

THE WALL-MOUNT™ AIR CONDITIONERS - WL (60HZ) with LEFT SIDE CONTROL PANEL

WL - SERIES 1.5 to 5 Ton (Left Side Control Panel) 18,300 to 57,500 BTUH 60Hz

The Bard Wall-Mount Air Conditioner with Left Side Control Panel is designed to provide complete service access (i.e. compressor, electric heat strip and electrical controls) when two units are mounted side by side with minimal space between. The left side unit is the ideal product for telecommunication and over-the-road medical and communication vans requiring two wall-mount air conditioners be mounted side by side by using a WL (left side access) unit and a WA (right side access) unit on the same building. Factory or field installed accessories are also available to meet specific job requirements.

Engineered Features

Aluminum Finned Copper Coils: Grooved tubing and enhanced louvered fin for maximum heat transfer and energy efficiency.

Twin Blowers:

Move air quietly. Most models feature multispeed blower motors providing airflow adjustment for high and low static operation. Motor overload protection is standard on all models.

Air Conditioner Compressor:

Reciprocating compressors are designed for high compression ratios. Equipped with crankcase heater and dual discharge muffler. Standard on 1.5 - 3.5 ton models.

Scroll Compressors are designed for increased efficiency, quieter operation and improved reliability for longer life. Eliminates need for crankcase heater. Standard on 4 and 5 ton, and available on 2 and 3 ton models.

Phase Rotation Monitor:

Standard on all 3 phase scroll compressors. Protects against reverse rotation if power supply is not properly connected. Not required on reciprocating compressors.

Galvanized 20 Gauge Zinc Coated Steel Cabinet:

Cleaned, rinsed, sealed and dried before the polyurethane primer is applied. The cabinet is handsomely finished with a baked on textured enamel which allows it to withstand 1000 hours of salt spray exposure.

Electrical Components:

Are easily accessible for routine inspection and maintenance through a left side, service panel opening. Features a lockable, hinged access cover to the circuit breaker or pull disconnect switch.

Electric Heat Strips:

Features an automatic limit and thermal cut-off safety control. Heater packages can be factory installed for all 1.5 through 5 ton models.

One Inch, Disposable Air Filters:

Are standard equipment. Optional one inch washable filters available and filter racks permit the addition of 2" pleated filter. Factory or field installed.

Built-in Circuit Breakers:

Standard on all single (230/208 volt) and three phase (230/208 volt) equipment. Pull disconnects are standard on all three phase (460 volt) equipment.

Rain Hood and Top Rain Flashing: Standard feature on all models.

Full Length Mounting Brackets:

Built into cabinet for improved appearance and easy installation. **NOTE:** Bottom mounting bracket included to assist in installation.

Auto-Reset High Pressure Switch:

Built-in lock-out circuit resets from the room thermostat. Provides commercial quality protection to the compressor.

Auto-Reset Low Pressure Switch:

Built-in lock-out circuit and low pressure timed bypass circuit. Resets from room thermostat.

Compressor Control Module:

Built-in off-delay timer adjustable from 30 second to 5-minutes. 2-minute on-delay if power interrupt. 120-second bypass for low pressure control, and both soft and manual lockouts for high and low pressure controls. Alarm output for alarm relay.

Low Ambient Control:

Permits cooling operation down to 0°F outdoor ambient.

Alarm Relay:

Dry contacts for remote alarm capability on manual high or low pressure controls.













Unit shown with optional Economizer.

Economizer

Ventilation System Packages

All packages are designed to meet your specific ventilation requirements utilizing one of five ventilation options for the product. The ventilation package is mounted within the unit eliminating the need for an exterior mounted hood or damper assembly on the unit. All assemblies can be factory installed, installed in the field at time of installation or as a retrofit system after installation.

- Standard Barometric Fresh Air Damper
- Optional Motorized Fresh Air Damper
- Optional Blank off Plate
- Optional Commercial Room Ventilator CRV)
- Optional Economizer
- Optional Energy Recovery Ventilator

Capacity and Efficiency Ratings ® MODELS WL181 WL241 WL251 WL361 WL371 WL421 WL482 WL602 WL301 43,000 Cooling Capacity BTUH 18,300 24,000 24,400 31,000 36,000 36,000 47,500 57,500 SEER 10.20 10.50 11.00 10.00 10.00 10.00 10.00 11.00 10.20

All capacity, efficiency and cost of operation information is based on high speed operation with fresh air cover plate. Cover plate must be ordered separately and is recommended for use to obtain maximum energy efficiency where fresh air is not required.

MODELS	WL181-A	WL241-A	WL241-B	WL251-A	WL251-B	WL301-A	WL301-B	WL301-C	WL361-A	WL361-B	WL361-C
Cooling Capacity	18,300	24,000	24,000	24,400	24,400	31,000	31,000	31,000	36,000	36,000	36,000
Heating Capacity	-		'		See I	lectric Heat	Table ——		•	'	
Electrical Rating60 Hz	230/208 - 1	230/208 - 1	230/208 - 3	230/208 - 1	230/208 - 3	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3
Operating Voltage Range	197-253	197-253	197-253	197-253	197-253	197-253	197-253	414-506	197-253	197-253	414-506
CompressorCircuit A									•		
Voltage	230/208	230/208	230/208	230/208	230/208	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	7.0/8.0	9.5/10.0	6.6/6.9	9.8/11.3	6.2/7.1	12.6/13.7	8.2/8.5	4.8	15.7/17.0	9.9/10.7	5.2
Branch Circuit Selection Current	9.0	10.0	7.0	12.2	7.7	14.0	9.0	5.0	17.0	11.0	6.0
Lock Rotor Amps	49/49	56/56	51/51	61/61	55/55	78/78	68/68	34	96/96	75/75	40
Compressor Type	Recip.	Recip.	Recip.	Scroll	Scroll	Recip.	Recip.	Recip.	Recip.	Recip.	Recip.
Fan Motor & Condenser						-			-	•	
Fan MotorHPRPM	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 107
Fan MotorAmps	1.2	1.2	1.2	1.2	1.2	1.5	1.5	1.4	1.5	1.5	1.4
FanDIA/CFM	18" - 1600	18" - 1600	18" - 1600	18" - 1600	18" - 1600	20" - 2100	20" - 2100	20" - 2100	20" - 1900	20" - 1900	20" - 1900
Blower Motor & Evap.						-			-	•	
Blower MotorHP-RPM-SPD	1/6-1100-1	1/6-1100-1	1/6-1100-1	1/6-1100-1	1/6-1100-1	1/3-1100-2	1/3-1100-2	1/3-1100-2	1/3-1100-2	1/3-1100-2	1/3-1100-
Blower MotorAmps	1.0	1.0	1.0	1.0	1.0	2.2	2.2	1.1	2.2	2.2	1.1
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	65040	80020	80020	80020	80020	100040	100040	100040	110030	110030	110030
Filter Sizes (inches) STD.	16x25x1	16x25x1	16x25x1	16x25x1	16x25x1	16x30x1	16x30x1	16x30x1	16x30x1	16x30x1	16x30x1
Shipping WeightLBS.	300	300	300	300	300	355	355	355	355	355	355

MODELS	WL371-A	WL371-B	WL371-C	WL421-A	WL421-B	WL421-C	WL482-A	WL482-B	WL482-C	WL602-A	WL602-B	WL602-0
Cooling Capacity	36,000	36,000	36,000	43,000	43,000	43,000	47,500	47,500	47,500	57,500	57,500	57,500
Heating Capacity						See Electric	Heat Table					
Electrical Rating60 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	230/208-1	230/208-3	460-3
Operating Voltage Range	197-253	197-253	414-506	197-253	197-253	414-506	197-253	197-253	414-506	197-253	197-253	414-506
CompressorCircuit A												
Voltage	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	16.5/17.3	10.5/11.0	5.2	17.5/19.7	11.6/12.6	5.8	20.6/22.7	12.7/13.9	6.6	26.0/28.6	18.1/18.4	6.8
Branch Circuit Selection Current	17.3	11.0	5.5	20.0	13.0	6.0	24.0	14.0	7.0	29.0	19.0	9.0
Lock Rotor Amps	100/100	77/77	37	102/102	91/91	42	129/129	120/120	49.5	169/169	137/137	62
Compressor Type	Scroll	Scroll	Scroll	Recip.	Recip.	Recip.	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor & Condenser					•					-		
Fan MotorHP-RPM-SPD	1/5-1075	1/5-1075	1/5-1075	1/3-850-2	1/3-850-2	1/3-850-2	1/3-850-2	1/3-850-2	1/3-850-2	1/3-850-2	1/3-850-2	1/3-850-2
Fan MotorAmps	1.5	1.5	1.4	2.5	2.5	1.3	2.5	2.5	1.3	2.5	2.5	1.3
FanDIA/CFM	20" - 1900	20" - 1900	20" - 1900	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600
Blower Motor & Evap.												
Blower MotorHP-RPM-SPD	1/3-1100-2	1/3-1100-2	1/3-1100-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-
Blower MotorAmps	2.2	2.2	1.1	3.3	3.3	1.9	3.3	3.3	1.9	3.3	3.3	1.9
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	110030	110030	110030	140030	140030	140030	155020	155020	155020	170030	170030	170030
Filter Sizes (inches) STD.	16x30x1	16x30x1	16x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1
Shipping WeightLBS.	355	355	355	500	500	500	500	500	500	500	500	500

① Certified in accordance with ARI Standard 210/240-89.

Ventilation System Packages

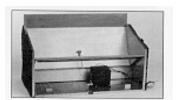
Bard Wall-Mounts are designed to provide optional ventilation packages to meet all of your ventilation and indoor air quality requirements. All units are equipped with a barometric fresh air damper as the standard ventilation package. All ventilation packages can be built-in at the factory, or field-installed at a later date.



Barometric Fresh Air Damper



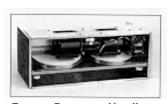
Motorized Fresh Air Damper



Commercial Room Ventilator



Economizer



Energy Recovery Ventilator

BAROMETRIC FRESH AIR DAMPER - BFAD

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.

BLANK OFF PLATE - BOP

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.

MOTORIZED FRESH AIR DAMPER - MFAD

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 without exhaust capability. May require separate field installed barometric relief elsewhere within the conditioned space.

COMMERCIAL ROOM VENTILATOR - CRV

OPTIONAL

The built-in commercial room ventilator is internally mounted behind the service door and allows outside ventilation air, up to 50% of the total airflow rating of the unit, to be introduced through the air inlet openings. It includes a built-in exhaust air damper.

The commercial room ventilator (CRV) is a simple and innovative approach to improving the indoor air quality by providing fresh air intake and exhaust capability through the CRV. The damper can be easily adjusted to control the amount of fresh air supplied into the building. The CRV can be controlled by indoor blower operation or field controlled based on room occupancy. The CRV is power open - spring return on power loss. Complies with ASHRAE Standard 62-89 "Ventilation for Acceptable Indoor Air Quality."

ECONOMIZER - EIFM

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.
- Minimum Position Potentiometer adjustable to control minimum damper blade position for ventilation purposes.
- Mixed Air Sensor to monitor outside and return air to automatically modulate damper position.

WALL-MOUNT ENERGY RECOVERY VENTILATOR - WERV

OPTIONAL

The wall-mount energy recovery ventilator (WERV) is a highly innovative approach to meeting indoor air quality ventilation requirements as established by ASHRAE Standard 62-89. The WERV allows from 200 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 WERV 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 WERV is designed to be internally mounted behind the service door in the WA, WH or WL model wall-mount units. It can be built-in at the factory or field installed as an option. (See Form F1403 for complete performance and application details.

Manufactured under U.S. Patent Nos. 5,485,878; 5,301,744; 5,002,116; 4,924,934; 4,875,520; 4,825,936; 4,432,409.

Electrical Specifications

				Single Circuit			Dual Circuit								
	Rated	No. Field	3 Minimum	① Maximum	② Field			nimum rcuit		ximum al Fuse	© Field Power		② Ground		
Model	Volts and Phase	Power Circuits	Circuit	External Fuse or Ckt. Brkr.	Power Wire Size	© Ground Wire		acity		t. Brkr.		Size	Wire	Size	
	and Phase	Circuits	Ampacity	OF CRL BIRE.	Wire Size		Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. E	
L181 - A00, A0Z A05		1	16 30	20 30	12 10	12 10									
A08	230/208-1	1	45	45	8	10									
A10		1	56	60	6	10	-								
L241 - A00, A0Z A05	220/202 4	1	17 30	20 30	12 10	12 10									
A08 A10	230/208-1	1 1	45 56	45 60	8 6	10 10									
L241 - B00, B0Z		1	13	15	14	12									
B06	230/208-3	1	22	25	10	10									
L251 - A00, A0Z A05		1 1	20 30	25 30	10 10	10 10									
A08	230/208-1	1	45	45	8	10									
A10		1	56	60	6	10									
L251 - B00, B0Z B06	230/208-3	1 1	14 22	20 25	12 10	12 10									
L301 - A00*, A0Z*		1	24	35	8	10									
A05* A08	230/208-1	1 1	31 47	35 50	8 8	10 10									
A10*		1	57	60	6	10	F7	200	60	20	_	10	10	40	
A15 _301 - B00*, B0Z*		1 or 2	83 17	90	4 12	8 12	57	26	60	30	6	10	10	10	
B09*	230/208-3	1	32	35	8	10									
B15		1	50 10	50 15	8 14	10 14							-		
L301 - C00*, C0Z* C09*	460-3	1	17	20	12	12									
C15	_	1	26	30	10	10							1		
L361 - A00*, A0Z* A05*		1 1	27 31	35 35	8 8	10 10									
A08 A10*	230/208-1	1	47 57	50 60	8	10 10									
A15		1 or 2	83	90	6 4	8	57	26	60	30	6	10	10	10	
_361 - B00*, B0Z*		1	20	25	10	10									
B09* B15	230/208-3	1 1	32 50	35 50	8 8	10 10									
_361 - C00*, C0Z*		1	10	15	14	14									
C09* C15	460-3	1 1	17 26	20 30	12 10	12 10									
_371 - A00, A0Z		1	28	35	8	10									
A05 A10	230/208-1	1	32 58	35 60	8 6	10 10									
A15		1 or 2	84	90	4	8	57	26	60	30	6	10	10	10	
L371 - B00, B0Z B09	230/208-3	1 1	20 33	25 35	10 8	10 10									
B15		1	51	60	6	10									
L371 - C00, C0Z C09	460-3	1 1	11 17	15 20	14 10	14 10									
C15	100 0	1	26	30	10	10									
L421 - A00, A0Z A05		1 1	33 33	50 50	8 8	10 10									
A10	230/208-1	1	59	60	6	10							l		
A15 L421 - B00, B0Z		1 or 2	85 24	90 35	8	8 10	59	26	60	30	6	10	10	10	
B09	230/208-3	1	34	35	8	10									
B15 L421 - C00, C0Z		1	52 12	60 15	6 14	10 14		<u> </u>		-	-		-	-	
C09	460-3	1	17	20	12	12									
C15 L482 - A00, A0Z		1	26 38	30 50	10 8	10 10									
A05	230/208-1	1	38	50	8	10									
A10 A15	200/200-1	1 1 or 2	59 85	60 90	6 4	10 8	59	26	60	30	6	10	10	10	
L482 - B00, B0Z		1	24	35	8	10	30				Ť			· · ·	
B09 B15	230/208-3	1	34 52	35 60	8 6	10 10									
L482 - C00, C0Z		1	12	15	14	14									
C09 C15	460-3	1 1	17 26	20 30	12 10	12 10									
-602 - A00, A0Z		1	44	60	8	10									
A05	230/208-1	1	44	60	8	10									
A10 A15		1 1 or 2	59 85	60 90	6 4	10 8	59	26	60	30	6	10	10	10	
L602 - B00, B0Z		1	32	45	8	10									
B09 B15	230/208-3	1 1	34 52	45 60	8 6	10 10									
L602 - C00, C0Z		1	16	20	12	12		1		İ	l		l		
C09	460-3	1	17	20	12	12									

① Maximum size of the time delay fuse or HACR type circuit breaker for protection of field wiring conductors.

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.

② Based on 75C copper wire. All wiring must conform to the National Electrical Code and all local codes.

These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electrical Code (lastest version), Article 310

for power conductor sizing.

Caution: When more than one field power circuit is run through one conduit, the conductors must be derated. Pay special attention to note 8 of Table 310 regarding Ampacity Adjustment Factors when more than three (3) conductors are in a raceway.

Top outlet supply option is available only factory installed and only on the selected models.

Indoor	Blower Peri	formance - C	FM at 230 Vo	lts					
ESP in	WL18 WL24 WL25	WL WL WL	.36	WL WL	- · -	WL60			
H ₂ O	Dry/Wet Coil	High Speed Dry/Wet Coil	Low Speed Dry/Wet Coil	High Speed Dry/Wet Coil	Low Speed Dry/Wet Coil	High Speed Dry/Wet Coil	Low Speed Dry/Wet Coil		
0	1020/975	1395/1315	950/935	1885/1800	1650/1600	2200/2000	1600/1450		
.1	960/905	1340/1270	930/915	1770/1665	1550/1500	2100/1900	1525/1375		
.2	865/800	1285/1190	910/885	1635/1550	1450/1400	2000/1800	1465/1200		
.3	820/735	1205/1100	855/830	1500/1400	1350/1300	1875/1700	-/-		
.4	735/650	1110/1000	800/755	1370/1285	1300/1175	1775/1600	-/-		
.5	615/535	1005/870	-/-	1250/1150	-/-	1650/1475	-/-		

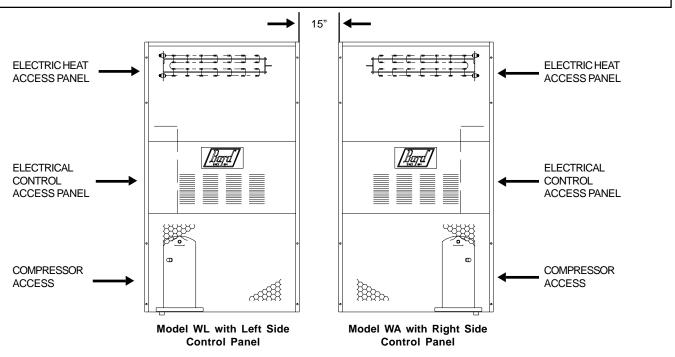
Above data is with 1" standard disposable filter and 1" washable filter.

For optional 2" pleated filter - reduce ESP by .15 in.

See installation instructions for maximum ESP information on various KW application.

Elec	tric He	at Tab	le											
Model	WL1 WL2 WL2	41-A	WL2 WL2	–	WL3 WL3 WL3	61-A	WL3 WL3	-	WL301-C WL361-C WL371-C	WL4 WL4 WL6	82-A	WL4 WL4 WL6	82-B	WL421-C WL482-C WL602-C
KW	240V-1 BTUH	208V-1 BTUH	240V-3 BTUH	208V-3 BTUH	240V-1 BTUH	208V-1 BTUH	240V-3 BTUH	208V-3 BTUH	460V-3 BTUH	240V-1 BTUH	208V-1 BTUH	240V-3 BTUH	208V-3 BTUH	460V-3 BTUH
5.0	18,000	14,000			18,000	14,000				18,840	14,300			
8.0	28,000	21,000			28,000	21,000								
10.0	34,000	26,000			35,000	26,000				35,900	27,100			
15.0					52,000	39,000				52,975	39,900			
6.0			21,000	16,000										
9.0				·			32,000	24,000	29,500			32,395	24,530	32,475
15.0				·			52,000	39,000	48,000			52,975	40,175	52,975

Unit Service Access Overview



NOTE: A 15-inch clearance is required when model WL and model WA are mounted side by side. This provides for proper service access to condenser fan and motor shroud assembly and adequate condenser air flow.

Cooling Application Data - Outdoor Temperature ① D.B./W.B. Cooling 75°F 80°F 85°F 90°F 95°F 100°F 105°F 110°F 115°F 120°F 125°F Model 2 Capacity 75/ Total Cooling 17,725 16,825 15,925 15,050 14,175 13,325 11,100 19,600 18,675 12,500 11,700 62 Sensible Cooling 12,300 14,825 14,700 14,475 14,190 13.830 13,390 12,880 11,640 10,700 10,150 80/ Total Cooling 20,975 20,360 19,710 19,020 18,300 17,540 16,750 15,920 15,060 14,400 13.800 WL181 67 Sensible Cooling 14,625 14,465 14,300 14,135 13,970 13,640 13,230 12,720 12,125 11,600 11,000 85/ Total Cooling 24,950 23,780 22,620 21,460 20,315 19,180 18,050 16,930 15,815 14,700 13,600 14,750 14,400 13,690 11,930 14,090 12,610 10,400 72 Sensible Cooling 14,620 13,190 11,155 9,650 75/ Total Cooling 24.900 23.880 22.870 21.670 20.880 19.900 18.920 17.960 17.000 16.050 15.050 Sensible Cooling 19,900 19,530 18,720 18,275 17,800 17,300 16,215 15,300 14,300 62 19.140 16,770 80/ Total Cooling 26,600 26,040 25,420 24,740 24,000 23,210 22,350 21,450 20,480 19,000 17,550 WI 241 18,970 67 Sensible Cooling 19,300 19,160 18,740 18,460 18,140 17,770 17,350 16,890 15,700 14,400 85/ Total Cooling 31,300 30,350 29,260 28,020 26,640 25,110 23,440 21,620 20,600 19,475 18,400 72 Sensible Cooling 19,775 19.430 19.040 18,590 18,090 17,530 16,920 16,260 15,540 14,700 13,900 24,400 16,400 75/ Total Cooling 25,400 23.400 19.800 18.000 17,200 22,300 21.400 20,500 18.800 62 Sensible Cooling 20,000 19,400 18,900 18,400 18,000 17,500 17,100 16,800 16,400 16,100 15,800 Total Cooling 80/ 27,100 26,500 25,900 25,200 24,400 23,800 23,100 22,400 21,600 20,800 20,000 WL251 18,400 67 Sensible Cooling 19,400 19,000 18,700 18,100 17,800 17,500 17,300 17,000 16,800 16,600 85/ Total Cooling 32.300 31.000 29.600 28.500 27.200 26.100 24.900 23.900 22.700 21.600 20.600 19,900 19,300 18,800 18,300 17,800 16,700 15,200 72 Sensible Cooling 17,300 16,300 15,700 14,700 75/ 25,560 18,700 Total Cooling 32,850 31,350 29,860 28,410 26,970 24,160 22,790 21,445 20,100 62 Sensible Cooling 25,740 24,920 24,410 23,815 23,150 22,410 20,715 19,400 18,000 25,370 21,600 80/ Total Cooling 35,130 34,190 33,190 32,130 31,000 29,810 28,550 27,230 25,840 24,800 23,750 WL301 Sensible Cooling 24,980 24,890 24,430 24,055 23,580 21,580 20,700 19,850 67 24,710 23,010 22,340 85/ 41,800 39.940 38,090 36,250 34,410 32,580 30.760 27,940 27,130 25,350 23.700 Total Cooling 72 Sensible Cooling 25,590 25.240 24,790 24.240 23,575 22.800 21.930 20.940 19,850 18,500 17,400 75/ 36,140 34,520 32,920 31,320 29,730 26,590 25,035 22,100 Total Cooling 37,760 28,160 23,000 62 Sensible Cooling 27,690 27,150 26,590 25,990 25,375 24,730 24,060 23,360 22,635 21,250 20,000 80/ 40,360 39,410 38,360 37,230 36,000 34,680 33,270 31,760 30,165 29,150 28,050 Total Cooling WL361 67 Sensible Cooling 26,880 26,640 26,360 26,020 25,635 25,200 24,710 24,170 23,575 22,750 21,900 85/ Total Cooling 48,050 46,050 44,030 42,000 39,960 37,910 35,840 33,770 31,575 28,750 28,000 72 Sensible Cooling 27.520 27.020 26.450 25,820 25.125 24.360 23.530 22.640 21.690 20,400 19,150 75/ Total Cooling 37,300 35,700 34,200 32,800 31,400 30,100 28,900 27.800 26,700 25,700 24,600 62 Sensible Cooling 28,100 27,700 27,300 26,800 26,400 25,800 25,200 24,500 23,800 22,900 22,100 38,900 38,000 36,000 31,100 80/ Total Cooling 39,800 37,000 35,100 34,100 33,100 32,100 30.000 WL371 67 Sensible Cooling 27,200 27,100 27,000 26,800 26,600 26,200 25.800 25,300 24,700 24,000 23,200 85/ 45,500 43,700 40,000 35,200 33,800 32,300 Total Cooling 47,400 41,800 38,400 36,800 30,900 72 Sensible Cooling 27,900 27,500 27,200 26,600 26,100 25,400 24,600 23,700 22,800 21,700 20,600 75/ 41,825 39,575 37,400 33,250 31,200 27,250 25,250 Total Cooling 46,525 44,125 35,300 29,400 62 Sensible Cooling 37,200 35,975 34,800 33,700 32,675 31,700 30,800 29,975 29,200 26,700 24,700 37,375 32,300 80/ Total Cooling 49,775 48,150 46,500 44,775 43,000 41,175 39,300 35,400 33,800 WL421 67 35,350 33,750 33,000 32,300 31,650 30,425 27,700 Sensible Cooling 36,175 34,500 31,000 29,000 85/ Total Cooling 59,250 56,275 53,350 50,500 47,725 45,000 43,350 39,750 37,200 34,500 31,700 35,250 29,050 23,900 72 Sensible Cooling 37,025 34,650 33,475 32,350 31,200 30,125 28,000 26,000 75/ Total Cooling 48,200 46,300 44,650 43,070 41,300 39,340 37,190 34,840 32,300 30,900 29,500 62 Sensible Cooling 39,120 38,520 37,680 37,510 37,000 36,130 34,910 33,330 31,400 30,000 28,700 80/ Total Cooling 51,440 50,440 49,640 48,750 47,500 45,890 43,920 41,590 38,900 38,100 37,250 WL482 67 Sensible Cooling 37,950 37,800 37,600 37,400 37,300 36,740 35,800 34,490 32,800 32,050 31,350 85/ 59,900 58,650 57,240 55,350 52,700 49,700 46,700 43,800 40,850 39,100 37,450 Total Cooling 38,750 72 Sensible Cooling 38,250 37,450 37,230 36,600 35,570 34,150 32,320 30.100 28.700 27,500 75/ Total Cooling 60,350 57,500 54,630 52,320 50,000 45,290 42,910 40,500 N/A N/A 47.660 62 Sensible Cooling 45,170 43,700 42,180 41,110 40,000 38,840 37,640 36,390 35,100 N/A N/A 80/ Total Cooling 62.750 59.190 57.500 51.260 48.800 N/A 64.600 60.690 55.610 53.540 N/A WL602 67 Sensible Cooling 43,950 42,960 41,830 41,150 40,400 39,570 38,660 37,670 36,600 N/A N/A 85/ Total Cooling 76,800 73,300 69,610 66,740 63,800 60,780 57,700 54,530 51,300 N/A N/A

44,900

Sensible Cooling

43,470

41,970

72

Capacity	Multiplie	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											

36,810

35,260

33,600

N/A

N/A

40,840

39,600

38,260

① Below 65°F (18.3C), unit requires a factory or field installed low ambient control.

② Return air temperature.

Air Conditioning Wall-Mount Model Nomenclature WL 36 10 MODEL NUMBER | CONTROL MODULES J - Standard on all models CAPACITY | 18 - 1-1/2 Ton REVISION | COIL OPTIONS 24 - 2 Ton KW I 25 - 2 Ton X - Standard **COLOR OPTIONS** 30 - 2-1/2 Ton 1 - Phenolic Coated Evaporator X - Beige (Standard) **VENTILATION OPTIONS** 2 - Phenolic Coated Condenser 36 - 3 Ton 1 - White 3 - Phenolic Coated Evaporator X - Barometric Fresh Air Damper (Standard) 37 - 3 Ton 2 - Mesa Tan and Condenser 42 - 3-1/2 Ton B - Blank-off Plate 4 - Buckeye Gray 48 - 4 Ton M - Motorized Fresh Air Damper **OUTLET OPTIONS** 5 - Desert Brown V - Commercial Room Ventilator-Motorized with Exhaust 60 - 5 Ton X - Front (Standard) E - Economizer - Fully Modulating with Exhaust R - Energy Recover Ventilator - Motorized with Exhaust **VOLTS & PHASE |** D - Economizer - Fully Modulating with Exhaust A - 230/208/60/1 **FILTER OPTIONS** (For use only with "V" Control Module and B - 230/208/60/3 X - 1 inch Disposable (Standard) TCS20 DDC Controller) W - 1 inch Washable C - 460/60/3 P - 2 inch Pleated

NOTE: For 0 KW and circuit breakers (230/208 Volt) or pull disconnects (460 Volt) applications, insert OZ in the KW field of the model number.

Ventilation Options							
Models	WL181, WL	241, WL251	WL301, WL	361, WL371	WL421, WL482, WL602		
Description	Factory Installed Code No.	Field Installed Part No.	Factory Installed Code No.	Field Installed Part No.	Factory Installed Code No.	Field Installed Part No.	
Barometric Fresh Air Damper	X	BFAD-2	X	BFAD-3	X	BFAD-5	
Blank-Off Plate	В	BOP-2	В	BOP-3	В	BOP-5	
Motorized Fresh Air Damper	М	MFAD-2	М	MFAD-3	М	MFAD-5	
Commercial Ventilator - Motorized	V	CRV-2	V	CRV-3	V	CRV-5	
Economizer - Fully Modulating ①	Е	EIFM-2	E	EIFM-3	Е	EIFM-5	
Economizer - Fully Modulating ①②	D	N/A	D	N/A	D	N/A	
Energy Recovery Ventilator - 230 Volt	R	WERV-A2B	R	WERV-A3B	R	WERV-A5B	
Energy Recovery Ventilator - 460 Volt	R	WERV-C2B	R	WERV-C3B	R	WERV-C5B	

① For use only with "V" Control Module and TCS20 DDC Controller.

Air Con	ditioning	Control N	WL181, WL241, WL301, WL361, WL421 Models with Reciprocating Compressor					
		AVAILABL	Models with Reciproc	ating Compressors				
HPC ①	LPC ②	ССМ ③	LAC ④	ALR ⑤	SK ®	DDC ⑦	Factory Installed Code	Field Installed Part
Standard	Standard	Standard	Standard	Standard			J	Factory Only
Standard	Standard	Standard	Standard	Standard	•		M	Factory Only
Standard	Standard	Standard	•	V®	Factory Only			

Air Con	ditioning	Control I	/lodules				WL251, WL371, WL482, WL602 Models with Reciprocating Compressors					
		AVAILABL	E CONTROL	OPTIONS			Models with Reciproc	cating Compressors				
HPC ①	LPC ②	ССМ ③	LAC ④	ALR ⑤	SK ©	Factory Installed Code	Field Installed Part					
Standard	Standard	Standard	Standard	Standard			J	Factory Only				
Standard	Standard	Standard	Standard	Standard	•		М	Factory Only				
Standard	Standard	Standard	Standard	Standard		•	V®	Factory Only				

- ① HPC: High pressure control is auto reset. Always used with compressor control module (CCM) which is included. See note ③.
- ② LPC: Low pressure control is auto reset. Always used with compressor control module (CCM) which is included. See note ③.
- ③ CCM: Compressor control module has adjustable 30-second to 5-minute delay-on-break timer (which also provides a delay-on-make equal to 10% of delay-on-break setting). The module also provides the lockout feature (with 1 retry) for high and/or low pressure controls, and a 2-minute timed bypass for low pressure control.
- ⊕ LAC: Low ambient control permits cooling operation down to 0°F.
- S ALR: The alarm relay has a set of normally open and normally closed dry contacts to provide the ability to signal a condition of shutdown on either high or low pressure controls.
- ® SK: Start kit can be used with all -A single phase models only. Is not used or available for -B or -C three phase models.
- DDC: Incorporates 4 additional sensors: discharge air temperature, indoor blower airflow, compressor current, and dirty filter. These sensing devices function to input analog data such as temperature, as well as digital data such as air flow, compressor status or filter status.
- ® "V" control module should be ordered in conjunction with direct digital controller (DDC) model TCS20. Refer to DDC specification sheet S3280 for more information.

Clearances Required for Service Access and Adequate Condenser Air Flow

MODELS	LEFT SIDE	RIGHT SIDE
WL18, WL24, WL25, WL36, WL37	15"	20"
WL42, WL48, WL60	15"	20"

NOTE: For side by side installation of two (2) WL models there must be 20" between units. This can be reduced to 15" by using a WL model (left side compressor and controls) for the left unit and WA (right side compressor and controls) for right unit.

Minimum Clearances Required to Combustible Materials

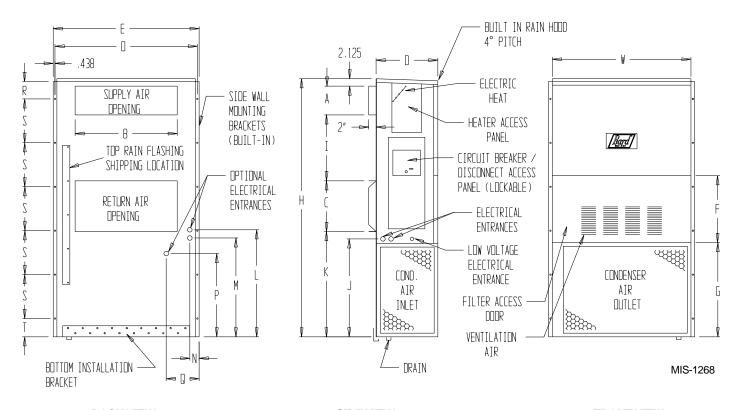
MODELS ①	SUPPLY AIR DUCT FIRST THREE FEET	CABINET
WL18, WL24, WL25	0"	0"
WL30, WL36, WL37	1/4"	0"
WL42, WL48, WL60	1/4"	0"

① Refer to the installation manual for more detailed information.

Dimensions of Basic Unit for Architectural and Installation Requirements (Nominal)

MODEL	WIDTH	DEPTH	HEIGHT	SUF	PLY	RET	URN															
WODLL	(W)	(D)	(H)	Α	В	С	В	Е	F	G	ı	J	K	L	М	N	0	Р	Q	R	S	Т
WL18 WL24 WL25	33.300	17.125	70.563	7.88	19.88	11.88	19.88	35.00	18.50	25.75	20.56	26.75	28.06	29.25	27.00	2.63	34.13	22.06	10.55	4.19	12.00	5.00
WL30 WL36 WL37	38.200	17.125	70.563	7.88	27.88	13.88	27.88	40.00	18.50	25.75	17.93	26.75	28.75	29.25	27.00	2.75	39.19	22.75	9.14	4.19	12.00	5.00
WL42 WL48 WL60	42.075	22.432	84.875	9.88	29.88	15.88	29.88	43.88	19.10	31.66	30.00	32.68	26.94	34.69	32.43	3.37	42.88	23.88	10.00	1.44	16.00	1.88

All dimensions are in inches. Dimensional drawings are not to scale.



BACK VIEW SIDE VIEW FRONT VIEW



BARD MANUFACTURING CO. BRYAN, OHIO 43506

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Supersedes S3279-198