DUNNAIR
(Aust) Pty Ltd

Ducted Water Cooled INVERTER

DWAI-08HAB

Packaged Horizontal Type

TECHNICAL SPECIFICATION

Total Cooling Capacity	8.3 kW	Refrigerant	R410A
Electrical Input (Cooling)	2.3 kW	Refrigerant Charge	1.4 kg
E.E.R.(Cooling)	3.64	Minimum Water Flow	0.39 l/s
Running Amps (Total)	9A	Water Coil Pressure Drop	36 kPa
Fan Motor Full Load Amps	1.0A	Filter (Option)	
Electrical Supply Required	1 Ph.240V.50Hz	Electric Heater (Option)	

COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)			434		
COIL E.A.T.	DB ℃		23	27	31
	WB ℃		17	19	21
Entering Water Temperature (E.W.T) ℃	20	T	8.3	8.5	8.7
		S	6.3	6.8	7.2
		FL	0.47	0.47	0.47
		HR	9.1	9.2	9.5
	25	T	8.1	8.3	8.4
		S	6.2	6.7	7.0
		FL	0.47	0.47	0.47
		HR	8.9	9.0	9.4
	30	T	7.8	8.3	8.2
		S	6.0	6.6	6.9
		FL	0.47	0.39	0.47
		HR	8.6	8.7	9.1
	35	T	7.5	7.7	7.9
		S	5.9	6.4	6.6
		FL	0.47	0.47	0.47
		HR	8.3	8.4	8.6
	40	T	7.3	7.4	7.6
		S	5.8	6.3	6.6
		FL	0.47	0.47	0.47
		HR	8.1	8.0	8.4

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)

WPR Reverse Cycle Version

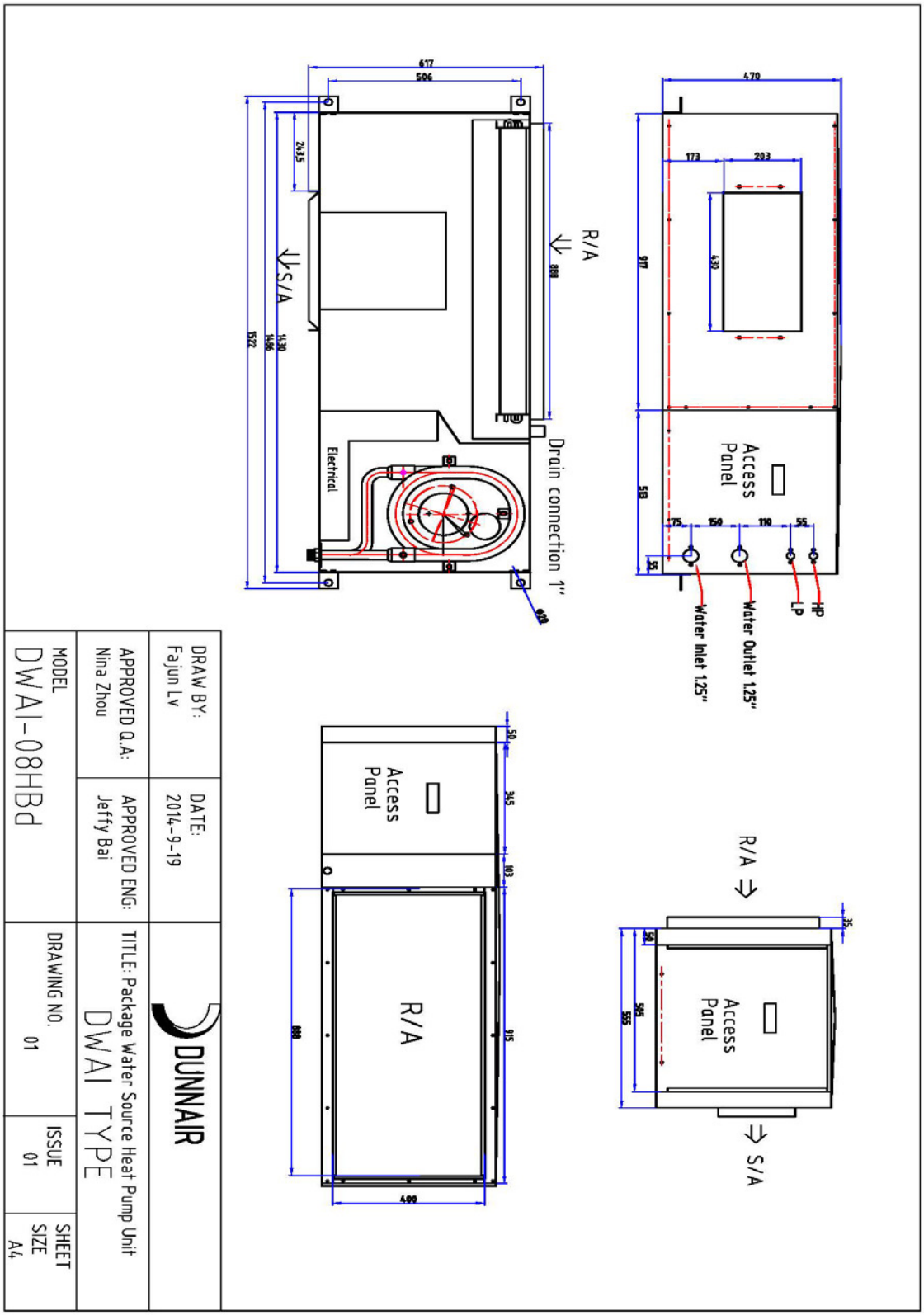
AIR FLOW RATE (L/S)			434		
WATE FLOW RATE (L/S)			0.39		
COIL E.A.T.	DB ℃		18	21	25
Entering Water Temperature (E.W.T) ℃	15	HC	8.2	8.0	7.9
		Hab	6.5	6.3	6.2
		LWT	11.2	11.3	11.5
		INPT	2.11	2.13	2.15
	20	HC	8.4	7.8	8.2
		Hab	6.7	6.5	6.4
		LWT	15.6	15.7	15.8
		INPT	2.16	2.20	2.25
	25	HC	8.8	8.6	8.6
		Hab	7.0	6.8	6.6
		LWT	20.3	20.4	20.5
		INPT	2.28	2.30	2.34

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)

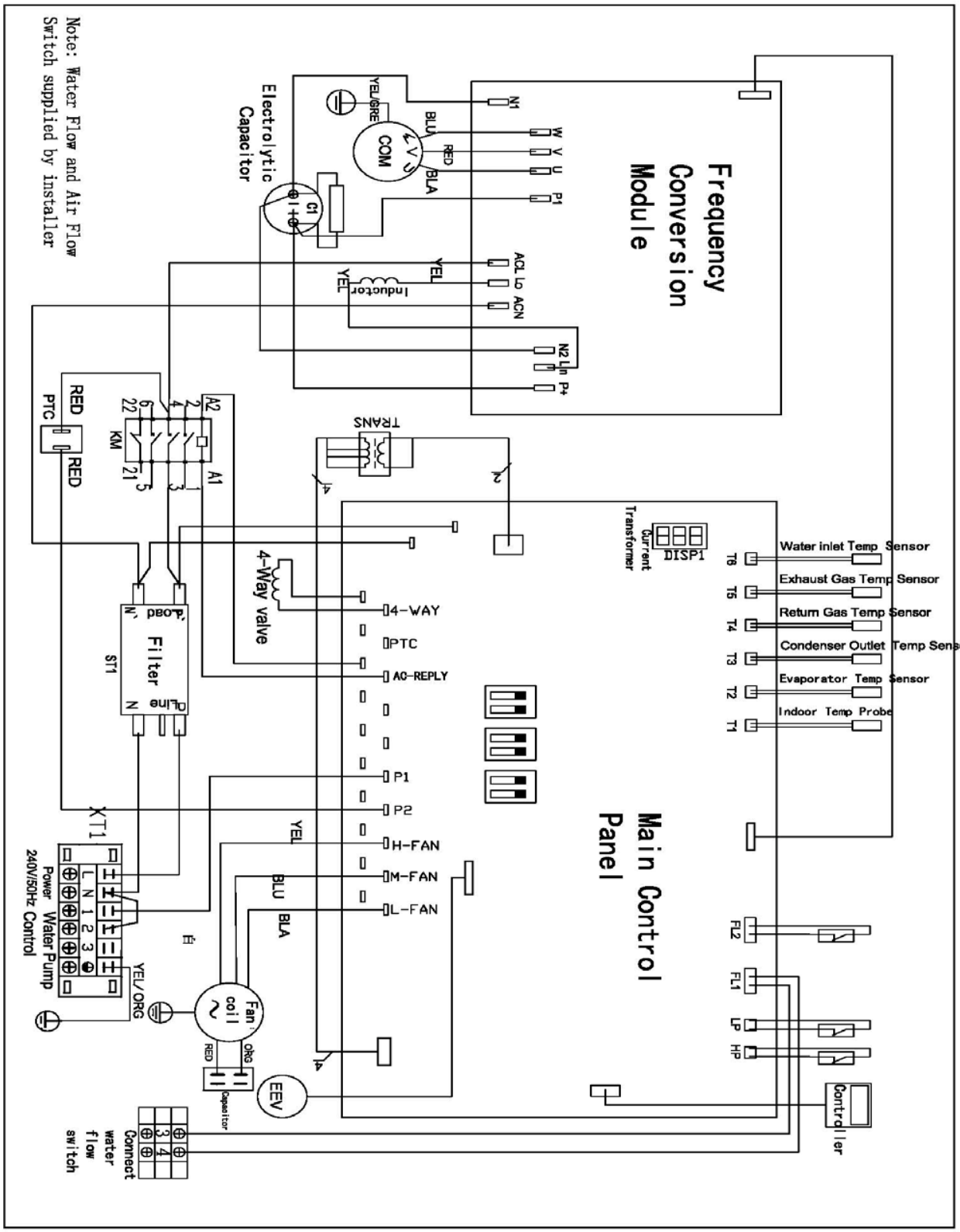
Note: All units are reverse cycle heat pump units. Models can also be provided as cooling only or cooling only with electric heater upon request.

May 2015 V1.2D

DIMENSIONS (mm)

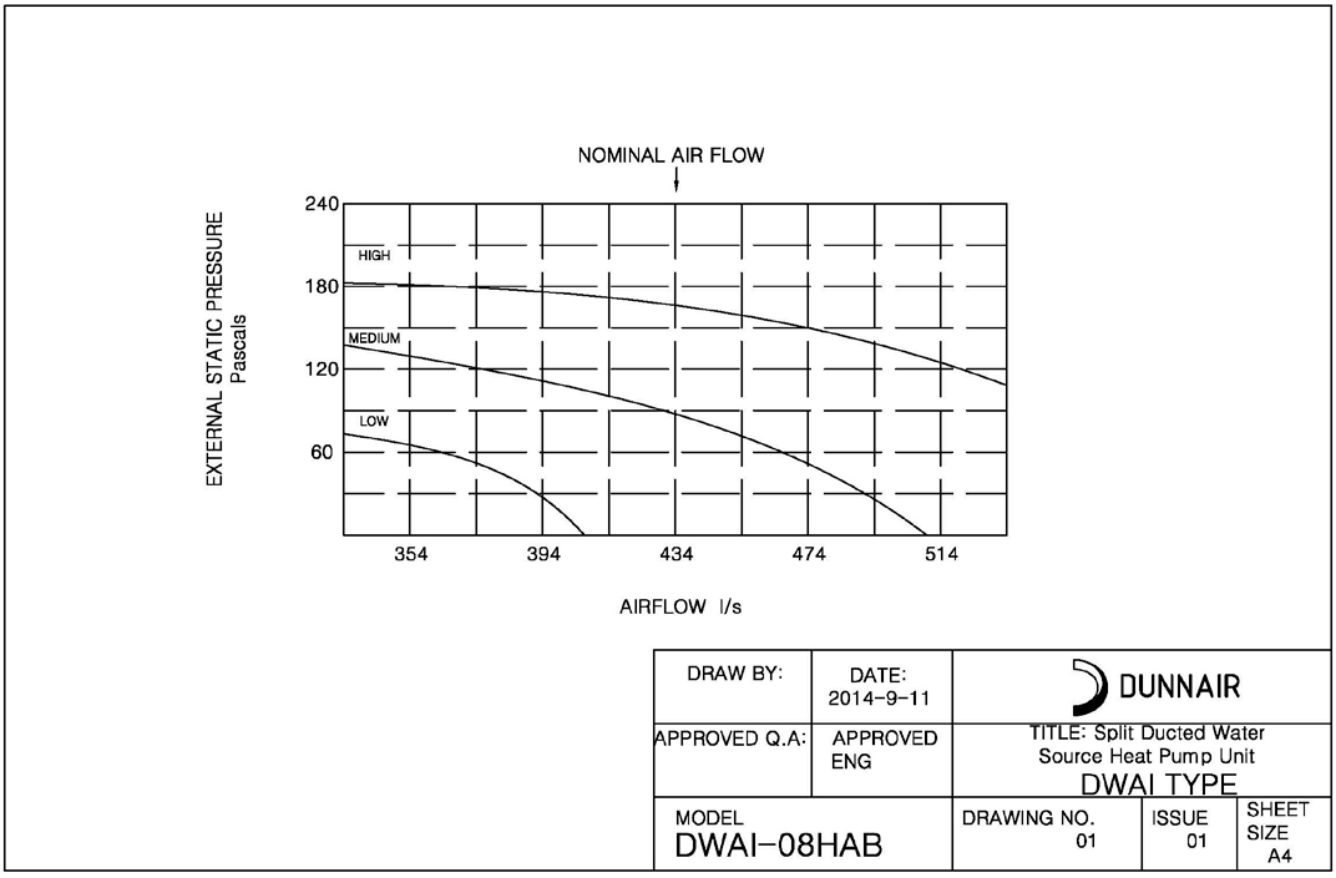


WIRING DIAGRAMS – Reverse Cycle



AIR HANDLING PERFORMANCE

Fan Curve (Without Filter)



Note:

1. In tropical (high humidity) conditions, care must be taken to select 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.

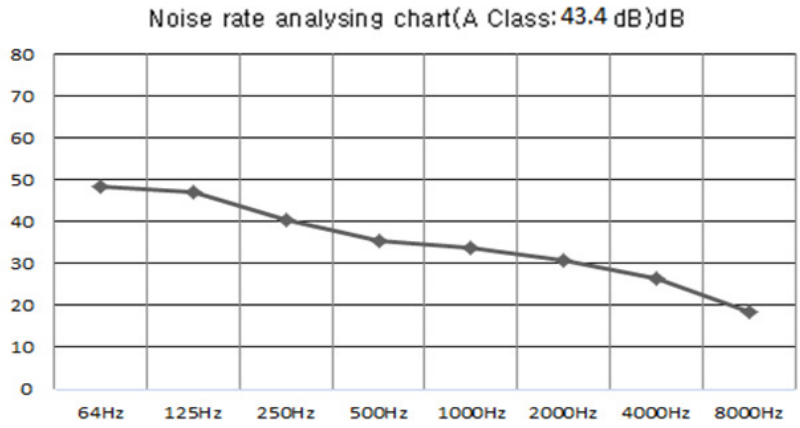
AIR HANDLING PERFORMANCE

Sound Curve

DWAI-08HAB Noise rate analysing chart

A Class: 43.4

Hz	dB
64Hz	48.5
125Hz	47.1
250Hz	40.3
500Hz	35.5
1000Hz	33.8
2000Hz	30.6
4000Hz	26.4
8000Hz	18.5



Note:1m from source with 1m insulated duct and fully reflective surface surrounding unit.

DRAW BY:	DATE: 2013-5-4	DUNNAIR
APPROVED Q.A:	APPROVED ENG	TITLE: Package Water Source Heat Pump Unit DWAI TYPE
MODEL DWAI-08HAB	DRAWING NO. 01	ISSUE 01 / SHEET SIZE A4