

# PWAV



**Packaged Water  
Cooled Unit  
Model PWAV  
Capacity Range from  
25,000 to 44,000 BTUH  
(7.3kW - 12.8kW)  
80-100 Pa External Static.  
Cooling Only or  
Cooling and Heating**

## **Description:**

- The PWAV units are single package water cooled air conditioners.
- The PWAV series includes 4 models of cooling system.
- The PWAVJ for Cooling and Heating.
- Suitable for vertical mount, indoor installation.
- Free blow or duct system.
- Completed with pipe, wiring and refrigeration charging at the factory.
- Ideal for quick and low cost installation.

## **Features:**

- High efficiency, hermetic, refrigerant cooled compressor.
- High efficiency tube-in-tube condenser.
- Electrical supply connections and knockouts provided.
- Lower operating cost.
- Low noise operation.
- HP and LP cut-out switches.
- Air filters
- Electrical panel.



## GUIDE SPECIFICATION

### GENERAL

The PWAV water cooled single packaged air conditioners shall be completely factory assembled, leak-tested, evacuated and fully charged with R-22, ready for installation.

### UNIT CASING

The unit shall be constructed from electro galvanized steel. The exterior panels shall be acoustically lined with 1/2" thick, 40 kg/cu.m. fiber glass insulation. The insulation shall be affixed to the casing with the water proof adhesive. All steel metal parts shall be degreased, zinc phosphate bonderized before begin oven-baked with a thick coat of polyester paint.

### COMPRESSOR

Each unit shall have Scroll hermetic compressor mounted on vibration isolators. The refrigerant gas cooled, high torquer motor, quiet running with internal suspension system to eliminate vibration, and internal linebreak motor protection and motor overheating.

### CONDENSER

The water cooled condenser shall be high efficiency profiled tube-in-tube type. The copper tube inside the steel pipe shall offer efficient refrigerant cooling. The refrigerant side of the condenser shall be cleaned, dehydrated and tested for 350 psig design working pressure. The condenser including water shall be tested for leakage at the factory.

### EVAPORATOR COIL

The direct expansion evaporator shall consist of full face coil with counterflow circuits, seamless 3/8 inch OD staggered copper tubes mechanically bonded into aluminium fins with a maximum of 12 fins per inch. Each coil shall be dehydrated internally and externally, brazed in nitrogen atmosphere, leak tested at 350 psig and completely dehydrated before assembly.

### EVAPORATOR FAN AND MOTOR

The evaporator fan shall be the double inlet, multi-blade centrifugal type. The fan wheel shall be constructed from galvanized steel and statically and dynamically balanced.

### REFRIGERANT CIRCUIT

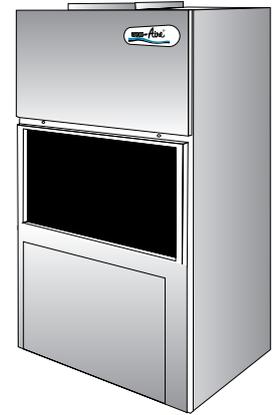
The refrigerant circuit shall be factory piped, leak tested and pre-charged with R-22. Each refrigerant circuit shall consist of a compressor, and capillary tube.

### UNIT CONTROL

Each system shall contain factory mounted wired and tested controls required to operate and protect the unit. The control system shall include compressor overload protection, motor winding protection, high and low pressure cutouts (for unit with heat pump) to guard against compressor damage due to high discharge head pressure and system leakage.

### FILTERS

Air filters shall be cleanable aluminium type.



## PHYSICAL DATA

MODEL	PWAV	25	30	36	40
COOLING CAPACITY	BTUH	25,000	31,000	37,000	44,000
	kW	7.3	9.0	10.8	12.8
NOMINAL AIR FLOW	CFM	900	1,200	1,600	1,800
	L/S	420	570	750	850
AIR PRESSURE DROP	Pa	80-100			
COMPRESSOR					
TYPE		SCROLL			
REFRIGERANT		R-22			
POWER SUPPLY	V/Ph/Hz	220-240/1/50	380-415/3/50		
RATED CURRENT	Amps	14.3	5.7	7.1	7.2
POWER INPUT	kW	3.1	3.8	4.7	4.7
CONDENSER					
TYPE		TUBE-IN-TUBE			
WATER FLOW RATE	GPM	7.5	9.4	11.3	12.5
	L/S	0.47	0.59	0.71	0.79
WATER PRESSURE DROP	kPa	30	32	38	45
WATER CONNECTION IN/OUT	inch	3/4 FPT	3/4 FPT	3/4 FPT	3/4 FPT
EVAPORATOR					
TYPE		COPPER TUBE AND ALUMINIUM FINS			
BLOWER MOTOR	Watts	330	400	400	400
DIMENSION WxDxH	mm	737x483x1390			992x483x1390
WEIGHT	kgs	116	119	125	131

CAPACITY BASED ON 80 FDB, 67 FWB AIR ENTERING.  
CONDENSER WATER SUPPLY 90°F CONDENSER WATER RETURN 100°F

SPECIFICATIONS ARE SUBJECT TO  
CHANGE WITHOUT PRIOR NOTICE.



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