DUNNAIR (Aust) Pty Ltd

WPR6.5L

Ducted Water Cooled
R410a Refrigerant

Packaged Vertical Type

TECHNICAL SPECIFICATION

Total Cooling Capacity	6.5 kW	Refrigerant	R410A
Electrical Input (Cooling)	1.76 kW	Refrigerant Charge	1.0 kg
E.E.R.(Cooling)	3.69	Minimum Water Flow	0.32 l/s
Running Amps (Total)	8.5 A	Water Coil Pressure Drop	38 kPa
Fan Motor Full Load Amps	0.6A	Filter (Option)	EU1
Electrical Supply Required	1 Ph.240V.50Hz	Electric Heater (Option)	7.7kW

COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)			258		
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	0.35	0.35	0.35
		HR	8.3	8.6	9.0
	25	T	6.4	6.8	7.4
		S	4.9	5.4	6.2
		FL	0.35	0.35	0.35
		HR	8.0	8.4	9.1
	30	T	6.0	**6.5**	7.0
		S	4.5	**5.5**	6.0
		FL	0.35	**0.35**	0.35
		HR	7.6	**7.9**	8.7
	35	T	5.6	6.1	6.1
		S	4.3	5.2	5.7
		FL	0.35	0.35	0.35
		HR	7.3	7.5	7.8
	40	T	5.3	5.7	5.8
		S	4.2	5.1	5.5
		FL	0.35	0.35	0.35
		HR	7.0	7.1	7.5

T = Total Capacity (kW)
S = Sensible Capacity (kW)
FL = Water Flow (l/s)
E.A.T.= Entering Air Temperature (℃)
__ = 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℃ water temperature difference.

HEATING CAPACITY (kW)

Reverse Cycle Version

AIR FLOW RATE (L/S)			258		
WATER FLOW RATE (L/S)			0.35		
COIL E.A.T.	DB ℃		18	21	25
Entering Water Temperature (E.W.T) ℃	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	**6.7**	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

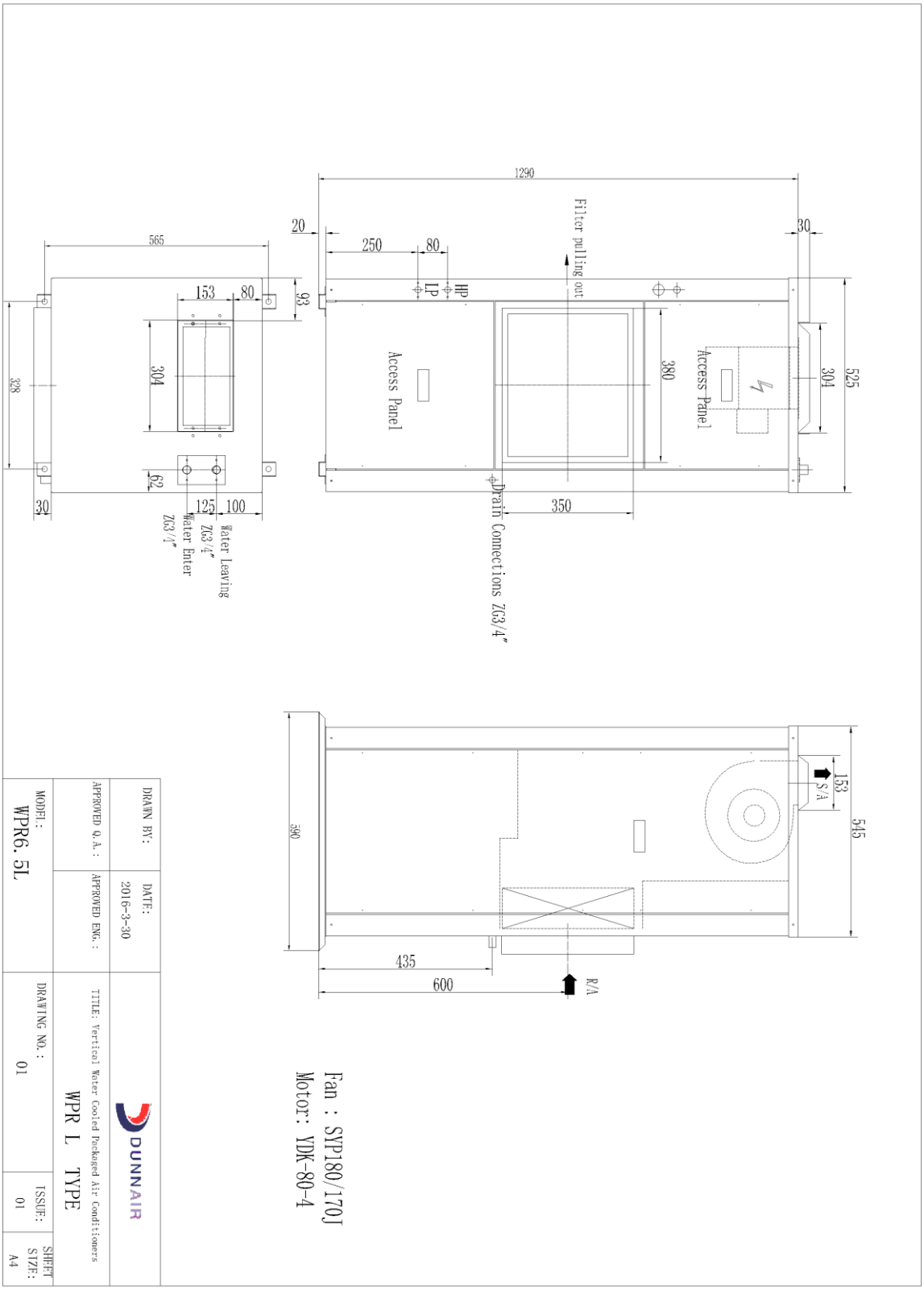
HC = Heating Capacity (kW)
Hab = Heat Absorbed (kW)
L.W.T.= Leaving Water Temperature (℃)
E.A.T.= Entering Air Temperature (℃)
INPT = Compressor Input Power (kW)
__ = Nominal Capacity (kW)

Note: All units are reverse cycle heat pump units. Models can also be provided as cooling only or cooling only with electric heater.

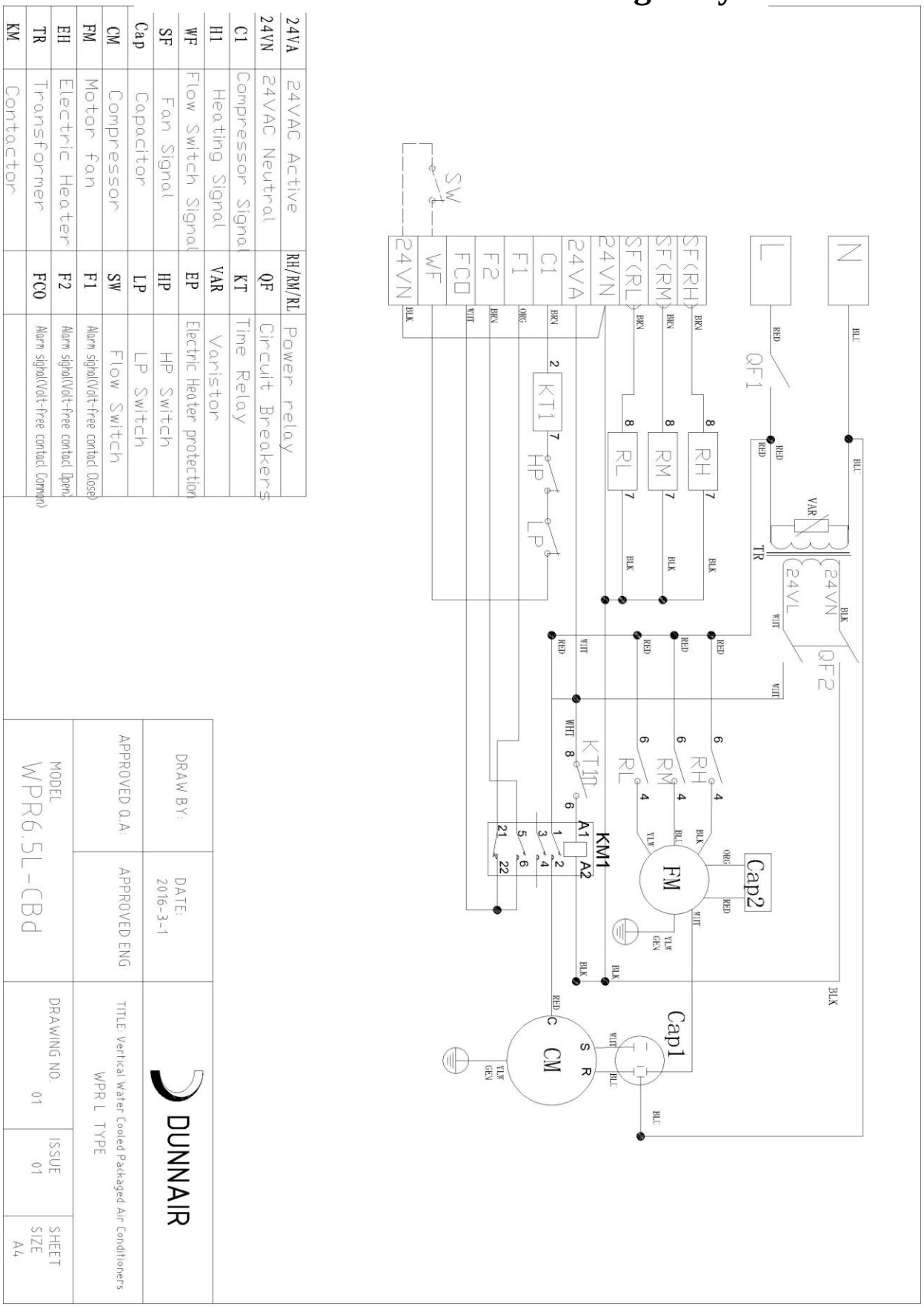
DUNNAIR (Aust) Pty Ltd supports a policy of continuous improvement. Therefore specifications and designs are subject to change without prior notice.

Apr 2016 V1.1D

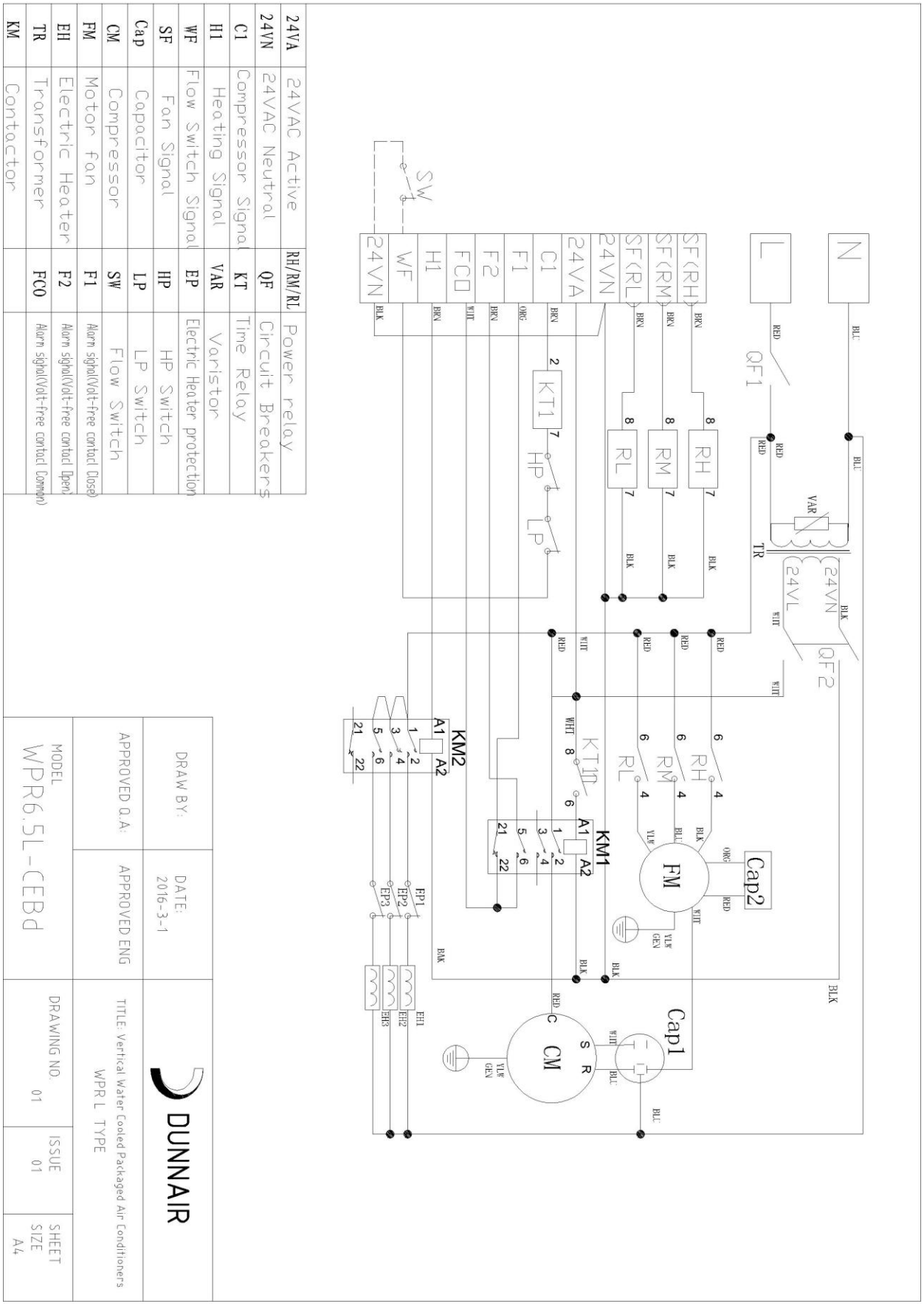
DIMENSIONS (mm)



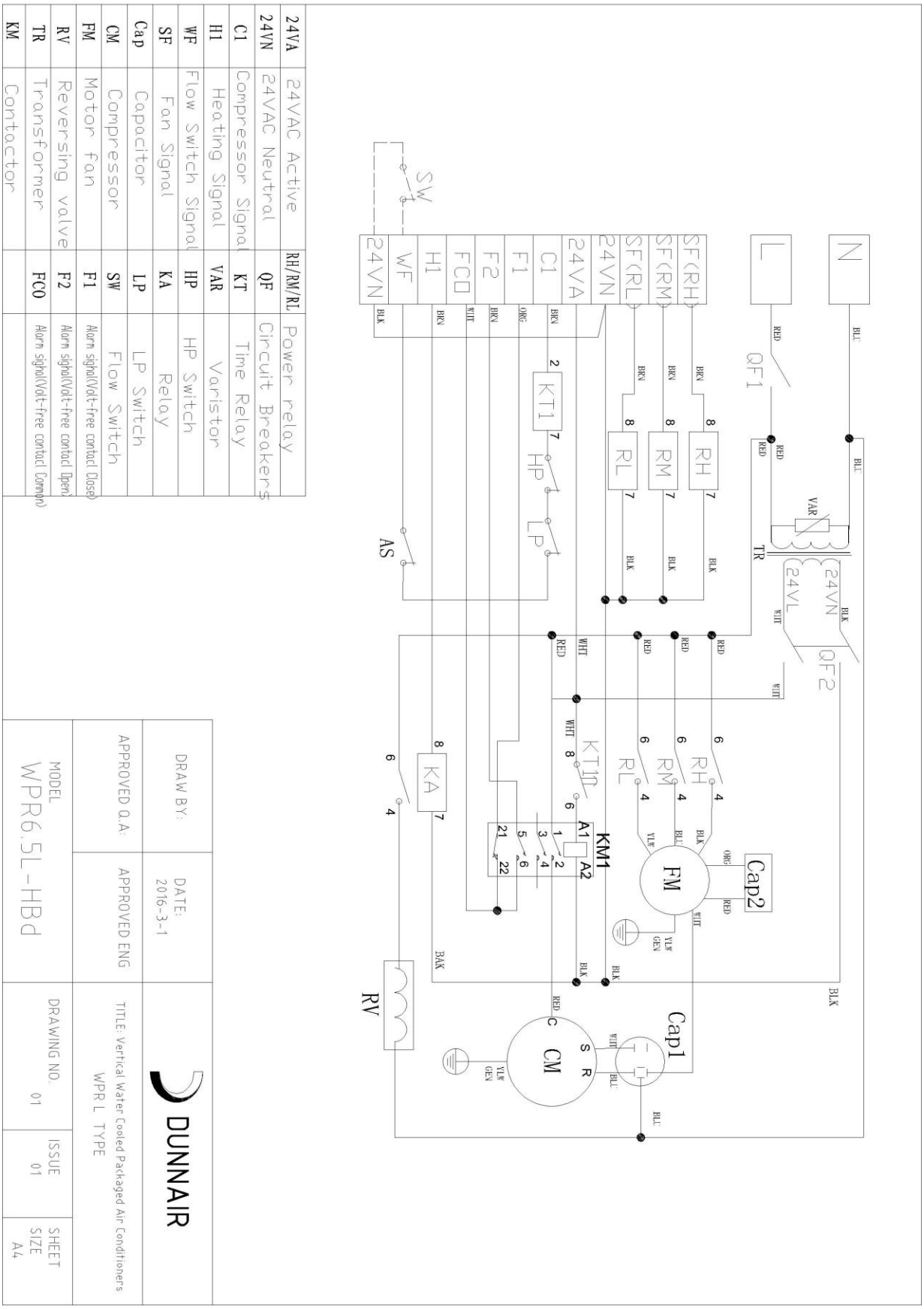
WIRING DIAGRAMS – Cooling Only



WIRING DIAGRAMS – Cooling Only with Electric Heater



WIRING DIAGRAMS – Reverse Cycle

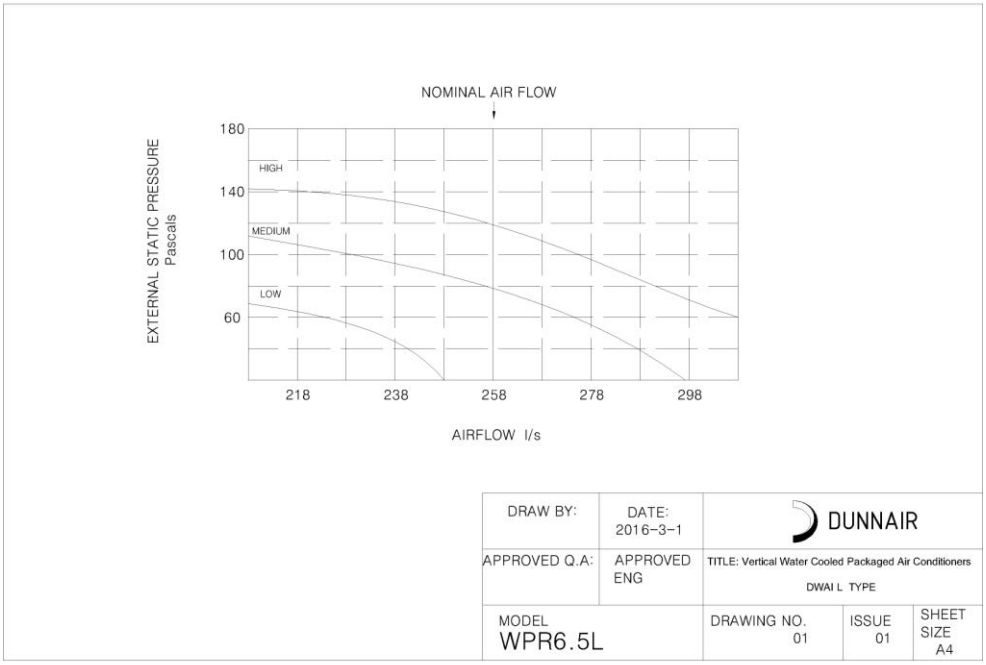


24VA	24VAC Active	RH/RM/RL	Power relay
24VN	24VAC Neutral	QF	Circuit Breakers
C1	Compressor Signal	KT	Time Relay
H1	Heating Signal	VAR	Varistor
WF	Flow Switch Signal	HP	HP Switch
SF	Fan Signal	KA	Relay
Cap	Capacitor	LP	LP Switch
CM	Compressor	SW	Flow Switch
FM	Motor fan	F1	Alarm signal(Volt-free contact Close)
RV	Reversing valve	F2	Alarm signal(Volt-free contact Open)
TR	Transformer	FCO	Alarm signal(Volt-free contact Common)
KM	Contactor		

DRAW BY:	DUNNAIR		
DATE: 2016-3-1			
APPROVED Q.A:	TITLE: Vertical Water Cooled Packaged Air Conditioners WPR L TYPE		
APPROVED ENG		DRAWING NO. 01	ISSUE 01
MODEL WPR6.5L-HBd			SHEET SIZE A4

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.

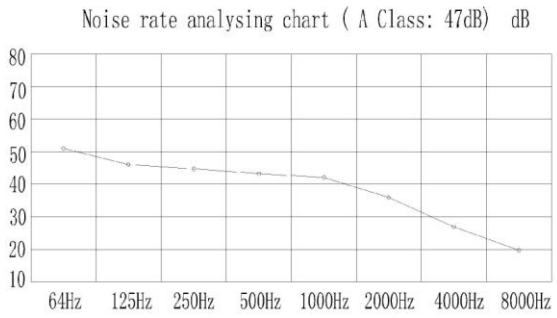
AIR HANDLING PERFORMANCE

Sound Curve

WPR6.5L Noise rate analysing chart

A Class: 47dB

Hz	dB
64Hz	50.6
125Hz	47.1
250Hz	45.0
500Hz	43.1
1000Hz	41,7
2000Hz	36.0
4000Hz	27.9
8000Hz	20.2



Note: 1m from source with 1m insulated duct.

DRAWN BY:	DATE: 2016-3-1	DUNNAIR	
APPROVED Q.A.:	APPROVED ENG.:	TITLE: Vertical Water Cooled Packaged Air Conditioners DWAIL TYPE	
MODEL: WPR6.5L	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4