

**DUNNAIR**

(Aust) Pty Ltd

Ducted Water Cooled

**DWAI-14HAB*****Packaged Horizontal Type*****TECHNICAL SPECIFICATION**

Total Cooling Capacity (kW)	14.0	Refrigerant	R410A
Electrical Input (Cooling)(kW)	3.68	Refrigerant Charge (kg)	1.9
E.E.R.(Cooling)	3.80	Minimum Water Flow (l/s)	0.85
Running Amps (Normal) / Max. Amps (A)	15.33 / 18.30	Water Coil Pressure Drop (kPa)	44
Fan Motor Full Load Amps (A)	1.8	Filter (Option)	
Electrical Supply Required	1 Ph.240V.50Hz		

COOLING CAPACITY (kW)

AIR FLOW RATE (L/S)		750			
COIL E.A.T.	DB °C	23	27	31	
	WB °C	17	19	21	
Entering Water Temperature (E.W.T) °C	20	T	14.9	15.7	16.6
		S	10.7	11.5	11.7
		FL	0.9	0.9	0.9
		HR	18.5	19.2	20.1
	25	T	14.1	14.8	15.1
		S	10.6	11.3	11.6
		FL	0.9	0.9	0.9
		HR	17.8	18.7	20.4
	30	T	13.2	14.0	14.7
		S	10.5	11.1	11.5
		FL	0.9	0.9	0.9
		HR	16.9	17.7	19.5
	35	T	12.6	13.4	14.1
		S	10.3	10.5	11
		FL	0.9	0.9	0.9
		HR	15.9	16.6	17.2
	40	T	12.2	12.7	13.4
		S	10.2	10.4	10.9
		FL	0.9	0.9	0.9
		HR	15.4	15.6	16.4

T = Total Capacity (kW)
 FL = Water Flow (l/s)
 — = Nominal Capacity (kW)

S = Sensible Capacity (kW)
 E.A.T.= Entering Air Temperature (°C)
 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)**Reverse Cycle Version**

AIR FLOW RATE (L/S)		750			
WATER FLOW RATE (L/S)		0.9			
COIL E.A.T.	DB °C	18	21	25	
Entering Water Temperature (E.W.T) °C	15	HC	13.6	13.4	12.8
		Hab	9.9	9.7	9.3
		LWT	11.4	11.4	11.6
		INPT	3.02	3.12	3.22
	20	HC	14.9	14.8	14.1
		Hab	10.7	10.6	10.0
		LWT	16.2	16.2	16.4
		INPT	3.11	3.22	3.34
	25	HC	15.7	15.4	14.9
		Hab	11.8	11.5	10.9
		LWT	20.8	20.9	21.0
		INPT	3.22	3.33	3.44

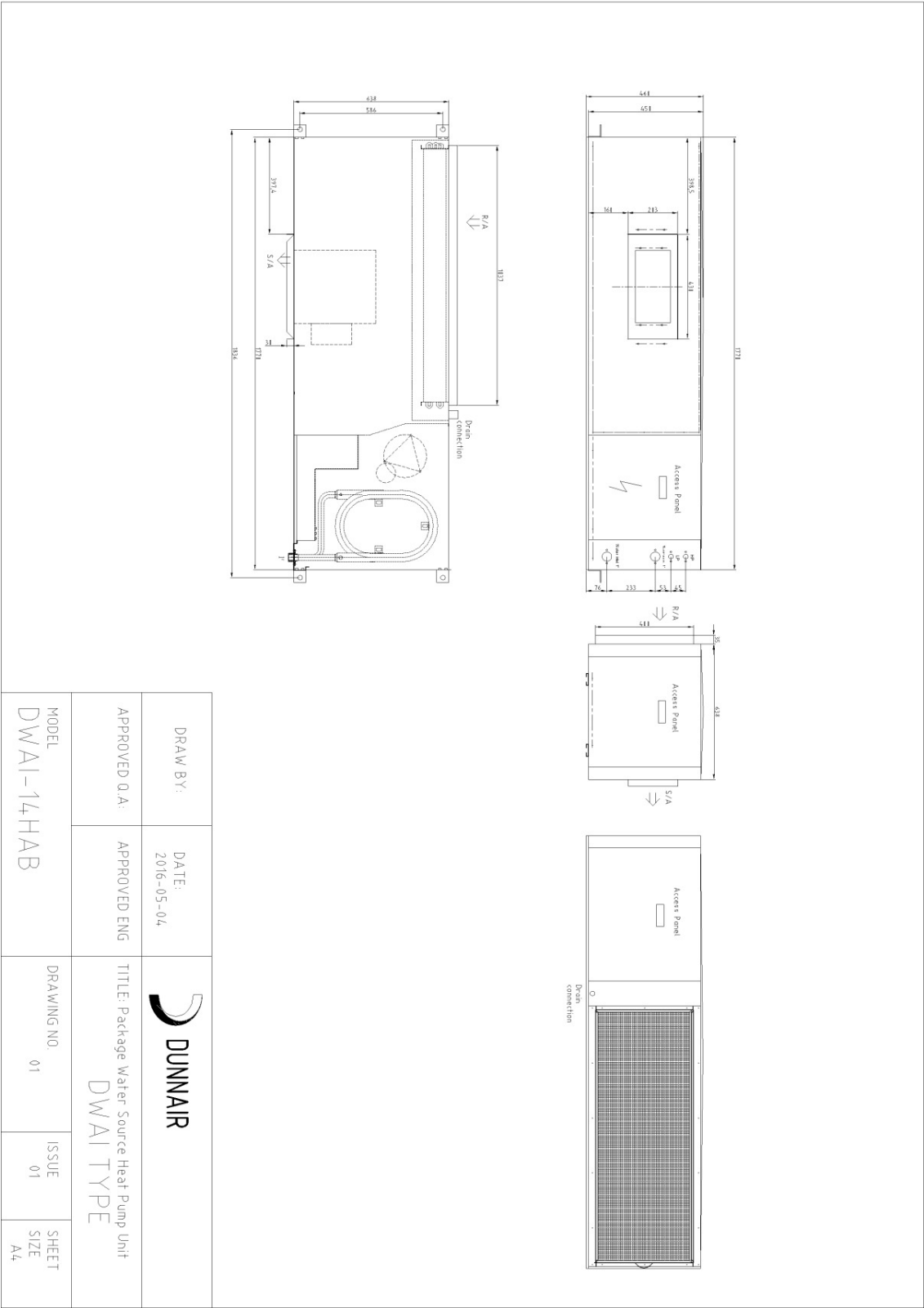
HC = Heating Capacity (kW) Hab = Heat Absorbed (kW)
 L.W.T.= Leaving Water Temperature (°C) E.A.T.= Entering Air Temperature (°C)
 INPT = Compressor Input Power (kW) — = Nominal Capacity (kW)

Note: All units are reverse cycle heat pump units.

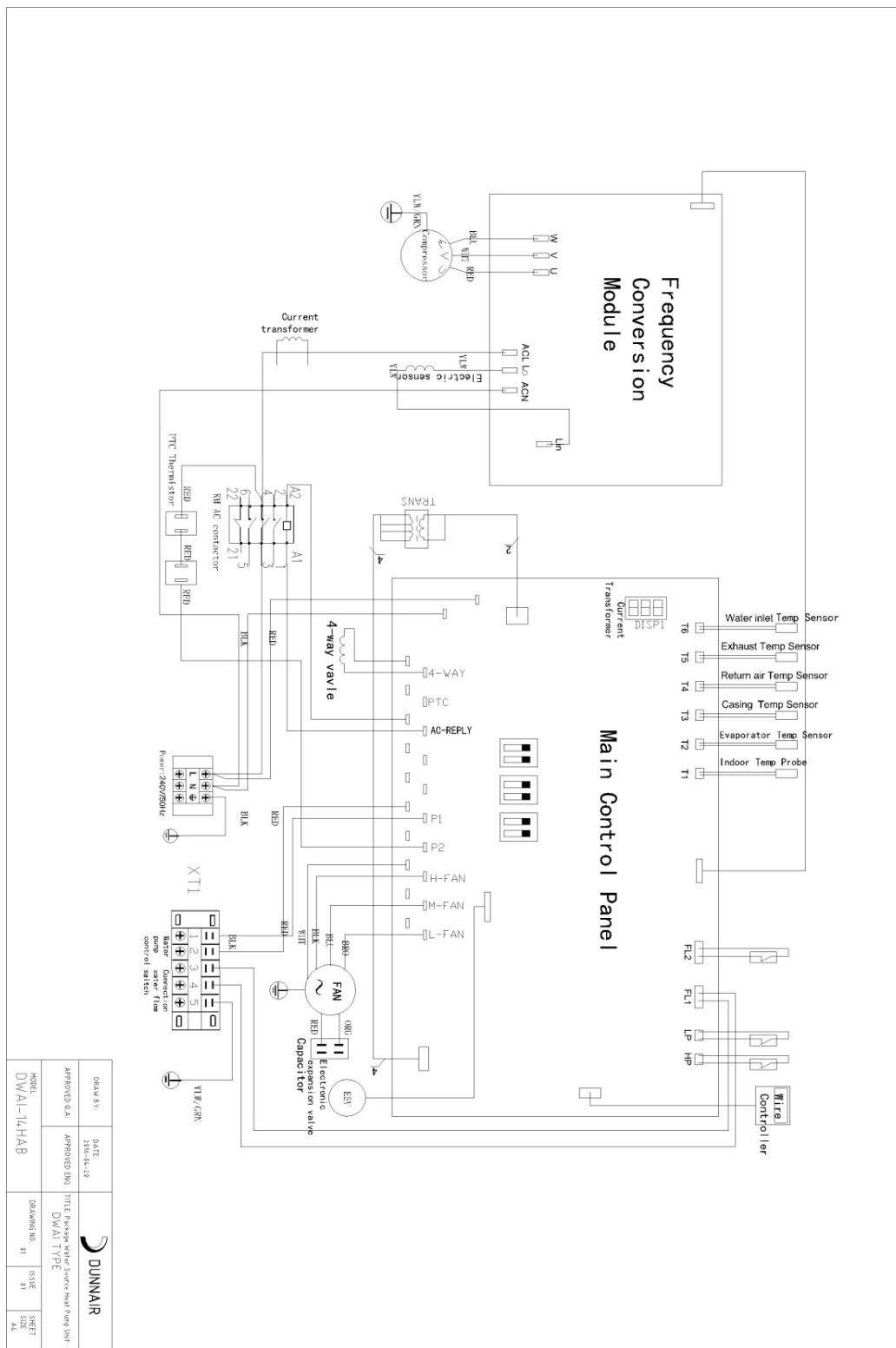
DUNNAIR (Aust) Pty Ltd supports a policy of continuous improvement. Therefore specifications and designs are subject to change without prior notice.

July 2016 V1.0D

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.

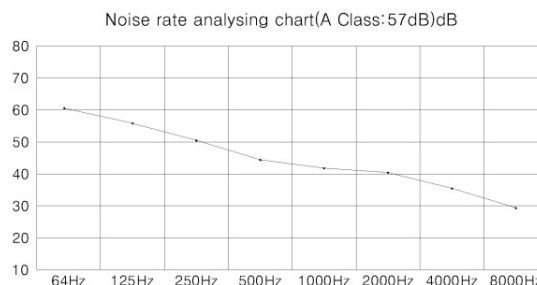
AIR HANDLING PERFORMANCE

Sound Curve


DWAI-14HAB Noise rate analysing chart

A Class:57

Hz	dB
64Hz	61.2
125Hz	57.2
250Hz	51.5
500Hz	45.1
1000Hz	43.2
2000Hz	41.4
4000Hz	36.2
8000Hz	29.3



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

DRAW BY:	DATE: 2016-05-04	 DUNNAIR		
APPROVED Q.A:	APPROVED ENG	TITLE: Ducted Water Cooled Packaged Air Conditioners DWAI TYPE		
MODEL DWAI-14HAB		DRAWING NO. 01	ISSUE 01	SHEET SIZE A4