

# BARD WALL-MOUNT™ Two Stage Heat Pumps 2 to 5 Ton Capacity C24H - C60H Unit Models 208V - 460V Single and Three Phase 60hz

## **CH Series WALL-MOUNT™**

The Bard CH 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 CH 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.

### **CH Series Features:**

- 2 to 5 ton cooling 2-stage 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 5kw 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.



### **CH 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](http://www.ahridirectory.org).



[www.BardHVAC.com](http://www.BardHVAC.com)

///// WALL-MOUNT C24H (2 TON) TO C60H (5 TON) HEAT PUMP NOMENCLATURE

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

**1** **1. Series - Single Stage Compressor**

<b>C</b>	Bard Quiet Climate Wall-Mount
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**2,3** **2-3. Nominal Capacity**

<b>24</b>	2.0 Ton	<b>42</b>	3.5 Ton
<b>30</b>	2.5 Ton	<b>48</b>	4.0 Ton
<b>36</b>	3.0 Ton	<b>60</b>	5.0 Ton

**4** **4. Unit Type - Controls Location** **Units**

<b>H</b>	Heat Pump	All Models
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**5** **5. Revision**

<b>F</b>	Revision (R-454B Refrigerant)
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**6** **6. Special Feature Placeholder** **Units**

<b>-</b>	Standard Unit	All Models
<b>D</b>	HGR Dehumidification	All Models

**7** **7. Voltage** **Ph.** **Hz.** **Units**

<b>A</b>	208/230VAC	1	60	All Models
<b>B</b>	208/230VAC	3	60	All Models
<b>C</b>	460VAC	3	60	All Models

**8,9** **8-9. Electric Heater Options** **Units**

<b>00</b>	OKw with Lug Connections	All Models
<b>OZ</b>	OKw with Breaker or Disc.	All Models
<b>0C</b>	OKw 460V with C. Breaker.	C36-C60
<b>04-20</b>	4-20Kw w/breaker or Disc.	All Models

**10** **10. Ventilation Package Options** **Units**

<b>X</b>	Barometric Air Damper (Intake)	All Models
<b>A</b>	Bar. Air Damper (Intake+Exh)	All Models
<b>B</b>	Block Off Plate (No Vent)	All Models
<b>M</b>	Powered Comm. Vent, On/Off	All Models
<b>V</b>	Powered Comm. Vent, On/Off/Modulating using 0-10VDC	All Models
<b>D</b>	Econ, Field Supplied Controls	All Models
<b>Y</b>	Economizer, JADE, Dry Bulb	All Models
<b>Z</b>	Economizer, JADE, Enthalpy	All Models
<b>R</b>	Energy Recovery Ventilator	All Models
<b>S</b>	Partial Flow Econ, JADE, Enth.	C24-C30

**11** **11. Filter and IAQ Options** **Units**

<b>X</b>	Standard 1" MERV2 Disposable Filter.	All Models
<b>W</b>	1" MERV2 Washable Filter.	All Models
<b>P</b>	2" MERV8 Disposable Filter.	All Models
<b>M</b>	2" MERV11 Disposable Filter.	All Models
<b>N</b>	2" MERV13 Disposable Filter.	All Models
<b>A</b>	2" MERV13 Filter with UVC-LED Light.	All Models
<b>B</b>	2" MERV13 Filter with NPBI Device.	All Models
<b>C</b>	2" MERV8 Filter with NPBI Device.	All Models

**12** **12. Cabinet Color and Finish** **Units**

<b>X</b>	Standard Beige Enamel Painted Steel.	All Models
<b>1</b>	White Enamel Painted Steel.	All Models
<b>4</b>	Buckeye Gray Enamel Painted Steel.	All Models
<b>5</b>	Desert Brown Enamel Painted Steel.	All Models
<b>8</b>	Dark Bronze Enamel Painted Steel.	All Models
<b>S</b>	316 Stainless Steel Exterior Finish.	All models except recessed cabinet.
<b>A</b>	Stucco Textured Aluminum Exterior Finish.	All models except recessed cabinet.

**13** **13. Cabinet Style** **Units**


<b>X</b>	Standard Cabinet - Blow Thru Condenser	C24-C60
<b>J</b>	Recessed Cabinet Top - Blow Thru Cond.	C36-C60 (No Dehum)
<b>D</b>	Standard Cabinet, Draw Thru Condenser	C36-C60 (No Dehum)
<b>N</b>	Recessed Cabinet, Draw Thru Condenser	C36-C60 (No Dehum)

**14** **14. Coil and Cabinet Coatings** **Units**

<b>X</b>	Standard Copper/Aluminum evap and cond coils.	All Models
<b>1</b>	Coated indoor evap coil, std outdoor cond. coil.	All Models
<b>2</b>	Coated outdoor cond coil, std indoor evap coil.	All Models
<b>3</b>	Coated indoor evap and outdoor cond coil.	All Models
<b>4</b>	Coated coils and unit cabinet condenser area.	All Models
<b>5</b>	Coated coils and interior/exterior cabinet.	All Models

**15** **15. Unit Mounted Controls Options** **Standard: Hi/Lo Pressure and Ref. Leak (RDS) Sensor** **Units**

<b>X</b>	Standard Controls	All Models
<b>E</b>	X + Low Ambient Control (LAC)	All Models
<b>J</b>	X + LAC and Alarm Relay (ALR)	All Models
<b>F</b>	X + LAC, ALR, and Filter Switch (FS)	C36-C60
<b>Q</b>	X + Outdoor Thermostat	All Models
<b>R</b>	X + LAC, Outdoor Thermostat	All Models
<b>T</b>	X + LAC, Outdoor Thermostat, Hard Start Kit	All Models

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//////// CH SERIES AHRI CAPACITY AND EFFICIENCY RATINGS

MODELS	C24HF	C30HF	C36HF	C42HF	C48HF	C60HF
Cooling Capacity BTUH <sup>Ⓢ</sup>	24,300	31,000	36,400	41,000	45,500	54,000
Cooling efficiency EER	12.0	11.8	11.8	11.5	11.4	11.0
Cooling efficiency IPLV	15.5	15.5	15.0	15.5	15.5	15.5
Heating Capacity BTUH <sup>Ⓢ</sup>	21,800	28,200	32,600	36,500	43,000	51,500
Heating efficiency COP	3.3	3.3	3.3	3.3	3.3	3.3

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

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

IPLV = Integrated Part Load Value is certified in accordance with ANSI/ARI Standard 390-2021. All ratings based on no outside air introduction).

COP = Coefficient Of Performance 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 - FULL LOAD

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
C24HF  FULL LOAD 2nd STAGE	75/62	Total Cooling	27000	25300	23800	22400	21200	20200	19300	18500	17800	17300	16900
		Sensible Cooling	21300	20200	19200	18300	17600	16900	16400	16000	15700	15500	15300
	80/67	Total Cooling	28800	27500	26400	25300	24300	23500	22700	22000	21400	20900	20500
		Sensible Cooling	20600	19800	19000	18300	17700	17200	16800	16500	16300	16200	16100
	85/72	Total Cooling	34300	32200	30300	28600	27000	25700	24500	23400	22500	21700	21100
		Sensible Cooling	21100	20100	19100	18200	17400	16700	16000	15500	15000	14700	14300
C30HF  FULL LOAD 2nd STAGE	75/62	Total Cooling	35000	32600	30500	28700	27000	25700	24500	23600	22900	22300	21900
		Sensible Cooling	26000	24700	23600	22600	21700	21100	20400	20000	19600	19400	19300
	80/67	Total Cooling	37300	35500	33800	32400	31000	29900	28900	28100	27500	27000	26700
		Sensible Cooling	25200	24200	23300	22600	21900	21400	20900	20600	20400	20300	20300
	85/72	Total Cooling	44500	41500	38800	36600	34500	32700	31200	29900	28900	28100	27500
		Sensible Cooling	25800	24600	23400	22500	21500	20700	19900	19300	18800	18400	18000
C36HF  FULL LOAD 2nd STAGE	75/62	Total Cooling	40000	37700	35500	33600	31700	30100	28700	27400	26300	25300	24300
		Sensible Cooling	31600	29900	28400	27100	26000	25100	24300	23600	23200	22900	22600
	80/67	Total Cooling	42700	41000	39400	37900	36400	35100	33800	32700	31600	30600	29600
		Sensible Cooling	30600	29300	28100	27100	26200	25500	24900	24400	24100	23900	23800
	85/72	Total Cooling	50900	48000	45300	42800	40500	38400	36500	34800	33200	31800	30500
		Sensible Cooling	31400	29800	28300	26900	25700	24700	23800	22900	22200	21600	21100
C42HF  FULL LOAD 2nd STAGE	75/62	Total Cooling	46100	43100	40400	38000	35700	33800	32100	30600	29300	28200	27300
		Sensible Cooling	35200	33800	32400	31100	29800	28600	27400	26200	25100	24000	22800
	80/67	Total Cooling	49200	46900	44800	42900	41000	39400	37900	36500	35300	34200	33300
		Sensible Cooling	34100	33100	32100	31100	30100	29100	28100	27100	26100	25100	24000
	85/72	Total Cooling	58600	54900	51500	48500	45600	43100	40900	38900	37100	35600	34300
		Sensible Cooling	34900	33600	32300	30900	29500	28200	26800	25400	24100	22700	21300
C48HF  FULL LOAD 2nd STAGE	75/62	Total Cooling	49800	46800	44200	41900	39600	37800	36000	34600	33300	32100	NA
		Sensible Cooling	40400	38200	36200	34400	32900	31700	30600	29800	29300	29000	NA
	80/67	Total Cooling	53100	51000	49100	47300	45500	44000	42500	41200	40000	38900	NA
		Sensible Cooling	39200	37400	35800	34400	33200	32200	31400	30800	30500	30300	NA
	85/72	Total Cooling	63300	59600	56400	53400	50600	48100	45800	43800	42000	40400	NA
		Sensible Cooling	40200	38000	36000	34200	32600	31200	29900	28900	28100	27400	NA
C60HF  FULL LOAD 2nd STAGE	75/62	Total Cooling	60600	56500	53000	49800	47000	44600	42600	40800	39200	38000	NA
		Sensible Cooling	46600	44200	42100	40200	38700	37200	36200	35200	34500	34100	NA
	80/67	Total Cooling	64700	61600	58900	56300	54000	52000	50200	48600	47200	46100	NA
		Sensible Cooling	45200	43300	41700	40200	39000	37900	37100	36400	35900	35700	NA
	85/72	Total Cooling	77100	72000	67600	63600	60000	56900	54100	51700	49600	47900	NA
		Sensible Cooling	46300	44000	41900	39900	38300	36700	35400	34100	33100	32300	NA



UNIT COOLING CAPACITY AT VARIOUS INDOOR AND OUTDOOR CONDITIONS - PART LOAD

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
<b>C24HF</b>  <b>PART LOAD</b> <b>1st STAGE</b>	75/62	Total Cooling	18000	17200	16500	15700	14900	14200	13400	12700	11900	11100	10300
		Sensible Cooling	14000	13800	13600	13200	13000	12700	12300	11900	11600	11100	10300
	80/67	Total Cooling	19200	18700	18300	17700	17100	16500	15800	15100	14300	13400	12500
		Sensible Cooling	13500	13500	13400	13200	13100	12900	12600	12300	12000	11700	11300
	85/72	Total Cooling	22900	21900	21100	20000	19000	18100	17100	16100	15100	14000	12900
		Sensible Cooling	13900	13700	13500	13100	12900	12500	12000	11600	11100	10600	10000
<b>C30HF</b>  <b>PART LOAD</b> <b>1st STAGE</b>	75/62	Total Cooling	24100	22400	21100	20100	19400	18900	18800	18900	19200	19800	20600
		Sensible Cooling	19800	18200	17100	16200	15800	15800	16000	16600	17500	18800	20300
	80/67	Total Cooling	25700	24400	23400	22700	22200	22000	22100	22500	23100	24000	25100
		Sensible Cooling	19200	17800	16900	16200	15900	16000	16400	17100	18200	19600	21300
	85/72	Total Cooling	30600	28600	26900	25700	24700	24100	23900	24000	24300	25000	25800
		Sensible Cooling	19700	18100	17000	16100	15600	15500	15700	16100	16800	17700	18900
<b>C36HF</b>  <b>PART LOAD</b> <b>1st STAGE</b>	75/62	Total Cooling	40000	37700	35500	33600	31700	30100	28700	27400	26300	25300	24300
		Sensible Cooling	31600	29900	28400	27100	26000	25100	24300	23600	23200	22900	22600
	80/67	Total Cooling	42700	41000	39400	37900	36400	35100	33800	32700	31600	30600	29600
		Sensible Cooling	30600	29300	28100	27100	26200	25500	24900	24400	24100	23900	23800
	85/72	Total Cooling	50900	48000	45300	42800	40500	38400	36500	34800	33200	31800	30500
		Sensible Cooling	31400	29800	28300	26900	25700	24700	23800	22900	22200	21600	21100
<b>C42HF</b>  <b>PART LOAD</b> <b>1st STAGE</b>	75/62	Total Cooling	28400	26900	25500	24200	22900	21700	20700	19600	18700	17900	17000
		Sensible Cooling	22600	21800	21000	20300	19700	19000	18500	17900	17400	17000	16700
	80/67	Total Cooling	30300	29300	28300	27300	26300	25300	24400	23400	22500	21600	20700
		Sensible Cooling	21900	21300	20800	20300	19800	19300	18900	18500	18100	17800	17500
	85/72	Total Cooling	36100	34300	32500	30900	29200	27700	26300	24900	23700	22500	21300
		Sensible Cooling	22500	21600	20900	20200	19500	18700	18000	17400	16700	16100	15500
<b>C48HF</b>  <b>PART LOAD</b> <b>1st STAGE</b>	75/62	Total Cooling	33000	30800	28700	26700	24900	23300	21800	20400	19100	17900	16900
		Sensible Cooling	25000	23900	23000	22000	21100	20300	19500	18800	18100	17400	16800
	80/67	Total Cooling	35200	33500	31800	30200	28600	27100	25700	24300	23000	21700	20600
		Sensible Cooling	24200	23400	22700	22000	21300	20600	20000	19400	18800	18200	17600
	85/72	Total Cooling	42000	39200	36500	34100	31800	29700	27700	25900	24200	22600	21200
		Sensible Cooling	24800	23800	22800	21900	20900	20000	19100	18200	17300	16500	15600
<b>C60HF</b>  <b>PART LOAD</b> <b>1st STAGE</b>	75/62	Total Cooling	34900	33300	31900	30400	28900	27500	26000	24500	23000	21600	NA
		Sensible Cooling	27600	26800	25900	25000	24200	23400	22600	21800	21100	20300	NA
	80/67	Total Cooling	37200	36300	35400	34300	33200	32000	30700	29200	27700	26100	NA
		Sensible Cooling	26700	26200	25600	25000	24400	23800	23200	22500	21900	21200	NA
	85/72	Total Cooling	44300	42500	40700	38700	36900	35000	33100	31100	29100	27100	NA
		Sensible Cooling	27400	26600	25700	24900	24000	23100	22100	21100	20200	19200	NA

- 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.



//////// UNIT HEAT PUMP HEATING CAPACITY AT VARIOUS OUTDOOR CONDITIONS - FULL LOAD

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
C24HF FULL LOAD 2nd STAGE	BTUH	10200	11100	12000	13100	14200	15400	16700	18100	19600	21200	22900	24600	26500	28400
	WATTS	1630	1650	1680	1700	1730	1750	1780	1810	1830	1860	1890	1920	1960	1990
	COP	1.83	1.97	2.09	2.26	2.41	2.58	2.75	2.93	3.14	3.34	3.55	3.75	3.96	4.18
C30HF FULL LOAD 2nd STAGE	BTUH	13200	14500	15800	17200	18700	20300	22000	23700	25600	27500	29500	31500	33700	35900
	WATTS	2150	2170	2200	2230	2270	2300	2340	2380	2420	2460	2510	2550	2600	2660
	COP	1.80	1.96	2.10	2.26	2.41	2.59	2.76	2.92	3.10	3.28	3.44	3.62	3.80	3.96
C36HF FULL LOAD 2nd STAGE	BTUH	16000	17400	18800	20400	22000	23800	25600	27600	29600	31800	34000	36400	38800	41300
	WATTS	2440	2480	2530	2570	2620	2670	2710	2760	2810	2850	2900	2950	3000	3040
	COP	1.92	2.06	2.18	2.33	2.46	2.61	2.77	2.93	3.09	3.27	3.44	3.62	3.79	3.98
C42HF FULL LOAD 2nd STAGE	BTUH	12600	15000	17400	19800	22300	24800	27400	30000	32700	35400	38200	41000	43900	46800
	WATTS	490	910	1300	1660	1980	2280	2540	2770	2970	3140	3280	3390	3460	3510
	COP	7.54	4.83	3.92	3.50	3.30	3.19	3.16	3.17	3.23	3.30	3.41	3.54	3.72	3.91
C48HF FULL LOAD 2nd STAGE	BTUH	20400	22200	24100	26200	28400	30800	33300	36000	38800	41800	45000	48200	51700	55300
	WATTS	3130	3200	3270	3340	3420	3490	3570	3650	3730	3810	3890	3980	4060	4150
	COP	1.91	2.03	2.16	2.30	2.43	2.59	2.73	2.89	3.05	3.22	3.39	3.55	3.73	3.91
C60HF FULL LOAD 2nd STAGE	BTUH	23600	25900	28400	31100	33900	36800	39900	43100	46500	50100	53800	57600	61600	65800
	WATTS	3710	3800	3890	3980	4080	4170	4270	4370	4470	4580	4680	4790	4900	5010
	COP	1.86	2.00	2.14	2.29	2.44	2.59	2.74	2.89	3.05	3.21	3.37	3.52	3.68	3.85

- 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.



UNIT HEAT PUMP HEATING CAPACITY AT VARIOUS OUTDOOR CONDITIONS - PART LOAD

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
C24HF  PART LOAD 1st STAGE	BTUH	2300	3740	5170	6590	8000	9410	10820	12220	13610	15010	16400	17780	19160	20540
	WATTS	1515	1502	1491	1482	1475	1469	1465	1462	1461	1462	1465	1469	1475	1482
	COP	0.45	0.73	1.02	1.30	1.59	1.88	2.16	2.45	2.73	3.01	3.28	3.55	3.81	4.06
C30HF  PART LOAD 1st STAGE	BTUH	5000	6740	8450	10140	11820	13480	15130	16760	18370	19970	21550	23120	24670	26200
	WATTS	1734	1751	1768	1786	1804	1823	1842	1861	1881	1902	1923	1944	1966	1988
	COP	0.84	1.13	1.40	1.66	1.92	2.17	2.41	2.64	2.86	3.08	3.29	3.49	3.68	3.86
C36HF  PART LOAD 1st STAGE	BTUH	9700	10970	12280	13640	15060	16520	18050	19630	21260	22950	24690	26480	28330	30240
	WATTS	2012	2034	2056	2076	2096	2114	2132	2148	2164	2179	2193	2205	2217	2228
	COP	1.41	1.58	1.75	1.93	2.11	2.29	2.48	2.68	2.88	3.09	3.30	3.52	3.75	3.98
C42HF  PART LOAD 1st STAGE	BTUH	10100	11110	12260	13540	14940	16450	18090	19850	21730	23730	25850	28090	30450	32940
	WATTS	2213	2212	2215	2223	2235	2252	2272	2297	2326	2360	2398	2440	2486	2537
	COP	1.34	1.47	1.62	1.79	1.96	2.14	2.33	2.53	2.74	2.95	3.16	3.38	3.59	3.81
C48HF  PART LOAD 1st STAGE	BTUH	8000	10380	12820	15260	17710	20170	22640	25110	27590	30080	32580	35080	37590	40110
	WATTS	3641	3479	3334	3207	3097	3005	2930	2874	2834	2813	2809	2822	2853	2902
	COP	0.64	0.88	1.13	1.40	1.68	1.97	2.26	2.56	2.85	3.13	3.40	3.64	3.86	4.05
C60HF  PART LOAD 1st STAGE	BTUH	15400	17710	20040	22420	24840	27320	29840	32420	35040	37710	40430	43200	46020	48880
	WATTS	3056	3081	3108	3139	3172	3207	3246	3287	3330	3377	3426	3478	3532	3589
	COP	1.48	1.69	1.89	2.09	2.30	2.50	2.70	2.89	3.08	3.27	3.46	3.64	3.82	3.99

- 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.





## 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	IN-DOOR MOTOR HP	OUTDOOR MOTOR VOLTAGE	OUT-DOOR MOTOR AMPS	OUT-DOOR MOTOR HP
C24HF-A	Right Side	230/208V	1	60	197-253V	10/11.6	10.3	62	230/208V	1.4/1.5	1/3	230/208V	1.0/1.0	1/5
C24HF-B	Right Side	230/208V	3	60	197-253V	6.2/7.2	6.3	56	230/208V	1.4/1.5	1/3	230/208V	1.0/1.0	1/5
C24HF-C	Right Side	460V	3	60	414-506V	4.3	3.8	29	230/208V	1.5	1/3	460V	.50	1/5
C30HF-A	Right Side	230/208V	1	60	197-253V	13.2/15.3	14.6	82	230/208V	1.7/1.8	1/3	230/208V	1.0/1.1	1/5
C30HF-B	Right Side	230/208V	3	60	197-253V	7.2/8.3	7.9	66	230/208V	1.7/1.8	1/3	230/208V	1.0/1.1	1/5
C30HF-C	Right Side	460V	3	60	414-506V	5.1	4.8	39	230/208V	1.8	1/3	460V	.55	1/5
C36HF-A	Right Side	230/208V	1	60	197-253V	15.6/17.4	14.6	90	230/208V	2.3/2.5	1/2	230/208V	2.0/2.0	1/3
C36HF-B	Right Side	230/208V	3	60	197-253V	10.6/11.9	9.9	82	230/208V	2.3/2.5	1/2	230/208V	2.0/2.0	1/3
C36HF-C	Right Side	460V	3	60	414-506V	5.8	4.8	44.3	230/208V	2.5	1/2	460V	1.0	1/3
C42HF-A	Unit Front	230/208V	1	60	197-253V	18.4/21.5	18.2	106	230/208V	2.9/3.0	1/2	230/208V	1.9/1.9	1/3
C42HF-B	Unit Front	230/208V	3	60	197-253V	11.6/13.6	11.5	114	230/208V	2.9/3.0	1/2	230/208V	1.9/1.9	1/3
C42HF-C	Unit Front	460V	3	60	414-506V	7.7	6.5	56	230/208V	3.0	1/2	460V	.95	1/3
C48HF-A	Unit Front	230/208V	1	60	197-253V	19.8/23.7	18.3	138	230/208V	3.0/3.1	3/4	230/208V	1.9/1.9	1/3
C48HF-B	Unit Front	230/208V	3	60	197-253V	12.9/15.5	11.9	112	230/208V	3.0/3.1	3/4	230/208V	1.9/1.9	1/3
C48HF-C	Unit Front	460V	3	60	414-506V	8.8	6.8	61.8	230/208V	3.1	3/4	460V	.95	1/3
C60HF-A	Unit Front	230/208V	1	60	197-253V	23.9/27.6	25.2	147.3	230/208V	3.7/3.9	3/4	230/208V	3.8/4.0	1/2
C60HF-B	Unit Front	230/208V	3	60	197-253V	13.1/15.1	13.8	150	230/208V	3.7/3.9	3/4	230/208V	3.8/4.0	1/2
C60HF-C	Unit Front	460V	3	60	414-506V	7.6	6.9	58	230/208V	3.9	3/4	230/208V	4.0	1/2

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
C24	R-454B	7.44 lbs.	6.81 lbs.	Scroll	ECM	Dual Blower	750 - .15	PSC	20" Axial	2400
C30	R-454B	6.19 lbs.	5.81 lbs.	Scroll	ECM	Dual Blower	900 - .15	PSC	20" Axial	2400
C36	R-454B	6.81 lbs.	6.69 lbs.	Scroll	ECM	Dual Blower	1100 - .15	PSC	24" Axial	3000
C42	R-454B	8.44 lbs.	8.13 lbs.	Scroll	ECM	Dual Blower	1250 - .15	PSC	24" Axial	3000
C48	R-454B	9.75 lbs.	9.25 lbs.	Scroll	ECM	Dual Blower	1450 - .20	ECM	24" Axial	3000
C60	R-454B	9.13 lbs.	9.13 lbs.	Scroll	ECM	Dual Blower	1650 - .20	ECM	24" Axial	3900

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

Electric Heat Nomenclature	Total KW and BTUH @ Field-Supplied Voltage										
	@ 230V (1)				@ 208V (1)				@ 460V		
	KW	1-PH Amps	3-PH Amps	BTUH	KW	1-PH Amps	3-PH Amps	BTUH	KW	3-PH Amps	BTUH
04	3.7	16.0		12,600	3.0	14.4		10,200			
05	4.6	20.0	11.5	15,700	3.8	18.0	10.4	12,800	4.6	5.8	15,700
08	7.4	32.0		25,100	6.0	28.8		20,500			
09	8.3		20.8	28,300	6.8		18.7	23,000	8.3	10.4	28,300
10	9.2	40.0		31,400	7.5	36.1		25,600			
15	13.8	60.0	34.6	47,100	11.3	54.1	31.2	38,400	13.8	17.3	47,100
20	18.4	80.0		62,800	15.0	72.1		51,200			





////// AVAILABLE HEATER PACKAGES AND FIELD WIRING DATA - C24H TO C36H 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	
<b>C24HF-A</b>	00	230/208-1	LUGS	1	18	25					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	18	25					WMCB-03A
	04	230/208-1	C BREAKER	1	39	40					EHCH024A-A04
	08	230/208-1	C BREAKER	1	60	60					EHCH024A-A08
<b>C24HF-B</b>	00	230/208-3	LUGS	1	13	15					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	13	15					WMCB-01B
	05	230/208-3	C BREAKER	1	28	30					EHWH024A-B05
	09	230/208-3	C BREAKER	1	40	40					EHCH024A-B09
<b>C24HF-C</b>	00	460-3	DISCONNECT	1	8	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	8	15					WMPD-01C
<b>C30HF-A</b>	00	230/208-1	LUGS	1	24	30					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	24	30					WMCB-04A
	04	230/208-1	C BREAKER	1	45	45					EHCH030A-A04
	08	230/208-1	C BREAKER	1 or 2	65	70	24	42	30	45	EHCH030A-A08
<b>C30HF-B</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					EHCH030A-B05
	09	230/208-3	C BREAKER	1	43	45					EHCH030A-B09
<b>C30HF-C</b>	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
<b>C36HF-A</b>	0Z	230/208-1	C BREAKER	1	25	30					WMCBC-04A
	05	230/208-1	C BREAKER	1	51	60					EHCH042A-A05
	10	230/208-1	C BREAKER	1 or 2	77	80	25	52	30	60	EHCH036A-A10
	15	230/208-1	C BREAKER	1 or 2	84	90	32	52	35	60	EHCH036A-A15
<b>C36HF-B</b>	0Z	230/208-3	C BREAKER	1	20	25					WMCBC-03B
	05	230/208-3	C BREAKER	1	35	35					EHCH036A-B05
	09	230/208-3	C BREAKER	1	47	50					EHCH036B-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH042A-B15
<b>C36HF-C</b>	0Z	460-3	DISCONNECT	1	10	15					WMCBC-06C
	0C	460-3	C BREAKER	1	10	15					NOT AVAILABLE
	05	460-3	DISCONNECT	1	17	20					EHCH036A-C05
	09	460-3	DISCONNECT	1	23	25					EHCH036A-C09
	15	460-3	DISCONNECT	1	26	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 - C42H TO C60H 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	
C42HF-A	0Z	230/208-1	C BREAKER	1	30	35					WMCBC-05A
	05	230/208-1	C BREAKER	1	56	60					EHCH042A-A05
	10	230/208-1	C BREAKER	1 or 2	82	90	30	52	35	60	EHCH042A-A10
	15	230/208-1	C BREAKER	1 or 2	85	90	33	52	35	60	EHCH036A-A15
C42HF-B	0Z	230/208-3	C BREAKER	1	22	25					WMCBC-03B
	05	230/208-3	C BREAKER	1	37	40					EHWH042A-B05
	09	230/208-3	C BREAKER	1	49	50					EHCH036B-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH042A-B15
C42HF-C	0Z	460-3	DISCONNECT	1	12	15					WMCBC-06C
	0C	460-3	C BREAKER	1	12	15					NOT AVAILABLE
	05	460-3	DISCONNECT	1	20	20					EHCH036A-C05
	09	460-3	DISCONNECT	1	26	30					EHCH036A-C09
	15	460-3	DISCONNECT	1	26	30					EHCH036A-C15
C48HF-A	0Z	230/208-1	C BREAKER	1	31	35					WMCBC-05A
	05	230/208-1	C BREAKER	1 or 2	57	60					EHCH048A-A05
	10	230/208-1	C BREAKER	1 or 2	83	90	31	52	35	60	EHCH042A-A10
	15	230/208-1	C BREAKER	1 or 2	85	90	33	52	35	60	EHCH048A-A15
C48HF-B	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					EHCH036B-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH048A-B15
C48HF-C	0Z	460-3	DISCONNECT	1	13	15					WMCBC-06C
	0C	460-3	C BREAKER	1	13	15					NOT AVAILABLE
	05	460-3	DISCONNECT	1	20	20					EHCH048A-C05
	09	460-3	DISCONNECT	1	26	30					EHCH048A-C09
	15	460-3	DISCONNECT	1	26	30					EHCH048A-C15
C60HF-A	0Z	230/208-1	C BREAKER	1	42	50					WMCBC-08A
	05	230/208-1	C BREAKER	1 or 2	68	70	42	26	50	30	EHCH060B-A05
	10	230/208-1	C BREAKER	1 or 2	94	100	42	52	50	60	EHCH060B-A10
	15	230/208-1	C BREAKER	1 or 2	94	100	42	52	50	60	EHCH060B-A15
	20	230/208-1	C BREAKER	1 or 2	112	125	60	52	60	60	EHCH060A-A20
C60HF-B	0Z	230/208-3	C BREAKER	1	28	35					WMCBC-05B
	05	230/208-3	C BREAKER	1	43	45					EHCH048A-B05
	09	230/208-3	C BREAKER	1	55	60					EHCH060A-B09
	15	230/208-3	C BREAKER	1	55	60					EHCH060A-B15
C60HF-C	0Z	460-3	DISCONNECT	1	14	15					WMCBC-06C
	0C	460-3	C BREAKER	1	14	15					NOT AVAILABLE
	05	460-3	DISCONNECT	1	22	25					EHCH060A-C05
	09	460-3	DISCONNECT	1	28	30					EHCH060A-C09
	15	460-3	DISCONNECT	1	28	30					EHCH060A-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 - C24H TO C36H 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	
C24HFDA	00	230/208-1	LUGS	1	18	25					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	18	25					WMCB-03A
	04	230/208-1	C BREAKER	1	39	40					EHCH024A-A04
	08	230/208-1	C BREAKER	1	60	60					EHCH024A-A08
C24HFDB	00	230/208-3	LUGS	1	13	15					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	13	15					WMCB-01B
	05	230/208-3	C BREAKER	1	28	30					EHCH024A-B05
	09	230/208-3	C BREAKER	1	40	40					EHCH024A-B09
C24HFDC	00	460-3	DISCONNECT	1	8	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	8	15					WMPD-01C
C30HFDA	00	230/208-1	LUGS	1	25	30					NOT NEEDED
	0Z	230/208-1	C BREAKER	1	25	30					WMCB-04A
	04	230/208-1	C BREAKER	1	46	50					EHCH030ADA04
	08	230/208-1	C BREAKER	1 or 2	67	70	25	42	30	45	EHCH030A-A08
C30HFDB	00	230/208-3	LUGS	1	17	20					NOT NEEDED
	0Z	230/208-3	C BREAKER	1	17	20					WMCB-02B
	05	230/208-3	C BREAKER	1	32	35					EHCH030ADB05
	09	230/208-3	C BREAKER	1	44	45					EHCH030A-B09
C30HFDC	00	460-3	LUGS	1	10	15					NOT NEEDED
	0Z	460-3	DISCONNECT	1	10	15					WMPD-01C
	05	460-3	DISCONNECT	1	17	20					EHWH030A-C05
	09	460-3	DISCONNECT	1	23	25					EHCH030ADC09
C36HFDA	0Z	230/208-1	C BREAKER	1	26	30					WMCBC-04A
	05	230/208-1	C BREAKER	1	52	60					EHCH042A-A05
	10	230/208-1	C BREAKER	1 or 2	78	80	26	52	30	60	EHCH036A-A10
	15	230/208-1	C BREAKER	1 or 2	85	90	33	52	35	60	EHCH036A-A15
C36HFDB	0Z	230/208-3	C BREAKER	1	20	25					WMCBC-03B
	05	230/208-3	C BREAKER	1	35	35					EHCH036A-B05
	09	230/208-3	C BREAKER	1	47	50					EHCH036B-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH042A-B15
C36HFDC	0Z	460-3	DISCONNECT	1	10	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	26	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 - C42H TO C60H 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	
C42HFDA	0Z	230/208-1	C BREAKER	1	30	35					WMCBC-06A
	05	230/208-1	C BREAKER	1	56	60					EHCH048A-A05
	10	230/208-1	C BREAKER	1 or 2	82	90	30	52	35	60	EHCH048A-A10
	15	230/208-1	C BREAKER	1 or 2	85	90	33	52	35	60	EHCH048A-A15
C42HFDB	0Z	230/208-3	C BREAKER	1	22	25					WMCBC-04B
	05	230/208-3	C BREAKER	1	37	40					EHWH042A-B05
	09	230/208-3	C BREAKER	1	49	50					EHCH036B-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH042A-B15
C42HFDC	0Z	460-3	DISCONNECT	1	12	15					WMCBC-06C
	05	460-3	DISCONNECT	1	20	20					EHCH036A-C05
	09	460-3	DISCONNECT	1	26	30					EHCH036A-C09
	15	460-3	DISCONNECT	1	26	30					EHCH036A-C15
C48HFDA	0Z	230/208-1	C BREAKER	1	31	35					WMCBC-06A
	05	230/208-1	C BREAKER	1 or 2	57	60					EHCH048A-A05
	10	230/208-1	C BREAKER	1 or 2	83	90	31	52	35	60	EHCH048A-A10
	15	230/208-1	C BREAKER	1 or 2	85	90	33	52	35	60	EHCH048A-A15
C48HFDB	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					EHCH036B-B09
	15	230/208-3	C BREAKER	1	52	60					EHCH048A-B15
C48HFDC	0Z	460-3	DISCONNECT	1	13	15					WMCBC-06C
	05	460-3	DISCONNECT	1	20	20					EHCH048A-C05
	09	460-3	DISCONNECT	1	26	25					EHCH048A-C09
	15	460-3	DISCONNECT	1	26	30					EHCH048A-C15
C60HFDA	0Z	230/208-1	C BREAKER	1	42	50					WMCBC-08A
	05	230/208-1	C BREAKER	1 or 2	68	70	42	26	50	30	EHCH060B-A05
	10	230/208-1	C BREAKER	1 or 2	94	100	42	52	50	60	EHCH060B-A10
	15	230/208-1	C BREAKER	1 or 2	94	100	42	52	50	60	EHCH060B-A15
	20	230/208-1	C BREAKER	1 or 2	112	110	60	52	60	60	EHCH060A-A20
C60HFDB	0Z	230/208-3	C BREAKER	1	28	35					WMCBC-05B
	05	230/208-3	C BREAKER	1	43	45					EHCH048A-B05
	09	230/208-3	C BREAKER	1	55	60					EHCH060A-B09
	15	230/208-3	C BREAKER	1	55	60					EHCH060A-B15
C60HFDC	0Z	460-3	DISCONNECT	1	14	15					WMCBC-06C
	05	460-3	DISCONNECT	1	22	25					EHCH060A-C05
	09	460-3	DISCONNECT	1	28	30					EHCH060A-C09
	15	460-3	DISCONNECT	1	28	30					EHCH060A-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.



////// 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	<a href="#">FAD-NE3</a>	C24, C30	5.0 (2.3)	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.
		<a href="#">FAD-NE5</a>	C56, C42, C48, C60	13 (5.9)	No Hood	Barometric	None			
	A	<a href="#">FAD-BE3</a>	C24, C30	9.0 (4.0)	No Hood	Barometric	None	Up to 25% of rated intake air with room exhaust.	N/A	
		<a href="#">FAD-BE5</a>	C36, C42, C48, C60	16 (7.3)	No Hood	Barometric	None			
No Vent	B	<a href="#">BOP-3</a>	C24, C30	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.
		<a href="#">BOPLATE-5</a>	C36, C42, C48, C60	14 (6.4)	No Hood	No Air path	None			
Commercial Ventilators	M	<a href="#">CRV-F3-*</a>	C24, C30	35.0 (15.9)	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.
		<a href="#">CRV-F5</a>	C36, C42, C48, C60	42 (19.1)	No Hood	Motor, Spring Return	24VAC			
	V	<a href="#">CRV-V3-*</a>	C24, C30	35.0 (15.9)	No Hood	Motor, Spring Return	24VAC or 2-10VDC	Up to 50% of rated intake air with room exhaust.	4cfm/ft2	
		<a href="#">CRV-V5A</a>	C36, C42, C48, C60	42 (19.1)	No Hood	Motor, Spring Return	24VAC or 2-10VDC			
Free Cooling Economizers	D	<a href="#">ECON-NC3A-*</a>	C24, C30	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.
		<a href="#">ECON-NC5A</a>	C36, C42, C48, C60	44 (20)	No Hood	Motor, Spring Return	2-10VDC			
	S	<a href="#">ECON-S3-*</a>	C24, C30	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	
	Y	<a href="#">ECON-DB3A-*</a>	C24, C30	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	24VAC or 0-10VDC	Full rated intake air with room exhaust.	4cfm/ft2	
		<a href="#">ECON-DB5A</a>	C36, C42, C48, C60	44 (20)	No Hood	Motor, Spring Return	24VAC or 0-10VDC			
	Z	<a href="#">ECON-WD3A-*</a>	C24, C30	37.0 (16.8)	7" (17.8cm)	Motor, Spring Return	24VAC or 0-10VDC	Full rated intake air with room exhaust.	4cfm/ft2	
<a href="#">ECON-WD5A</a>		C36, C42, C48, C60	44 (20)	No Hood	Motor, Spring Return	24VAC or 0-10VDC				
Energy Recovery Vents	R (230V Units)	<a href="#">ERV-FA3-*</a>	C24, C30	54.0 (24.4)	4" (10.2cm)	<b>208/230V</b> Blowers	24VAC - 3 speeds	Up to 400cfm	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.
		<a href="#">ERV-FA5</a>	C36, C42, C48, C60	87 (39.5)	No Hood	<b>208/230V</b> Blowers	24VAC - 3 speeds	Up to 450cfm		
	R (460V Units)	<a href="#">ERV-FC3-*</a>	C24, C30	54.0 (24.4)	4" (10.2cm)	<b>460V</b> Blowers	24VAC - 3 speeds	Up to 400cfm		
		<a href="#">ERV-FA5</a>	C36, C42, C48, C60	87 (39.5)	No Hood	<b>208/230V</b> Blowers (uses unit 460V to 230V transformer).	24VAC - 3 speeds	Up to 450cfm		



## INDOOR AIRFLOW AND STATIC INFORMATION

MODEL	RATED EXTERNAL STATIC PRESSURE (" WC)	MAXIMUM EXTERNAL STATIC PRESSURE (" WC)	CONTINUOUS FAN AND VENTILATION ONLY	PART LOAD COOLING AND HEATING (1ST STAGE)	FULL LOAD COOLING AND HEATING (2ND STAGE) AND DEHUMIDIFICATION
C24HF	0.15" WC	0.50" WC	545 CFM	545 CFM	750 CFM
C30HF	0.15" WC	0.50" WC	650 CFM	650 CFM	900 CFM
C36HF	0.15" WC	0.50" WC	800 CFM	800 CFM	1100 CFM
C42HF	0.15" WC	0.50" WC	800 CFM	900 CFM	1250 CFM
C48HF	0.20" WC	0.50" WC	850 CFM	1050 CFM	1450 CFM
C60HF	0.20" WC	0.50" WC	850 CFM	1150 CFM	1650 CFM

## INDOOR AIR STREAM FILTRATION OPTIONS

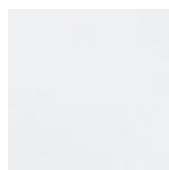
UNIT MODEL	FILTER CODE	FILTER MERV RATING	NUMBER OF FILTERS USED	BARD PART NUMBER	FILTER SIZE INCHES (CM)	FILTER ESP	FILTRATION LEVEL
C24HF C30HF	X	MERV 2	1	7004-019	16x30x1 (41x77x3)	0" WC	Low Filtration, 1" Thickness Disposable Media.
	W	MERV 2	1	7003-031	16x30x1 (41x77x3)	0" WC	Low Filtration, 1" Thickness Cleanable Media.
	P, C	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.
C36HF C42HF C48HF C60HF	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, C	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
<b>All Units</b>	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	
<b>All Units Except Recessed Cabinet Models</b>	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.
<b>All Units Except Recessed Cabinet Models</b>	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	<b>COATED</b>	STANDARD	STANDARD	STANDARD	Corrosion coated evaporator coil and copper aluminum condenser coil. Cabinet is not coated.
	2	STANDARD	<b>COATED</b>	STANDARD	STANDARD	Standard green fin evaporator coil and corrosion coated condenser coil. Cabinet is not coated.
	3	<b>COATED</b>	<b>COATED</b>	STANDARD	STANDARD	Evaporator coil and condenser coil are both corrosion coated. Cabinet is not coated.
All Units	4	<b>COATED</b>	<b>COATED</b>	<b>COATED</b>	STANDARD	Evaporator coil and condenser coil are both corrosion coated. Cabinet interior condenser section is coated.
All Units	5	<b>COATED</b>	<b>COATED</b>	<b>COATED</b>	<b>COATED</b>	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	UNIT MODELS	DESCRIPTION OF FACTORY INSTALLED COMPONENTS
X	All Units	Standard Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, and Refrigerant leak detector (RDS).
E	All Units	Standard controls and <b>Low Ambient Control</b> .
F	C36-C60	Standard controls, <b>Low Ambient Control</b> and <b>Dirty Filter Pressure Switch</b> .
J	All Units	Standard controls, <b>Low Ambient Control</b> and <b>Refrigerant Pressure Alarm Relay with NO/NC Contacts</b> .
Q	All Units	Standard controls, <b>Low Ambient Control</b> and <b>PTCR Start Kit</b> .
R	All Units	Standard controls, <b>Low Ambient Control</b> , <b>Outdoor Thermostat</b> .
T	All Units	Standard controls, <b>Low Ambient Control</b> , <b>Outdoor Thermostat</b> , <b>Hard Start Kit</b> .

## ////// 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-42	C24, C30	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp. - fan cycling.
CMH-40	C36, C42, C48, C60	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp. - fan cycling.
CMC-15	C24, C30	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	C36, C42, C48, C60	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	All 230V - 1PH Units	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	C24, C30	Outdoor Thermostat Kit to disable comp. cooling below 50°F outdoor temp. Adjusts between 50° and 0°F.
CMH-36	C36, C42, C48, C60	Outdoor Thermostat Kit to disable comp. cooling below 50°F outdoor temp. Adjusts between 50° and 0°F.
CMC-34	C24, C30	Compressor Control Module Lockout Alarm Relay Kit.
CMC-35	C36, C42, C48, C60	Compressor Control Module Lockout Alarm Relay Kit.
CMC-36	C24, C30, C36	Crank case heater kit. 230V - 1PH units only.
CMC-40	C24, C30, C36	Crank case heater kit. 230V - 3PH units only.
CMC-37	C24, C30, C36	Crank case heater kit. 460V - 3PH units only.
CMC-38	C42, C48, C60	Crank case heater kit. 230V - 1PH units only.
CMC-41	C42, C48, C60	Crank case heater kit. 230V - 3PH units only.
CMC-39	C42, C48, C60	Crank case heater kit. 460V - 3PH units only.
CMC-31	C24, C30	Dirty Filter Alarm Pressure Sensor Kit. Provides Normally Open Contacts for thermostat or controller.
CMC-33	C36, C42, C48, C60	Dirty Filter Alarm Pressure Sensor Kit. Provides Normally Open Contacts for thermostat or controller.



C36H Series Sound Data Matrix								
Distance from Unit	dBA @ 10ft.				dBA @ 5ft.			
Wall Curb	None	CCURBF	CCURBF	CCURBF	None	CCURBF	CCURBF	CCURBF
Supply Accessories	Grille	Grille	Grille	WAPFB51	Grille	Grille	Grille	WAPFB51
Return Accessories	Grille	Grille	WAPR11A	WAPR11A	Grille	Grille	WAPR11A	WAPR11A
CRV vent setting	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm
Vent only	31.9	33.7	30.0	25.6	34.4	35.3	31.3	28.7
Part Load Compressor	48.4	39.7	37.4	36.4	53.1	41.4	39.3	38.8
Full Load Compressor	48.4	40.6	39.5	37.3	53.6	43.0	41.2	40.1
<b>Integrated dBA</b>	<b>44.8</b>	<b>37.5</b>	<b>35.4</b>	<b>33.5</b>	<b>49.6</b>	<b>39.4</b>	<b>37.1</b>	<b>36.1</b>
Sound Power @ Full Load Comp.	58.0			44.0				
NC Curve @ Full Load Comp.	NC 45	NC 33	NC 32	NC 32	NC 51	NC 38	NC 35	NC 35
Outdoor Sound @ Full Load Comp.	63.3							

C42H Series Sound Data Matrix								
Distance from Unit	dBA @ 10ft.				dBA @ 5ft.			
Wall Curb	None	CCURBF	CCURBF	CCURBF	None	CCURBF	CCURBF	CCURBF
Supply Accessories	Grille	Grille	Grille	WAPFB51	Grille	Grille	Grille	WAPFB51
Return Accessories	Grille	Grille	WAPR11A	WAPR11A	Grille	Grille	WAPR11A	WAPR11A
CRV vent setting	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm
Vent only	34.9	31.8	30.6	26.3	37.2	33.9	32.7	29.0
Part Load Compressor	47.4	40.4	37.7	36.7	51.1	41.1	39.6	38.7
Full Load Compressor	49.4	43.3	41.5	38.6	52.6	45.2	43.5	41.5
<b>Integrated dBA</b>	<b>44.8</b>	<b>38.6</b>	<b>36.6</b>	<b>34.2</b>	<b>48.2</b>	<b>40.1</b>	<b>38.6</b>	<b>36.7</b>
Sound Power @ Full Load Comp.	55.5			45.4				
NC Curve @ Full Load Comp.	NC 45	NC 38	NC 33	NC 33	NC 48	NC 38	NC 38	NC 35
Outdoor Sound @ Full Load Comp.	62.2							

C48H Series Sound Data Matrix								
Distance from Unit	dBA @ 10ft.				dBA @ 5ft.			
Wall Curb	None	CCURBF	CCURBF	CCURBF	None	CCURBF	CCURBF	CCURBF
Supply Accessories	Grille	Grille	Grille	WAPFB51	Grille	Grille	Grille	WAPFB51
Return Accessories	Grille	Grille	WAPR11A	WAPR11A	Grille	Grille	WAPR11A	WAPR11A
CRV vent setting	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm
Vent only	32.7	29.8	28.6	26.2	35.3	32.2	30.9	28.4
Part Load Compressor	45.0	39.4	37.9	37.0	49.9	41.2	39.8	38.7
Full Load Compressor	47.2	42.3	40.7	39.2	51.1	44.1	42.7	41.3
<b>Integrated dBA</b>	<b>42.5</b>	<b>37.5</b>	<b>36.0</b>	<b>34.6</b>	<b>46.8</b>	<b>39.4</b>	<b>38.0</b>	<b>36.6</b>
Sound Power @ Full Load Comp.	55.8			46.2				
NC Curve @ Full Load Comp.	NC 41	NC 35	NC 33	NC 31	NC 47	NC 36	NC 36	NC 34
Outdoor Sound @ Full Load Comp.	61.0							

C60H Series Sound Data Matrix								
Distance from Unit	dBA @ 10ft.				dBA @ 5ft.			
Wall Curb	None	CCURBF	CCURBF	CCURBF	None	CCURBF	CCURBF	CCURBF
Supply Accessories	Grille	Grille	Grille	WAPFB51	Grille	Grille	Grille	WAPFB51
Return Accessories	Grille	Grille	WAPR11A	WAPR11A	Grille	Grille	WAPR11A	WAPR11A
CRV vent setting	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm	450cfm
Vent only	33.6	31.4	27.7	25.4	35.8	31.8	30.4	28.2
Part Load Compressor	45.5	41.6	40.7	39.8	48.5	43.2	42.1	40.4
Full Load Compressor	50.9	46.8	45.2	41.4	53.9	48.8	46.4	44
<b>Integrated dBA</b>	<b>44.9</b>	<b>41.0</b>	<b>39.5</b>	<b>36.9</b>	<b>47.9</b>	<b>42.8</b>	<b>40.8</b>	<b>38.7</b>
Sound Power @ Full Load Comp.	55.5			50.7				
NC Curve @ Full Load Comp.	NC 45	NC 41	NC 40	NC 39	NC 48	NC 46	NC 41	NC 40
Outdoor Sound @ Full Load Comp.	64.7							

1. Integrated values calculated per ANSI/ASA S12.60-2009/Part 2, Section 5.2.2.1, Table 2 Triple Mode Type 3 HVAC System Duty Cycles: Ventilation 58%, Part Load 25%, Full Load 17%.

2. Integrated Sound Vales are also applicable for use in learning spaces for LEED schools; EQ Prerequisite 3 - Minimum Acoustical Performance, OPTION 1. Using methods prescribed in ANSI S12.60, classroom must achieve a maximum background noise level of 40 dBA.

3. Results Referenced Were Recorded In The Bard Manufacturing Company, Inc. Sound Lab Facility. Actual Field Application Results May Vary With Classroom Design and Construction Methods.





## WALL CURB, SOUND, AND CABINET 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
<b>WWC3-*</b>	C24, C30	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.
<b>WWC5-*</b>	C36, C42, C48, C60	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.
<b>CFCF-32-*</b>	C24, C30	Upgrade from W18/W24 wall openings and Provide Sound Isolation. The supply and return are located in the curb back, and the return can be offset for additional sound reduction.
<b>CFCT-32-*</b>	C24, C30	Upgrade from W18/W24 wall openings and Provide Sound Isolation. The supply exits the top of the curb, then has a 90 degree adapter to enter the building under a soffit or overhang. The return can be offset for additional sound reduction.
<b>CCURBF2430-*</b>	C24, C30	Provides Sound Isolation and uses movable back panel with W30/W36 Wall Openings. The supply and return are located in the curb back, and the return can be offset for additional sound reduction.
<b>CCURBT2430-*</b>	C24, C30	Provides Sound Isolation and uses movable back panel with W30/W36 Wall Openings. The supply exits the top of the curb, then has a 90 degree adapter to enter the building under a soffit or overhang. The return can be offset for additional sound reduction.
<b>CFCF-53-*</b>	C36, C42, C48, C60	Upgrade from W30/W36 wall openings and Provide Sound Isolation. The supply and return are located in the curb back, and the return can be offset for additional sound reduction.
<b>CFCT-53-*</b>	C36, C42, C48, C60	Upgrade from W30/W36 wall openings and Provide Sound Isolation. The supply exits the top of the curb, then has a 90 degree adapter to enter the building under a soffit or overhang. The return can be offset for additional sound reduction.
<b>CCURBF4860-*</b>	C36, C42, C48, C60	Provides Sound Isolation and uses movable back panel with W42-W60 Wall Openings. The supply and return are located in the curb back, and the return can be offset for additional sound reduction.
<b>CCURBT4860-*</b>	C36, C42, C48, C60	Provide Sound Isolation uses movable back panel and W42-W60 Wall Openings. The supply exits the top of the curb, then has a 90 degree adapter to enter the building under a soffit or overhang. The return can be offset for additional sound reduction.
<b>WAPR11A-*</b>	All Units	Provides sound reduction inside a classroom or other indoor area. Indoor wall curb mounts to indoor wall and reduces air noise from return airstream. Movable back panel provides flexibility with indoor mounting (horizontal or vertical positions). Available in White (1), Gray (4), or Beige (X).
<b>WAPFB31-*</b>	C24, C30	Provides sound reduction inside a classroom or other indoor area. Indoor wall curb mounts to indoor wall and reduces air noise from supply airstream. 4-way deflection grille provides directional control of supply airstream. Available in White (1), Gray (4), or Beige (X).
<b>WAPFB51-*</b>	C36, C42, C48, C60	
<b>8620-367</b>	C36, C42, C48, C60	Unit drain pan attaches to bottom of unit base to catch condensate water.

\* 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 C36H through C60H 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
<b>SG-3</b>	C24, C30	8" x 28" with 1" Flange 4 way deflection supply grille.
<b>SG-5</b>	C36, C42, C48, C60	10" x 30" with 1" Flange 4 way deflection supply grille.
<b>RG-3</b>	C24, C30	12" x 28" with 1" Flange return grille.
<b>RG-5</b>	C36, C42, C48, C60	16" x 30" with 1" Flange return grille.
<b>SG-3W</b>	C24, C30	8" x 28" with 2" Flange 4 way deflection supply grille.
<b>SG-5W</b>	C36, C42, C48, C60	10" x 30" with 2" Flange 4 way deflection supply grille.
<b>RG-3W</b>	C24, C30	12" x 28" with 2" Flange return grille.
<b>RG-5W</b>	C36, C42, C48, C60	16" x 30" with 2" Flange return grille.
<b>RFG-3W</b>	C24, C30	12" x 28" with 2" Flange return grille with filter bracket.*
<b>RFG-5W</b>	C36, C42, C48, C60	16" x 30" with 2" Flange return grille with filter bracket.*
<b>RGDK-3W</b>	C24, C30	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.
<b>RGDK-5W</b>	C36, C42, C48, C60	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.



## 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
8620-262	C24, C30 - No Economizer	Standard Unit Crate for units without 7" economizer hood.
8620-276	C24, C30 - Economizer	Standard Unit Crate for units with 7" economizer hood.
8620-304	C36, C42	Standard Unit Crate - All Vent Options.
8620-305	C48, C60	Standard Unit Crate - All Vent 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
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
8403-090	2 Heat/2 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable
8403-092	2 Heat/2 Cool	Programmable or Nonprogrammable, ventilation output, Wi-Fi
8403-081	3 Heat/3 Cool	BrightStat Advanced Controller with Temperature, Humidity, BACnet, Modbus, and Motion.
8403-083	3 Heat/3 Cool	BrightStat Advanced Controller with Temperature, Humidity, BACnet and Modbus.
8403-086	CO2 Card	Plug-in CO2 Card for the BrightStat.

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 Sensor.	Wall mounted 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.



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

