305 mm).

If the height of the wall (C) is greater than the height of the unit (A), the distance from the unit to the wall (B) must be a minimum of 20 inches (508 mm).

#### **INSTALLATION CLEARANCES - WALL-MOUNTED INDOOR UNITS**

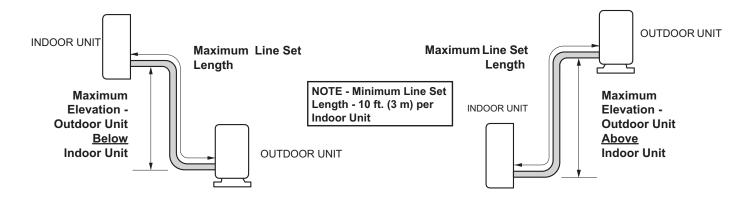


Vertical Clearance - Clearance to Floor - 72 inches (1829 mm) Minimum NOTE - Provide 96 inches (2438) clearance to floor for best performance

# LINE SET AND ELEVATION GUIDELINES

#### Outdoor Unit BELOW Indoor Unit

#### Outdoor Unit ABOVE Indoor Unit



	Line Set Diameters (in.)		Maximum	Maximum	Maximum
Size	Liquid	Gas	Elevation - Outdoor Unit <u>Below</u> Indoor Unit ft. (m)	Elevation - Outdoor Unit <u>Above</u> Indoor Unit ft. (m)	Line Set Length ft. (m)
009	1/4	3/8	33 ft. (10 m)	33 ft. (10 m)	82 ft. (25 m)
012	1/4	1/2	33 ft. (10 m)	33 ft. (10 m)	82 ft. (25 m)
018	1/4	1/2	66 ft. (20 m)	66 ft. (20 m)	98 ft. (30 m)
024	3/8	5/8	66 ft. (20 m)	66 ft. (20 m)	98 ft. (30 m)

REVISIONS	
Sections	Description of Change
Cooling/Heating Capacity Tables	Removed data rows for -13 to 0 Outdoor Temperature - °F (Dry Bulb).









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