



DUNNAIR

Established 1961

WSR19

R410a Refrigerant

Water Cooled Split Ducted

TECHNICAL SPECIFICATION

Total Cooling Capacity	18.9 kW	Refrigerant	R410A
Electrical Input (Cooling)	4.8 kW	Refrigerant Charge	5.0 kg
E.E.R.(Cooling)	3.94	Minimum Water Flow	0.88 l/s
Running Amps (Total)	14.5A	Water Coil Pressure Drop	40 kPa
Fan Motor Full Load Amps	5.0 A	Filter (Option)	EU1
Electrical Supply Required	3 Ph.415V.50Hz	Electric Heat (Option)	13.5 kW

COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)			1000		
COIL E.A.T.	DB °C		23	27	31
	WB °C		17	19	21
Entering Water Temperature (E.W.T) °C	20	T	20.1	21.1	22.2
		S	14.5	16.7	18.6
		FL	1.1	1.1	1.1
		HR	24.9	26.0	27.1
	25	T	19.1	20.3	22.3
		S	14.6	16.3	18.7
		FL	1.1	1.1	1.1
		HR	24.0	25.2	27.5
	30	T	18.0	18.9	21.1
		S	13.6	15.7	18.2
		FL	1.1	1.1	1.1
		HR	22.8	23.8	26.2
	35	T	16.8	17.7	18.4
		S	13.1	15.2	17.1
		FL	1.1	1.1	1.1
		HR	21.5	22.5	23.4
	40	T	16.0	16.4	17.3
		S	12.7	14.7	16.7
		FL	1.1	1.1	1.1
		HR	20.9	21.2	22.2

T = Total Capacity (kW)

S = Sensible Capacity (kW)

FL = Water Flow rate (l/s)

E.A.T.= Entering Air Temperature (°C)

— = 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°C water temperature difference.

HEATING CAPACITY (kW)

WSR Reverse Cycle Version

AIR FLOW RATE (L/S)			1000		
WATE FLOW RATE (L/S)			1.10		
COIL E.A.T.	DB °C		18	21	25
Entering Water Temperature (E.W.T) °C	10	HC	17.6	17.2	16.6
		Hab	12.8	12.4	11.8
		LWT	6.2	6.2	6.4
		INPT	4.9	4.9	4.8
	15	HC	19.0	18.8	18.0
		Hab	14.2	13.9	13.2
		LWT	10.9	10.9	11.1
		INPT	4.8	4.8	4.8
	20	HC	20.2	20.0	19.0
		Hab	15.2	15.0	14.2
		LWT	15.6	15.7	15.9
		INPT	5.0	5.0	4.8
	25	HC	21.9	21.6	20.8
		Hab	16.8	16.4	15.5
		LWT	20.2	20.3	20.5
		INPT	5.2	5.2	5.2

HC = Heating Capacity (kW)

Hab = Heat Absorbed (kW)

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

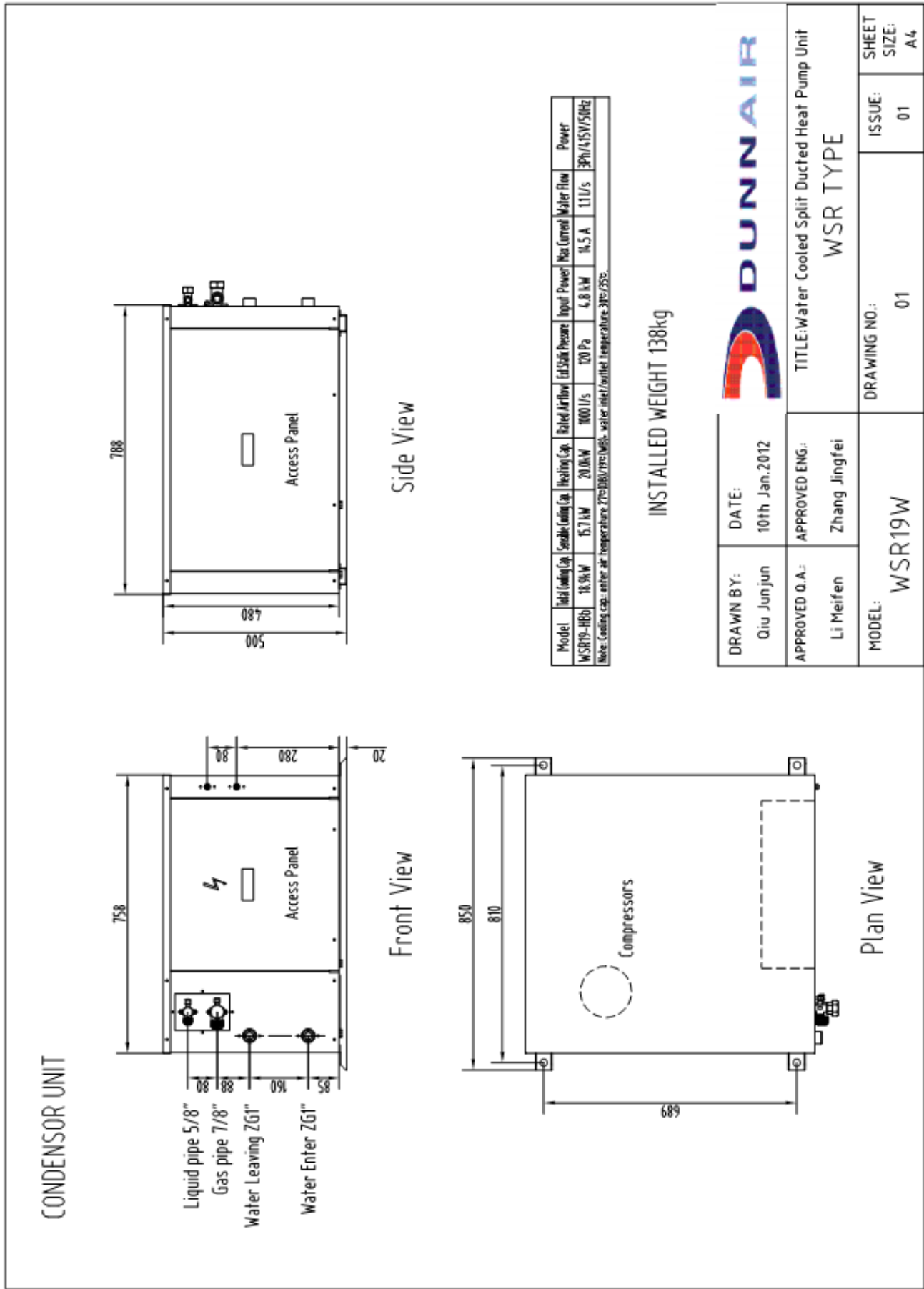
E.A.T.= Entering Air Temperature (°C)

INPT = Compressor Input Power (kW)

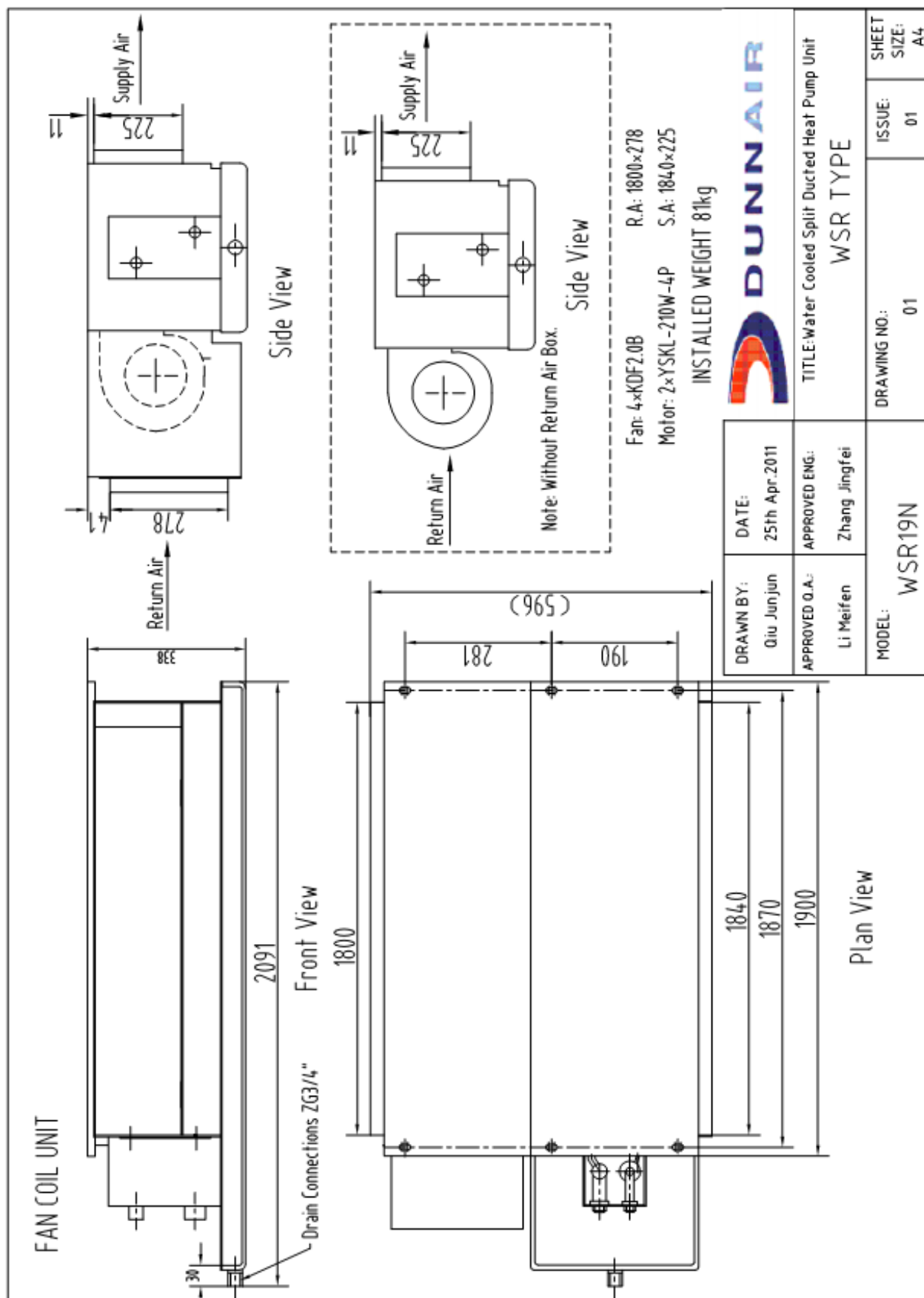
— = Nominal Capacity (kW)

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

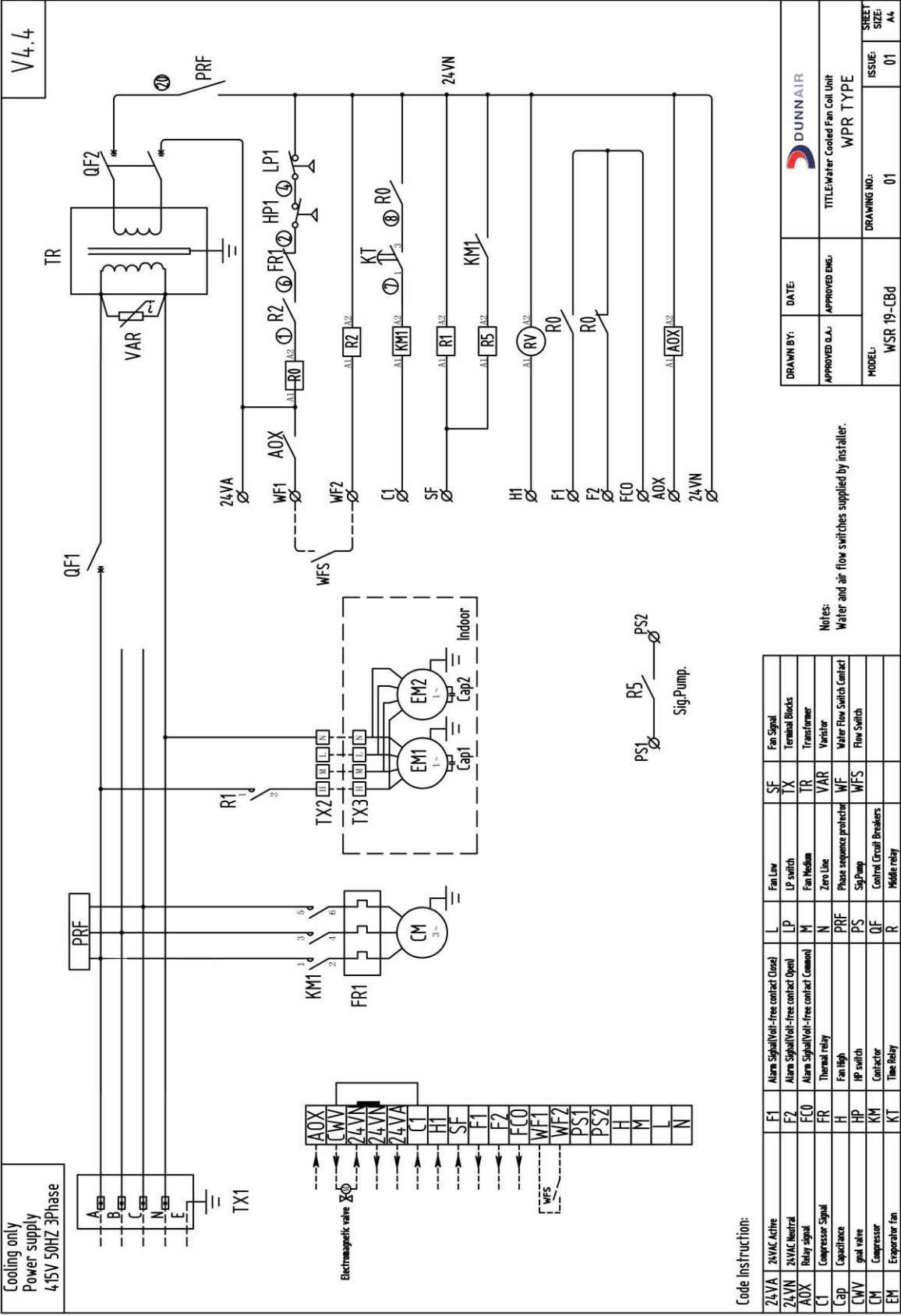
DIMENSIONS (mm) – Outdoor Unit



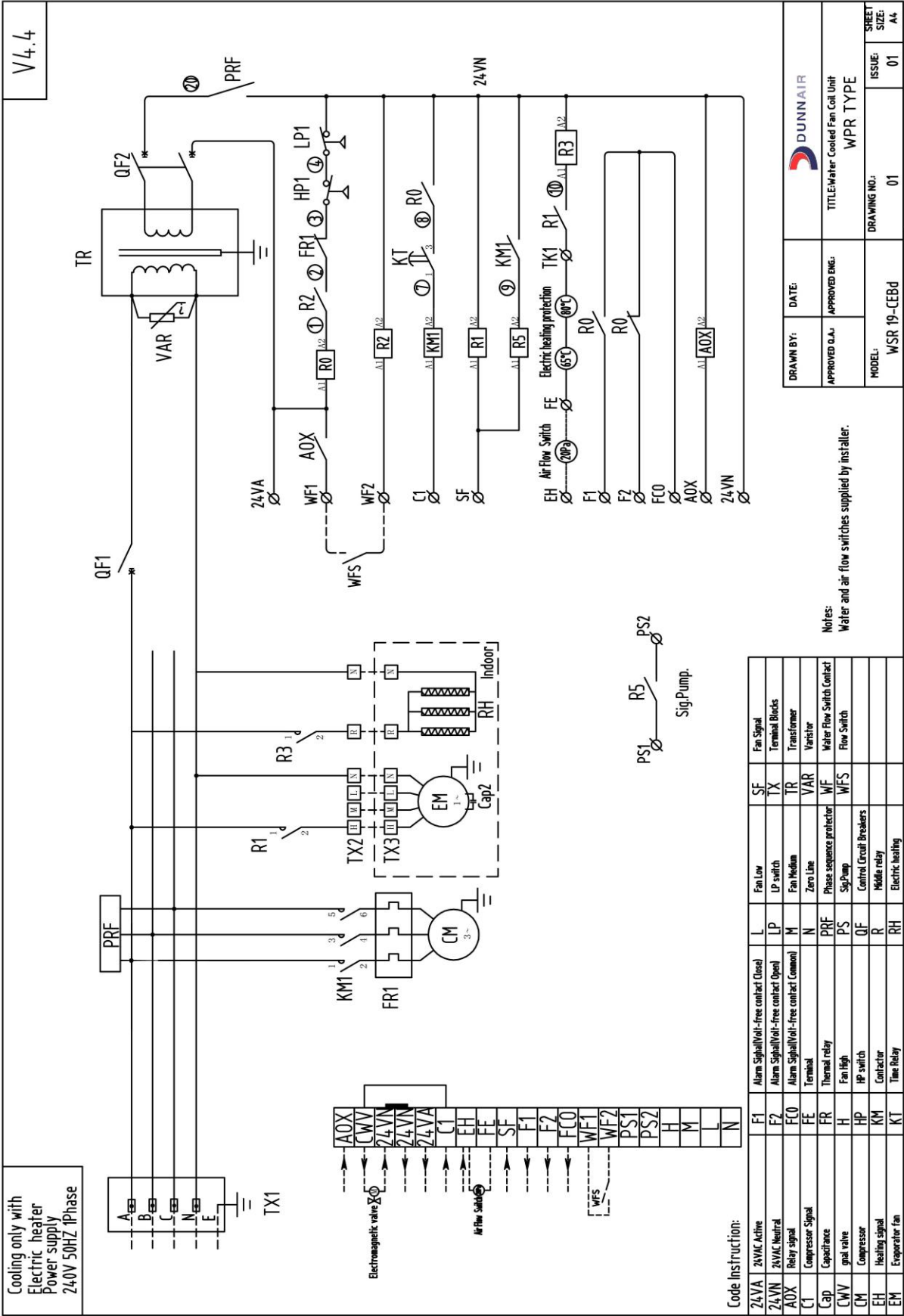
DIMENSIONS (mm) – Indoor Unit



WIRING DIAGRAM - Cooling Only Type



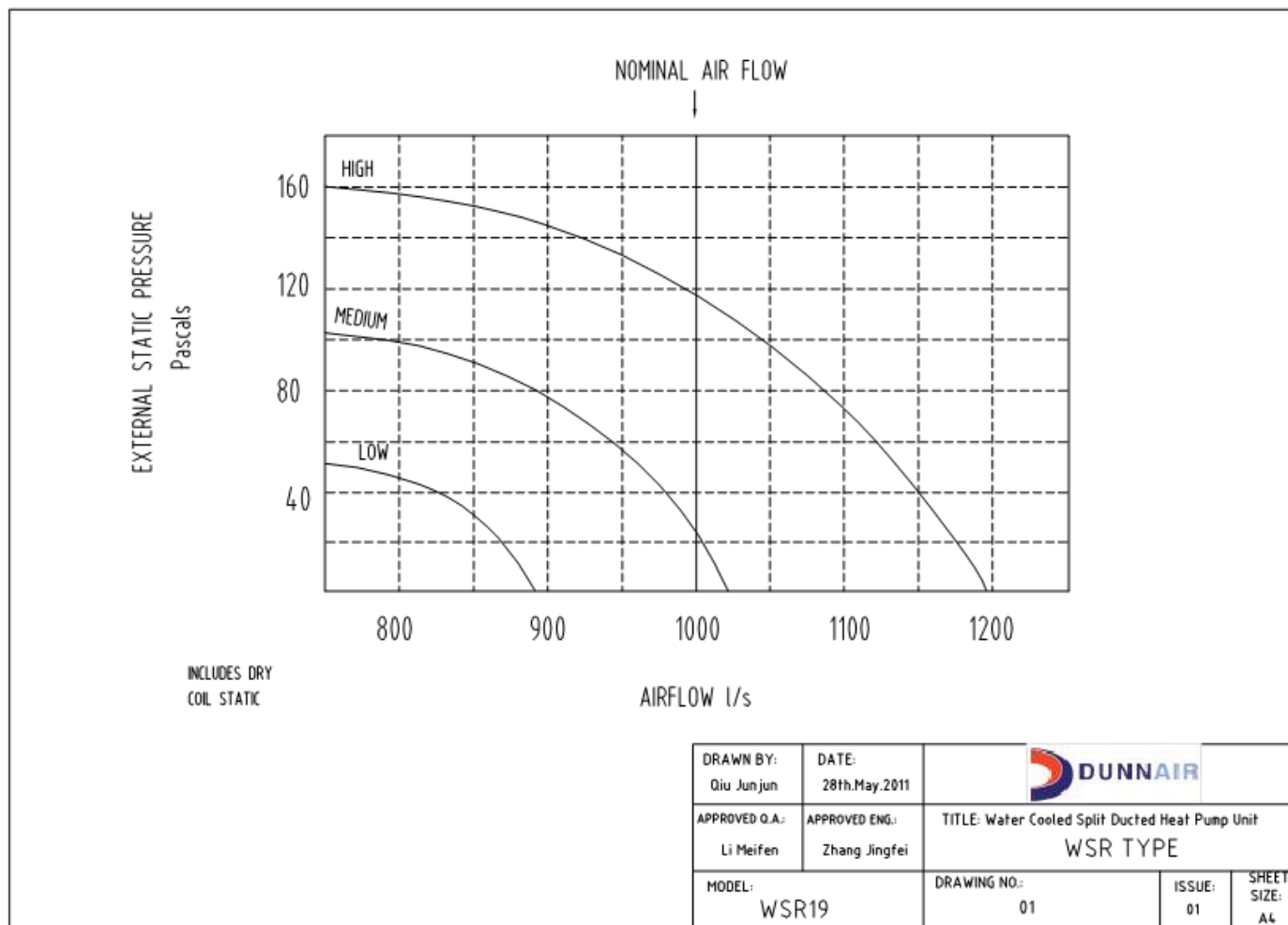
WIRING DIAGRAM - Cooling Only with Electric Heater Type



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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

