



DUNNAIR
(Aust) Pty Ltd

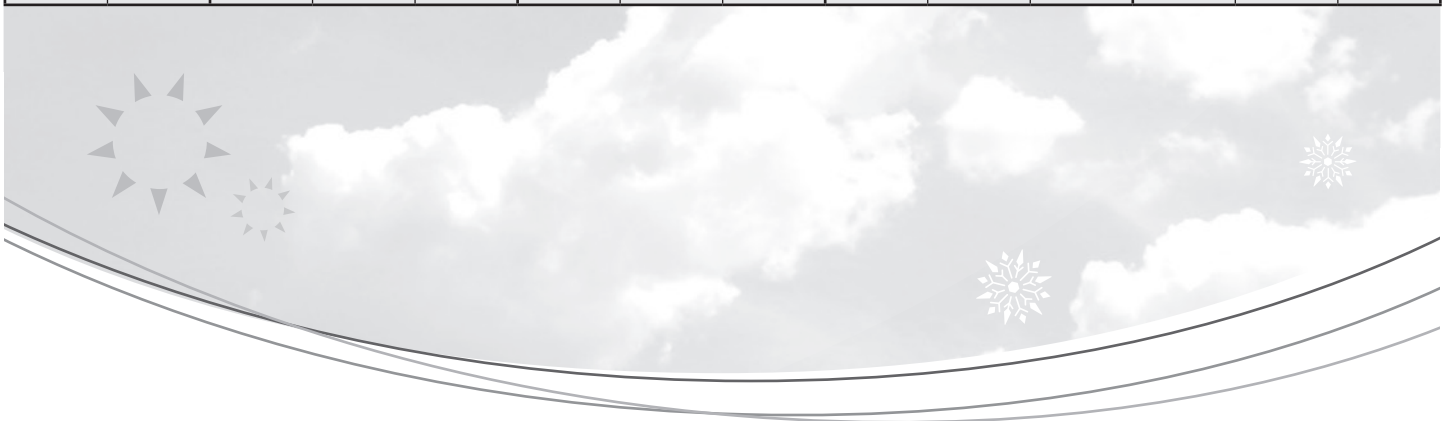
R407c Refrigerant

SH140

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	135.1	82.1	11.4	128.2	79.2	11.7	120.8	76.1	12.1	115.7	76.1	12.3
	18	139.9	74.1	12.0	132.7	71.1	12.9	124.9	67.7	13.2	120.0	65.7	13.5
	19	145.0	65.7	13.8	137.3	62.7	14.1	129.2	59.3	14.5	124.5	57.4	14.7
	20	150.2	56.9	14.7	142.3	53.7	15.2	134.0	50.4	15.6	129.2	48.3	15.9
23	17	135.7	98.1	11.3	128.6	95.4	11.7	121.3	92.2	12.0	116.2	90.1	12.3
	18	139.9	89.9	12.4	132.7	87.0	12.8	124.9	83.6	13.2	120.0	81.5	13.5
	19	145.0	81.5	13.6	137.4	78.6	14.0	129.3	75.4	14.4	124.5	73.3	14.7
	20	150.3	72.8	14.7	142.3	69.6	15.2	134.0	66.3	15.6	129.3	64.2	15.8
	21	155.6	64.0	15.8	147.6	60.8	16.2	138.7	57.3	16.6	134.1	55.2	16.9
25	17	137.0	112.9	11.2	130.0	109.7	11.5	122.7	106.3	12.0	117.9	104.1	12.2
	18	140.3	109.1	12.5	133.1	103.5	12.9	125.3	100.2	13.3	120.4	98.1	13.6
	19	145.8	103.9	13.6	137.4	94.4	14.0	129.3	91.2	14.4	124.7	89.2	14.6
	20	150.3	97.9	14.7	142.5	85.6	15.2	134.0	82.1	15.6	129.3	80.2	15.8
	21	155.8	91.4	15.8	147.6	71.3	16.2	138.7	73.1	16.6	134.1	71.3	16.8
27	17	139.2	125.2	11.1	132.9	121.4	11.4	125.7	117.2	11.8	121.1	114.5	12.1
	18	141.9	122.4	12.3	134.4	119.4	12.7	126.6	116.1	13.1	123.0	114.0	13.3
	19	146.3	113.6	13.4	137.8	110.6	13.8	129.6	107.2	14.2	124.9	105.2	14.4
	20	150.5	105.6	14.6	142.5	102.4	14.9	134.0	99.1	15.4	129.3	97.2	15.6
	21	155.8	95.7	15.8	147.8	92.5	16.2	138.9	89.0	16.6	134.2	87.1	16.8
29	17	142.9	129.4	11.0	136.5	131.1	11.4	129.3	125.9	11.8	124.0	123.1	12.0
	18	144.2	127.2	12.2	137.2	129.1	12.7	129.6	125.2	13.1	124.9	119.4	13.3
	19	146.3	125.0	13.5	138.9	127.6	13.8	130.8	124.2	14.2	125.4	117.2	14.5
	20	150.5	121.1	14.6	142.7	117.9	14.9	134.2	114.2	15.5	129.5	112.5	15.7
	21	155.8	111.6	15.8	147.8	108.4	16.2	138.9	104.8	16.6	134.2	103.0	16.8
31	17	147.4	144.6	10.7	141.2	139.0	11.0	133.7	132.7	11.4	129.5	128.8	11.6
	18	148.2	124.9	12.0	141.4	138.4	12.3	134.2	132.3	12.8	130.2	128.3	13.1
	19	149.0	141.4	13.3	141.9	137.9	13.7	134.2	131.6	14.1	130.2	128.0	14.3
	20	151.4	137.7	14.5	143.9	134.7	14.9	135.3	130.0	15.4	130.5	127.6	15.7
	21	156.0	128.5	15.8	148.0	125.4	16.2	139.1	127.2	16.6	134.4	120.0	16.9



Technical Specification SH140 Split Ducted Model

Indoor Unit Model Number	SH140N	Nominal Evaporator Air Flow (l/s)	7500
Outdoor Unit Model Number	SH140W	Number of Compressors	2
Total Cooling Capacity (kW)	137.8	Power V / Ph	415 / 3
Sensible Cooling Capacity (kW)	110.6	Nominal Max. Current (A)	125.4
Heating Capacity (kW)	132.0	Power Input (kW)	57.2
*Cooling cap entering air 27°/19°C (DB/WB) Ambient 35°C		** Heating cap entering air 21°C Outdoor ambient 7°C	

Cooling Performance Correction

Capacity	% Rated Air Flow				
	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 Capacity

Amb. °C DB	0	4	8	12	18
Cap kW	103.2	113.8	132.0	145.0	174.4
Heating cap is based on 21°C DB. Frost formation will have greatest effect at amb 4 to 6°C. Above 8°C defrost is unlikely and a factor of 1 may be used.					

Heating Performance Correction

% Air Flow	×	Return Air Temp °C	×	O/door 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

Compressors

Number Per Unit	2
Type	Hermetic Scroll
Nominal RPM	2900
Nominal Max. Amps	35.7 / 49.3
Locked Rotor Amps	2 × 230
Displacement (m³/h)	2 × 60.5

Electrical Controls and Safeties

Indoor Fan Overload	Internal	Defrost Cycle Start °C	-4
Outdoor Fan Overload	Internal	Defrost Cycle End °C	10
Compressor Delay Timer	300 sec	Min. Defrost Cycle	33 mins
High Pressure Switch (kPa)	2800	Max. Defrost Period	4 mins
Low Pressure Switch (kPa)	100		

Standard Features

HP/LP Cutouts	Thermal Overload Protection
Crankcase Heater	Limit Start Timer
Automatic De-Ice	Indoor 25mm Insulation
Gas Separator	240 Volt Control

Evaporator Coil

Type	Copper tube alum. fins
Face Area (m²)	2 × 1.45

Condenser Coil

Type	Copper tube alum. fins
Face Area (m²)	2 × 1.75

Evaporator Fan

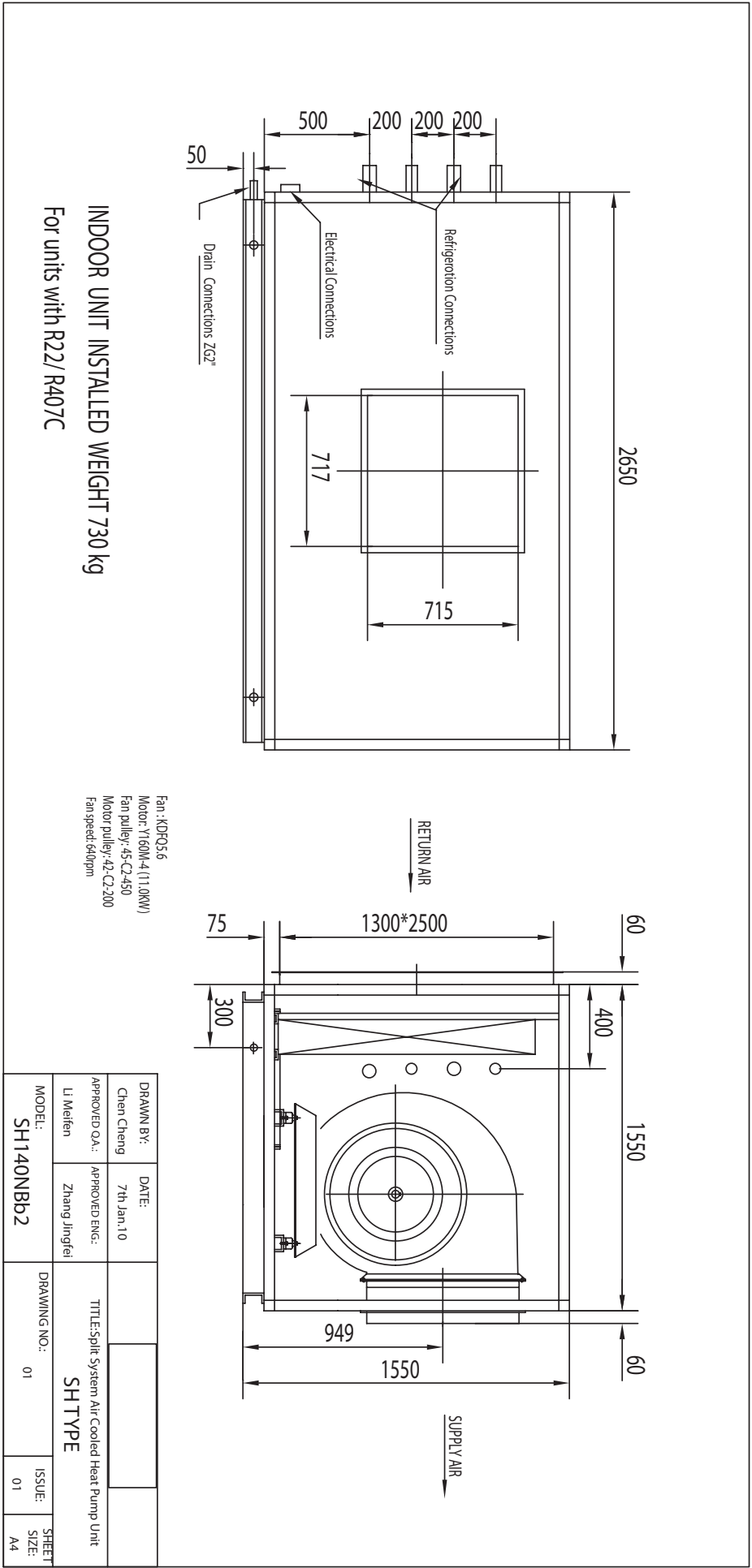
Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor V / Ph / Hz	415 / 3 / 50
Motor Output Power (kW)	11
Max. Fan Speed (rpm)	640

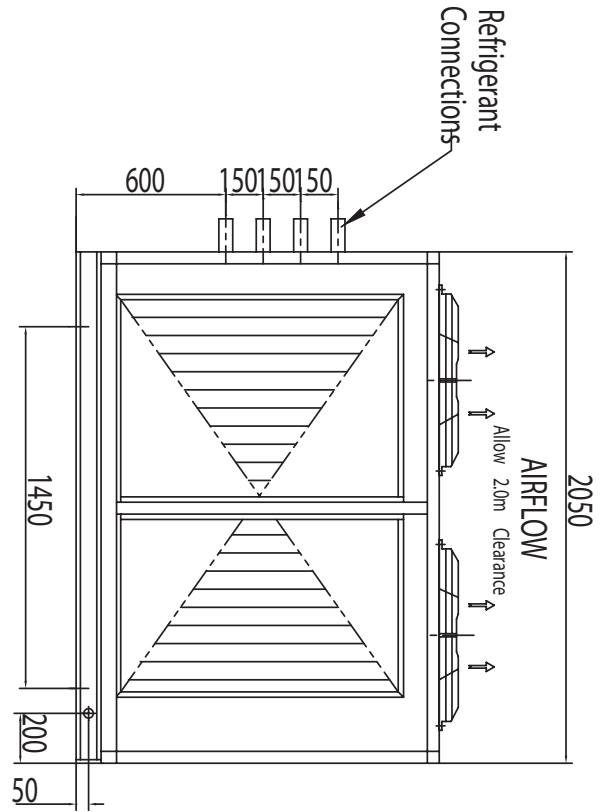
Condenser Fan

Number of Fans	4
Type	Axial
Drive	Direct
Motor Output Power (kW)	4 × 750
Motor V / Ph / Hz	415 / 3 / 50

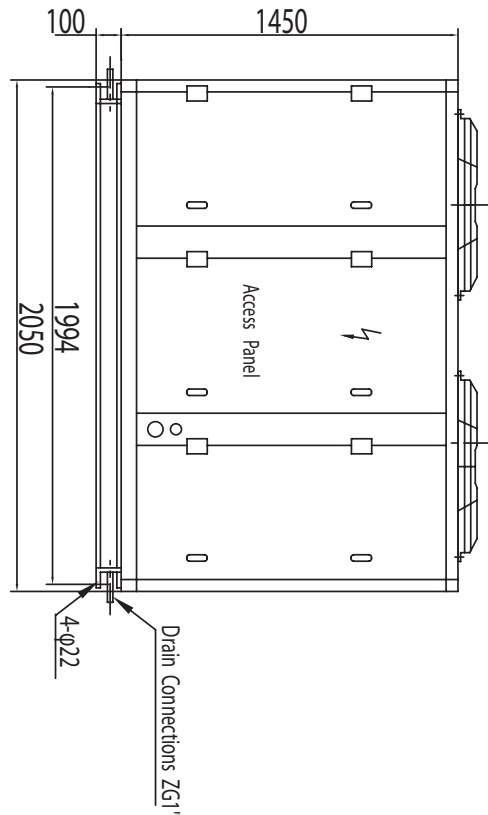
Refrigerant System

Refrigerant Type	R407c
Nominal Charge Required	14.6 / 18.8kg
Line Size (mm)	
Liquid 0–15 metres	28
Gas 0–15 metres	42
Liquid 15–30 metres	28
Gas 15–30 metres	42
Service Connection	Rotor Lock Valve
Expansion Control	TX Valve

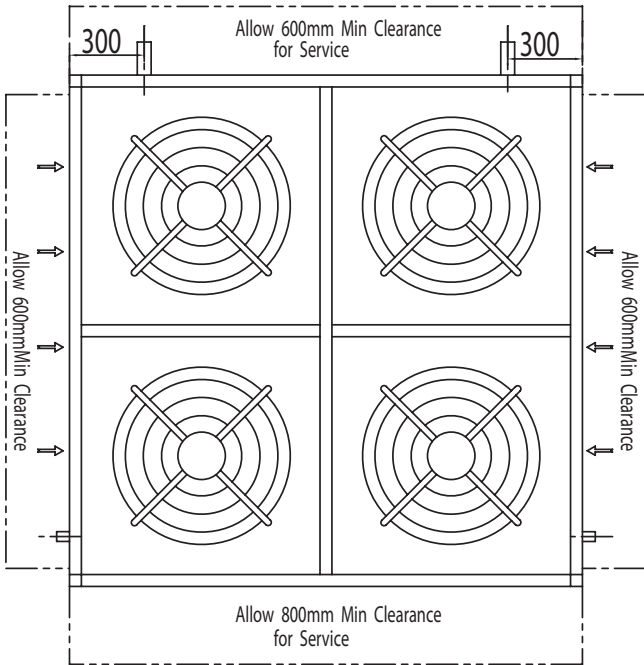




SIDE ELEVATION



RERA VIEW

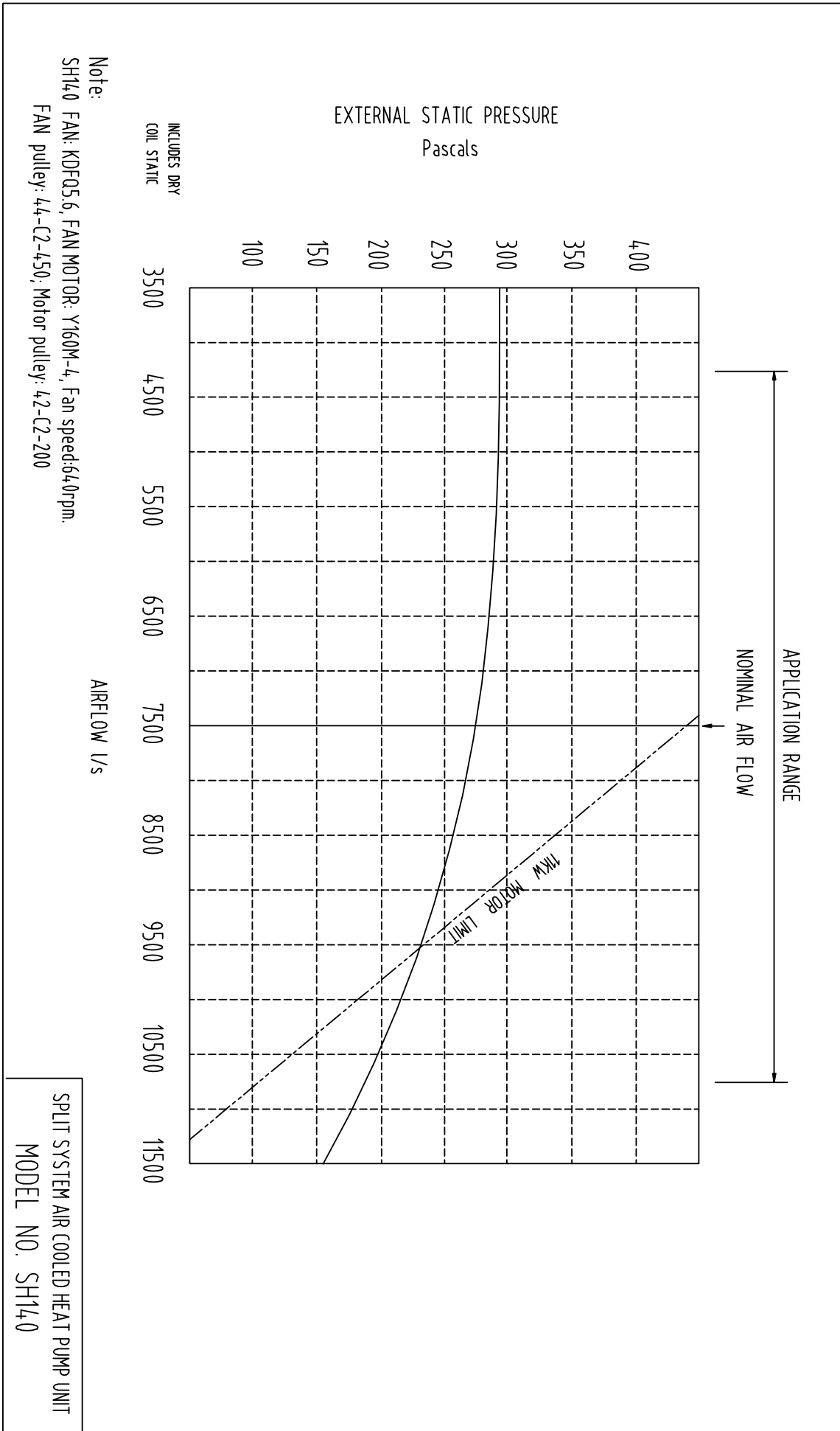


PLAN VIEW

OUTDOOR UNIT INSTALLED WEIGHT 1180 kg

For units with R22 /R407C

DRAWN BY: Chen Cheng	DATE: 7th Jan, 10	TITLE: Split System Air Cooled Heat Pump Unit SH TYPE	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4
APPROVED O.A.: Li Meifen	APPROVED ENG.: Zhang Jingfei				
MODEL: SH140WBb2					



Note:
 SH140 FAN: KDFQ5.6, FAN MOTOR: Y160M-4, Fan speed: 640rpm.
 FAN pulley: 44-C2-450; Motor pulley: 42-C2-200

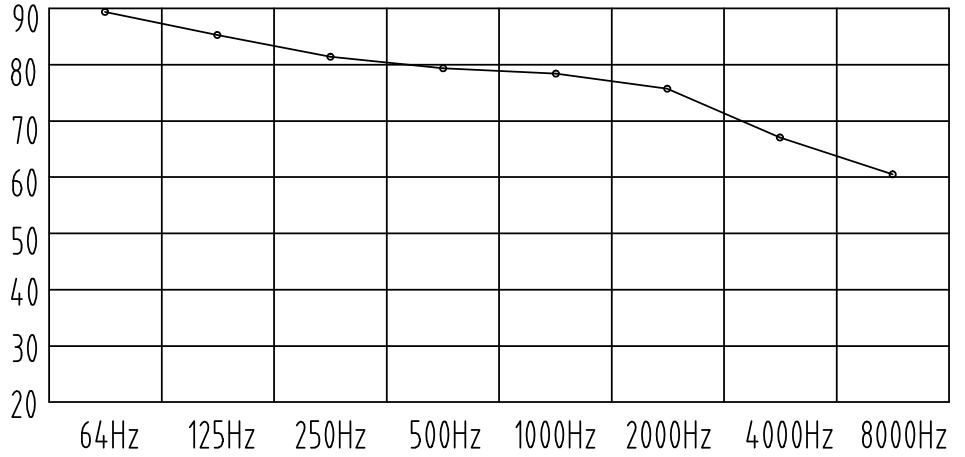
SPLIT SYSTEM AIR COOLED HEAT PUMP UNIT
 MODEL NO. SH140

SH140W Noise rate analysing chart

A Class: 83.3dB

Hz	dB
64Hz	89.2
125Hz	85.7
250Hz	82.3
500Hz	79.4
1000Hz	78.6
2000Hz	76.2
4000Hz	67.8
8000Hz	60.1

Noise rate analysing chart (A Class: 83.3dB) dB



SH140N Noise rate analysing chart

A Class: 77.7dB

Hz	dB
64Hz	86.4
125Hz	82.4
250Hz	75.4
500Hz	74.5
1000Hz	73.4
2000Hz	68.5
4000Hz	65.2
8000Hz	59.4

Noise rate analysing chart (A Class: 77.7dB) dB

