



# WPR45L

R410a Refrigerant

*Vertical Water Cooled Packaged*

### TECHNICAL SPECIFICATION

Total Cooling Capacity	45.9 kW	Refrigerant	R410A
Electrical Input (Cooling)	11.9 kW	Refrigerant Charge	5.0kg
E.E.R.(Cooling)	3.86	Minimum Water Flow	2.24 l/s
Running Amps (Total)	32.4A	Water Coil Pressure Drop	48kPa
Fan Motor Full Load Amps	6.4 A	Filter (Option)	EU1
Electrical Supply Required	3 Ph.415V.50Hz	Electric Heat (Option)	27 kW

### COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)		2300			
COIL E.A.T.	DB °C	WB °C			
		23	27	31	
Entering Water Temperature (E.W.T) °C	20	T	48.8	51.3	53.9
		S	34.6	39.5	44.0
		FL	2.8	2.8	2.8
		HR	60.7	63.1	65.9
	25	T	46.4	49.3	54.3
		S	34.8	38.6	44.2
		FL	2.8	2.8	2.8
		HR	58.5	61.3	66.9
	30	T	43.6	45.9	51.3
		S	32.3	37.2	43.0
		FL	2.8	2.8	2.8
		HR	55.3	57.8	63.5
	35	T	40.8	42.9	44.6
		S	31.0	35.9	40.3
		FL	2.8	2.8	2.8
		HR	5.5	54.7	56.7
	40	T	38.9	39.9	41.9
		S	30.2	34.7	39.3
		FL	2.8	2.8	2.8
		HR	50.7	51.5	54.1

T = Total Capacity (kW)      S = Sensible Capacity (kW)      FL = Water Flow (l/s)  
 E.A.T.= Entering Air Temperature (°C)      \_ = Nominal Capacity (kW)      HR = Heat Rejection  
**Note:** 1. Capacities are gross and do not include allowance for fan motor heat loss. For fan motor heat loss refers to Air Handling Performance.  
 2. Water flow and cooling capacity based on 5°C water temperature difference

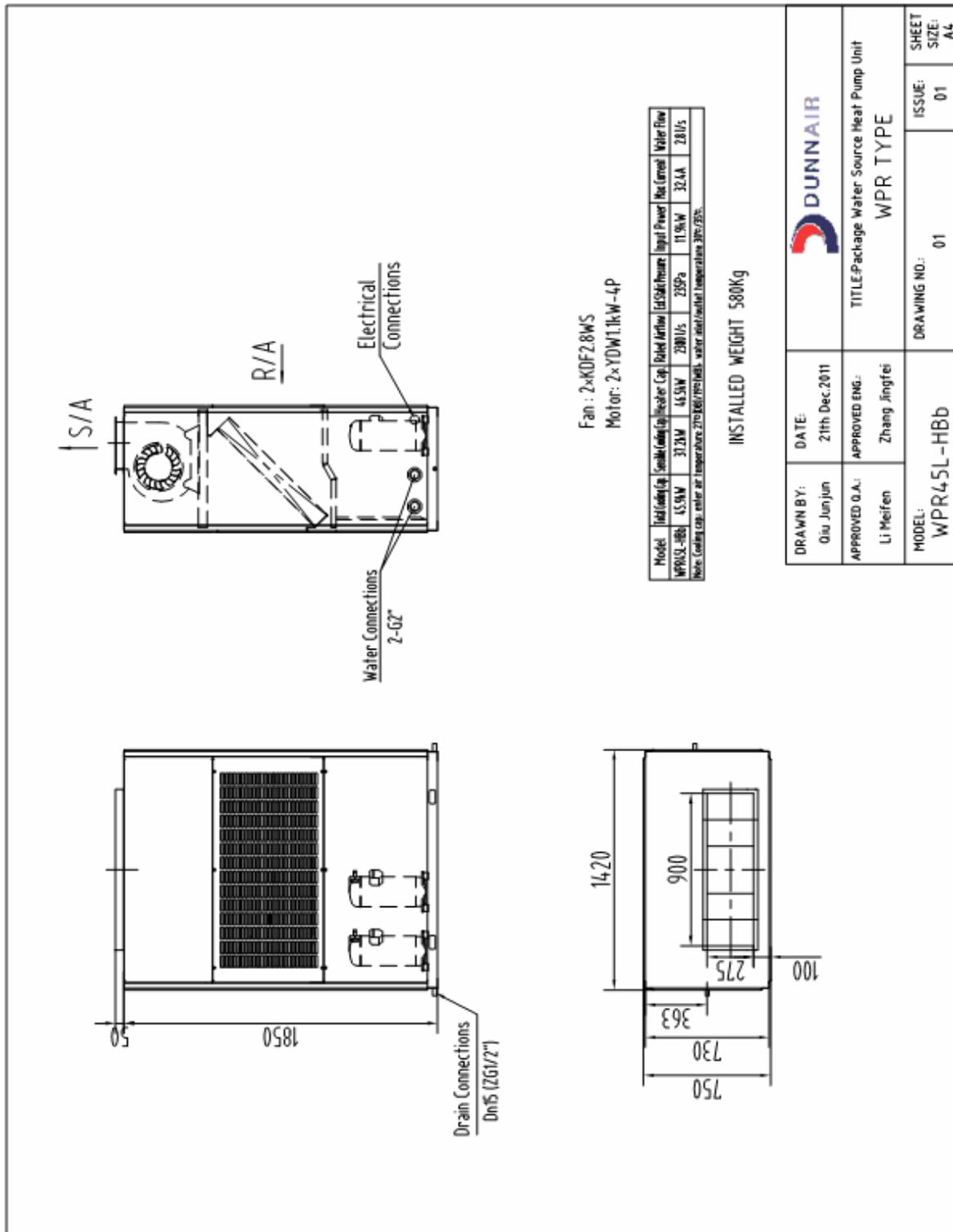
### HEATING CAPACITY (kW)

WPR Reverse Cycle Version

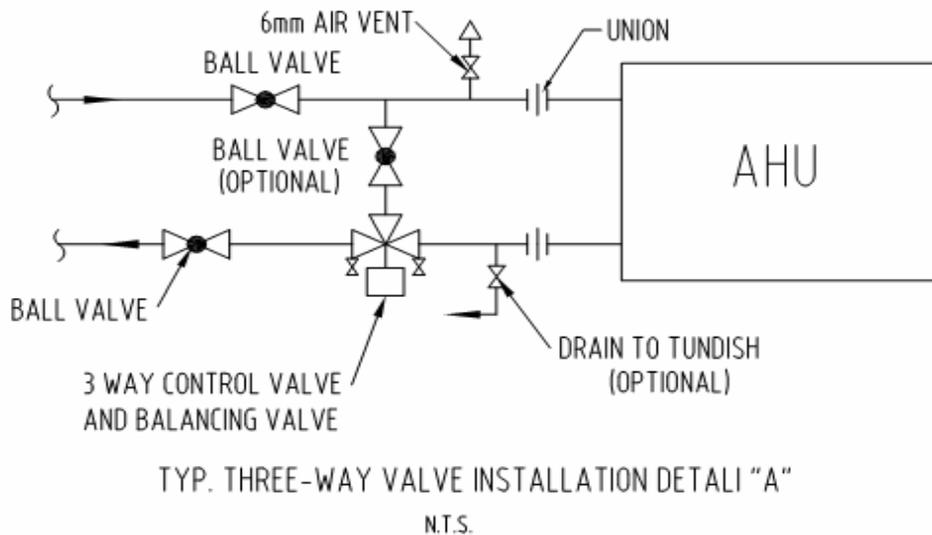
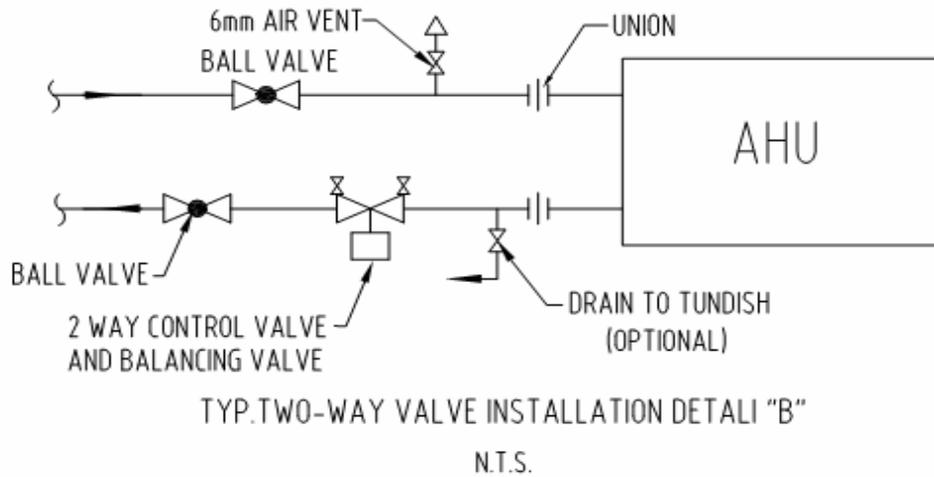
AIR FLOW RATE (L/S)		2300			
WATE FLOW RATE (L/S)		2.8			
COIL E.A.T.	DB °C	18	21	25	
Entering Water Temperature	15	HC	44.1	43.7	41.7
		Hab	32.6	32.1	30.3
		LWT	11.2	11.3	11.4
		INPT	11.6	11.6	11.4
(E.W.T) °C	20	HC	47.0	46.5	44.2
		Hab	35.2	34.7	32.6
		LWT	16.0	16.0	16.2
		INPT	11.8	11.8	11.6
	25	HC	51.0	50.2	48.5
		Hab	38.4	37.7	36.0
		LWT	20.6	20.7	20.9
		INPT	12.6	12.6	12.4

HC = Heating Capacity (kW)      Hab = Heat Absorbed (kW)      L.W.T.= Leaving Water Temperature (°C)  
 E.A.T.= Entering Air Temperature (°C)      INPT = Compressor Input Power (kW)      \_ = Nominal Capacity (kW)  
**Note:** All units are reverse cycle heat pump units. Models can also be provided as cooling only or cooling with electric heater.

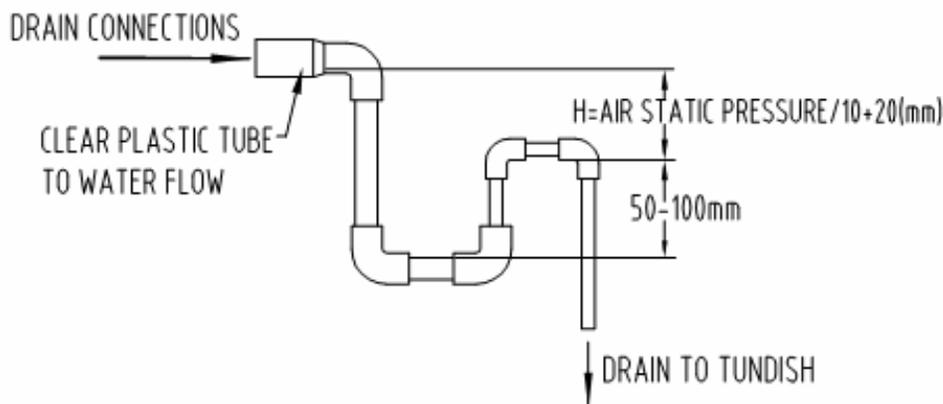
DIMENSIONS (mm)



**WATER SUPPLY & RETURN**

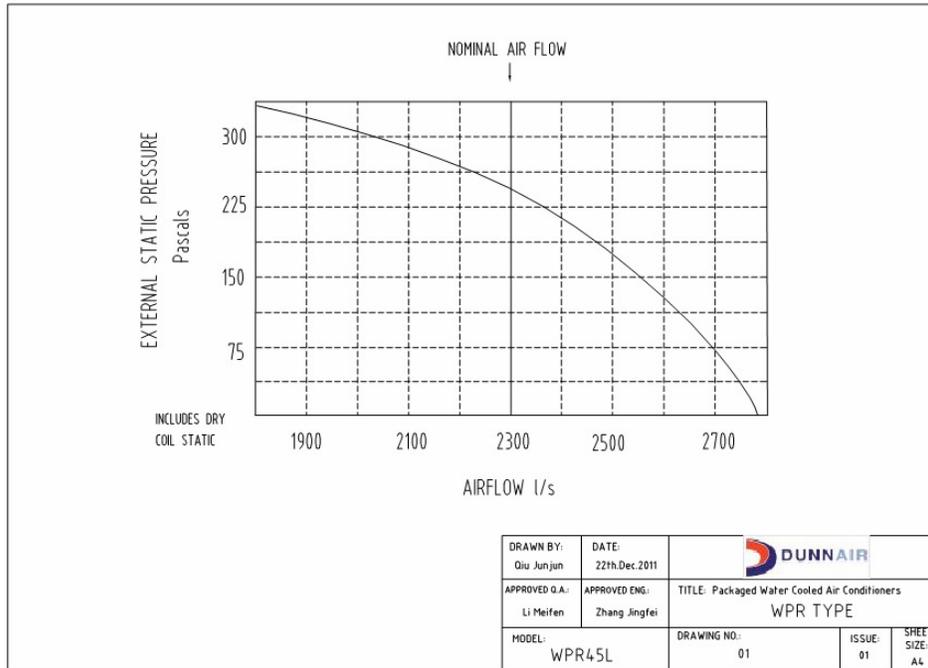


**CONDENSATE DRAIN**



### AIR HANDLING PERFORMANCE

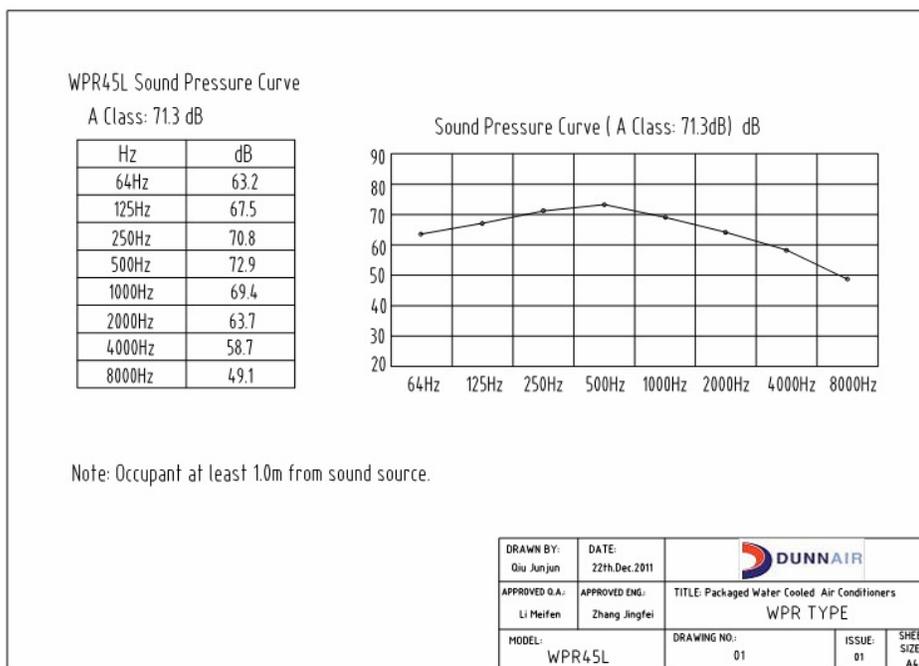
#### Fan Curve (Without Filter)



**Note:**

1. In tropical (high humidity) conditions, care must be taken to select an air flow which gives a suitable coil face air velocity, to prevent water carry over.
2. For applications with low resistance, be sure not to exceed the fan motor full load Amps.
3. Applications using full or high proportions of fresh air should be referred to DUNNAIR engineering office to establish of unit model.
4. EU1 rate filter pressure loss 15Pa.

#### Sound Levels



### WIRING DIAGRAM

