



DUNNAIR
(Aust) Pty Ltd

R410a Refrigerant

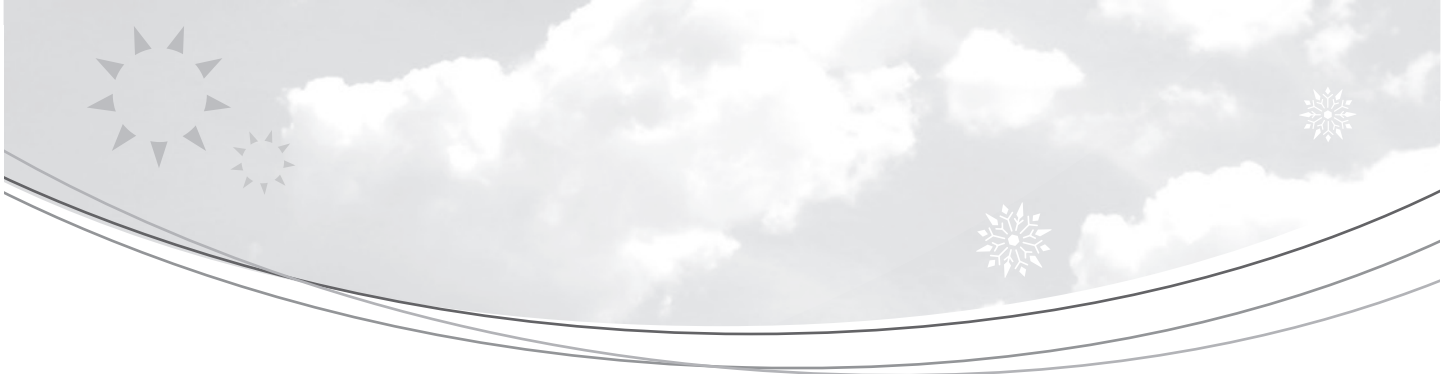
SH40

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	39.0	24.0	11.4	37.3	23.3	11.7	25.4	22.5	12.0	34.2	22.5	12.2
	18	40.3	21.4	12.0	38.5	20.6	12.8	36.6	19.8	13.1	35.4	19.3	13.3
	19	41.6	18.8	13.5	39.8	18.0	13.8	37.8	17.2	14.1	36.6	16.7	14.3
	20	42.9	16.2	14.7	41.0	15.5	14.9	39.0	14.7	15.3	37.8	14.2	15.4
23	17	39.1	29.0	11.3	37.3	28.3	11.6	35.5	27.5	11.9	34.3	27.0	12.1
	18	40.2	26.2	12.5	38.4	25.5	12.7	36.5	24.7	13.0	35.3	24.2	13.2
	19	41.6	23.6	13.5	39.7	22.8	13.8	37.7	22.0	14.1	36.6	21.5	14.3
	20	42.9	21.0	14.8	41.0	20.2	15.1	38.9	19.4	15.4	37.8	18.9	15.6
	21	44.3	18.5	15.8	42.4	17.7	16.1	40.2	16.9	16.4	39.1	16.5	16.6
25	17	39.2	33.9	11.3	37.5	33.2	11.6	35.6	32.4	11.9	34.4	31.9	12.1
	18	40.3	32.8	12.5	38.5	30.6	12.8	36.6	29.8	13.1	35.4	29.3	13.3
	19	41.5	31.5	13.5	39.6	27.7	13.7	37.6	26.9	14.0	36.5	26.4	14.2
	20	42.9	30.0	14.6	41.0	25.0	14.9	38.9	24.1	15.2	37.8	23.7	15.4
	21	44.3	28.4	15.8	42.3	22.5	16.1	40.2	21.7	16.4	39.1	21.3	16.6
27	17	39.9	37.1	11.2	38.2	36.1	11.4	36.4	35.2	11.7	35.2	34.5	11.9
	18	40.4	35.9	12.3	38.6	35.2	12.6	36.7	34.3	12.9	35.5	33.8	13.1
	19	41.5	33.4	13.5	39.7	32.6	13.8	37.7	31.8	14.1	36.6	31.3	14.3
	20	42.8	30.7	14.6	40.9	29.9	14.9	38.8	29.0	15.2	37.7	28.6	15.4
	21	44.2	28.1	15.8	42.3	27.3	16.1	40.2	26.5	16.4	39.0	26.1	16.6
29	17	40.9	40.0	11.0	39.2	38.8	11.3	37.5	37.5	11.6	36.4	36.4	11.7
	18	41.1	39.4	12.2	39.4	38.5	12.5	37.5	37.5	12.8	36.3	26.3	13.0
	19	41.7	38.3	13.5	39.8	37.5	13.8	37.8	36.7	14.1	36.7	36.2	14.3
	20	42.9	35.3	14.6	41.0	34.5	14.9	38.9	33.6	15.3	37.8	36.2	14.4
	21	44.1	32.9	15.7	42.2	32.2	16.0	40.0	31.4	16.3	38.9	31.0	16.4
31	17	42.2	42.2	10.8	40.6	40.6	11.0	38.8	38.8	11.3	37.9	37.9	11.5
	18	42.2	42.0	12.1	40.6	40.6	12.4	38.8	38.8	12.7	37.9	37.9	12.8
	19	42.3	21.8	13.2	40.6	40.6	13.5	38.8	38.8	13.8	37.9	37.9	14.0
	20	43.0	40.6	14.5	41.1	39.9	14.8	39.0	39.0	15.1	37.9	38.1	15.3
	21	44.2	37.5	15.8	42.3	36.8	16.1	40.2	36.0	16.4	39.1	35.5	16.6

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



Technical Specification SH40 Split Ducted Model

Indoor Unit Model Number	SH40N	Nominal Evaporator Air Flow (l/s)	2200
Outdoor Unit Model Number	SH40W	Number of Compressors	2
Total Cooling Capacity (kW)*	39.7	Power Requirements (Volt / Phase)	415 / 3
Sensible Cooling Capacity (kW)*	32.6	Normal Max. Current (Amps / Phase)	29.2
Heating Capacity (kW)**	36.1		

*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 2200 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	34.9	38.8	44.9	49.5	59.6

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	2
Type	Scroll
RPM (Nom)	2900
Normal Max. Current (Amps / Phase)	2 x 11
Locked Rotor Current (Amps / Phase)	2 x 74
Displacement (m³/h)	2 x 17.1

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)	0.84
Air Quantity (l/s)	2200

Indoor Fan

Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor Voltage / Phase / Frequency	415 / 3 / 50
Motor (kW) Standard	2.2
Max. Fan Speed (rpm)	800

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Normal Max. Current (Amps / Phase)	29.2

Outdoor Coil

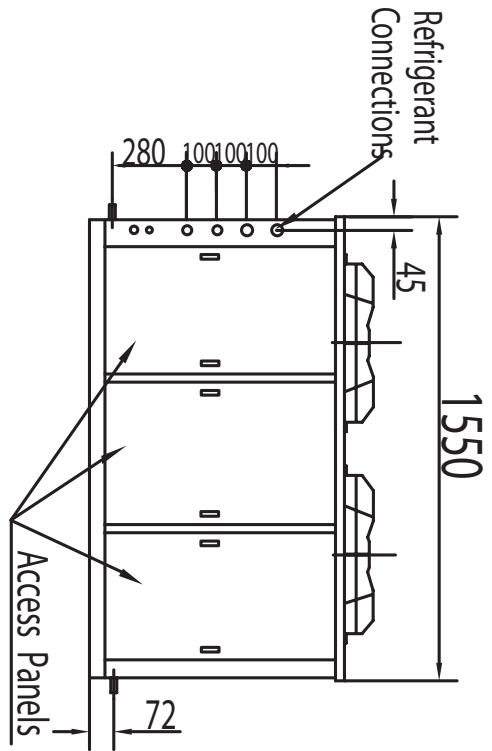
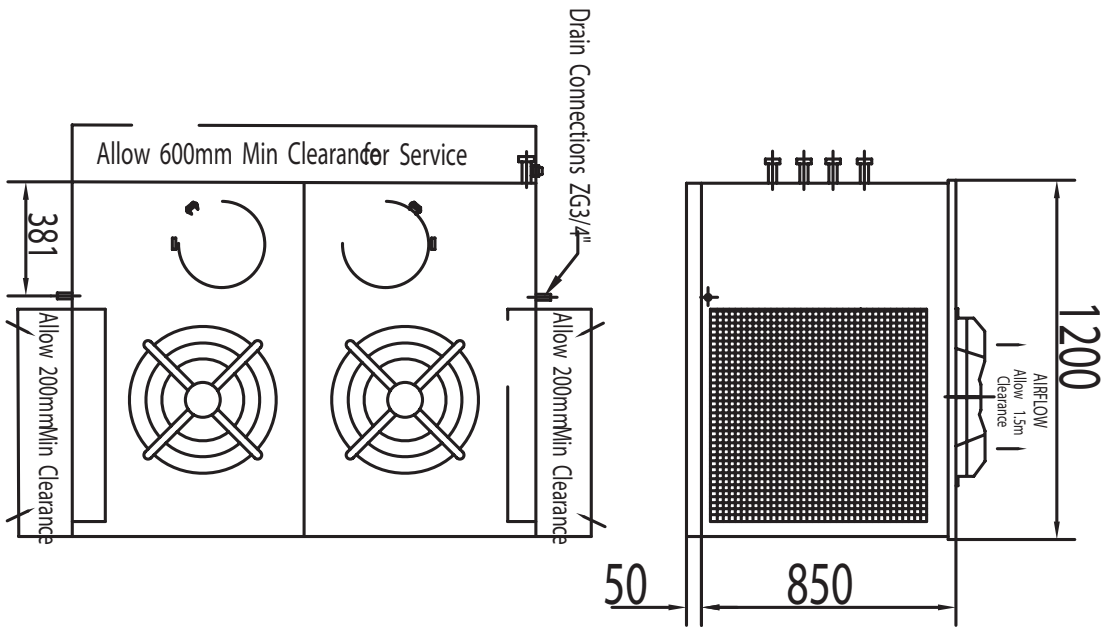
Type	Copper Tube / Aluminium Fins
Face Area	2 x 0.57

Outdoor Fan

Number of Fans	2
Type	Axial
Drive	Direct
Motor Watts / rpm	2 x 300 / 950
Motor Voltage / Phase / Frequency	415 / 3 / 50

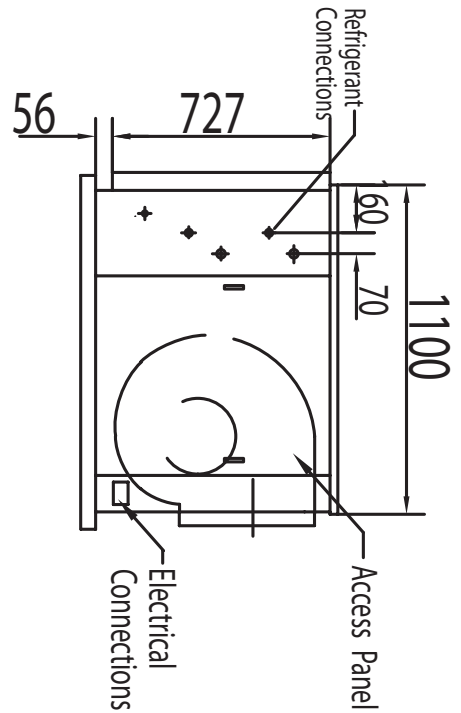
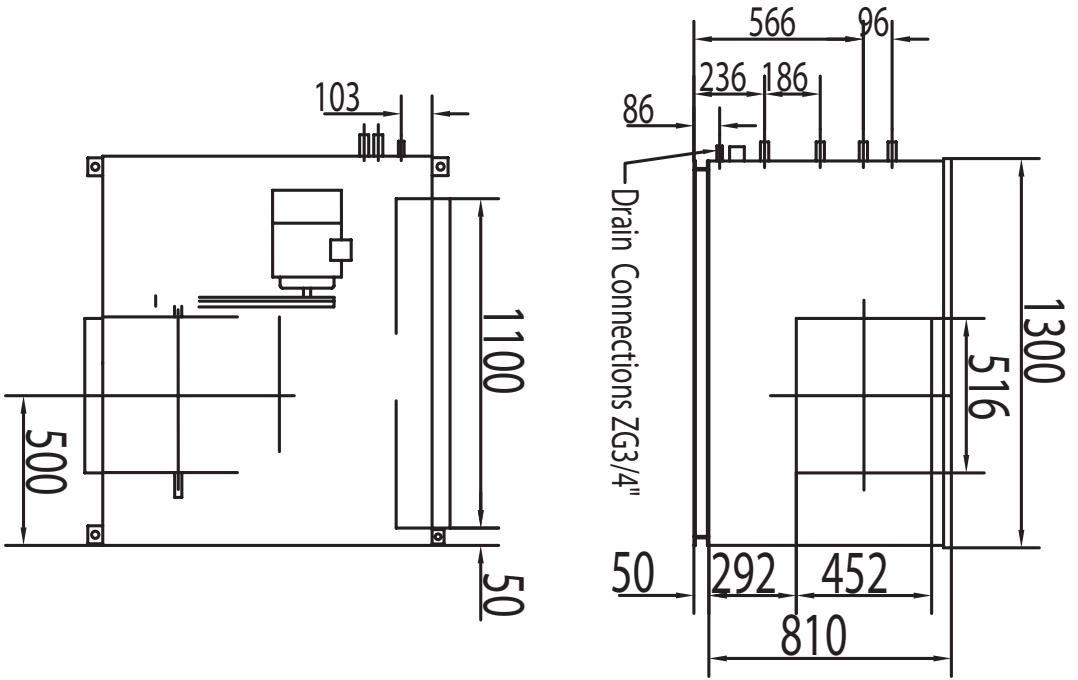
Refrigerant System

Refrigerant Type	R410a
Charge (kg)	2 x 4.4
Line Size (mm)	
Liquid 0-10 metres	16
Gas 0-10 metres	19
Liquid 10-20 metres	19
Gas 10-20 metres	22
Service Connections	Rotor Lock Valve
Expansion Control – in outdoor unit	TX Valve



OUTDOOR UNIT INSTALLED WEIGHT 360 kg
For units with
R410a/R407C/R22

DRAWN BY: Chen Cheng	DATE: 7th Jan.10	TITLE: Split System Air Cooled Heat Pump Unit	
APPROVED O.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei	SH TYPE	
MODEL: SH40WBb	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4

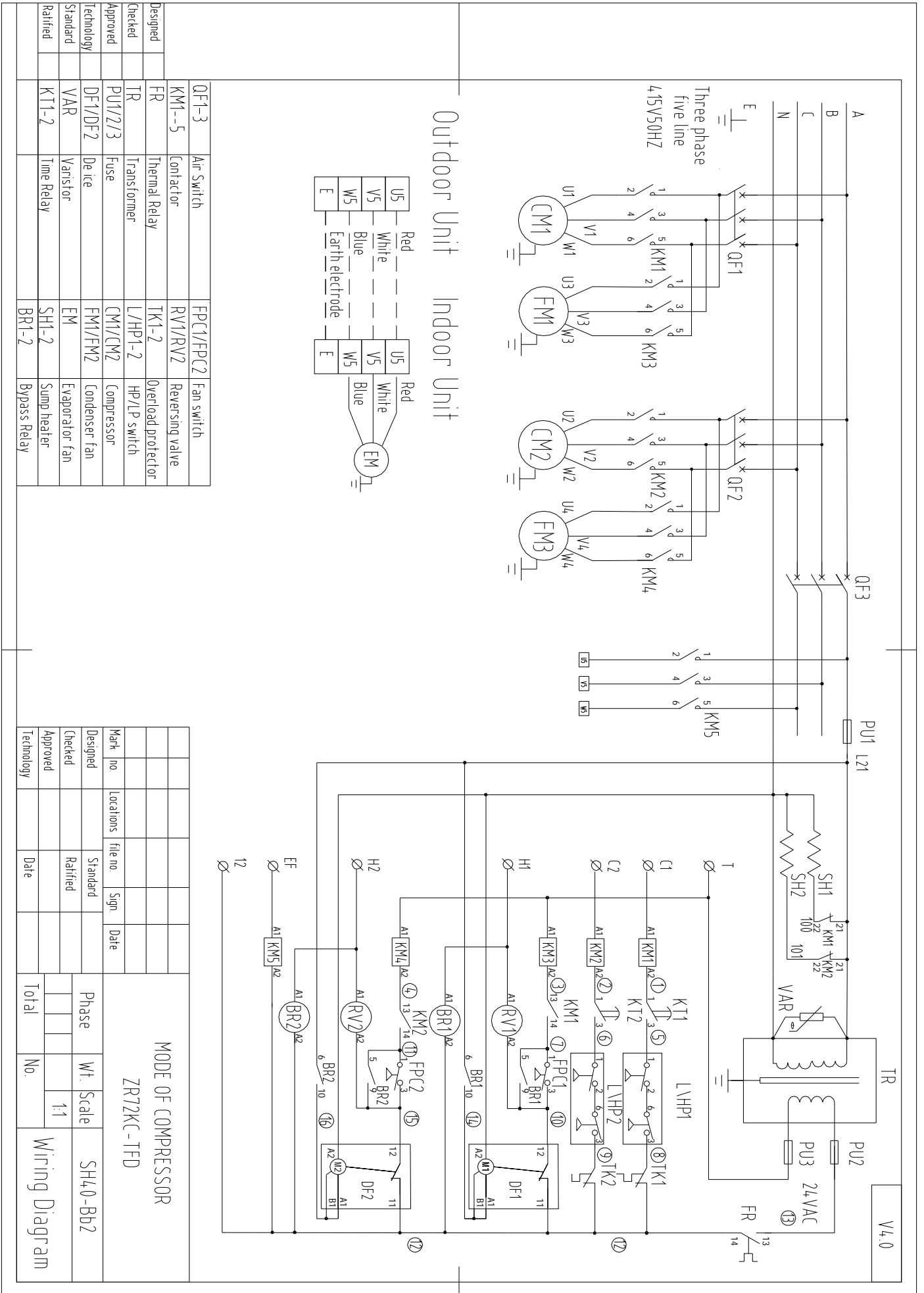


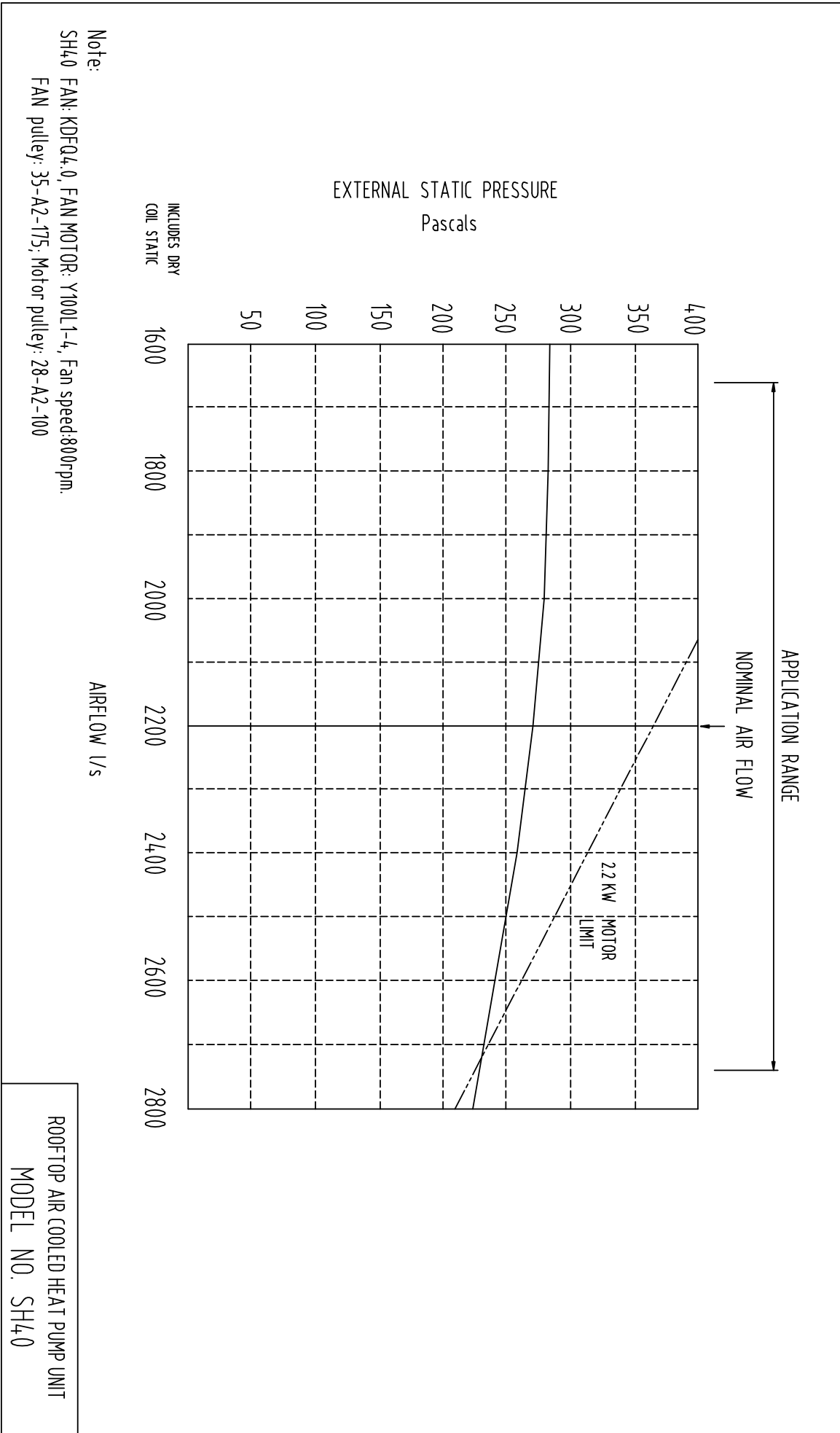
INDOOR UNIT INSTALLED WEIGHT 220 kg

**For units with
R410a/R407C/R22**

- Fan : KDFQ4.0
- Motor: Y100L1-4(2.2Kw-4)
- Fan pulley: 35-A2-175
- Motor pulley: 28-A2-100
- Fan speed: 800rpm

DRAWN BY: Chen Cheng	DATE: 7th Jan.10		
APPROVED Q.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei	TITLE: Split System Air Cooled Heat Pump Unit SHTYPE	
MODEL: SHS40NBb2	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4



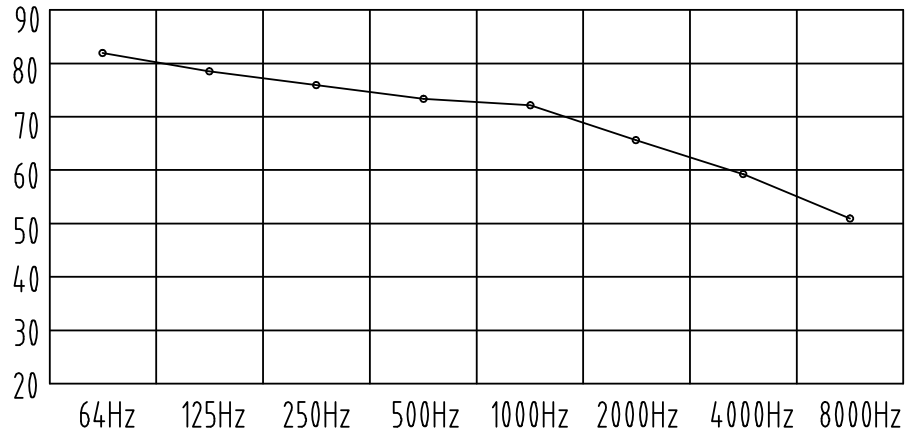


SH 40W Noise rate analysing chart

A Class: 75.7dB

Hz	dB
64Hz	81.3
125Hz	78.6
250Hz	75.5
500Hz	72.5
1000Hz	71.6
2000Hz	65.8
4000Hz	59.0
8000Hz	50.2

Noise rate analysing chart (A Class: 75.7dB) dB



SH 40N Noise rate analysing chart

A Class: 71.4dB

Hz	dB
64Hz	80.1
125Hz	76.6
250Hz	71.5
500Hz	66.3
1000Hz	67.0
2000Hz	63.1
4000Hz	58.6
8000Hz	45.1

Noise rate analysing chart (A Class: 71.4dB) dB

