



DUNNAIR
(Aust) Pty Ltd

PHS8

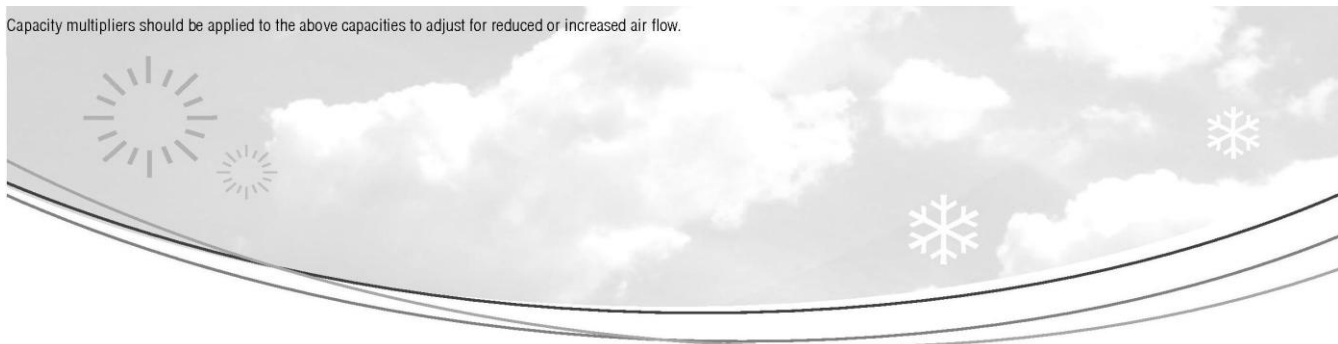
R410a Refrigerant

Rooftop Packaged

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

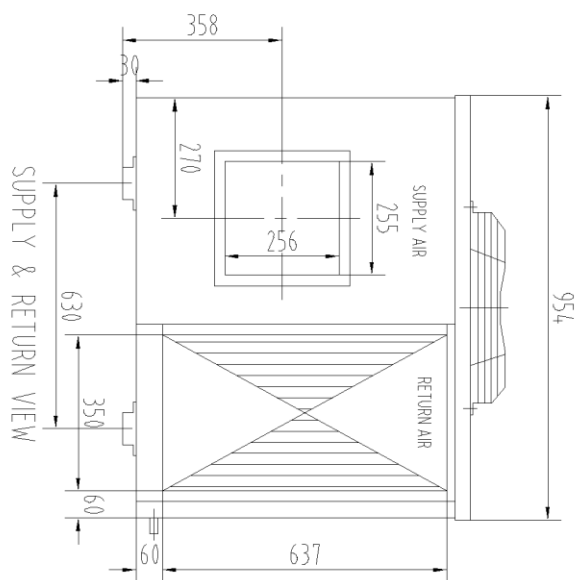
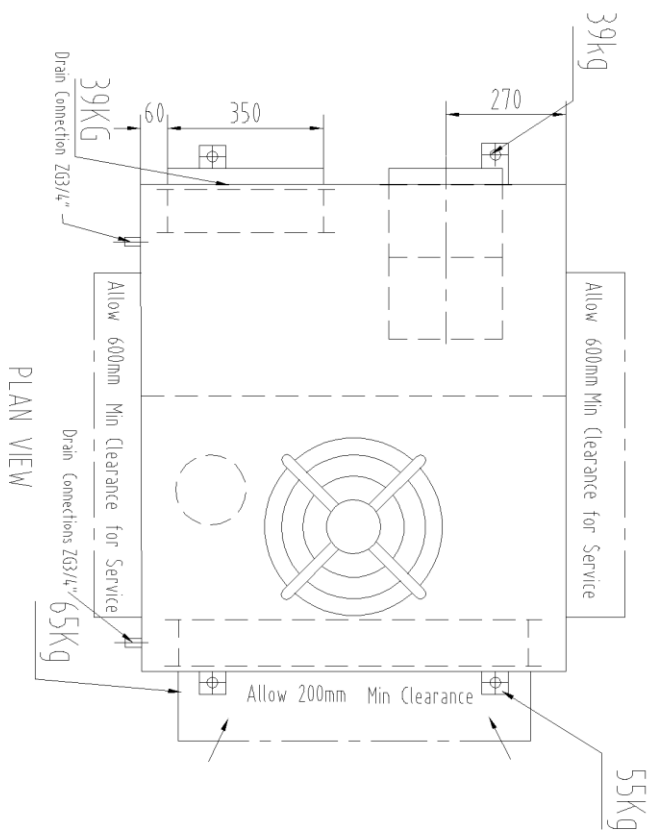
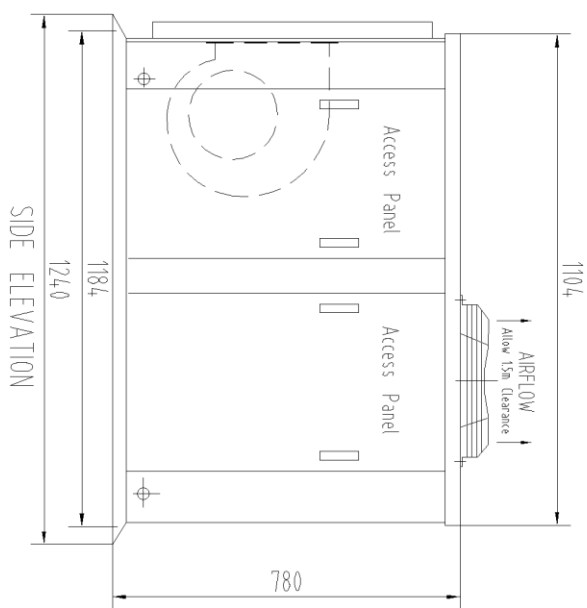
Type	Copper Tube/Aluminium Fins
Face Area (m ²)	0.43

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



Model	Total Cooling Cap.	Sensible Cooling Cap.	Heater Cap.	Rated Airflow	Ext. Static Pressure	Input Power	Max Current	Power
PHS8BD2	7.8kW	7.2kW	7.6kW	472 l/s	150Pa	3.4kW	15.9A	240V/1Ph/50Hz

Note: Cooling Cap.: Enter air temperature 27°C(DBI)/19°C(WB), Ambient temperature 35°C.

Fan : SYZ8-7III (300W-4P)
 INSTALLED WEIGHT 198Kg

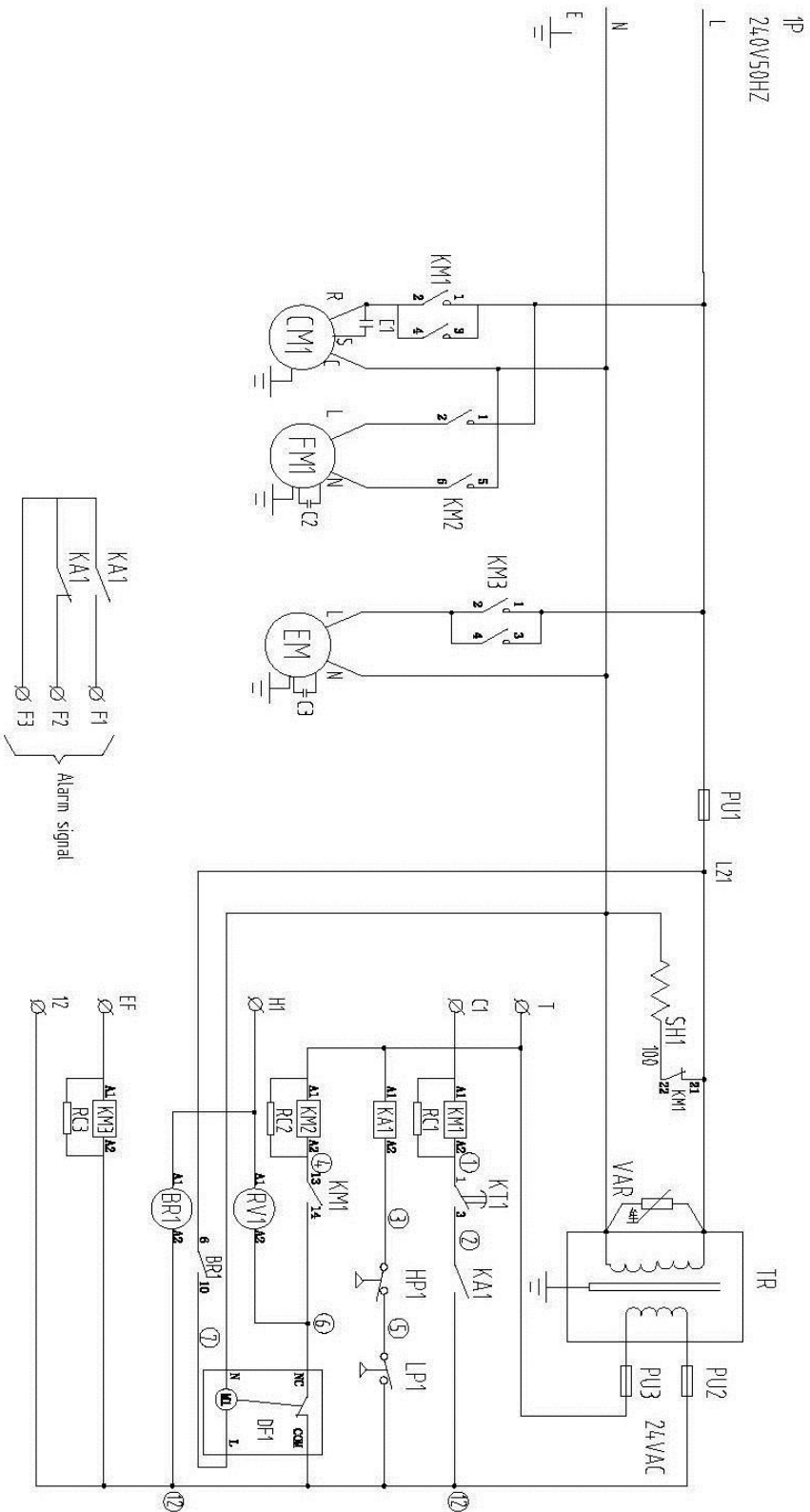
Note! If the sizes in the brackets have any changes, pls take the production drawing as standard, without prior notice.

DRAWN BY: Chencheng	DATE: 2016-03-21	
APPROVED Q.A.: QiuJunjun	APPROVED ENG.: Li Meifen	

TITLE: Package Air Cooled Heat Pump Unit
 PHS TYPE

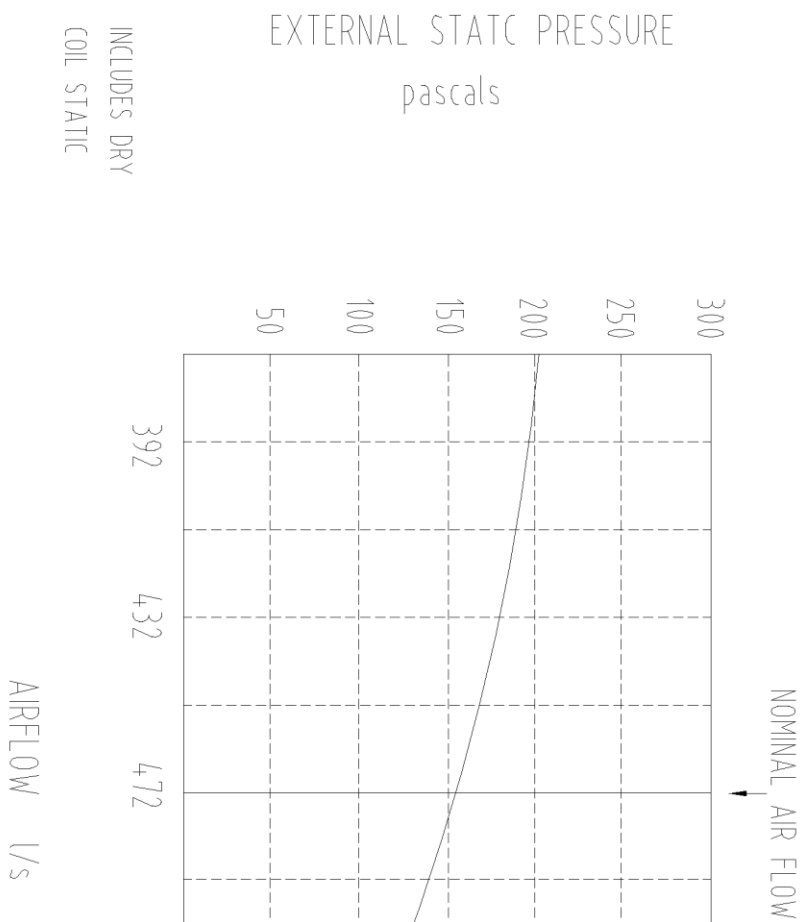
MODEL: PHS8BD2-R	DRAWING NO.:	ISSUE:	SHEET SIZE: A4
	SCALE:		


V4.4



KM1-3	Contactors	RV1	Reversing valve
TR	Transformer	TK1	Overload protector
PU1/2/3	Fuse	L/HP1	HP/LP switch
DF1	Device	CM1	Compressor
VAR	Varistor	FM1	Condenser fan
KT1	Time Relay	EM	Evaporator fan
CI-3	Capacitor	SH1	Sump heater
KA1	Fault Relay	BR1	Bypass Relay

		MODEL OF COMPRESSOR SYS295EAA21			
		Mark no.	Locations	File no.	Sign.
Designed	Standard	Checked	Ratified		
Approved		Technology		Date	
Phase			wt. Scale	PHS8-BD2-R	
1 Ph			1:1		
Total			No.	Wiring Diagram	

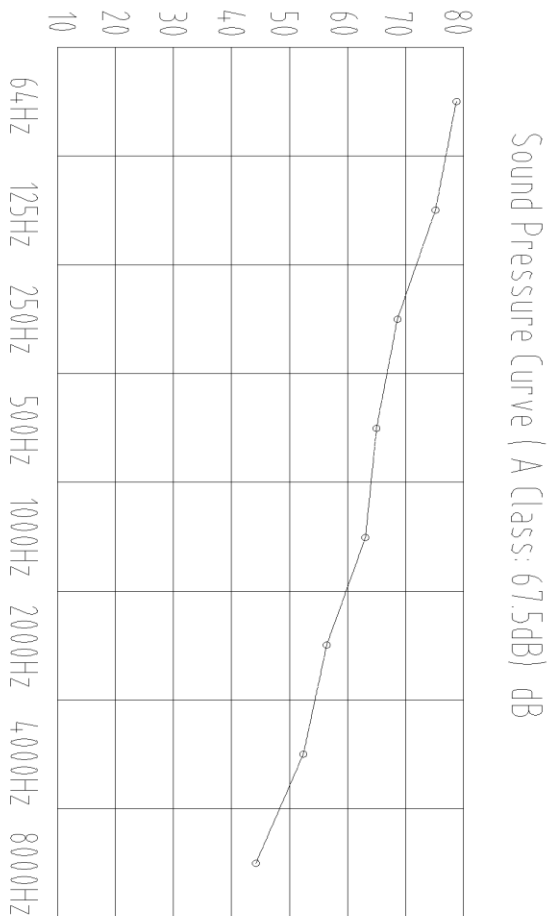


DRAWN BY: Chen Cheng	DATE: 2016-06-23	
APPROVED Q.A.: QiuJunjun	APPROVED ENG.: Li Meifen	
MODEL: PHS8-BD2	DRAWING NO.: 01	TITLE: Package Air Cooled Heat Pump Unit With Economy Cycle PHSE TYPE
	ISSUE: 01	SHEET SIZE: A4


PHS8 Sound Pressure Curve

A Class: 67.5dB

Hz	dB
64Hz	79.3
125Hz	75.2
250Hz	68.5
500Hz	63.5
1000Hz	62.2
2000Hz	57.5
4000Hz	51.0
8000Hz	43.6



Note: Occupant at least 1.0m from sound source.

DRAWN BY: Chen Cheng		DATE: 2016-06-25			
APPROVED Q.A.:		APPROVED ENG.:			
QiuJunjun		Li Meifen		TITLE: Packaged Air-Cooled Heat Pump Unit	
MODEL: PHS8		DRAWING NO.:		PHS TYPE	
		01		ISSUE:	
				01	
				SHEET	
				SIZE:	
				A4	