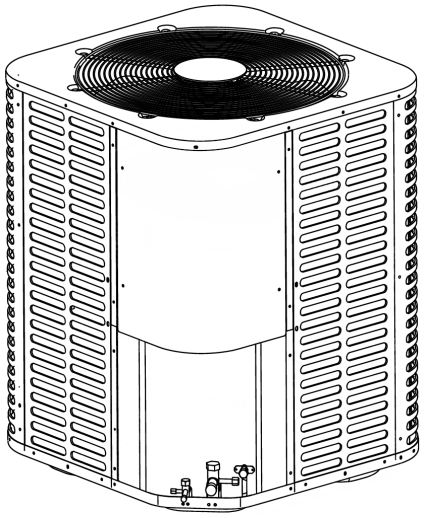
PRODUCT SPECIFICATION

M-SERIES – HEAT PUMP, 1.5-5 TON
MODEL NO. SPHP-M-10XXBB

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1. FEATURES

- R-454B (A2L) refrigerant. Low flammability, low toxicity, and low GWP.
- High efficiency, up to 15.2 SEER2 and 7.8 HSPF2
- Single stage compressor. 5 ton unit available with 2-stage compressor.
- Internal protection against high temperature motor overload conditions.
- Equipped with crankcase heater.
- Fin and tube condenser.
- Brazed refrigerant line connections.
- Powder-coated galvanized steel construction.
- Troubleshooting LED display.
- Standard 24 VAC controls.

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2. NOMENCLATURE

SPHP - M - 1 024 B B

PRODUCT NAME
SPHP: Heat Pump

SERIES
M: M-Series

STAGES
1: Single-Stage Compressor

NOMINAL CAPACITY
018: 18K BTU/h (1.5 Ton)
024: 24K BTU/h (2 Ton)
030: 30K BTU/h (2.5 Ton)
036: 36K BTU/h (3 Ton)
042: 42K BTU/h (3.5 Ton)
048: 48K BTU/h (4 Ton)
060: 60K BTU/h (5 Ton)
061: 61K BTU/h (5 Ton)

VOLTAGE
B: 208-230 V, 1 Ph, 60 Hz

REFRIGERANT
B: R-454B

3. SPECIFICATIONS

ITEM	UNITS	SPHP-M-1018BB	SPHP-M-1024BB	SPHP-M-1030BB	SPHP-M-1036BB
AC Pro #	-	83897	83898	83899	83900
GENERAL					
System Type	-	Split, Central Ducted			
Unit Type	-	Outdoor Unit, Heat Pump			
Matched Indoor Unit	-	AIRH-M-1024E08B	AIRH-M-1024E08B	AIRH-M-1036E12B	AIRH-M-1036E12B
Controls Type	-	24V Controls (1H/1C)			
Nominal Capacity	BTU/h	18K	24K	30K	36K
PERFORMANCE[*1]					
Rated Cooling Capacity[*2]	BTU/h	18,000	23,200	27,600	34,200
EER2[*2]	-	12	12	12	11.7
SEER2[*2]	-	15.2	15.2	15.2	14.3
Rated Heating Capacity[*3]	BTU/h	17,200	22,400	26,000	34,200
HSPF2[*3]	-	7.8	7.8	7.8	7.5
ELECTRICAL					
Input Voltage, Phases, Frequency	V, Ph, Hz	208-230, 1, 60			
Minimum Circuit Ampacity (MCA)	A	11.5	14.7	17.1	21.5
Maximum Overcurrent Protection (MOCP)	A	20	25	30	35
COMPRESSOR					
Type	-	Scroll, 1-Stage	Scroll, 1-Stage	Scroll, 1-Stage	Scroll, 1-Stage
Rated Load Amps	A	8.4	10.7	12.7	16
OUTDOOR FAN(S)					
Airflow	CFM	1,840 (Max)	2,700 (Max)	2,700 (Max)	2,880 (Max)
Full Load Amps	A	1	1.3	1.3	1.5
REFRIGERATION SYSTEM					
Refrigerant	-	R-454B			
Refrigerant Pre-Charge	lb – oz	4 – 11	5 – 13	5 – 13	5 – 9
Pre-Charged for Lineset Length	ft	15	15	15	15
Additional Charge Per ft	oz/ft	0.59	0.59	0.59	0.59
Max Lineset Length[*4]	ft	150	150	150	150
Max Height Difference[*4]	ft	60	60	60	60
Connection Method	-	Brazed			
Liquid Connection Size (OD)	in	3/8	3/8	3/8	3/8
Vapor Connection Size (OD)	in	3/4	3/4	3/4	3/4
Metering Device	-	Piston	Piston	Piston	Piston
OPERATION RANGE					
Outdoor Temperature (Cooling)	°F	55 – 120	55 – 120	55 – 120	55 – 120
Outdoor Temperature (Heating)	°F	5 – 86	5 – 86	5 – 86	5 – 86
NOISE LEVEL					
Sound Power Level	dB(A)	73	75	75	77

NOTES:
1.** Based on matched system rating. Refer to AHRI directory. ** Where indicated, specifications apply at the following conditions and temperatures: ***2.** Indoor DB 80°F / WB 67°F, Outdoor DB 95°F / WB 75°F; ***3.** Indoor DB 70°F / WB 60°F, Outdoor DB 47°F / WB 43°F. ***4.** Max length and max height difference cannot be combined. Performance is reduced at max length. Refer to installation instructions.

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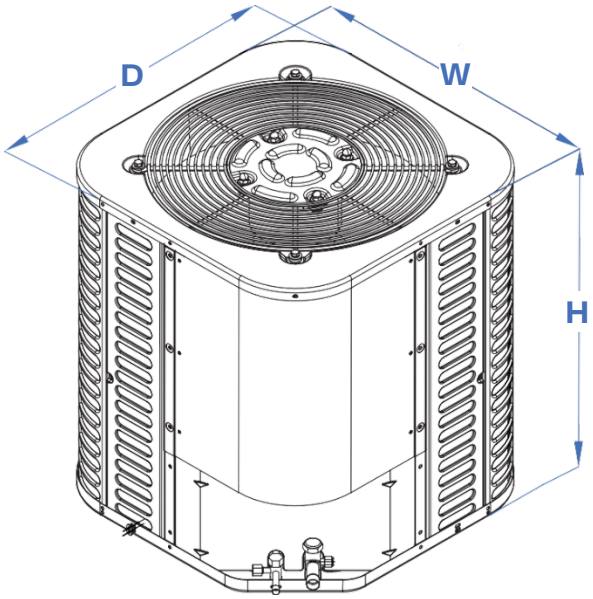
3. SPECIFICATIONS (CONTINUED)

ITEM	UNITS	SPHP-M-1042BB	SPHP-M-1048BB	SPHP-M-1060BB	SPHP-M-1061BB
AC Pro #	-	83901	83902	83903	83904
GENERAL					
System Type	-	Split, Central Ducted			
Unit Type	-	Outdoor Unit, Heat Pump			
Matched Indoor Unit	-	AIRH-M-1048E16B	AIRH-M-1048E16B	AIRH-M-1060E20B	AIRH-M-1061E20B
Controls Type	-	24V Controls (1H/1C)			24V Controls (2H/2C)
Nominal Capacity	BTU/h	42K	48K	60K	61K
PERFORMANCE*1					
Rated Cooling Capacity*2	BTU/h	41,500	45,000	54,000	55,000
EER2*2	-	12	12	11.7	12
SEER2*2	-	15.2	15.2	14.3	15.2
Rated Heating Capacity*3	BTU/h	40,500	44,000	54,000	55,000
HSPF2*3	-	7.8	7.8	7.5	7.8
ELECTRICAL					
Input Voltage, Phases, Frequency	V, Ph, Hz	208-230, 1, 60			
Minimum Circuit Ampacity (MCA)	A	26.2	28	34.5	35.1
Maximum Overcurrent Protection (MOCP)	A	45	48	60	60
COMPRESSOR					
Type	-	Scroll, 1-Stage	Scroll, 1-Stage	Scroll, 1-Stage	Scroll, 2-Stage
Rated Load Amps	A	19.6	20.8	26	26.6
OUTDOOR FAN(S)					
Airflow	CFM	3,290 (Max)	3,540 (Max)	3,720 (Max)	3,370 (Max)
Full Load Amps	A	1.7	2	1.8	2
REFRIGERATION SYSTEM					
Refrigerant	-	R-454B			
Refrigerant Pre-Charge	lb – oz	6 – 11	6 – 11	6 – 15	9 – 9
Pre-Charged for Lineset Length	ft	15	15	15	15
Additional Charge Per ft	oz/ft	0.59	0.59	0.59	0.59
Max Lineset Length*4	ft	150	150	150	150
Max Height Difference*4	ft	50	56	60	60
Connection Method	-	Brazed			
Liquid Connection Size (OD)	in	3/8	3/8	3/8	3/8
Vapor Connection Size (OD)	in	7/8	3/4	1-1/8	1-1/8
Metering Device	-	Piston	Piston	Piston	Piston
OPERATION RANGE					
Outdoor Temperature (Cooling)	°F	55 – 120	55 – 120	55 – 120	55 – 120
Outdoor Temperature (Heating)	°F	5 – 86	5 – 86	5 – 86	5 – 86
NOISE LEVEL					
Sound Power Level	dB(A)	78	78	80	80

NOTES:
1.** Based on matched system rating. Refer to AHRI directory. ** Where indicated, specifications apply at the following conditions and temperatures: ***2.** Indoor DB 80°F / WB 67°F, Outdoor DB 95°F / WB 75°F; ***3.** Indoor DB 70°F / WB 60°F, Outdoor DB 47°F / WB 43°F. ***4.** Max length and max height difference cannot be combined. Performance is reduced at max length. Refer to installation instructions.

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4. DIMENSIONS AND WEIGHT



NOTE: Image for reference only. Actual appearance may vary.

ITEM	UNITS	SPHP-M-1018BB	SPHP-M-1024BB	SPHP-M-1030BB	SPHP-M-1036BB
Height (H)	in	24-15/16	24-15/16	24-15/16	24-15/16
Width (W)	in	23-5/8	28	28	29-1/8
Depth (D)	in	23-5/8	28	28	29-1/8
Weight	in	137	149	149	165

ITEM	UNITS	SPHP-M-1042BB	SPHP-M-1048BB	SPHP-M-1060BB	SPHP-M-1061BB
Height (H)	in	33-3/16	33-3/16	33-3/16	33-3/16
Width (W)	in	28	28	29-1/8	29-1/8
Depth (D)	in	28	28	29-1/8	29-1/8
Weight	in	181	197	208	213

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