



DUNNAIR
(Aust) Pty Ltd

SH200

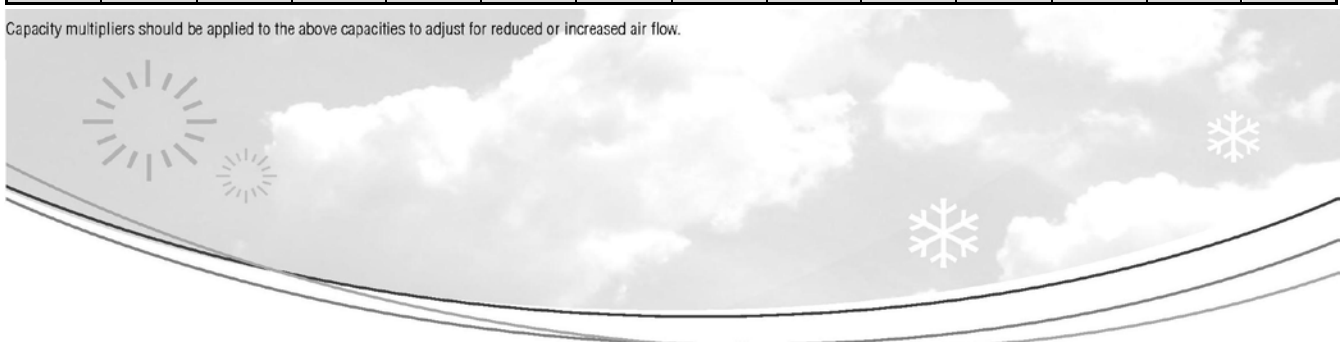
Split Ducted Model

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	198.1	122.0	11.8	187.8	117.7	12.1	177.0	113.0	12.6	169.5	113.0	12.8
	18	205.1	110.1	12.5	194.5	105.6	13.3	183.1	100.6	13.6	175.9	97.5	14.0
	19	212.2	97.6	14.3	201.2	93.1	14.6	189.4	88.1	15.1	182.5	85.3	15.3
	20	220.1	84.5	15.3	208.6	79.8	15.7	196.1	74.9	16.1	189.3	71.8	16.5
23	17	198.8	145.8	11.7	188.6	141.6	12.1	177.8	136.9	12.5	170.2	133.8	12.8
	18	205.1	133.7	12.9	194.5	129.1	13.2	183.1	124.2	13.6	175.9	121.1	14.0
	19	212.2	121.2	14.1	201.4	116.7	14.5	189.5	112.0	15.0	182.5	108.9	15.3
	20	220.3	108.1	15.3	208.6	103.4	15.7	196.2	98.5	16.1	189.5	95.4	16.4
	21	228.2	95.1	16.4	216.4	190.4	16.8	203.9	85.1	17.2	196.6	82.0	17.6
25	17	200.8	167.7	11.6	190.5	163.0	11.9	179.8	157.9	12.5	172.8	154.7	12.7
	18	205.6	162.1	13.0	195.0	153.8	13.3	183.7	148.8	13.8	176.5	145.7	14.1
	19	212.3	154.4	14.1	201.4	140.2	14.5	189.5	135.5	15.0	182.8	132.5	15.2
	20	220.3	145.5	15.3	208.9	127.2	15.7	196.5	121.9	16.1	189.5	119.2	16.4
	21	228.3	135.8	16.4	216.4	105.9	16.8	203.9	108.6	17.2	196.6	105.9	17.4
27	17	203.9	185.9	11.5	194.7	180.4	11.8	184.2	174.0	12.2	177.5	170.1	12.6
	18	208.0	181.8	12.8	196.9	177.4	13.1	185.6	172.4	13.5	180.3	169.3	13.8
	19	214.4	168.7	13.9	201.8	164.3	14.3	190.0	159.3	14.7	183.1	156.3	15.0
	20	220.5	156.8	15.2	208.9	152.1	15.5	196.5	147.3	15.9	189.5	144.4	16.1
	21	228.4	142.1	16.4	210.6	137.4	16.8	203.9	132.2	17.2	196.7	129.4	17.4
29	17	209.5	192.2	11.4	200.0	194.8	11.8	189.5	187.1	12.2	181.8	183.0	12.5
	18	211.4	188.9	12.7	201.1	191.8	13.1	190.0	185.9	13.5	183.1	177.4	13.8
	19	214.4	185.6	14.0	203.6	189.5	14.3	191.7	184.6	14.7	183.8	174.1	15.1
	20	220.5	179.9	15.2	209.1	175.1	15.5	196.7	169.6	16.0	189.8	167.1	16.3
	21	228.4	165.7	16.4	216.6	160.9	16.8	203.9	155.8	17.2	196.7	152.9	17.4
31	17	216.1	214.8	11.0	207.0	206.6	11.4	195.9	197.1	11.8	189.8	191.4	12.0
	18	217.2	212.3	12.5	207.2	205.6	12.8	196.7	196.5	13.2	190.8	190.7	13.5
	19	218.3	210.0	13.8	208.0	204.8	14.2	196.7	195.5	14.6	190.8	190.1	14.8
	20	221.9	204.5	15.1	210.8	200.1	15.5	198.3	193.0	15.9	191.4	189.6	16.3
	21	228.9	191.0	16.4	216.9	186.2	16.8	203.9	188.9	17.2	196.9	178.2	17.6

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



Technical Specification SH200 Split Ducted Model

Indoor Unit Model Number	SH200N	Nominal Evaporator Air Flow (l/s)	10500
Outdoor Unit Model Number	SH200W	Number of Compressors	2
Total Cooling Capacity (kW)*	201.8	Power Requirements (Volt /Phase)	415 / 3
Sensible Cooling Capacity (kW)*	164.3	Normal Max. Current (Amps /Phase)	163.7
Heating Capacity (kW) **	196.2	Power Input (kW)	78.8
*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 10500 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)	147.3	162.6	188.4	207.0	249.0
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 58.2
Locked Rotor Current (amps /phase)	2 x 320
Displacement (m ³ /h)	2 x 60

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)	3.63
Air Quantity (l/s)	8500

Evaporator (Indoor fan)

Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor Voltage /Phase /Frequency	415 / 3 / 50
Motor Power (kW)	15
Maximum Fan Speed(rpm)	617

Electrical

Power Requirements	3 phase / 415V / 50Hz
Normal Max. Current (Amps /Phase)	163.7

Condenser (Outdoor Coil)

Type	Copper Tube / Aluminium Fins
Face Area (m ²)	2 x 3.35

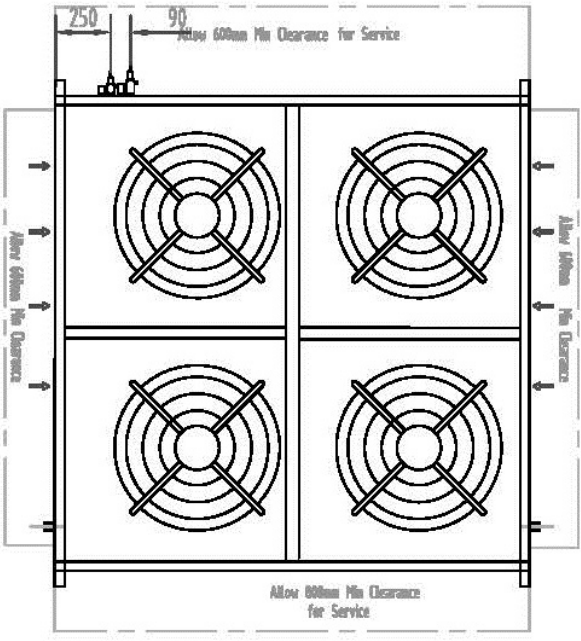
Condenser (Outdoor Fan)

Number of Fans	4
Type	Axial
Drive	Direct
Motor Output Power (kW)	4 x 1.8
Motor Voltage /Phase /Frequency	415 / 3 / 50

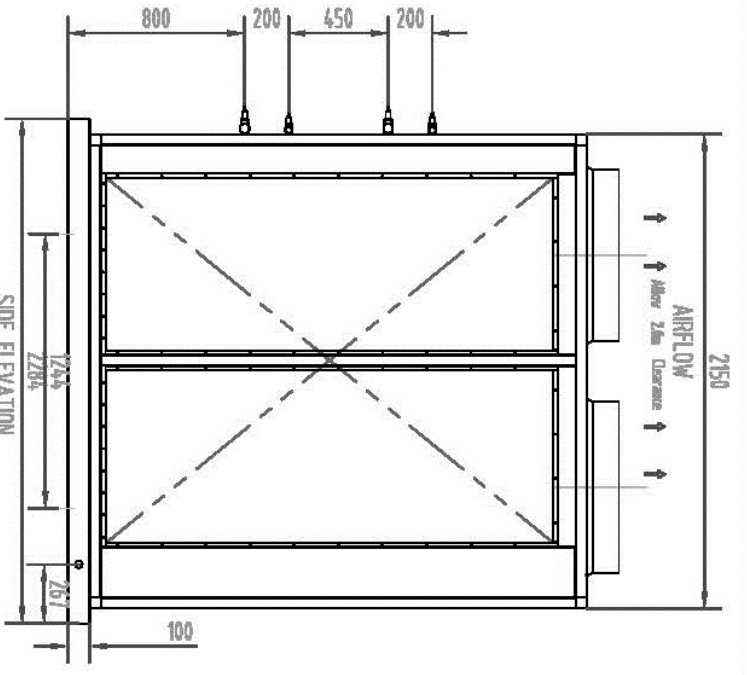
Refrigeration System

Refrigerant Type	R410A
Charge (kg)	2 x 25.4
Service Connections	Rotor Lock Valves
Expansion Control - In / Outdoor Unit	TX Valve
Line Size (mm)	
Liquid Line 0 – 15 Meters	29 (1 ¹ / ₈ "
Gas 0 Line – 15 Meters	54 (2 ¹ / ₈ "
Liquid Line 15 – 30 Meters	29 (1 ¹ / ₈ "
Gas Line 15 – 30 Meters	54 (2 ¹ / ₈ "

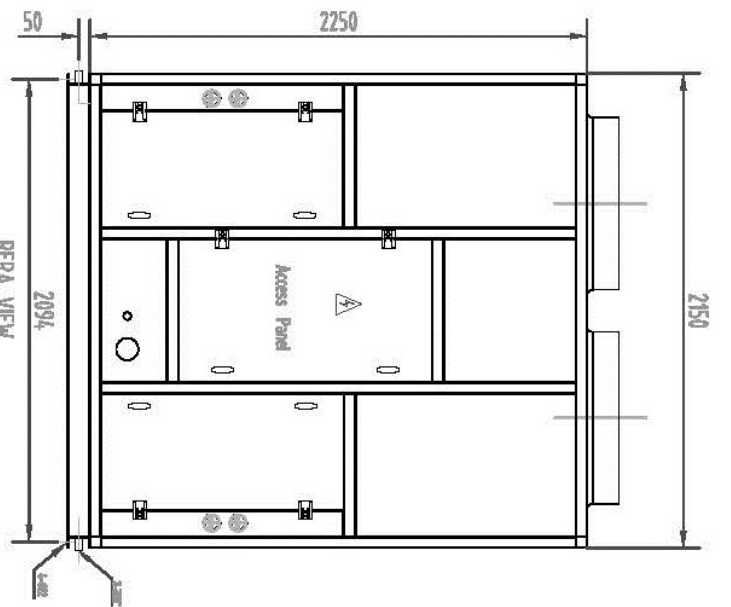
PLAN VIEW



SIDE ELEVATION

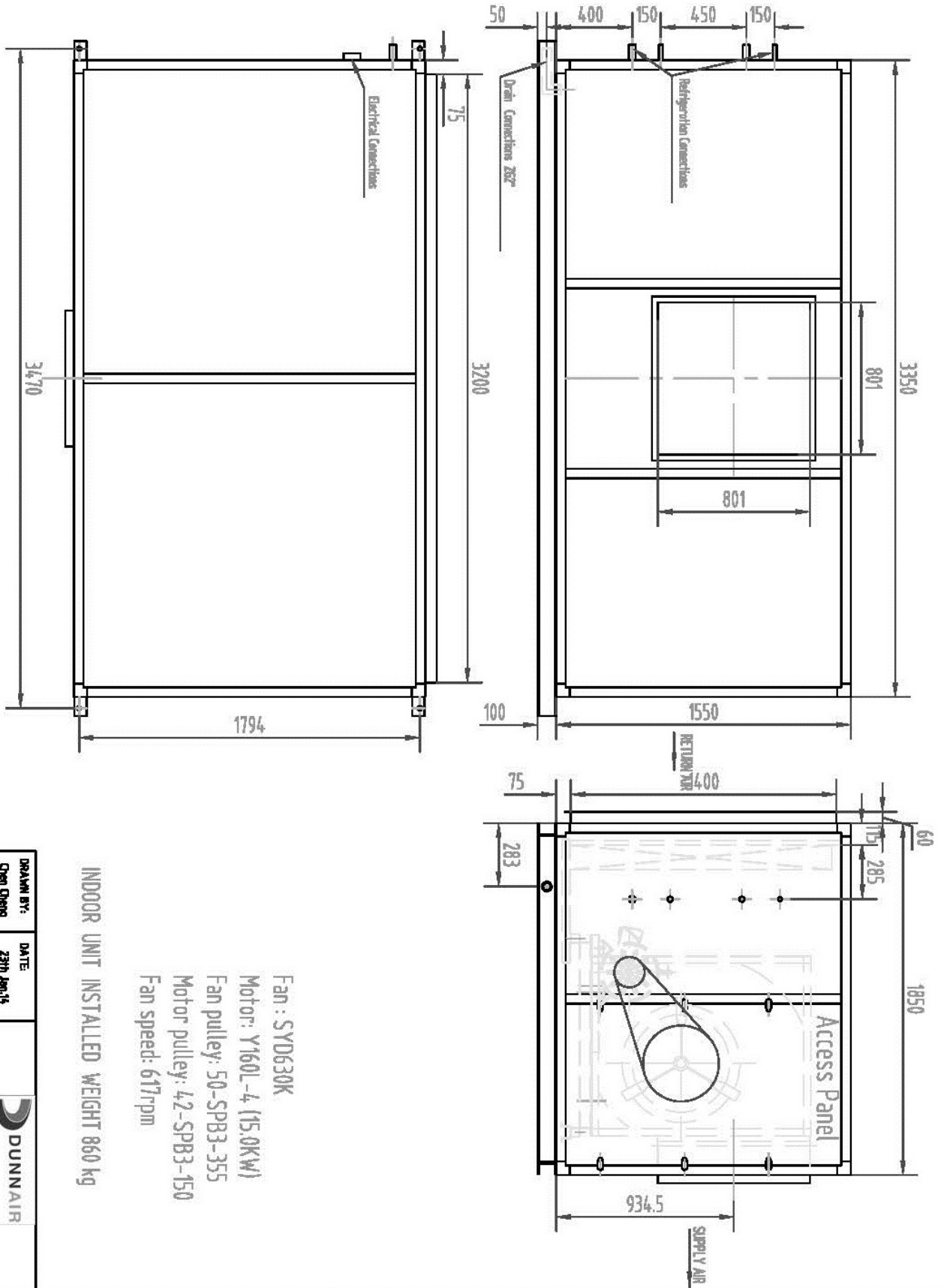


REAR VIEW



OUTDOOR UNIT INSTALLED WEIGHT 1400 kg
 For units with R22 / R407C

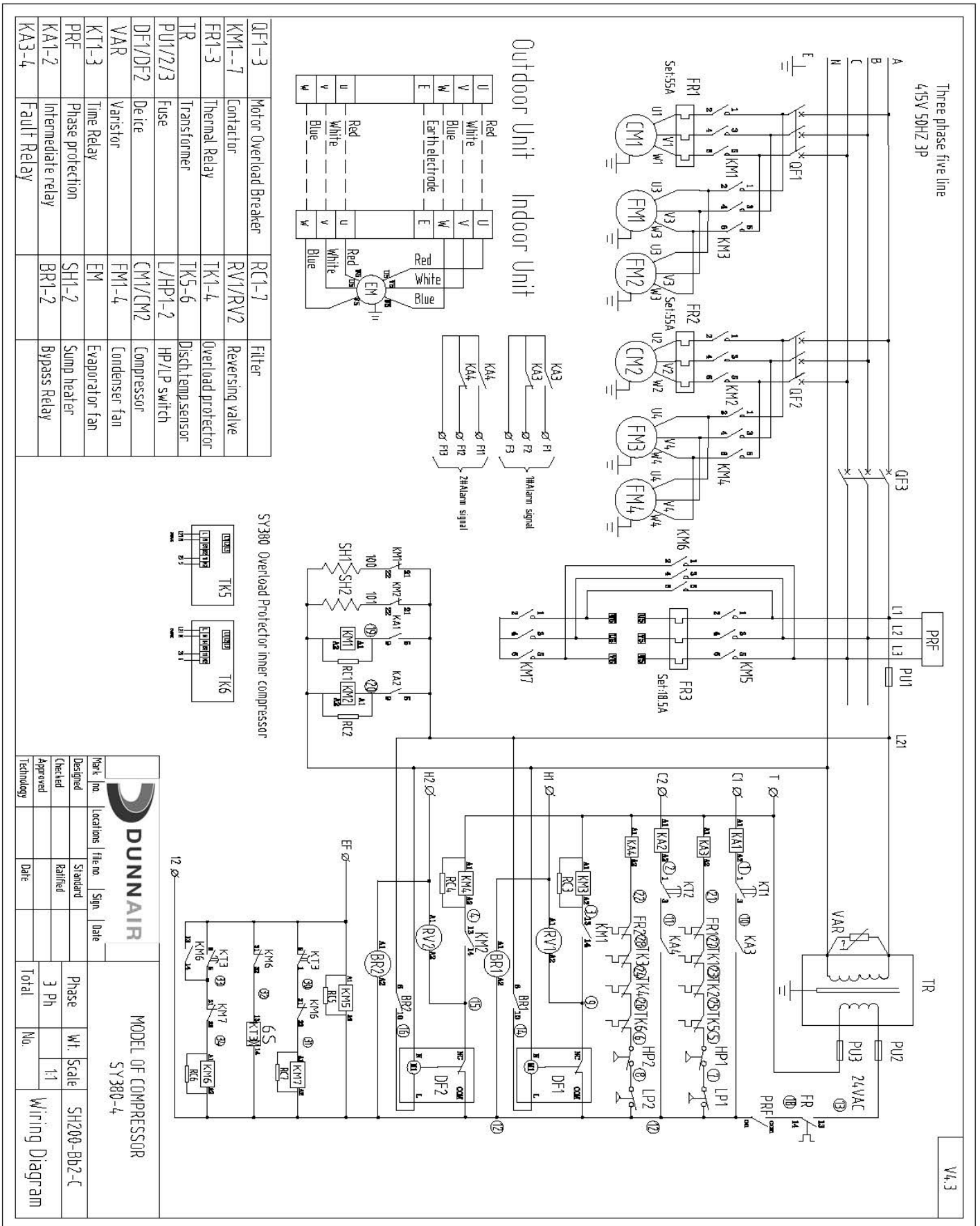
MODEL:	SH200WBB2-R	DRAWING NO.:	01	ISSUE:	01	SHEET:	AA
DRAWN BY:	Chen Cheng	DATE:	23th Jan, 14	TITLE: Split System Air Cooled Heat Pump Unit SH TYPE			
APPROVED BY:	Zhou Junqian	APPROVED DATE:	11 Mar 14				



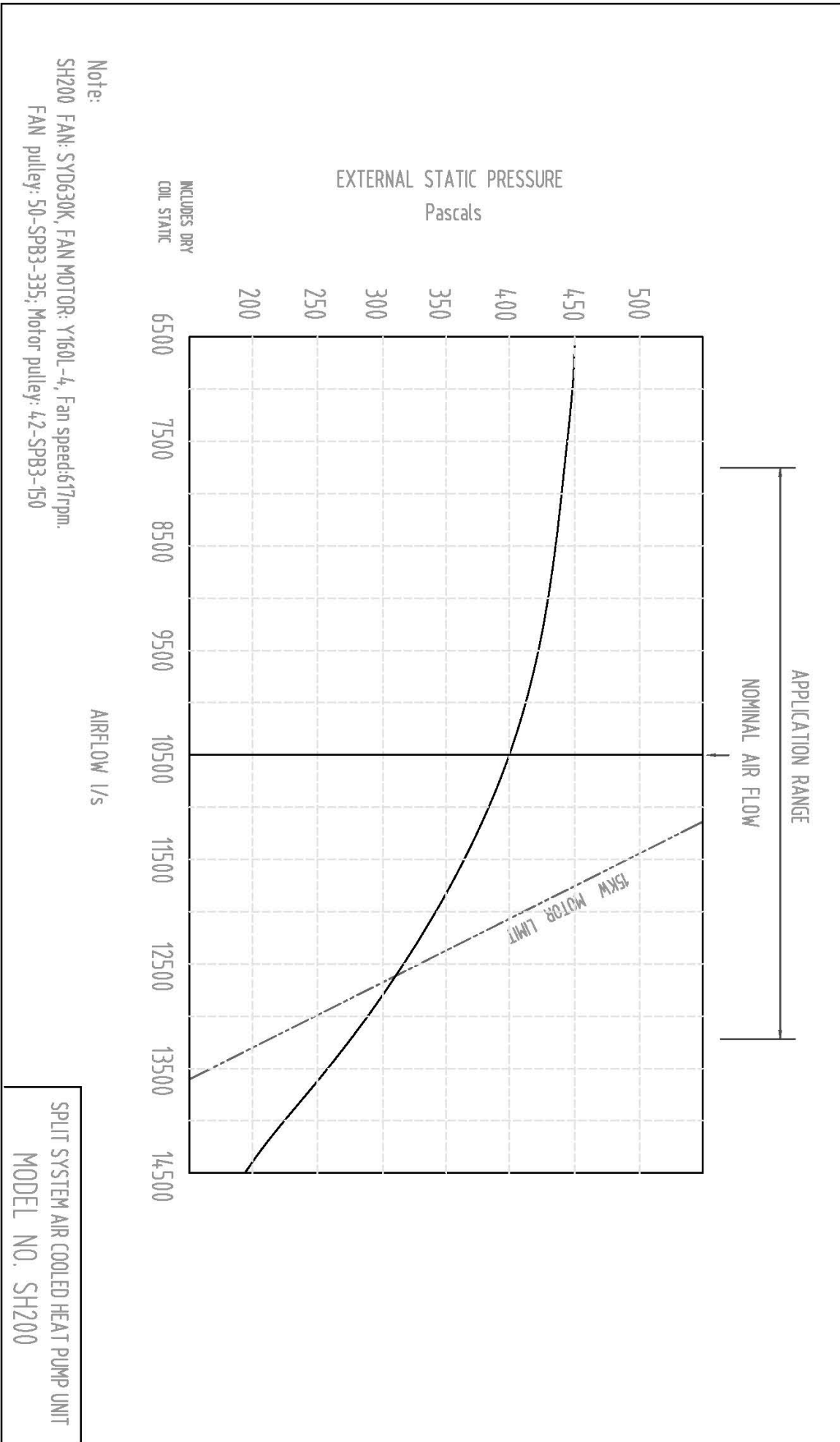
INDOOR UNIT INSTALLED WEIGHT 860 kg

Fan : SYD630K
 Motor: Y160L-4 (15.0KW)
 Fan pulley: 50-SPB3-355
 Motor pulley: 42-SPB3-150
 Fan speed: 617rpm

DRAWN BY: Chen Cheng	DATE: 23th Jan, 14		TITLE: Split System Air Cooled Heat Pump Unit SH TYPE
APPROVED S.A. Zhu Aungmye	APPROVED ENG. LI Weifan		
MODEL: SH200NB2-R	DRAWING NO.: 01	ISSUE: 01	SHEET SIZE: A4



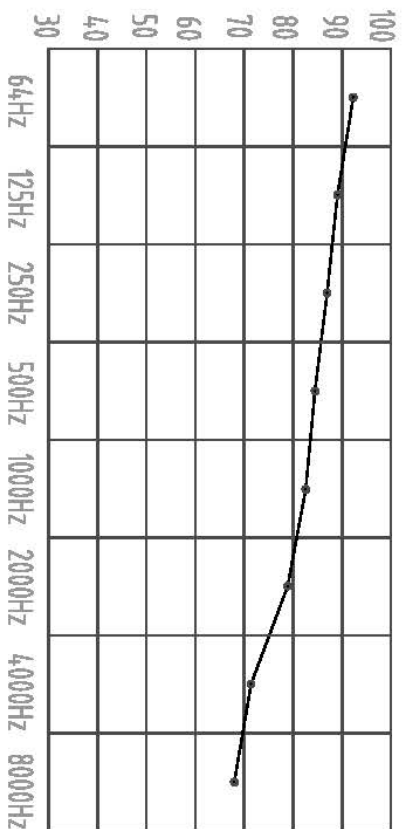
V4.3



SH200W Sound Pressure Curve
A Class: 87.2dB

Hz	dB
64Hz	92.1
125Hz	89.0
250Hz	87.1
500Hz	84.4
1000Hz	82.6
2000Hz	78.7
4000Hz	70.9
8000Hz	68.1

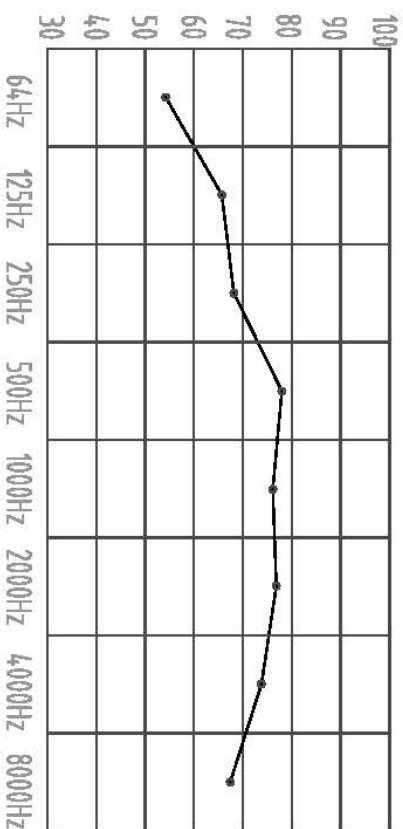
Sound Pressure Curve (A Class: 87.2dB) dB




SH200N Sound Pressure Curve
A Class: 83.4dB

Hz	dB
64Hz	54
125Hz	66
250Hz	69
500Hz	79
1000Hz	77
2000Hz	78
4000Hz	75
8000Hz	68

Sound Pressure Curve (A Class: 83.4dB) dB



Note: Occupant at least 1.0m from sound source.

DRAWN BY: Chen Cheng	DATE: 2014-3-5		
APPROVED O.A.: Zhu Junquan	APPROVED ENG.: Li Meifen		
MODEL: SH200	DRAWING NO.: 01	TITLE: Split System Air Cooled Heat Pump Unit SH TYPE	
	ISSUE: 01	SHEET SIZE: A4	