



WPR84L

R410a Refrigerant

Vertical Water Cooled Packaged

TECHNICAL SPECIFICATION

Total Cooling Capacity	83.5 kW	Refrigerant	R410A
Electrical Input (Cooling)	20.8kW	Refrigerant Charge	2*4.5kg
E.E.R.(Cooling)	4.0	Minimum Water Flow	4.08 l/s
Running Amps (Total)	55.8A	Water Coil Pressure Drop	48kPa
Fan Motor Full Load Amps	11.6A	Filter (Option)	EU1
Electrical Supply Required	3 Ph.415V.50Hz	Electric Heat (Option)	57 kW

COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)		4200			
COIL E.A.T.	DB °C	23	27	31	
	WB °C	17	19	21	
Entering Water Temperature (E.W.T) °C	20	T	88.7	93.4	99.0
		S	63.0	71.9	80.6
		FL	5.1	5.1	5.1
		HR	109.3	113.8	119.8
	25	T	84.4	89.8	98.7
		S	63.5	70.4	80.5
		FL	5.1	5.1	5.1
		HR	105.2	110.4	119.8
	30	T	79.3	83.5	93.3
		S	58.8	67.7	78.3
		FL	5.1	5.1	5.1
		HR	99.7	104.3	114.7
	35	T	74.2	78.1	81.2
		S	56.5	65.5	73.5
		FL	5.1	5.1	5.1
		HR	95.0	99.1	102.6
	40	T	70.8	72.6	76.2
		S	55.0	63.2	71.6
		FL	5.1	5.1	5.1
		HR	92.4	93.6	98.3

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)

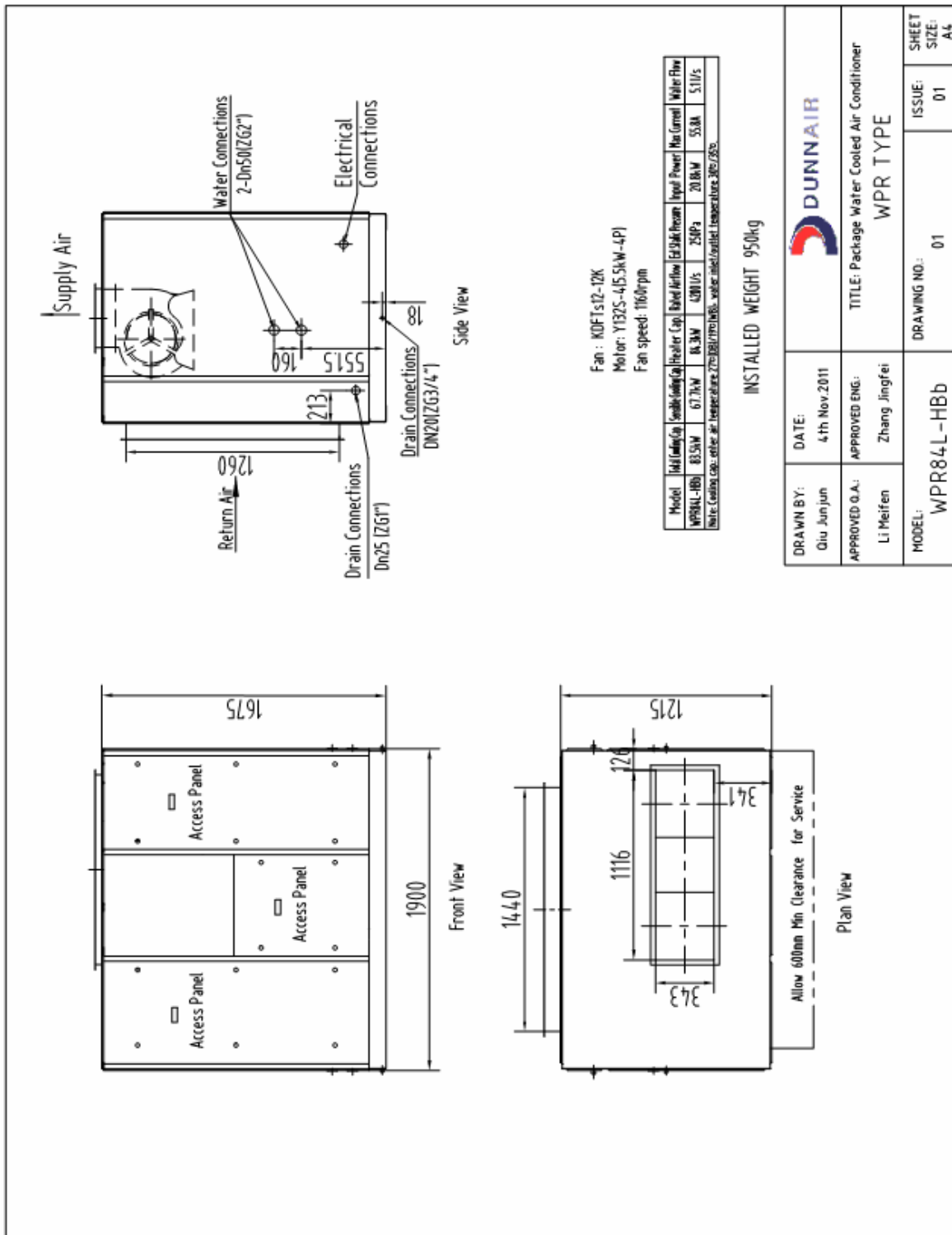
WPR Reverse Cycle Version

AIR FLOW RATE (L/S)		4200			
WATE FLOW RATE (L/S)		5.1			
COIL E.A.T.	DB °C	18	21	25	
Entering Water Temperature (E.W.T) °C	15	HC	80.4	79.4	76.1
		Hab	60.6	59.5	56.4
		LWT	11.2	11.3	11.4
		INPT	19.8	19.8	19.7
	20	HC	85.3	84.3	80.3
		Hab	64.5	63.4	60.2
		LWT	16.0	16.0	16.2
		INPT	20.8	20.7	20.1
	25	HC	92.8	91.2	88.3
		Hab	70.5	69.0	66.5
		LWT	20.6	20.7	20.9
		INPT	22.3	22.2	21.7

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)



Model	Total Cooling Capacity (kW)	Rated Airflow (m³/s)	Rated Power (kW)	Rated Refrigerant Flow (kg/h)	Rated Evaporator Temperature (°C)	Rated Condenser Temperature (°C)	Water Flow (L/min)
WPR84L-HBb	83.5kW	67.7m³/s	18.3kW	4.0m³/h	5°C	35°C	5.5L/min

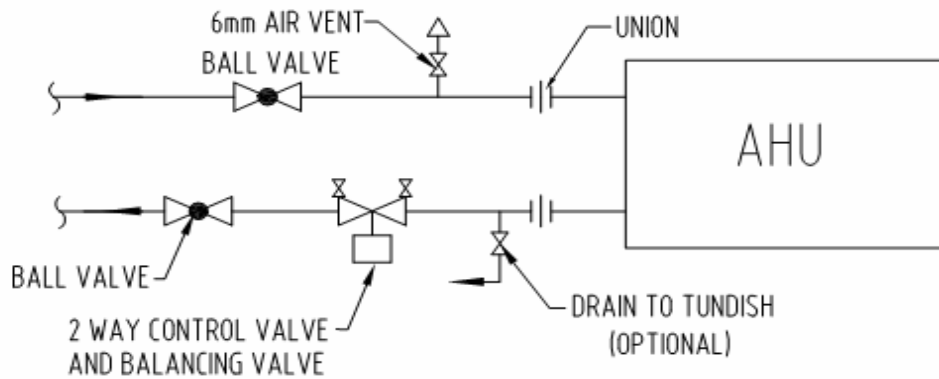
Water Cooling capacity: air temperature 27°C DB/19°C WB; water inlet/outlet temperatures 30°C/28°C.

Fan : KDF1s12-12K
 Motor: Y132S-4(5.5kW-4P)
 Fan speed: 1160rpm

INSTALLED WEIGHT 950kg

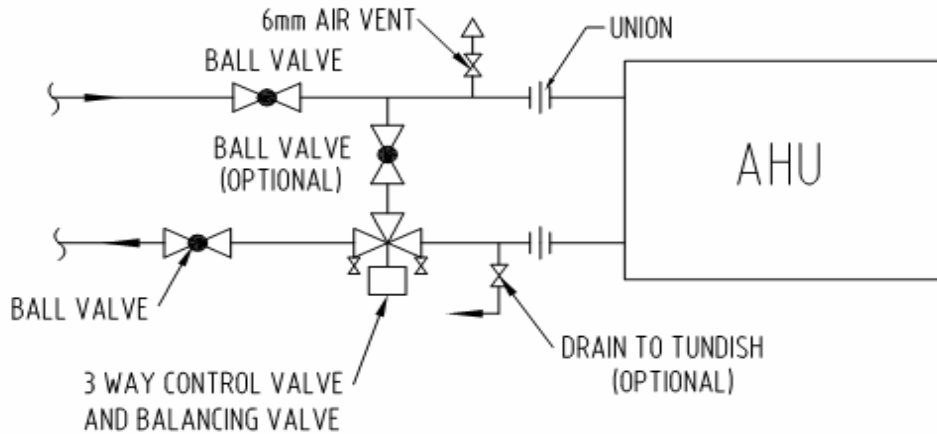
DRAWN BY: Qiu Junjun	DATE: 4th Nov 2011
APPROVED O.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei
MODEL: WPR84L-HBb	DRAWING NO.: 01
TITLE: Package Water Cooled Air Conditioner WPR TYPE	
ISSUE: 01	SHEET SIZE: A4

WATER SUPPLY & RETURN



TYP. TWO-WAY VALVE INSTALLATION DETAIL "B"

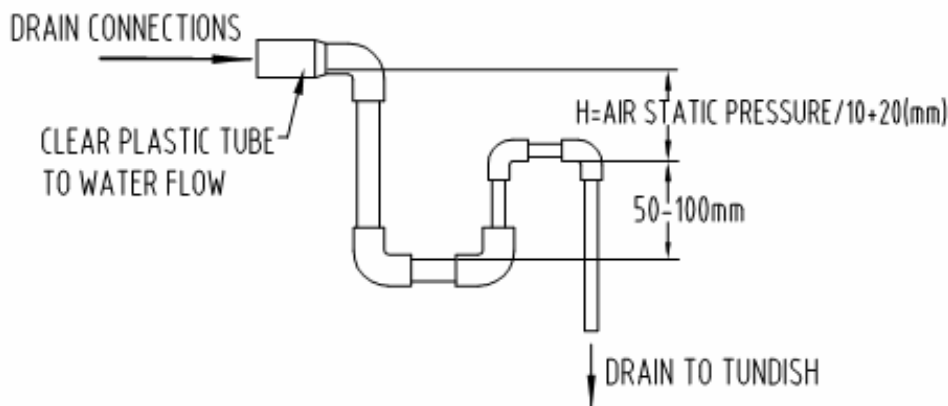
N.T.S.



TYP. THREE-WAY VALVE INSTALLATION DETAIL "A"

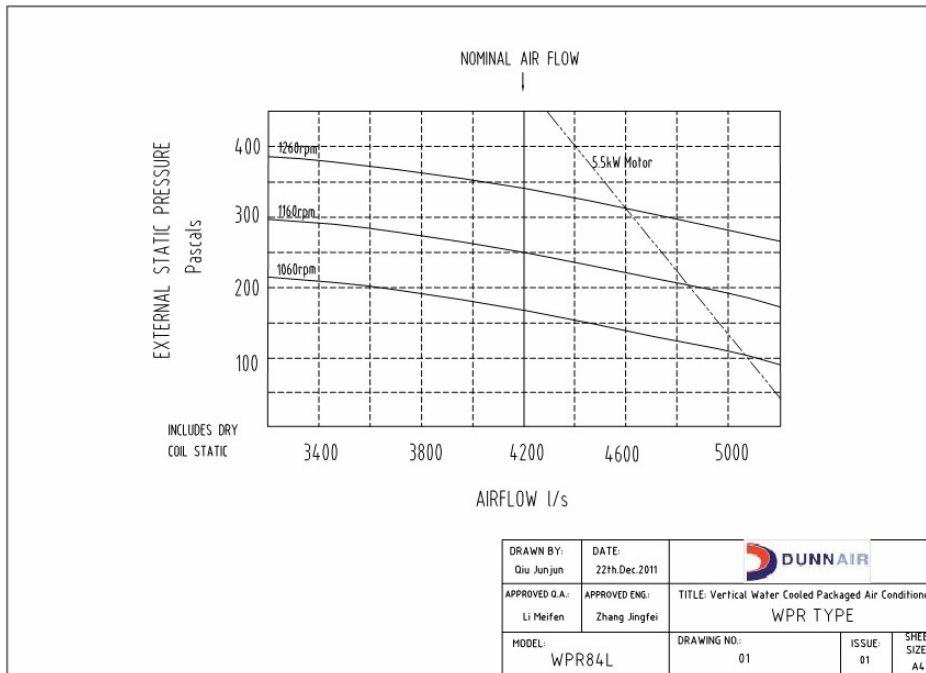
N.T.S.

CONDENSATE DRAIN



AIR HANDLING PERFORMANCE

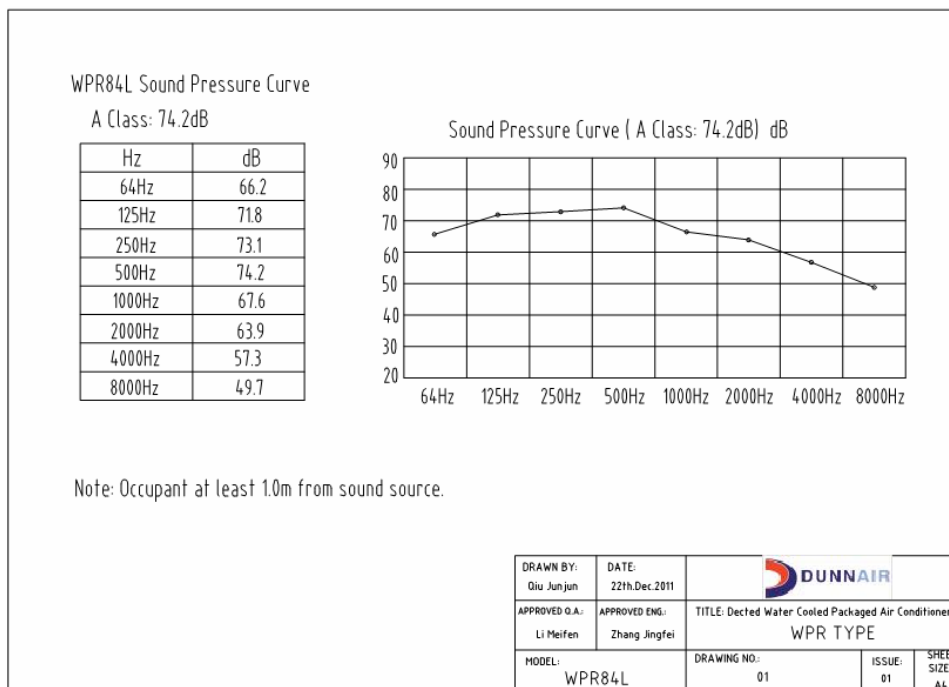
Fan Curve (Without Filter)



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

