## TECHNICAL SPECIFICATIONS

# **MG1E Series Furnaces**

# Gas Furnace 80% AFUE Hot Surface Ignition

The MG1 Series furnace is designed for all sizes of manufactured and modular homes. These units incorporate high efficiency, reliability, and low maintenance. Units may be installed free standing in a utility room or enclosed in an alcove or closet. MG1 Series furnaces are available in A/C adaptable or A/C ready, with or without coil cavity box and many burner options.

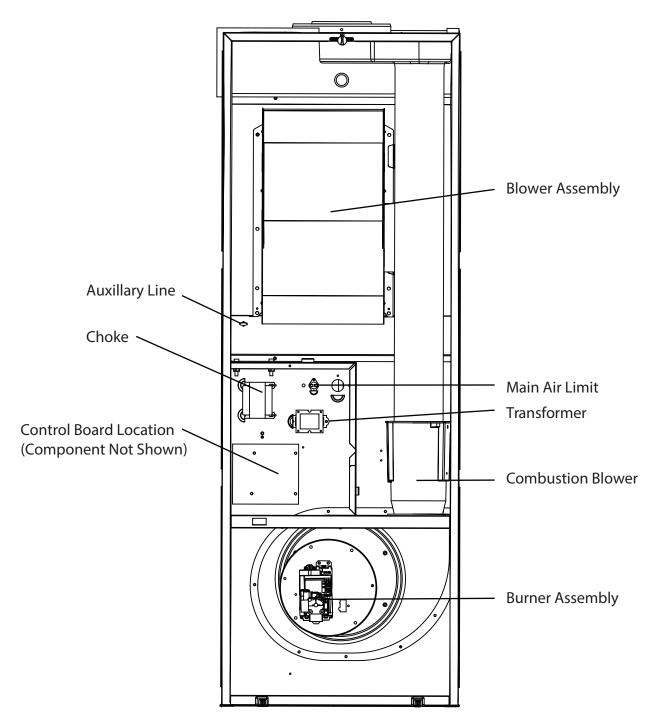


For California installations in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

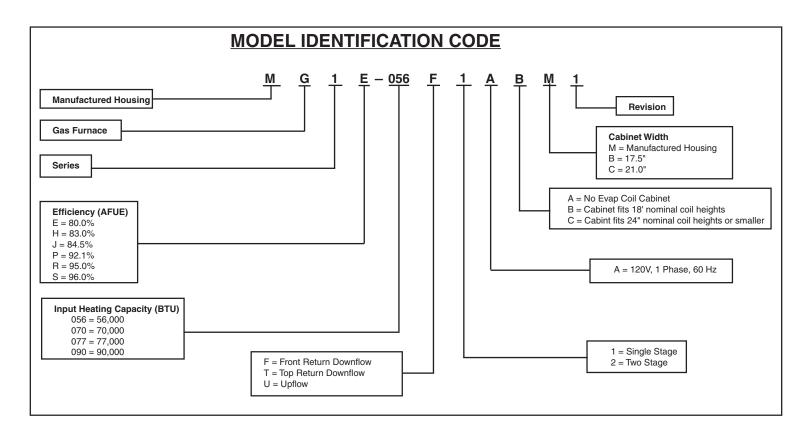
# FEATURES and BENEFITS

- Sealed Combustion System: Vents exhaust gas directly outdoors and draws in 100% outside air for the burner.
- Easy Open Pawl Latch: Secures the door firmly for transit, yet allows easy removal for access.
- Choice of Air Conditioning Options: From 2 to 4 tons A/C ready.
- Large, Effective Air Filter: Room air is cleaner with this permanent washable filter.
- **High Efficiency Drum Heat Exchanger:** Delivers optimum heat transfer with low air resistance.
- Appliance Quality Door: Protects against rust and other corrosion. Baked enamel finish allows for easy cleaning.
- Fully Insulated Cabinet: Insures minimized heat loss and quiet operation.
- **Reliable Burner:** With uniform flame pattern extends life of heat exchanger.

## COMPONENTS



- 2 -



### SPECIFICATIONS

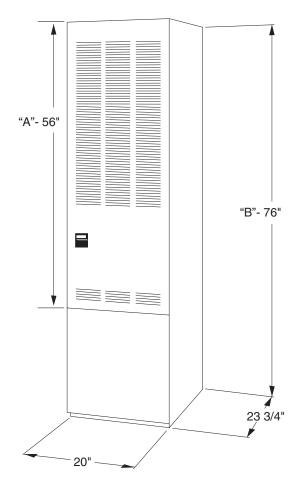
Furnace	Input	Output	Orifice I	Number	ESP	Motor	Motor	A/C	AFUE	Shipping	g Weight
Model No			Nat	LP	in WC	HP	FLA	Ready Tons	%	A Cabinet	B Cabinet
MG1E-056	56000	45000	29	45	0.3	3/4	8.4	4	80%	157	171
MG1E-070	70000	57000	24	42	0.3	3/4	8.4	4	80%	157	171
MG1E-077	77000	62000	21	40	0.3	3/4	8.4	4	80%	157	171
MG1E-090	85000	68000	17	36	0.3	3/4	8.4	4	80%	157	171

Electrical Supply - 120 volts, 60HZ, 1 Ph. Fuse or Breaker - 15 amps Temperature Rise - 45° to 75°F Gas Connection - 1/2" NFPT Thermostat Circuit - 24 volts, 60HZ, 30 vac Normal Anticipator Setting - 0.4

Manifold Pressure - Natural Gas: 3.5" w.c. LP Gas: 10" w.c.

High Altitude - Tables in the Installation Instructions for elevations above 2,000 feet.

# DIMENSIONS



## CLEARANCES

ALL MODELS	CLOSET	ALCOVE
Front	6"	18"
Back	0"	0"
Sides	0"	0"
Roof Jack	0"	0"
Тор	6"	6"
Top and Sides of Duct	0"	0"
Bottom of Duct		
B Cabinet	0"	0"
A Cabinet (w/coil box)	0"	0"
A Cabinet (w/o coil box)	1/4"	1/4"

"A" Model without Coil Cabinet "B" Model with Coil Cabinet

### **BLOWER PERFORMANCE** Heating Airflow (CFM) & Temperature Rise (°F)

	MG1E-056F1A(A,B)M1										
	STATIC F	RESSUR	E (IN. W.0	C.)							
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0	.1	0	.2	0	.3	0	.4	0	.5
HEATING INPUT	SFEED	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
	5 - High										
	4 - Alternate										
MG1E-056F1AAM1 56.000 BTU/Hr	3 - Med-Hi*					928	45	876	47	829	50
30,000 D10/11	2 - Med-Low	890	47	843	49	790	53	735	56	683	61
	1 - Low	798	52	749	55	695	60	629	66		

	MG1E-070F1A(A,B)M1												
	мотор	EXTERNAL STATIC PRESSURE (IN. W.C.)											
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0.	.1	0	2	0	.3	0.	.4	0	.5		
HEATING INPUT	SFEED	CFM	CFM RISE CFM RISE CFM RISE CFM RISE CFM RISE								RISE		
	5 - High												
	4 - Alternate												
MG1E-070F1AAM1 70.000 BTU/Hr	3 - Med-High*	1,212	43	1,178	44	1,148	45	1,114	47	1,079	48		
70,000 BT0/TII	2 - Med-Low	931	56	886	59	836	62	782	66	732	71		
1 - Low													

	MG1E-077F1AAM1										
EXTERNAL STATIC PRESSURE (IN. W.C.)											
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0	.1	0	2	0	.3	0	.4	0.	.5
HEATING INPUT	SPEED	CFM	RISE								
	5 - High										
	4 - Alternate										
MG1E-077F1AAM1 77.000 BTU/Hr	3 - Med-High*	1,212	47	1,178	48	1,148	50	1,114	51	1,079	53
2 - Med-Low		996	57	960	59	924	62	885	64	848	67
	1 - Low										

	MG1E-090F1AAM1										
	EXTERNAL STATIC PRESSURE (IN. W.C.)										
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0	.1	0	.2	0	.3	0.	.4	0.	.5
HEATING INPUT	SPEED	CFM	CFM RISE CFM RISE CFM RISE CFM RISE CFM RISE								
	5 - High										
	4 - Med-High										
MG1E-090F1AAM1 85,000 BTU/Hr	3 - Med-Low*	1,188	56	1,154	58	1,119	60	1,091	61	1,054	63
05,000 010/11	2 - Alternate	1,015	66	978	68	956	70	917	73		
	1 - Low										

#### NOTES:

1. To comply with government mandated efficiency standards, two openings are required for airflows above 1,600 CFM.

To comply with government mandated efficiency standards, two openings are required for airliows above 1,600 CFM.
Data is shown without filter.
Temperature rises in the table are approximate. Actual temperature rises may vary.
To comply with government mandated efficiency standards, speed settings shaded in gray are not allowed in HEAT mode.
The "\*\*" denotes the factory heat and cool setting. If a different motor speed is needed, the appropriate wire from the "HEAT" or "COOL" tap on the control board must be connected to the desired Tap (1-5) at the motor.

# **BLOWER PERFORMANCE (cont.)**

## Cooling Airflow (CFM)

		MG1E-	056F1AA	M1					
EXTERNAL STATIC PRESSURE (IN. W.C.)									
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
	SFLLD	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
	5 - High*	1,524	1,491	1,458	1,421	1,385	1,348	1,308	1,270
	4 - Alternate	1,199	1,160	1,122	1,080	1,037	993	946	899
MG1E-056F1AAM1 56.000 BTU/Hr	3 - Med-High	1,013	972	928	876	829	780	728	675
30,000 B10/11	2 - Med-Low	890	843	790	735	683	615	566	510
	1 - Low	798	749	695	629	442	369		

MG1E-070F1AAM1									
	MOTOR		E)	TERNAL	STATIC F	PRESSUR	E (IN. W.C	C.)	
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
HEATING INFOT	SFEED	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
	5 - High*	1,573	1,541	1,511	1,479	1,452	1,419	1,388	1,358
	4 - Alternate	1,387	1,353	1,321	1,289	1,254	1,216	1,183	1,148
MG1E-070F1AAM1 70.000 BTU/Hr	3 - Med-High	1,212	1,178	1,148	1,114	1,079	1,036	1,005	964
70,000 010/11	2 - Med-Low	931	886	836	782	732	670	620	565
	1 - Low	640	599	562	513	476	425		

MG1E-077F1AAM1													
	NOTOD		EXTERNAL STATIC PRESSURE (IN. W.C.)										
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8				
HEATING INFOT	SFEED	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM				
	5 - High*	1,573	1,541	1,511	1,479	1,452	1,419	1,388	1,358				
	4 - Alternate	1,333	1,300	1,268	1,236	1,201	1,162	1,129	1,093				
MG1E-077F1AAM1 77.000 BTU/Hr	3 - Med-High	1,212	1,178	1,148	1,114	1,079	1,036	1,005	964				
77,000 B10/11	2 - Med-Low	996	960	924	885	848	814	772	734				
	1 - Low	683	642	599	540	498	451	386					

	MG1E-090F1AAM1								
	NOTOD	EX	TERNAL	STATIC I	PRESSUR	E (IN. W.0	C.)		
MODEL NAME/ HEATING INPUT	MOTOR SPEED	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
HEATING INFOT	SFEED	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
	5 - High*	1,590	1,555	1,521	1,493	1,458	1,426	1,397	1,371
	4 - Med-High	1,337	1,306	1,274	1,243	1,210	1,182	1,142	1,104
MG1E-085F1AAM1 85.000 BTU/Hr	3 - Med-Low	1,188	1,154	1,119	1,091	1,054	1,023	984	941
85,000 B10/11	2 - Alternate	1,015	978	956	917	871	834	792	740
	1 - Low	779	742	698	654	617	564	516	472

#### NOTES:

To comply with government mandated efficiency standards, two openings are required for airflows above 1,600 CFM.
Data is shown without filter.
The "\*" denotes the factory heat and cool setting. If a different motor speed is needed, the appropriate wire from the "HEAT" or "COOL" tap on the control board must be connected to the desired Tap (1-5) at the moto

# ACCESSORIES

Description	Part Number
Automatic Cavity Damper	901083
New England Safety Kit	901855
Ceiling Rings (2 piece adjustable)	902521
Duct Connector 10" x 6" - 6 / carton	902926
Transit Vent Kit 12 / carton	903838
High Altitude Orifice Kit	1018498
Evaporator Coil Box 20"	911969A
Evaporator Coil Box 24"	922594

Vent Kits	Part Number
Soffit Air Inlet (for VentilAire III only)	917201A
Air Tube Kit M (high capacity M Series gas/oil furnaces)	914118
VentilAire III - Sloped 3/12	914098B
VentilAire IV - Sloped 3/12	914229B
VentilAire V - Sloped 3/12	1018547

Plenum Connectors		Part Number
11.25 x 13.50 x 0.88	12 / carton	901987A
11.25 x 13.50 x 2.00	12 / carton	901988A
11.25 x 13.50 x 4.25	6 / carton	901989A
11.25 x 13.50 x 6.25	6 / carton	901990A
11.25 x 13.50 x 8.25	4 / carton	901991A
11.25 x 13.50 x 10.25	3 / carton	901992A
11.25 x 13.50 x 12.25	3 / carton	901993A
11.25 x 13.50 x 6.25	24 / carton	902681A

Slope Flas	Part Number	
2.5" in 12"	903893	
3" in 12"	- 4 / carton	903894
4" in 12"	- 2 / carton	903895

Roof Jack	Part Number
FAW1523-0A	903658
FAW2135-0A	903659
FAW2747-0A	903660
SAW2135-2A	903662
SAW2747-2A	903663
SAW3563-2A	903664
SAW5195-2A	920638
SAW2747-4A	903678A
SAW3563-4A	903665A
SAW5195-4A	903666A

Flue Extensions	Part Number
EI10A-5	901935
EI18A-5	903107
EI16A-5	901937



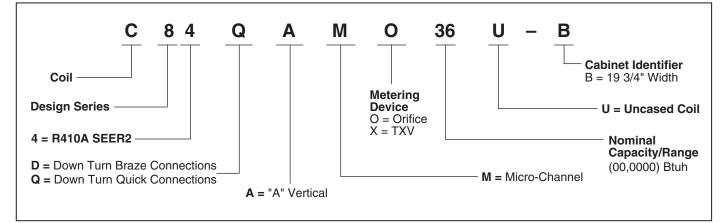
#### **GENERAL TERMS OF LIMITED WARRANTY**

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the Nortek Global HVAC, LLC warranty department for a copy.

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# C84 Manufactured Housing Indoor Coils

MODEL IDENTIFICATION CODE



1 3/8"-

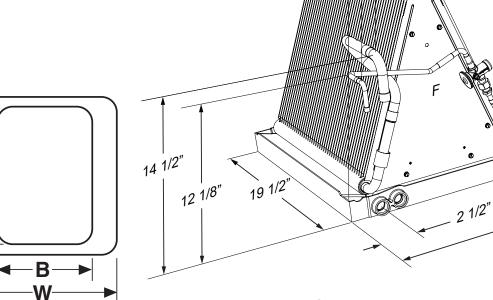
#### **Drain Pan—Bottom View**

Dimension W B	"B" Cabinet 24-49
W	18 1/8"
В	10 5/8"

See Figure 1.

**19<sup>1</sup>/**<sub>2</sub>

16<sup>3</sup>/8



TXV Kits

R-410a 2.0T
R-410a 2.5T
R-410a 3.0T
R-410a 3.5T
R-410a 4.0T
R-410a 5.0T

Н



## COIL DATA TABLE

C84DA-	X24	X30	X36	X42	X43	X48	X49	X60
Nominal Capacity (BTU/hour)	24,000	30,000	36,000	42,000	42,000	48,000	48,000	60,000
Nominal Airflow (CFM)	800	1,000	1,200	1,400	1,400	1,600	1,600	2,000
W - Width (in.)	18 1/8	18 1/8	18 1/8	18 1/8	18 1/8	18 1/8	18 1/8	18 1/8
H - Height (in.)	18	18	18	18	25	25	29	29
D - Depth (in.)	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2
Connection - Liquid Line (in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Connection - Suction Line (in.)	3/4	3/4	3/4	7/8	7/8	7/8	7/8	7/8

#### NOTES:

1. Individual restrictors are available by part number - PN664\*\*\* (where \*\*\* represents the size).

Example: 664103 is a restrictor 0.103 in diameter.

2. Refer to sales specification sheets for Listed/Certified combinations of equipment and required accessories.

3. Refer to the current AHRI directory for certified ratings of split systems.

#### **C84DA Coil Specifications**

C84QA	X24	X30	X36	X42	X43	X48	X49
Nominal Capacity (BTU/hour)	24,000	30,000	36,000	42,000	42,000	48,000	48,000
Nominal Airflow (CFM)	800	1,000	1,200	1,400	1,400	1,600	1,600
W - Width (in.)	18 1/8	18 1/8	18 1/8	18 1/8	18 1/8	18 1/8	18 1/8
H - Height (in.)	18	18	18	18	25	25	29
D - Depth (in.)	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2	19 1/2
Connection - Liquid Line (in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Connection - Suction Line (in.)	3/4	3/4	3/4	7/8	7/8	7/8	7/8

#### NOTES:

1. Refer to sales specification sheets for Listed/Certified combinations of equipment and required accessories.

2. Refer to the current AHRI directory for certified ratings of split systems.

#### **C84QA Coil Specifications**



#### **GENERAL TERMS OF LIMITED WARRANTY**

Nortek Global HVAC, LLC will furnish a replacement for any part of this product which fails in normal use and service within the terms and conditions of the warranty.

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# TECHNICAL SPECIFICATIONS



# **RSH3(M,Q)E** Series

## Up to 14.3 SEER2, 7.5 HSPF Manufactured Housing System High Efficiency Heat Pump

## 2 – 4 Ton Capacity

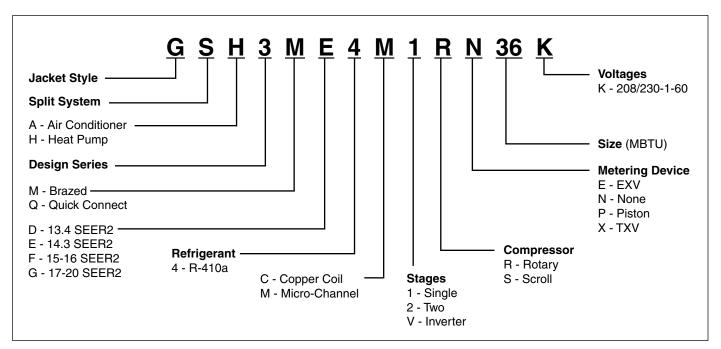
The RSH3(M,Q)E Series heat pump, when combined with our engineered coils or air handlers, offers a full line of quality, split system heating and cooling equipment. Units are ideally sized for slab or cantilever bracket installation.



## FEATURES and BENEFITS

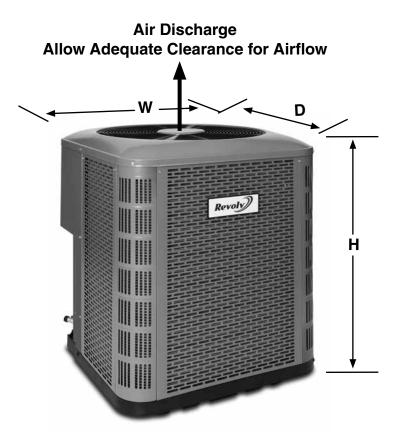
- **QE Models Offer Quick Connect Fittings:** Simplify the installation, no brazing, no evacuation required. Charged with refrigerant for 15 feet of lineset.
- **ME Models Offer Full Service Valves:** These brass valves are easily accessible and simplify servicing of the refrigeration system. Charged with refrigerant for 20 feet of lineset.
- Patented Hot Gas Bypass Defrost Ensures that outdoor coil defrosts every time and only when necessary.
- Full Service Valves Brass valves that are easily accessible and simplify servicing of the refrigeration system.
- **Designed Using Galvanized Steel:** A powder-coated paint that eliminates sharp edges and reduces corrosion, fading, chipping and scratching. It passes 950 hours of salt spray per ASTM Std. B117.
- **Composite Base Pan** Absorbs sound and is corrosion resistant. Composite is also stronger and lighter than steel.
- **Designed for Manufacturing Housing** The outdoor thermostat required by HUD is factory installed.
- **RemovableTop Grille Assembly** Allows ease of service from the top without disconnecting fan motor leads.
- Suction Accumulator and Crankcase Heater Protection from liquid flood back and future compressor failures.
- Hot Gas Muffler Reduces compressor noise and vibration.
- Low Pressure Switch Loss of charge protection ensures long compressor life. Auto-reset feature prevents nuisance service visits.
- High Pressure Switch Protects against abnormally high system pressures. Auto-reset feature prevents nuisance service visits.
- Liquid Line Filter Drier Included with unit and field installed.
- **One-Piece Top/Orifice** Designed for maximum airflow and quiet operation.
- Easy Compressor and Control Access Designed to make servicing easier for the contractor, access panels are provided to all controls and the compressor from the side of the unit.
- All-Aluminum Coils Aluminum coils in all models which provides high corrosion resistance.
- **Powder Coated Wire Guard and Mesh Hail Guard** Will never rust and protects the coil from being damaged.
- Common Suction Service Port This port allows the contractor to read the suction pressure in all modes of operation without removing any panels, saving time and increasing serviceability.
- Five Minute Restart Time Delay When the unit shuts down, a five minute delay keeps the unit from restarting, eliminating the highest cause for compressor failure.

# **MODEL IDENTIFICATION CODES**



## DIMENSIONS AIR CONDITIONER OUTDOOR SECTION

RSH3(M,Q)E	24K	30K	36K	42K	48K
Н	35.00	39.00	39.00	39.00	39.00
W	30.75	30.75	30.75	30.75	30.75
D	30.75	30.75	30.75	30.75	30.75



- 2 -

### PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS 14.3 SEER2 — High Efficiency — Single Phase

Model Number RSH3(M,Q)E			1RN24K	1RN30K	1SN36K	1SN42K	1SN48K			
	Volts-Cycles-Pha	Volts-Cycles-Phase (1)		208/230 Volts Single Phase						
Electrical	Delay Fuse Max.	(2)	20	25	30	40	40			
Data Min. Circuit Ampa Fan Motor	acity	12.4	15.0	18.7	23.6	26.3				
	Fan Motor	HP	1/8	1/8	1/5	1/4	1/4			
Refrigerant	Refrigerant suction line O.D.0-24 ft.NOTE: Liquid line is 3/8" O.D.25-39 ft.		3/4"	3/4"	3/4"	7/8"	7/8"			
NOTE: Liqui			3/4"	3/4"	7/8" (3)	7/8"	7/8"			
for entire length.		40-75 ft.	3/4"	3/4"	7/8" (3)	7/8"	7/8"			
Approximate Shipping Weight (lbs.)		125	165	169	201	218				
Sound Ratir	ng dBA		75	75	75	79	79			

(1) Operating Voltage Range: 187v min. - 253v max.

(2) HACR Type Circuit Breakers may be used.

(3) Requires 7/8" to 3/4" reducer from line to unit.

(4) Requires 7/8" to 1-1/8" reducer from line to unit.

## **ACCESSORIES - Condensing Unit**

#### Start Assist Kit - 912933

Provides additional starting torque for the compressor motor when operating with low line voltage or high operating temperatures.

# SYSTEM HEATING AND COOLING CAPACITIES

### 14.3 SEER2 — High Efficiency — Single Phase

Outdoor Unit	Indoor Unit	SEER2	EER2	Capacity @ 95° F	Capacity @ 47° F	Capacity @ 17° F	HSPF2	CFM
RSH3ME4M1RP24K	C84DAMX24U-B	14.3	11.8	23,400	23,400	14,000	7.5	840
RSH3ME4M1RP30K	C84DAMX30U-B	14.3	11.8	30,000	30,000	18,000	7.5	980
RSH3ME4M1SP36K	C84DAMX36U-B	14.3	11.8	34,000	35,400	22,200	7.5	1250
RSH3ME4M1RP42K	C84DAMX43U-B	14.3	11.8	39,000	41,000	25,000	7.5	1225
RSH3ME4M1SP48K	C84DAMX49U-B + E7EM-0XXH1 + 4T blower kit	14.3	11.8	44,500	46,500	28,000	7.5	1550
RSH3QE4M1RP24K	C84QAMX24U-B	14.3	11.8	23,400	23,400	14,000	7.5	840
RSH3QE4M1RP30K	C84QAMX30U-B	14.3	11.8	30,000	30,000	18,000	7.5	980
RSH3QE4M1SP36K	C84QAMX36U-B	14.3	11.8	34,000	35,400	22,200	7.5	1250
RSH3QE4M1RP42K	C84QAMX43U-B	14.3	11.8	39,000	41,000	25,000	7.5	1225
RSH3QE4M1SP48K	C84QAMX49U-B + E7EM-0XXH1 + 4T blower kit	14.3	11.8	44,500	46,500	28,000	7.5	1550

All ratings are with time delay relay.

See current AHRI Directory for certified combinations and ratings. www.ahridirectory.org







#### **GENERAL TERMS OF LIMITED WARRANTY**

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