



DUNNAIR
(Aust) Pty Ltd

PHS15

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	14.0	9.1	9.8	13.2	8.8	9.0	12.6	8.5	12.9	11.7	8.5	13.3
	18	14.7	8.1	9.0	13.7	7.8	13.6	13.0	7.5	14.0	12.2	7.0	14.3
	19	15.0	7.1	7.8	14.4	6.8	14.8	13.7	6.5	15.0	12.7	6.0	15.3
	20	16.0	6.0	6.7	15.0	5.7	15.8	14.3	5.5	16.0	13.3	5.0	16.3
23	17	14.0	11.1	12.3	13.3	11.0	12.6	12.8	10.6	13.0	11.7	10.2	13.1
	18	14.4	9.1	13.4	13.7	10.8	13.7	13.4	9.5	14.0	12.2	9.0	14.1
	19	15.0	9.1	15.4	14.3	9.8	14.7	13.6	8.5	15.0	12.8	8.1	15.2
	20	15.7	8.0	15.4	14.7	8.8	15.8	14.4	7.5	16.0	13.3	7.3	16.2
	21	16.3	7.0	16.4	15.4	7.7	16.8	15.0	6.4	17.0	14.0	6.0	17.1
25	17	14.2	12.8	12.4	13.5	12.7	12.4	13.0	12.2	12.8	12.0	11.7	13.0
	18	14.5	12.5	13.4	14.0	12.5	13.7	13.3	11.7	13.9	12.2	11.0	14.1
	19	15.0	12.0	14.4	14.3	11.9	14.7	13.6	10.5	15.0	12.8	10.1	15.2
	20	15.6	11.3	15.4	14.9	10.8	15.7	14.2	9.5	16.0	13.7	8.8	16.1
	21	16.3	10.7	16.6	15.6	10.0	17.3	15.0	8.2	17.0	14.0	7.3	17.1
27	17	14.5	14.1	12.0	14.0	13.8	12.4	13.3	12.8	12.5	12.6	12.6	12.8
	18	14.7	13.8	13.2	14.5	13.5	13.5	13.4	11.7	13.9	12.6	12.6	13.9
	19	15.1	13.6	14.3	14.8	13.0	14.8	13.7	10.9	15.0	12.7	12.1	15.2
	20	15.6	12.7	15.4	15.4	11.6	15.3	14.2	10.5	16.0	13.4	9.7	16.2
	21	16.3	11.6	16.5	15.8	10.7	16.0	15.0	9.4	17.0	14.0	8.6	17.2
29	17	15.0	14.3	12.0	14.4	14.2	12.0	14.0	14.0	12.1	13.2	13.2	12.5
	18	15.1	14.0	13.0	14.5	13.9	13.3	14.0	14.0	13.5	13.2	13.2	14.0
	19	15.2	13.7	14.4	14.5	13.5	15.0	14.0	14.0	15.0	13.2	13.2	15.2
	20	15.7	13.1	15.6	14.9	13.0	16.1	14.4	13.5	16.0	13.6	11.4	16.3
	21	16.3	12.7	16.5	15.8	12.7	17.0	15.0	12.0	17.0	14.0	9.9	17.3
31	17	15.6	15.2	11.5	15.0	15.0	12.0	14.6	14.6	13.5	14.0	14.0	12.5
	18	15.7	15.1	12.9	15.0	15.0	13.0	14.6	14.6	14.0	14.1	14.0	13.9
	19	15.7	14.9	13.9	15.0	15.0	15.4	14.6	14.6	15.0	14.2	14.1	15.0
	20	15.8	14.8	15.4	15.0	15.0	16.6	14.8	14.3	15.9	14.2	13.9	16.1
	21	16.3	14.5	16.4	15.8	14.6	16.7	15.4	14.0	17.1	14.2	13.6	17.4

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



Technical Specification PHS15 Rooftop Packaged Model

Total Cooling Capacity (kW)*	14.8	Number of Compressors	1
Sensible Cooling Capacity (kW)*	13.0	Power Requirements (Volt /Phase)	415 / 3
Heating Capacity (kW)**	14.6	Normal Max. Current (Amps /Phase)	12.6
Nominal Evaporator Air Flow (L/S)	850	Power Input (kW)	5.6

*Entering air @ 27/19 °C and ambient 35°C

** Entering air @ 21 °C DB and 7°C ambient

Cooling Performance Correction

Capacity	% Rated Air Quantity - Nominal 850 l/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

Evaporator Coil

Type	Copper Tube / Aluminium Fins
Face Area (m ²)	0.38
Air Quantity (l/s)	850

Heating Performance Data

	Outdoor Coil Entering DB temperature °C				
	0	4	8	12	18
Heating Capacity (kW)	11.0	13.0	15.0	16.1	18.2

Evaporator Fan

Number of Fans	1
Type	Centrifugal
Drive	Direct
Motor Voltage /Phase /Frequency	415 /3 /50
Motor Power (kW)	0.48
Maximum Fan Speed (rpm)	1045

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

Electrical

Power Requirements	3 Phase /415V /50Hz
Normal Max. Current (Amps /Phase)	12.6

Compressor

Number Per Unit	1
Type	Scroll
RPM (Nom)	2900
Normal Max Current (Amps /Phase)	9.8
Locked Rotor Current (Amps /Phase)	66
Displacement (m ³ /h)	9.5

Condenser Coil

Type	Copper Tube /Aluminium Fins
Face Area(m ²)	0.55

Condenser Fan Motor

Number of Fans	1
Type	Axial
Drive	Direct
Motor Watts /rpm	370 / 950
Motor Voltage /Phase /Frequency	415 / 3 / 50

Electrical Controls and Safeties

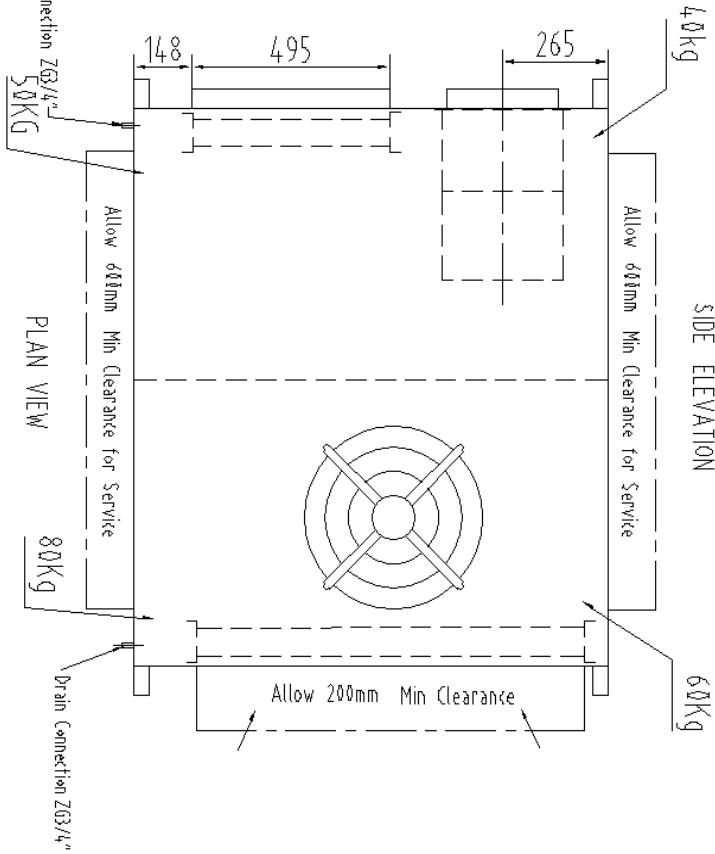
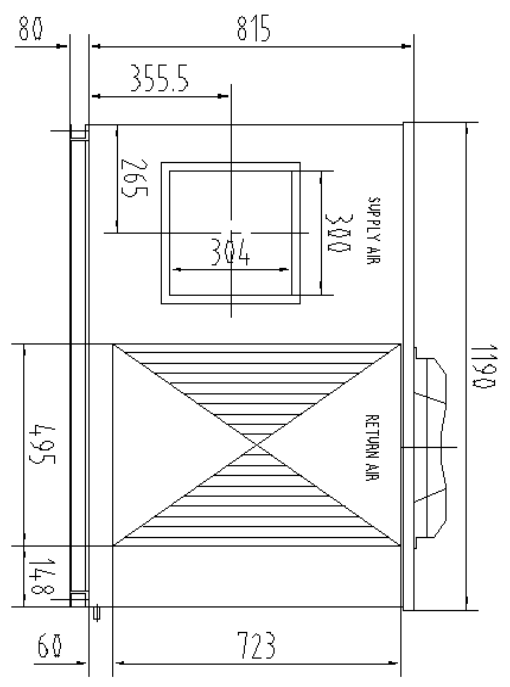
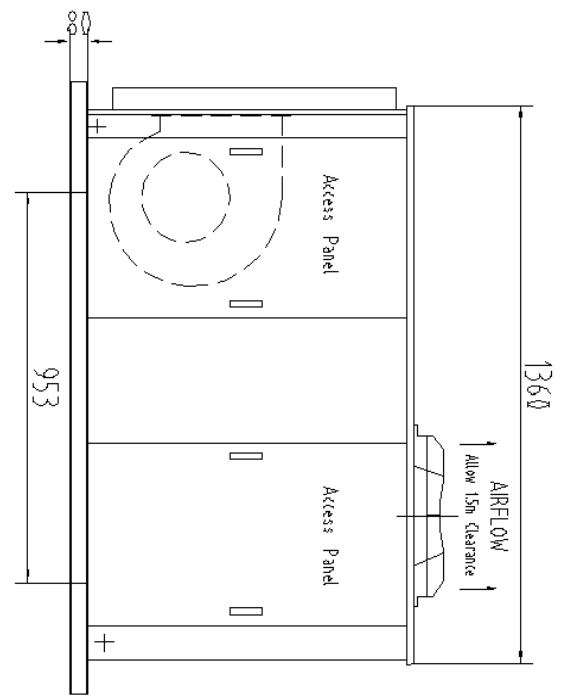
High Pressure Switch (Setting kPa)	4000	Defrost	
Low Pressure Switch (Setting kPa)	300	Initiation Temperature (°C)	-2
Indoor Fan Overload	Internal	Termination Temperature (°C)	18
Outdoor Fan Overload	Internal	Min. Period Between De-Ice (min)	30
Compressor Delay Timer	300 sec	Max De-Ice Period (min)	10

Refrigeration System

Refrigerant Type	R410A
Charge(kg)	4.4
Service Connections	Rotor Lock Valves
Expansion Control - In / Outdoor unit	TX Valve

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

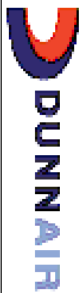


Fan : SYB2801 (1550W-6P)
 INSTALLED WEIGHT 230Kg

Model	Total Cooling Cap.	Sensible Cap.	Heating Cap.	Rated Airflow	Evap. Sat. Pressure	Input Power	Max Current	Power
PHS15BB2-R	14.3kW	13.4kW	14.2kW	834 L/s	12RPa	5.6kW	12.6A	4.5W/120V/50Hz

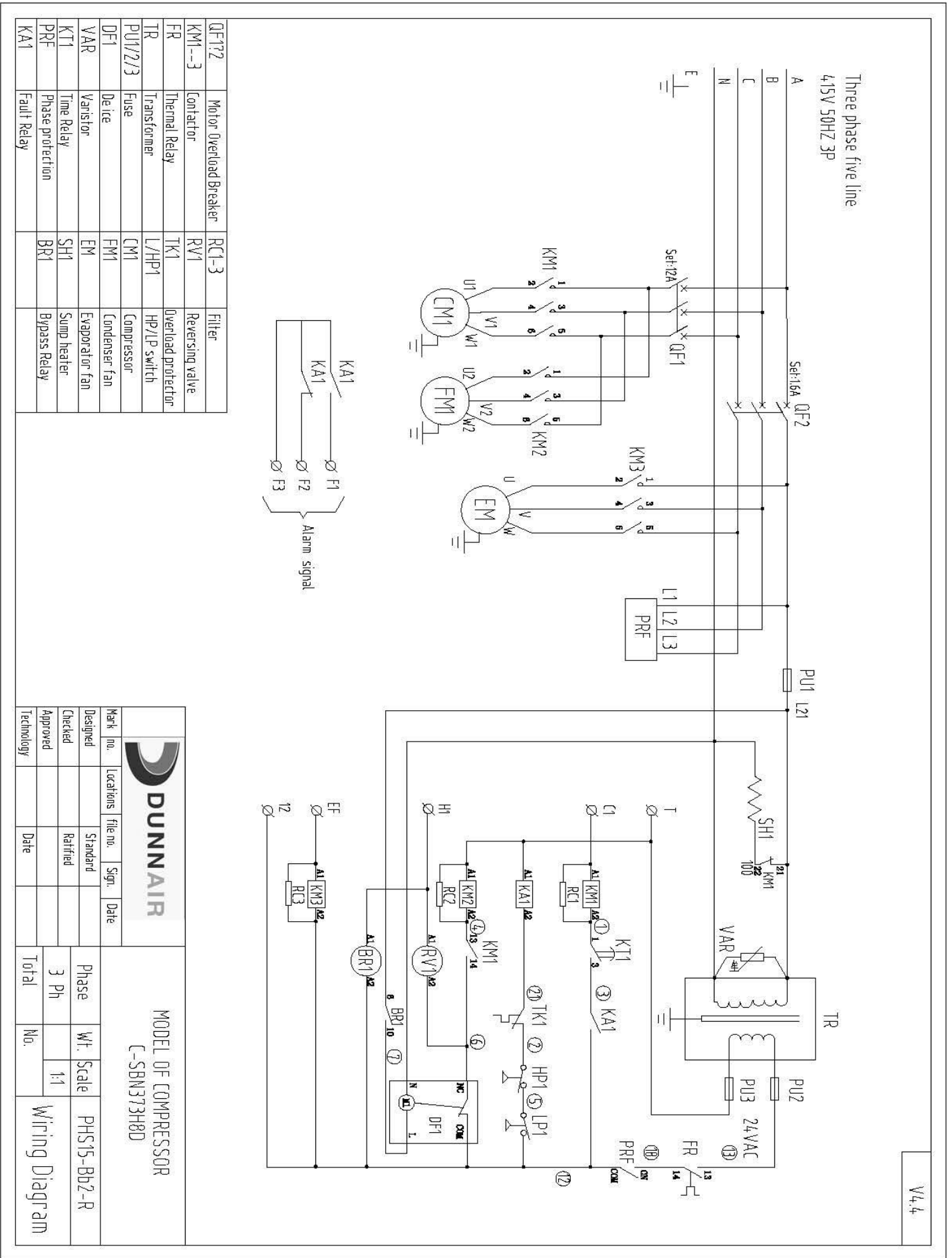
Note: Cooling Cap.: Enter air temperature 27°C (DB) / 79°C (WB), Ambient temperature 35°C.

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 & A.A.: QiuJunJun	APPROVED ENG.: Li Meifen	

TITLE: Package Air Cooled Heat Pump Unit
 PHS TYPE

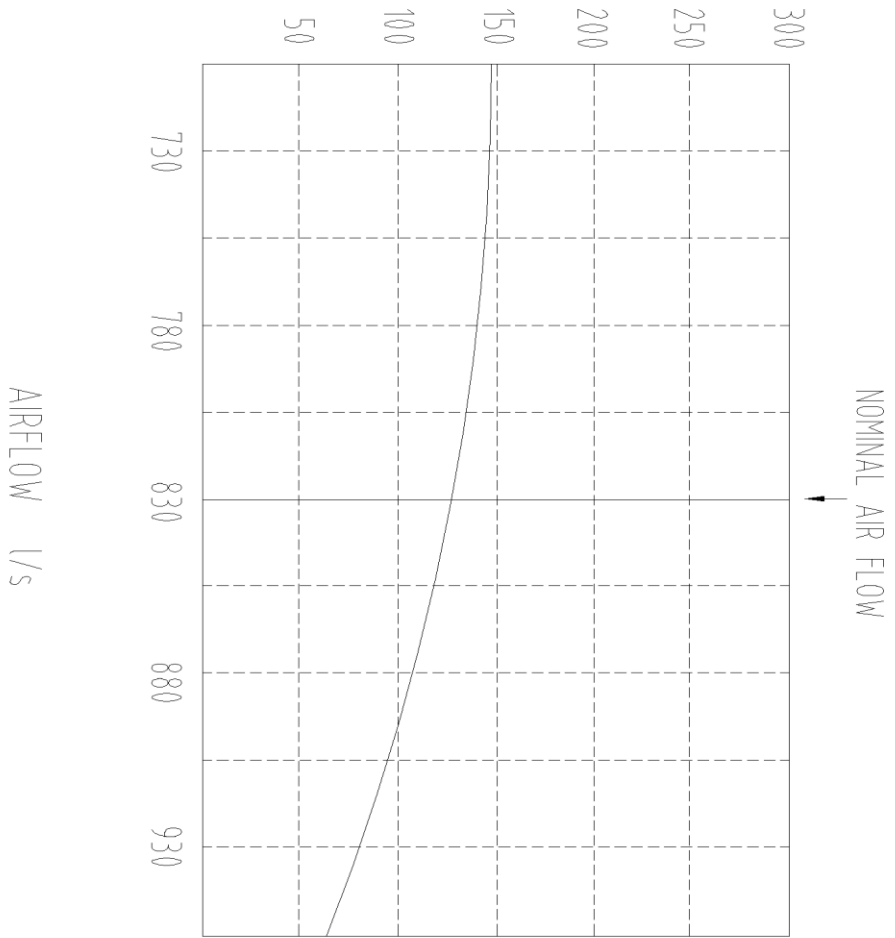
MODEL: PHS15BB2-R	DRAWING NO.:	ISSUE:	SHEET SIZE: A4
	SCALE:		




		Mark no. _____ Locations file no. _____ Standard _____ Date _____	
		Model OF COMPRESSOR C-SBN373H8D	
Designed	Standard	Phase	Wt. Scale
Checked	Ratified	3 Ph	1:1
Approved	Date	Total	No.
Technology		Wiring Diagram	

EXTERNAL STATC PRESSURE
pascals

INCLUDES DRY
COIL STATIC



DRAWN BY: Chen Cheng		DATE: 2016-06-23					
APPROVED a.A.: QiuJunjun		APPROVED ENG.: Li Meifen				TITLE: Package Air Cooled Heat Pump Unit With Economy Cycle PHSE TYPE	
MODEL: PHS15-Bb2		DRAWING NO.: 01		ISSUE: 01		SHEET SIZE: A4	

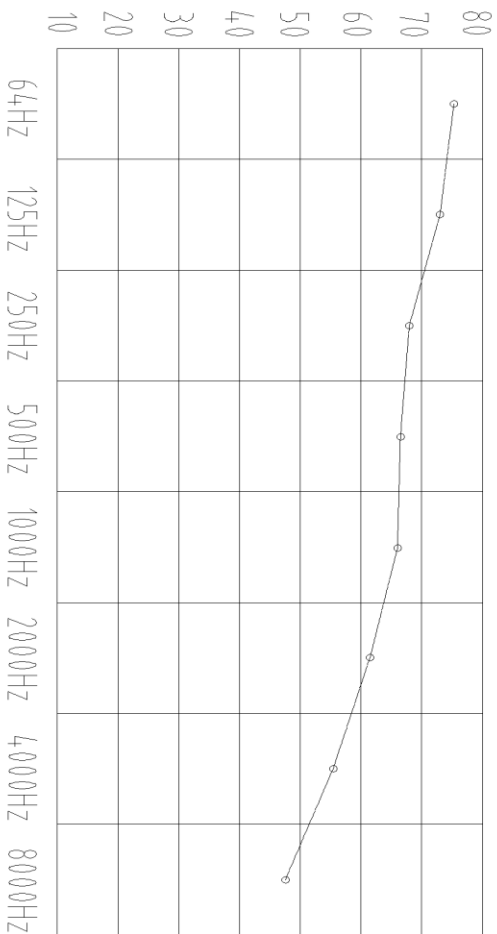
PHS15 Sound Pressure Curve


A Class: 70.6dB

Hz	dB
64Hz	76.5
125Hz	72.9
250Hz	68.9
500Hz	67.5
1000Hz	66.7
2000Hz	61.9
4000Hz	56.5
8000Hz	48.5

Note: Occupant at least 1.0m from sound source.

Sound Pressure Curve (A Class: 70.6dB) dB



DRAWN BY: Chen Cheng	DATE: 2016-06-25		TITLE: Packaged Air-Cooled Heat Pump Unit PHS TYPE	
APPROVED Q.A.: QiuJunjun	APPROVED ENG.: Li Meifen			
MODEL: PHS15	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4	