

11EER W24G4-W60G4 Series WALL-MOUNT™

The Bard Wall-Mount Electric Air Conditioner with gas fired heating is a self-contained energy efficient system which is designed to offer maximum indoor comfort at a minimal cost without using valuable indoor floor space or outside ground space. This unit is the ideal product for versatile applications such as: new construction, modular offices, school modernization, portable structures, correctional facilities, retail stores or other commercial applications. Factory or field installed accessories are available to meet specific job requirements.

- Complies with efficiency requirements of ASHRAE/IESNA 90.1-2019
- Certified to ANSI/AHRI Standard 390-2021 for SPVU (Single Package Vertical Units)
- Intertek ETL Listed to Standard for Safety Heating and Cooling Equipment ANSI/UL 1995, Fifth Edition/CSA 22.2 No. 236-05 Fourth Edition
- Intertek ETL Listed to Standard for Gas-Fired Central Furnaces ANSI Z21.47-2021, CSA 2.3-2021 Eighth Edition
- Commercial Product - Not intended for residential application
- 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.



Bard®
SINCE 1914



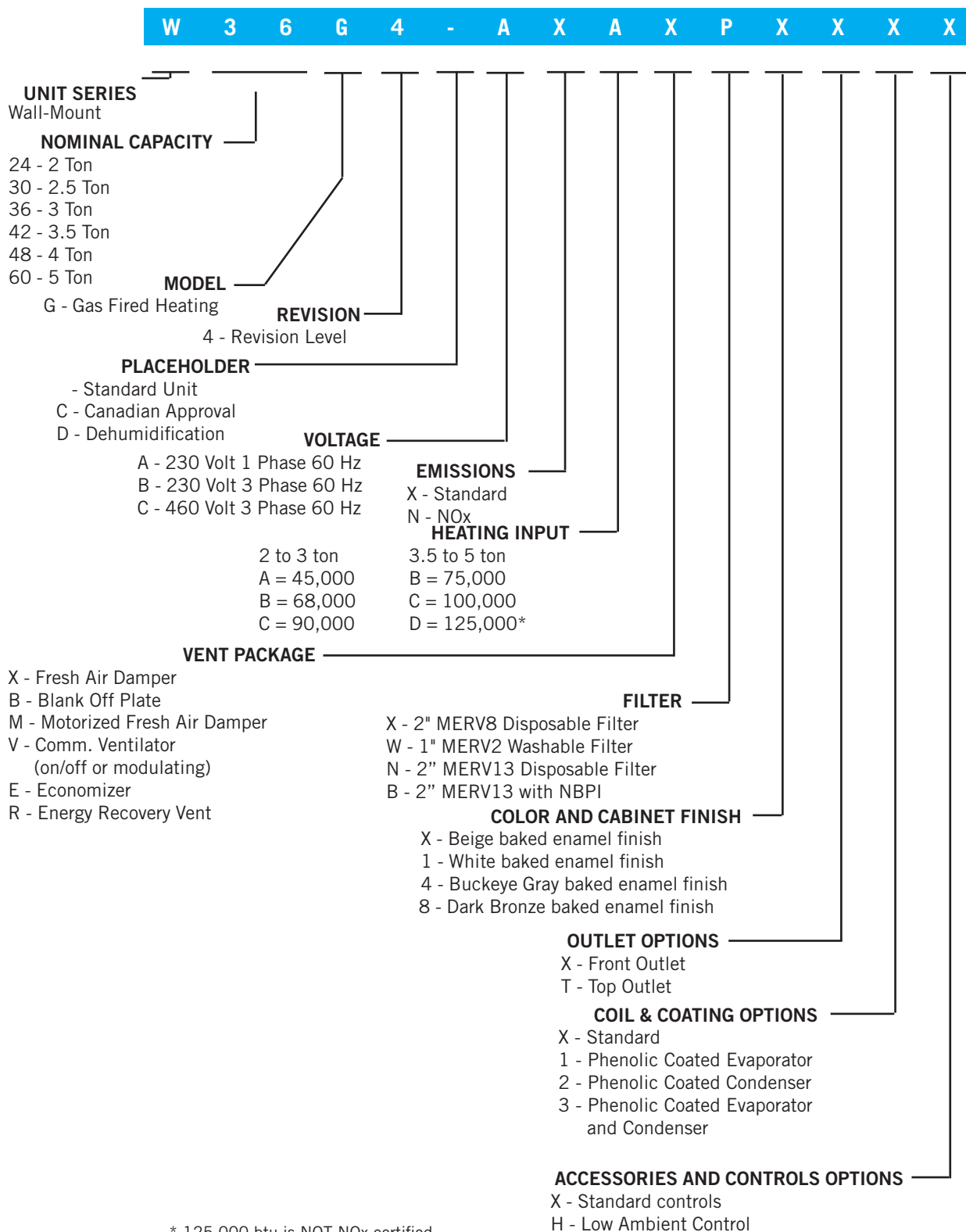
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FORM NO. S3588-1123



Climate Control Solutions

///// WALL-MOUNT NOMENCLATURE



Durable Cabinet Construction: Multiple cabinet construction options are available for different outdoor conditions. Optional cabinet coatings may be ordered for extreme outdoor environments.

Easy Filter Access: A separate filter door is provided for ease of filter access during routine unit maintenance. 1" and 2" filters are available with a rating of up to MERV13.

Field or Factory Installed Vents: Multiple ventilation options are available as easily installed kits with electrical plugs, or Factory installed options that can be removed for service.

Gas Heat: Reliable, comfortable gas heat packages feature an automatic and manual safety control. Heater packages are factory installed.

Reliable, Easy-to-Use Controls: Easily accessible through right control panel locations. A lockable hinged access cover to circuit protection is provided. Phase rotation monitor is standard on all 3 phase models. Adjustable compressor on/off delay timer (CCM) with diagnostic lights is standard on all models.

Green Fin Hydrophilic Evaporator Coil: Green fin stock enhances coil wettability to help prevent mold growth, aid with condensate drainage, and provide a limited amount of protection to corrosive particulates in the airstream.

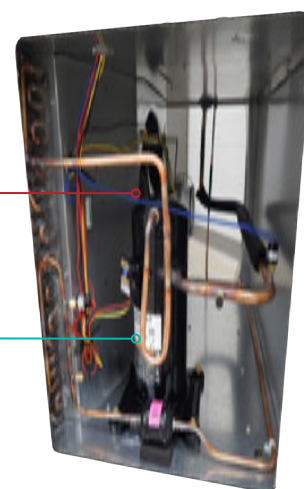
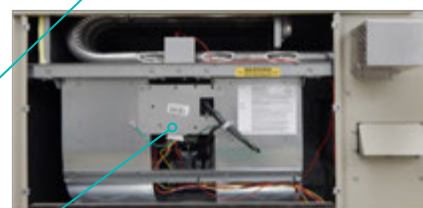
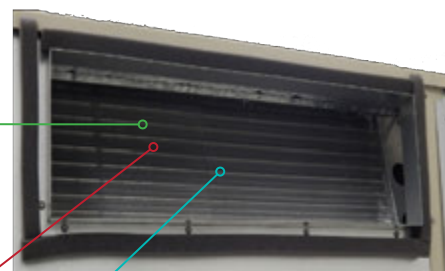
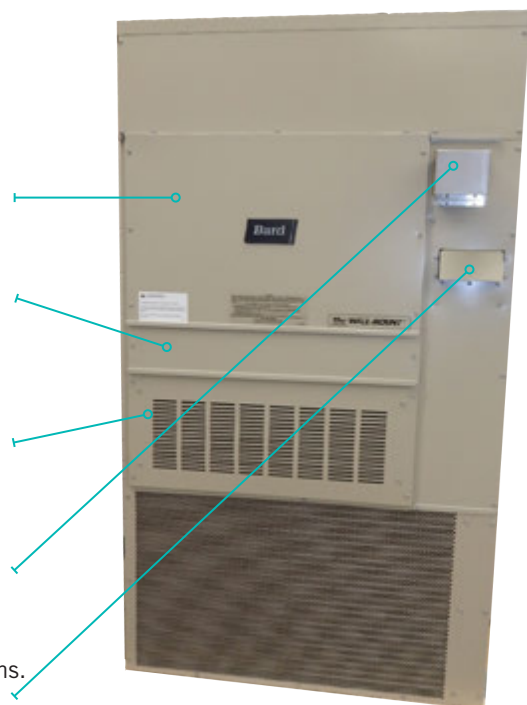
Balanced Climate Technology: High latent capacity humidity & sound reduction removes up to 35% more humidity than any other on the market with the use of a 2 stage thermostat or controlling device. Bard Balanced Climate™ innovation comes standard on all models.

Optional Mechanical Dehumidification: Models are available with hot gas reheat dehumidification for energy efficient humidity removal. Electronic Expansion Valves are standard for all dehumidification models.

ECM Indoor Motor Technology: 5 speed dual shaft motor provides quiet airflow operation when used with a twin blower assembly. Motor overload protection standard on all models.

Enclosed Condenser Motor: An enclosed casing condenser motor with ball bearings is used for reliable operation and extended motor life. Enclosed condenser motors are standard on all units.

High Efficiency Cooling: Scroll compressors for quiet, efficient cooling. Designed with R-410A (HFC) non-ozone depleting refrigerant in compliance with the Montreal protocol and 2010 EPA requirements. A liquid line filter-drier to protect the system from moisture is standard on all units.



UNIT MODES OF OPERATION

Cooling Operation: The Bard WG Series WALL MOUNT products offer single stage cooling operation using R410A refrigerant. Copper tube/Aluminum hydrophilic fin coils are used to provide high efficiency and easy serviceability. Scroll compressor technology delivers years of quiet, reliable operation.



Heating Operation: The Bard WG Series WALL MOUNT products offer gas heat. Heavy duty 18-gauge stainless steel tubular heat exchanger with mechanically joined construction and a ten-year warranty. An advanced burner design provides quiet operation. Direct spark ignition control (DSI) and remote sensor delivers smooth, proven ignition sequence. Timed blower control and diagnostics are also features of integrated control. Honeywell gas valve and burner orifices are factory standard for natural gas. High altitude kits available. Field convertible to LP gas with certified conversion kit. Circuit breaker disconnect protection is standard in all units.



Mechanical Dehumidification Operation: The Bard WG Series WALL MOUNT series offer optional dehumidification models that removes moisture while running at a quiet lower blower speed. A three-way valve, reheat coil, and electronic expansion valve (EEV) are standard with all models. The dehumidification circuit incorporates an independent heat exchanger coil in the supply air stream. The coil reheats the supply air after it passes over the cooling coil using heat from the condenser side of the refrigeration system. This results in very high mechanical dehumidification capability from the air conditioner on demand.



Ventilation Operation: The Bard WG Series WALL MOUNT products offer optional ventilation operation that brings outdoor air into the structure. Vent options can be factory or field installed, and can be used to bring in outdoor air for occupants, save energy by using outdoor air for free cooling, or positively pressurize a structure. Exhaust air options allow room air to be vented outdoors when fresh air is being brought into the structure. Energy recovery options are also available for occupied structures which condition the air being brought in to save energy when ventilation is necessary regardless of outdoor temperature.



Balanced Climate Operation: The Bard WG Series WALL MOUNT products offer an enhanced latent capacity stage that can be controlled by a two stage cooling thermostat. During the first cooling stage (Balanced Climate Mode), the unit will increase the amount of moisture removed during compressor operation. The second stage (standard mode) of cooling increases the sensible cooling capacity to increase the amount of heat removed from the structure during compressor operation. available in high supply static applications. In order for Balanced Climate to be used, a jumper must be removed between Y1 and Y2. Unit is shipped with jumper in place and Balanced Climate disabled.



ADVANCED FEATURE DESCRIPTIONS

ECM Indoor Blower Motor: Energy efficient indoor brushless DC blower motors use EC constant torque technology with 5 selectable pre-programmed speeds. By selecting the needed speed, the WALL MOUNT product can reduce or increase airflow. A NEMA48® frame enclosure is used. A high speed tap can be selected to offer the maximum CFM possible with the blower assembly.



Outdoor Fan Motor: Outdoor fan motors are totally enclosed and use ball bearing construction and are fully enclosed for increased life expectancy.

Cooling System Capacity, Efficiency & Airflow Ratings and Available Heating Inputs

Models	W24G4	W30G4	W36G4	W42G4	W48G4	W60G4
Cooling Capacity BTUH ①	24,000	28,000	34,000	42,500	48,500	55,500
EER ②	11.0	11.0	11.0	11.0	11.0	11.0
Rated CFM	800	1000	1100	1300	1550	1650
Acceptable Airflow Range	680 - 920	850 - 1150	935 - 1265	1030 - 1500	1280 - 1750	1340 - 1910
Available Heating Inputs ③	90,000	90,000	90,000	125,000	125,000	125,000
	68,000	68,000	68,000	100,000	100,000	100,000
	45,000	45,000	45,000	75,000	75,000	75,000

① Capacity is certified in accordance with ANSI/ARI Standard 390-2003.

② EER = Energy Efficiency Ratio and is certified in accordance with ARI Standard 390-2003.

All ratings based on fresh air intake being 100% closed (no outside air introduction).

③ Any one of the heating inputs shown is available for each basic cooling model as indicated. Each input can be field derated 10% from factory standard and main burner orifices are included with each unit to accomplish this. See table below for additional information.

Heating System Capacity, Efficiency, Derate & Airflow Ratings W24G4, W30G4, W36G4

	Factory Standard	Field Derate	Factory Standard	Field Derate	Factory Standard	Field Derate
Input	90,000	81,000	68,000	61,000	45,000	41,000
Output	74,000	66,500	55,500	50,000	37,000	34,000
Thermal Efficiency (T.E.)	82.0	82.0	82.0	82.0	82.0	82.0
Temp. Rise Range	50 - 80	50 - 80	40 - 70	40 - 70	25 - 55	25 - 55
Mid-Rise Range Airflow	1040	940	925	825	830	740
Acceptable Airflow Range	845 - 1350	765 - 1220	730 - 1275	650 - 1135	610 - 1330	540 - 1185

Heating ratings certified in accordance with ANSI Z21.47-2006.

Heating System Capacity, Efficiency, Derate & Airflow Ratings W42G4, W48G4, W60G4

	Factory Standard	Field Derate	Factory Standard	Field Derate	Factory Standard	Field Derate
Input	125,000	113,000	100,000	90,000	75,000	68,000
Output	102,500	93,000	82,000	74,000	61,500	56,000
Thermal Efficiency (T.E.)	82.0	82.0	82.0	82.0	82.0	82.0
Temp. Rise Range	50 - 80	50 - 80	40 - 70	40 - 70	30 - 60	30 - 60
Mid-Rise Range Airflow	1410	1270	1365	1230	1250	1135
Acceptable Airflow Range	1145 - 1830	1030 - 1650	1075 - 1875	965 - 1700	940 - 1875	850 - 1700

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SPECIFICATIONS 1-1/2 TON THROUGH 3 TON

MODELS	W24G4-A	W24G4-B	W24G4-C	W30G4-A	W30G4-B	W30G4-C	W36G4-A	W36G4-B	W36G4-C
Electrical Rating – 60 Hz	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3
Operating Voltage Range	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
Minimum Circuit Ampacity	20.6	12.6	8	22.6	16.1	8.6	26.4	20	10.6
*Field Wire Size	10	14	14	10	12	14	8	10	14
Ground Wire Size	10	14	14	10	12	14	10	10	14
** Delay Fuse - Max.	30	15	10	30	20	10	35	25	15
Compressor									
Voltage	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	7.6/8.7	4.6/5.3	2.5	9.4/10.7	6/6.9	3.2	12/13.5	7.8/8.7	4.8
Branch Circuit Selection Current	12.9	6.5	3.6	14.2	9	4.2	16.7	10.5	5.8
Lock Rotor Amps	58.3/58.3	55/55	28	73/73	58/58	28	79/79	73/73	38
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor & Condenser									
Fan Motor--HP--RPM-SPD	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1
Fan Motor--Amps	1.4	1.4	.8	1.4	1.4	.9	1.4	1.4	1.2
Fan--DIA/CFM	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100
Blower Motor & Evap.									
Blower Motor--HP--RPM-SPD	1/2-VAR	1/2-VAR	1/2-VAR	1/2-VAR	1/2-VAR	1/2-VAR	1/2-VAR	1/2-VAR	1/2-VAR
Blower Motor--Amps	.9	.9	.4	1.3	1.3	1.2	1.9	1.9	.9
CFM Cooling & E.S.P.	800 - .10	800 - .10	800 - .10	1000 - .15	1000 - .15	1000 - .15	1100 - .15	1100 - .15	1100 - .15
Filter Size	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2
Shipping Weight --LBS.	500	500	500	530	530	530	540	540	540

MODELS	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
Electrical Rating – 60 Hz	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3
Operating Voltage Range	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
Minimum Circuit Ampacity	29	23.4	11.5	34.4	24.4	12	40.2	30	15
*Field Wire Size	8	10	14	8	10	14	8	8	12
Ground Wire Size	10	10	14	10	10	14	10	10	12
** Delay Fuse - Max.	40	30	15	50	30	15	50	40	20
Compressor									
Voltage	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	15.5/17.4	11.7/13.2	5.9	16.7/19.5	10.6/12.3	6.5	19.5/21.9	12.9/14.4	7.0
Branch Circuit Selection Current	18.0	13.6	6.0	21.8	13.8	6.5	24.4	16	7.8
Lock Rotor Amps	112/112	88/88	44	117/117	83/83	41	144/144	110/110	52
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor & Condenser									
Fan Motor--HP--RPM-SPD	1/3 - 850 - 1	1/3 - 850 - 1	1/3 - 850 - 1	1/3 - 830 - 1	1/3 - 830 - 1	1/3 - 830 - 1	1/2 - 1000 - 1	1/2 - 1000 - 1	1/2 - 1000 - 1
Fan Motor--Amps	1.8	1.8	1.0	1.8	1.8	1.0	3.8	3.8	2.5
Fan--DIA/CFM	24" - 2900	24" - 2900	24" - 2900	24" - 2700	24" - 2700	24" - 2700	24" - 3400	24" - 3400	24" - 3400
Blower Motor & Evap.									
Blower Motor--HP--RPM-SPD	3/4-VAR	3/4-VAR	3/4-VAR	3/4-VAR	3/4-VAR	3/4-VAR	3/4-VAR	3/4-VAR	3/4-VAR
Blower Motor--Amps	2.4	2.4	1.7	3.1	3.1	1.7	3.7	3.7	1.7
CFM Cooling & E.S.P.	1300 - .15	1300 - .15	1300 - .15	1450 - .20	1450 - .20	1450 - .20	1650 - .20	1650 - .20	1650 - .20
Filter Size	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2
Shipping Weight --LBS.	700	700	700	710	710	710	725	725	725

*Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.

**Maximum time delay fuse or HACR type circuit breaker.

COOLING APPLICATION DATA - OUTDOOR TEMPERATURE ①②

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F
W24G4	75/62	Total Cooling	25500	24400	23200	22100	20900	19900	19000	18100	17100	16300	15400
		Sensible Cooling	20200	19700	19100	18600	18200	17600	17200	16800	16400	16000	15400
	80/67	Total Cooling	27200	26500	25700	24900	24000	23200	22400	21500	20600	19700	18700
		Sensible Cooling	19600	19300	18900	18600	18300	17900	17600	17300	17000	16700	16400
	85/72	Total Cooling	32400	31000	29500	28100	26700	25400	24200	22900	21700	20500	19300
		Sensible Cooling	20100	19600	19000	18500	18000	17400	16800	16300	15700	15100	14500
W30G4	75/62	Total Cooling	30700	28900	27300	25800	24400	23200	22100	21200	20200	19400	18700
		Sensible Cooling	24400	23300	22300	21500	20700	20100	19500	19100	18800	18600	18400
	80/67	Total Cooling	32700	31500	30300	29100	28000	27000	26100	25200	24300	23500	22800
		Sensible Cooling	23600	22800	22100	21500	20900	20400	20000	19700	19500	19400	19300
	85/72	Total Cooling	39000	26900	34800	32900	31100	29600	28200	26800	25600	24400	23500
		Sensible Cooling	24200	23200	22200	21400	20500	19800	19100	18500	18000	17600	17100
W36G4	75/62	Total Cooling	38000	35600	33400	31400	29600	28100	26600	25300	24200	23200	22300
		Sensible Cooling	29900	28800	27700	26700	25800	25100	24400	23800	23400	23000	22300
	80/67	Total Cooling	40500	38800	37100	35500	34000	32700	31400	30200	29100	28100	27200
		Sensible Cooling	29000	28200	27400	26700	26000	25500	25000	24600	24300	24100	23900
	85/72	Total Cooling	48300	45400	42600	40100	37800	35800	33900	32200	30600	29200	28000
		Sensible Cooling	29700	28600	27600	26500	25500	24700	23900	23100	22400	21800	21200
W42G4	75/62	Total Cooling	45500	43200	41100	39000	37000	35200	33500	31800	30200	28600	27200
		Sensible Cooling	35600	34500	33400	32400	31500	30700	29800	29100	28500	27800	27200
	80/67	Total Cooling	48500	47100	45600	44100	42500	41000	39500	37900	36300	34700	33100
		Sensible Cooling	34500	33800	33100	32400	31800	31200	30600	30100	29600	29100	28600
	85/72	Total Cooling	57800	55100	52400	49800	47200	44900	42600	40300	38200	36100	34100
		Sensible Cooling	35400	34300	33300	32200	31200	30200	29200	28200	27300	26300	25300
W48G4	75/62	Total Cooling	52500	49700	47000	44500	42200	40200	38200	36400	34700	33100	31700
		Sensible Cooling	40800	39500	38200	37000	35900	34900	33900	33100	32300	31600	31100
	80/67	Total Cooling	56000	54100	52200	50300	48500	46800	45100	43400	41700	40100	38600
		Sensible Cooling	39600	38700	37800	37000	36200	35500	34800	34200	33600	33100	32700
	85/72	Total Cooling	66700	63300	60000	56800	53900	51200	48600	46200	43800	41700	39700
		Sensible Cooling	40600	39300	38000	36800	35500	34400	33200	32100	31000	29900	28900
W60G4	75/62	Total Cooling	60700	57300	54000	51100	48300	45800	43500	41300	39300	37500	35700
		Sensible Cooling	47300	45600	44100	42700	41300	40100	39000	37900	37000	36100	35300
	80/67	Total Cooling	64800	62400	60000	57800	55500	53400	51300	49300	47300	45400	43500
		Sensible Cooling	45900	44700	43700	42700	41700	40800	40000	39200	38500	37800	37200
	85/72	Total Cooling	77200	73000	68900	65300	61700	58400	55300	52500	49700	47200	44800
		Sensible Cooling	47000	45400	43900	42400	40900	39500	38100	36800	35500	34200	32900

- ① Low ambient control allows for compressor operation down to 0°F.
 ② Outdoor temperatures shown are measured at the condenser section air inlet.
 ③ Return air temperature °F.

CAPACITY MULTIPLIER FACTORS			
% of Rated Airflow	-10	Rated	+10
Total BTUH	0.975	1.0	1.02
Sensible BTUH	0.950	1.0	1.05

UNIT CHARGE RATES

UNIT	STD. UNIT - LBS.	DEHUM. UNITS - LBS.
W24G4 - Gas/Electric	5.750	5.750
W30G4 - Gas/Electric	5.750	6.125
W36G4 - Gas/Electric	6.625	7.125
W42G4 - Gas/Electric	6.500	6.375
W48G4 - Gas/Electric	7.125	7.500
W60G4 - Gas/Electric	9.625	10.250

UNIT CRATES

UNIT	CRATE
W24G, W30G, W36G	8620-355
W42G, W48G, W60G	8620-356

COOLING DEHUMIDIFICATION APPLICATION DATA - OUTDOOR TEMPERATURE ① ②

W24G4D Application Performance Data

Indoor Conditions		Outdoor Conditions	System Capacity				Pounds of Water/Hour	Evaporator Airflow	Approximate Supply Air	Mode
DB/WB	% RH	DB	Total	Sensible	Latent	S/T	Lbs.	CFM	DB/WB	A/C vs. Dehum
65/63	90	65	27,900	11,900	16,000	.43	15.1	800	51.6 / 51.1	A/C
65/63	90	65	-0-	(800)	13,050	-0-	12.3	800	66.0 / 58.2	Dehum
75/62.5	50	75	28,750	19,750	7,000	.69	6.6	800	52.5 / 50.8	A/C
75/62.5	50	75	9,650	3,700	5,950	.38	5.6	800	70.8 / 58.5	Dehum
75/65.5	60	75	28,550	17,550	11,000	.62	10.4	800	54.9 / 53.7	A/C
75/65.5	60	75	10,950	2,000	8,950	.18	8.5	800	72.9 / 61.3	Dehum
75/68	70	75	29,650	15,450	14,200	.52	13.4	800	57.4 / 56.5	A/C
75/68	70	75	11,850	350	11,500	.03	10.8	800	74.7 / 63.8	Dehum
80/67	50	95	26,000	18,900	7,100	.73	6.7	800	58.8 / 56.8	A/C
80/67	50	95	-0-	(2,500)	6,000	-0-	5.7	800	82.9 / 65.8	Dehum

W30G4D Application Performance Data

Indoor Conditions		Outdoor Conditions	System Capacity				Pounds of Water/Hour	Evaporator Airflow	Approximate Supply Air	Mode
DB/WB	% RH	DB	Total	Sensible	Latent	S/T	Lbs.	CFM	DB/WB	A/C vs. Dehum
65/63	90	65	35,650	15,550	20,100	.43	19.0	1000	51.1 / 50.8	A/C
65/63	90	65	-0-	(950)	16,200	-0-	15.3	1000	65.9 / 58.1	Dehum
75/62.5	50	75	33,050	25,300	7,750	.76	7.3	1000	52.1 / 50.9	A/C
75/62.5	50	75	10,300	4,200	6,100	.41	5.8	1000	71.1 / 59.2	Dehum
75/65.5	60	75	34,950	22,200	12,750	.64	12.0	1000	54.8 / 53.9	A/C
75/65.5	60	75	11,900	2,450	9,450	.21	8.9	1000	72.8 / 61.8	Dehum
75/68	70	75	36,400	19,550	16,850	.54	15.9	1000	57.2 / 56.5	A/C
75/68	70	75	13,300	700	12,600	.05	11.9	1000	74.3 / 64.1	Dehum
80/67	50	95	32,000	24,350	7,650	.76	7.2	1000	58.0 / 56.8	A/C
80/67	50	95	-0-	(2,200)	6,350	-0-	6.0	1000	82.1 / 65.8	Dehum

W36G4D Application Performance Data

Indoor Conditions		Outdoor Conditions	System Capacity				Pounds of Water/Hour	Evaporator Airflow	Approximate Supply Air	Mode
DB/WB	% RH	DB	Total	Sensible	Latent	S/T	Lbs.	CFM	DB/WB	A/C vs. Dehum
65/63	90	65	35,050	15,350	19,700	.44	18.6	1100	52.1 / 52.1	A/C
65/63	90	65	11,600	(2,450)	14,050	-0-	13.3	1100	67.2 / 59.8	Dehum
75/62.5	50	75	33,800	26,250	7,550	.78	7.1	1100	53.7 / 51.9	A/C
75/62.5	50	75	7,150	1,500	5,650	.21	5.3	1100	73.9 / 62.5	Dehum
75/65.5	60	75	34,900	22,550	12,350	.65	11.6	1100	56.6 / 55.3	A/C
75/65.5	60	75	8,850	(100)	8,950	-0-	8.5	1100	75.2 / 65.6	Dehum
75/68	70	75	36,100	19,600	16,500	.54	15.5	1100	58.8 / 58.0	A/C
75/68	70	75	10,250	(1,350)	11,600	-0-	11.0	1100	76.2 / 65.3	Dehum
80/67	50	95	34,500	26,600	7,900	.77	7.5	1100	57.9 / 57.1	A/C
80/67	50	95	300	(5,500)	5,800	-0-	5.5	1100	84.7 / 67.0	Dehum

COOLING DEHUMIDIFICATION APPLICATION DATA - OUTDOOR TEMPERATURE ① ②

W42G4D Application Performance Data

Indoor Conditions		Outdoor Conditions	System Capacity				Pounds of Water/Hour	Evaporator Airflow	Approximate Supply Air	Mode
DB/WB	% RH	DB	Total	Sensible	Latent	S/T	Lbs.	CFM	DB/WB	A/C vs. Dehum
65/63	90	65	46,800	20,700	26,100	.44	24.6	1400	52.0 / 51.6	A/C
65/63	90	65	23,450	(900)	24,350	-0-	23.0	1400	65.6 / 57.4	Dehum
75/62.5	50	75	44,050	34,700	9,350	.79	8.8	1400	52.6 / 51.6	A/C
75/62.5	50	75	17,650	9,750	7,900	.55	7.5	1400	68.8 / 58.5	Dehum
75/65.5	60	75	46,500	30,350	16,150	.65	15.2	1400	55.5 / 54.8	A/C
75/65.5	60	75	20,550	6,200	14,350	.30	13.5	1400	71.2 / 61.1	Dehum
75/68	70	75	49,000	26,850	22,150	.55	20.9	1400	58.0 / 57.3	A/C
75/68	70	75	23,100	3,150	19,950	.14	18.8	1400	73.3 / 63.3	Dehum
80/67	50	95	42,000	32,400	9,600	.77	9.1	1400	58.8 / 57.5	A/C
80/67	50	95	9,700	1,800	7,900	.18	7.5	1400	79.0 / 65.1	Dehum

W48G4D Application Performance Data

Indoor Conditions		Outdoor Conditions	System Capacity				Pounds of Water/Hour	Evaporator Airflow	Approximate Supply Air	Mode
DB/WB	% RH	DB	Total	Sensible	Latent	S/T	Lbs.	CFM	DB/WB	A/C vs. Dehum
65/63	90	65	52,550	22,300	30,250	.42	28.6	1450	51.0 / 50.7	A/C
65/63	90	65	24,350	(2,050)	26,400	-0-	24.9	1450	66.3 / 57.8	Dehum
75/62.5	50	75	50,200	38,600	11,600	.77	11.0	1450	50.8 / 50.3	A/C
75/62.5	50	75	17,800	8,300	9,500	.46	9.0	1450	69.0 / 58.6	Dehum
75/65.5	60	75	52,750	33,350	19,400	.63	18.3	1450	54.1 / 53.6	A/C
75/65.5	60	75	20,650	5,250	15,400	.26	14.5	1450	71.6 / 61.3	Dehum
75/68	70	75	55,600	29,200	26,400	.53	24.9	1450	56.7 / 56.3	A/C
75/68	70	75	23,050	1,650	21,400	.07	20.2	1450	73.9 / 63.6	Dehum
80/67	50	95	48,000	36,400	11,600	.76	10.9	1450	57.1 / 56.5	A/C
80/67	50	95	7,200	150	7,050	.02	6.6	1450	79.9 / 65.6	Dehum

W60G4D Application Performance Data

Indoor Conditions		Outdoor Conditions	System Capacity				Pounds of Water/Hour	Evaporator Airflow	Approximate Supply Air	Mode
DB/WB	% RH	DB	Total	Sensible	Latent	S/T	Lbs.	CFM	DB/WB	A/C vs. Dehum
65/63	90	65	63,400	28,150	35,250	.44	33.3	1650	49.9 / 49.7	A/C
65/63	90	65	31,250	1,550	29,700	.05	28.0	1650	66.3 / 57.0	Dehum
75/62.5	50	75	60,100	44,400	15,700	.74	14.8	1650	50.8 / 49.6	A/C
75/62.5	50	75	24,200	10,100	14,100	.42	13.3	1650	69.6 / 57.8	Dehum
75/65.5	60	75	63,600	39,400	24,200	.62	22.8	1650	53.7 / 52.8	A/C
75/65.5	60	75	27,700	5,950	21,750	.21	20.5	1650	72.1 / 60.5	Dehum
75/68	70	75	66,400	35,150	31,250	.53	29.5	1650	56.2 / 55.6	A/C
75/68	70	75	30,650	2,300	28,350	.08	26.7	1650	74.2 / 62.7	Dehum
80/67	50	95	57,000	41,700	15,300	.73	14.4	1650	57.3 / 56.0	A/C
80/67	50	95	13,950	100	13,850	.01	13.1	1650	80.2 / 64.6	Dehum

////// **BALANCED CLIMATE APPLICATION DATA (OPTIONAL, REQUIRES THERMOSTAT WITH 2 COOLING STAGES)**

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F
W24G4	75/62	Total Cooling	24800	23700	22700	21800	20800	19900	18900	18000	17100	16100	15100
		Sensible Cooling	19000	18400	17800	17300	16800	16300	15800	15400	15000	14600	14200
		Latent Cooling	5800	5300	4900	4500	4000	3600	3100	2600	2100	1500	900
		Lbs. H2O per Hr.	5.46	4.99	4.61	4.23	3.76	3.39	2.92	2.45	1.98	1.41	0.85
	80/67	Total Cooling	26400	25800	25200	24600	23900	23100	22300	21400	20500	19500	18400
		Sensible Cooling	18400	18000	17600	17300	16900	16600	16200	15900	15600	15200	14900
		Latent Cooling	8000	7800	7600	7300	7000	6500	6100	5500	4900	4300	3500
		Lbs. H2O per Hr.	7.55	7.36	7.17	6.89	6.60	6.13	5.75	5.19	4.62	4.06	3.30
	85/72	Total Cooling	31500	30200	29000	27800	26600	25300	24100	22800	21600	20300	19000
		Sensible Cooling	18900	18300	17700	17200	16600	16100	15500	14900	14400	13800	13200
		Latent Cooling	12600	11900	11300	10600	10000	9200	8600	7900	7200	6500	5800
		Lbs. H2O per Hr.	11.92	11.26	10.69	10.03	9.46	8.70	8.13	7.47	6.81	6.15	5.49
W30G4	75/62	Total Cooling	27900	27300	26600	25900	24900	24000	22900	21700	20500	19100	17700
		Sensible Cooling	20300	20100	19900	19500	19200	18700	18200	17500	16900	16200	15400
		Latent Cooling	7600	7200	6700	6400	5700	5300	4700	4200	3600	2900	2300
		Lbs. H2O per Hr.	7.15	6.77	6.30	6.02	5.36	4.99	4.42	3.95	3.39	2.73	2.16
	80/67	Total Cooling	29700	29700	29500	29200	28600	27900	27000	25900	24600	23100	21500
		Sensible Cooling	19700	19700	19700	19500	19300	19000	18600	18100	17500	16900	16200
		Latent Cooling	10000	10000	9800	9700	9300	8900	8400	7800	7100	6200	5300
		Lbs. H2O per Hr.	9.43	9.43	9.25	9.15	8.77	8.40	7.92	7.36	6.70	5.85	5.00
	85/72	Total Cooling	35400	34800	33900	33000	31800	30500	29100	27600	25900	24000	22100
		Sensible Cooling	20200	20000	19800	19400	19000	18400	17800	17000	16200	15300	14400
		Latent Cooling	15200	14800	14100	13600	12800	12100	11300	10600	9700	8700	7700
		Lbs. H2O per Hr.	14.38	14.00	13.34	12.86	12.11	11.45	10.69	10.03	9.17	8.23	7.28
W36G4	75/62	Total Cooling	35900	34300	32600	31100	29500	28100	26600	25300	23900	22500	21300
		Sensible Cooling	26200	25400	24700	23900	23200	22500	21800	21100	20400	19800	19100
		Latent Cooling	9700	8900	7900	7200	6300	5600	4800	4200	3500	2700	2200
		Lbs. H2O per Hr.	9.13	8.37	7.43	6.77	5.93	5.27	4.52	3.95	3.29	2.54	2.07
	80/67	Total Cooling	38300	37300	36200	35100	33900	32700	31400	30100	28700	27300	25900
		Sensible Cooling	25400	24900	24400	23900	23400	22900	22300	21800	21200	20700	20100
		Latent Cooling	12900	12400	11800	11200	10500	9800	9100	8300	7500	6600	5800
		Lbs. H2O per Hr.	12.17	11.70	11.13	10.57	9.91	9.25	8.58	7.83	7.08	6.23	5.47
	85/72	Total Cooling	45600	43600	41600	39700	37700	35800	33900	32000	30200	28400	26700
		Sensible Cooling	26000	25300	24500	23800	23000	22200	21300	20500	19600	18700	17800
		Latent Cooling	19600	18300	17100	15900	14700	13600	12600	11500	10600	9700	8900
		Lbs. H2O per Hr.	18.54	17.31	16.17	15.04	13.90	12.86	11.92	10.88	10.03	9.17	8.42
W42G4	75/62	Total Cooling	42500	41000	39300	37700	36200	34500	33000	31500	29900	28300	26800
		Sensible Cooling	31200	30500	29900	29200	28500	27700	27000	26100	25400	24500	23600
		Latent Cooling	11300	10500	9400	8500	7700	6800	6000	5400	4500	3800	3200
		Lbs. H2O per Hr.	10.63	9.88	8.84	8.00	7.24	6.40	5.65	5.08	4.23	3.58	3.01
	80/67	Total Cooling	45400	44600	43600	42600	41500	40200	38900	37500	36000	34300	32600
		Sensible Cooling	30200	29900	29600	29200	28700	28200	27700	27000	26400	25600	24800
		Latent Cooling	15200	14700	14000	13400	12800	12000	11200	10500	9600	8700	7800
		Lbs. H2O per Hr.	14.34	13.87	13.21	12.64	12.08	11.32	10.57	9.91	9.06	8.21	7.36
	85/72	Total Cooling	54100	52200	50100	48100	46100	44000	42000	39900	37800	35700	33600
		Sensible Cooling	31000	30400	29800	29000	28200	27300	26400	25300	24300	23200	22000
		Latent Cooling	23100	21800	20300	19100	17900	16700	15600	14600	13500	12500	11600
		Lbs. H2O per Hr.	21.85	20.62	19.20	18.07	16.93	15.80	14.76	13.81	12.77	11.82	10.97
W48G4	75/62	Total Cooling	50400	48000	45700	43500	41500	39500	37600	35900	34200	32600	31000
		Sensible Cooling	36000	34900	33800	32900	31900	31000	30100	29200	28500	27600	26900
		Latent Cooling	14400	13100	11900	10600	9600	8500	7500	6700	5700	5000	4100
		Lbs. H2O per Hr.	13.55	12.32	11.20	9.97	9.03	8.00	7.06	6.30	5.36	4.70	3.86
	80/67	Total Cooling	53800	52300	50700	49200	47600	46000	44400	42800	41100	39500	37800
		Sensible Cooling	34900	34200	33500	32900	32200	31500	30900	30200	29600	28900	28300
		Latent Cooling	18900	18100	17200	16300	15400	14500	13500	12600	11500	10600	9500
		Lbs. H2O per Hr.	17.83	17.08	16.23	15.38	14.53	13.68	12.74	11.89	10.85	10.00	8.96
	85/72	Total Cooling	64100	61200	58200	55600	52900	50300	47900	45500	43200	41100	38900
		Sensible Cooling	35800	34700	33700	32700	31600	30500	29500	28300	27300	26100	25100
		Latent Cooling	28300	26500	24500	22900	21300	19800	18400	17200	15900	15000	13800
		Lbs. H2O per Hr.	26.77	25.07	23.17	21.66	20.15	18.73	17.40	16.27	15.04	14.19	13.05
W60G4	75/62	Total Cooling	56300	53800	51200	48900	46500	44300	42100	40000	37900	35900	33900
		Sensible Cooling	40400	39300	38200	37000	36000	34900	33700	32700	31600	30500	29500
		Latent Cooling	15900	14500	13000	11900	10500	9400	8400	7300	6300	5400	4400
		Lbs. H2O per Hr.	14.96	13.64	12.23	11.20	9.88	8.84	7.90	6.87	5.93	5.08	4.14
	80/67	Total Cooling	60100	58600	56900	55200	53400	51600	49700	47700	45600	43500	41300
		Sensible Cooling	39200	38500	37800	37000	36300	35500	34600	33800	32900	31900	3100
		Latent Cooling	20900	20100	19100	18200	17100	16100	15100	13900	12700	11600	10300
		Lbs. H2O per Hr.	19.72	18.96	18.02	17.17	16.13	15.19	14.25	13.11	11.98	10.94	9.72
	85/72	Total Cooling	71600	68500	65400	62300	59300	56500	53600	50800	47900	45200	42500
		Sensible Cooling	40200	39100	38000	36800	35600	34400	33000	31700	30300	28800	27400
		Latent Cooling	31400	29400	27400	25500	23700	22100	20600	19100	17600	16400	15100
		Lbs. H2O per Hr.	29.70	27.81	25.92	24.12	22.42	20.90	19.48	18.07	16.65	15.51	14.28

- ① Low ambient operation disables Balanced Climate Operation.
 ② Outdoor temperatures shown are measured at the condenser section air inlet.
 ③ Return air temperature °F.
 ④ % Latent increase is a comparison to non-Balanced Climate unit operation.
 ⑤ Units with mechanical dehumidification rated to 125°F outdoor temperatures.

CAPACITY MULTIPLIER FACTORS

% of Rated Airflow	-10	Rated	+10
Total BTUH	0.975	1.0	1.02
Sensible BTUH	0.950	1.0	1.05



INDOOR AIRFLOW CFM

Factory Connected Speed

W24G4 cooling airflow is rated **800 CFM @ .15 ESP**, and wet coil range is **700 - 910 CFM**.
See Heating Airflow Ratings Chart for heating details.

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			90,000 BTU Input			81,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10			820	1260	1060		1060	870	
.20		950	770	1200	1010		1200	1010	
.30		880	700	1120			1120	940	
.40		790		1030			1030	860	
.50	910	710					950		
.60	800						840		

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			68,000 BTU Input			61,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10			820	1260	1060	870		1060	870
.20		950	770	1200	1010			1010	810
.30		880	700	1120	910		1120	940	
.40		790		1030			1030	860	
.50	910	710		950			950	780	
.60	800						840		

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			45,000 BTU Input			41,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10			820	1260	1060	870		1060	870
.20		950	770	1200	1010	810	1200	1010	810
.30		880	700	1120	910		1120	940	750
.40		790		1030	860		1030	860	680
.50	910	710		950	780		950	780	
.60	800			840			840		

Dehumidification coil adjustment - Reduce airflow by 35 CFM for dehumidification coil installed

Top outlet adjustment - Increase airflow by 50 CFM for top outlet models

SG-3, RG-3, non-ducted application adjustment - Reduce airflow by 100 CFM for SG-3 and RG-3 installations

W30G4 cooling airflow is rated **1000 CFM @ .35 ESP**, and wet coil range is **880 - 1150 CFM**.
See Heating Airflow Ratings Chart for heating details.

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			90,000 BTU Input			81,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10			1000		1260	1060		1260	1060
.20		1160	950	1370	1200	1010		1200	1010
.30		1080	880	1290	1120	940		1120	940
.40	1150	990		1190	1030		1190	1030	860
.50	1050	910		1090	950		1090	950	
.60	940			980			980	840	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			68,000 BTU Input			61,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10			1000		1260	1060			1060
.20		1160	950		1200	1010			1010
.30		1080	880		1120	940		1120	940
.40	1150	990		1190	1030	860		1030	860
.50	1050	910		1090	950	780	1090	950	780
.60	940			980	840		980	840	660

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			45,000 BTU Input			41,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10			1000		1260	1060			1060
.20		1160	950		1200	1010		1200	1010
.30		1080	880	1290	1120	940		1120	940
.40	1150	990		1190	1030	860		1030	860
.50	1050	910		1090	950	780	1090	950	780
.60	940			980	840	660	980	840	660

Dehumidification coil adjustment - Reduce airflow by 35 CFM for dehumidification coil installed

Top outlet adjustment - Increase airflow by 50 CFM for top outlet models

SG-3, RG-3, non-ducted application adjustment - Reduce airflow by 100 CFM for SG-3 and RG-3 installations

W36G4 cooling airflow is rated **1100 CFM @ .25 ESP**, and wet coil range is **940 - 1250 CFM**.
See Heating Airflow Ratings Chart for heating details.

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			90,000 BTU Input			81,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1220	1000		1260	1060		1260	1060
.20		1160	950	1370	1200	1010		1200	1010
.30	1250	1080		1290	1120	940		1120	940
.40	1150	990		1190	1030		1190	1030	860
.50	1050			1090	950		1090	950	
.60	940			980			980	840	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			68,000 BTU Input			61,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1220	1000		1260	1060			1060
.20		1160	950		1200	1010			1010
.30	1250	1080			1120	940		1120	940
.40	1150	990		1190	1030	860		1030	860
.50	1050			1090	950	780	1090	950	780
.60	940			980	840		980	840	660

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			45,000 BTU Input			41,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1220	1000		1260	1060			1060
.20		1160	950		1200	1010		1200	1010
.30	1250	1080		1290	1120	940		1120	940
.40	1150	990		1190	1030	860		1030	860
.50	1050			1090	950	780	1090	950	780
.60	940			980	840	660	980	840	660

Dehumidification coil adjustment - Reduce airflow by 35 CFM for dehumidification coil installed

Top outlet adjustment - Increase airflow by 50 CFM for top outlet models

SG-3, RG-3, non-ducted application adjustment - Reduce airflow by 100 CFM for SG-3 and RG-3 installations

W42G4 cooling airflow is rated **1300 CFM @ .35 ESP**, and wet coil range is **1030 - 1480 CFM**. See Heating Airflow Ratings Chart for heating details.

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			125,000 BTU Input			113,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1520	1110		1580	1180		1580	1180
.20		1450	1050	1880	1510			1510	1090
.30		1400		1760	1460			1460	
.40	1480	1290		1670	1340		1670	1340	
.50	1390			1560	1240		1560	1240	
.60	1270			1430			1430	1130	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			100,000 BTU Input			90,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1560	1160		1630	1230		1630	1230
.20		1490	1090		1560	1160		1560	1160
.30		1440	1070	1810	1510	1140		1510	1140
.40	1530	1330		1720	1390		1720	1390	1020
.50	1440	1210		1610	1290		1610	1290	
.60	1320			1480	1180		1480	1180	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			75,000 BTU Input			68,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1600	1260		1680	1280		1680	1280
.20		1530	1190		1610	1210		1610	1210
.30		1480	1120	1860	1560	1190		1560	1190
.40		1360	1100	1770	1440	1070		1440	1070
.50	1490	1280		1660	1340		1660	1340	970
.60	1370			1530	1230		1530	1230	

Dehumidification coil adjustment - Reduce airflow by 35 CFM for dehumidification coil installed
Top outlet adjustment - Increase airflow by 65 CFM for top outlet models
SG-3, RG-3, non-ducted application adjustment - Reduce airflow by 170 CFM for SG-5 and RG-5 installations

W48G4 cooling airflow is rated **1550 CFM @ .20 ESP**, and wet coil range is **1250 - 1780 CFM**. See Heating Airflow Ratings Chart for heating details.

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			125,000 BTU Input			113,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1520			1580	1180		1580	1180
.20	1710	1450		1880	1510			1510	1110
.30	1600	1400		1760	1460			1460	1090
.40	1480	1290		1670	1340		1670	1340	
.50	1390			1560	1240		1560	1240	
.60	1270			1430			1430	1130	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			100,000 BTU Input			90,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1560			1630	1230		1630	1230
.20	1760	1490			1560	1160		1560	1160
.30	1630	1440		1810	1510	1140		1510	1140
.40	1530	1330		1720	1390		1720	1390	1020
.50	1440	1210		1610	1290		1610	1290	
.60	1320			1480	1180		1480	1180	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			75,000 BTU Input			68,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10		1600			1680	1280		1680	1280
.20	1805	1530			1610	1210		1610	1210
.30	1680	1480		1860	1560	1190		1560	1190
.40	1580	1360		1770	1440	1070		1440	1070
.50	1490	1280		1660	1340		1660	1340	970
.60	1370			1530	1230		1530	1230	

Dehumidification coil adjustment - Reduce airflow by 35 CFM for dehumidification coil installed
Top outlet adjustment - Increase airflow by 65 CFM for top outlet models
SG-5, RG-5, non-ducted application adjustment - Reduce airflow by 170 CFM for SG-5 and RG-5 installations

W60G4 cooling airflow is rated **1650 CFM @ .30 ESP**, and wet coil range is **1360 - 1850 CFM**. See Heating Airflow Ratings Chart for heating details.

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			125,000 BTU Input			113,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10	1800	1520		1950	1580	1180		1580	1180
.20	1710	1450		1880	1510		1880	1510	1110
.30	1600	1400		1760	1460		1760	1460	1090
.40	1480			1670	1340		1670	1340	
.50	1390			1560	1240		1560	1240	
.60				1430			1430	1130	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			100,000 BTU Input			90,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10	1860	1560			1630	1230		1630	1230
.20	1760	1490		1930	1560	1160		1560	1160
.30	1630	1440		1810	1510	1140		1510	1140
.40	1530	1330		1720	1390		1720	1390	1020
.50	1440			1610	1290		1610	1290	
.60	1320			1480	1180		1480	1180	

ESP Inches H ₂ O	Cooling Mode			MANUAL FAN and HEATING MODE					
	Wet Coil			75,000 BTU Input			68,000 BTU Input		
	High	Med	Low	High	Med	Low	High	Med	Low
.10	1910	1600			1680	1280		1680	1280
.20	1805	1530		1980	1610	1210		1610	1210
.30	1680	1480		1860	1560	1190		1560	1190
.40	1580	1360		1770	1440	1070		1440	1070
.50	1490			1660	1340		1660	1340	970
.60	1370			1530	1230		1530	1230	

Dehumidification coil adjustment - Reduce airflow by 35 CFM for dehumidification coil installed
Top outlet adjustment - Increase airflow by 65 CFM for top outlet models
SG-5, RG-5, non-ducted application adjustment - Reduce airflow by 170 CFM for SG-5 and RG-5 installations

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IMPORTANT INFORMATION CONCERNING ALTITUDE IMPACT ON HEATING INPUT RATINGS

Heating input, and thus heating output, decreases with altitude. No orifice change is required up to 6,000 feet elevation and derate occurs naturally due to altitude impact. **Natural gas models may require orifice change based on BTU content of gas. See Natural Gas Orifice and Altitude Tables on next page for details.** For Propane Gas see the Propane Gas Conversion Table below.

Above 6,000 feet elevation orifice changes are required, and capacity reductions are a function of altitude impact and orifice change. Pressure switch change is required above 6,000 feet elevation. For Natural Gas see the Orifice and Altitude Tables on next page. For Propane Gas see the Propane Gas Conversion Table below.

NATURAL GAS DERATE CAPACITIES											
W**G Rated Input	Sea Level	1000	2000	3000	4000	5000	6000	7000	8000	9000	10,000
41,000	41,000	39,204	37,908	36,612	35,640	34,992	34,182	33,696	33,048	32,643	32,076
45,000	45,000	43,560	42,120	40,680	39,600	38,880	37,980	37,440	36,720	36,270	35,640
61,000	61,000	58,806	56,862	54,918	53,460	52,488	51,273	50,544	49,572	48,965	48,114
68,000	68,000	65,340	63,180	61,020	59,400	58,320	56,970	56,160	55,080	54,405	53,460
75,000	75,000	72,600	70,200	67,800	66,000	64,800	63,300	62,400	61,200	60,450	59,400
81,000	81,000	78,408	75,816	73,224	71,280	69,984	68,364	67,392	66,096	65,286	64,152
90,000	90,000	87,120	84,240	81,360	79,200	77,760	75,960	74,880	73,440	72,540	71,280
100,000	100,000	96,800	93,600	90,400	88,000	86,400	84,400	83,200	81,600	80,600	79,200
113,000	113,000	108,900	105,300	101,700	99,000	97,200	94,950	93,600	91,800	90,675	89,100
125,000	125,000	121,000	117,000	113,000	110,000	108,000	105,500	104,000	102,000	100,750	99,000

PROPANE (LP) DERATE CAPACITIES											
W**G Rated Input	Sea Level	1000	2000	3000	4000	5000	6000	7000	8000	9000	10,000
41,000	41,000	39,852	39,528	39,204	38,556	38,232	37,584	36,612	35,640	34,344	32,724
45,000	45,000	44,280	43,920	43,560	42,840	42,480	41,760	40,680	39,600	38,160	36,360
61,000	61,000	59,778	59,292	58,806	57,834	57,348	56,376	54,918	53,460	51,516	49,086
68,000	68,000	66,420	65,880	65,340	64,260	63,720	62,640	61,020	59,400	57,240	54,540
75,000	75,000	73,800	73,200	72,600	71,400	70,800	69,600	67,800	66,000	63,600	60,600
81,000	81,000	79,704	79,056	78,408	77,112	76,464	75,168	73,224	71,280	68,688	65,448
90,000	90,000	88,560	87,840	87,120	85,680	84,960	83,520	81,360	79,200	76,320	72,720
100,000	100,000	98,400	97,600	96,800	95,200	94,400	92,800	90,400	88,000	84,800	80,800
113,000	113,000	110,700	109,800	108,900	107,100	106,200	104,400	101,700	99,000	95,400	90,900
125,000	125,000	123,000	122,000	121,000	119,000	118,000	116,000	113,000	110,000	106,000	101,000

Gas Pressure Inches W.C.

Minimum permissible gas supply pressure for purpose of input adjustment:

Natural 4.5 LP 11.0

Maximum permissible gas supply pressure for purpose of input adjustment:

Natural 11.0 LP 13.0

Manifold Pressure:

Natural 3.5 LP 10.0

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PROPANE GAS CONVERSION KITS -- FITS ALL WG-SERIES MODELS

PROPANE (LP) GAS -- Use Gas Conversion Kits As Indicated					
MODELS	Propane Gas Conversion Kit		Use WGCK-1	Use WGCK-2	
W24G4	Factory Standard Input	Gas Heat Value BTU/Cu. Ft.	Up to 6000 Feet	6001 to 8000 Feet Requires Pressure Switch Change and Orifice as Shown	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice as Shown
	22,500 - 22,650 BTU Per Burner	2500	1.45	1.45	1.40
		Pressure Switch	Standard (.55)	Pressure Switch (.42) Included in Conversion Kit	
W30G4	Optional 10% Field Converted Derate	Gas Heat Value BTU/Cu. Ft.	Up to 6000 Feet	6001 to 8000 Feet Requires Pressure Switch Change and Orifice as Shown	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice as Shown
W36G4		2500	1.35	1.35	1.30
		Pressure Switch	Standard (.55)	Pressure Switch (.42) Included in Conversion Kit	

PROPANE (LP) GAS -- Use Gas Conversion Kits As Indicated						
MODELS	Propane Gas Conversion Kit		Use WGCK-1	Use WGCK-2		
W42G4	Factory Standard Input	Gas Heat Value BTU/Cu. Ft.	Up to 6000 Feet	6001 to 8000 Feet Requires Pressure Switch Change and Orifice as Shown	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice as Shown	
	25,000 BTU Per Burner	2500	1.50	1.50	1.45	
		Pressure Switch	Standard (.55)	Pressure Switch (.42) Included in Conversion Kit		
W48G4	Optional 10% Field Converted Derate	Gas Heat Value BTU/Cu. Ft.	Up to 6000 Feet	6001 to 8000 Feet Requires Pressure Switch Change and Orifice as Shown	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice as Shown	
W60G4		22,500 - 22,650 BTU Per Burner	2500	1.45	1.45	1.40
			Pressure Switch	Standard (.55)	Pressure Switch (.42) Included in Conversion Kit	

All orifice sizes shown are millimeters (mm).



NATURAL GAS ORIFICE AND ALTITUDE TABLES

NATURAL GAS -- W24G, W30G, W36G Models				
Factory Standard Input	Gas Heat* Value BTU/Cu. Ft.	Up to 6000 Feet No Changes Except For BTU Content	6001 to 8000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content
22,500 to 22,650 BTU Per Burner	700-749	2.75	2.70	2.60
	750-799	2.70	2.60	2.50
	800-849	2.60	2.50	2.45
	850-899	2.50	2.40	2.35
	900-949	2.45	2.35	(2.30)
W24G	950-999	2.35	(2.30)	2.25
W30G	1000-1049**	(2.30)	2.25	[2.20]
	1050-1100	2.25	[2.20]	2.15
W36G	Pressure Switch	Standard (.55)	Order 8620-189 High Altitude Pressure Switch Kit (.42)	

(2.30) is the standard factory installed orifice size.

[2.20] orifices are shipped with the unit for field installed optional 10% derate.

All other orifice sizes shown are available as individual items, see orifice chart below for part numbers.

Optional 10% Field Converted Derate	Gas Heat* Value BTU/Cu. Ft.	Up to 6000 Feet No Changes Except For BTU Content	6001 to 8000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content
20,250 to 20,500 BTU Per Burner	700-749	2.60	2.50	2.45
	750-799	2.50	2.45	2.40
	800-849	2.45	2.40	(2.30)
	850-899	2.40	(2.30)	2.25
	900-949	(2.30)	2.25	[2.20]
W24G	950-999	2.25	[2.20]	2.15
W30G	1000-1049**	[2.20]	2.15	2.10
	1050-1100	2.15	2.15	2.10
W36G	Pressure Switch	Standard (.55)	Order 8620-189 High Altitude Pressure Switch Kit (.42)	

[2.20] orifices are shipped with the unit for field installed optional 10% input derate.

(2.30) is the factory installed orifice size for full rated input.

All other orifice sizes shown are available as individual items, see orifice chart below for part numbers.

* At standard conditions: 30.00 Inches Mercury, 60F, Saturated, .60 Specific Gravity

** All Natural Gas factory orifice sizing and standard input ratings based on nominal 1025 BTU per cubic foot gas and sea level conditions.



NATURAL GAS ORIFICE AND ALTITUDE TABLES

NATURAL GAS -- W42G, W48G, W60G Models				
Factory Standard Input	Gas Heat* Value BTU/Cu. Ft.	Up to 6000 Feet No Changes Except For BTU Content	6001 to 8000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content
25,000 BTU Per Burner	700-749	2.90	2.80	2.70
	750-799	2.80	2.70	2.60
	800-849	2.70	2.60	2.50
	850-899	2.60	2.50	2.45
W42G	900-949	2.50	2.45	(2.40)
	950-999	2.45	(2.40)	2.35
W48G	1000-1049**	(2.40)	2.35	[2.30]
	1050-1100	[2.30]	2.25	2.20
W60G	Pressure Switch	Standard (.55)	Order 8620-189 High Altitude Pressure Switch Kit (.42)	

(2.40) is the standard factory installed orifice size.

[2.30] orifices are shipped with the unit for field installed optional 10% derate.

All other orifice sizes shown are available as individual items, see orifice chart below for part numbers.

Optional 10% Field Converted Derate	Gas Heat* Value BTU/Cu. Ft.	Up to 6000 Feet No Changes Except For BTU Content	6001 to 8000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content	8001 to 10,000 Feet Requires Pressure Switch Change and Orifice Change Based on BTU Content
22,500 to 22,650 BTU Per Burner	700-749	2.75	2.70	2.60
	750-799	2.70	2.60	2.50
	800-849	2.60	2.50	2.45
	850-899	2.50	2.45	(2.40)
W42G	900-949	(2.40)	2.35	[2.30]
	950-999	2.35	[2.30]	2.25
W48G	1000-1049**	[2.30]	2.25	2.20
	1050-1100	2.25	2.25	2.20
W60G	Pressure Switch	Standard (.55)	Order 8620-189 High Altitude Pressure Switch Kit (.42)	

[2.30] orifices are shipped with the unit for field installed optional 10% input derate.

(2.40) is the factory installed orifice size for full rated input.

All other orifice sizes shown are available as individual items, see orifice chart below for part numbers

* At standard conditions: 30.00 Inches Mercury, 60F, Saturated, .60 Specific Gravity

** All Natural Gas factory orifice sizing and standard input ratings based on nominal 1025 BTU per cubic foot gas and sea level conditions.

Orifice Size (mm)	Orifice Diameter
2.10	0.0826
2.15	0.0846
2.20	0.0866
2.25	0.0885
2.30	0.0905
2.35	0.0925
2.40	0.0945
2.45	0.0964
2.50	0.0984
2.60	0.1024
2.70	0.1063
2.75	0.1082
2.80	0.1102
2.90	0.1142

No. of Orifices Required Based on Unit Input Rating
41,000 (2)
45,000 (2)
61,000 (3)
68,000 (3)
75,000 (3)
81,000 (4)
90,000 (4)
100,000 (4)
113,000 (5)
125,000 (5)

All orifice sizes shown are in millimeters (mm).

WALL MOUNT™ VENTILATION OPTION SELECTION CHART

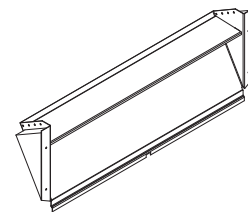
VENT CODE	FIELD INSTALL KIT	UNIT	OPERATION	DESCRIPTION
X	WGBFAD-3	W24G, W30G, W36G	Barometric	Air damper provides slight positive room pressure during blower operation, No room air exhaust.
	WGBFAD-5	W42G, W48G, W60G	Barometric	
B	WGBOP-3	W24G, W30G, W36G	No Ventilation	Insulated plates used to seal vent intake and exhaust openings.
	WGBOP-5	W42G, W48G, W60G	No Ventilation	
M	WGMFAD-3A	W24G, W30G, W36G	24V On/Off	Vent provides motorized spring return on/off operation to bring in outdoor air and positively pressurize indoor space. Outdoor air intake is non-adjustable. Air intake hood is not required.
	WGMFAD-5A	W42G, W48G, W60G	24V On/Off	
V	WGCRVS-3A	W24G, W30G, W36G	24V On/Off	Vent provides motorized spring return on/off operation to bring in outdoor air and exhaust room air. Minimum and occupied vent blade positions. No intake hood required.
	WGCRVS-5A	W42G, W48G, W60G	24V On/Off	
E	WGJFM-3	W24G, W30G, W36G	JADE Controller	Partial flow Economizer that uses the JADE controller and included sensors to operate free cooling. Enthalpy operation user selectable. No intake hood required.
	WGJFM-5	W42G, W48G, W60G	JADE Controller	
R	WGERV-A3B-*	W24G, W30G, W36G	24V On/Off, 3 blower speeds	208/230V Energy Recovery ventilator with energy wheel media. 3 independently selected intake and exhaust blower speeds. 3" intake hood required.
	WGERV-A5B-*	W42G, W48G, W60G	24V On/Off, 3 blower speeds	
	WGERV-C3C-*	W24G, W30G, W36G	24V On/Off, 3 blower speeds	460V Energy recovery ventilator with energy wheel media. 3 independently selected intake and exhaust blower speeds. 3" intake hood required.
	WGERV-C5C-*	W42G, W48G, W60G	24V On/Off, 3 blower speeds	

* = Insert color to match unit (X= Beige, 1= White, 4= Buckeye Gray, 5= Desert Brown, 8= Dark Bronze)

“X” BAROMETRIC FRESH AIR DAMPER - WGBFAD

STANDARD

The barometric fresh air damper is a standard feature on all models. It is installed on the inside of the service door and allows outside ventilation air, up to 25% of the total airflow rating of the unit, to be introduced through the air inlet openings and to be mixed with the conditioned air. The damper opens during blower operation and closes when the blower is off. Adjustable blade stops allow different amounts of outside air to be introduced into the building and can be easily locked closed if required.



Barometric Fresh Air Damper

“B” BLANK OFF PLATE - WGBOP

OPTIONAL

A blank off plate is installed on the inside of the service door. It covers the air inlet openings which restricts any outside air from entering the unit. The blank off plate should be utilized in applications where outside air is not required to be mixed with the conditioned air.

“M” MOTORIZED FRESH AIR DAMPER - WGMFAD

OPTIONAL

The motorized fresh air damper is internally mounted behind the service door and allows outside ventilation air, up to 25% of the total airflow rating of the unit, to be introduced through the air inlet openings and to be mixed with the conditioned air. The two position damper can be fully open or closed. The damper blade is powered open by a 24VAC motor with spring return on power loss. The damper can be controlled by indoor blower operation or can be field connected to be managed based on building occupancy.

NOTE: The above vent systems are intake only without built-in exhaust capability. Building will likely require separate field installed barometric relief or mechanical exhaust elsewhere within the conditioned space. Balancing dampers in the return air grille may be required to achieve specified amount of outdoor air intake.

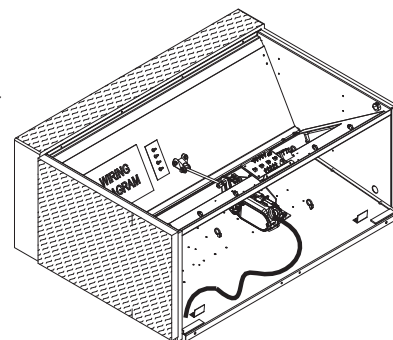
“V” COMMERCIAL ROOM VENTILATOR - WGCRV

OPTIONAL

The advanced commercial room ventilator is an optional feature on all models. Commercial Room Ventilators are designed to provide an adjustable amount of outdoor air inside a room or structure, exhaust room air, and close when outdoor air is not needed. The intake damper opens when 24VAC power is applied to the ventilation terminal inside the unit control panel (A), or modulating control is possible when a 2-10VDC signal is supplied by a CO2 sensor or control device. The damper is operated by a 24VAC actuator motor and blade linkage. When the blade is open, the damper allows outdoor air to be brought into the structure. A solid-state board has adjustable potentiometers for blade position when ventilation is active, or 2-10VDC can be used to modulate damper position. See airflow charts provided in this specification for airflow amounts. Air exhaust is provided that allows room air to pass through the vent area and out of the unit.

The basic commercial room ventilator includes the following options:

- The intake and exhaust damper opens when the unit ventilation terminal (A) is energized with 24VAC.
- Blade position potentiometer allows adjustment of the outside air amount entering into the building intended for occupant air quality improvement or light industrial room pressurization purposes.
- Optional 0-10VDC modulating damper control for operation with DDC system or external modulating CO2 control. When used, damper allows varying amounts of outside air to be brought into the building.
- Room pre-purge feature with 30/60/90 minute timer allows outdoor air to be brought in to room before occupants enter if ventilation is controlled by a schedule using a thermostat or room controller.
- Spring closed motorized damper closes within 30 seconds when unit power is removed.
- The vent provides a maximum of over 50% of the total airflow rating of the unit.
- Room exhaust is provided through the ventilation assembly reducing room pressure. Design based on requirements of ANSI/ASHRAE Standard 62.1 and other state and local ventilation codes.



Commercial Room Ventilator

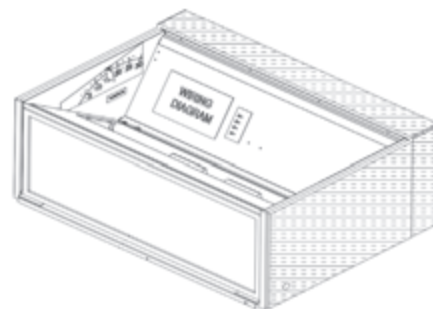
“E” ECONOMIZER - WGJIFM

OPTIONAL

The built-in economizer system is internally mounted behind the service door and allows outdoor air to be introduced through the air inlet openings. The amount of outdoor air varies in response to the system controls and settings defined by the end user. It includes a built-in exhaust air damper. The economizer is designed to provide “free cooling” when outside air conditions are cool and dry enough to satisfy cooling requirements without running the compressor. This in turn provides lower operating costs, while extending the life of the compressor.

Standard Features:

- One Piece Construction - Easy to install with no mechanical linkage adjustment required.
- Exhaust Air Damper - Built in with positive closed position. Provides exhaust air capability to prevent pressurization of tight buildings.
- Actuator Motor - 24 volt, power open, spring return with built in torque limiting switch.
- Proportioning Type Control - for maximum “free cooling” economy and comfort.
- Moisture Eliminator & Prefilter - permanent, washable aluminum construction.
- Enthalpy Control - adjustable to monitor outdoor temperature and humidity.
- Honeywell JADE™ electronic economizer module with precision settings and diagnostics.
- Mixed Air Sensor - to monitor outside and return air to automatically modulate damper position.



Economizer, Jade Control



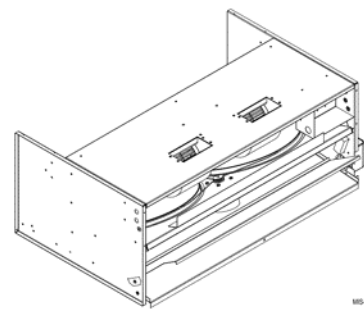
Jade Control Module

“E” Vent Code Option – (WGJIFM-*) JADE® Controller Information

JADE Economizer controls provide Demand Ventilation Control, operational checkout, an easy to read LCD screen, configurable freeze protection, and LCD displayed economizer component failure alarms. Minimum vent position, occupancy ventilation, and 0-10V CO2 input is available for use with select CO2 room sensors. Economizer operation can be controlled by outdoor dry bulb or outdoor enthalpy measurement. When used with a Bard economizer assembly, the JADE controller is able to meet most state and local codes for economizer use.

JADE Controller Specifications:

- Operating Humidity Range (% RH) 5 to 95% RH, non-condensing
- Contact Ratings 30 VAC-- 1.5 A Run, 3.5 A Inrush
- Voltage 20 to 30 VAC RMS
- Operating Temperature Range (F) -40 F to +150 F
- Operating Temperature Range (C) -40 C to +65 C
- Approvals, Federal Communications Commission Compliant
- Approvals, CE Compliant
- Complies with California Title 24
- Mixed air and Outdoor Enthalpy Sensor using Sylk Bus.
- Output 2-10 VDC to actuator, Sylk Bus.



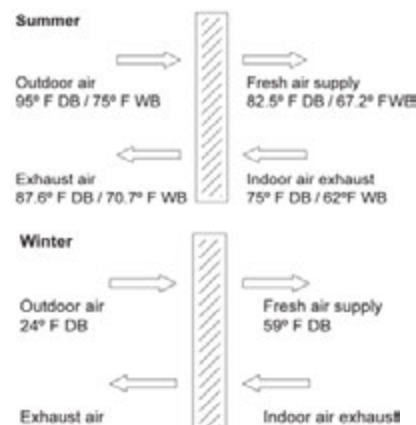
Energy Recovery Ventilator

“R” Vent Code Option – Energy Recovery Ventilator (WGERV-***)

The wall-mount energy recovery ventilator (ERV) is a highly innovative approach to meeting indoor air quality ventilation requirements as established by ANSI/ASHRAE Standard 62.1. The ERV allows up to 450 CFM (depending upon model) of fresh air and exhaust through the unit while maintaining superior indoor comfort and humidity levels. In most cases this can be accomplished without increasing equipment sizing or operating costs. Heat transfer efficiency is up to 67% during summer and 75% during winter conditions.

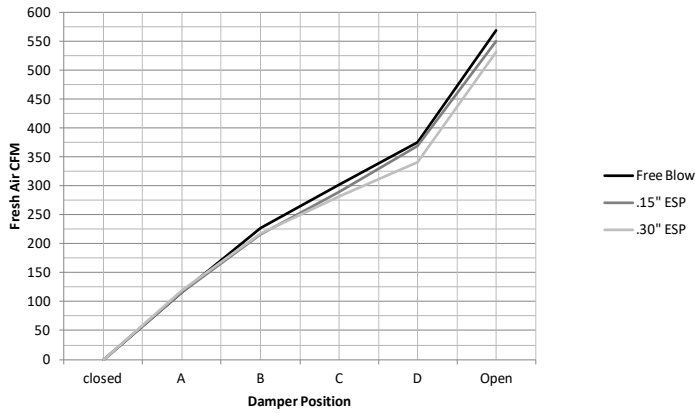
The ERV consists of a unique “rotary energy recovery cassette” that provides effective sensible and latent heat transfer capabilities during summer and winter conditions. Various control schemes are addressed including limiting ventilation during building occupancy only. The ERV is designed to be internally mounted behind the service door, and includes independent blowers for intake air and exhaust air balancing. It can be built-in at the factory or field installed as an option. A 3” intake hood with pre-filter is required for ERV installations.

Typical load reductions for ERV-F3



COMMERCIAL ROOM VENTILATOR PERFORMANCE DATA

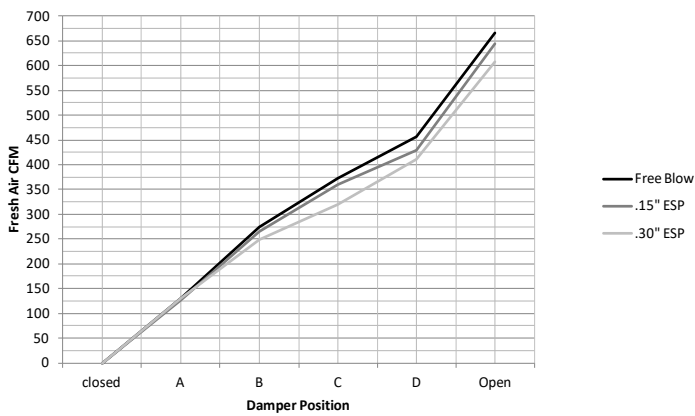
W24G4 CRV Airflow Versus Position- Low Speed



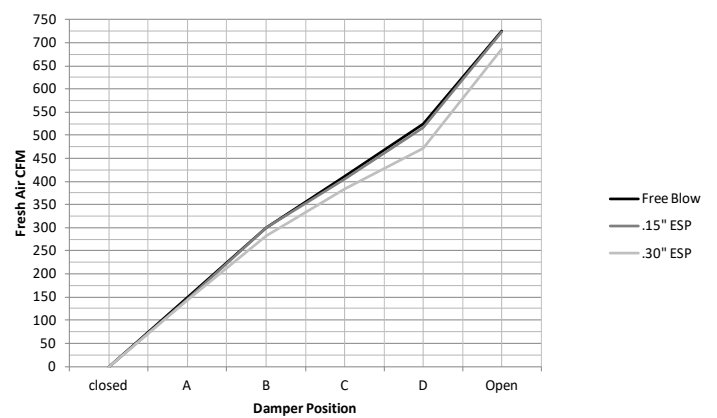
W60G4 CRV Airflow Versus Position - Low Speed



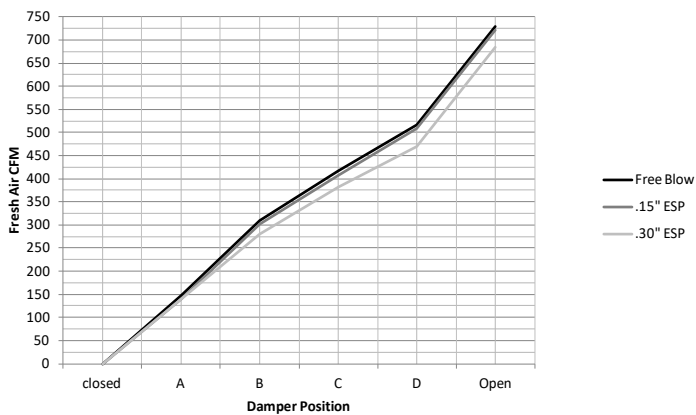
W24G4 CRV Airflow Versus Position - Medium Speed



W60G4 CRV Airflow Versus Position - Medium Speed



W24G4 CRV Airflow Versus Position - High Speed



W60G4 CRV Airflow Versus Position - High Speed

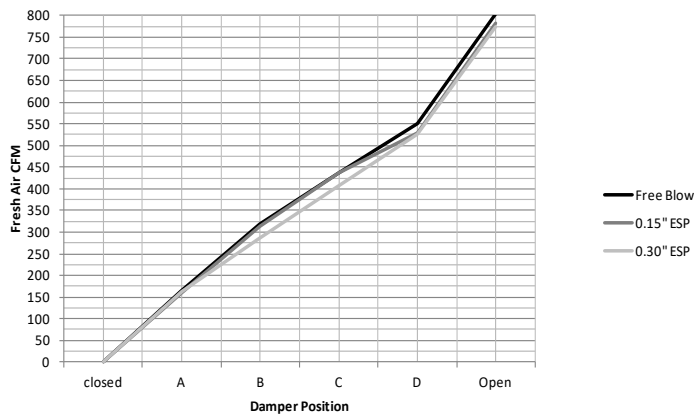


COMMERCIAL ROOM VENTILATOR PERFORMANCE DATA

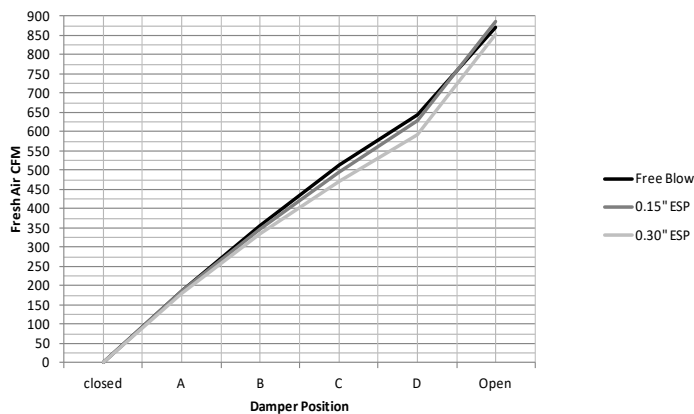
W60G4 CRV Airflow Versus Position - Low Speed



W60G4 CRV Airflow Versus Position - Medium Speed



W60G4 CRV Airflow Versus Position - High Speed



WALL MOUNT™ ENERGY RECOVERY VENTILATION (ERV) PERFORMANCE

APPLICATION DATA — WGERV-*3

SUMMER COOLING PERFORMANCE (INDOOR DESIGN CONDITIONS 75°DB/62°WB)

Ambient O.D.	VENTILATION RATE -- 450CFM High Speed (Black) 72% EFFICIENCY							VENTILATION RATE -- 370 CFM Medium Speed (Blue) 73% EFFICIENCY					VENTILATION RATE -- 280 CFM Low Speed (Red) 74% EFFICIENCY						
DB/ WB	F	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL	
105	75	21465	14580	6884	15455	10498	4957	17649	11988	5661	12884	8751	4133	13356	9072	4284	9883	6713	3170
	70	14580	14580	0	10498	10498	0	11988	11988	0	8751	8751	0	9072	9072	0	6713	6713	0
	65	14580	14580	0	10498	10498	0	11988	11988	0	8751	8751	0	9072	9072	0	6713	6713	0
100	80	31500	12150	19440	22680	8748	13932	25900	9990	15910	18907	7293	11614	19600	7560	12040	14504	5594	8910
	75	21465	12150	9314	15455	8748	6707	17649	9990	7659	12884	7293	5591	13356	7560	5796	9883	5594	4289
	70	12352	12150	202	8893	8748	145	10156	9990	166	7414	7293	121	7686	7560	126	5687	5594	93
95	65	12150	12150	0	8748	8748	0	9990	9990	0	7293	7293	0	7560	7560	0	5594	5594	0
	60	12150	12150	0	8748	8748	0	9990	9990	0	7293	7293	0	7560	7560	0	5594	5594	0
	80	31590	9720	21870	22745	6998	15746	25974	7992	17982	18961	5834	13127	19656	6048	13608	14545	4476	10070
90	75	21465	9720	11744	15455	6998	8456	17649	7992	9657	12884	5834	7050	13356	6048	7308	9883	4476	5408
	70	12352	9720	2632	8893	6998	1895	10156	7992	2164	7414	5834	1580	7686	6048	1638	5687	4476	1212
	65	9720	9720	0	6998	6998	0	7992	7992	0	5834	5834	0	6048	6048	0	4476	4476	0
85	60	9720	9720	0	6998	6998	0	7992	7992	0	5834	5834	0	6048	6048	0	4476	4476	0
	80	31590	7290	24300	22745	5249	17496	25974	5994	19980	18961	4376	14585	19656	4536	15120	14545	3357	11189
	75	21465	7290	14175	15455	5249	10206	17649	5994	11655	12884	4376	8508	13356	4536	8820	9883	3357	6527
80	70	12352	7290	5062	8893	5249	3645	10156	5994	4162	7414	4376	3038	7686	4536	3150	5687	3357	2331
	65	7290	7290	0	5249	5249	0	5994	5994	0	4376	4376	0	4536	4536	0	3357	3357	0
	60	7290	7290	0	5249	5249	0	5994	5994	0	4376	4376	0	4536	4536	0	3357	3357	0
75	80	31590	4860	26730	22745	3499	19246	25974	3996	21978	18961	2917	16044	19656	3024	16632	14545	2238	12308
	75	21465	4860	16605	15455	3499	11956	17649	3996	13653	12884	2917	9967	13356	3024	10332	9883	2238	7646
	70	12352	4860	7492	8893	3499	5394	10156	3996	6160	7414	2917	4497	7686	3024	4662	5687	2238	3450
70	65	4860	4860	0	3499	3499	0	3996	3996	0	2917	2917	0	3024	3024	0	2238	2238	0
	60	4860	4860	0	3499	3499	0	3996	3996	0	2917	2917	0	3024	3024	0	2238	2238	0
	80	31590	2430	19035	15455	1750	13705	17649	1998	15651	12884	1459	11425	13356	1512	11844	9883	1119	8765
65	75	21465	2430	9922	8893	1750	7144	10156	1998	8158	7414	1459	5955	7686	1512	6174	5687	1119	4569
	70	12352	2430	1822	3061	1750	1312	3496	1998	1498	2552	1489	1094	2646	1512	1134	1958	1119	839
	60	2430	2430	0	1750	1750	0	1998	1998	0	1459	1459	0	1512	1512	0	1119	1119	0
75	70	12352	0	12352	8893	0	8893	10156	0	10156	7414	0	7414	7686	0	7686	5687	0	5687
	65	4252	0	4252	3061	0	3061	3496	0	3496	2552	0	2552	2646	0	2646	1958	0	1958
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

APPLICATION DATA — WGERV-*5

SUMMER COOLING PERFORMANCE (INDOOR DESIGN CONDITIONS 75°DB/62°WB)

Ambient O.D.	VENTILATION RATE -- 450CFM High Speed (Black) 60% EFFICIENCY							VENTILATION RATE -- 370 CFM Medium Speed (Blue) 62% EFFICIENCY						VENTILATION RATE -- 280 CFM Low Speed (Red) 64% EFFICIENCY						
	DB/ WB	F	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL
105	75	21465	14580	6884	12879	8748	4131	17649	11988	5661	10942	7433	3510	13356	9072	4284	8548	5806	2742	
	70	14580	14580	0	8748	8748	0	11988	11988	0	7433	7433	0	9072	9072	0	5806	5806	0	
	65	14580	14580	0	8748	8748	0	11988	11988	0	7433	7433	0	9072	9072	0	5806	5806	0	
100	80	31500	12150	19440	18900	7290	11610	25900	9990	15910	16058	6194	9864	19600	7560	12040	12544	4838	7706	
	75	21465	12150	9314	12879	7290	5589	17649	9990	7659	10942	6194	4749	13356	7560	5796	8548	4838	3709	
	70	12352	12150	202	7411	7290	121	10156	9990	166	6297	6194	103	7686	7560	126	4919	4838	80	
95	65	12150	12150	0	7290	7290	0	9990	9990	0	6194	6194	0	7560	7560	0	4838	4838	0	
	60	12150	12150	0	7290	7290	0	9990	9990	0	6194	6194	0	7560	7560	0	4838	4838	0	
	80	31590	9720	21870	18954	5832	13122	25974	7992	17982	16104	4955	11149	19656	6048	13608	12580	3871	8709	
90	75	21465	9720	11744	12879	5832	7047	17649	7992	9657	10942	4955	5987	13356	6048	7308	8548	3871	4677	
	70	12352	9720	2632	7411	5832	1579	10156	7992	2164	6297	4955	1342	7686	6048	1638	4919	3871	1048	
	65	9720	9720	0	5832	5832	0	7992	7992	0	4955	4955	0	6048	6048	0	3871	3871	0	
85	60	9720	9720	0	5832	5832	0	7992	7992	0	4955	4955	0	6048	6048	0	3871	3871	0	
	80	31590	7290	24300	18954	4374	14580	25974	5994	19980	16104	3716	12388	19656	4536	15120	12580	2903	9677	
	75	21465	7290	14175	12879	4374	8505	17649	5994	11655	10942	3716	7226	13356	4536	8820	8548	2903	5645	
80	70	12352	7290	5062	7411	4374	3037	10156	5994	4162	6297	3716	2580	7686	4536	3150	4919	2903	2016	
	65	7290	7290	0	4374	4374	0	5994	5994	0	3716	3716	0	4536	4536	0	2903	2903	0	
	60	7290	7290	0	4374	4374	0	5994	5994	0	3716	3716	0	4536	4536	0	2903	2903	0	
75	80	31590	4860	26730	18954	2916	16038	25974	3996	21978	16104	2478	13626	19656	3024	16632	12580	1935	10644	
	75	21465	4860	16605	12879	2916	9963	17649	3996	13653	10942	2478	8465	13356	3024	10332	8548	1935	6612	
	70	12352	4860	7492	7411	2916	4495	10156	3996	6160	6297	2478	3819	7686	3024	4662	4919	1935	2983	
70	65	4860	4860	0	2916	2916	0	3996	3996	0	2478	2478	0	3024	3024	0	1935	1935	0	
	60	4860	4860	0	2916	2916	0	3996	3996	0	2478	2478	0	3024	3024	0	1935	1935	0	
	80	31590	2430	19035	12879	1458	11421	17649	1998	15651	10942	1239	9704	13356	1512	11844	8548	968	7580	
65	75	21465	2430	9922	7411	1458	5953	10156	1998	8158	6297	1239	5058	7686	1512	6174	4919	968	3951	
	70	12352	2430	1822	2551	1458	1093	3496	1998	1498	2168	1239	929	2646	1512	1134	1693	968	726	
	60	2430	2430	0	1458	1458	0	1998	1998	0	1239	1239	0	1512	1512	0	968	968	0	
75	70	12352	0	12352	7411	0	7411	10156	0	10156	6297	0	6297	7686	0	7686	4919	0	4919	
	65	4252	0	4252	2551	0	2551	3496	0	3496	2168	0	2168	2646	0	2646	1693	0	1693	
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

WGERV-*3 WINTER HEATING PERFORMANCE

(INDOOR DESIGN CONDITIONS 70°F DB)

Ambient O.D.	VENTILATION RATE
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Cabinet Finish Options

Unit models are available in Beige, White, Buckeye Gray, Desert Brown, Dark Bronze, stainless steel, and aluminum. Painted cabinet construction is comprised of 20 gauge Zinc coated steel. Parts are cleaned, rinsed, sealed, and dried before a polyurethane primer is applied. The cabinet coating is completed with a baked on textured enamel. The resulting finish is designed to withstand 1000 hours of salt spray tests per ASTM B117-03.

Stainless steel external cabinet construction is comprised of 316 grade materials. Stainless steel screws and fasteners are used in all externally exposed areas. A corrosion resistant coated fan blade and stainless steel condenser motor mount is provided.

Aluminum external cabinet construction is ASTM B 209 grade .06" thickness with a stucco appearance.



X - Beige

1 - White



4 - Gray

8 - Bronze

Green Fin Hydrophilic Evaporator Coils Standard On All Units

Bard WALL MOUNT products include a green protective coating applied to the aluminum fin stock used for the evaporator coil. The evaporator coil coating is hydrophilic (attracts water) and allows for proper condensate drainage along with mild corrosion protection. Resistance to corrosive agents include ammonia, sodium hydroxide, sodium chloride, acidic solutions and solvents.

Note: The green fin hydrophilic evaporator coil is not a replacement for technicoat coil coating. Green fin stock does provide additional coil protection, but technicoat is recommended for harsh indoor environments where strong acidic or alkaline chemicals are being used.



Hydrophilic Green Coil
(standard)

OPTIONAL DIP COATED EVAPORATOR AND CONDENSER COIL

Bard now offers TECHNICOAT AA, a robust coating option for the evaporator and condenser coil. TECHNICOAT AA has passed all HVAC accelerated tests like salt spray, flexibility and SWAAT 3,000+ hours. It has been tested in the field in the most severe industrial exposure conditions, such as a coastal refinery in Saudi Arabia, mining facilities in central Africa, and various Pacific islands. TECHNICOAT AA did not show any deterioration after multiple years of function with coils directly exposed to such harsh environmental conditions. The TECHNICOAT AA coating system is based on modified acrylic waterborne binders with high elongation properties. Aluminum pigmentation has been added to establish exceptional heat transfer, chemical resistance, and UV blocking properties. Corrosion resistance reaches >10,000+ hours in ASTM B-117 and >3,120 hours in SWAAT testing. Coating is gray in color.

TEMPERATURE RESISTANCE:

- Maximum up to 248°F (120°C), 480°F (250°C) peak exposure
- Minimum -40°F (-40°C)

CHEMICAL RESISTANCE:

- Alkalines including Ammoniac solution, Potassium Hydroxide, Calcium Hydroxide, and Magnesium Hydroxide.
- Alcohols including Isopropanol, Butanol, Amyl Alcohol, Benzyl Alcohol, Diacetone Alcohol, Glycerine, Propanol, and Pentanol
- Aliphatic Hydrocarbons including White Spirit, Shellsol, Bitumen, Isopar G, and Paraffin.
- Amines including Triethanolamine, Aniline Sulphate, Hexamethylenetetraamine, Phenyldiamine, Triethylamine, and Methylamine.
- Inorganic Compounds including Hydrogen Carbonate, Hydrogen Sulfide, Nitrous Acid, Sulphuric Acid, and Selenic Acid.
- Aromatic Hydrocarbons including Xylene, Toluene, Asphalt, Anthracene, Benzapherene, Gumlac, Benzine, and Naphtha.
- Fuels and Oils including Diesel, Fuel Oil, Petrol, Super Petrol, Lubricating Oils, Kerosene, Spheric Oils, LPG, and Mineral Oil.
- Ethers including Enthrific Oils, Vegetable Oils, Butane, Acetylene, and Methane.
- Halogenated Hydrocarbons including Amyl Acetate, Propyl Acetate, Ethyl Oxalate, Butyl Acetate, and Butyl Propionate.
- Softeners including Palatinol C, Chloroparaffine 5XX, Dioctylphosphate, Desavin, Mesamol, and Dibutylphosphate.
- Organic Compounds including Benzoic Acid, Lactic Acid, Phenols, Fatty Acids, Malic Acid, and Picric Acid.
- Salts and water solutions including Sodium, Potassium, Calcium, Aluminum, Ammonium, Barium, Copper, Lead, and Lithium.
- Many other agents including Phosphor, Zinc, Glucose Syrup, Sulfur, Urea, Menthol, Antimony, Hydrogen, Rubber, and Shellac.

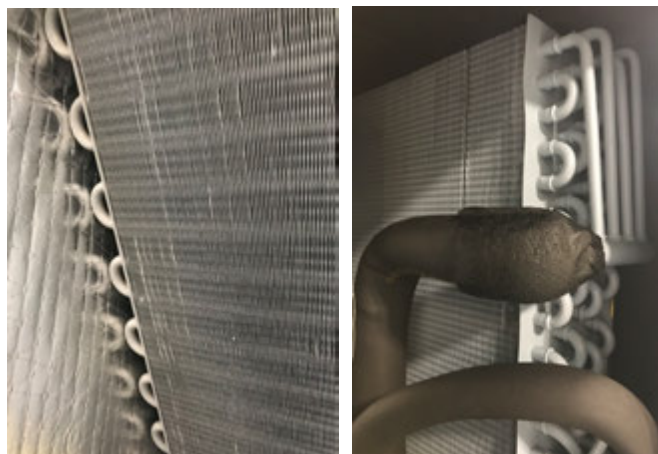
Contact your local Bard distributor or representative for a list of all chemicals and chemical resistance information.

SPECIAL PROPERTIES:

- Anti-Odor
- Hydrophilic / Hydrophobic
- Anti-Corrosive

EXPOSURE CONDITIONS INCLUDE:

Food Processing & Storage, Airports, Office Buildings, Hotels, Schools, Warehouses, Water Treatment, Breweries, Paper Mills, Refineries, Power Plants, Meat Processing Industries, Automotive Industries and other locations near shorelines and salt water.



////// WALL MOUNT™ FACTORY INSTALLED CONTROLS OPTIONS

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	DESCRIPTION OF FACTORY INSTALLED COMPONENTS
X	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module.
H	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, Low Ambient Control

////// WALL MOUNT™ FIELD INSTALLED 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
H	CMA-46	Standard Units	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp. - modulating
H	CMA-45	Dehumidification Units	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp. - modulating

////// TOP SUPPLY OUTLET CONVERSION KITS-FIELD INSTALLED (CONVERT STANDARD FRONT OUTLET TO TOP OUTLET)

USED WITH MODELS	UNIT COLOR X - BEIGE	UNIT COLOR 4 - BUCKEYE GRAY	UNIT COLOR 8 - DARK BRONZE
W24G, W30G, W36G	TSO-WG3-X	TSO-WG3-4	TSO-WG3-8
W42G, W48G, W60G	TSO-WG5-X	TSO-WG5-4	TSO-WG5-8

////// OPTIONAL FIELD INSTALLED ACCESSORIES

DESCRIPTION	PART NUMBER
Natural Gas High Altitude Pressure Switch Kit (6000 - 10,000 Feet)	8620-189
Note: Natural Gas Orifice Change May Be Required Depending Upon Altitude and Gas BTU content. See Orifice and Altitude Tables.	
Propane Gas Conversion Kit (0 - 6000 Feet Altitude)	WGCK-1
Propane Gas Conversion Kit (6000 - 10,000 Feet Altitude)	WGCK-2
Vertical Vent Kit (Includes all parts for 5 foot vertical vent)	VVK-5A
Additional 1 foot vertical vent pipe section for VVK-5A	8620-201
Additional 2 foot vertical vent pipe section for VVK-5A	8620-170
Additional 3 foot vertical vent pipe section for VVK-5A	8620-200
Additional 5 foot vertical vent pipe section for VVK-5A	8620-171

////// 24VAC LOW VOLTAGE TERMINAL DESIGNATIONS

Bard WALL MOUNT products provide 24VAC power to controllers and thermostats. They also are able to receive 24VAC signals from a controlling device. The V controls option provides additional sensors for use with a field supplied DDC controls systems. The information below provides terminal designations and how they are used in the WALL MOUNT unit. More information on low voltage connections and operational sequences is provided in the unit installation manual.

Terminal	Unit	Description
R	All Units	24VAC low voltage output (HOT Terminal)
RT	All Units	RT terminal has jumper to R terminal. When jumper is removed, R and RT can be used with normally closed contacts for fire/smoke detector for unit shutdown.
C	All Units	Ground Terminal
G	All Units	Indoor fan input
Y1	All Units	1st Stage cooling input. Economizer stage when used. Balanced Climate stage when used.
Y2	All Units	2nd Stage cooling input. Compressor cooling stage when Econ or Balanced Climate is used.
B/W1	All Units	Gas heat
A	Vent option units only	Ventilation option input. Calls for occupied vent air intake for CRV, ERV, ECON
D	Dehum. units only	Dehumidification input on units equipped with mechanical reheat dehumidification
L	All Units	24VAC Alarm active output