DUNNAIR (Aust) Pty Ltd

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)

WPR45L

AIR FLOW RATE (L/S)		2300			
COIL E.A.T.	DB °C		23	27	31
	WB °C		17	19	21
	20	Т	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
		Т	46.4	49.3	54.3
	25	S	34.8	38.6	44.2
		FL	2.8	2.8	2.8
Entering Water Temperature (E.W.T) °C		HR	58.5	61.3	66.9
	30	Т	43.6	<u>45.9</u>	51.3
		S	32.3	<u>37.2</u>	43.0
		FL	2.8	<u>2.8</u>	2.8
		HR	55.3	<u>57.8</u>	63.5
		Т	40.8	42.9	44.6
	35	S	31.0	35.9	40.3
		FL	2.8	2.8	2.8
		HR	5.5	54.7	56.7
	40	Т	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) E.A.T.= Entering Air Temperature ($^{\circ}\!\!\mathbb{C}$) S = Sensible Capacity (kW) FL = Water Flow (l/s) __ = 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 $^\circ \! \mathrm{C}$ 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	3 °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	<u>16.0</u>	16.2	
		INPT	11.8	11.8	11.6	
		HC	51.0	50.2	48.5	
	25	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)

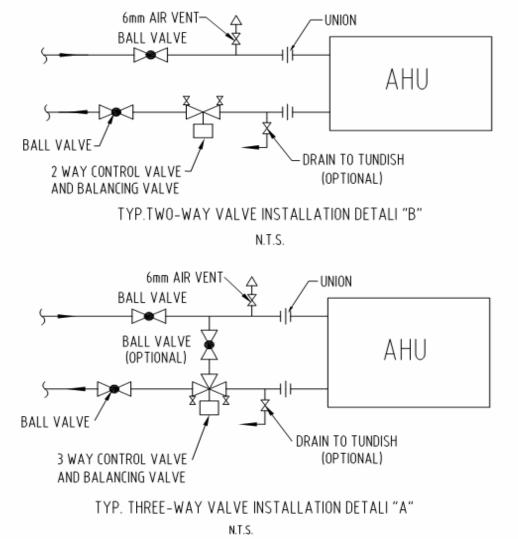
L.W.T.= Leaving Water Temperature ($^{\circ}C$) ___ = Nominal Capacity (kW)

E.A.T.= Entering Air Temperature (°C) INPT = Compressor Input Power (kW) ___ = Nominal Capacit **Note:** All units are reverse cycle heat pump units. Models can also be provided as cooling only or cooling with electric heater.

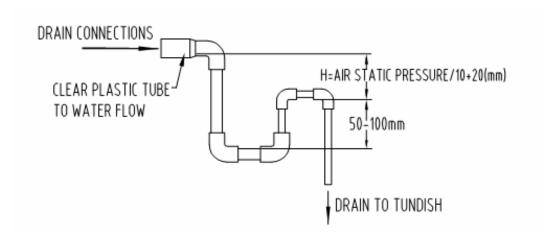
SHEET SIZE: TITLE:Package Water Source Heat Pump Unit ISSUE: 01 DUNNAIR WPR TYPE Theficking (seakining(a)Therier Cap, Rotel Minhu (14/Satinhaume Toput Puwer The Grovel Valee Flow 15/Suv 31/Suv 44/Suv 280105 2359-0 11/Suv 32.4A 28015 Coding caps enter air tengerature 200 DB(/1900 hB), water iniet/suffet hengerature 300-/355 5 Connections DRAWING NO.: INSTALLED WEIGHT 580Kg Electrical Motor: 2×YDW1.1kW-4P Fan : 2×KDF2.8WS R/A 21th Dec.2011 Zhang Jingfei APPROVED ENG: S/A MODEL: WPR45L-HBb DATE Ľ ll \$ VI6S1 APPROVED Q.A.I aiu Junjun DRAWN BY: Li Meifen PNXL-IBb Water Connections 2-62* 1420 900 512 001 898 **Drain Connections** 058L 05 0EL Dnf5 (261/2") OSL

DIMENSIONS (mm)

WATER SUPPLY & RETURN

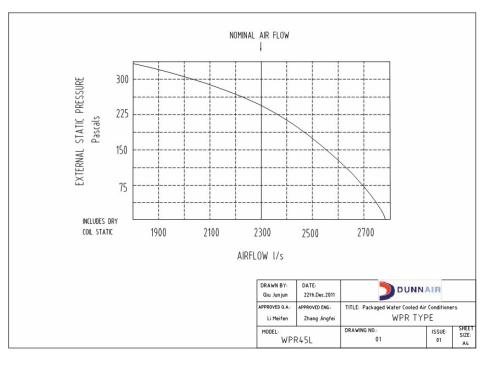


CONDENSATE DRAIN



AIR HANDLING PERFORMANCE

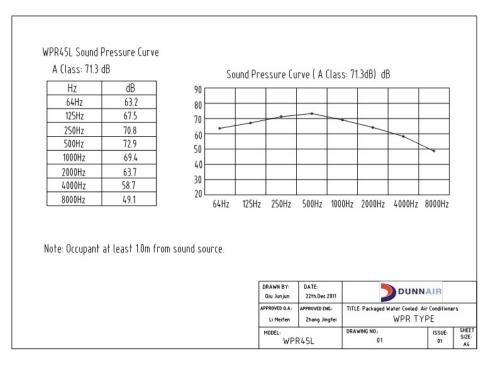
Fan Curve (Without Filter)



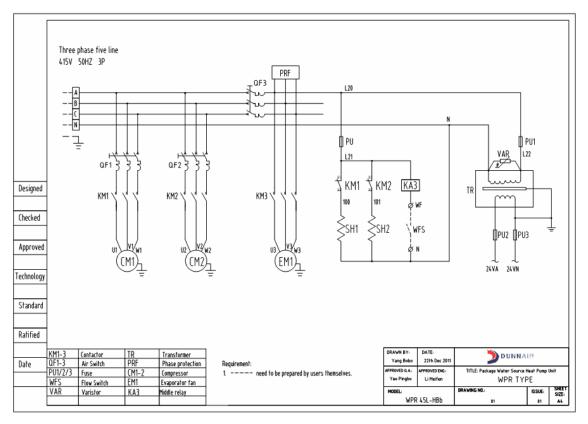
Note:

- In tropical (high humidity) conditions, care must be token to select an air flow which gives a suitable coil face air velocity, to prevent water carry over. For applications with low resistance, be sure not to exceed the fan motor full load Amps. 1. 2. 3. 4.
- EU1 rate filter pressure loss 15Pa.

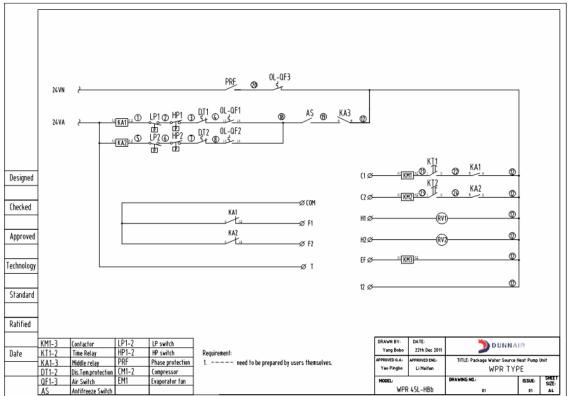
Sound Levels



DUNNAIR (Aust) Pty Ltd supports a policy of continuous improvement. Therefore specifications and designs are subject to change without prior notice. Page 4 Released Feb 2012 V 2



WIRING DIAGRAM



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