DUNNAIR
Established 1961

R410a Refrigerant

WSR6.5

Water Cooled Split Ducted

TECHNICAL SPECIFICATION

Total Cooling Capacity	6.3 kW	Refrigerant	R410A
Electrical Input (Cooling)	1.61 kW	Refrigerant Charge	1.5 kg
E.E.R.(Cooling)	3.91	Minimum Water Flow	0.32 l/s
Running Amps (Total)	11.2 A	Water Coil Pressure Drop	38 kPa
Fan Motor Full Load Amps	1.3A	Filter (Option)	EU1
Electrical Supply Required	1 Ph.240V.50Hz	Electric Heat (Option)	4.5 kW

COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)			330		
COIL E.A.T.	DB ℃		23	27	31
	WB ℃		17	19	21
Entering Water Temperature (E.W.T) ℃	20	T	6.7	7.0	7.4
		S	4.8	5.5	6.2
		FL	0.4	0.4	0.4
		HR	8.3	8.6	9.0
	25	T	6.4	6.8	7.4
		S	4.9	5.4	6.2
		FL	0.4	0.4	0.4
		HR	8.0	8.4	9.1
	30	T	6.0	6.3	7.0
		S	4.5	5.2	6.0
		FL	0.4	0.4	0.4
		HR	7.6	7.9	8.7
	35	T	5.6	5.9	6.1
		S	4.3	5.0	5.7
		FL	0.4	0.4	0.4
		HR	7.3	7.5	7.8
	40	T	5.3	5.5	5.8
		S	4.2	4.9	5.5
		FL	0.4	0.4	0.4
		HR	7.0	7.1	7.5

T = Total Capacity (kW) **S** = Sensible Capacity (kW) **FL** = Water Flow rate (l/s)
E.A.T.= Entering Air Temperature (℃) __ = Nominal Capacity (kW) **HR** = Heat Rejection

Note: 1. Capacities are indicative and do not include allowance for fan motor heat loss. For fan motor heat loss, please refer to Air Handling Performance.
2. Water flow rate and cooling capacity are based on 5℃ water temperature difference.

HEATING CAPACITY (kW)

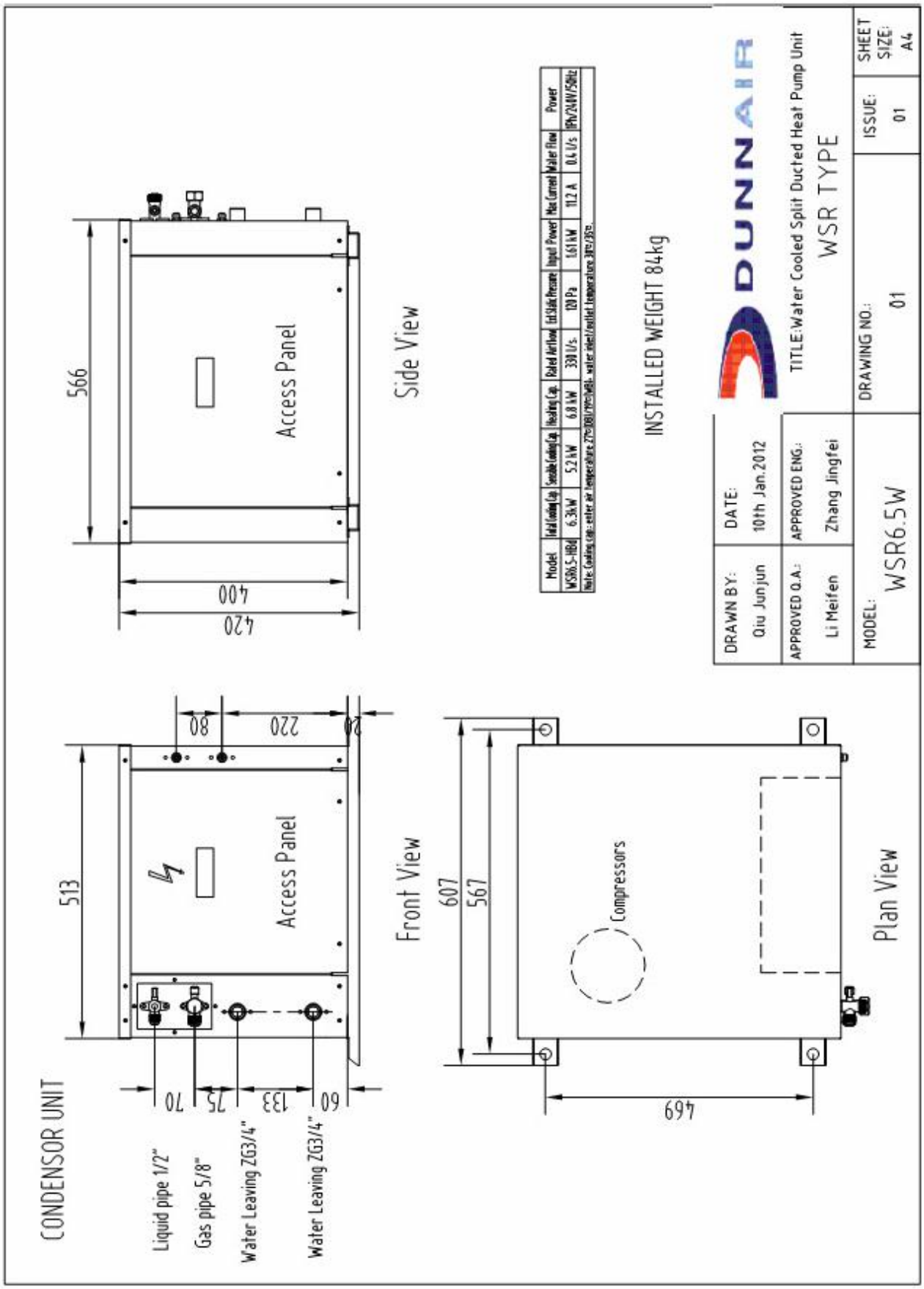
WSR Reverse Cycle Version

AIR FLOW RATE (L/S)			330		
WATE FLOW RATE (L/S)			0.40		
COIL E.A.T.	DB ℃		18	21	25
Entering Water Temperature (E.W.T) ℃	10	HC	6.0	5.9	5.6
		Hab	4.3	4.1	3.9
		LWT	6.4	6.5	6.6
		INPT	1.7	1.8	1.8
	15	HC	6.5	6.4	6.1
		Hab	4.8	4.8	4.5
		LWT	11.1	11.2	11.4
		INPT	1.6	1.7	1.7
	20	HC	6.9	6.8	6.5
		Hab	5.3	5.2	4.8
		LWT	15.9	15.9	16.1
		INPT	1.6	1.6	1.6
	25	HC	7.5	7.3	7.1
		Hab	5.7	5.5	5.4
		LWT	20.5	20.6	20.8
		INPT	1.7	1.7	1.7

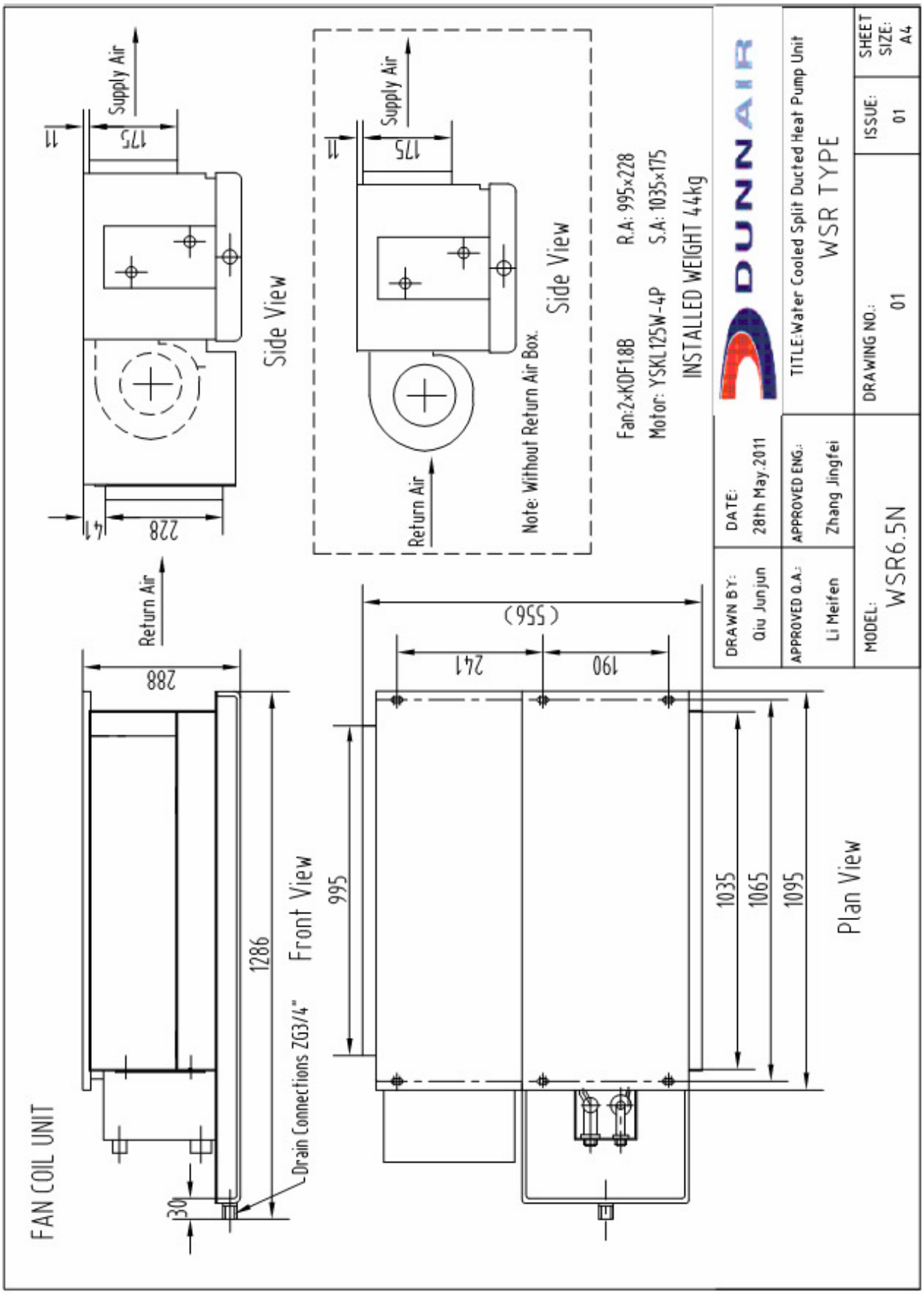
HC = Heating Capacity (kW) **Hab** = Heat Absorbed (kW) **L.W.T.**= Leaving Water Temperature (℃)
E.A.T.= Entering Air Temperature (℃) **INPT** = Compressor Input Power (kW) __ = Nominal Capacity (kW)

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

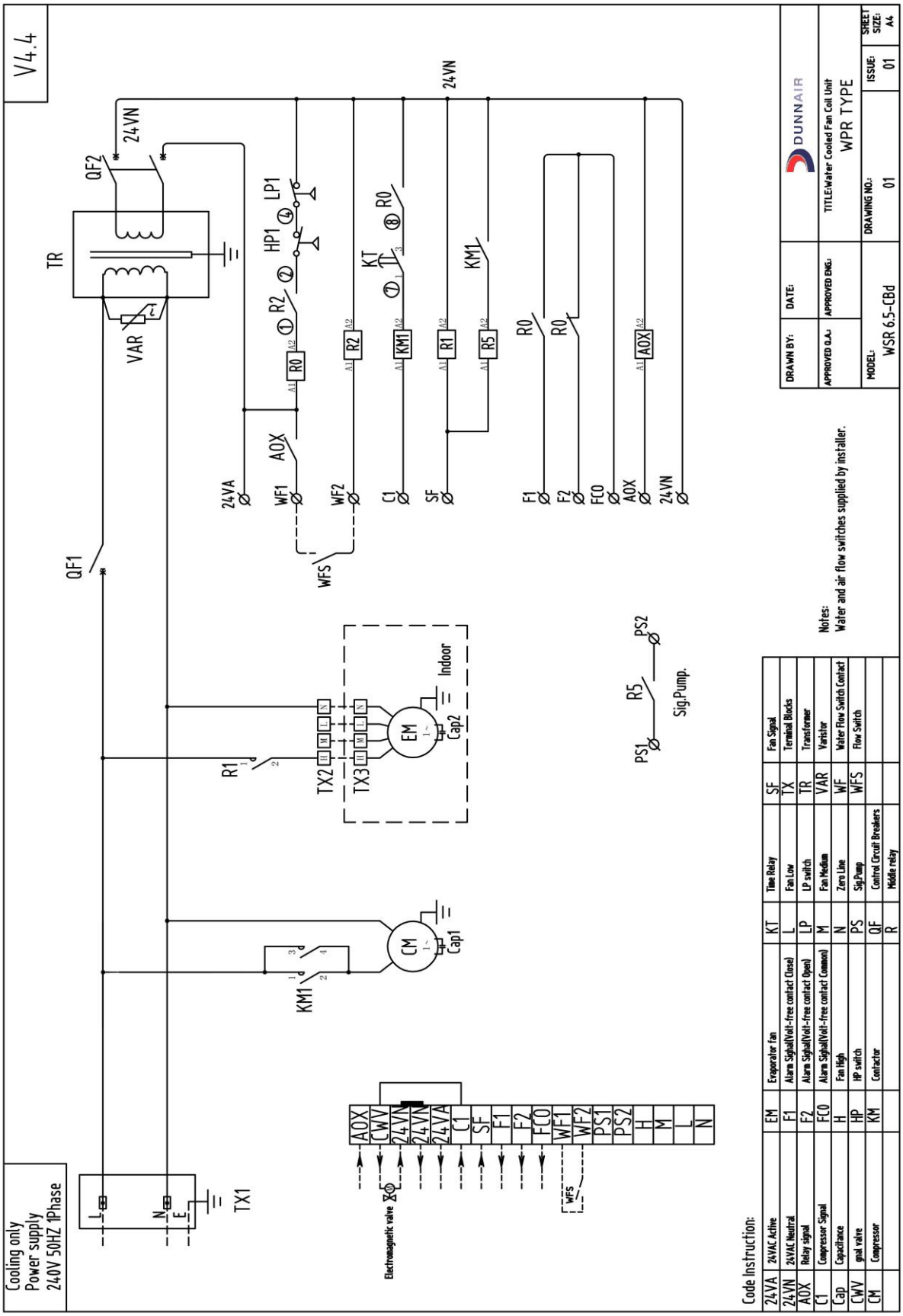
DIMENSIONS (mm) – Outdoor Unit



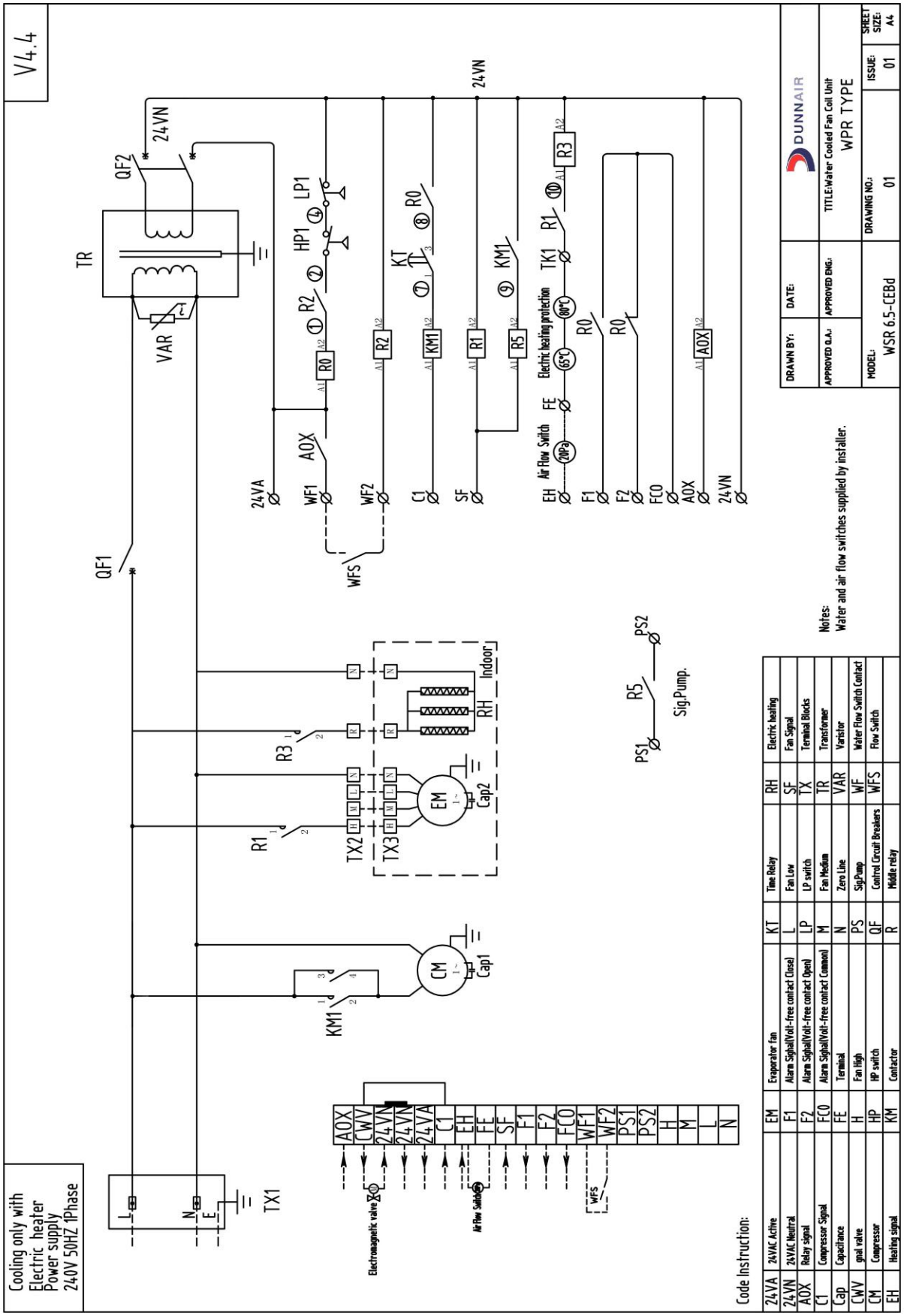
DIMENSIONS (mm) – Indoor Unit



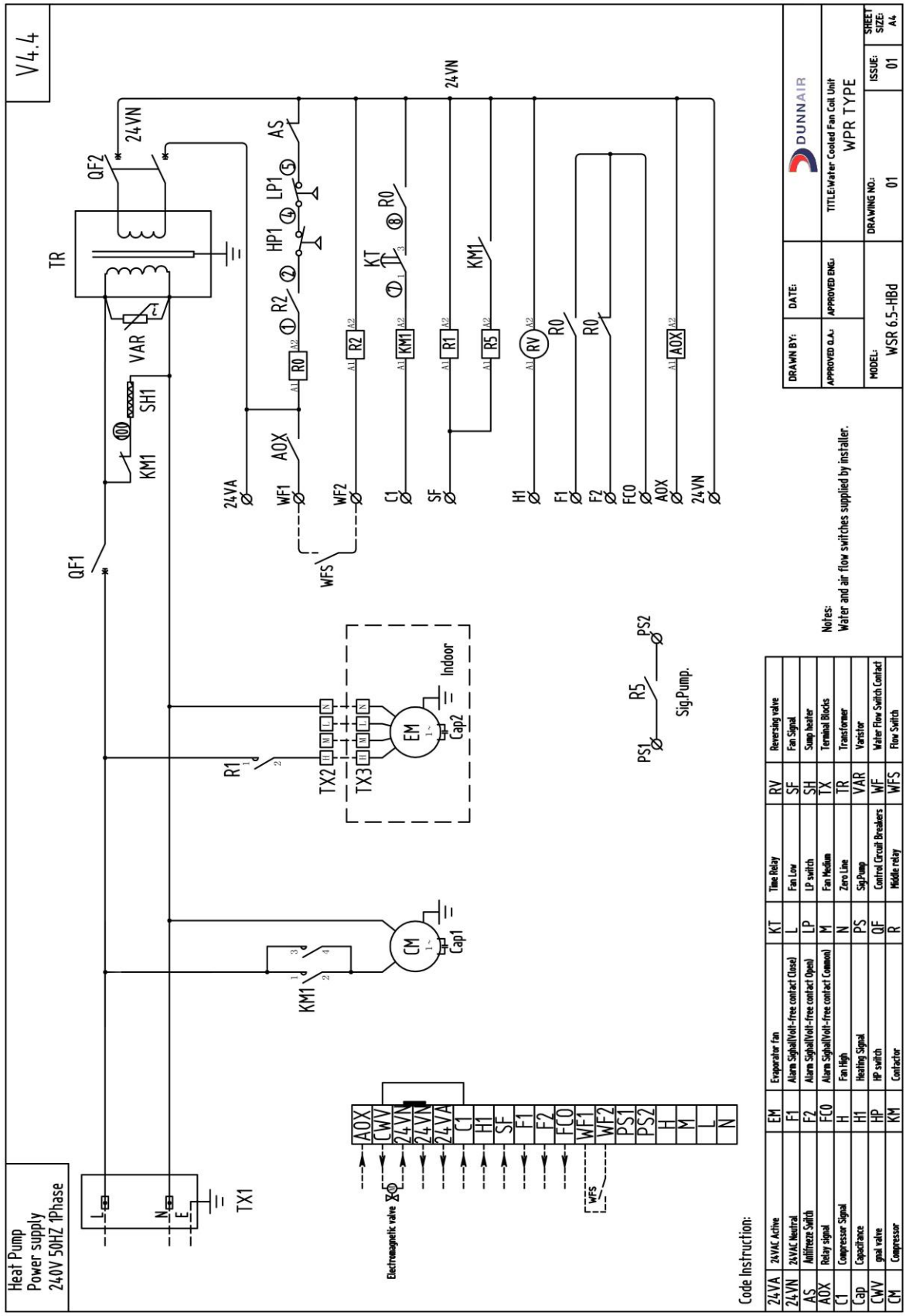
WIRING DIAGRAM - Cooling Only Type



WIRING DIAGRAM - Cooling Only with Electric Heater Type

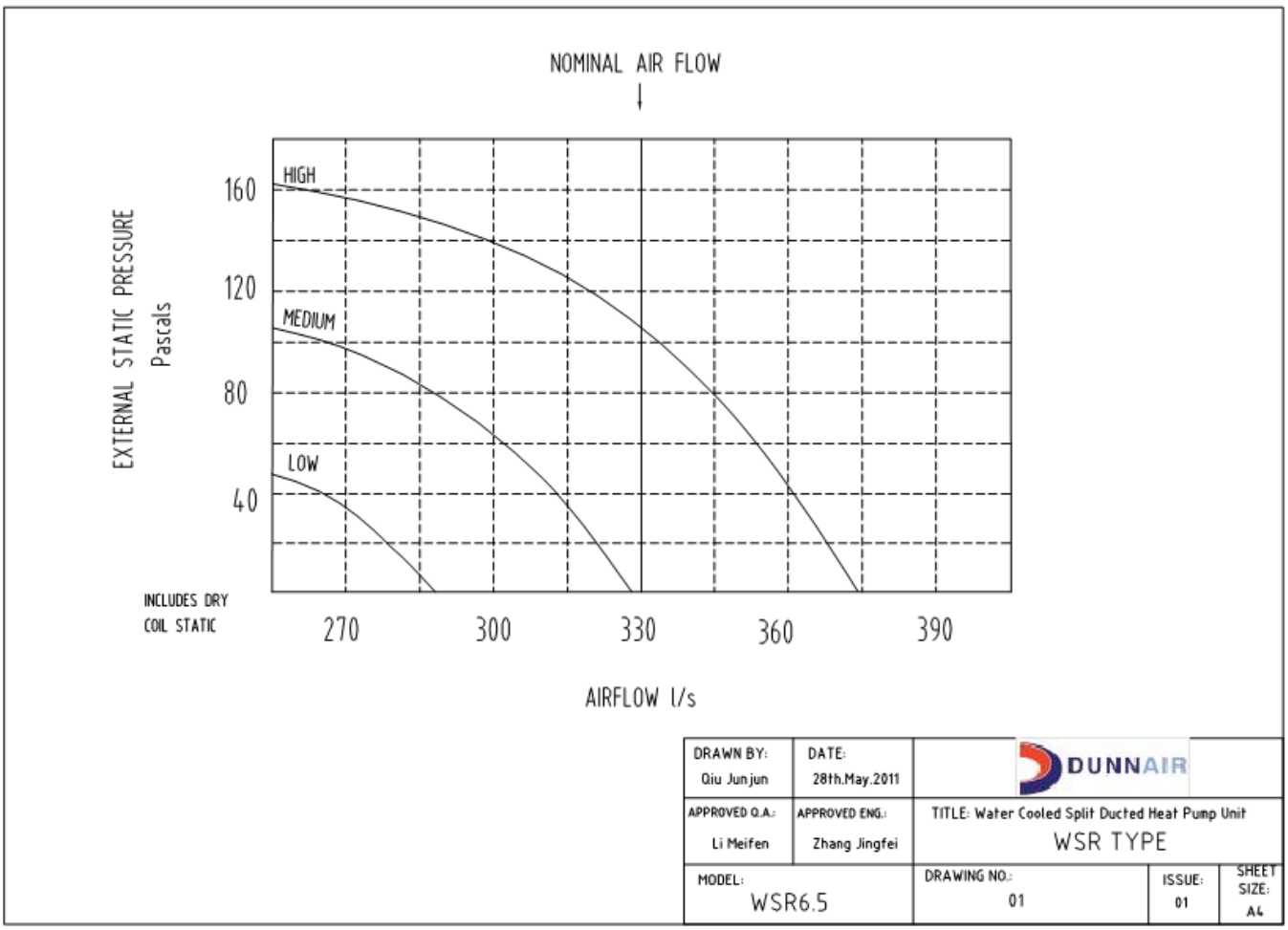


WIRING DIAGRAM - Heat Pump Type



AIR HANDLING PERFORMANCE

Fan Curve (Without Filter)



Note:

1. 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.
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.

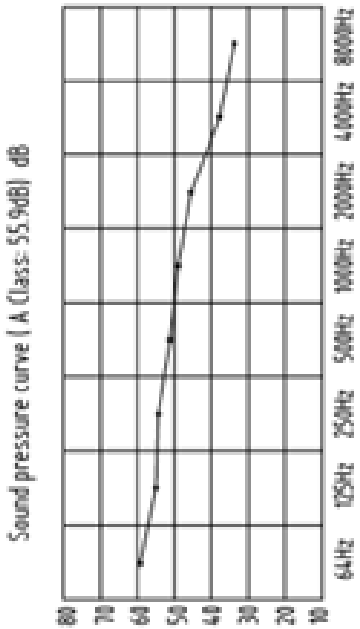
AIR HANDLING PERFORMANCE

Sound Levels

WSR6.5W Condenser unit sound pressure curve

A Class: 55.9dB

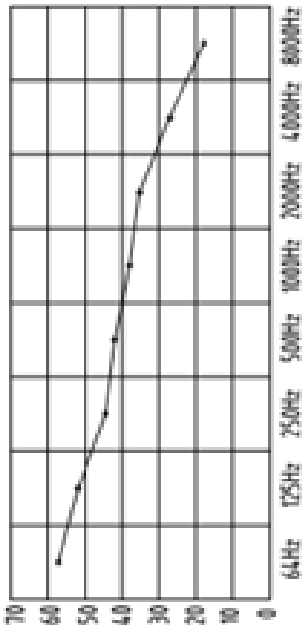
Hz	dB
64Hz	58.9
125Hz	55.1
250Hz	54.5
500Hz	50.8
1000Hz	49.7
2000Hz	46.2
4000Hz	38.5
8000Hz	33.6



WSR6.5N Fan coil unit sound pressure curve

A Class: 49.6dB

Hz	dB
64Hz	58.3
125Hz	52.1
250Hz	43.5
500Hz	41.4
1000Hz	39.0
2000Hz	36.4
4000Hz	28.3
8000Hz	18.8



Note: Occupant at least 1.0m from sound source.

DRAWN BY: Qiu Junjun	DATE: 28th May 2011	DUNNAIR	
APPROVED B.A.: Li Haifen	APPROVED ENG.: Zhang Jingfei	TITLE: Water Cooled Split Ducted Heat Pump Unit WSR TYPE	
MODEL: WSR6.5		DRAWING NO.: 01	ISSUE: 01
			SHEET SIZE: A4