



DUNNAIR
(Aust) Pty Ltd

SHS25

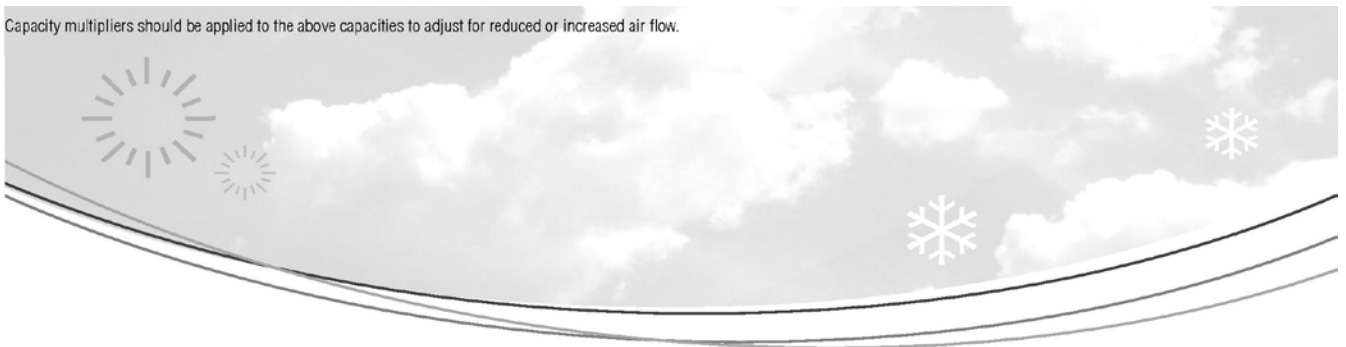
Split Ducted Model

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	23.4	13.8	11.6	22.2	13.4	11.9	21.1	12.9	12.2	19.9	12.9	12.5
	18	24.2	12.4	12.0	23.0	12.0	13.0	21.8	11.5	13.3	20.7	11.1	13.5
	19	24.9	11.1	13.8	23.7	10.6	14.1	22.6	10.2	14.4	21.4	9.8	14.6
	20	25.8	9.7	14.9	24.5	9.2	15.2	23.3	8.7	15.5	22.2	8.3	15.8
23	17	23.4	16.4	11.6	22.2	15.9	11.9	21.1	15.5	12.2	19.9	15.0	12.5
	18	24.2	15.1	12.7	23.0	14.6	13.0	21.9	14.1	13.3	20.7	13.6	13.5
	19	24.9	13.6	13.7	23.7	13.2	14.0	22.6	12.7	14.2	21.4	12.3	14.5
	20	25.7	12.2	14.9	24.5	11.8	15.2	23.3	11.3	15.5	22.1	10.9	15.8
	21	26.6	10.9	16.0	25.3	10.4	16.2	24.1	10.0	16.5	22.9	9.6	16.8
25	17	23.5	18.8	11.6	22.3	18.3	11.9	21.3	17.8	12.1	20.1	17.3	12.4
	18	24.1	18.2	12.7	23.0	17.1	13.0	21.8	16.7	13.3	20.7	16.2	13.5
	19	24.9	17.5	13.7	23.7	15.7	14.0	22.6	15.3	14.2	21.4	14.8	14.5
	20	25.7	16.9	14.8	24.5	14.5	15.1	23.3	14.1	15.3	22.1	13.6	15.6
	21	26.5	16.2	15.9	25.3	13.0	16.2	24.1	12.6	16.5	22.9	12.1	16.8
27	17	23.7	20.9	11.5	22.3	20.1	11.8	21.6	19.7	12.0	21.0	19.1	12.3
	18	24.2	20.2	12.7	22.7	19.5	12.9	22.0	19.2	13.2	21.0	18.7	13.5
	19	24.9	18.7	13.6	23.8	19.1	13.7	22.5	17.9	14.2	22.0	17.4	14.5
	20	25.7	17.5	14.8	24.1	16.8	15.1	23.3	16.6	15.3	22.2	16.1	15.6
	21	26.5	16.0	16.0	25.0	15.4	16.2	24.1	15.1	16.5	22.9	14.7	16.8
29	17	24.1	22.9	11.4	23.1	22.1	11.6	22.1	21.4	11.9	21.1	21.1	12.1
	18	24.6	22.1	12.6	23.4	21.5	12.9	22.4	20.9	13.1	21.3	20.9	13.4
	19	25.0	21.4	13.7	23.8	20.9	14.0	22.7	20.5	14.3	21.5	20.0	14.5
	20	25.7	20.0	14.8	24.5	19.6	15.0	23.3	19.2	15.3	22.1	18.7	15.6
	21	26.5	18.6	15.9	25.3	18.1	16.2	24.0	17.7	16.5	22.9	17.2	16.8
31	17	24.7	24.7	11.2	23.7	23.7	11.5	22.8	22.8	11.7	21.9	21.9	12.0
	18	25.0	23.9	12.4	24.0	23.2	12.7	22.8	22.8	12.9	21.9	21.9	13.2
	19	25.4	23.3	13.5	24.3	22.7	13.8	22.8	22.8	14.0	21.9	21.9	14.3
	20	25.8	22.5	14.7	24.6	22.0	15.0	23.4	21.6	15.2	22.3	21.2	15.5
	21	26.5	21.2	15.9	25.2	20.7	16.2	24.0	20.2	16.5	22.9	19.8	16.7

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



Technical Specification SHS25 Split Ducted Model

Indoor Unit Model Number	SHS25N	Nominal Evaporator Air Flow (l/s)	1390
Outdoor Unit Model Number	SHS25W	Number of Compressors	1
Total Cooling Capacity (kW)*	23.8	Power Requirements (Volt /Phase)	415 / 3
Sensible Cooling Capacity (kW)*	19.1	Normal Max. Current (Amps /Phase)	22.4
Heating Capacity (kW) **	24.2	Power Input (kW)	9.87
*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 1390 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)	20.4	22.0	25.2	26.5	30.0

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)	2900
Normal Max. Current (amps /phase)	18.0
Locked Rotor Current (amps /phase)	96
Displacement (m³/h)	17.6

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 (Indoor Coil)

Type	Copper Tube / Aluminium Fins
Face Area (m²)	0.59
Air Quantity (l/s)	1390

Evaporator (Indoor fan)

Number of Fans	2
Type	Centrifugal
Drive	Direct
Motor Voltage /Phase /Frequency	415 / 3 / 50
Motor Power (kW)	2 x 0.45
Maximum Fan Speed (rpm)	1096

Electrical

Power Requirements	3 phase / 415V / 50Hz
Normal Max. Current (Amps /Phase)	22.4

Condenser (Outdoor Coil)

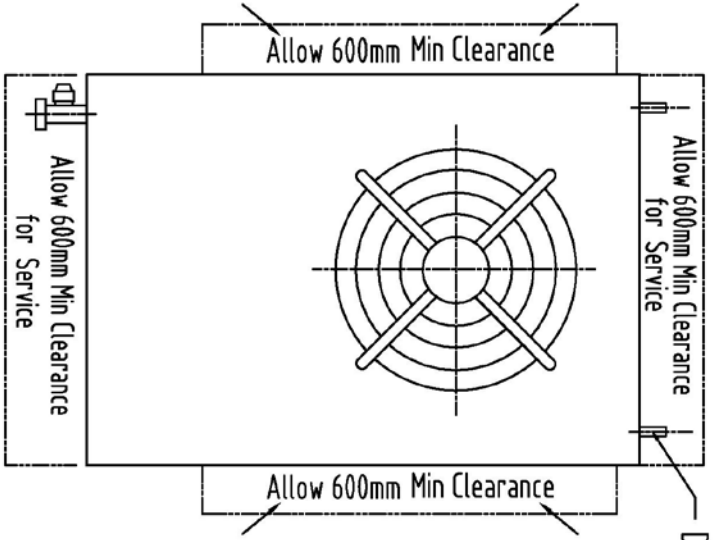
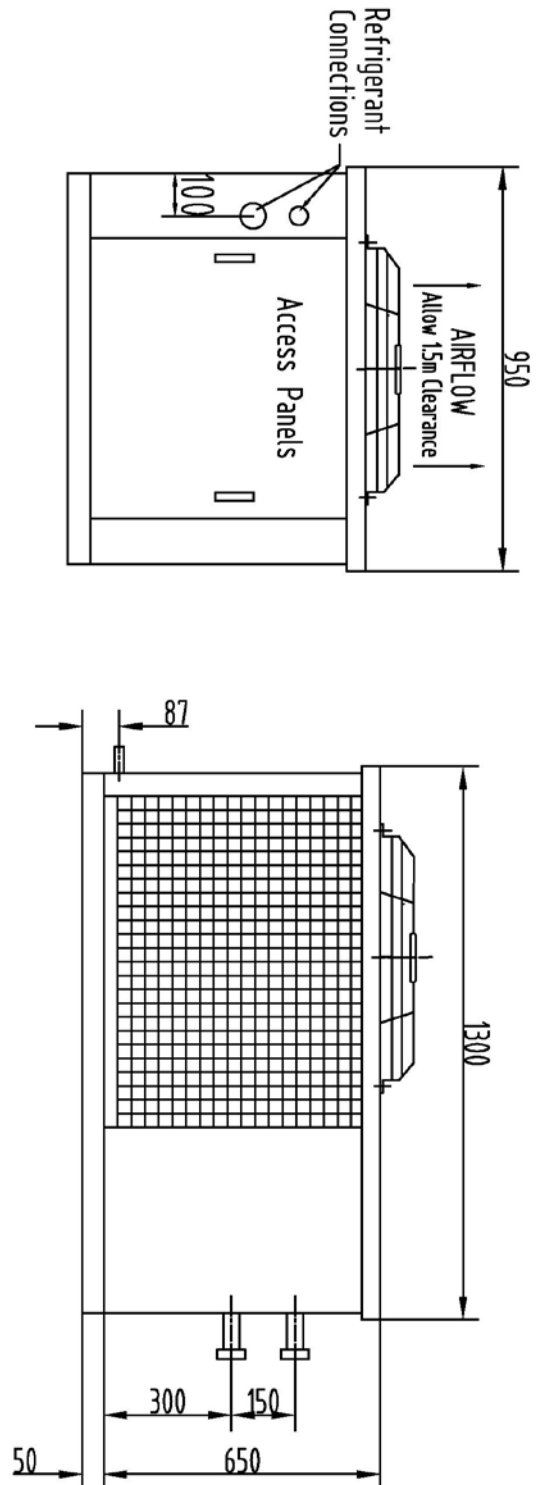
Type	Copper Tube / Aluminium Fins
Face Area (m²)	2 x 0.44

Condenser (Outdoor Fan)

Number of Fans	1
Type	Axial
Drive	Direct
Motor Watts /rpm	370 / 900
Motor Voltage /Phase /Frequency	415 / 3 / 50

Refrigeration System

Refrigerant Type	R410A
Charge (kg)	7.2
Service Connections	Rotor Lock Valves
Expansion Control - In / Outdoor Unit	TX Valve
Line Size (mm)	
Liquid Line 0 – 50 Meters	16 (5/8")
Gas Line 0 – 50 Meters	22 (7/8")

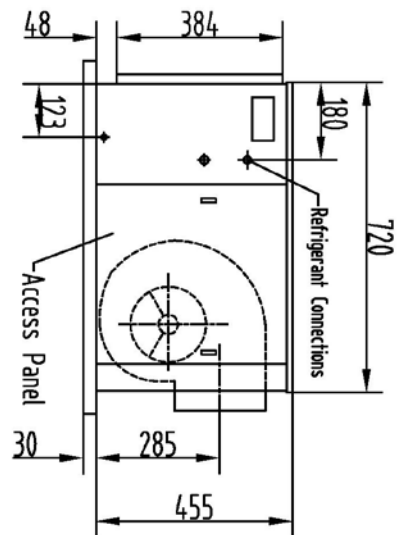
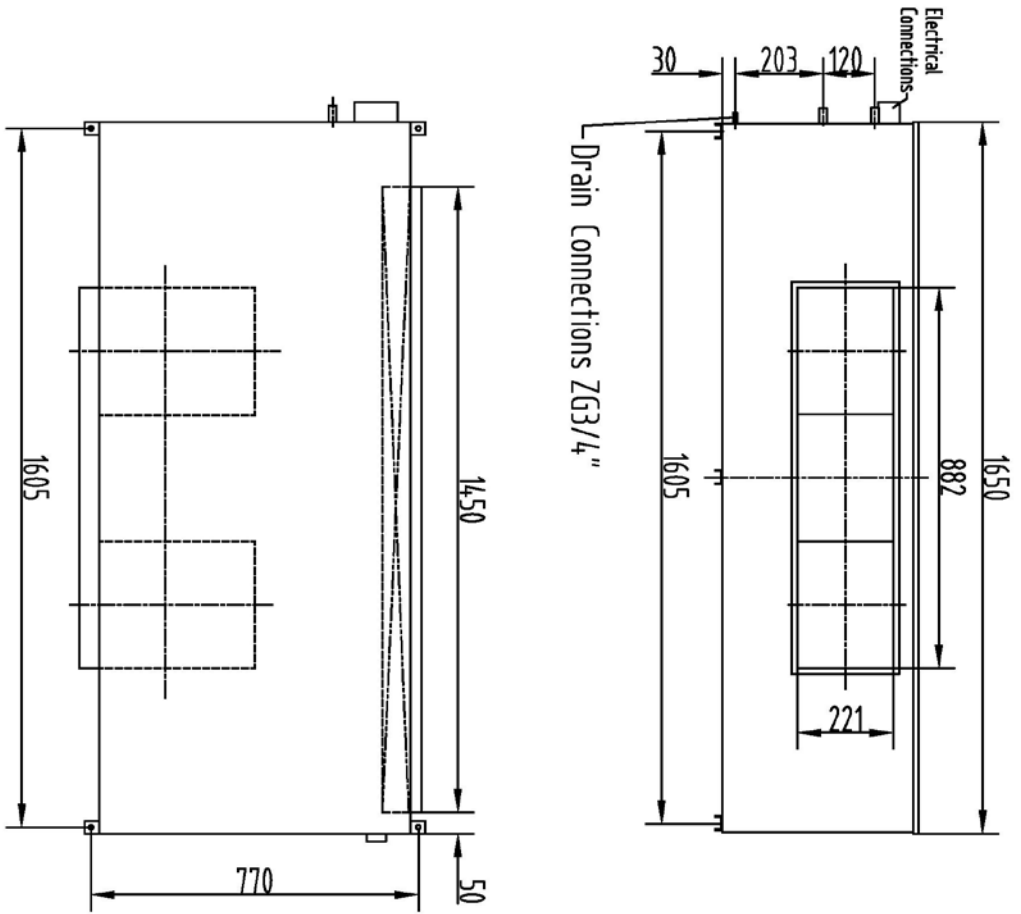


OUTDOOR UNIT INSTALLED WEIGHT 24.1 kg
 For units with R410a/R407C/R22



TITLE: Split System Air-Cooled Heat Pump Unit
 SHS TYPE

DRAWN BY: Chen Cheng	DATE: 7th Jan. 10	
APPROVED O.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei	
MODEL: SHS25WBB2	DRAWING NO.: 01	ISSUE: 01
		SHEET SIZE: A4



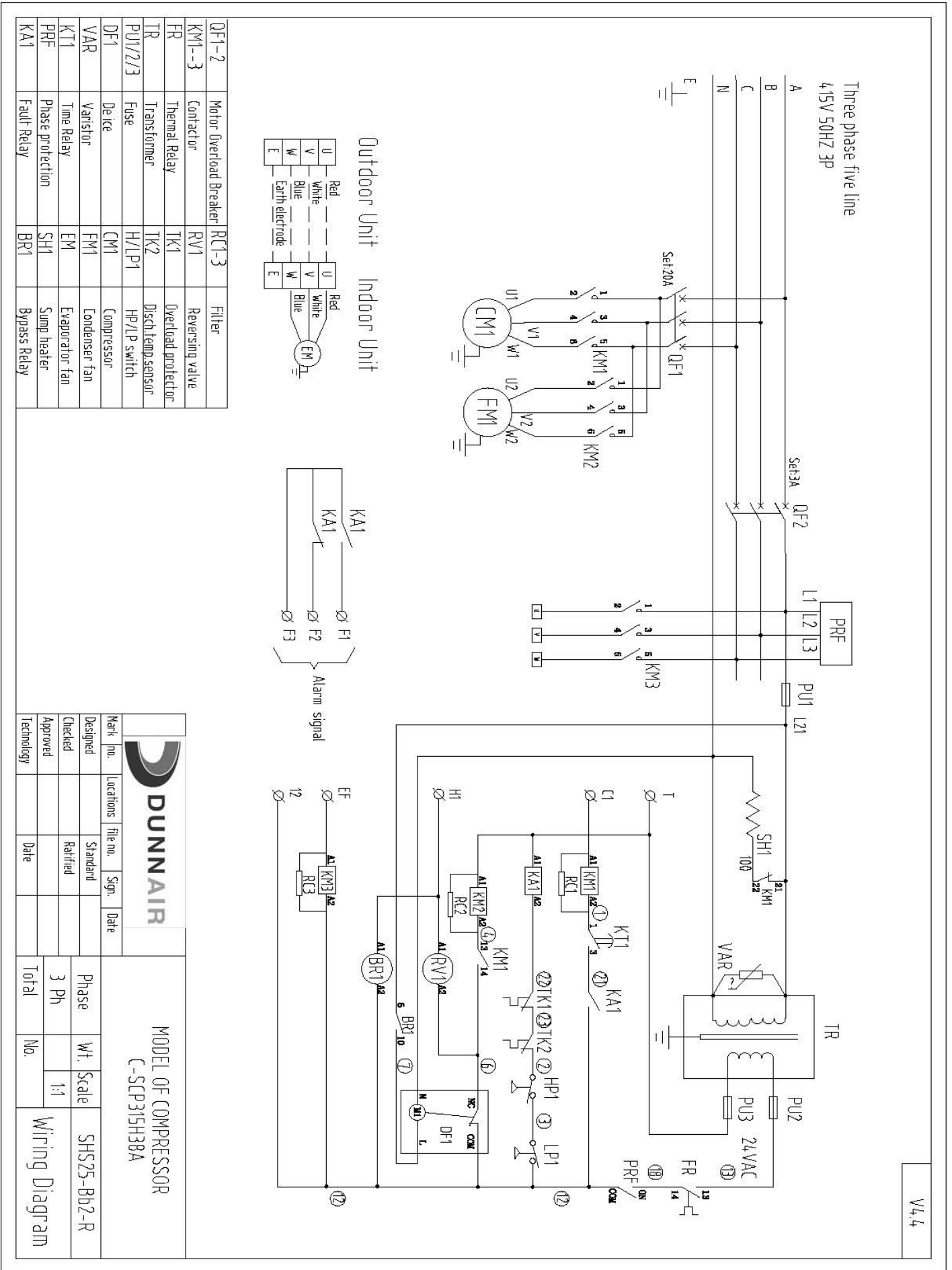
Evaporator Fan : 2 x KDE2.25WS
 Evaporator Motor: 2 x YDW4.50W-4P

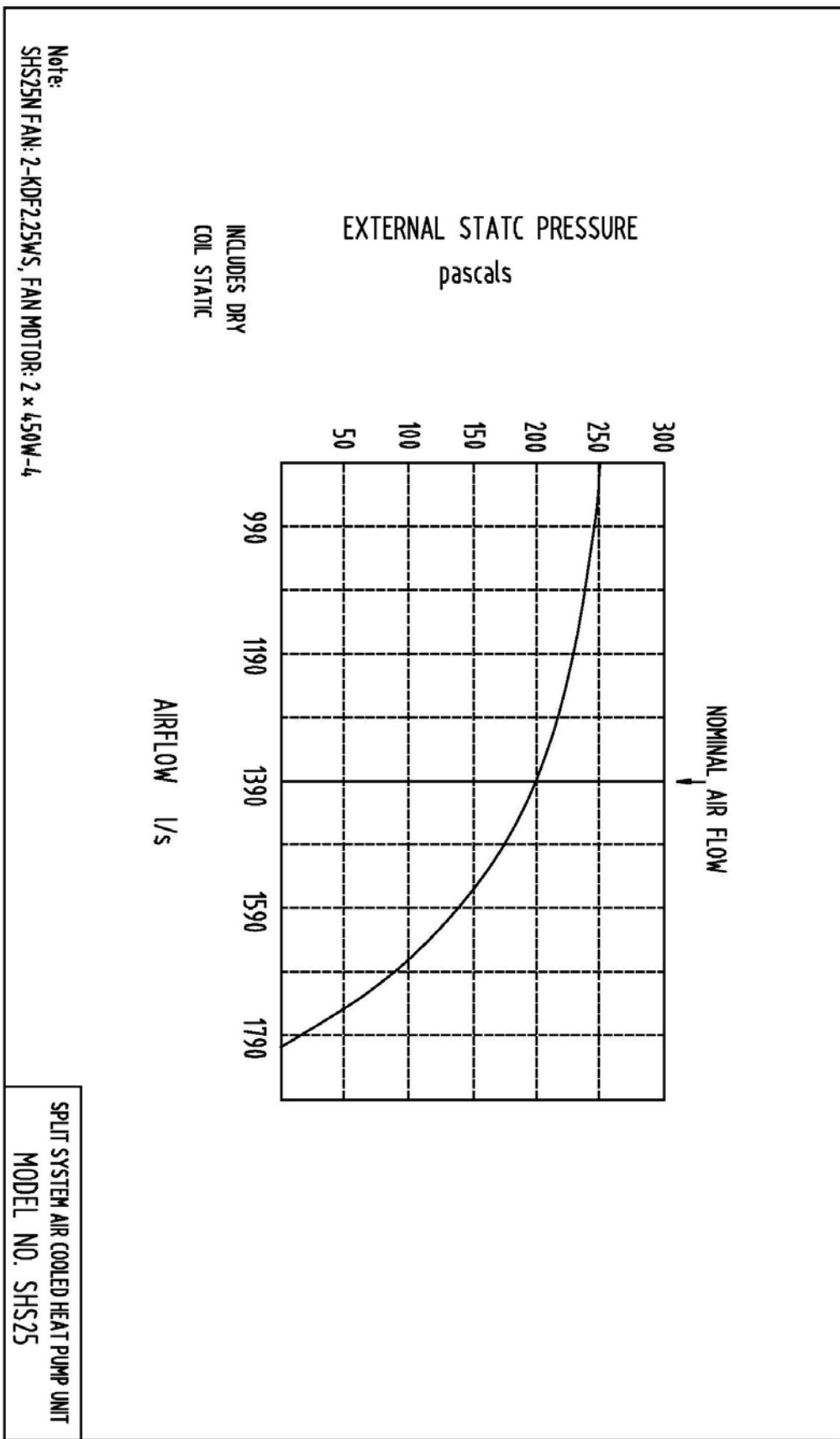
INDOOR UNIT INSTALLED WEIGHT 121kg
 For units with R410a/R407C/R22



TITLE: Split System Air Cooled Heat Pump Unit
 SHS TYPE

DRAWN BY: Chen Cheng	DATE: 7th Jan. 10		
APPROVED Q.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei		
MODEL: SHS25NBB2	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4

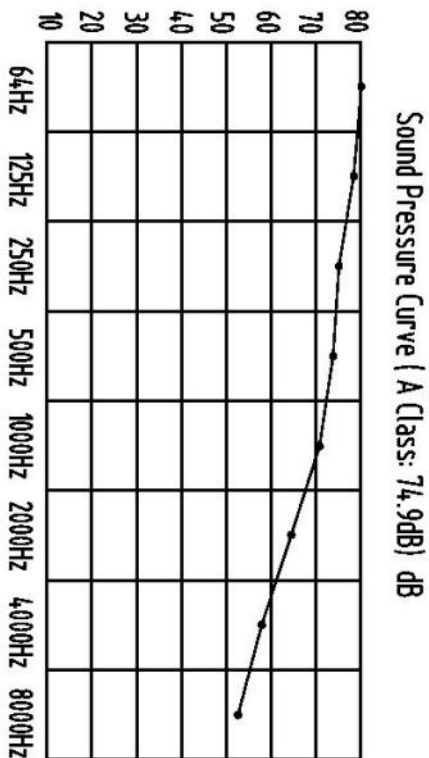




SHS25W Sound Pressure Curve

A Class: 74.9dB

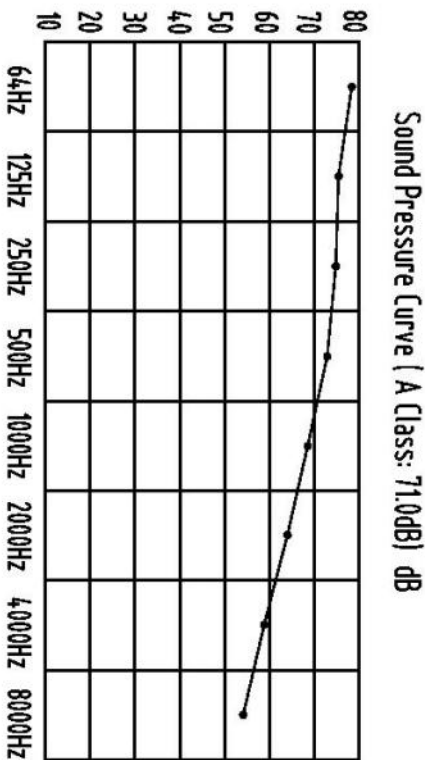
Hz	dB
64Hz	80.2
125Hz	78.5
250Hz	75.2
500Hz	73.0
1000Hz	70.2
2000Hz	64.5
4000Hz	58.5
8000Hz	52.0




SHS25N Sound Pressure Curve

A Class: 71.0 dB

Hz	dB
64Hz	79.0
125Hz	75.5
250Hz	74.8
500Hz	73.3
1000Hz	69.2
2000Hz	63.8
4000Hz	59.2
8000Hz	53.7



Note: Occupant at least 1.0m from sound source.

DRAWN BY: Chen Cheng	DATE: 25/24th.Oct.2010	 DUNNAIR
APPROVED D.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei	
TITLE: Split System Air Cooled Heat Pump Unit		SHS TYPE
MODEL: SHS25	DRAWING NO.: 01	
ISSUE: 01	SHEET SIZE: A4	