



DUNNAIR
(Aust) Pty Ltd

R410a Refrigerant

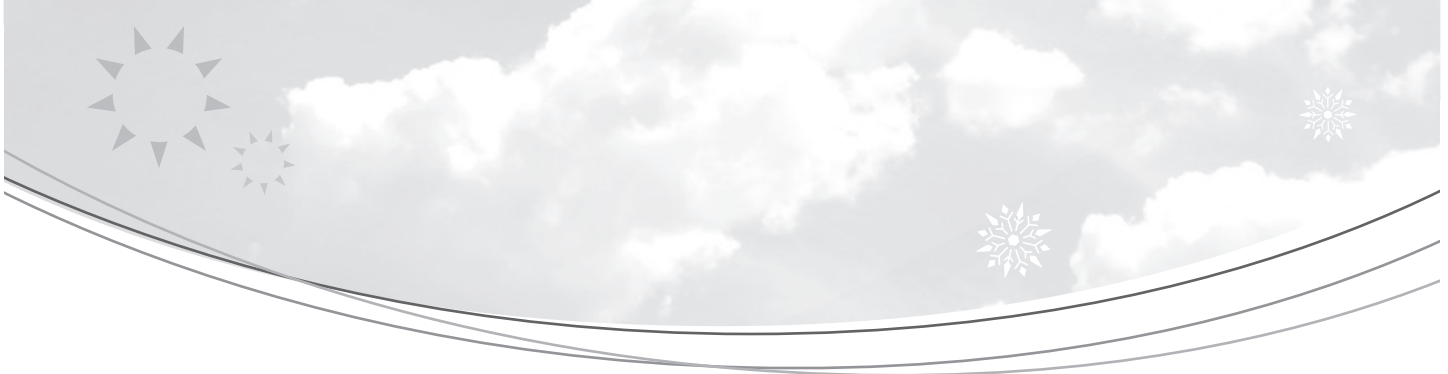
SHS35

Split Ducted Model

Performance Data

INDOOR COIL ENTERING AIR TEMP °C		OUTDOOR COIL ENTERING AIR 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	34.1	21.1	11.4	32.5	20.4	11.7	30.8	19.7	12.0	29.9	19.7	12.2
	18	35.3	18.9	12.0	33.7	18.2	12.8	31.9	17.5	13.1	31.1	17.1	13.2
	19	36.5	16.5	13.6	34.8	15.8	13.9	33.0	15.0	14.2	32.2	14.7	14.3
	20	37.7	14.3	14.7	36.0	13.6	15.0	34.1	12.8	15.3	33.4	12.5	15.5
23	17	34.1	25.5	11.5	32.6	24.8	11.7	30.8	24.1	12.1	30.0	23.7	12.2
	18	35.2	22.9	12.4	33.6	22.2	12.7	31.8	21.5	13.0	31.0	21.1	13.2
	19	36.4	20.7	13.5	34.8	20.0	13.8	33.0	19.2	14.2	32.2	18.9	14.3
	20	37.7	18.5	14.7	36.0	17.8	15.0	34.1	17.0	15.3	33.4	16.7	15.4
	21	38.9	16.3	15.7	37.2	15.7	16.0	35.3	14.9	16.3	34.6	14.7	16.4
25	17	34.3	29.7	11.4	32.7	29.0	11.7	31.0	28.3	12.0	30.2	27.9	12.1
	18	35.3	28.7	12.5	33.7	26.8	12.8	31.9	26.1	13.1	31.1	25.7	13.2
	19	36.4	27.5	13.5	34.7	24.2	13.8	32.9	23.5	14.1	32.1	23.2	14.3
	20	37.6	26.2	14.7	36.0	22.0	15.0	34.1	21.2	15.3	33.3	20.9	15.4
	21	38.9	27.9	15.7	37.2	19.8	16.0	35.2	19.1	16.3	34.6	18.8	16.4
27	17	34.9	32.4	11.2	33.4	31.6	11.5	31.7	30.7	11.7	31.0	30.2	11.9
	18	35.4	31.5	12.4	33.8	30.8	12.7	32.1	30.0	13.0	32.0	29.7	13.2
	19	36.4	29.5	13.5	34.8	28.8	13.7	33.0	28.1	14.1	33.0	27.8	14.2
	20	37.6	26.9	14.7	35.9	26.2	15.0	34.0	25.5	15.3	33.3	25.2	15.4
	21	38.9	24.7	15.7	37.2	24.0	16.0	35.2	23.3	16.3	34.5	23.0	16.4
29	17	35.8	35.0	11.1	34.4	33.9	11.4	32.8	32.8	11.7	32.1	32.1	11.8
	18	36.0	34.5	12.3	34.5	33.7	12.6	32.8	32.8	12.9	32.1	32.1	13.0
	19	36.6	33.5	13.5	34.8	32.9	13.8	33.1	32.1	14.1	32.1	32.1	14.3
	20	37.7	31.3	14.6	36.0	30.6	14.9	34.1	29.8	15.2	33.4	29.5	15.3
	21	38.8	28.9	15.7	37.1	28.3	15.9	35.1	27.5	16.3	34.5	27.2	16.4
31	17	37.0	37.0	10.9	35.6	35.6	11.2	34.1	34.1	11.6	33.5	33.5	11.7
	18	37.1	36.8	12.1	35.6	35.6	12.3	34.1	34.1	12.6	33.5	33.5	12.8
	19	37.1	36.7	13.3	35.6	35.6	13.6	34.1	34.1	13.9	33.5	33.5	14.1
	20	37.8	35.7	14.5	36.1	35.0	14.7	34.2	34.3	15.1	33.5	33.5	15.2
	21	38.9	32.9	15.7	37.2	32.2	16.0	35.3	31.4	16.4	34.6	31.1	16.5

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



Technical Specification SHS35 Split Ducted Model

Indoor Unit Model Number	SHS35N	Nominal Evaporator Air Flow (l/s)	2000
Outdoor Unit Model Number	SHS35W	Number of Compressors	1
Total Cooling Capacity (kW)*	34.8	Power Requirements (Volt / Phase)	415 / 3
Sensible Cooling Capacity (kW)*	28.8	Normal Max. Current (Amps / Phase)	25.5
Heating Capacity (kW)**	32.4		

*Entering air @ 27/19°C and ambient 35°C ** Entering air @ 21°C DB and 7°C ambient

Air Quantity Multiplying Factors

	% Rated Air Quantity-Nominal 2000 l/s				
Capacity	80	90	100	110	120
Total	0.95	0.98	1.00	1.02	1.04
Sensible	0.89	0.95	1.00	1.05	1.09

Heating Performance Data

	Outdoor Coil Entering DB temp				
	0	4	8	12	18
Heating Capacity kW	26.1	29.1	33.3	36.9	43.7

Heating Performance Correction

% Rated Air Quality	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)	18.7
Locked Rotor Current (Amps / Phase)	142
Displacement (m³/h)	38.6

Electrical Controls and Safeties

High Pressure Switch (Setting kPa)	2800	Defrost	
Low Pressure Switch (Setting kPa)	100	Initiation Temperature (°C)	-4
Indoor Fan Overload	Internal	Termination Temperature (°C)	10
Outdoor Fan Overload	Internal	Min. Period Between De-Ice (min)	33
Compressor Delay Timer	300 sec	Max. De-Ice Period (min)	4

Standard Features

Manual 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

Indoor Coil

Type	Copper Tube / Aluminium Fins
Face Area (m)	0.78
Air Quantity (l/s)	2000

Indoor Fan

Number of Fans	2
Type	Centrifugal
Drive	Direct
Motor Voltage / Phase / Frequency	415 / 3 / 50
Motor (kW) Standard	2 x 0.55
Max. Fan Speed (rpm)	1045

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Normal Max. Current (Amps / Phase)	25.5

Outdoor Coil

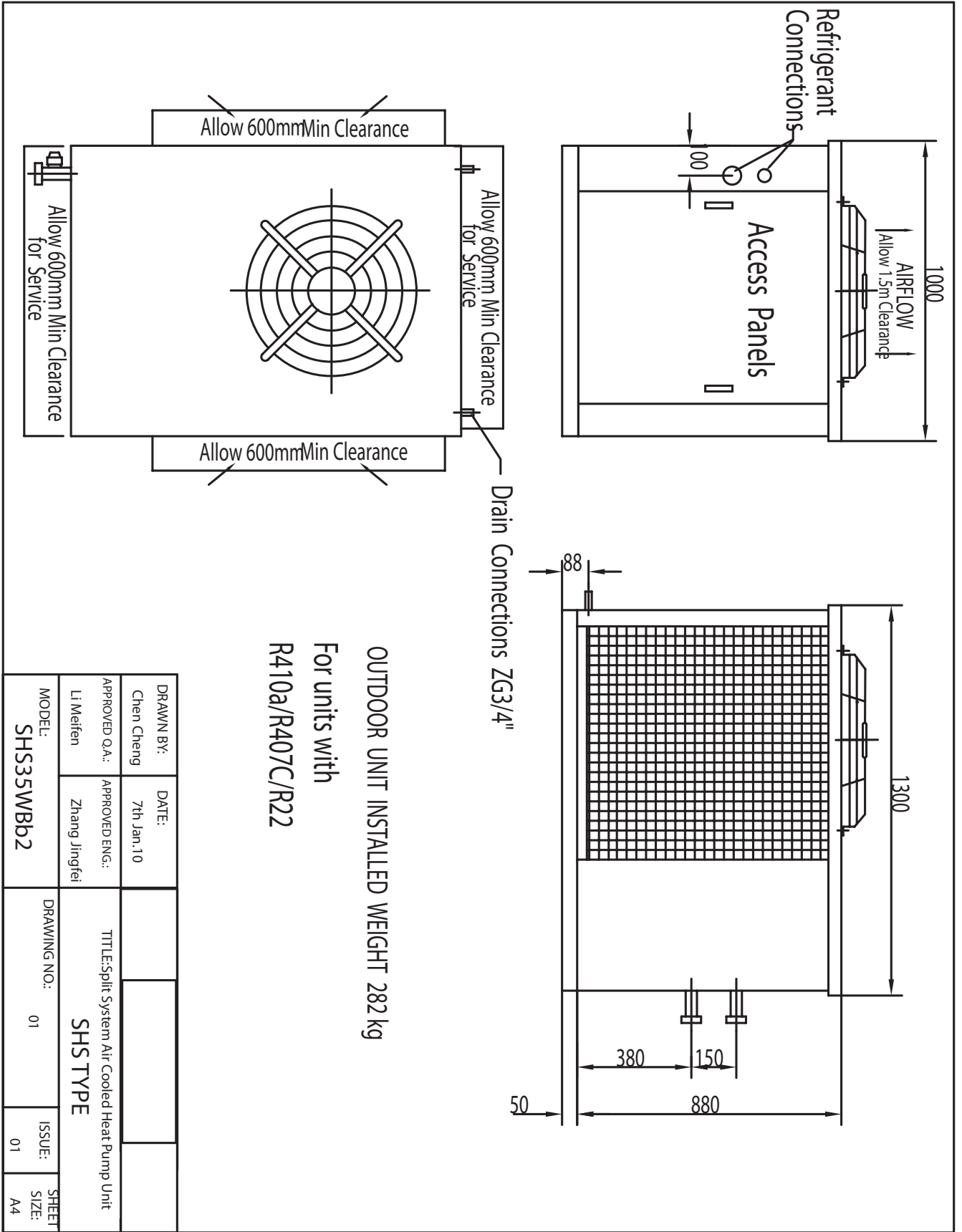
Type	Copper Tube / Aluminium Fins
Face Area	2 x 0.61

Outdoor Fan

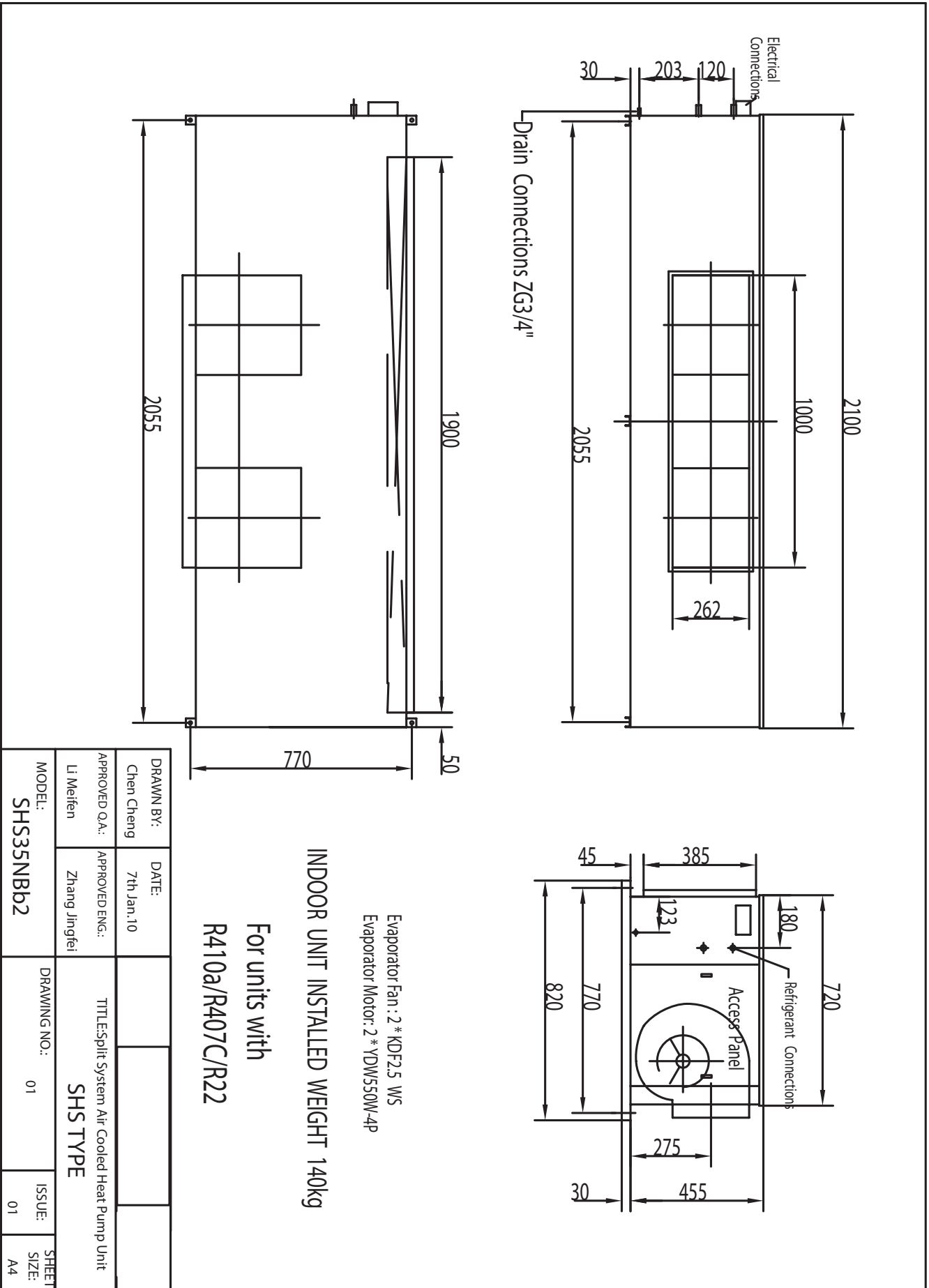
Number of Fans	1
Type	Axial
Drive	Direct
Motor Watts / rpm	750 / 950
Motor Voltage / Phase / Frequency	415 / 3 / 50

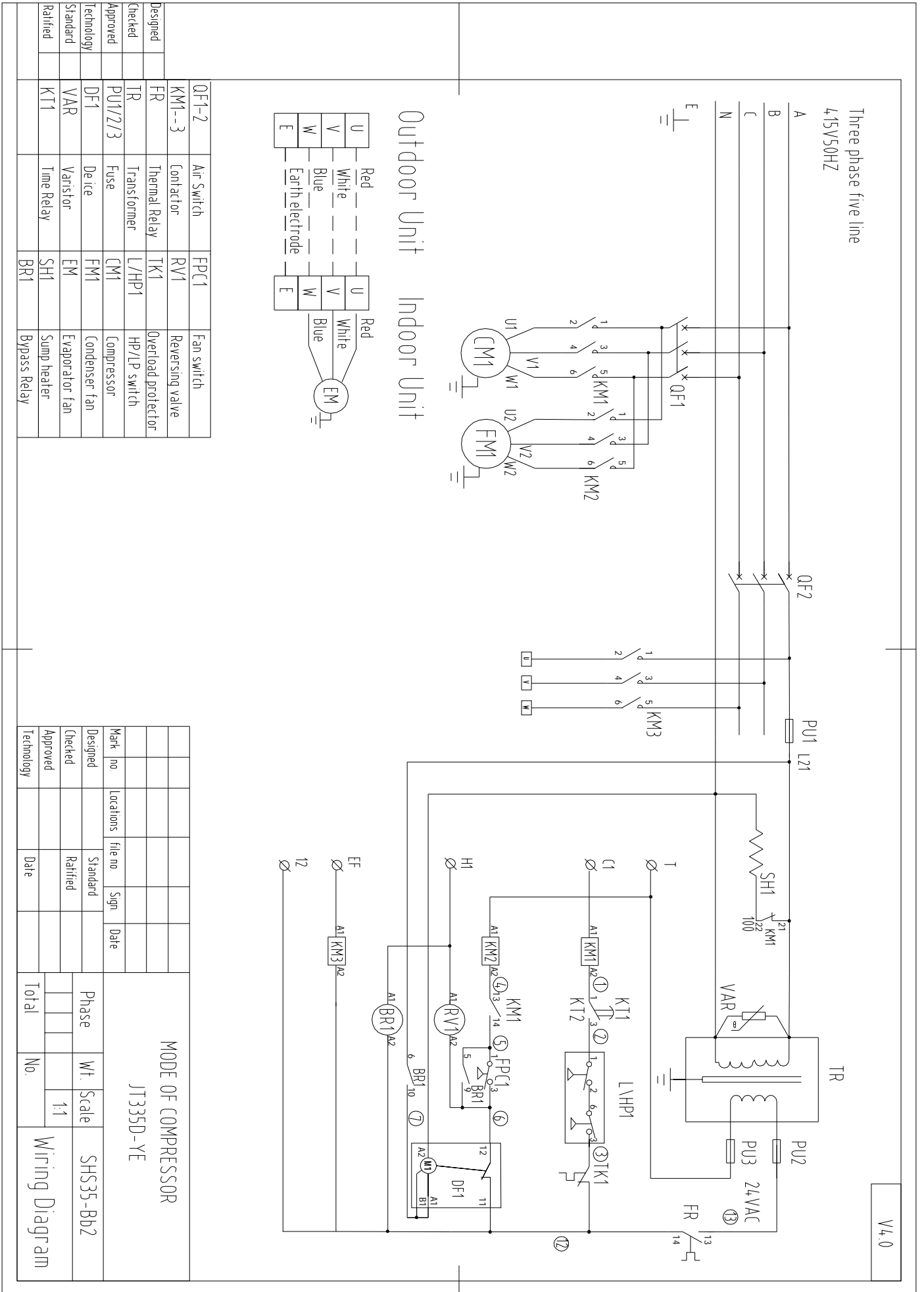
Refrigerant System

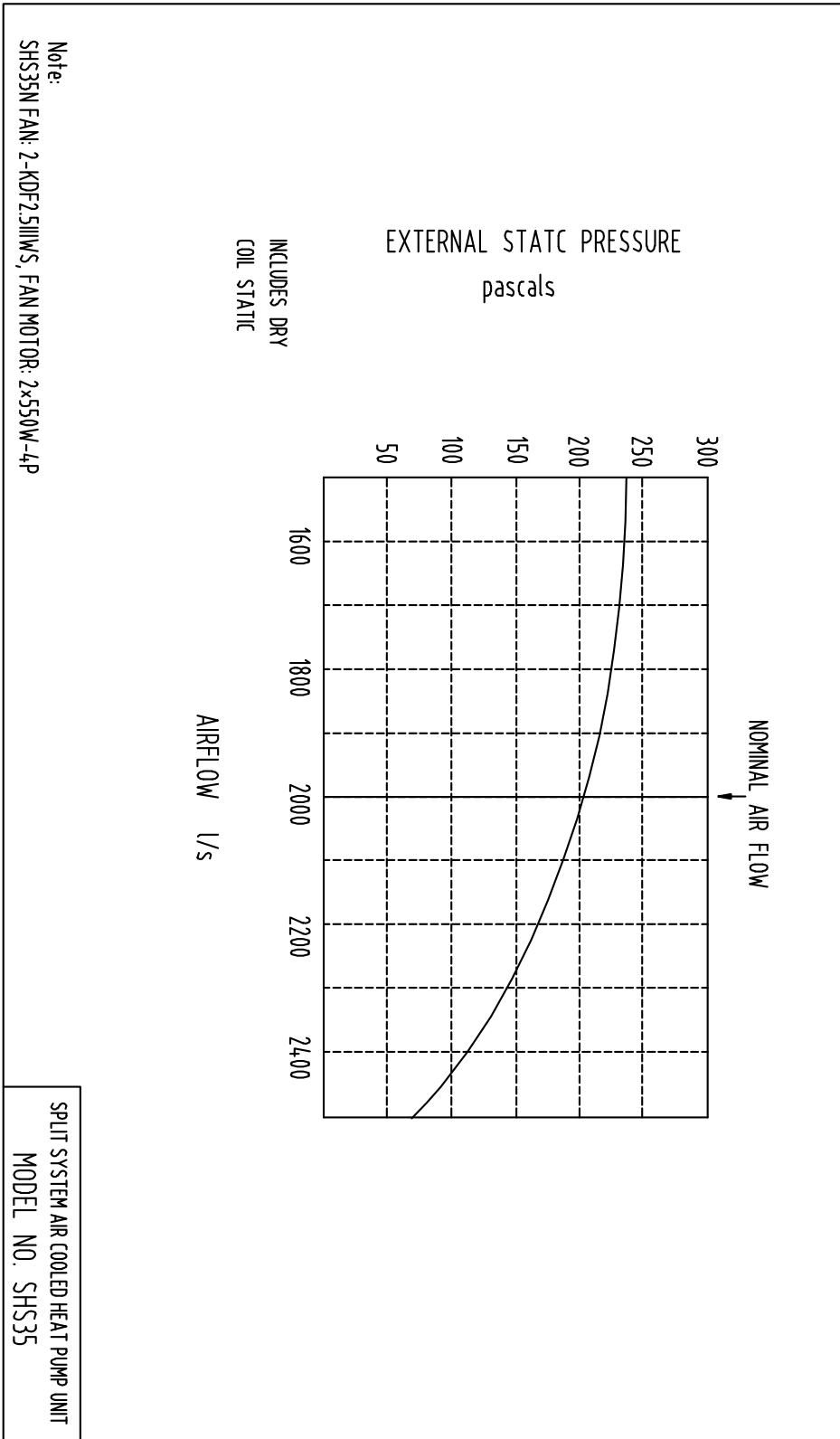
Refrigerant Type	R410a
Charge (kg)	8.4
Line Size (mm)	
Liquid 0-10 metres	22
Gas 0-10 metres	28
Liquid 10-20 metres	22
Gas 10-20 metres	28
Service Connections	Rotor Lock Valve
Expansion Control – in outdoor unit	TX Valve



DRAWN BY: Chen Cheng	DATE: 7th Jan.10	TITLE: Split System Air-Cooled Heat Pump Unit	
APPROVED QA: Li Meifen	APPROVED ENG.: Zhang Jingfei	SHS TYPE	
MODEL: SHS35WBb2	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4





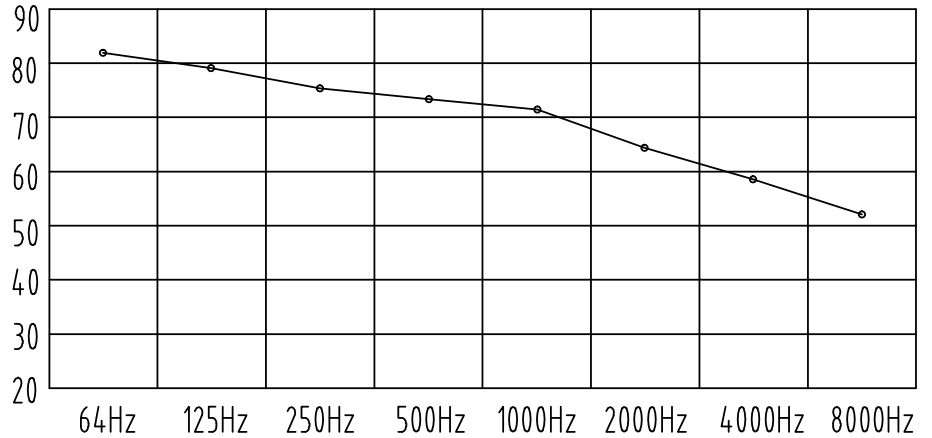


SHS35W Noise rate analysing chart

A Class: 75.3dB

Hz	dB
64Hz	81.2
125Hz	79.0
250Hz	76.1
500Hz	72.6
1000Hz	70.8
2000Hz	64.8
4000Hz	59.1
8000Hz	52.0

Noise rate analysing chart (A Class: 75.3dB) dB



SHS35N Noise rate analysing chart

A Class: 70.3 dB

Hz	dB
64Hz	79.8
125Hz	77.2
250Hz	71.5
500Hz	66.3
1000Hz	65.6
2000Hz	60.1
4000Hz	53.8
8000Hz	45.5

Noise rate analysing chart (A Class: 70.3dB) dB

