



DUNNAIR
(Aust) Pty Ltd

R410a Refrigerant

SH73

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	71.4	44.0	10.9	67.7	42.5	11.2	63.8	40.8	11.6	61.1	40.8	11.8
	18	73.9	39.7	11.5	70.1	38.1	12.3	66.0	36.3	12.6	63.4	35.2	12.9
	19	76.6	35.2	13.2	72.7	33.6	13.5	68.4	31.8	13.9	65.8	30.8	14.1
	20	79.5	30.5	14.1	75.4	28.8	14.5	70.9	27.0	14.9	68.4	25.9	15.2
23	17	71.7	52.6	10.8	68.0	51.1	11.2	64.1	49.4	11.5	61.4	48.3	11.8
	18	73.9	48.2	11.9	70.1	46.6	12.2	66.0	44.8	12.6	63.4	43.7	12.9
	19	76.6	43.7	13.0	72.6	42.1	13.4	68.3	40.4	13.8	65.8	39.3	14.1
	20	79.4	39.0	14.1	75.4	37.3	14.5	70.9	35.5	14.9	68.3	34.4	15.1
	21	82.5	34.3	15.1	78.2	32.6	15.5	73.5	30.7	15.9	71.0	29.6	16.2
25	17	72.4	60.5	10.7	68.7	58.8	11.0	64.8	57.0	11.4	62.3	55.8	11.7
	18	74.1	58.5	12.0	70.3	55.5	12.3	66.2	53.7	12.7	63.6	52.6	13.0
	19	76.5	55.7	13.0	72.6	50.6	13.4	68.3	48.9	13.8	65.7	47.8	14.0
	20	79.4	52.5	14.1	75.3	45.9	14.5	70.8	44.0	14.9	68.3	43.0	15.1
	21	82.4	49.0	15.1	78.2	41.1	15.5	73.5	39.2	15.9	71.0	38.2	16.1
27	17	73.7	67.1	10.6	70.2	65.1	10.9	66.4	62.8	11.3	64.0	61.4	11.6
	18	74.8	65.6	11.8	71.0	64.0	12.1	66.9	62.2	12.5	65.0	61.1	12.7
	19	76.7	60.9	12.8	72.8	59.3	13.2	68.5	57.5	13.6	66.0	56.4	13.8
	20	79.4	56.6	14.0	75.3	54.9	14.3	70.8	53.1	14.7	68.3	52.1	14.9
	21	82.3	51.3	15.1	78.1	49.6	15.5	73.4	47.7	15.9	70.9	46.7	16.1
29	17	75.5	72.7	10.5	72.1	7.3	10.9	68.3	67.5	11.3	66.0	66.0	11.5
	18	76.2	71.2	11.7	72.5	69.2	12.1	68.5	67.1	12.5	66.0	66.0	12.7
	19	77.3	70.0	12.9	73.4	68.4	13.2	69.1	66.6	13.6	66.0	66.0	13.9
	20	79.5	64.9	14.0	75.4	63.2	14.3	70.9	61.3	14.8	68.4	60.3	15.0
	21	82.3	59.8	15.1	78.1	58.1	15.5	73.4	56.2	15.9	70.9	55.2	16.1
31	17	77.9	77.5	10.2	74.6	74.5	10.5	70.9	70.9	10.9	68.8	68.8	11.1
	18	78.3	76.6	11.5	74.7	74.2	11.8	70.9	70.9	12.2	68.8	68.8	12.5
	19	78.7	75.8	12.7	74.9	73.9	13.1	70.9	70.9	13.5	68.8	68.8	13.7
	20	80.0	73.8	13.9	76.0	72.2	14.3	71.5	70.3	14.7	69.0	68.8	15.0
	21	82.4	68.9	15.1	78.2	67.2	15.5	73.5	65.3	15.9	71.0	64.3	16.2

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



Technical Specification SH73 Split Ducted Model

Indoor Unit Model Number	SH73N	Nominal Evaporator Air Flow (l/s)	3900
Outdoor Unit Model Number	SH73W	Number of Compressors	2
Total Cooling Capacity (kW)*	72.8	Power Requirements (Volt / Phase)	415 / 3
Sensible Cooling Capacity (kW)*	59.3	Normal Max. Current (Amps / Phase)	51.2
Heating Capacity (kW)**	66.6		

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

Air Quantity Multiplying Factors

Capacity	% Rated Air Quantity-Nominal 3900 l/s				
	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

Heating Capacity kW	Outdoor Coil Entering DB temp				
	0	4	8	12	18
	46.5	51.4	59.4	65.3	78.2

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 × 18.7
Locked Rotor Current (Amps / Phase)	2 × 142
Displacement (m³/h)	2 × 38.7

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)	1.6
Air Quantity (l/s)	3900

Indoor Fan

Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor Voltage / Phase / Frequency	415 / 3 / 50
Motor (kW) Standard	5.5
Max. Fan Speed (rpm)	790

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Normal Max. Current (Amps / Phase)	51.2

Outdoor Coil

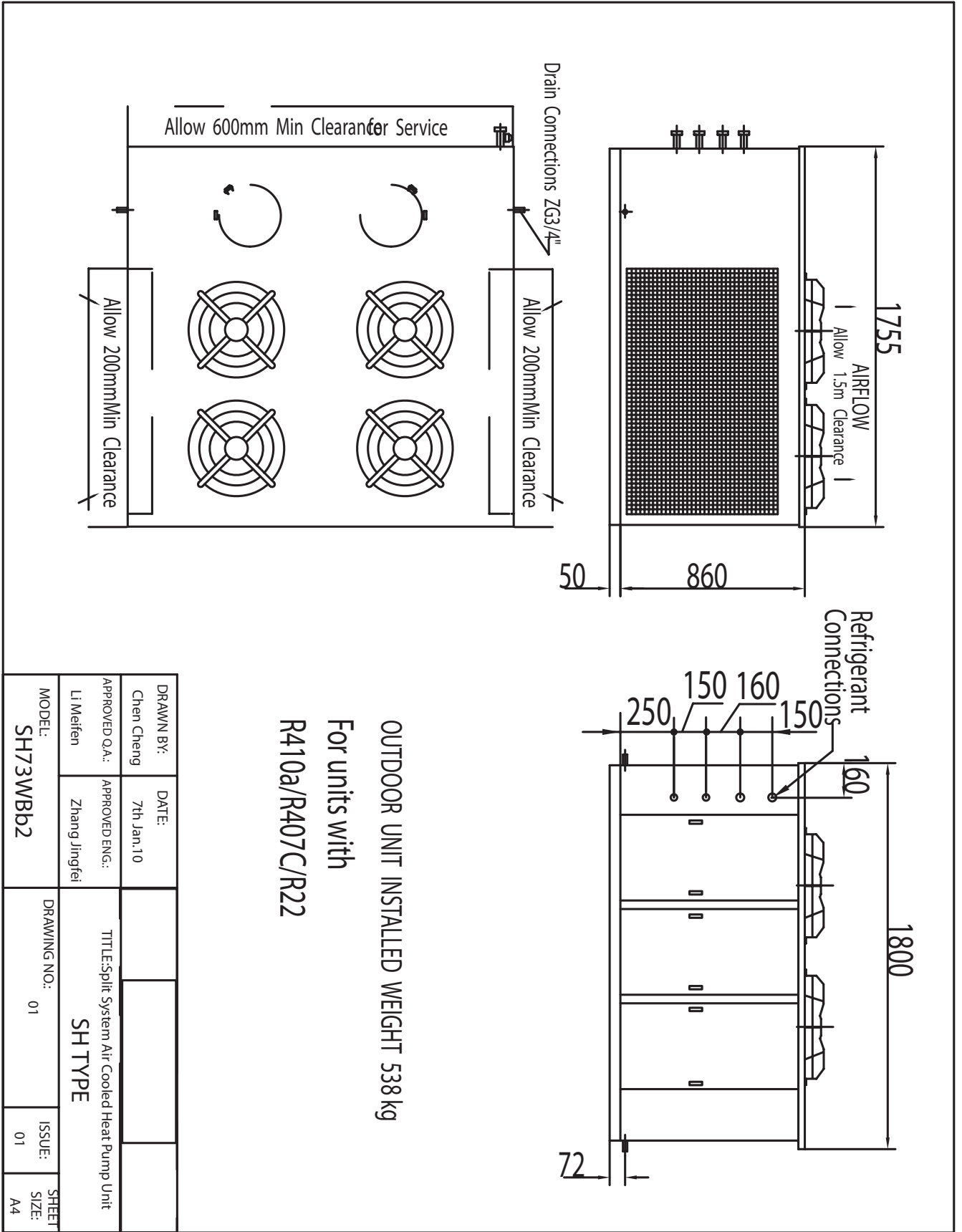
Type	Copper Tube / Aluminium Fins
Face Area	2 × 1.03

Outdoor Fan

Number of Fans	4
Type	Axial
Drive	Direct
Motor Watts / rpm	4 × 300 / 950
Motor Voltage / Phase / Frequency	415 / 3 / 50

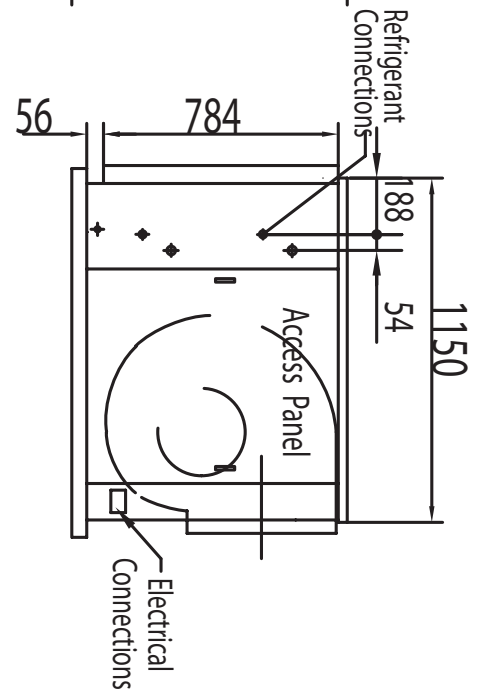
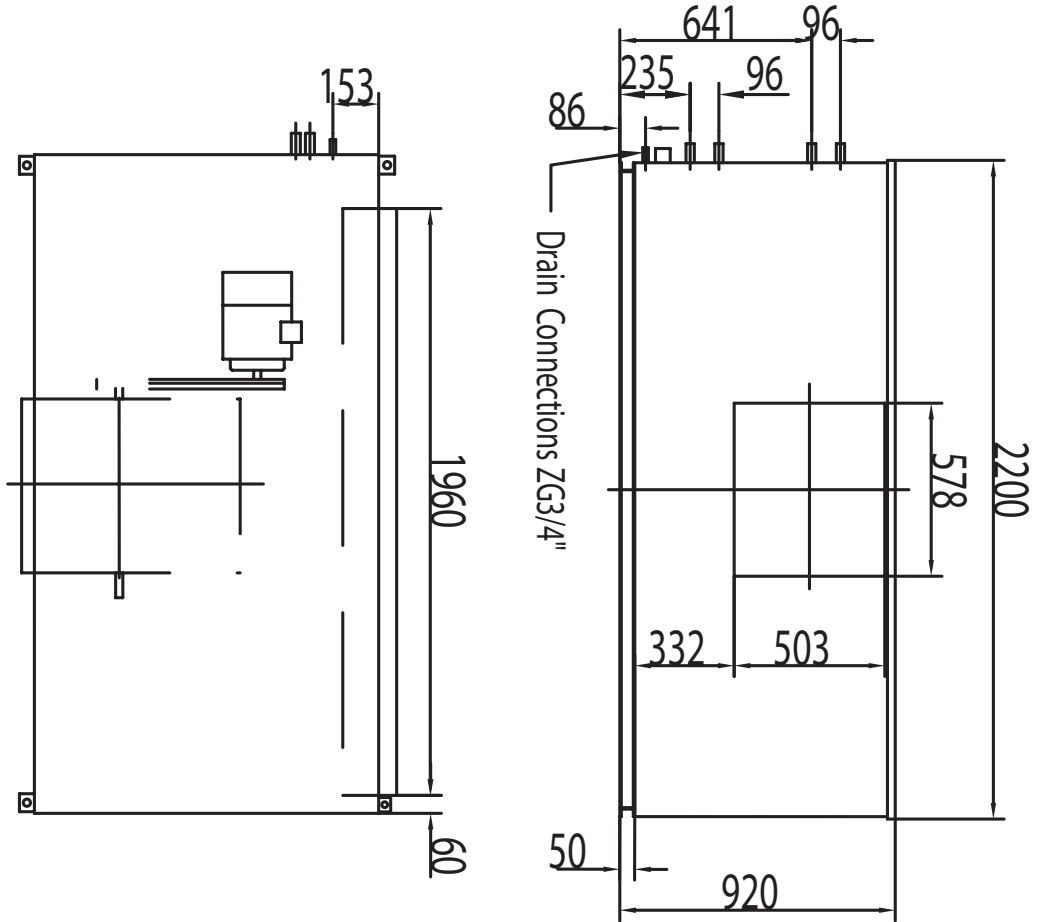
Refrigerant System

Refrigerant Type	R410a
Charge (kg)	2 × 9.4
Line Size (mm)	
Liquid 0–15 metres	19
Gas 0–15 metres	28
Liquid 15–30 metres	22
Gas 15–30 metres	32
Service Connections	Rotor Lock Valve
Expansion Control – in outdoor unit	TX Valve



OUTDOOR UNIT INSTALLED WEIGHT 538 kg
 For units with
 R410a/R407C/R22

DRAWN BY: Chen Cheng	DATE: 7th Jan.10	TITLE: Split System Air-Cooled Heat Pump Unit	
APPROVED QA: Li Meifen	APPROVED ENG.: Zhang Jingfei	SH TYPE	
MODEL: SH73WBB2	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4

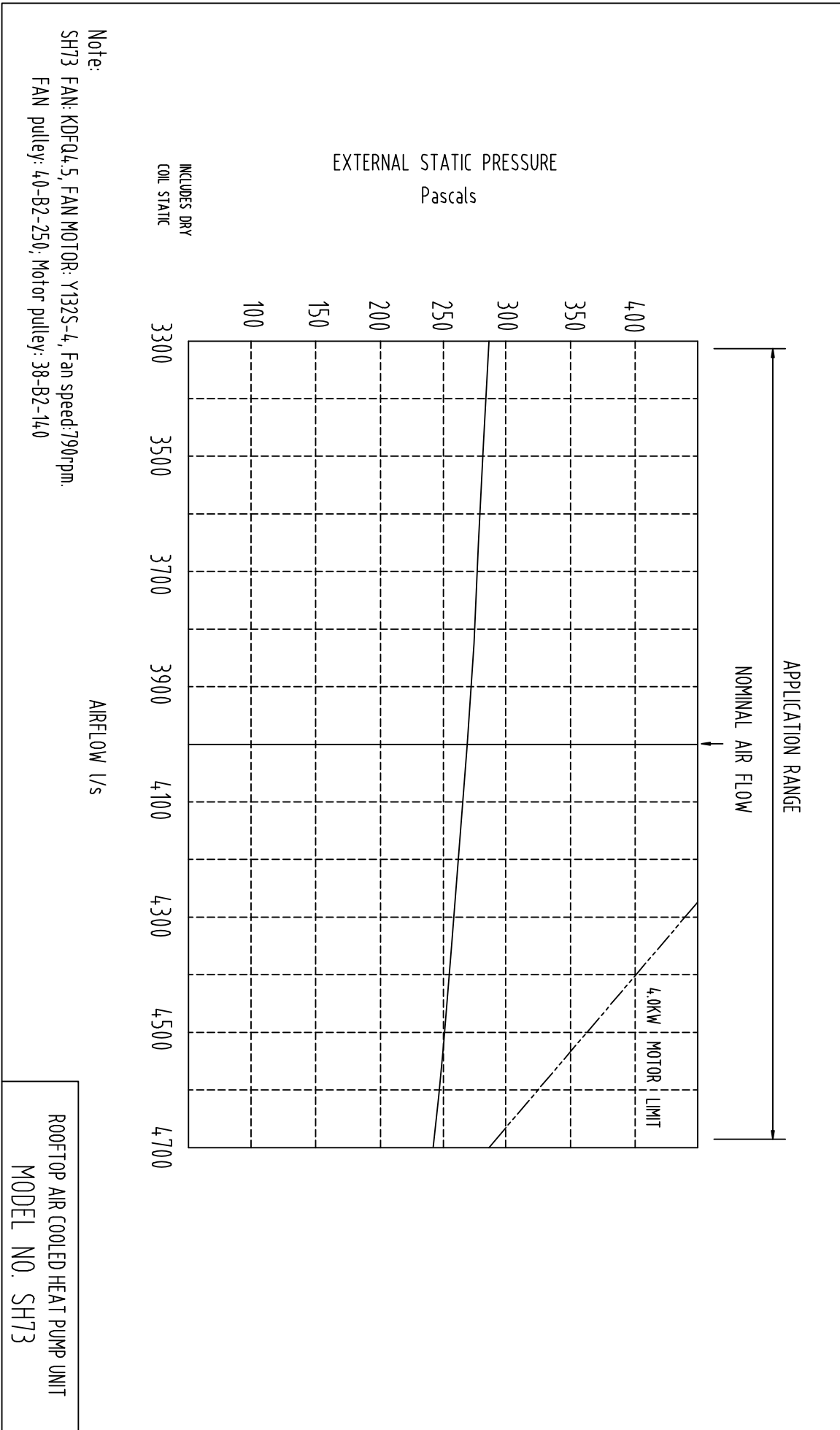


For units with
R410a/R407C/R22

- Fan : KDFQ4.5
- Motor: Y132S-4 (5.5KW-4)
- Fan pulley: 40-B2-250
- Motor pulley: 38-B2-140
- Fan speed: 790rpm

INDOOR UNIT INSTALLED WEIGHT 412 kg

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	
MODEL: SHS73NBb2		DRAWING NO.: 01	ISSUE: 01
		SHEET SIZE: A4	
S H T Y P E			

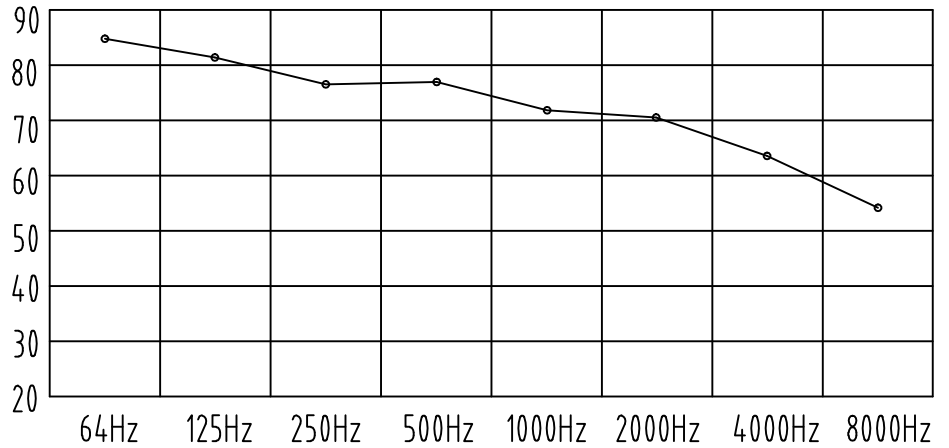


SH73W Noise rate analysing chart

A Class: 78.4dB

Hz	dB
64Hz	84.6
125Hz	81.2
250Hz	77.1
500Hz	77.6
1000Hz	71.8
2000Hz	70.2
4000Hz	63.5
8000Hz	54.2

Noise rate analysing chart (A Class: 78.4dB) dB



SH73N Noise rate analysing chart

A Class: 73.7dB

Hz	dB
64Hz	81.0
125Hz	79.2
250Hz	74.1
500Hz	69.5
1000Hz	68.6
2000Hz	64.3
4000Hz	62.0
8000Hz	58.6

Noise rate analysing chart (A Class: 73.7dB) dB

