



SH120

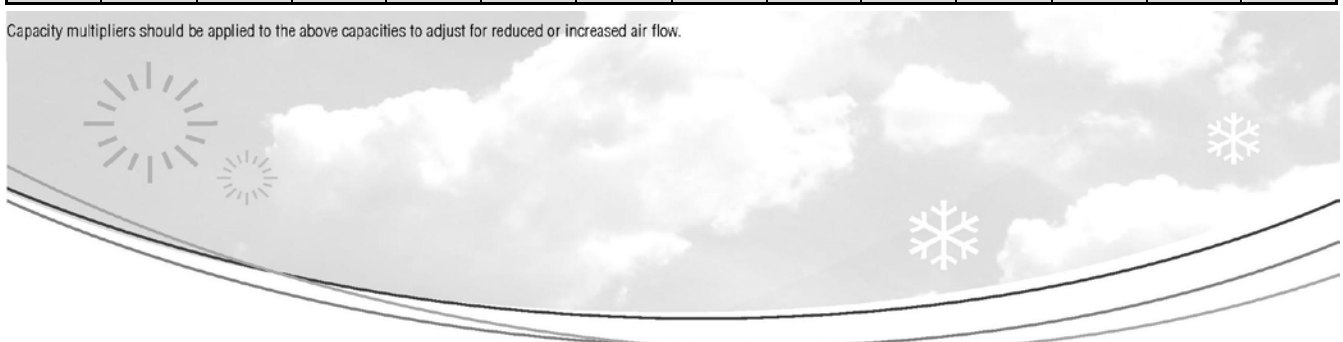
Split Ducted Model

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	115.3	70.7	11.5	109.3	68.2	11.8	103.1	65.5	12.2	98.3	65.5	12.4
	18	119.3	63.8	12.1	113.2	61.2	13.0	106.6	58.3	13.3	102.4	56.5	13.6
	19	123.7	56.5	13.9	117.2	53.9	14.2	110.2	51.0	14.6	106.3	49.5	14.8
	20	128.1	49.0	14.8	1215.0	46.3	15.3	114.3	43.4	15.7	110.2	41.6	16.0
23	17	115.8	84.5	11.4	109.7	82.1	11.8	103.5	79.4	12.1	99.1	77.5	12.4
	18	119.3	77.4	12.5	113.2	74.8	12.8	106.6	71.9	13.3	102.4	70.2	13.6
	19	123.7	70.2	13.7	117.3	67.6	14.1	110.3	64.9	14.5	106.3	63.1	14.8
	20	128.2	62.6	14.8	121.5	59.9	15.3	114.4	57.0	15.7	110.3	55.3	15.9
	21	132.8	55.1	15.9	126.1	52.4	16.3	118.4	49.3	16.7	114.4	47.5	17.1
25	17	117.0	97.2	11.3	110.8	94.4	11.6	104.6	91.6	12.1	100.6	89.6	12.3
	18	119.6	94.0	12.6	113.5	89.1	13.0	106.9	86.2	13.4	102.7	84.5	13.7
	19	123.9	89.4	13.7	117.3	81.3	14.1	110.3	78.6	14.5	106.5	76.8	14.7
	20	128.2	84.4	14.8	121.6	73.7	15.3	114.4	70.7	15.7	110.3	69.0	15.9
	21	132.9	78.7	15.9	126.1	61.4	16.3	118.4	62.9	16.7	114.4	61.4	17.0
27	17	118.7	107.7	11.2	113.3	104.5	11.5	107.2	100.9	11.9	103.4	98.6	12.2
	18	121.1	105.4	12.4	114.7	102.8	12.7	108.1	99.8	13.2	104.9	98.1	13.4
	19	124.8	97.8	13.5	117.6	95.2	13.9	110.6	92.3	14.3	106.6	90.6	14.5
	20	128.3	90.9	14.7	121.6	88.2	15.1	114.4	85.4	15.5	110.3	83.7	15.7
	21	132.9	82.4	15.9	126.2	79.7	16.3	118.5	76.6	16.7	114.5	75.0	17.0
29	17	121.9	111.4	11.1	116.4	112.9	11.5	110.3	108.4	11.9	105.8	105.8	12.1
	18	123.1	109.5	12.3	117.1	111.2	12.7	110.6	107.7	13.2	106.6	102.9	13.4
	19	124.8	107.6	13.6	118.5	109.5	13.9	111.6	106.9	14.3	107.0	100.9	14.6
	20	128.3	104.2	14.7	121.8	101.5	15.1	114.5	98.3	15.6	110.4	96.8	15.8
	21	132.9	95.2	15.9	126.2	93.2	16.3	118.5	90.2	16.7	114.5	88.7	17.0
31	17	125.9	124.5	10.7	120.5	119.6	11.1	114.1	114.1	11.5	110.5	110.5	11.7
	18	126.5	123.1	12.1	120.7	119.1	12.4	114.5	113.9	12.8	111.2	110.5	13.2
	19	127.1	121.7	13.4	121.1	118.7	13.8	114.5	113.3	14.2	111.2	110.1	14.4
	20	129.2	118.5	14.6	122.8	115.9	15.1	115.5	111.9	15.5	111.4	109.9	15.8
	21	133.1	110.6	15.9	126.3	108.0	16.3	118.7	109.5	16.7	114.7	103.3	17.1

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



Technical Specification SH120 Split Ducted Model

Indoor Unit Model Number	SH120N	Nominal Evaporator Air Flow (l/s)	6500
Outdoor Unit Model Number	SH120W	Number of Compressors	2
Total Cooling Capacity (kW)*	117.6	Power Requirements (Volt /Phase)	415 / 3
Sensible Cooling Capacity (kW)*	95.2	Normal Max. Current (Amps /Phase)	98.8
Heating Capacity (kW) **	116.2	Power Input (kW)	46.8
*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 6500 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)	91.2	100.7	116.6	128.1	154.1

Heating cap is based on 21°C DB. Frost formation will have greatest effect at Amb. 4 -6°C. Above 8°C defrost is unlikely and a factor of 1 may be used.

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	2
Type	Hermetic Scroll
RPM (Nom)	2900
Normal Max. Current (amps /phase)	2 x 37.8
Locked Rotor Current (amps /phase)	2 x 215
Displacement (m ³ /h)	2 x 39.6

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

HP / LP Cutouts	Thermal Overload Protection
Crankcase Heater	Limit Start Timer
Automatic De-Ice System	Indoor 25mm Insulation
Liquid Accumulator	240 Volt Control
Sight Glass	Evap. Unit is supplied with a variable speed motor pulley

Evaporator (Indoor Coil)

Type	Copper Tube / Aluminium Fins
Face Area (m ²)	2.44
Air Quantity (l/s)	6500

Evaporator (Indoor fan)

Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor Voltage /Phase /Frequency	415 / 3 / 50
Motor Power (kW)	7.5
Maximum Fan Speed(rpm)	649

Electrical

Power Requirements	3 phase / 415V / 50Hz
Normal Max. Current (Amps /Phase)	98.8

Condenser (Outdoor Coil)

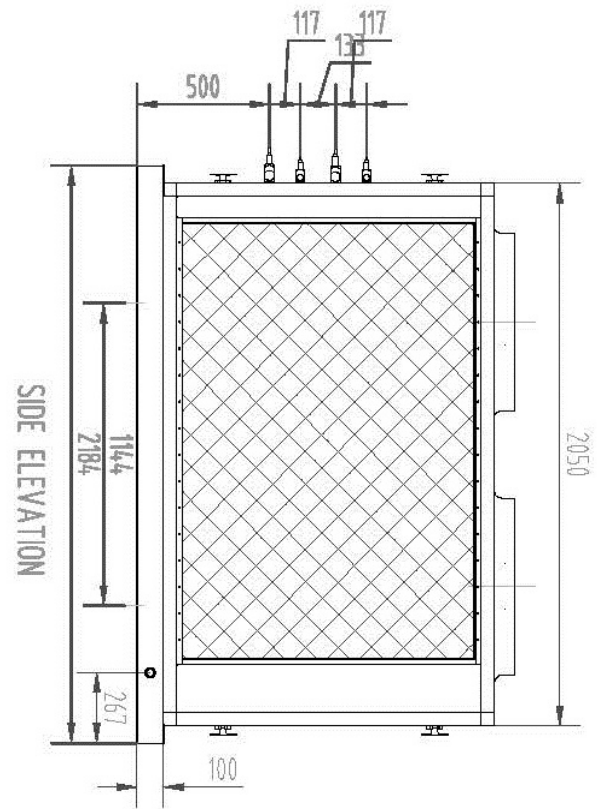
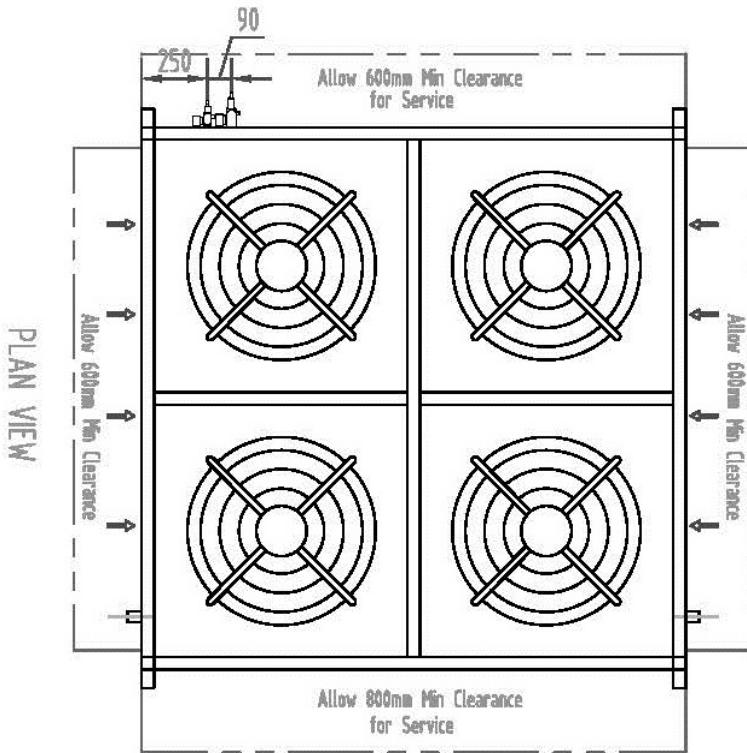
Type	Copper Tube / Aluminium Fins
Face Area (m ²)	2 x 1.70

Condenser (Outdoor Fan)

Number of Fans	4
Type	Axial
Drive	Direct
Motor Output Power (Kw)	4 x 0.55
Motor Voltage /Phase /Frequency	415 / 3 / 50

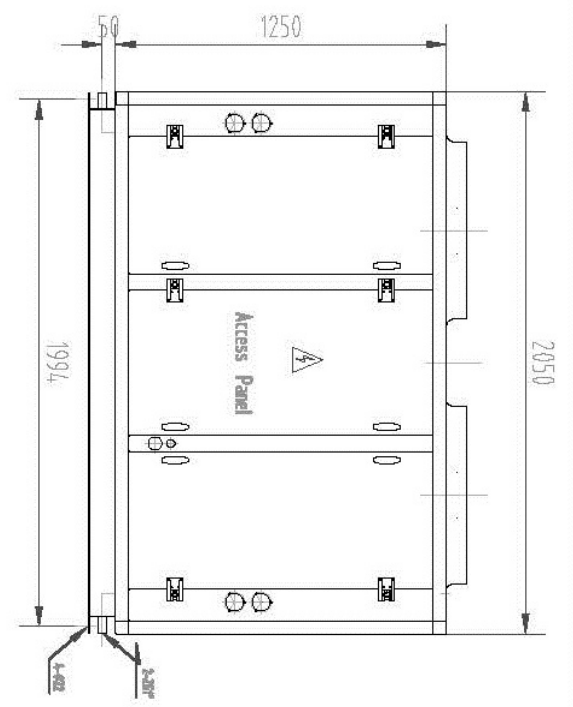
Refrigeration System

Refrigerant Type	R410A
Charge (kg)	2 x 14.6
Service Connections	Rotor Lock Valves
Expansion Control - In / Outdoor Unit	TX Valve
Line Size (mm)	
Liquid Line 0 - 15 Meters	22 (7/8")
Gas 0 Line - 15 Meters	35 (1 3/8")
Liquid Line 15 - 30 Meters	29 (1 1/8")
Gas Line 15 - 30 Meters	41 (1 5/8")

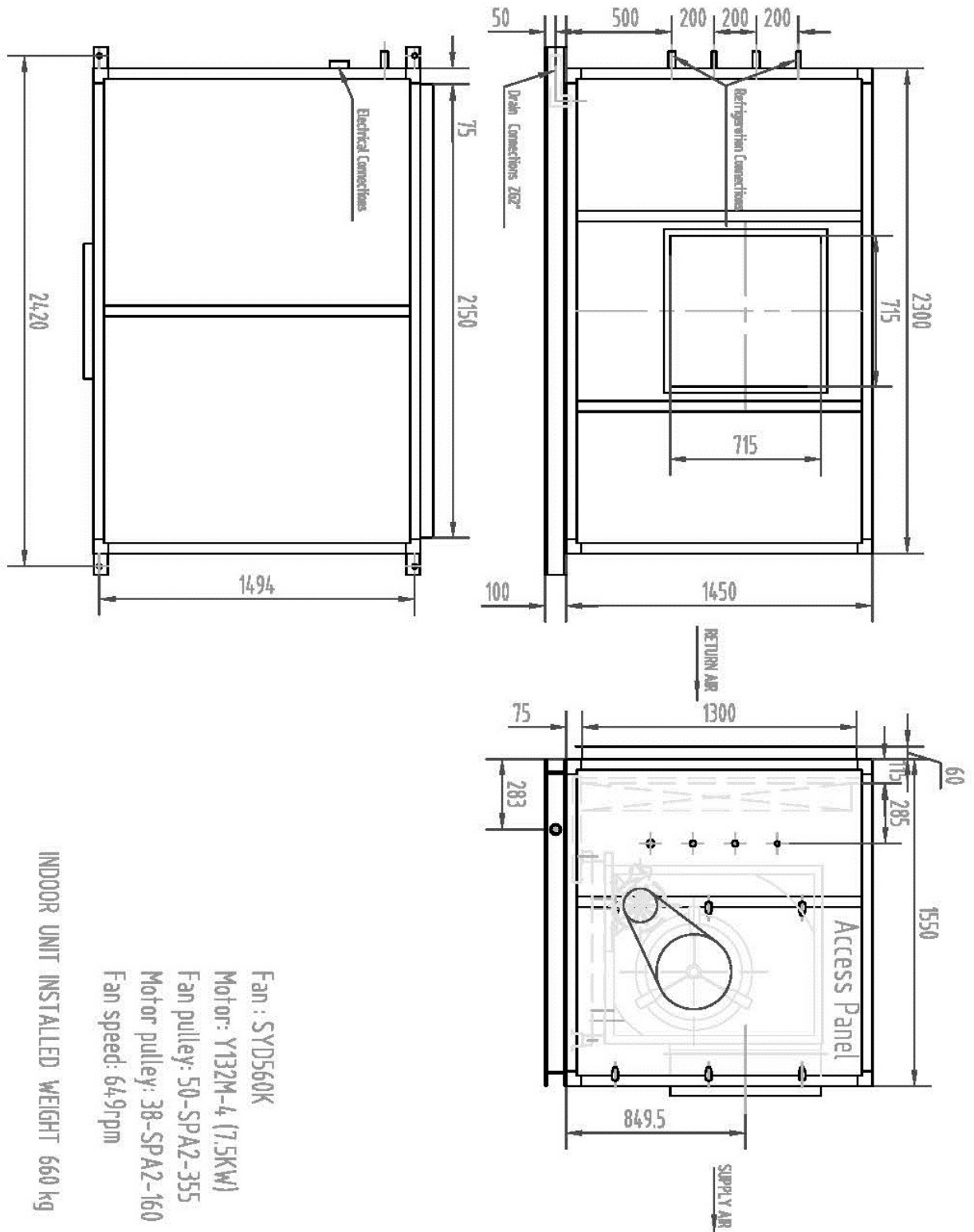


OUTDOOR UNIT INSTALLED WEIGHT 1100 kg

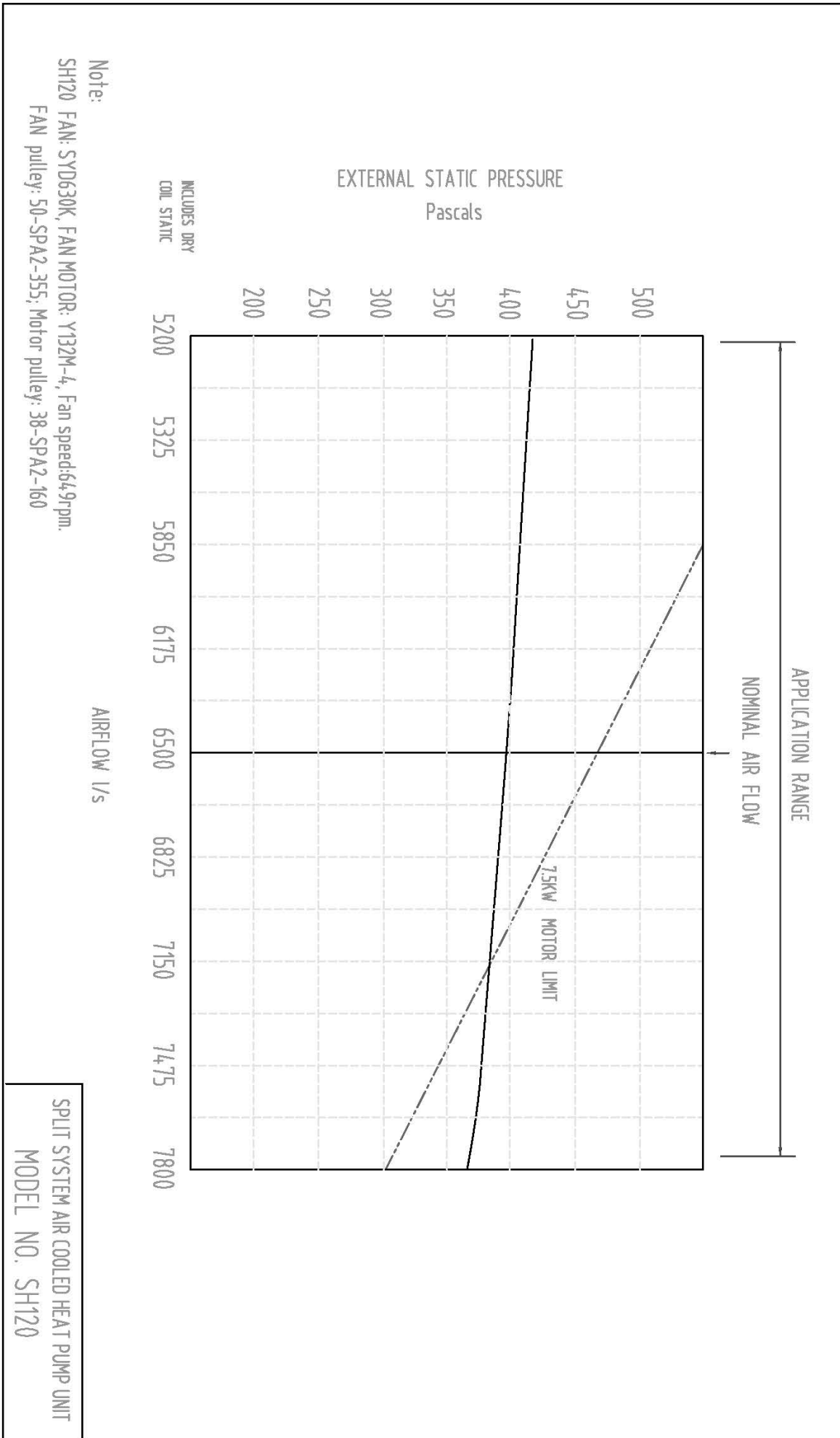
RERA VIEW



DRAWN BY: Chen Cheng		DATE: 22th Jan. 14		
APPROVED O.A.: Zhu Junqian		APPROVED ENG.: LI Meifen		
MODEL: SH120WBB2-R		DRAWING NO.: 01		TITLE: Split System Air Cooled Heat Pump Unit SH TYPE
		ISSUE: 01		SHEET SIZE: A4



DRAWN BY: Chen Cheng		DATE: 22th Jan,16		DUNNAIR
APPROVED D.A.: Zhu Junqian		APPROVED ENG.: Li Peifan		
TITLE: Split System Air Cooled Heat Pump Unit				SH TYPE
DRAWING NO.: 01				
MODEL: SH120NB2-R	ISSUE: 01	SHEET SIZE: A4		



INCLUDES DRY
COIL STATIC

Note:

SH120 FAN: SYD630K, FAN MOTOR: Y132M-4, Fan speed: 649rpm.
FAN pulley: 50-SPA2-355; Motor pulley: 38-SPA2-160

AIRFLOW l/s

SPLIT SYSTEM AIR COOLED HEAT PUMP UNIT
MODEL NO. SH120

SH120W Sound Pressure Curve
A Class: 82.2dB

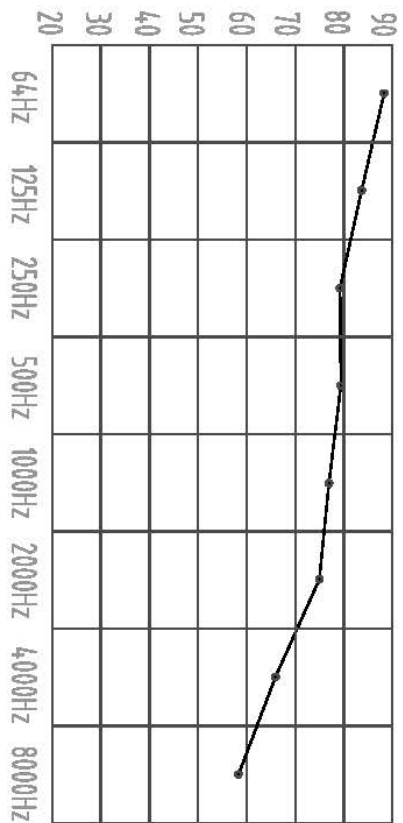
Hz	dB
64Hz	88.1
125Hz	83.4
250Hz	79.2
500Hz	79.4
1000Hz	77.2
2000Hz	75.6
4000Hz	66.7
8000Hz	58.8

SH120N Sound Pressure Curve
A Class: 76dB

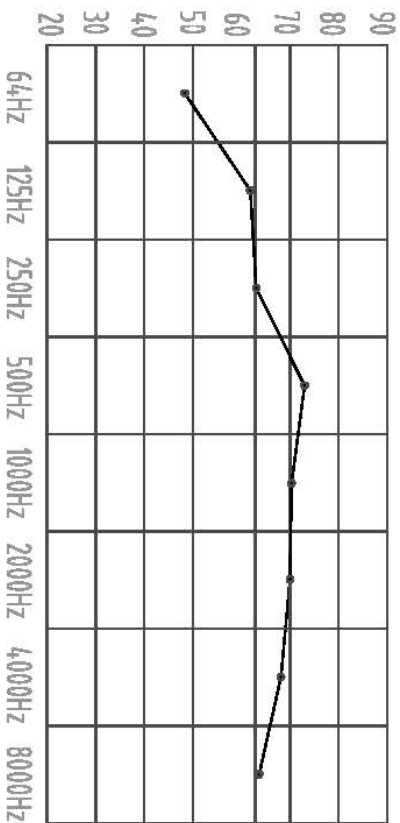
Hz	dB
64Hz	49
125Hz	61
250Hz	63
500Hz	72
1000Hz	70
2000Hz	70
4000Hz	68
8000Hz	61


Note: Occupant at least 1.0m from sound source.

Sound Pressure Curve (A Class: 82.2dB) dB



Sound Pressure Curve (A Class: 76dB) dB



DRAWN BY: Chen Cheng	DATE: 2014-3-5	
APPROVED Q.A.: Zhu Junquan	APPROVED ENG.: Li Meifen	
MODEL: SH120	DRAWING NO.: 01	TITLE: Split System Air Cooled Heat Pump Unit SH TYPE
	ISSUE: 01	SHEET SIZE: A4