

BARD WALL-MOUNT™ Single Stage Heat Pumps 1.5 to 5 Ton Capacity W18H - W60H Unit Models 208V - 460V Single and Three Phase 60hz

WH Series WALL-MOUNT™

The Bard WH Series Wall-Mount Heat Pump is an energy efficient self contained system that is designed to offer maximum indoor temperature control. Installed on an exterior wall surface, the WH Series provides cooling and heating without using valuable indoor floor space or outside ground space. This unit is the ideal product for versatile applications such as: modular buildings, light commercial, mobile buildings, schools, mining, petro-chemical, telecom, industrial, energy storage, and data centers. Factory or field installed accessories are available to meet specific job requirements for your unique application.

WH Series Features:

- 1.5 to 5 ton cooling capacity uses energy efficient components including today's newest compressor designs. Heat is provided using the refrigeration system to save energy costs.
- Multi-speed Electronically commutated indoor motor (ECM) technology.
- Enclosed outdoor fan motor with ball bearing construction.
- Copper/Aluminum finned coils, and refrigerant system includes filter drier. Evaporator coil includes green fin coil protection.
- R-454B A2L Refrigerant that meets the global objectives outlined in the Montreal Protocol and the Kigali Amendment.
- Factory or field installed ventilation options including economizers and energy recovery ventilators.
- Multiple cabinet finishes including stainless steel and aluminum.
- Coil and cabinet coating options for additional corrosion protection.
- Optional factory or field installed electric heater options from 4kw up to 15kw.
- Optional Circuit breakers for 208/230V single and three phase units.
- Filter options up to MERV13.
- Indoor air quality options including UVC-LED and NPBI devices.
- Controls include short cycle protection and phase monitoring. Hi and low pressure switch refrigerant system protection standard.
- Optional hot gas reheat dehumidification is available for most models.

FORM NO. S3659-0924



WH Series Compliance:

- Complies with efficiency requirements of ANSI/ASHRAE/IES 90.1-2019.
- Certified to ANSI/AHRI Standard 390-2021 for SPVU (Single Package Vertical Units).
- Intertek ETL Listed to Standard for Safety of Household and Similar Electrical Appliances ANSI/UL STD 60335-1 & ANSI/UL STD 60335-2-40/CSA STD C22.2 No. 60335-1 & CSA STD C22.2 No. 60335-2-40 Fourth Edition.
- Commercial Product - Not intended for residential applications.
- Bard is an ISO 9001:2015 Certified Manufacturer.
- The AHRI Certified® mark indicates Bard Manufacturing Company participation in the AHRI Certification program. For verification of individual certified products, go to www.ahridirectory.org.



Globally Recognized. Industry Respected.



intertek



www.BardHVAC.com

MODEL #	W	36	H	F	-	A	OZ	X	P	X	X	X	J
DIGIT #	1	2,3	4	5	6	7	8,9	10	11	12	13	14	15

1	1. Series - Single Stage Compressor
W	Bard Exterior Wall-Mount

2, 3

2-3. Nominal Capacity			
18	1.5 Ton	42	3.5 Ton
24	2.0 Ton	48	4.0 Ton
30	2.5 Ton	60	5.0 Ton
36	3.0 Ton		

4	4. Unit Type - Controls Location	Units
H	Heat Pump	W18-W60

5	5. Revision
F	Revision (R-454B Refrigerant)

6	6. Special Feature Placeholder	Units
-	Standard Unit	W18-W60
D	HGR Dehumidification	W24-W60
L	Low Ampacity and HGR	W24-W60

7	7. Voltage	Ph.	Hz.	Units
A	208/230VAC	1	60	W18-W60
B	208/230VAC	3	60	W24-W60
C	460VAC	3	60	W24-W60

8, 9	8-9. Electric Heater Options
00	OKw with Lug Connections
OZ	OKw with Breaker or Disconnect
04-15	4-15Kw Heat w/breaker or Disconnect

10	10. Ventilation Package Options	Units
X	Barometric Air Damper (Intake)	W18-W60
A	Bar. Air Damper (Intake+Exh)	W18-W60
B	Block Off Plate (No Vent)	W18-W60
M	Powered Comm. Vent, On/Off	W18-W60
V	Powered Comm. Vent, On/Off/Mod.	W18-W60
D	Econ, Field Supplied Controls	W18-W60
Y	Economizer, JADE, Dry Bulb	W18-W60
Z	Economizer, JADE, Enthalpy	W18-W60
R	Energy Recovery Ventilator	W18-W60
S	Partial Flow Econ, JADE, Enthalpy	W18-W36

11	11. Filter and IAQ Options	Units
X	Standard 1" MERV2 Disposable Filter.	W18-W60
W	1" MERV2 Washable Filter.	W18-W60
P	2" MERV8 Disposable Filter.	W18-W60
M	2" MERV11 Disposable Filter.	W18-W60
N	2" MERV13 Disposable Filter.	W18-W60
A	2" MERV13 Filter with UVC-LED Light.	W18-W60
B	2" MERV13 Filter with NPBI Device.	W18-W60
C	2" MERV8 Filter with NPBI Device.	W18-W60

12	12. Cabinet Color and Finish	Units
X	Standard Beige Enamel Painted Steel.	W18-W60
1	White Enamel Painted Steel.	W18-W60
4	Buckeye Gray Enamel Painted Steel.	W18-W60
5	Desert Brown Enamel Painted Steel.	W18-W60
8	Dark Bronze Enamel Painted Steel.	W18-W60
S	316 Stainless Steel Exterior Finish.	W18-W60
A	Stucco Textured Aluminum Exterior Finish	W18-W60

13	13. Cabinet Style	Units
X	Standard Cabinet	W18-W60
J	Recessed Cabinet Top for Overhangs	W42-W60 (No Dehum)

14	14. Coil and Cabinet Coatings	Units
X	Standard Copper/Aluminum evap and cond coils.	W18-W60
1	Coated indoor evap coil, std outdoor cond. coil.	W18-W60
2	Coated outdoor cond coil, std indoor evap coil.	W18-W60
3	Coated indoor evap and outdoor cond coil.	W18-W60
4	Coated coils and unit cabinet condenser area.	W18-W60
5	Coated coils and interior/exterior cabinet.	W18-W60

15	15. Unit Mounted Controls Options	Units
	Standard: Hi/Lo Pressure and Ref. Leak (RDS) Sensor	
X	Standard Controls	W18-W60
E	X + Low Ambient Control (LAC)	W18-W60
J	X + LAC and Alarm Relay (ALR)	W18-W60
F	X + LAC, ALR, and Filter Switch (FS)	W42-W60
Q	X + Outdoor Thermostat	W18-W60
R	X + LAC, Outdoor Thermostat	W18-W60
T	X + LAC, Outdoor Thermostat, Hard Start Kit	W18-W60

INTERACTIVE TABLE OF CONTENTS (SELECT  ICON WITH CURSOR TO GO TO LOCATION, PICK  TO RETURN)



WH SERIES AHRI CAPACITY AND EFFICIENCY RATINGS

MODELS	W18HF	W24HF	W30HF	W36HF	W42HF	W48HF	W60HF
Cooling Capacity BTUH①	17,700	23,000	30,000	36,800	42,500	47,000	57,000
Unit Cooling efficiency EER	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Heating Capacity BTUH①	15,700	23,000	27,400	33,000	38,000	43,000	54,000
Unit Heating efficiency COP	3.3	3.3	3.3	3.3	3.3	3.3	3.3

① Capacity is certified in accordance with ANSI/ARI Standard 390-2021.

② EER = Energy Efficiency Ratio and is certified in accordance with ANSI/ARI Standard 390-2021. All ratings based on no outside air introduction).

UNIT COOLING CAPACITY AT VARIOUS INDOOR AND OUTDOOR CONDITIONS, W18H TO W48H UNITS

MODEL	INDOOR RETURN AIR (DB/WB)	COOLING CAPACITY (BTUH)	DRY BULB OUTDOOR AIR TEMPERATURE ENTERING UNIT CONDENSER AREA										
			75°F 23.9°C	80°F 26.6°C	85°F 29.4°C	90°F 32.2°C	95°F 35°C	100°F 37.8°C	105°F 40.5°C	110°F 43.3°C	115°F 46.1°C	120°F 48.8°C	125°F 51.6°C
W18HF	75/62	Total Cooling	19300	18300	17200	16300	15400	14700	13900	13300	12700	12200	11600
		Sensible Cooling	15100	14500	14100	13600	13300	12900	12600	12400	12200	12100	11600
	80/67	Total Cooling	20600	19900	19100	18400	17700	17100	16400	15800	15200	14700	14100
		Sensible Cooling	14600	14200	13900	13600	13400	13100	12900	12800	12700	12600	12500
	85/72	Total Cooling	24600	23300	22000	20800	19700	18700	17700	16800	16000	15300	14500
		Sensible Cooling	15000	14400	14000	13500	13200	12700	12300	12000	11700	11400	11100
W24HF	75/62	Total Cooling	25200	23800	22500	21200	20100	19100	18300	17500	16700	16200	15700
		Sensible Cooling	20800	19800	18900	18100	17500	16800	16400	16100	15800	15600	15500
	80/67	Total Cooling	26900	25900	24900	23900	23000	22200	21500	20800	20100	19600	19100
		Sensible Cooling	20100	19400	18700	18100	17600	17100	16800	16600	16400	16300	16300
	85/72	Total Cooling	32100	30300	28600	27000	25600	24300	23200	22200	21200	20400	19700
		Sensible Cooling	20600	19700	18800	18000	17300	16600	16000	15600	15100	14800	14500
W30HF	75/62	Total Cooling	31400	29900	28700	27400	26100	25100	24000	22900	22000	21100	20100
		Sensible Cooling	25000	24400	23900	23300	22800	22300	21900	21400	21000	20600	20100
	80/67	Total Cooling	33500	32600	31800	30900	30000	29200	28300	27300	26400	25500	24500
		Sensible Cooling	24200	23900	23600	23300	23000	22700	22400	22100	21800	21500	21100
	85/72	Total Cooling	39900	38100	36500	34900	33400	32000	30500	29100	27800	26500	25200
		Sensible Cooling	24800	24300	23700	23200	22600	22000	21400	20700	20100	19500	18700
W36HF	75/62	Total Cooling	38200	36600	35100	33600	32100	30700	29300	27800	26400	25000	23700
		Sensible Cooling	29200	28400	27600	26900	26100	25400	24600	23900	23100	22400	21700
	80/67	Total Cooling	40800	39900	39000	37900	36800	35700	34500	33100	31800	30300	28800
		Sensible Cooling	28300	27800	27300	26900	26300	25800	25200	24700	24000	23400	22800
	85/72	Total Cooling	48600	46700	44800	42800	40900	39100	37200	35200	33400	31500	29600
		Sensible Cooling	29000	28200	27500	26700	25800	25000	24000	23200	22100	21200	20200
W42HF	75/62	Total Cooling	44400	42600	40800	38900	37000	35100	33200	31200	29200	27100	24900
		Sensible Cooling	35600	34400	33200	32100	31100	30100	29200	28300	27400	26600	24900
	80/67	Total Cooling	47400	46400	45300	44000	42500	40900	39100	37200	35100	32800	30300
		Sensible Cooling	34500	33700	32900	32100	31400	30600	29900	29200	28500	27800	27200
	85/72	Total Cooling	56500	54300	52000	49700	47200	44800	42200	39600	36900	34100	31200
		Sensible Cooling	35400	34200	33100	31900	30800	29600	28500	27400	26300	25100	24100
W48HF	75/62	Total Cooling	54200	50300	46800	43700	40900	38600	36500	34700	33300	32000	31100
		Sensible Cooling	29900	36300	41200	43700	40900	38600	36500	34700	33300	32000	30700
	80/67	Total Cooling	57800	54800	52000	49400	47000	44900	43100	41400	40000	38800	37900
		Sensible Cooling	29000	35600	40800	44600	47000	44900	43100	41400	40000	38200	32300
	85/72	Total Cooling	68900	64100	59700	55800	52200	49100	46500	44100	42000	40300	39000
		Sensible Cooling	29700	36100	41000	44300	46100	43400	41100	38800	36900	34500	28600



UNIT COOLING CAPACITY AT VARIOUS INDOOR AND OUTDOOR CONDITIONS, W60H UNITS

MODEL	INDOOR RETURN AIR (DB/WB)	COOLING CAPACITY (BTUH)	DRY BULB OUTDOOR AIR TEMPERATURE ENTERING UNIT CONDENSER AREA										
			75°F 23.9°C	80°F 26.6°C	85°F 29.4°C	90°F 32.2°C	95°F 35°C	100°F 37.8°C	105°F 40.5°C	110°F 43.3°C	115°F 46.1°C	120°F 48.8°C	125°F 51.6°C
W60HF	75/62	Total Cooling	60600	57600	54800	52200	49600	47300	45000	42800	40700	38700	36800
		Sensible Cooling	47500	46100	44800	43500	42300	41200	40000	38900	37900	37000	36000
	80/67	Total Cooling	64700	62800	60900	59000	57000	55100	53100	51000	49000	46900	44800
		Sensible Cooling	46100	45200	44400	43500	42700	41900	41000	40200	39400	38700	37900
	85/72	Total Cooling	77100	73400	69900	66600	63300	60300	57300	54300	51500	48700	46100
		Sensible Cooling	47200	45900	44600	43200	41900	40500	39100	37700	36300	35000	33500

- Notes:
- Unit compressor cooling operation below 60°F requires a Low Ambient Control (LAC).
 - 1000 BTUH = .29307 kW
 - Outdoor air temperatures provided are an average of the condenser inlet air temperature.

Capacity Multiplier Factors							
% of Rated Airflow	-30%	-20%	-10%	Rated	+10%	+20%	+30%
Total BTUH	0.93	0.95	0.97	1	1.01	1.02	1.04
Sensible BTUH	0.90	0.93	0.95	1	1.02	1.05	1.09

UNIT HEAT PUMP HEATING CAPACITY AT VARIOUS OUTDOOR CONDITIONS, W18H TO W60H UNITS

MODEL	UNITS	DRY BULB OUTDOOR AIR TEMPERATURE ENTERING UNIT CONDENSER AREA													
		0°F -17.7°C	5°F -15°C	10°F -12.2°C	15°F -9.4°C	20°F -6.6°C	25°F -3.8°C	30°F -1.1°C	35°F 1.6°C	40°F 4.4°C	45°F 7.2°C	50°F 10°C	55°F 12.7°C	60°F 15.5°C	65°F 18.3°C
W18HF	BTUH	7200	7800	8400	9100	9900	10800	11800	12800	14000	15200	16600	18000	19500	21100
	WATTS	1180	1210	1240	1270	1290	1320	1340	1360	1370	1390	1400	1420	1430	1430
	COP	1.79	1.89	1.99	2.10	2.25	2.40	2.58	2.76	2.99	3.20	3.47	3.71	4.00	4.32
W24HF	BTUH	7600	9300	11000	12700	14400	16000	17600	19300	20800	22400	24000	25500	27100	28600
	WATTS	1710	1730	1750	1760	1780	1810	1830	1850	1880	1900	1930	1960	1990	2030
	COP	1.30	1.58	1.84	2.11	2.37	2.59	2.82	3.06	3.24	3.46	3.64	3.81	3.99	4.13
W30HF	BTUH	6900	8700	10500	12200	13800	15500	17100	18600	20200	21700	23100	24500	25900	27300
	WATTS	2030	1940	1870	1820	1800	1790	1810	1840	1900	1980	2070	2190	2330	2500
	COP	1.00	1.31	1.65	1.96	2.25	2.54	2.77	2.96	3.12	3.21	3.27	3.28	3.26	3.20
W36HF	BTUH	10900	12500	14200	15900	17600	19300	21100	22900	24800	26700	28600	30600	32500	34600
	WATTS	1980	2000	2030	2050	2080	2100	2130	2160	2180	2210	2240	2270	2300	2320
	COP	1.61	1.83	2.05	2.27	2.48	2.69	2.90	3.11	3.33	3.54	3.74	3.95	4.14	4.37
W42HF	BTUH	9300	11200	13100	15000	16800	18600	20300	22000	23700	25400	27000	28600	30200	31700
	WATTS	2380	2280	2200	2140	2100	2090	2100	2140	2190	2270	2380	2500	2650	2820
	COP	1.15	1.44	1.75	2.05	2.34	2.61	2.83	3.01	3.17	3.28	3.32	3.35	3.34	3.29
W48HF	BTUH	13500	15400	17300	19300	21300	23400	25500	27700	29900	32100	34400	36800	39200	41700
	WATTS	2500	2530	2560	2590	2620	2650	2690	2720	2750	2790	2820	2860	2890	2930
	COP	1.58	1.78	1.98	2.18	2.38	2.59	2.78	2.98	3.19	3.37	3.58	3.77	3.98	4.17
W60HF	BTUH	13200	15000	16900	18900	20900	23000	25100	27300	29500	31700	34000	36400	38800	41200
	WATTS	2400	2480	2560	2620	2690	2740	2800	2840	2880	2920	2950	2970	2990	3010
	COP	1.61	1.77	1.93	2.11	2.28	2.46	2.63	2.82	3.00	3.18	3.38	3.59	3.80	4.01

- Notes:
- Performance given for 70°F DB indoor return air at rated CFM. Data includes defrost operation below 45° outdoor temperature.
 - Supplemental Electric heaters are recommended for applications requiring heating below a 15°F outdoor temperature.
 - 1000 BTUH = .29307 kW
 - Outdoor air temperatures provided are an average of the condenser inlet air temperature.

Capacity Multiplier Factors							
% of Rated Airflow	-30%	-20%	-10%	Rated	+10%	+20%	+30%
Total BTUH	0.93	0.95	0.97	1	1.01	1.02	1.04



1.5 TON W18H (18,000 BTUH) TO 3 TON W36H (36,000 BTUH) RIGHT SIDE CONTROLS CABINET DIMENSIONS

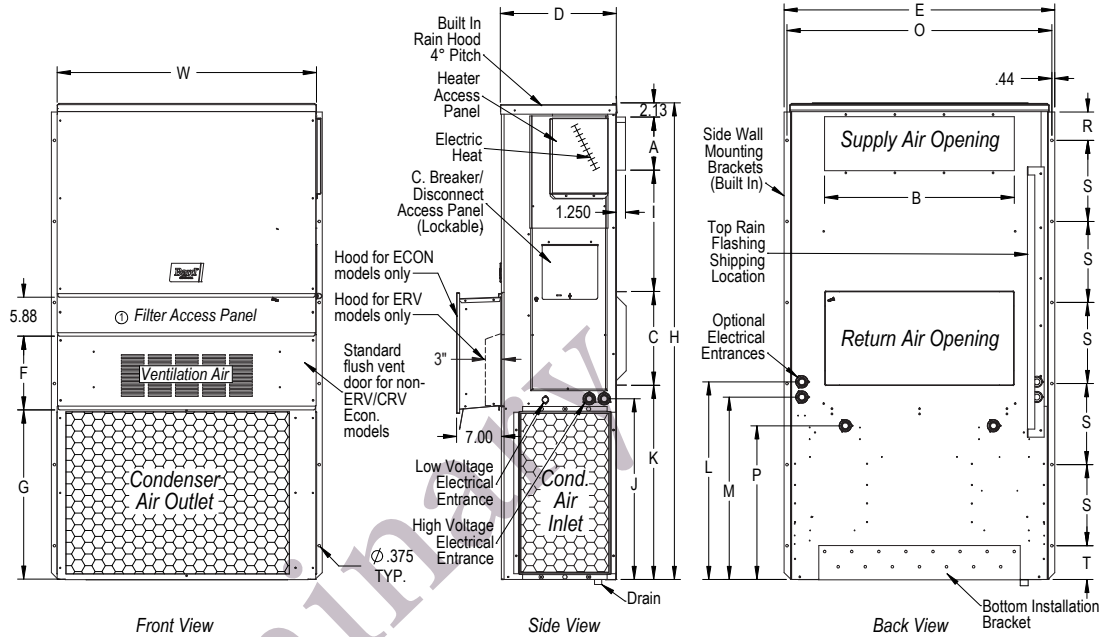
DIMENSIONS OF BASIC UNIT FOR ARCHITECTURAL & INSTALLATION REQUIREMENTS (NOMINAL)																						
MODEL	WIDTH (W)	DEPTH (D)	HEIGHT (H)	SUPPLY		RETURN		UNIT CABINET														
				A	B	C	D	E	F	G	I	J	K	L	M	N	O	P	Q	R	S	T
W18H W24H	33.30	17.13	74.56	7.88	19.88	11.88	19.88	35.00	10.88	29.75	20.56	30.75	32.06	33.25	31	2.63	34.13	26.06	10.55	3.94	12	9
W30H W36H	38.20	17.13	74.56	7.88	27.88	13.88	27.88	40.00	10.88	29.75	17.93	30.75	32.75	33.25	31	2.75	39.13	26.75	9.14	3.94	12	9

CLEARANCES REQUIRED FOR SERVICE AND CONDENSER AIRFLOW			
MODELS	LEFT SIDE	RIGHT SIDE	FRONT
W18H, W24H W30H, W36H	15"	20"	10'

MINIMUM CLEARANCES REQUIRED TO COMBUSTIBLE MATERIALS		
MODELS ①	SUPPLY AIR DUCT FIRST 3 FT.	CABINET
W18H, W24H	0"	0"
W30H, W36H	1/4"	0"

① Refer to the Installation Manual for more detailed information.

Notes:
 Opposing units that face each other require 15' clearance between condenser outlets.
 4" clearance recommended between unit base and ground level for defrost water drainage.



3.5 TON W42H (42,000 BTUH) TO 5 TON W60H (60,000 BTUH) CENTER CONTROLS CABINET DIMENSIONS

DIMENSIONS OF BASIC UNIT FOR ARCHITECTURAL & INSTALLATION REQUIREMENTS (NOMINAL)																						
MODEL	WIDTH (W)	DEPTH (D)	HEIGHT (H)	SUPPLY		RETURN		UNIT CABINET														
				A	B	C	B	E	F	G	I	J	K	L	M	N	O	R	S	T	U	V
W42H W48H	42	25.52	84.88	9.88	29.88	15.88	29.88	43.88	12.63	39.06	30	53.75	26.94	55.59	52.59	8.82	43	1.438	16	1.88	10.50	12.00
W60H	42	25.52	93.00	9.88	29.88	15.88	29.88	43.88	12.63	45	30	59.75	35.06	61.72	58.72	8.82	43	1.438	16	10	13.88	15.43

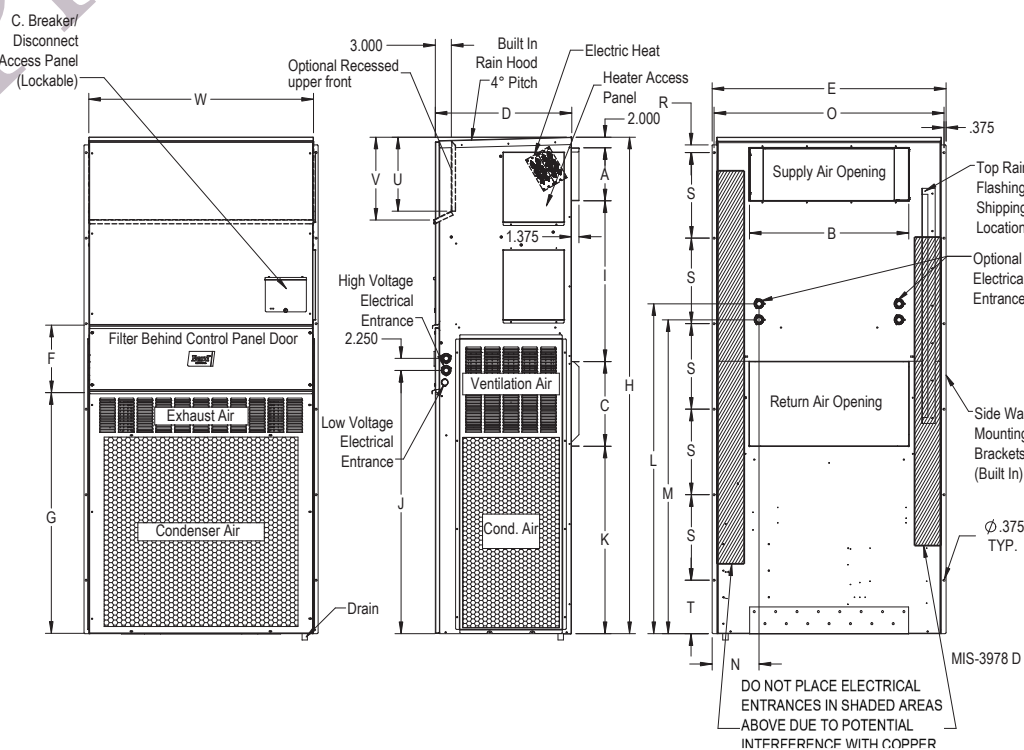
CLEARANCES REQUIRED FOR SERVICE AND CONDENSER AIRFLOW			
MODELS	LEFT SIDE	RIGHT SIDE	FRONT
W42H, W48H W60H	20"	20"	10'

ECONOMIZER, ERV, OR CRV VENTS REQUIRE 40" ON EITHER RIGHT OR LEFT SIDE FOR INSTALLATION OR REMOVAL. SEE INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.

MINIMUM CLEARANCES REQUIRED TO COMBUSTIBLE MATERIALS		
MODELS	SUPPLY AIR DUCT FIRST 3 FT.	CABINET
W42H, W48H W60H	1/4"	0"

Refer to the Installation Manual for more detailed information.

Notes:
 Opposing units that face each other require 15' clearance between condenser outlets.
 4" clearance recommended between unit base and ground level for defrost water drainage.



UNIT	DUCT FREE IN-DOOR COOLING OPERATION @ 5 FT.	DUCT FREE INDOOR COOLING OPERATION @ 10 FT.	DUCTED INDOOR COOLING OPERATION @ 5 FT.	DUCTED INDOOR COOLING OPERATION @ 10 FT.	OUTDOOR @ 10 FT.
W18H	49.6	47.3	48.6	46.2	62.8
W24H	52.4	50.4	51.9	48.9	62.3
W30H	53.9	52.9	54.5	47.3	67.1
W36H	53.9	52.9	54.5	47.3	67.1
W42H	56.1	51.7	56.3	51.1	68.6
W48H	57	52.7	57.8	52.8	69
W60H	56.5	53.3	56	52.7	66.8

Integrated values calculated per ANSI/ASA S12.60-2009/Part 2, Section 5.2.2.1.

////// GENERAL UNIT ELECTRICAL SPECIFICATIONS

MODELS	CONTROL PANEL CABINET LOCATION	NOMINAL VOLTAGE VAC	PH	HZ	VOLTAGE RANGE VAC	RATED LOAD AMPS (RLA)	BRANCH CIRCUIT SELECTION CURRENT (BCSC)	LOCKED ROTOR AMPS (LRA)	INDOOR MOTOR VOLTAGE	INDOOR MOTOR AMPS	INDOOR MOTOR HP	OUTDOOR MOTOR AMPS	OUTDOOR MOTOR HP
W18HF-A	Right Side	230/208V	1	60	197-253V	7.9/9A	8.3A	45.1A	230V	1.0A	1/3	1.0A	1/5
W24HF-A	Right Side	230/208V	1	60	197-253V	10.9/12.4A	11.4A	64.4A	230V	1.7A	1/3	1.1A	1/5
W24HF-B	Right Side	230/208V	3	60	197-253V	7.4/8.4A	7.7A	59.9A	230V	1.7A	1/3	1.1A	1/5
W24HF-C	Right Side	460V	3	60	414-506V	4.2A	3.8A	32.4A	460V	.9A	1/3	.6A	1/5
W30HF-A	Right Side	230/208V	1	60	197-253V	13.4/15.1A	12.7A	75.6A	230V	1.9A	1/2	1.4A	1/5
W30HF-B	Right Side	230/208V	3	60	197-253V	10.2/11.5A	9.6A	67.7A	230V	1.9A	1/2	1.4A	1/5
W30HF-C	Right Side	460V	3	60	414-506V	5.4A	4.5A	38.1A	460V	1.0A	1/2	.7A	1/5
W36HF-A	Right Side	230/208V	1	60	197-253V	16.0/18.0A	16.7A	93.5A	230V	2.4A	1/2	1.5A	1/5
W36HF-B	Right Side	230/208V	3	60	197-253V	11.7/13.2A	12.2A	97.5A	230V	2.4A	1/2	1.5A	1/5
W36HF-C	Right Side	460V	3	60	414-506V	6.3A	5.8A	44.3A	460V	1.2A	1/2	.8A	1/5
W42HF-A	Unit Front	230/208V	1	60	197-253V	19.1/22A	18.6A	123A	230V	2.5A	1/2	2.1A	1/3
W42HF-B	Unit Front	230/208V	3	60	197-253V	13.2/15.2A	12.8A	102.8A	230V	2.5A	1/2	2.1A	1/3
W42HF-C	Unit Front	460V	3	60	414-506V	6.9A	5.8A	50A	460V	1.25A	1/2	1.1A	1/3
W48HF-A	Unit Front	230/208V	1	60	197-253V	22.1/25A	22.4A	126A	230V	3.1A	3/4	2.1A	1/3
W48HF-B	Unit Front	230/208V	3	60	197-253V	12.7/14.3A	12.8A	120.4A	230V	3.1A	3/4	2.1A	1/3
W48HF-C	Unit Front	460V	3	60	414-506V	6.8A	6.0A	49.4A	460V	1.6A	3/4	1.1A	1/3
W60HF-A	Unit Front	230/208V	1	60	197-253V	26.7/31.1A	23.7A	157A	230V	4.2A	3/4	1.8A	1/3
W60HF-B	Unit Front	230/208V	3	60	197-253V	18.1/21.1A	16.0A	156.4A	230V	4.2A	3/4	1.8A	1/3
W60HF-C	Unit Front	460V	3	60	414-506V	9.3A	7.1A	69A	460V	2.1A	3/4	.9A	1/3

Note: All units have a Short Circuit Current Protection Rating (SCCR) of 5kA RMS Symmetrical.

////// GENERAL UNIT REFRIGERANT AND MECHANICAL SPECIFICATIONS

UNIT MODEL	REFRIGERANT SYSTEM				INDOOR EVAPORATOR BLOWER			OUTDOOR CONDENSER FAN		
	CHARGE TYPE	STANDARD UNIT CHARGE RATE	DEHUMIDIFICATION UNIT CHARGE RATE	COMPRESSOR TYPE	INDOOR MOTOR SPEEDS	INDOOR FAN	INDOOR CFM - RATED ESP	OUTDOOR MOTOR	OUTDOOR FAN	OUTDOOR FAN CFM
W18	R-454B	4.00 lbs.	N/A	Scroll	ECM-5SPD	Dual Blower	600 - .10	PSC	18" Axial	1800
W24	R-454B	4.50 lbs.	4.56 lbs.	Scroll	ECM-5SPD	Dual Blower	800 - .10	PSC	18" Axial	1800
W30	R-454B	6.00 lbs.	6.00 lbs.	Scroll	ECM-5SPD	Dual Blower	950 - .15	PSC	20" Axial	2400
W36	R-454B	6.50 lbs.	6.50 lbs.	Scroll	ECM-5SPD	Dual Blower	1150 - .15	PSC	20" Axial	2400
W42	R-454B	6.81 lbs.	6.81 lbs.	Scroll	ECM-5SPD	Dual Blower	1350 - .15	PSC	24" Axial	2900
W48	R-454B	8.38 lbs	7.31 lbs.	Scroll	ECM-5SPD	Dual Blower	1550 - .20	PSC	24" Axial	3000
W60	R-454B	9.50 lbs.	8.69 lbs.	Scroll	ECM-5SPD	Dual Blower	1750 - .20	PSC	24" Axial	3100



//////// AVAILABLE HEATER PACKAGES AND FIELD WIRING DATA - W18H TO W36H STANDARD UNITS

UNIT MODEL	KW OPTION	RATED VOLTAGE AND PHASE (60HZ)	CONNECTION POINT	NO. OF FIELD CIRCUITS	SINGLE CIRCUIT		DUAL CIRCUIT				FIELD INSTALLED HEATER KIT PART NUMBERS. HEATERS CAN BE FACTORY OR FIELD INSTALLED.
					MINIMUM CIRCUIT AMPACITY (MCA)	MAX. OVER CURRENT PROTECTION (MOC)	MCA		MOC		
							CKT. A	CKT. B	CKT. A	CKT. B	
W18HF-A	00	230/208-1	LUGS	1	15	20					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	15	20					WMCB-02A
	04	230/208-1	C BREAKER	1	36	40					EHWH018A-A04
	08	230/208-1	C BREAKER	1	57	60					EHWH018A-A08
W24HF-A	00	230/208-1	LUGS	1	20	25					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	20	25					WMCB-03A
	04	230/208-1	C BREAKER	1	41	45					EHWH024A-A04
	08	230/208-1	C BREAKER	1 or 2	61	70	20	42	25	45	EHWH024A-A08
W24HF-B	00	230/208-3	LUGS	1	15	20					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	15	20					WMCB-02B
	05	230/208-3	C BREAKER	1	30	30					EHWH024A-B05
W24HF-C	00	460-3	LUGS	1	8	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	8	15					WMPD-01C
	05	460-3	DISCONNECT	1	15	15					EHWH024A-C05
W30HF-A	00	230/208-1	LUGS	1	22	25					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	22	25					WMCB-03A
	05	230/208-1	C BREAKER	1	48	50					EHWH030A-A05
	10	230/208-1	C BREAKER	1 or 2	74	80	22	52	25	60	EHWH030B-A10
W30HF-B	00	230/208-3	LUGS	1	18	20					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	18	20					WMCB-02B
	05	230/208-3	C BREAKER	1	33	35					EHWH030A-B05
	09	230/208-3	C BREAKER	1	45	45					EHWH030A-B09
W30HF-C	00	460-3	LUGS	1	9	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	9	15					WMPD-01C
	05	460-3	DISCONNECT	1	16	20					EHWH030A-C05
	09	460-3	DISCONNECT	1	22	25					EHWH030A-C09
W36HF-A	00	230/208-1	LUGS	1	27	35					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	27	35					WMCB-05A
	05	230/208-1	C BREAKER	1	53	60					EHWH036A-A05
	10	230/208-1	C BREAKER	1 or 2	79	80	27	52	35	60	EHWH036A-A10
	15	230/208-1	C BREAKER	1 or 2	84	90	32	52	35	60	EHWH036A-A15
W36HF-B	00	230/208-3	LUGS	1	22	25					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	22	25					WMCB-03B
	05	230/208-3	C BREAKER	1	37	40					EHWH036A-B05
	09	230/208-3	C BREAKER	1	49	50					EHWH036A-B09
W36HF-C	00	460-3	LUGS	1	11	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	11	15					WMPD-01C
	05	460-3	DISCONNECT	1	18	20					EHWH030A-C05
	09	460-3	DISCONNECT	1	24	25					EHWH030A-C09

SEE ELECTRICAL NOTES ON NEXT PAGE.



AVAILABLE HEATER PACKAGES AND FIELD WIRING DATA - W42H TO W60H STANDARD UNITS

UNIT MODEL	KW OPTION	RATED VOLTAGE AND PHASE (60HZ)	CONNECTION POINT	NO. OF FIELD CIRCUITS	SINGLE CIRCUIT		DUAL CIRCUIT				FIELD INSTALLED HEATER KIT PART NUMBERS. HEATERS CAN BE FACTORY OR FIELD INSTALLED.
					MINIMUM CIRCUIT AMPACITY (MCA)	MAX. OVER CURRENT PROTECTION (MOCP)	MCA		MOCP		
							CKT. A	CKT. B	CKT. A	CKT. B	
W42HF-A	00	230/208-1	LUGS	1	31	35					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	31	35					WMCBC-05A
	05	230/208-1	C BREAKER	1	57	60					EHWH042A-A05
	10	230/208-1	C BREAKER	1 or 2	83	90	31	52	35	60	EHWH042B-A10
	15	230/208-1	C BREAKER	1 or 2	84	90	32	52	35	60	EHWH042B-A15
W42HF-B	00	230/208-3	LUGS	1	23	30					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	23	30					WMCBC-04B
	05	230/208-3	C BREAKER	1	38	40					EHWH042A-B05
	09	230/208-3	C BREAKER	1	50	50					EHCH042A-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH042A-B15
W42HF-C	00	460-3	LUGS	1	11	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	11	15					WMCBC-06C
	05	460-3	DISCONNECT	1	19	20					EHCH036A-C05
	09	460-3	DISCONNECT	1	25	25					EHCH036A-C09
	15	460-3	DISCONNECT	1	26	30					EHCH036A-C15
W48HF-A	00	230/208-1	LUGS	1	36	45					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	36	45					WMCBC-07A
	04	230/208-1	C BREAKER	1	57	60					EHWH048A-A04
	05	230/208-1	C BREAKER	1 or 2	62	70	36	26	45	30	EHWH048A-A05
	10	230/208-1	C BREAKER	1 or 2	88	90	36	52	45	60	EHWH048A-A10
	15	230/208-1	C BREAKER	1 or 2	88	90	36	52	45	60	EHWH048A-A15
W48HF-B	00	230/208-3	LUGS	1	24	30					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	24	30					WMCBC-04B
	05	230/208-3	C BREAKER	1	39	40					EHWH042A-B05
	09	230/208-3	C BREAKER	1	51	60					EHCH042A-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH042A-B15
W48HF-C	00	460-3	LUGS	1	12	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	12	15					WMCBC-06C
	05	460-3	DISCONNECT	1	19	20					EHCH036A-C05
	09	460-3	DISCONNECT	1	25	25					EHCH036A-C09
	15	460-3	DISCONNECT	1	26	30					EHCH036A-C15
W60HF-A	00	230/208-1	LUGS	1	38	45					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	38	45					WMCBC-07A
	05	230/208-1	C BREAKER	1 or 2	64	70	38	26	45	30	EHWH048A-A05
	10	230/208-1	C BREAKER	1 or 2	90	90	38	52	45	60	EHWH060A-A10
	15	230/208-1	C BREAKER	1 or 2	90	90	38	52	45	60	EHWH060A-A15
W60HF-B	00	230/208-3	LUGS	1	29	35					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	29	35					WMCBC-05B
	09	230/208-3	C BREAKER	1	56	60					EHCH042A-B09
	15	230/208-3	C BREAKER	1	56	60					EHWH060A-B15
W60HF-C	00	460-3	LUGS	1	14	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	14	15					WMCBC-06C
	09	460-3	DISCONNECT	1	27	30					EHCH036A-C09
	15	460-3	DISCONNECT	1	27	30					EHCH036A-C15

CAUTION: When more than one field power circuit is run through one conduit, the conductors must be de-rated. Pay special attention to Note 8 of Table 310 regarding Ampacity Adjustment Factors when more than three current carrying conductors are in a raceway.

IMPORTANT: While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses and conductor wires in accordance with the National Electrical Code and all local codes. MOCP (Maximum Over-current Protection) value listed is the maximum value as per UL 60335 calculations for MOCP (branch-circuit conductor sizes in this chart are based on this MOCP). The actual factory installed Over-current Protective Device (Circuit Breaker) in this model may be lower than the maximum UL 60335 allowable MOCP value, but still above the UL 60335 minimum calculated value or Minimum Circuit Ampacity (MCA) listed. Refer to the National Electrical code (latest version), Article 310 for power conductor sizing. Review all wiring and safety information provided in the installation manual for the product.



//////// AVAILABLE HEATER PACKAGES AND FIELD WIRING DATA - W24HFD TO W42HFD DEHUMIDIFICATION UNITS

UNIT MODEL	KW OPTION	RATED VOLTAGE AND PHASE (60HZ)	CONNECTION POINT	NO. OF FIELD CIRCUITS	SINGLE CIRCUIT		DUAL CIRCUIT				FIELD INSTALLED HEATER KIT PART NUMBERS. HEATERS CAN BE FACTORY OR FIELD INSTALLED.
					MINIMUM CIRCUIT AMPACITY (MCA)	MAX. OVER CURRENT PROTECTION (MOC)	MCA		MOC		
							CKT. A	CKT. B	CKT. A	CKT. B	
W24HFDA	00	230/208-1	LUGS	1	20	25					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	20	25					WMCB-03A
	04	230/208-1	C BREAKER	1	41	45					EHWH024A-A04
	08	230/208-1	C BREAKER	1 or 2	61	70	20	42	25	45	EHWH024A-A08
W24HFDB	00	230/208-3	LUGS	1	15	20					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	15	20					WMCB-02B
	05	230/208-3	C BREAKER	1	30	30					EHWH024A-B05
W24HFDC	00	460-3	LUGS	1	8	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	8	15					WMPD-01C
	05	460-3	DISCONNECT	1	15	15					EHWH024A-C05
W30HFDA	00	230/208-1	LUGS	1	22	25					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	22	25					WMCB-03A
	05	230/208-1	C BREAKER	1	48	50					EHWH030A-A05
	10	230/208-1	C BREAKER	1 or 2	74	80	22	52	25	60	EHWH030B-A10
W30HFDB	00	230/208-3	LUGS	1	18	25					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	18	25					WMCB-03B
	05	230/208-3	C BREAKER	1	33	35					EHWH030A-B05
	09	230/208-3	C BREAKER	1	45	45					EHWH030A-B09
W30HFDC	00	460-3	LUGS	1	9	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	9	15					WMPD-01C
	05	460-3	DISCONNECT	1	17	20					EHWH030A-C05
	09	460-3	DISCONNECT	1	23	25					EHWH030A-C09
W36HFDA	00	230/208-1	LUGS	1	28	35					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	28	35					WMCB-05A
	05	230/208-1	C BREAKER	1	54	60					EHWH036A-A05
	10	230/208-1	C BREAKER	1 or 2	80	80	28	52	35	60	EHWH036A-A10
W36HFDB	00	230/208-3	LUGS	1	22	25					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	22	25					WMCB-03B
	05	230/208-3	C BREAKER	1	37	40					EHWH036A-B05
	09	230/208-3	C BREAKER	1	49	50					EHWH036A-B09
W36HFDC	00	460-3	LUGS	1	11	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	11	15					WMPD-01C
	05	460-3	DISCONNECT	1	18	20					EHWH030A-C05
	09	460-3	DISCONNECT	1	24	25					EHWH030A-C09
W42HFDA	00	230/208-1	LUGS	1	31	35					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	31	35					WMCB-05A
	05	230/208-1	C BREAKER	1	57	60					EHWH042A-A05
	10	230/208-1	C BREAKER	1 or 2	83	90	31	52	35	60	EHWH042B-A10
	15	230/208-1	C BREAKER	1 or 2	85	90	32	52	35	60	EHWH042B-A15
W42HFDB	00	230/208-3	LUGS	1	23	30					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	23	30					WMCB-04B
	05	230/208-3	C BREAKER	1	38	40					EHWH042A-B05
	09	230/208-3	C BREAKER	1	51	60					EHCH042A-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH042A-B15

CAUTION: When more than one field power circuit is run through one conduit, the conductors must be de-rated. Pay special attention to Note 8 of Table 310 regarding Ampacity Adjustment Factors when more than three current carrying conductors are in a raceway.

IMPORTANT: While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses and conductor wires in accordance with the National Electrical Code and all local codes. MOC (Maximum Over-current Protection) value listed is the maximum value as per UL 60335 calculations for MOC (branch-circuit conductor sizes in this chart are based on this MOC). The actual factory installed Over-current Protective Device (Circuit Breaker) in this model may be lower than the maximum UL 60335 allowable MOC value, but still above the UL 60335 minimum calculated value or Minimum Circuit Ampacity (MCA) listed. Refer to the National Electrical code (latest version), Article 310 for power conductor sizing. Review all wiring and safety information provided in the installation manual for the product.



//////// AVAILABLE HEATER PACKAGES AND FIELD WIRING DATA - W42HFD TO W60HFD DEHUMIDIFICATION UNITS

UNIT MODEL	KW OPTION	RATED VOLTAGE AND PHASE (60HZ)	CONNECTION POINT	NO. OF FIELD CIRCUITS	SINGLE CIRCUIT		DUAL CIRCUIT				FIELD INSTALLED HEATER KIT PART NUMBERS. HEATERS CAN BE FACTORY OR FIELD INSTALLED.
					MINIMUM CIRCUIT AMPACITY (MCA)	MAX. OVER CURRENT PROTECTION (MOCP)	MCA		MOCP		
							CKT. A	CKT. B	CKT. A	CKT. B	
W42HFDC	00	460-3	LUGS	1	11	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	11	15					WMCBC-06C
	05	460-3	DISCONNECT	1	18	20					EHCH036A-C05
	09	460-3	DISCONNECT	1	24	25					EHCH036A-C09
	15	460-3	DISCONNECT	1	25	25					EHCH036A-C15
W48HFDA	00	230/208-1	LUGS	1	36	45					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	36	45					WMCBC-07A
	05	230/208-1	C BREAKER	1 or 2	62	70	36	26	45	30	EHWH048A-A05
	10	230/208-1	C BREAKER	1 or 2	88	90	36	52	45	60	EHWH048A-A10
	15	230/208-1	C BREAKER	1 or 2	88	90	36	52	45	60	EHWH048A-A15
W48HFDB	00	230/208-3	LUGS	1	24	30					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	24	30					WMCBC-04B
	05	230/208-3	C BREAKER	1	39	40					EHWH042A-B05
	09	230/208-3	C BREAKER	1	51	60					EHCH042A-B09
	15	230/208-3	C BREAKER	1	53	60					EHCH042A-B15
W48HFDC	00	460-3	LUGS	1	12	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	12	15					WMCBC-06C
	05	460-3	DISCONNECT	1	19	20					EHCH036A-C05
	09	460-3	DISCONNECT	1	25	25					EHCH036A-C09
	15	460-3	DISCONNECT	1	27	30					EHCH036A-C15
W60HFDA	00	230/208-1	LUGS	1	38	45					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	38	45					WMCBC-07A
	05	230/208-1	C BREAKER	1 or 2	64	70	38	26	45	30	EHWH048A-A05
	10	230/208-1	C BREAKER	1 or 2	90	90	38	52	45	60	EHWH060A-A10
	15	230/208-1	C BREAKER	1 or 2	90	90	38	52	45	60	EHWH060A-A15
W60HFDB	00	230/208-3	LUGS	1	29	35					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	29	35					WMCBC-05B
	09	230/208-3	C BREAKER	1	56	60					EHCH042A-B09
	15	230/208-3	C BREAKER	1	56	60					EHWH060A-B15
W60HFDC	00	460-3	LUGS	1	13	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	13	15					WMCBC-06C
	09	460-3	DISCONNECT	1	27	30					EHCH036A-C09
	15	460-3	DISCONNECT	1	27	30					EHCH036A-C15

SEE ELECTRICAL NOTES ON PREVIOUS PAGE.

//////// ELECTRIC HEAT KW AND BTUH CHART AT FIELD SUPPLIED VOLTAGE

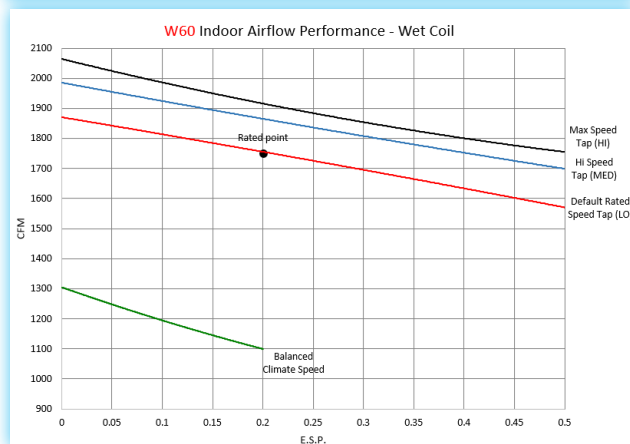
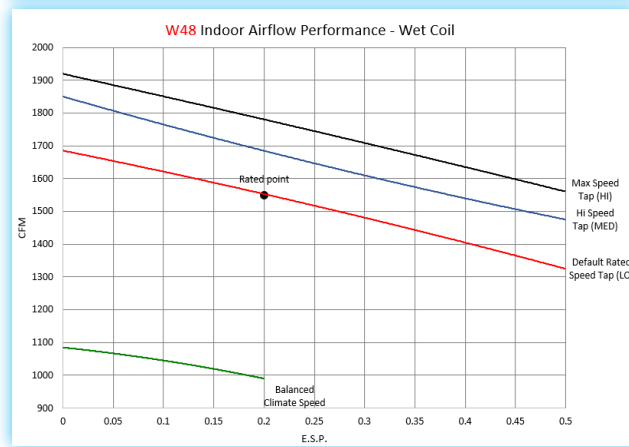
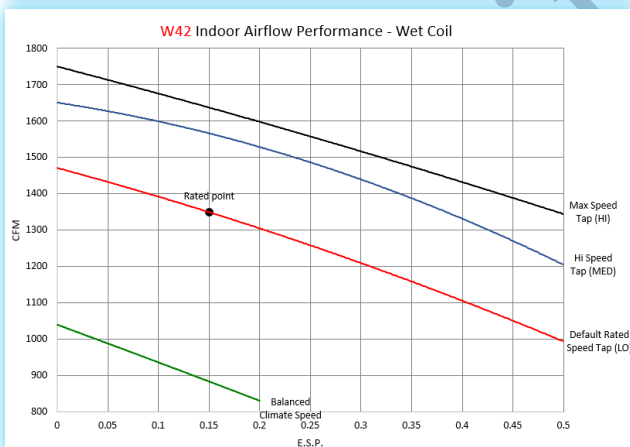
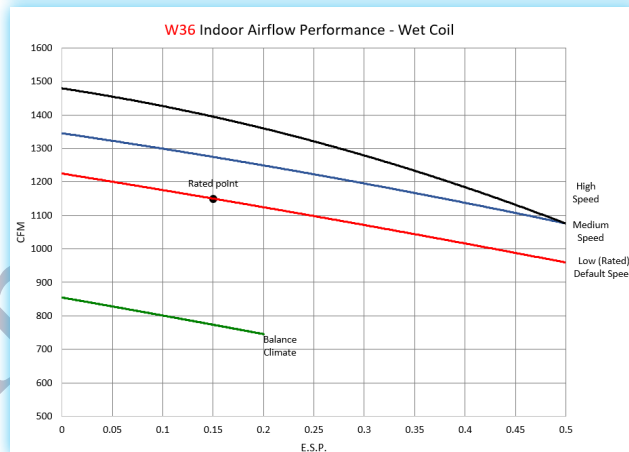
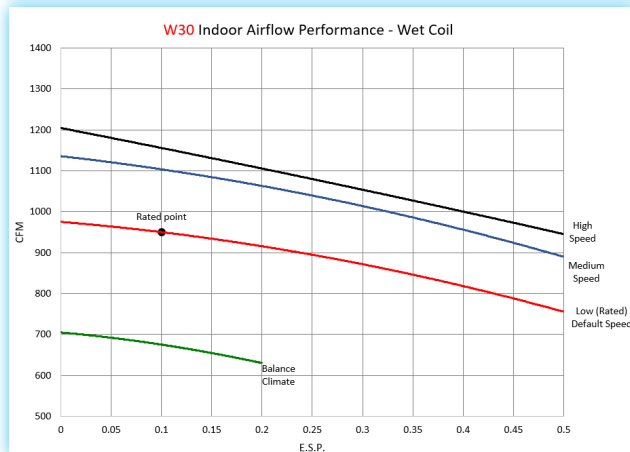
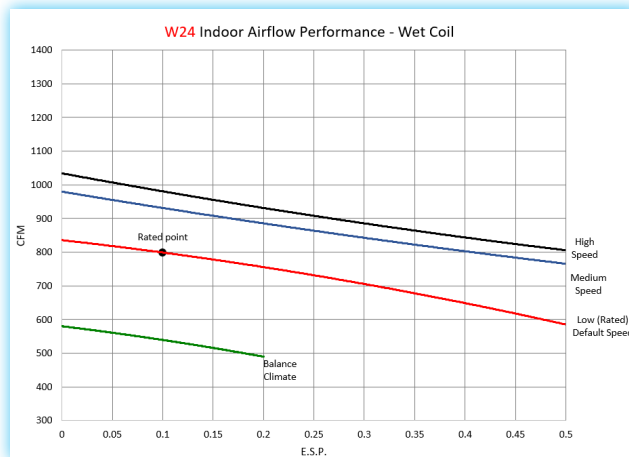
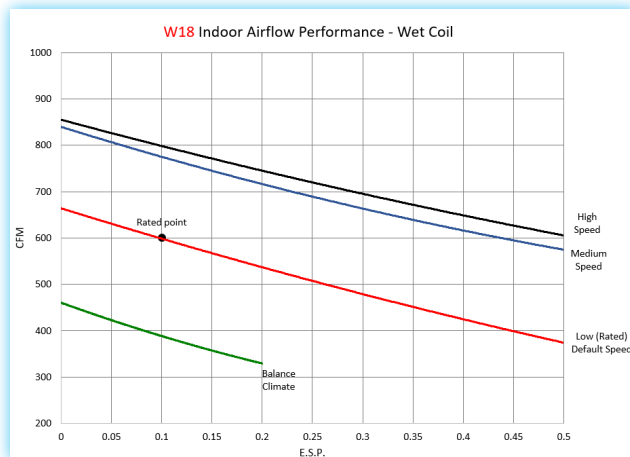
Electric Heat Nomenclature	Total KW and BTUH @ Field-Supplied Voltage										
	@ 208V				@ 230V				@ 460V		
	KW	1-PH Amps	3-PH Amps	BTUH	KW	1-PH Amps	3-PH Amps	BTUH	KW	3-PH Amps	BTUH
04	3.0	14.4		10,200	3.7	16.0		12,600			
05	3.8	18.0	10.4	12,800	4.6	20.0	11.5	15,700	4.6	5.8	15,700
08	6.0	28.8		20,500	7.4	32.0		25,100			
09	6.8		18.7	23,000	8.3		20.8	28,300	8.3	10.4	28,300
10	7.5	36.1		25,600	9.2	40.0		31,400			
15	11.3	54.1	31.2	38,400	13.8	60.0	34.6	47,100	13.8	17.3	47,100



VENTILATION OPTIONS FOR OUTDOOR AIR INTAKE AND ROOM EXHAUST

	VENT CODE	FIELD INSTALLED KIT PART NUMBER	UNIT MODEL NUMBER	INSTALLED WEIGHT	EXTERNAL FRONT HOOD DEPTH	VENTILATION OPERATION	OCCUPANCY VENTILATION INPUT SIGNAL	VENT AIRFLOW	DAMPER LEAKAGE STANDARD	VENT USE
Barometric Dampers	X	FAD-NE2	W18, W24	4.0 (1.8)	No Hood	Barometric	None	Up to 25% of rated intake air. No exhaust.	N/A	The Barometric Intake Damper opens when the indoor fan is operating. Pins provide an easy way to set up the damper assembly.
		FAD-NE3	W30, W36	5.0 (2.3)	No Hood	Barometric	None			
		FAD-NE5	W42, W48 W60	13 (5.9)	No Hood	Barometric	None			
	A	FAD-BE2	W18, W24	8.0 (3.6)	No Hood	Barometric	None	Up to 25% of rated intake air with room exhaust.	N/A	This damper provides the same features as the intake version with an added exhaust damper.
		FAD-BE3	W30, W36	9.0 (4.0)	No Hood	Barometric	None			
		FAD-BE5	W42, W48 W60	16 (7.3)	No Hood	Barometric	None			
No Vent	B	BOP-2	W18, W24	1.0 (.5)	No Hood	No Air path	None	None, Air paths are sealed with block off plates.	N/A	The No Vent option provides plates over the intake and exhaust ventilation openings.
		BOP-3	W30, W36	1.0 (.5)	No Hood	No Air path	None			
		BOPLATE-5	W42, W48 W60	14 (6.4)	No Hood	No Air path	None			
Commercial Ventilators	M	CRV-F2-*	W18, W24	31.0 (14.0)	No Hood	Motor, Spring Return	24VAC	Up to 50% of rated intake air with room exhaust.	10cfm/ft2	Powered outdoor intake and room exhaust air damper. Opens when 24VAC is applied.
		CRV-F3-*	W30, W36	35.0 (15.9)	No Hood	Motor, Spring Return	24VAC			
		CRV-F5	W42, W48 W60	42 (19.1)	No Hood	Motor, Spring Return	24VAC			
	V	CRV-V2-*	W18, W24	31.0 (14.0)	No Hood	Motor, Spring Return	24VAC or 2-10VDC	Up to 50% of rated intake air with room exhaust.	4cfm/ft2	Provides outdoor intake and room exhaust air with improved damper sealing. Opens with either a 24VAC signal or DC voltage is applied.
		CRV-V3-*	W30, W36	35.0 (15.9)	No Hood	Motor, Spring Return	24VAC or 2-10VDC			
		CRV-V5A	W42, W48 W60	42 (19.1)	No Hood	Motor, Spring Return	24VAC or 2-10VDC			
Free Cooling Economizers	D	ECON-NC2A-*	W18, W24	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	2-10VDC	Full rated intake air with room exhaust.	4cfm/ft2	Economizer assembly with damper motor. Field supplied controls needed for operation.
		ECON-NC3A-*	W30, W36	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	2-10VDC			
		ECON-NC5A	W42, W48 W60	44 (20)	No Hood	Motor, Spring Return	2-10VDC			
	S	ECON-S2-*	W18, W24	37.0 (16.8)	No Hood	Motor, Spring Return	24VAC or 0-10VDC	Up to 75% of rated intake air with room exhaust.	4cfm/ft2	Economizer with JADE controller. User defined economizing based on enthalpy curves.
		ECONS3-*	W30, W36	37.0 (16.8)	No Hood	Motor, Spring Return	24VAC or 0-10VDC			
	Y	ECON-DB2A-*	W42, W48 W60	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	24VAC or 0-10VDC	Full rated intake air with room exhaust.	4cfm/ft2	Economizer with JADE controller. User defined economizing based on dry bulb temperature.
		ECON-DB3A-*	W30, W36	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	24VAC or 0-10VDC			
		ECON-DB5A	W42, W48 W60	44 (20)	No Hood	Motor, Spring Return	24VAC or 0-10VDC			
	Z	ECON-WD2A-*	W18, W24	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	24VAC or 0-10VDC	Full rated intake air with room exhaust.	4cfm/ft2	Economizer with JADE controller. User defined economizing based on enthalpy curves.
		ECON-WD3A-*	W30, W36	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	24VAC or 0-10VDC			
		ECON-WD5A	W42, W48 W60, W72	44 (20)	No Hood	Motor, Spring Return	24VAC or 0-10VDC			
Energy Recovery Vents	R (230V Units)	ERV-FA2-*	W18, W24	54.0 (24.4)	4" (10.2cm)	208/230V Unit Blowers	24VAC - 3 speeds	Up to 200cfm	N/A	Energy Recovery Ventilator with independently adjustable intake and exhaust fans. Heat exchange wheel used to transfer heat from outdoor intake and room exhaust air paths.
		ERV-FA3-*	W30, W36	54.0 (24.4)	4" (10.2cm)	208/230V Unit Blowers	24VAC - 3 speeds	Up to 400cfm		
		ERV-FA5	W42, W48 W60	87 (39.5)	No Hood	208/230V Unit Blowers	24VAC - 3 speeds	Up to 450cfm		
	R (460V Units)	ERV-FC2-*	W24	54.0 (24.4)	4" (10.2cm)	460V Unit Blowers	24VAC - 3 speeds	Up to 200cfm		
		ERV-FC3-*	W30, W36	54.0 (24.4)	4" (10.2cm)	460V Unit Blowers	24VAC - 3 speeds	Up to 400cfm		
		ERV-FC5	W42, W48 W60	87 (39.5)	No Hood	460V Unit Blowers	24VAC - 3 speeds	Up to 450cfm		





Indoor Airflow Speeds:

Balanced Climate Speed: The WH series uses this speed when the **Balanced Climate option (Y1)** or **mechanical dehumidification option (D)** is used. Not recommended for static levels higher than Balanced Climate airflow data provided.

LO Speed (Default): The WH series uses this speed by default when using **standard cooling (Y2)** or **heating operation (W1/W2)**. This speed is labeled as LO on the speed selection terminal strip inside the unit control panel. The WH series also uses this speed when **fan only (G)** or **ventilation operation (A)** is used. All units ship with cooling and heating operation at LO cooling and heating speed, and provides the **optimal airflow amount for normal use**.

MED Speed (User Selectable): This speed is user selectable when using **standard cooling (Y2)** or **heating operation (W1/W2)**. This speed is labeled as MED on the speed selection terminal strip inside the unit control panel. The MED speed tap provides an **increase in unit airflow** per the airflow performance chart. Fan only and dehumidification fan operation is not effected by using MED speed.

HI Speed (User Selectable): This speed is user selectable when using **standard cooling (Y2)** or **heating operation (W1/W2)**. This speed is labeled as HI on the speed selection terminal strip inside the unit control panel. The HI speed tap provides **maximum unit airflow** per the airflow performance chart. Fan only and dehumidification fan operation is not effected by using HI speed.



INDOOR AIR STREAM FILTRATION OPTIONS

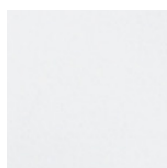
UNIT MODEL	FILTER CODE	FILTER MERV RATING	NUMBER OF FILTERS USED	BARD PART NUMBER	FILTER SIZE INCHES (CM)	FILTER ESP	FILTRATION LEVEL
W18, W24	X	MERV 2	1	7004-011	16x25x1 (41x64x3)	0" WC	Low Filtration, 1" Thickness Disposable Media.
	W	MERV 2	1	7003-032	16x25x1 (41x64x3)	0" WC	Low Filtration, 1" Thickness Cleanable Media.
	P	MERV 8	1	7004-025	16x25x2 (41x64x6)	.03" WC	Average Filtration, 2" Thickness Pleated Disposable Media.
	M	MERV 11	1	7004-059	16x25x2 (41x64x6)	.05" WC	Above Average Filtration, 2" Thickness Pleated Disposable Media.
	A, B, N	MERV 13	1	7004-061	16x25x2 (41x64x6)	.08" WC	High Filtration, 2" Thickness Pleated Disposable Media.
W30, W36	X	MERV 2	1	7004-019	16x30x1 (41x77x3)	0" WC	Low Filtration, 1" Thickness Disposable Media.
	W	MERV 2	1	7003-031	16x30x1 (41x77x3)	0" WC	Low Filtration, 1" Thickness Cleanable Media.
	P	MERV 8	1	7004-026	16x30x2 (41x77x6)	.03" WC	Average Filtration, 2" Thickness Pleated Disposable Media.
	M	MERV 11	1	7004-048	16x30x2 (41x77x6)	.05" WC	Above Average Filtration, 2" Thickness Pleated Disposable Media.
	A, B, N	MERV 13	1	7004-062	16x30x2 (41x77x6)	.08" WC	High Filtration, 2" Thickness Pleated Disposable Media.
W42, W48, W60	X	MERV 2	2	7004-012	20x20x1 (51x51x3)	0" WC	Low Filtration, 1" Thickness Disposable Media.
	W	MERV 2	2	7003-085	20x20x1 (51x51x3)	0" WC	Low Filtration, 1" Thickness Cleanable Media.
	P	MERV 8	2	7004-052	20x20x2 (51x51x6)	.03" WC	Average Filtration, 2" Thickness Pleated Disposable Media.
	M	MERV 11	2	7004-060	20x20x2 (51x51x6)	.05" WC	Above Average Filtration, 2" Thickness Pleated Disposable Media.
	A, B, N	MERV 13	2	7004-063	20x20x2 (51x51x6)	.08" WC	High Filtration, 2" Thickness Pleated Disposable Media.

CABINET COLOR AND FINISH OPTIONS

UNIT MODEL	CABINET COLOR AND FINISH CODE	COLOR AND FINISH	Description
All Units	X	Beige Painted Steel	This cabinet option uses zinc coated steel panels that are cleaned, rinsed, sealed and dried before a polyurethane primer is applied. The cabinet paint coating is comprised of a textured enamel. The resulting finish is designed to withstand over 1000 hours of salt spray tests per ASTM B117-03. . Unit top, structural sides, and front service panels are constructed using 20 gauge materials. The unit base is constructed using 16 gauge galvanized steel. Cabinet components are insulated with a non-fiberglass formaldehyde free insulation that has a high "R" value, is easy to clean with a FSK foil backing, and resists delamination.
	1	White Painted Steel	
	4	Buckeye Gray Painted Steel	
	5	Desert Brown Painted Steel	
	8	Dark Bronze Painted Steel	
	S	Stainless Steel	Exterior Stainless Steel finish cabinets are often selected for corrosion and chemical resistance. The Bard stainless steel unit offers a high quality stainless steel 316 grade enclosure and fasteners for years of operation in these conditions. The exterior cabinet, sheet metal screws, washers, nuts, compressor mounting hardware and outdoor fan motor mount are stainless steel. The condenser fan is corrosion coated for additional protection.
	A	Aluminum	Aluminum external cabinet finish option "A" units are constructed of ASTM B 209 grade .06" thickness panels with a stucco appearance.



X—Beige



1—White



4—Gray



5—Desert



8—Bronze



S—Stainless



A—Aluminum



//////// ADDITIONAL CORROSION COATED EVAPORATOR COIL, CONDENSER COIL, AND CABINET OPTIONS

UNIT MODEL	COIL AND CABINET COATING OPTION	EVAPORATOR COIL	CONDENSER COIL	INTERIOR CONDENSER SECTION	EXTERIOR AND INTERIOR CABINET	DESCRIPTION
All Units	X	STANDARD	STANDARD	STANDARD	STANDARD	Standard green fin evaporator coil and copper aluminum condenser coil. Cabinet is not coated.
	1	COATED	STANDARD	STANDARD	STANDARD	Corrosion coated evaporator coil and copper aluminum condenser coil. Cabinet is not coated.
	2	STANDARD	COATED	STANDARD	STANDARD	Standard green fin evaporator coil and corrosion coated condenser coil. Cabinet is not coated.
	3	COATED	COATED	STANDARD	STANDARD	Evaporator coil and condenser coil are both corrosion coated. Cabinet is not coated.
	4	COATED	COATED	COATED	STANDARD	Evaporator coil and condenser coil are both corrosion coated. Cabinet interior condenser section is coated.
	5	COATED	COATED	COATED	COATED	Evaporator coil and condenser coil are both corrosion coated. Cabinet interior and exterior is coated.

//////// FACTORY CONTROLS OPTIONS CHART INCLUDING SWITCHES, SENSORS, RELAYS, AND START KITS

Factory installed controls are provided by Bard to enhance a Wall-Mount product before it is shipped. All Wall-Mount products are shipped with a auto-reset high pressure switch and an auto-reset low pressure switch to help protect refrigeration components. A compressor control module with adjustable voltage protection, delay on make and break, and high/low pressure diagnostics is also standard

CONTROL CODE	MODELS	DESCRIPTION OF FACTORY INSTALLED COMPONENTS
X	ALL MODELS	Standard Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, and Refrigerant leak detector (RDS). These controls are standard for all models.
E	ALL MODELS	Standard controls and Low Ambient Control .
F	W42HF-W60HF W42HFD-W60HFD	Standard controls, Low Ambient Control , Refrigerant Alarm Relay with NO/NC Contacts , and Dirty Filter Pressure Switch .
J	ALL MODELS	Standard controls, Low Ambient Control and Refrigerant Alarm Relay with NO/NC Contacts .
Q	ALL MODELS	Standard controls and Outdoor Thermostat .
R	ALL MODELS	Standard controls, Low Ambient Control , Outdoor Thermostat .
T	ALL MODELS	Standard controls, Low Ambient Control , Outdoor Thermostat , Hard Start Kit , 230V/208V single phase only.



FIELD KIT CONTROLS OPTIONS CHART INCLUDING SWITCHES, SENSORS, RELAYS, AND START KITS

Field installed kits provide accessories that can be installed in the field. Required components, wires, enclosures, screws, and instructions that are needed are provided within the kit.

KIT PART NO.	UNITS USING KIT	DESCRIPTION OF FIELD INSTALLED KIT
CMH-33	W18H	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp. - Modulating.
CMH-34	W24H, W30H, W36H	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp. - fan cycling.
CMH-35	W42H, W48H, W60H	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp. - fan cycling.
CMC-15	W18H, W24H, W30H, W36H	PTCR Start Kit. Increases starting torque by 2 to 3x. 230V-60hz-1 phase (A voltage) only. Cannot be used in combination with SK start kit
CMC-32	W42H, W48H, W60H	PTCR Start Kit. Increases starting torque by 2 to 3x. 230V-60hz-1 phase (A voltage) only. Cannot be used in combination with SK start kit
SK111	W18H, W24H, W30H, W36H	Start Capacitor and Potential Relay Start Kit. Increases starting torque by 9x. 230V-60hz-1 phase (A voltage) only. Cannot be used in combination with CMC start kit
CMH-28	W18H, W24H, W30H, W36H	Outdoor Thermostat Kit used to disable compressor cooling below 50°F outdoor temp. Adjustable between 50° and 0°F
CMH-36	W42H, W48H, W60H	Outdoor Thermostat Kit used to disable compressor cooling below 50°F outdoor temp. Adjustable between 50° and 0°F
CMC-34	W18H, W24H, W30H, W36H	Compressor Control Module Lockout Alarm Relay Kit.
CMC-35	W42H, W48H, W60H	Compressor Control Module Lockout Alarm Relay Kit.
CMC-36	W18H, W24H, W30H, W36H	Crank case heater kit. 230V 1-PH units only.
CMC-40	W18H, W24H, W30H, W36H	Crank case heater kit. 230V 3-PH units only.
CMC-37	W18H, W24H, W30H, W36H	Crank case heater kit. 460V 3-PH units only.
CMC-38	W42H, W48H, W60H	Crank case heater kit. 230V 1-PH units only.
CMC-41	W42H, W48H, W60H	Crank case heater kit. 230V 3-PH units only.
CMC-39	W42H, W48H, W60H	Crank case heater kit. 460V 3-PH units only.



///// WALL CURB ACCESSORIES

Optional wall curb accessories are available to help reduce vibration through the outer wall surface or to use existing wall openings when replacing equipment. Follow all static pressure airflow requirements, safety and installation guidelines in the instructions provided with the curb and Wall-Mount products.

CURB	UNITS USING CURB	DESCRIPTION
WWC2-*	W18H, W24H	Install to use with existing 1, 2 or 3 ton wall openings. Wall openings must provide sufficient airflow. Follow all instructions in curb and unit manual including clearances to combustibles and maximum duct static pressure.
WWC3-*	W30H, W36H	Install to use with existing 2, 3, or 5 ton wall openings. Wall openings must provide sufficient airflow. Follow all instructions in curb and unit manual including clearances to combustibles and maximum duct static pressure.
WWC5-*	W42H, W48H, W60H	Install to use with existing 3 and 5 ton wall openings. Wall openings must provide sufficient airflow. Follow all instructions in curb and unit manual including clearances to combustibles and maximum duct static pressure.

* Color Option

///// NON-DUCTED SUPPLY AND RETURN GRILLES

Supply and return louver grilles are of a brushed aluminum finish. 2" flange versions are recommended for standard installations to allow grille attachment when large wall openings are present. Return filter grilles are available for filter access from an indoor area. Filter grilles do not include a filter, and are not recommended for unit with ventilation due to filter location. A manual damper return grille is available for all models. The manual damper is adjustable, and is only recommended for installations where increased return duct static pressure is required.

GRILLE NO.	UNITS USING GRILLE	DESCRIPTION OF LOUVER GRILLE
SG-2	W18H, W24H	8" x 20" with 1" Flange 4 way deflection supply grille.
SG-3	W30H, W36H	8" x 28" with 1" Flange 4 way deflection supply grille.
SG-5	W42H, W48H, W60H	10" x 30" with 1" Flange 4 way deflection supply grille.
RG-2	W18H, W24H	12" x 20" with 1" Flange return grille.
RG-3	W30H, W36H	12" x 28" with 1" Flange return grille.
RG-5	W42H, W48H, W60H	16" x 30" with 1" Flange return grille.
SG-2W	W18H, W24H	8" x 20" with 2" Flange 4 way deflection supply grille.
SG-3W	W30H, W36H	8" x 28" with 2" Flange 4 way deflection supply grille.
SG-5W	W42H, W48H, W60H	10" x 30" with 2" Flange 4 way deflection supply grille.
RG-2W	W18H, W24H	12" x 20" with 2" Flange return grille.
RG-3W	W30H, W36H	12" x 28" with 2" Flange return grille.
RG-5W	W42H, W48H, W60H	16" x 30" with 2" Flange return grille.
RFG-2W	W18H, W24H	12" x 20" with 2" Flange return grille with filter bracket.*
RFG-3W	W30H, W36H	12" x 28" with 2" Flange return grille with filter bracket.*
RFG-5W	W42H, W48H, W60H	16" x 30" with 2" Flange return grille with filter bracket.*
RGDK-2W	W18H, W24H	12" x 20" with 2" manual shutter style damper that is mounted in the return duct behind the return grille (sold separately). Adjustable to restrict return air from room.
RGDK-3W	W30H, W36H	12" x 28" with 2" manual shutter style damper that is mounted in the return duct behind the return grille (sold separately). Adjustable to restrict return air from room.
RGDK-5W	W42H, W48H, W60H	16" x 30" manual shutter style damper that is mounted in the return duct behind the return grille (sold separately). Adjustable to restrict return air from room.

* Not recommended to provide primary filtration with units that will bring in outdoor air.



FIELD INSTALLED AIR QUALITY KITS

Field installed kits provide accessories that can be installed in the field. Required components, wires, enclosures, screws, and instructions that are needed are provided within the kit.

CONTROL CODE	KIT PART NO.	UNITS USING KIT	DESCRIPTION OF FIELD INSTALLED KIT
NA	CMC-31	W18H, W24H, W30H, W36H	Dirty Filter Alarm Pressure Sensor Kit. Provides Normally Open Contacts to send an alarm signal to a thermostat or controller.
NA	CMC-33	W42H, W48H, W60H	Dirty Filter Alarm Pressure Sensor Kit. Provides Normally Open Contacts to send an alarm signal to a thermostat or controller.
NA	8620-343	W18H, W24H, W30H, W36H, W42H, W48H, W60H	LED UV-C Long Life Light Kit. 460V units only. Installed in evaporator coil entering airstream along with door safety switch. Indicator light provided to monitor LED use.
NA	8620-344	W18H, W24H, W30H, W36H, W42H, W48H, W60H	LED UV-C Long Life Light Kit. 230V units only. Installed in evaporator coil entering airstream along with door safety switch. Indicator light provided to monitor LED use.
NA	8620-370	W18H, W24H, W30H, W36H, W42H, W48H, W60H	NBPI (AIR4) kit installed in evaporator area. The kit includes wires and mounting hardware needed to install the NBPI device on or near the indoor fan.

ADVANCED SENSOR OPTIONS AND KITS

Field installed kits provide accessories that can be installed in the field. Required components, wires, enclosures, screws, and instructions that are needed are provided within the kit.

CONTROL CODE	KIT PART NO.	UNITS USING KIT	DESCRIPTION OF FIELD INSTALLED KIT
NA	8620-340	W18H, W24H, W30H, W36H	Return Air Sensor Kit for use with all economizers with the JADE controller.
NA	8620-334	W42H, W48H, W60H	Return Air Sensor Kit for use with all economizers with the JADE controller.

SOUND REDUCTION ACCESSORIES

Field installed kits provide accessories that can be installed in the field. Required components, wires, enclosures, screws, and instructions that are needed are provided within the kit.

CONTROL CODE	KIT PART NO.	UNITS USING KIT	DESCRIPTION OF FIELD INSTALLED KIT
NA	8002-012	W18H, W24H, W30H, W36H	Compressor sound cover. Weatherized vinyl insulated cover that helps reduce compressor sound level.
NA	8002-013	W42H, W48H, W60H	Compressor sound cover. Weatherized vinyl insulated cover that helps reduce compressor sound level.

OPTIONAL SHIPPING CRATES

Optional crates are available to help protect your valuable Wall-Mount investment during shipping. Constructed from OSB sheathing with steel corner posts, and sized for standard truck transportation. Treated for pests in accordance with the International Plant Protection Convention, Publication 15, Annex 1. Packaging is acceptable for international shipments.

CRATE NO.	UNIT MODELS	DESCRIPTION
8620-263	W18H, W24H	Standard Unit Crate, all vents except economizer.
8620-275	W18H, W24H	Units with Economizer vent (Factory Installed 7" Hood).
8620-262	W30H, W36H	Standard Unit Crate, all vents except economizer
8620-276	W30H, W36H	Units with Economizer vent (Factory Installed 7" Hood).
8620-304	W42H, W48H	Standard Unit Crate, all ventilation options
8620-305	W60H	Standard Unit Crate, all ventilation options



////// CONTROLLER, THERMOSTAT, HUMIDISTAT AND CO2 VENTILATION CONTROL OPTIONS

Bard provides a wide variety of controllers for equipment cooling, thermostats, for equipment and comfort cooling, humidistats for dehumidification units, and CO2 sensors for ventilation control. Lockable thermostat covers are available for applications where security or supervisory control is desired.

CONTROLLER	OPERATION	DESCRIPTION
MC4002	1 to 2 Unit Lead/Lag Controller	Standard unit Lead/Lag Controller with remote alarming capability. Optional alarm board and SNMP or web page communication board. On board temperature sensor that can be remote mounted. Can use up to (2) remote temperature sensors. Synchronized dehumidification not available for heat pump units. See MC4002 manual for other information regarding heat pump control.
MC5300	1 to 3 Unit Lead/Lag Controller	Advanced multi-unit Lead/Lag Controller with remote alarming capability. All models have Modbus communication and web pages. Optional alarm board with NO/NC contacts. On board temperature and humidity sensor that can be remote mounted. Can use up to (2) remote temperature sensors.
MC5600	1 to 6 Unit Lead Lag Controller	Advanced multi-unit Lead/Lag Controller with remote alarming capability. All models have Modbus communication and web pages. Optional alarm board with NO/NC contacts. On board temperature and humidity sensor that can be remote mounted. Can use up to (2) remote temperature sensors.

THERMOSTAT	OPERATION	DESCRIPTION
8403-060	3 Heat/3 Cool	Programmable or Nonprogrammable, ventilation output, dehumidification operation
8403-089	1 Heat/1 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable
8403-090	2 Heat/2 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable
8403-091	1 Heat/1 Cool	Easy to use, Nonprogrammable. FEMA use
8403-092	2 Heat/2 Cool	Programmable or Nonprogrammable, ventilation output, Wi-Fi
8403-095	2 Heat/1 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable

HUMIDISTAT	OPERATION	DESCRIPTION
8403-047	Humidity %RH	Electronic with display, lockable keypad, humidity sensor calibration (Viconics)
8403-100	Humidity %RH	Electronic with display, lockable keypad, humidity sensor calibration (Honeywell)

CO2 CONTROL	OPERATION	DESCRIPTION
S8403-096	CO2 PPM	CO2 ventilation control with digital display. On/Off or modulating ventilation operation

THERMOSTAT COVER*	SIZE	DESCRIPTION
8405-003	(Inside) 5-1/16" H x 6-1/16" W (Outside) 6-1/2" H x 7-1/2" W x 2-15/16" D	Clear acrylic with ventilation. Fits all thermostats except 8403-060
8405-005	(Inside) 5-7/8" H x 8-3/8" W (Outside) 7-1/4" H x 9-3/4" W x 3-3/8" D	Clear acrylic with ventilation. Fits all thermostats.
8405-006	(Inside) 5-1/16" H x 6-1/16" W (Outside) 6-3/8" H x 7-3/8" W x 2-7/8" D	Clear acrylic with ventilation. Fits all thermostats except 8403-060
8405-007	(Inside) 5-7/8" H x 8-3/8" W (Outside) 7-1/8" H x 9-5/8" W x 3-1/4" D	Beige painted steel cover with ventilation. Fits all thermostats.

* Thermostat covers include ventilation, but may effect temperature control reaction time. If security control lockout is needed, the 8403-060 thermostat provides input control lockout features.



Bard Manufacturing Company, Inc.
1914 Randolph Dr., Bryan, OH 43506
419-636-1194

www.bardhvac.com

Due to our continuous product improvement policy,
all specifications subject to change without notice.

