

TECHNICAL SPECIFICATION

Total Cooling Capacity	4.1 kW	Refrigerant	R410A
Electrical Input (Cooling)	1.1 kW	Refrigerant Charge	1.0 kg
E.E.R.(Cooling)	3.73	Minimum Water Flow	0.2 l/s
Running Amps (Total)	6.4 A	Water Coil Pressure Drop	38 kPa
Fan Motor Full Load Amps	1.8A	Filter (Option)	EU1
Electrical Supply Required	1 Ph.240V.50Hz	Electric Heat (Option)	3 kW

COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)			210		
COIL E.A.T.	DB °C		23	27	31
	WB °C		17	19	21
Entering Water Temperature (E.W.T) °C	20	T	4.4	4.6	4.8
		S	3.1	3.6	4.0
		FL	0.25	0.25	0.25
		HR	5.4	5.6	5.9
	25	T	4.1	4.4	4.8
		S	3.1	3.5	4.0
		FL	0.25	0.25	0.25
		HR	5.2	5.4	5.9
	30	T	3.9	4.1	4.6
		S	2.9	3.4	3.9
		FL	0.25	0.25	0.25
		HR	5.0	5.1	5.6
	35	T	3.6	3.8	4.0
		S	2.8	3.2	3.6
		FL	0.25	0.25	0.25
		HR	4.6	4.8	4.9
	40	T	3.5	3.6	3.7
		S	2.7	3.1	3.6
		FL	0.25	0.25	0.25
		HR	4.4	4.4	4.8

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)
WSR Reverse Cycle Version

AIR FLOW RATE (L/S)			210		
WATE FLOW RATE (L/S)			0.25		
COIL E.A.T.	DB °C		18	21	25
Entering Water Temperature (E.W.T) °C	10	HC	3.8	3.6	3.5
		Hab	2.8	2.6	2.4
		LWT	6.3	6.4	6.5
		INPT	1.0	1.0	1.0
	15	HC	4.0	3.9	3.8
		Hab	3.1	3	2.9
		LWT	11.1	11.1	11.2
		INPT	0.9	1.0	1.0
	20	HC	4.2	4.2	4.1
		Hab	3.3	3.2	3.2
		LWT	15.8	15.9	15.9
		INPT	0.9	1.0	1.0
	25	HC	4.6	4.5	4.5
		Hab	3.6	3.5	3.4
		LWT	20.5	20.6	20.6
		INPT	1.0	1.0	1.1

HC = Heating Capacity (kW)

Hab = Heat Absorbed (kW)

L.W.T.= Leaving Water Temperature (°C)

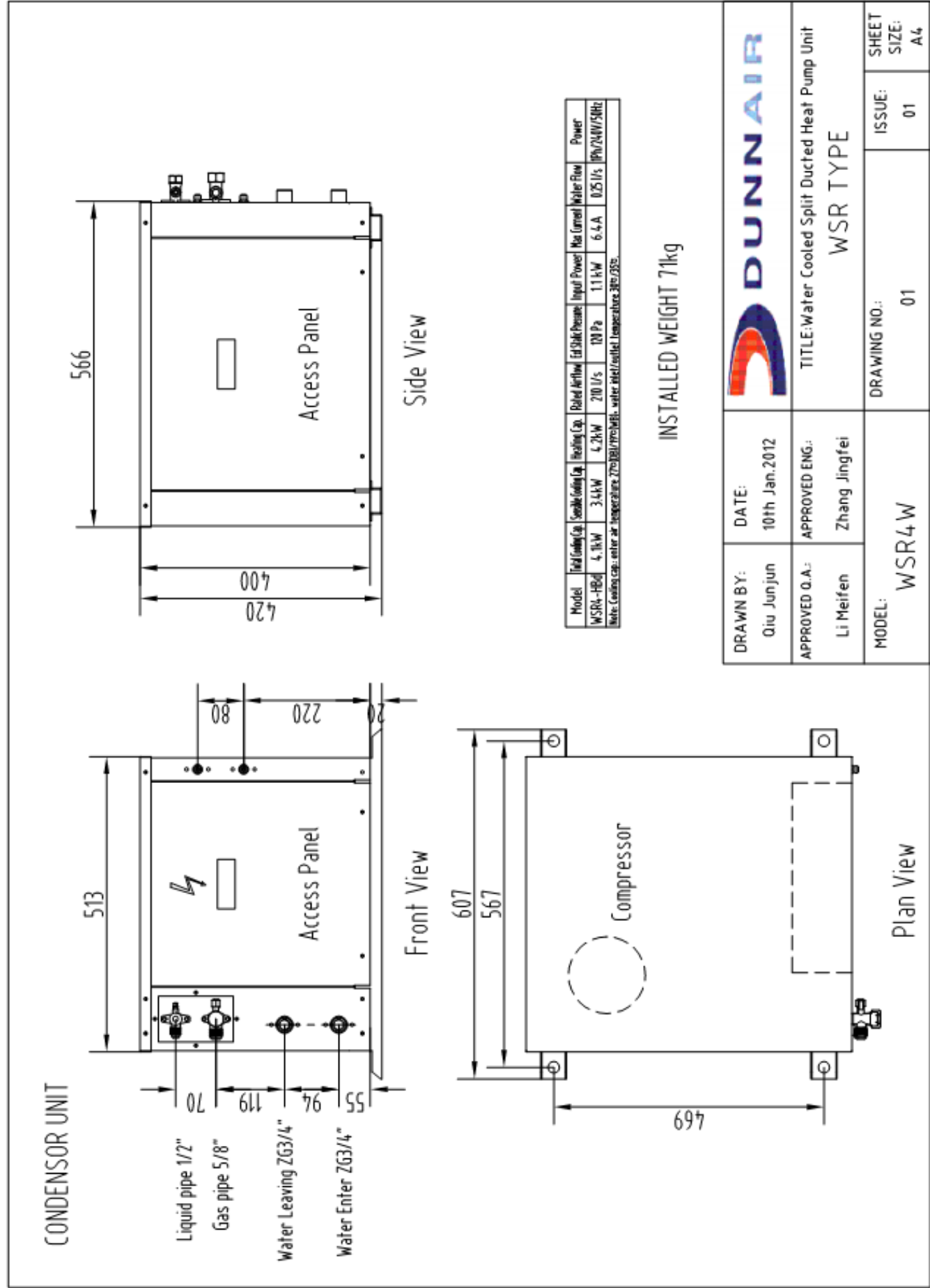
E.A.T.= Entering Air Temperature (°C)

INPT = Compressor Input Power (kW)

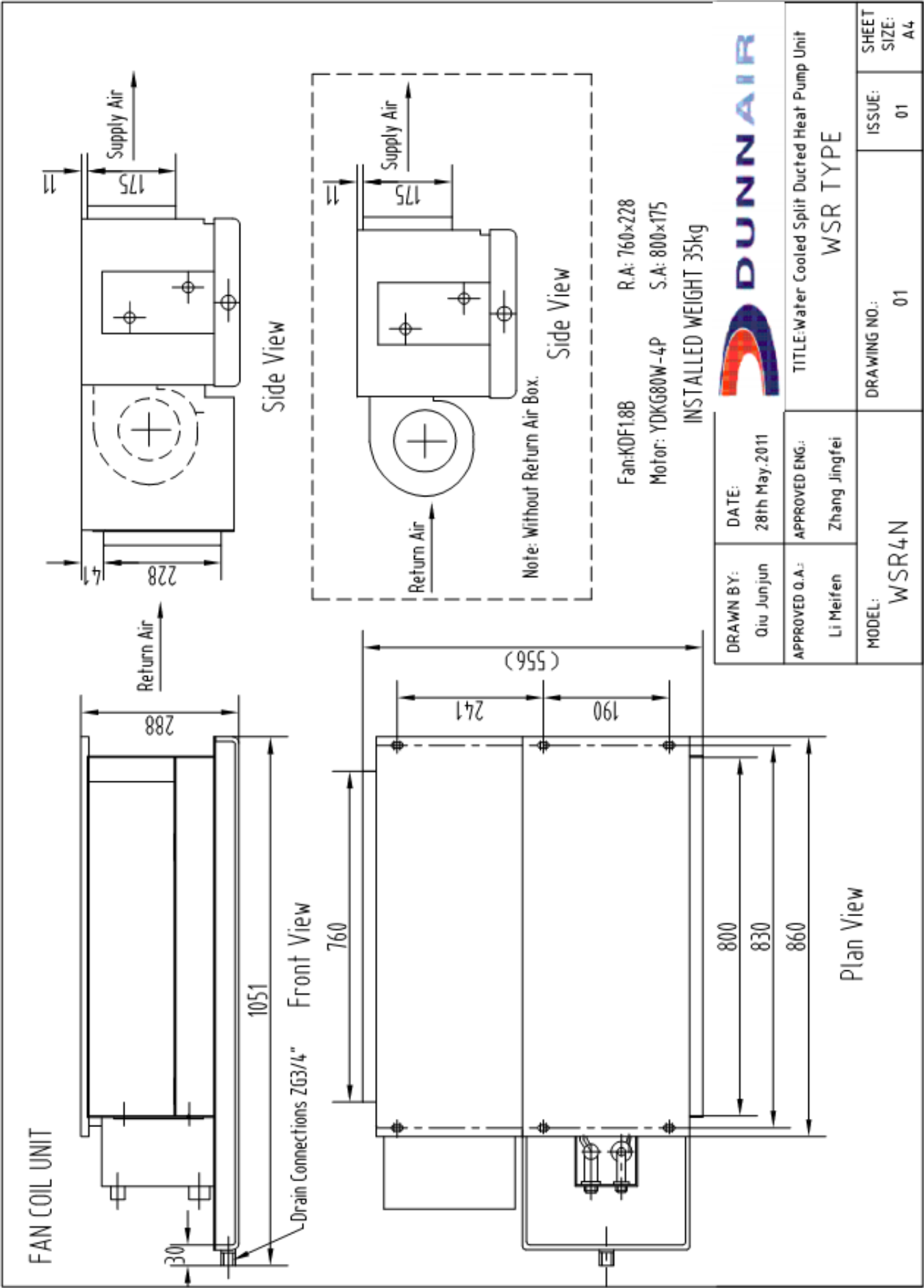
— = Nominal Capacity (kW)

Note: Units are available as cooling only, cooling only with electric heater and heat pump types

DIMENSIONS (mm) – Outdoor Unit



DIMENSIONS (mm) – Indoor Unit



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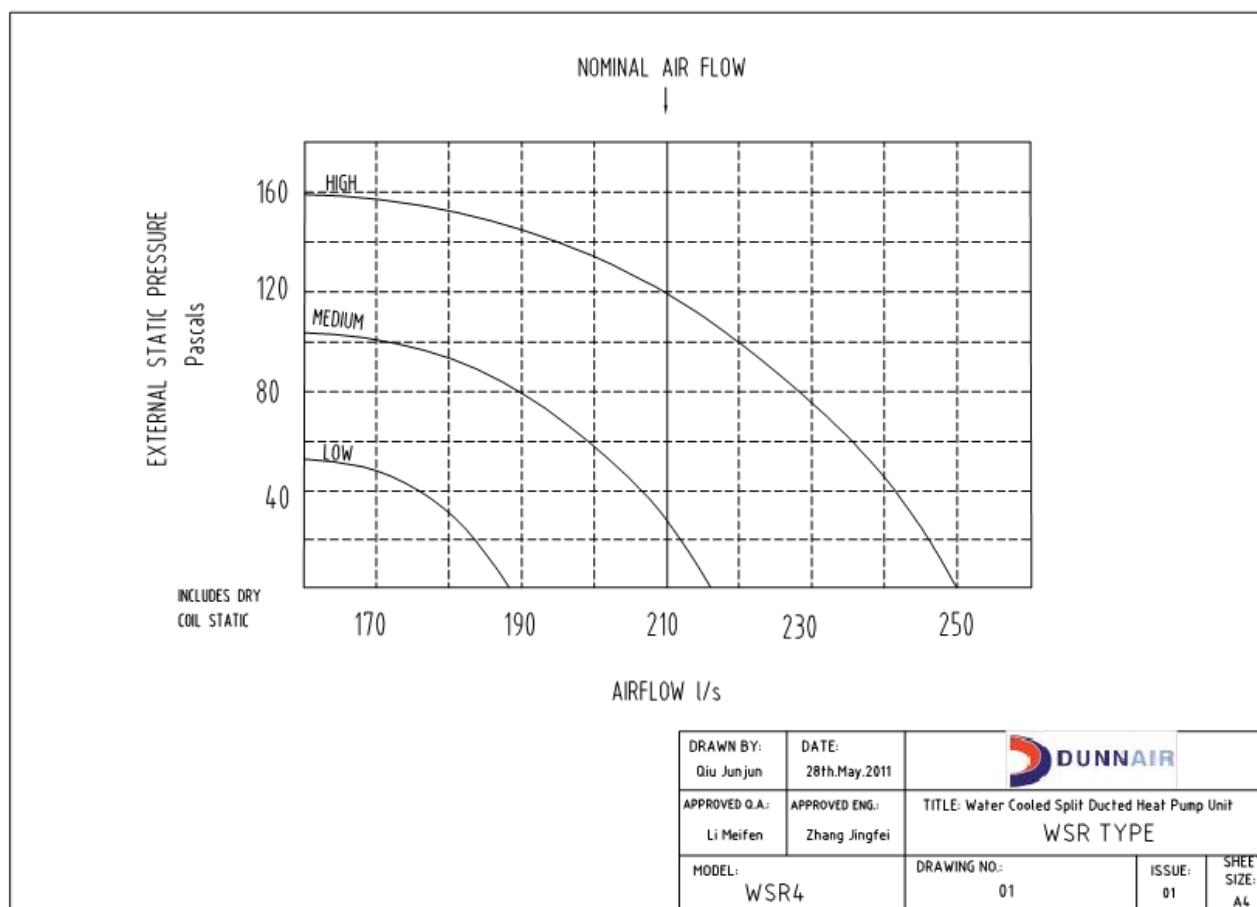
V4.4

Cooling only with
Electric heater
Power supply
240V 50HZ 1phase

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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.

AIR HANDLING PERFORMANCE

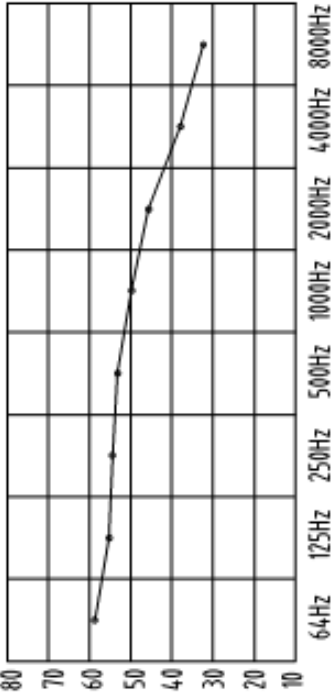
Sound Levels

WSR4W Condenser unit sound pressure curve

A Class: 54.5dB

Hz	dB
64Hz	59.1
125Hz	55.3
250Hz	54.6
500Hz	51.5
1000Hz	49.7
2000Hz	46.0
4000Hz	38.2
8000Hz	33.4

Sound pressure curve (A Class: 54.5dB) dB

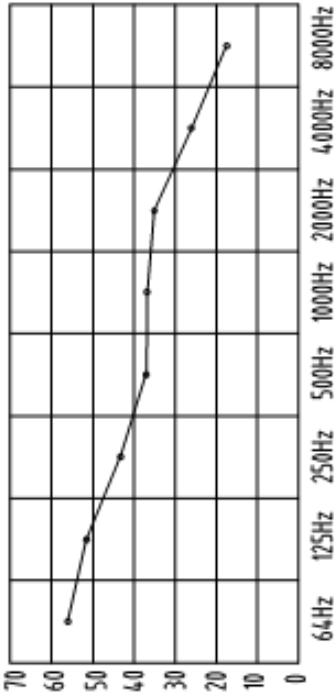


WSR4N Fan coil unit sound pressure curve

A Class: 48.5dB

Hz	dB
64Hz	56.5
125Hz	50.9
250Hz	43.2
500Hz	38.4
1000Hz	38.2
2000Hz	36.1
4000Hz	26.8
8000Hz	18.3

Sound pressure curve (A Class: 48.5dB) dB



Note: Occupant at least 1.0m from sound source.

DRAWN BY: Qiu Junjun		DATE: 28th May 2011			
APPROVED O.A.: Li Meifen		APPROVED ENG.: Zhang Jingfei	TITLE: Water Cooled Split Ducted Heat Pump Unit		
MODEL: WSR4		DRAWING NO.: 01		ISSUE: 01	SHEET SIZE: A4
WSR TYPE					