



DUNNAIR
(Aust) Pty Ltd

SHS18

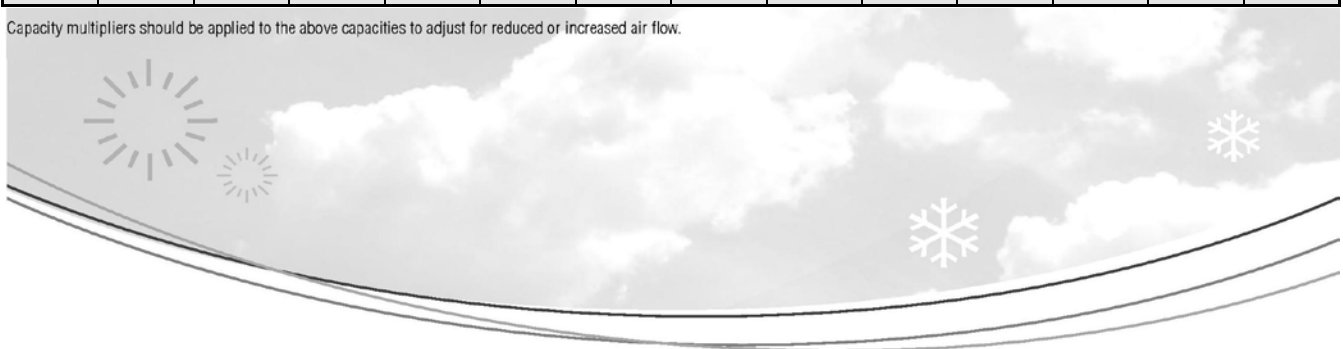
Split Ducted Model

R410a Refrigerant

PERFORMANCE DATA

INDOOR COIL ENTERING AIR TEMP °C		OUTDOOR COIL ENTERING TEMPERATURE °C											
		30			35			40			45		
		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	15.5	10.9	11.1	14.9	10.6	11.3	14.3	10.4	11.6	13.7	9.3	11.9
	18	16.0	10.1	12.0	15.4	9.8	12.3	14.8	9.5	12.6	14.1	8.5	13.0
	19	16.5	9.3	12.9	15.9	9.0	13.1	15.2	8.8	13.4	14.7	8.0	13.7
	20	17.1	8.5	14.0	16.4	8.2	14.3	15.7	8.0	14.5	15.1	7.3	14.8
23	17	15.5	11.8	11.0	14.9	11.7	11.2	14.2	11.5	12.5	14.0	9.7	12.8
	18	16.1	11.0	12.0	15.4	10.8	12.3	14.7	10.6	12.6	14.4	8.6	13.0
	19	16.6	10.2	12.9	16.0	9.9	13.1	15.4	9.6	13.4	14.7	7.9	13.8
	20	17.2	9.3	13.8	16.6	9.0	14.0	16.0	9.0	14.3	15.1	7.5	14.7
	21	17.7	8.5	14.9	17.1	8.2	15.2	16.4	8.0	15.5	15.2	7.1	15.8
25	17	15.4	12.6	12.0	14.8	12.4	12.2	14.2	12.5	12.5	13.6	12.2	12.8
	18	16.0	11.8	12.9	15.4	11.6	13.1	14.7	10.5	13.4	14.1	10.1	13.7
	19	16.6	10.9	13.9	15.9	10.7	14.1	15.3	9.8	14.5	14.8	9.3	14.9
	20	17.1	10.0	15.1	16.5	9.7	15.2	15.8	8.8	15.5	14.9	8.2	15.9
	21	17.6	9.2	16.0	17.1	9.0	16.2	16.3	8.0	15.5	15.2	7.1	16.0
27	17	17.0	16.2	11.9	16.2	16.0	12.1	15.5	15.4	12.4	15.2	14.8	12.8
	18	17.5	15.4	12.8	16.8	15.2	13.1	16.1	15.0	13.4	15.4	14.5	13.8
	19	18.0	14.6	13.8	17.2	14.4	14.0	16.5	14.2	14.4	16.0	13.7	14.7
	20	18.8	13.7	14.8	18.0	13.1	15.1	17.2	12.2	15.4	16.6	11.5	15.8
	21	18.9	12.8	15.9	18.2	12.2	16.0	17.4	11.8	16.3	16.7	11.3	16.7
29	17	17.0	16.6	11.8	16.2	16.0	12.0	15.6	15.3	12.3	14.9	14.7	12.6
	18	17.3	15.7	12.9	16.6	15.1	13.1	16.0	14.4	13.5	15.2	13.7	13.8
	19	18.0	14.6	13.8	17.3	14.1	14.0	16.6	13.7	14.4	15.7	13.0	14.7
	20	18.8	13.4	14.9	18.0	12.7	15.1	17.3	12.4	15.5	16.3	11.8	15.9
	21	19.3	12.4	16.0	18.5	11.7	16.2	17.7	11.3	16.5	17.0	10.7	16.9
31	17	16.9	16.6	11.6	16.7	16.3	11.8	16.5	16.0	12.1	16.2	14.8	12.6
	18	17.6	15.7	12.5	17.3	15.4	12.7	17.1	15.0	13.0	16.5	13.7	13.4
	19	18.2	14.7	13.5	17.9	14.4	13.7	17.6	13.9	14.0	17.0	12.4	14.5
	20	18.9	13.8	14.6	18.6	13.5	14.8	18.7	12.9	15.0	18.0	10.9	15.4
	21	19.5	12.6	15.5	19.2	12.3	12.8	19.3	12.0	13.1	18.5	10.0	13.5

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



Technical Specification SHS18 Split Ducted Model

Indoor Unit Model Number	SHS18N	Nominal Evaporator Air Flow (l/s)	928
Outdoor Unit Model Number	SHS18W	Number of Compressors	1
Total Cooling Capacity (kW)*	17.2	Power Requirements (Volt/Phase)	415/3
Sensible Cooling Capacity (kW)*	14.4	Normal Max. Current (Amps/Phase)	16.0
Heating Capacity (kW) **	17.4	Power Input (kW)	6.44
*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 928 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

Heating Performance Data

	Outdoor Coil Entering DB temperature °C				
	0	4	8	12	18
Heating Capacity (kW)	12.7	14.4	18.4	19.8	21

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	Scroll
RPM (Nom)	2880
Normal Max. Current (amps /phase)	11.6
Locked Rotor Current (amps /phase)	66
Displacement (m ³ /h)	11.6

Electrical Controls and Safeties

High Pressure Switch (Setting kPa)	4500	Defrost	
Low Pressure Switch (Setting kPa)	50	Timing cycle	
Indoor Fan Overload	Internal	Defrost time (min)	4
Outdoor Fan Overload	Internal	Min. Period Between De-Ice (min)	45
Compressor Delay Timer	180 sec	Max De-Ice Period (min)	4

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 (Indoor Coil)

Type	Copper Tube / Aluminium Fins
Face Area (m ²)	0.38
Air Quantity (l/s)	928

Evaporator (Indoor fan)

Number of Fans	2
Type	Centrifugal
Drive	Direct
Motor Voltage /Phase /Frequency	240 / 1 / 50
Motor(kW)Standard	0.4
Maximum Fan Speed(rpm)	930

Electrical

Power Requirements	3 phase / 415V / 50Hz
Normal Max. Current (Amps /Phase)	16

Condenser (Outdoor Coil)

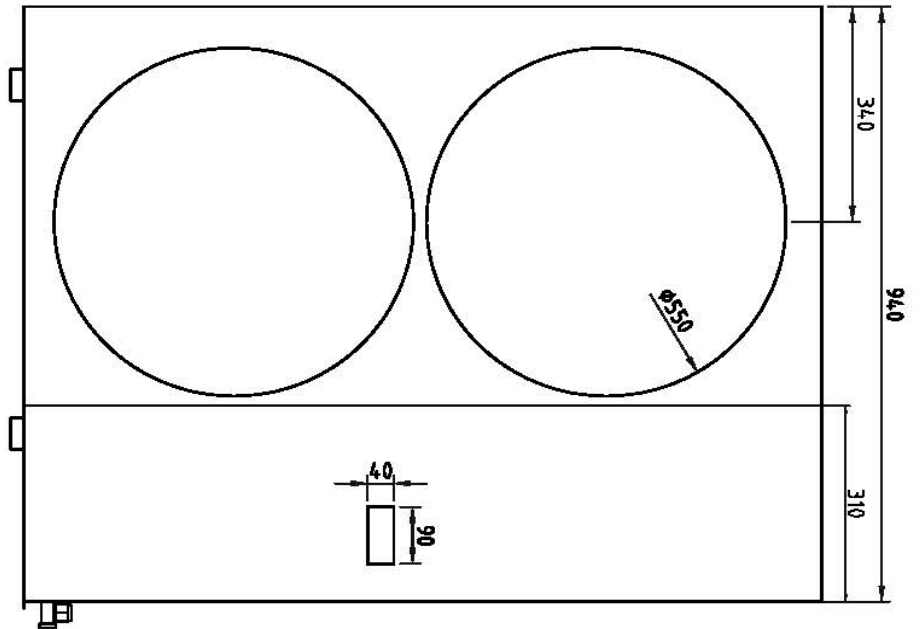
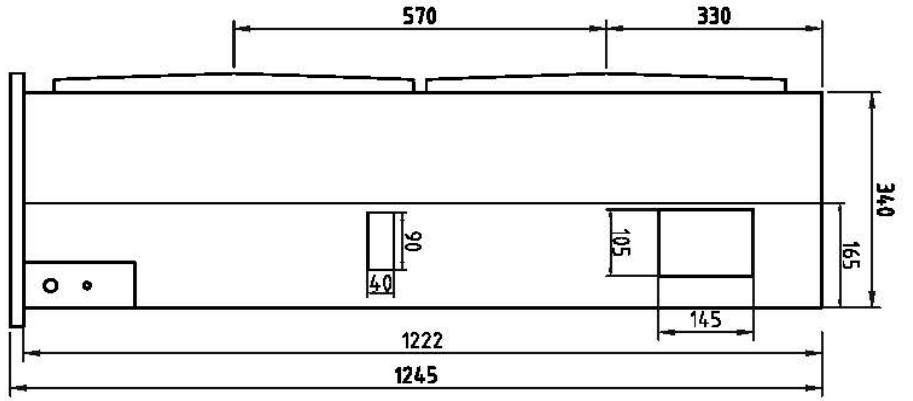
Type	Copper Tube / Aluminium Fins
Face Area (m ²)	1.09

Condenser (Outdoor Fan)


Number of Fans	2
Type	Axial
Drive	Direct
Motor Watts /rpm	50/850
Motor Voltage /Phase /Frequency	240 / 1 / 50

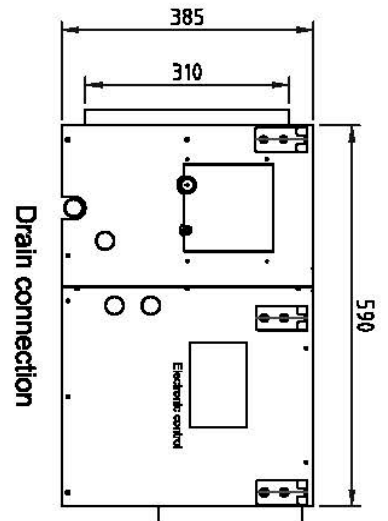
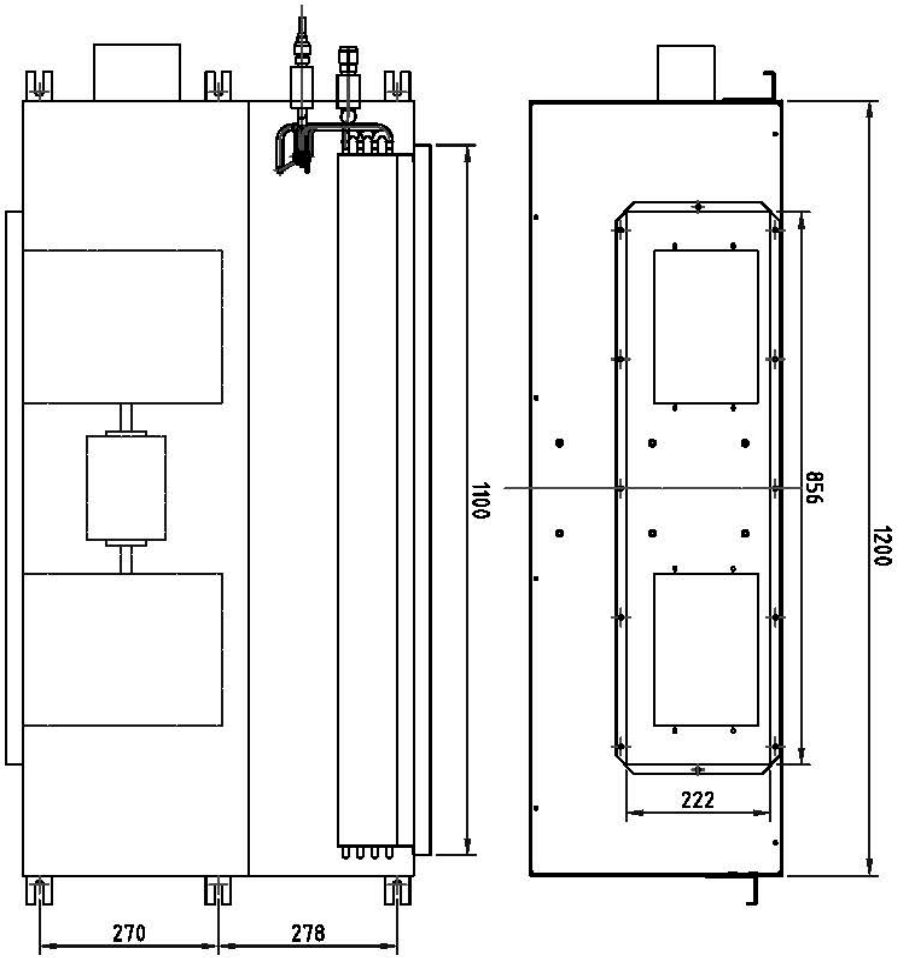
Refrigeration System

Refrigerant Type	R410A
Charge (kg)	4.0
Service Connections	Rotor Lock Valves
Expansion Control - In / Outdoor Unit	TXV
Line Size (mm)	
Liquid Line 0 – 50 Meters	9.52
Gas Line 0 – 50 Meters	19.02




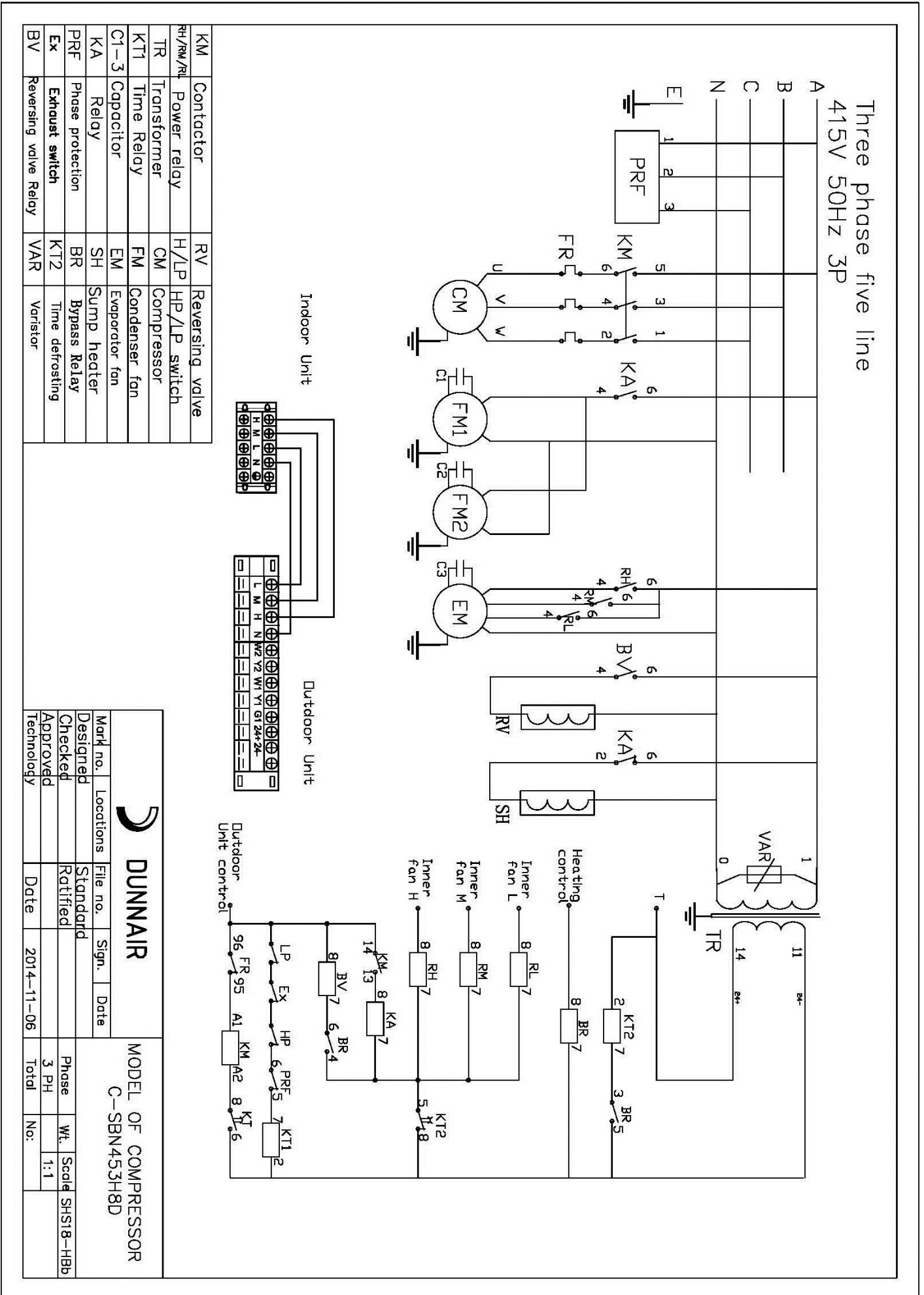
OUTDOOR UNIT INSTALLED
WEIGHT 115 kg

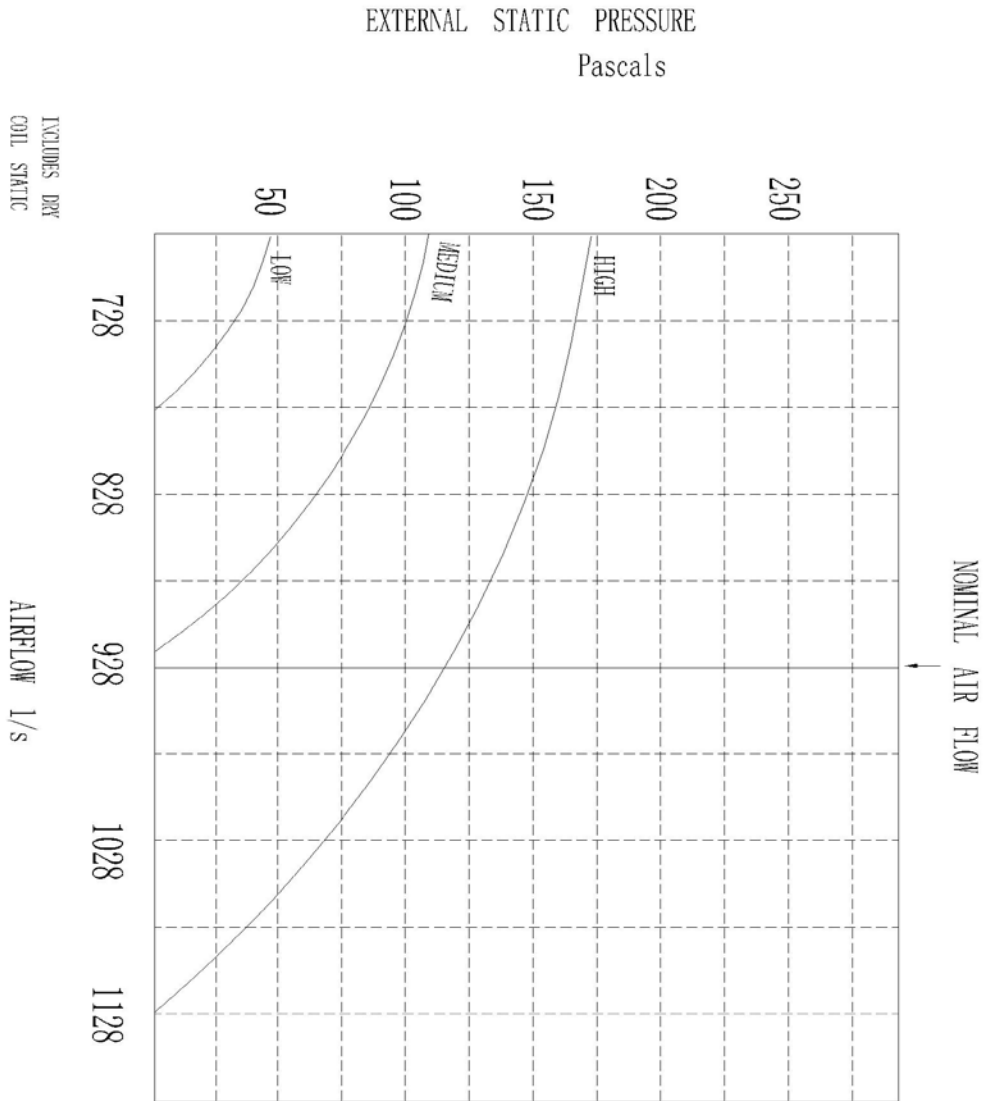
DRAWN BY: Fa Jun Lv		DATE: 4 Feb 2015			
APPROVED Q.A.: Nina Zhou		APPROVED ENG.: Jeffy Bai			
MODEL: SHS18W-HB18		DRAWING NO.:		TITLE: Split System Air Cooled Heat Pump Unit	
		01		SHS TYPE	
		ISSUE:		SHEET	
		01		SIZE: A4	



Evaporator Motor: YLK400-4
 INDOOR UNIT INSTALLED WEIGHT 58 kg

DRAWN BY: Fa Jun Lv		DATE: 4 Feb 2015			
APPROVED Q.A.:		APPROVED ENGR.:			
Nilva Zhou		Jeffy Bai		TITLE: Split System Air Cooled Heat Pump Unit	
MODEL:		SHS TYPE		DRAWING NO.:	
SHS18N-HBd				01	
ISSUE:		SHEET SIZE:		01	
		A4			



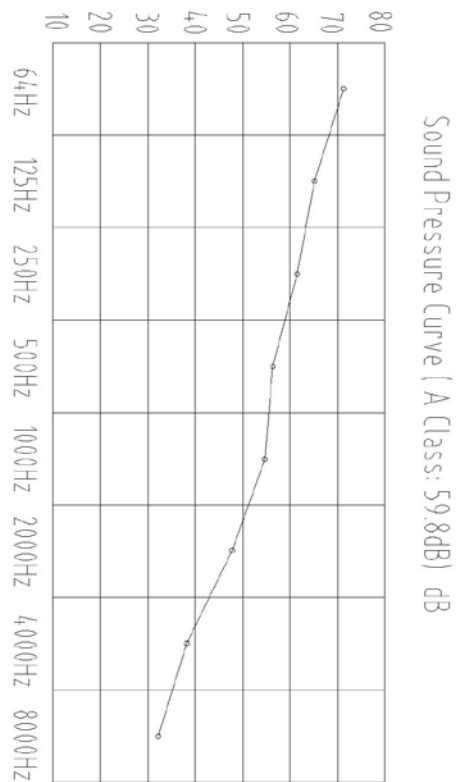


Note:
SHS18N FAN: 2-L222/208, FAN MOTOR: YLK-400W-4

SPLIT SYSTEM AIR COOLED HEAT PUMP UNIT
MODEL NO. SHS18

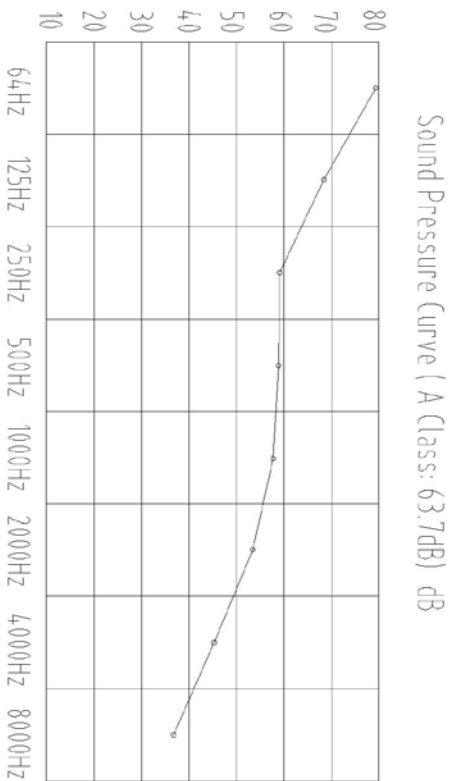
SHS18W Sound Pressure Curve
A Class: 59.8dB

Hz	dB
64Hz	71.3
125Hz	65.5
250Hz	61.0
500Hz	57.2
1000Hz	55.0
2000Hz	48.5
4000Hz	38.5
8000Hz	33.0




SHS18N Sound Pressure Curve
A Class: 63.7dB

Hz	dB
64Hz	79.4
125Hz	69.0
250Hz	59.6
500Hz	59.2
1000Hz	57.1
2000Hz	53.0
4000Hz	45.8
8000Hz	37.7



Note: Occupant at least 1.0m from sound source.

DRAWN BY:	DATE:		
APPROVED Q.A.:	2014-08-30		
APPROVED ENG.:	TITLE: Split System Air Cooled Heat Pump Unit	SHS TYPE	
MODEL: SHS18	DRAWING NO.: 01		
ISSUE: 01	SHEET SIZE: A4		