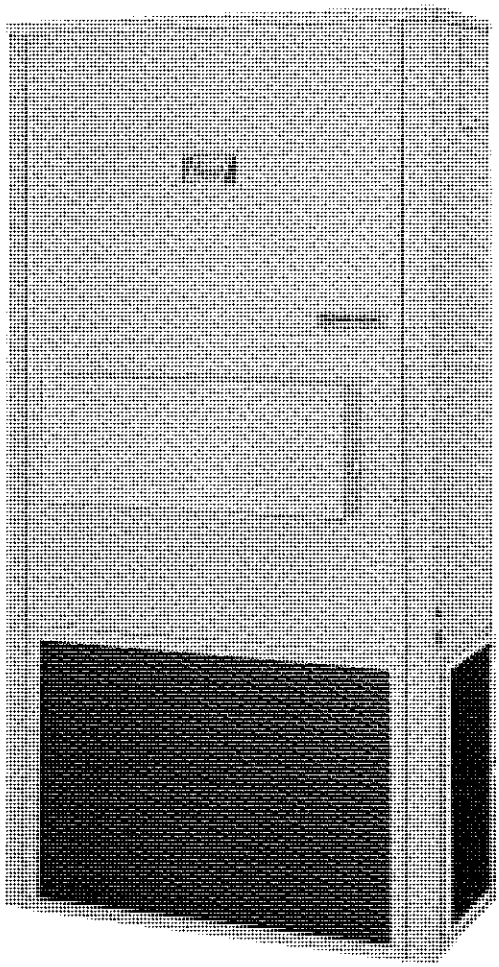
THE WALL-MOUNT™ HI-BOY AIR CONDITIONERS

ELEVEN MODELS • Cooling Capacities: 19,700 to 56,000 BTUH
SEER: 9.00 to 10.00



LISTED CERTIFIED

Practical, outside wallmount installation provides versatile applications for:

- HOME IMPROVEMENT PROJECTS
- NEW CONSTRUCTION
- MODULAR FACILITIES
- SCHOOLS
- APARTMENTS
- OFFICES

Aluminum Finned Copper Coil surfaces provide maximum transfer.

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.

Totally Enclosed Compressor* operates quieter than others. Equipped with crankcase heater and is protected with internal overload, pressure relief valve and anti-slug device.

Galvannealed Steel Cabinet is handsomely finished with baked-on polyester enamel.

Electrical Components are easily accessible for routine inspection and maintenance through service panel opening.

Air Filters are standard equipment. Replacement filters are easy to install.

Built-in Circuit Breakers — Optional.

Painted Slope Top — Optional.

Barometric Damper Assembly — Standard equipment with ***The WALL-MOUNT™***

Economizer — Optional. Reduces operating costs and prolongs life of compressor. See Form S3115.

Model 36WA*
**On Models 42WA, 49WA and 60WA, compressor is located on bottom base pan and serviced from left-hand side of cabinet.*

Capacity and Efficiency Ratings

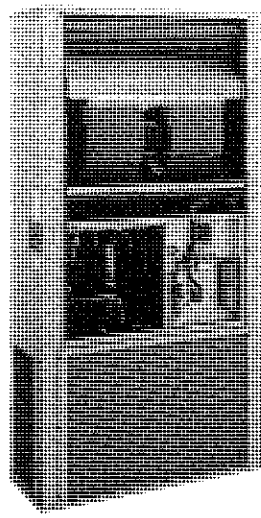
MODEL	PHASE	COOLING CAPACITY BTUH	SEER	SEER*
20WA4-A	1	19,700	9.60	10.00
24WA6-A	1	23,000	9.70	10.00
30WA6-A	1	31,000	9.60	
36WA6-A	1	35,400	9.00	
36WA6-B,-C①	3	35,400	9.00	
42WA-A	1	42,500	9.20	
42WA-B②	3	42,500	9.10	
49WA-A	1	46,500	9.30	
49WA-B,-C②	3	46,500	9.30	
60WA-A	1	56,000	9.20	
60WA-B,-C②	3	56,000	9.00	

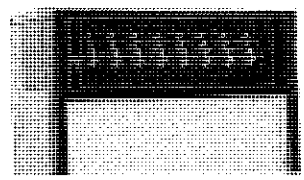
All capacity, efficiency and cost of operation information is based on high speed operation with fresh air cover plate. Cover plate must be ordered separately and is recommended for use to obtain maximum energy efficiency where fresh air opening is not required.

* Efficiency ratings with optional field installed 8620-003 kit (ordered separately).

① For 208V operation deduct 400 BTUH and .1 SEER

② For 208V operation deduct 1000 BTUH and .2 SEER





ELECTRIC HEAT STRIPS with automatic limit and thermal cut-off are available as a built-in option. Accessible from side outlet without removing unit from wall.

Specifications

MODEL	20WA4-A	24WA6-A	30WA6-A	36WA6-A	36WA6-B	36WA6-C	42WA-A	42WA-B	49WA-A	49WA-B	49WA-C	60WA-A	60WA-B	60WA-C
Cooling Capacity Btuh	19,700	23,000	31,000	35,400	35,400	35,400	42,500	42,500	46,500	46,500	46,500	56,000	56,000	56,000
Heating Capacity Btuh	SEE ELECTRIC HEAT TABLE													
Electrical Rating—60Hz	230/208-1	230/208-1	230/208-1	230/208-1	230/208-3	460-3	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	187-253	414-506	197-253	187-253	197-253	187-253	414-506	197-253	187-253	414-506
Compressor—Circuit A														
Volts	230/208	230/208	230/208	230/208	230/208	460	230/208	230/208	230/208	230/208	460	230/208	230/208	460
Rated Load Amps 230/208	7.5/8.5	9/10	12.5/13.5	17/20.5	13/14	7	18.5/20.5	13/13	20.5/22	14/14	8	23.5/26	15.5/17.5	9
Branch Circuit Selection Current	10	11	15	20.5	14	7	20.5	13	22	14	8	29	17.5	9
Lock Rotor Amps	54	57	76	93	74	41	93	74	95.4	82	41	145	103	54
Fan Motor & Condenser														
Fan Motor—HP/RPM	1/5/1075			1/5/1050			1/3/825							
Fan Motor—Amps	1.2	1.2	1.2	1.5	1.5	.8	2.8	2.8	2.8	2.8	1.3	2.8	2.8	1.3
Fan—DIA/CFM	18/1600	18/1600	20/2060	20/2060	20/2060	20/2060	24/2950	24/2950	24/2725	24/2725	24/2725	24/2725	24/2725	24/2725
Motor and Evaporator														
Blower Motor—HP/RPM	1/6/1050		1/3/1100/2 Spd.				1/2/1075/2 Spd.							
Blower Motor—Amps	1.3	1.3	2.2	2.2	2.2	1.0	4.0	4.0	4.0	4.0	1.9	4.0	4.0	1.9
CFM Cooling & E.S.P. w/Filter (Rated)	710@.35	815@.15	1140@.17	1140@.15	1140@.15	1140@.15	1575@.40		1725@.20			1700@.20		
Filter Sizes (inches)	14x25x1	14x25x1	15x30-5/8x1				20x30x1							
Shipping Weight—Lbs.	280	310	375	380	380	380	500	500	510	510	510	510	510	510

For additional heating capacity, add the KW from Electric Heat Table.

Electric Heat Table at 240/208 Volts

MODEL	KW @240/208	*RATED BTUH @240/208
20WA4-A and 24WA6-A	5/3.75 8/6 10/7.5	18,000/14,000 28,000/21,000 34,000/26,000
30WA6-A and 36WA6-A	5/3.75 8/6 10/7.5 15/11.25	18,000/14,000 28,000/21,000 35,000/26,000 52,000/39,000
36WA6-B	6/4.5 9/6.75 12/9 15/11.25	22,000/16,000 32,000/24,000 42,000/32,000 52,000/39,000
42WA-A	10/7.5 15/11.25 20/15	36,000/27,000 54,000/41,000 71,000/53,000
42WA-B	9/6.75 15/11.25 18/13.5	33,000/25,000 53,000/40,000 64,000/48,000
49WA-A and 60WA-A	10/7.5 15/11.25 20/15	37,000/28,000 54,000/41,000 71,000/53,000
49WA-B and 60WA-B	9/6.75 15/11.25 18/13.5	33,000/25,000 54,000/41,000 64,000/48,000

*Includes Indoor Blower Motor.

Indoor Blower Performance

*CFM—DRY COIL

E.S.P. IN H_2O	20WA4 24WA6 **	30WA6 36WA6 LOW	30WA6 36WA6 HIGH	42WA 49WA LOW	42WA 49WA HIGH	60WA LOW	60WA HIGH
.0	1000	970	1435	1450	1940	1460	2000
.10	935	925	1350	1395	1865	1415	1890
.20	870	900	1260	1340	1780	1375	1840
.30	800	—	1150	—	1690	—	1765
.40	715	—	1050	—	1610	—	1670
.50	630	—	940	—	1510	—	1560

*Filter included. See specifications for unit CFM rating.

**Single speed.

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 existing local codes.

CERTIFIED

All models ARI certified.

LISTED

Underwriters listed for outdoor installation.

Specifications subject to change without notice.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

Cooling Application Data — Outdoor Temperature °F①

MODEL	D.B./ W.B.②	COOLING CAPACITY	75°	80°	85°	90°	95°	100°	105°	110°	115°
20WA4	75/ 62	Total Cooling	20,200	19,600	18,800	18,100	17,225	16,300	15,400	14,400	13,280
		Sensible Cooling	16,000	15,700	15,500	15,100	14,750	14,300	13,900	13,400	12,860
	80/ 67	Total Cooling	21,600	21,300	21,000	20,400	19,700	19,000	18,100	17,100	16,000
		Sensible Cooling	15,500	15,400	15,300	15,100	14,900	14,607	14,300	13,900	13,400
	85/ 72	Total Cooling	26,065	24,890	23,820	22,845	21,975	21,200	20,530	19,960	19,490
		Sensible Cooling	13,740	14,250	14,560	14,680	14,600	14,330	13,860	13,190	12,330
24WA6	75/ 62	Total Cooling	23,500	22,700	21,900	21,000	20,010	19,000	17,900	16,700	15,440
		Sensible Cooling	18,653	18,500	18,300	18,000	17,625	17,100	16,512	15,800	15,000
	80/ 67	Total Cooling	25,100	24,800	24,300	23,700	23,000	22,100	21,100	19,900	18,600
		Sensible Cooling	18,100	18,200	18,200	18,000	17,800	17,400	17,000	16,400	15,700
	85/ 72	Total Cooling	29,870	28,940	27,905	26,770	25,530	24,185	22,735	21,185	19,530
		Sensible Cooling	18,560	18,460	18,240	17,900	17,445	16,870	16,180	15,370	14,445
30WA6	75/ 62	Total Cooling	29,800	29,400	28,700	27,900	26,970	25,900	24,600	23,100	21,530
		Sensible Cooling	22,200	22,800	23,100	23,300	23,216	23,000	22,500	21,900	21,024
	80/ 67	Total Cooling	31,800	32,000	31,900	31,600	31,000	30,100	30,100	27,600	25,940
		Sensible Cooling	21,500	22,300	22,900	23,300	23,450	23,400	23,100	22,600	21,900
	85/ 72	Total Cooling	36,860	36,690	36,230	35,470	34,410	33,060	31,420	29,480	27,240
		Sensible Cooling	22,090	22,660	23,000	23,110	22,980	22,620	22,030	21,210	20,150
36WA6	75/ 62	Total Cooling	35,500	34,580	33,500	32,300	30,800	29,200	27,300	25,300	23,075
		Sensible Cooling	26,900	26,230	25,600	25,000	24,450	23,900	23,400	22,900	22,400
	80/ 67	Total Cooling	38,300	38,000	37,400	36,600	35,400	33,900	32,200	30,100	27,600
		Sensible Cooling	26,200	25,840	25,400	25,100	24,700	24,300	24,000	23,700	23,500
	85/ 72	Total Cooling	44,100	44,000	42,800	41,200	39,295	37,200	34,800	32,100	29,190
		Sensible Cooling	26,700	26,100	25,500	24,800	24,200	23,500	22,900	22,200	21,480
42WA	75/ 62	Total Cooling	42,800	41,500	40,055	38,550	36,975	35,340	33,640	31,875	30,050
		Sensible Cooling	34,205	33,800	33,330	32,785	32,175	31,495	30,745	29,930	29,040
	80/ 67	Total Cooling	46,325	45,600	44,720	43,690	42,500	41,160	39,660	38,007	36,200
		Sensible Cooling	33,400	33,300	33,120	32,850	32,500	32,060	31,545	30,940	30,250
	85/ 72	Total Cooling	55,040	53,200	51,270	49,260	47,175	45,010	42,750	40,420	38,010
		Sensible Cooling	34,140	33,730	33,210	32,580	31,850	31,010	30,060	29,000	27,830
49WA	75/ 62	Total Cooling	48,595	46,050	43,845	41,980	40,450	39,260	38,415	37,900	37,730
		Sensible Cooling	37,840	37,150	36,420	35,650	34,850	34,000	33,125	32,200	31,250
	80/ 67	Total Cooling	51,600	50,600	49,400	48,050	46,500	44,775	42,860	40,770	38,500
		Sensible Cooling	36,950	36,600	36,190	35,725	35,200	34,625	33,990	33,300	32,550
	85/ 72	Total Cooling	61,150	58,920	56,590	54,150	51,615	48,970	46,230	43,380	40,425
		Sensible Cooling	37,760	37,070	36,290	35,440	34,500	33,480	32,370	31,210	29,950
60WA	75/ 62	Total Cooling	56,300	54,600	52,770	50,810	48,720	46,500	44,150	41,665	39,050
		Sensible Cooling	44,170	43,595	42,925	42,150	41,280	40,310	39,245	38,080	36,815
	80/ 67	Total Cooling	60,815	60,000	58,925	57,600	56,000	54,150	52,050	49,675	47,050
		Sensible Cooling	43,125	42,950	42,650	42,240	41,700	41,040	40,265	39,370	38,350
	85/ 72	Total Cooling	72,250	69,980	67,540	64,930	62,160	59,220	56,110	52,840	49,400
		Sensible Cooling	44,270	43,630	42,840	41,930	40,870	39,680	38,350	36,880	35,280

① Below 65°F, unit requires a field installed low ambient control.
② Return air temp. °F.

CAPACITY MULTIPLIER FACTORS			
% of Rated Air Flow	−10	Rated	+10
Total Btuh	0.975	1.0	1.02
Sensible Btuh	0.95	1.0	1.05

Electrical Specifications

MODEL	RATED VOLTS & PHASE	① MAX. UNITS AMPS @ 240/208V	"N" VERSIONS (STD. MODELS LESS CIRCUIT BREAKERS) NO. FIELD POWER CIRCUITS	INTERNAL FUSES (CKTA)	① MAX. EXT. FUSE OR CIRCUIT BREAKER	③ MIN. CIRCUIT AMPACITY	② FIELD POWER WIRE SIZE	② GROUND WIRE SIZE	"C" VERSIONS (WITH CIRCUIT BREAKERS) NO. FIELD POWER CKTS.	① MAX. EXT. FUSE OR CIRCUIT BREAKER CKT. A	CKT. B	③ MIN. CIRCUIT AMPACITY CKT. A	CKT. B	② FIELD POWER WIRE SIZE CKT. A	CKT. B	② GROUND WIRE SIZE CKT. A	CKT. B
20WA4-A 00*	230/208	10/11	1	—	25	15	14	10	1	25	—	15	—	14	—	10	—
05*	1	22.1/19.4	1	—	30	28	10	10	1	30	—	28	—	10	—	10	—
08*		34.6/30.1	1	—	45	44	6	10	1	45	—	44	—	6	—	10	—
10*		42.9/37.5	1	—	60	54	6	10	1	60	—	54	—	6	—	10	—
24WA6-A00*	230/208	11.5/12.5	1	—	25	17	12	10	1	25	—	17	—	12	—	10	—
05*	1	22.1/19.4	1	—	30	28	10	10	1	30	—	28	—	10	—	10	—
08*		34.6/30.1	1	—	45	44	6	10	1	45	—	44	—	6	—	10	—
10*		42.9/37.5	1	—	60	54	6	10	1	60	—	54	—	6	—	10	—
30WA6-A00*	230/208	16.2/17.2	1	—	35	23	10	10	1	35	—	23	—	10	—	10	—
05*	1	23.0/20.3	1	—	35	29	10	10	1	35	—	29	—	10	—	10	—
08*		35.5/31	1	—	45	45	6	10	1	45	—	45	—	6	—	10	—
10*		43.8/38.4	1	—	60	55	4	10	1	60	—	55	—	4	—	10	—
15*		64.7/56.3	1	60/30	90	81	3	8	2	60	30	55	26	4	8	10	10
36WA6-A00*	230/208	20.7/24.2	1	—	45	30	10	10	1	45	—	30	—	10	—	10	—
05*	1	23.0/24.2	1	—	45	30	10	10	1	45	—	30	—	10	—	10	—
08*		35.5/31	1	—	45	45	6	10	1	45	—	45	—	6	—	10	—
10*		43.8/38.4	1	—	60	55	6	10	1	60	—	55	—	6	—	10	—
15*		64.7/56.3	1	60/30	90	81	3	8	2	60	30	55	26	4	10	10	10
36WA6-B00*	230/208	17.7/16.7	1	—	35	22	10	10	1	35	—	22	—	10	—	10	—
06*	3	17.7/16.7	1	—	35	22	10	10	1	35	—	22	—	10	—	10	—
09*		23.9/20.9	1	—	35	30	10	10	1	35	—	30	—	10	—	10	—
12*		31.1/27.2	1	—	40	40	8	10	1	40	—	40	—	8	—	10	—
15*		38.4/33.4	1	—	50	48	6	10	1	50	—	48	—	6	—	10	—
36WA6-C00*	460	9.5	1	—	15	15	14	14	1	15	—	15	—	14	—	14	—
09*	3	11.9	1	—	15	15	14	14	1	15	—	15	—	14		14	—
15*		19.1	1	—	25	24	10	10	1	25	—	24	—	10	—	10	—
42WA-A00*	230/208	27.3/25.3	1	—	50	33	8	10	1	50	—	33	—	6	—	10	—
10*	1	45.6/40.2	1	—	60	57	4	10	1	60	—	57	—	3	—	10	—
15*		66.5/58.1	1	60/30	90	84	2	8	2	60	30	57	26	4	8	10	10
20*		87.2/76.1	1	60/30	110	109	1	6	2	60	60	57	52	3	4	10	10
42WA-B00*	230/208	19.8/19.8	1	—	35	24	10	10	1	35	—	24	—	10	—	10	—
09*	3	25.7/22.7	1	—	35	33	8	10	1	35	—	33	—	8	—	10	—
15*		40.2/35.2	1	—	60	51	6	10	1	60	—	51	—	6	—	10	—
18*		47.3/41.5	1	—	60	60	4	10	1	60	—	60	—	10	—	10	—
49WA-A00*	230/208	27.3/28.8	1	—	50	35	8	10	1	50	—	35	—	8	—	10	—
10*	1	45.6/40.2	1	—	60	57	4	10	1	60	—	57	—	4	—	10	—
15*		66.5/58.1	1	60/30	90	84	2	8	2	60	30	57	26	3	8	10	10
20*		87.2/76.1	1	60/60	110	109	1	6	2	60	60	57	52	3	4	10	10
49WA-B00*	230/208	20.8/20.8	1	—	35	25	10	10	1	35	—	25	—	10	—	10	—
09*	3	25.7/22.7	1	—	35	33	8	10	1	35	—	33	—	8	—	10	—
15*		40.2/35.2	1	—	60	51	6	10	1	60	—	51	—	6	—	10	—
18*		47.3/41.5	1	—	60	60	4	10	1	60	—	60	—	4	—	10	—
49WA-C00*	460	11.2	1	—	20	15	14	12	1	20	—	15	—	14	—	12	—
09*	3	12.7	1	—	20	16	12	12	1	20	—	16	—	12	—	12	—
15*		19.9	1	—	25	25	10	10	1	25	—	25	—	10	—	10	—
60WA-A00*	230/208	30.3/32.8	1	—	60	44	6	10	1	60	—	44	—	6	—	10	—
10*	1	45.6/40.2	1	—	60	57	4	10	1	60	—	57	—	4	—	10	—
15*		66.5/58.1	1	60/30	90	84	2	8	2	60	30	57	26	3	8	10	10
20*		87.2/76.1	1	60/60	110	109	1	6	2	60	60	57	52	3	4	10	10
60WA-B00*	230/208	22.3/24.3	1	—	45	29	8	10	1	45	—	29	—	8	—	10	—
09*	3	25.7/24.3	1	—	45	33	8	10	1	45	—	33	—	8	—	10	—
15*		40.2/35.2	1	—	60	51	6	10	1	60	—	51	—	6	—	10	—
18*		47.3/45.1	1	—	60	60	4	10	1	60	—	60	—	4	—	10	—
60WA-C00*	460	12.2	1	—	20	15	14	12	1	20	—	15	—	14	—	12	—
09*	3	12.7	1	—	20	16	12	12	1	20	—	16	—	12	—	12	—
15*		19.9	1	—	25	25	10	10	1	25	—	25	—	10	—	10	—

* = N for standard models (less circuit breakers).

= C for models with circuit breakers.

① Maximum size of the time delay fuse or HACR type circuit breaker for protection of field wiring conductors. (Sizes 70 amp or greater are not HACR type).

② Based on 60° C, copper wire. All wiring must conform to the National Electrical Code and all local codes.

③ These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electric Code (latest revision), article 310 for power conductor sizing. Caution: When more than one field power conductor circuit is run thru one conduit, the conductors must be derated. Pay special attention to note 8 of table 310 regarding Ampacity Adjustment Factors when more than 3 conductors are in a raceway. Refer to form F1245 for additional information.

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

MODEL	A	B	C	D	①② E	①② F	G	H	I	J	K	L	M	N	P	Q	R	S	FRESH AIR INTAKE Standard
20WA, 24WA	32⅜	14⅝	69⅜	23½	19⅞	7⅞	20½	11⅞	27½	NA	NA	4	6¼	NA	22⅜	28⅝	NA	21⅛	0-10%
30WA, 36WA	38	16½	74	24¾	27⅞	7⅞	18	13⅞	32⅞	32	8	2⅜	5¾	6¼	24⅞	34½	27	23⅜	0-25%
42WA, 49WA, 60WA	42	23	84	21½	29⅞	9⅞	30	15⅞	26⅞	NA	NA	NA	8	NA	32⅝	32⅝	NA	31¾	0-25%

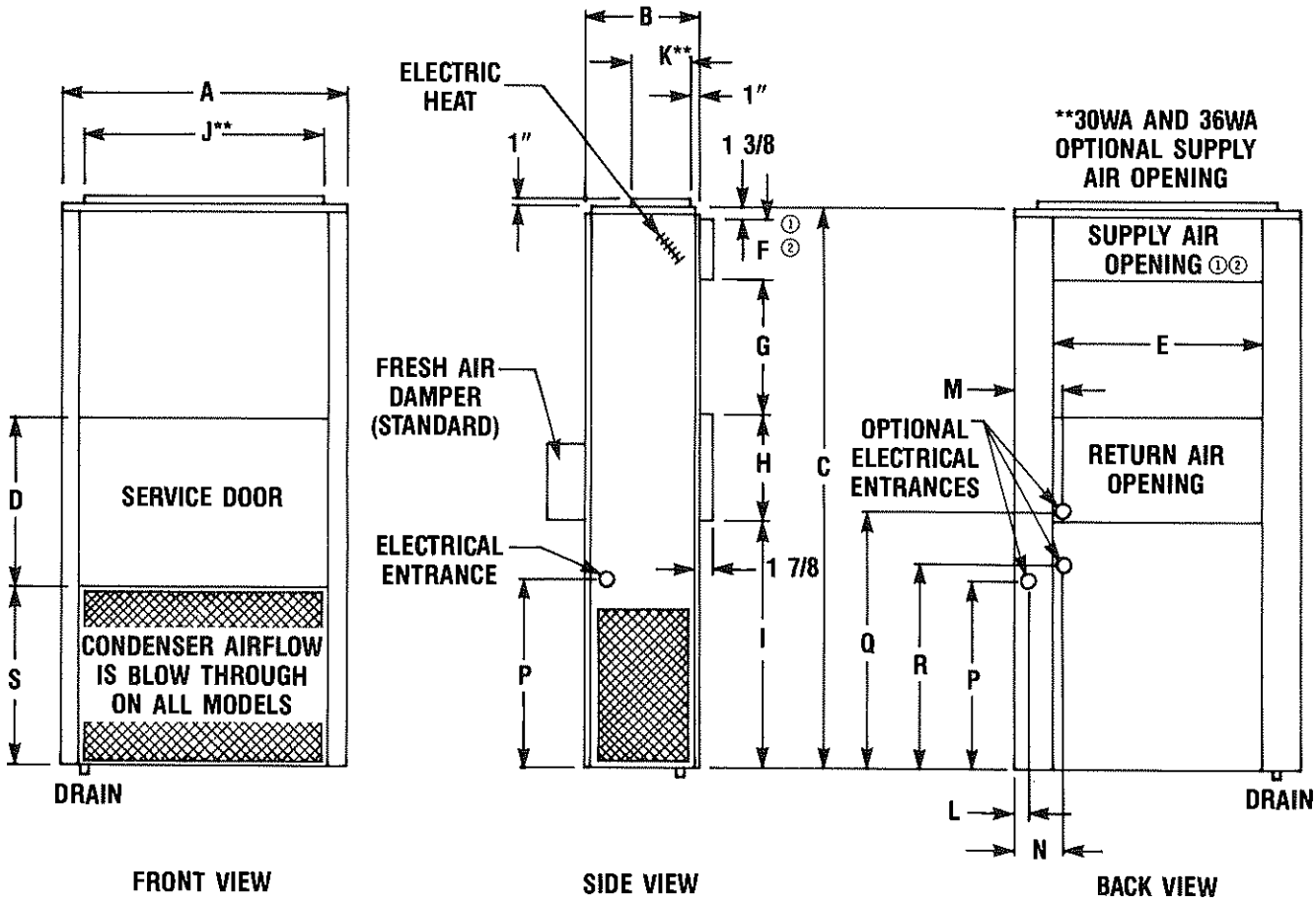
Dimensions and filter sizes are in inches.

Clearances Required for Service Access and Adequate Condenser Air Flow

MODEL	LEFT SIDE	RIGHT SIDE
20WA, 24WA	13″	30″
30WA, 36WA	15″	30″
42WA, 49WA, 60WA	24″	30″

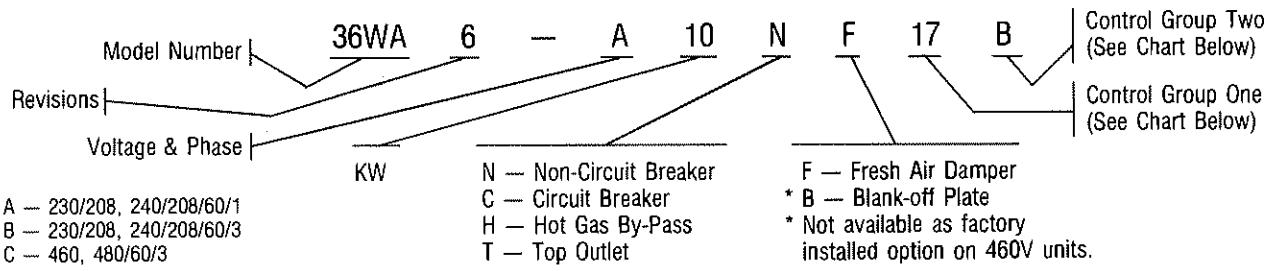
① The supply duct requires a one inch clearance on all four sides from combustible materials. This is required for the first three feet of supply duct. Refer to the installation manual for more detailed information.

② On Models 20WA4 and 24WA6 with electric heat, supply duct is approved for zero inch clearance to combustible materials.



**MUST BE INSTALLED AT FACTORY, OPENINGS J AND K CANNOT BE PROPERLY MADE IN THE FIELD.

Air Conditioning Wall-Mount Nomenclature



Control Module Accessories — Control group one items that can be field installed or factory installed. Control module consists of galvanized metal box (except for TDR5), controls pre-wired, wiring diagram, installation instructions, mounting brackets and hardware.

Optional Factory or Field Installed Accessories (Control Modules)

The following field installed accessories are available to provide maximum flexibility to meet specific specification and application requirements. Each accessory is designed and assembled at Bard and is available for field or factory installation. All electrical items are pre-wired, color coded, include appropriate wire diagrams and where applicable are built into enclosures. All accessories feature detailed and easy to follow installation instructions.

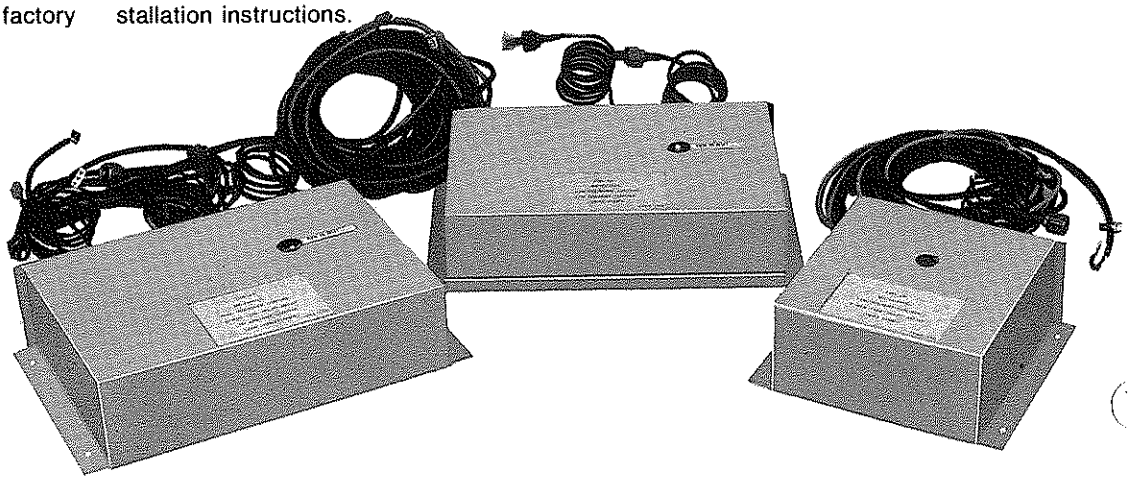


Photo shows assortment of various control modules that can easily be field installed in Wall-Mount Units.

Air Conditioning Control Modules

DESCRIPTION	FIELD INSTALLED PART NO.	FACTORY INSTALLED CODE NO.
Control Group One		
(HPC) High Pressure Control Manual Reset & Adjustable	CGA-1	01
(LPC) Low Pressure Control Manual Reset & Adjustable	CGAH-2	02
(DPC) Dual Pressure Control Manual Reset & Adjustable	CGA-3	03
(TDR5) Compressor Anti Cycle Relay	CGAH-4	04
(LAC) Low Ambient Control	CGA-5	05
HPC and TDR5	CGA-7	07
HPC and LAC	CGA-8	08
LPC and TDR5	CGAH-9	09
LPC and LAC	CGA-10	10
LPC, TDR5 and LAC	CGA-12	12
DPC and TDR5	CGA-14	14
DPC and LAC	CGA-15	15
DPC, TDR5 and LAC	CGA-16	16
LAC and TDR5	CGA-17	17
Control Group Two		
Low Voltage Start Kit No. 1 (49WA, 60WA)	SK108	B
Low Voltage Start Kit No. 2 (20WA, 24WA6, 30WA6, 36WA6, 42WA)	SK109	B

Bard® SINCE 1914

BARD MANUFACTURING CO.
BRYAN, OHIO 43506
Since 1914... Moving ahead, just as planned.

Specifications subject to change without notice.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

Form No. S3021 December, 1991

Supersedes S3021-391