



DUNNAIR
(Aust) Pty Ltd

PHSE8

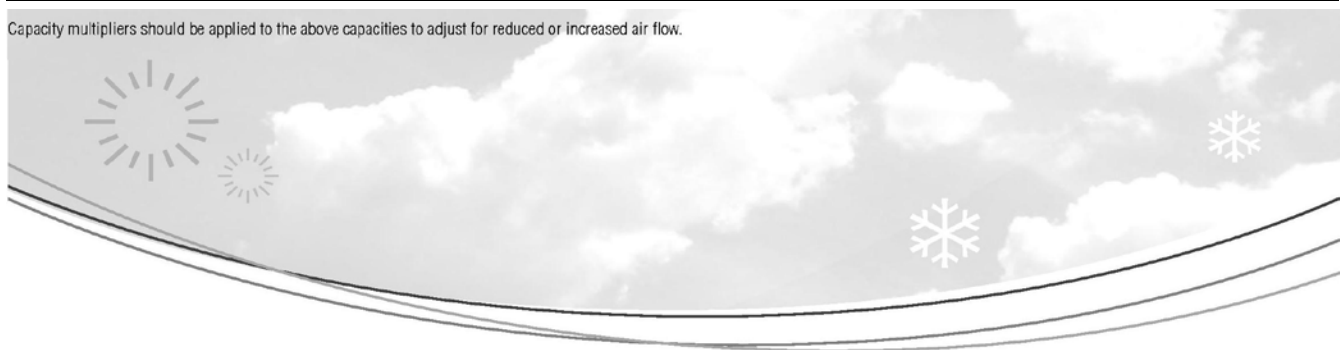
Economy Cycle Rooftop packaged

R410a Refrigerant

PERFORMANCE DATA

INDOOR COIL ENTERING AIR TEMP °C		OUTDOOR COIL ENTERING TEMPERATURE °C											
		30°C			35°C			40°C			45°C		
		Tot. Cap KW	Sens.Cap KW	LWB °C	Tot. Cap KW	Sens.Cap KW	LWB °C	Tot. Cap KW	Sens.Cap KW	LWB °C	Tot. Cap KW	Sens.Cap KW	LWB °C
DB °C	WB °C												
21	17	8.0	4.9	11.2	7.5	4.7	9.0	7.1	4.6	11.8	6.8	4.6	12.0
	18	8.2	4.4	11.6	7.7	4.0	12.6	7.3	4.1	12.8	7.0	3.9	13.0
	19	8.5	3.8	13.2	7.7	4.1	12.8	7.6	3.5	13.8	7.3	3.4	14.0
	20	8.8	3.3	14.2	8.3	3.2	14.5	7.9	3.0	14.8	7.6	2.9	15.0
23	17	8.0	5.9	11.1	7.6	5.7	11.4	7.1	5.5	11.7	6.8	5.4	12.0
	18	8.2	5.4	12.2	7.7	5.0	12.0	7.3	5.0	12.7	7.0	4.9	12.9
	19	8.5	4.3	14.2	7.8	4.9	11.3	7.6	4.4	13.8	7.3	4.3	14.0
	20	8.8	4.3	14.2	8.3	4.2	15.4	7.8	4.0	14.8	7.6	3.9	15.0
	21	9.1	3.7	11.1	7.6	3.6	11.4	8.1	3.4	15.7	7.9	3.3	15.8
25	17	8.0	6.7	11.1	7.6	6.5	11.4	7.2	6.3	11.7	6.9	6.1	12.0
	18	8.2	6.5	12.2	7.8	5.9	12.5	7.3	6.0	12.8	7.0	5.8	13.0
	19	8.5	6.3	13.1	7.8	6.2	12.5	7.6	5.4	13.7	7.3	5.3	14.0
	20	8.8	6.0	14.2	8.0	5.6	13.4	7.8	5.0	14.8	7.5	4.8	15.0
	21	9.1	5.7	15.4	8.3	5.1	14.4	8.1	4.4	15.6	7.9	4.3	15.8
27	17	8.0	7.5	11.0	7.8	7.6	11.4	7.4	7.0	11.5	7.1	6.8	11.7
	18	8.2	7.2	12.1	7.9	7.3	12.3	7.5	6.8	12.6	7.2	6.6	12.8
	19	8.5	7.2	13.1	8.0	7.2	12.5	7.6	6.5	13.7	7.3	6.4	13.9
	20	8.8	6.8	14.2	8.3	7.0	13.3	7.8	5.9	14.8	7.5	5.8	15.0
	21	9.1	6.3	15.1	8.5	6.5	14.5	8.2	5.5	15.7	7.9	5.4	15.8
29	17	8.0	8.2	10.9	8.0	7.9	11.1	7.6	7.5	11.3	7.3	7.3	11.5
	18	8.2	7.9	11.9	8.1	7.7	12.2	7.7	7.4	12.5	7.4	7.2	12.7
	19	8.5	7.6	13.0	8.2	7.5	13.3	7.7	7.3	13.5	7.4	7.1	13.7
	20	8.8	7.2	14.1	8.3	7.1	14.4	7.9	6.9	14.7	7.6	6.8	14.9
	21	9.1	6.7	15.1	8.6	6.6	15.3	8.1	6.4	15.6	7.8	6.3	15.8
31	17	8.0	8.6	11.3	8.3	8.3	11.3	7.9	7.9	11.3	7.7	7.7	11.3
	18	8.2	8.6	11.7	8.3	8.2	11.9	7.9	7.9	12.2	7.7	7.7	12.4
	19	8.5	8.3	12.9	8.4	8.1	13.1	7.9	7.8	13.4	7.7	7.7	13.6
	20	8.8	8.2	14.1	8.4	8.0	14.4	7.9	7.8	14.7	7.7	7.7	14.9
	21	9.1	7.8	15.1	8.4	7.6	15.3	8.1	7.4	15.6	7.9	7.3	15.8

Capacity multipliers should be applied to the above capacities to adjust for reduced or increased air flow.



Technical Specification PHS8 Rooftop Packaged Model

Total Cooling Capacity (KW)*	8.0	Number of Compressors	1
Sensible Cooling Capacity (KW)*	7.2	Power Requirements (Volt /Phase)	240 /1
Heating Capacity (KW)**	7.9	Normal Max. Current (Amps /Phase)	15.9
Nominal Evaporator Air Flow (L/S)	472	Power Input (KW)	3.3
*Entering air @ 27/19 °C and ambient 35°C		** Entering air @ 21 °C DB and 7°C ambient	

Air Quantity Multiplying Factors

Capacity	%Rated Air Quantity-Nominal 472l/s				
	80	90	100	110	120
Total Cooling	0.95	0.98	1.00	1.02	1.04
Sensible Cooling	0.89	0.95	1.00	1.05	1.09

Heating Performance Data

Outdoor Coil Entering DB temperature °C					
	0	4	8	12	18
Heating Capacity kW	6.5	6.9	7.9	8.7	10.2

Heating Performance Correction

% Rated Air Quantity	Multiplier	Return Air Temp °C	Multiplier	Outdoor Air Temp °C	Approx. Defrost Factor
80	0.93	15	1.05	0	0.80
90	0.97	18	1.03	2	0.78
100	1.00	21	1.00	4 - 6	0.75
110	1.03	24	0.97	7	0.87
120	1.05	27	0.95	8	1.00

Compressor

Number Per Unit	1
Type	Rotatory
RPM (Nom)	2900
Normal Max Current (Amps /Phase)	12.2
Locked Rotor Current (Amps /Phase)	45.5
Displacement (m ³ /h)	4.9

Electrical Controls and Safeties

High Pressure Switch (Setting kPa)	4000	Defrost	
Low Pressure Switch (Setting kPa)	300	Initiation Temperature (°C)	-2
Indoor Fan Overload	Internal	Termination Temperature (°C)	18
Outdoor Fan Overload	Internal	Min. Period Between De-Ice (min)	30
Compressor Delay Timer	300 sec	Max De-Ice Period (min)	10

Standard Features

Auto reset high pressure and auto reset low pressure cutouts	
Thermal overload protection on all motors	Suction line accumulator
Compressor crankcase heater	Automatic de-ice system
Limit start timer (anti short cycling)	Thermally insulated indoor unit

Evaporator

Type	Copper Tube/Aluminium Fins
Face Area(m)	0.23
Air Quantity(l/s)	472

Evaporator (Indoor)

Number of Fans	1
Type	Centrifugal
Drive	Direct
Motor voltage / phase / frequency	240/1/50
Motor(kW) Standard	0.2
Maximum Fan Speed(rpm)	1300

Electrical

Power Requirements	1 Phase /240V /50Hz
Normal Max. Current (Amps /Phase)	15.9

Condenser Coil

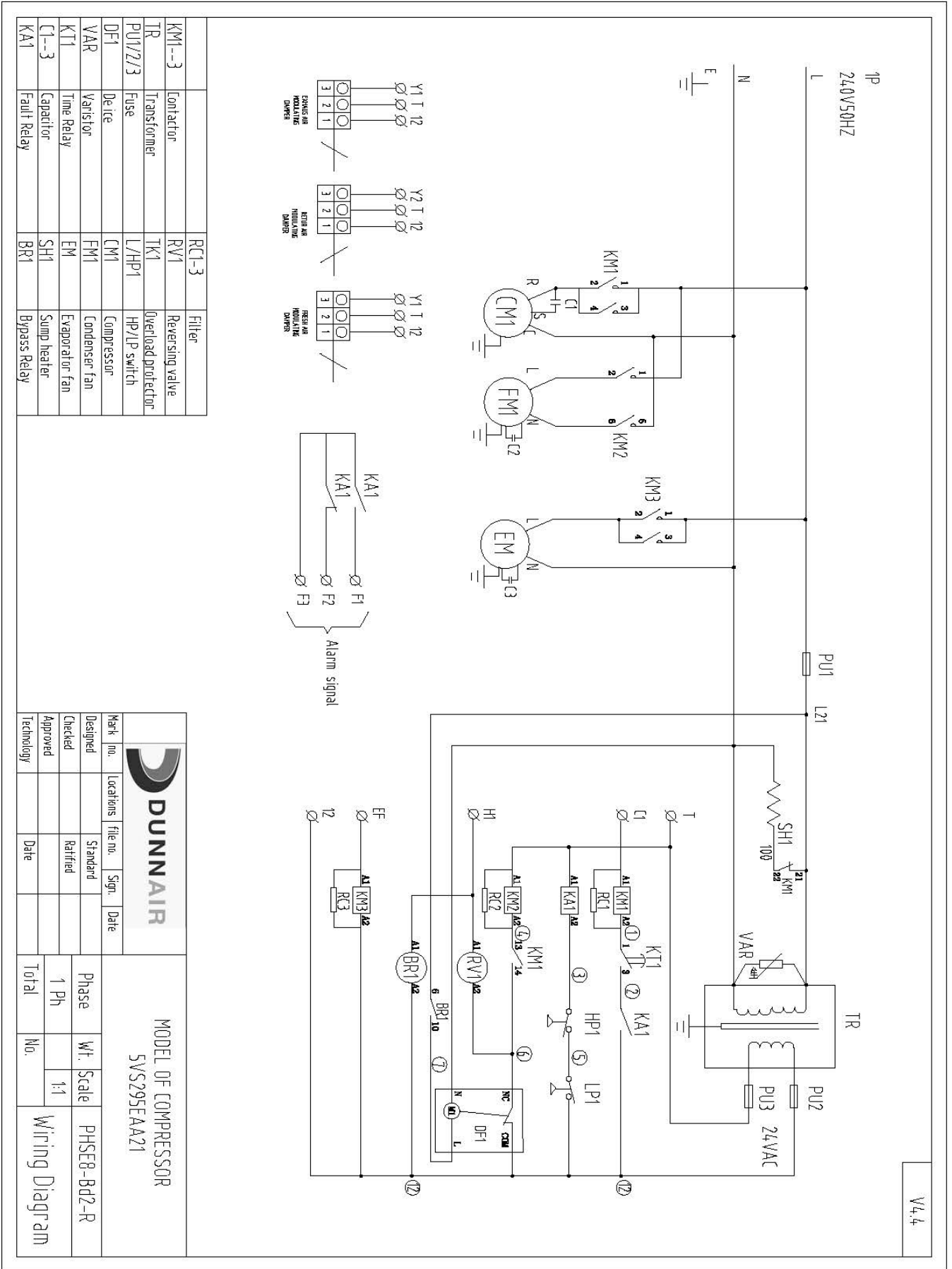
Type	Copper Tube/Aluminium Fins
Face Area (m ²)	0.43

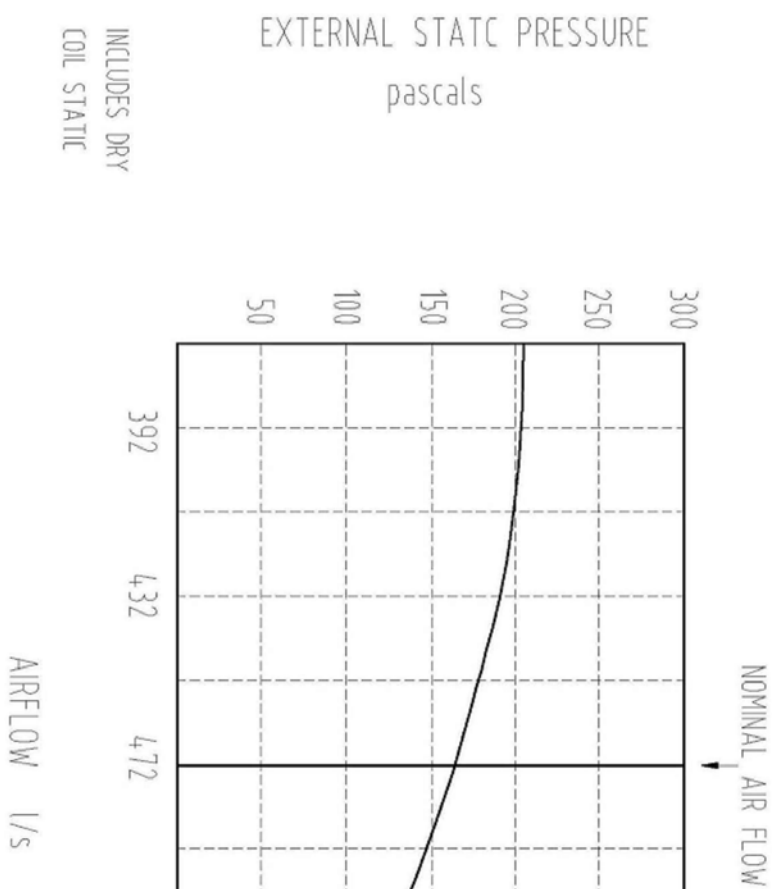
Condenser Fan


Number of Fans	1
Type	Axial
Drive	Direct
Motor Watts /rpm	100 / 900
Motor Voltage /Phase /Frequency	240 / 1 / 50

Refrigeration System

Refrigerant Type	R410A
Charge(kg)	2.8
Service Connections	Rotor Lock Valves
Expansion Control - In / Outdoor unit	TX Valve



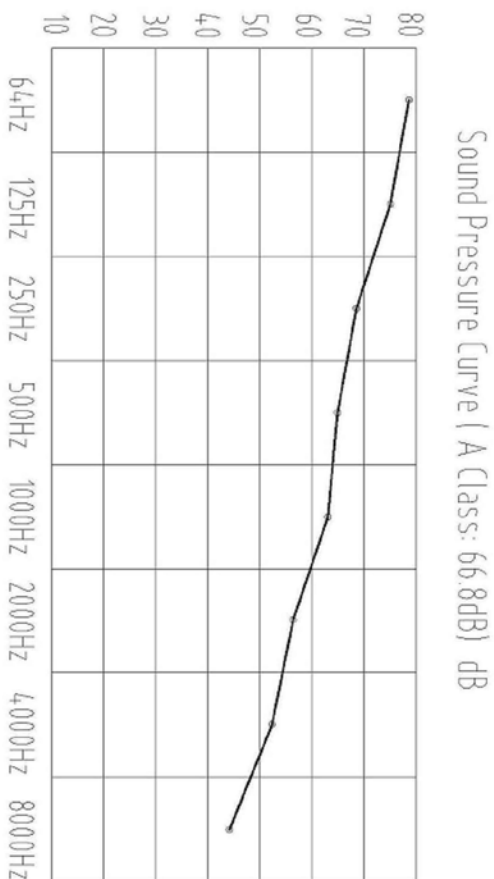


DRAWN BY: Chen Cheng	DATE: 15th Spt. 2011	 DUNNAIR
APPROVED O.A.: LI Meifan	APPROVED ENG.: Zhang Jingfei	
TITLE: Package Air Cooled Heat Pump Unit With Economy Cycle		PHSE TYPE
MODEL: PHSE8-BD2	DRAWING NO.: 01	
ISSUE: 01	SHEET SIZE: A4	


PHSE8 Sound Pressure Curve

A Class: 66.8dB

Hz	dB
64Hz	79.3
125Hz	75.0
250Hz	69.0
500Hz	64.0
1000Hz	62.2
2000Hz	57.6
4000Hz	51.0
8000Hz	43.6



Note: Occupant at least 1.0m from sound source.

DRAWN BY: Chen Cheng	DATE: 24th Dec 2011	
APPROVED Q.A.: LI Melfan	APPROVED ENG.: Zhang Jingfei	
TITLE: Packaged Air Cooled Heat Pump Unit PHS TYPE		
MODEL: PHSE8-BD2	DRAWING NO.: 01	ISSUE: 01
		SHEET SIZE: A4