



SH95

Split Ducted Model

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	95.2	68.6	10.9	89.6	66.8	11.3	85.3	64.9	11.3	82	63.1	11.8
	18	98.6	62.7	11.8	93	60.9	12.2	88.7	59	12.2	85.4	57.2	12.7
	19	101.4	56.5	12.9	95.8	54.7	13.3	91.5	52.8	13.3	88.2	51	13.8
	20	103.5	50.2	14.1	97.9	48.4	14.5	93.6	46.5	14.5	90.3	44.7	15
23	17	95.5	74.5	10.9	89.9	72.7	11.3	85.6	70.8	11.3	82.3	69	11.8
	18	98.7	68.6	11.9	93.1	66.8	12.3	88.8	64.9	12.3	85.5	63.1	12.8
	19	101.4	62.4	12.9	95.8	60.6	13.3	91.5	58.7	13.3	88.2	56.9	13.8
	20	103.8	56.2	14	98.2	54.4	14.4	93.9	52.5	14.4	90.6	50.7	14.9
	21	106	49.8	15.1	100.4	48	15.5	96.1	46.1	15.5	92.8	44.3	16
25	17	95.8	80.4	10.8	90.2	78.6	11.2	85.9	76.7	11.2	82.6	74.9	11.7
	18	98.9	74.5	11.8	93.3	72.7	12.2	89	70.8	12.2	85.7	69	12.7
	19	101.4	68.3	12.9	95.8	66.5	13.3	91.5	64.6	13.3	88.2	62.8	13.8
	20	103.7	61.9	14	98.1	60.1	14.4	93.8	58.2	14.4	90.5	56.4	14.9
	21	106.3	55.6	15	100.7	53.8	15.4	96.4	51.9	15.4	93.1	50.1	15.9
27	17	96.5	85.7	10.7	90.9	83.9	11.1	86.6	82	11.1	83.3	80.2	11.6
	18	99.6	80.4	12.2	94	78.6	12.6	89.7	76.7	12.6	86.4	74.9	13.1
	19	101.4	74.1	12.9	95.8	72.3	13.3	91.5	70.4	13.3	88.2	68.6	13.8
	20	104.3	67.8	14.1	98.7	66	14.5	94.4	64.1	14.5	91.1	62.3	15
	21	107.1	61.5	15.4	101.5	59.7	15.8	97.2	57.8	15.8	93.9	56	16.3
29	17	97.8	85.7	10.6	92.2	83.9	11	87.9	82	11	84.6	80.2	11.5
	18	100	81.2	12.1	94.4	79.4	12.5	90.1	77.5	12.5	86.8	75.7	13
	19	101.6	80	12.9	96	78.2	13.3	91.7	76.3	13.3	88.4	74.5	13.8
	20	104.3	73.7	14	98.7	71.9	14.4	94.4	70	14.4	91.1	68.2	14.9
	21	107.2	67.4	15.3	101.6	65.6	15.7	97.3	63.7	15.7	94	61.9	16.2
31	17	100.3	89.7	10.4	94.7	87.9	10.8	90.4	86	10.8	87.1	84.2	11.3
	18	102.2	88.2	11.9	96.6	86.4	12.3	92.3	84.5	12.3	89	82.7	12.8
	19	105.8	87.8	12.8	100.2	86	13.2	95.9	84.1	13.2	92.6	82.3	13.7
	20	107	81.9	14	101.4	80.1	14.4	97.1	78.2	14.4	93.8	76.4	14.9
	21	109.4	79.3	15.1	103.8	77.5	15.5	99.5	75.6	15.5	96.2	73.8	16

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



Technical Specification SH95 Split Ducted Model

Indoor Unit Model Number	SH95N	Nominal Evaporator Air Flow (l/s)	5200
Outdoor Unit Model Number	SH95W	Number of Compressors	2
Total Cooling Capacity (kW)*	95.8	Power Requirements (Volt /Phase)	415 / 3
Sensible Cooling Capacity (kW)*	72.3	Normal Max. Current (Amps /Phase)	74.4
Heating Capacity (kW) **	96.2	Power Input (kW)	34.2
*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 4300 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)	49.1	54.2	62.8	69.0	83.0

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	Scroll
RPM (Nom)	2900
Normal Max. Current (amps /phase)	2 x 29.3
Locked Rotor Current (amps /phase)	2 x 180
Displacement (m ³ /h)	2 x 29.6

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

Auto 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

Evaporator Coil

Type	Copper Tube / Aluminium Fins
Face Area (m ²)	1.98
Air Quantity (l/s)	5200

Evaporator Fan

Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor Voltage /Phase /Frequency	415 / 3 / 50
Motor Power (kW)	5.5
Maximum Fan Speed (rpm)	680

Electrical

Power Requirements	3 phase / 415V / 50Hz
Normal Max. Current (Amps /Phase)	74.4

Condenser Coil

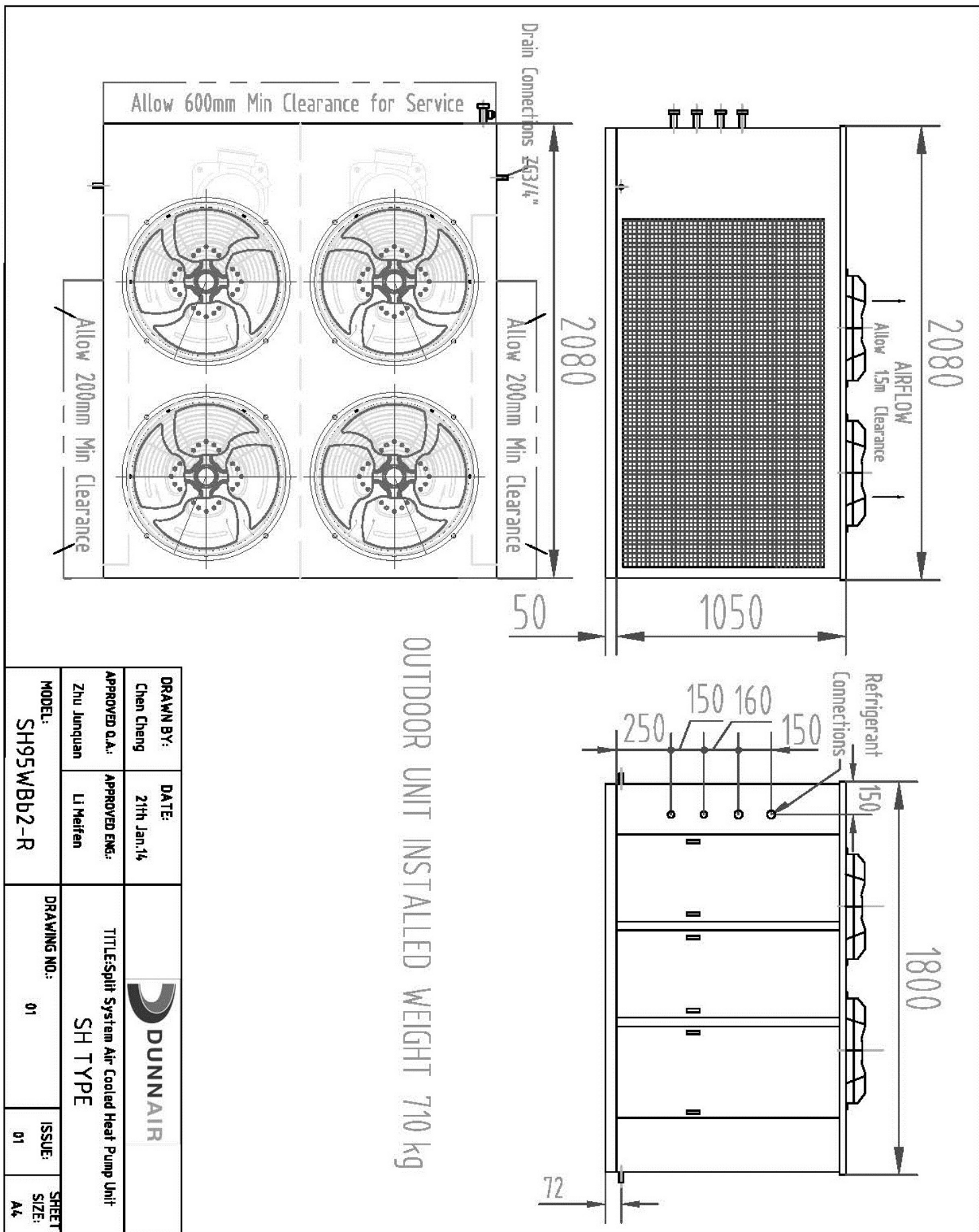
Type	Copper Tube / Aluminium Fins
Face Area (m ²)	2 x 1.625

Condenser Fan

Number of Fans	4
Type	Axial
Drive	Direct
Motor Watts /rpm	4 x 550 / 950
Motor Voltage /Phase /Frequency	415 / 3 / 50

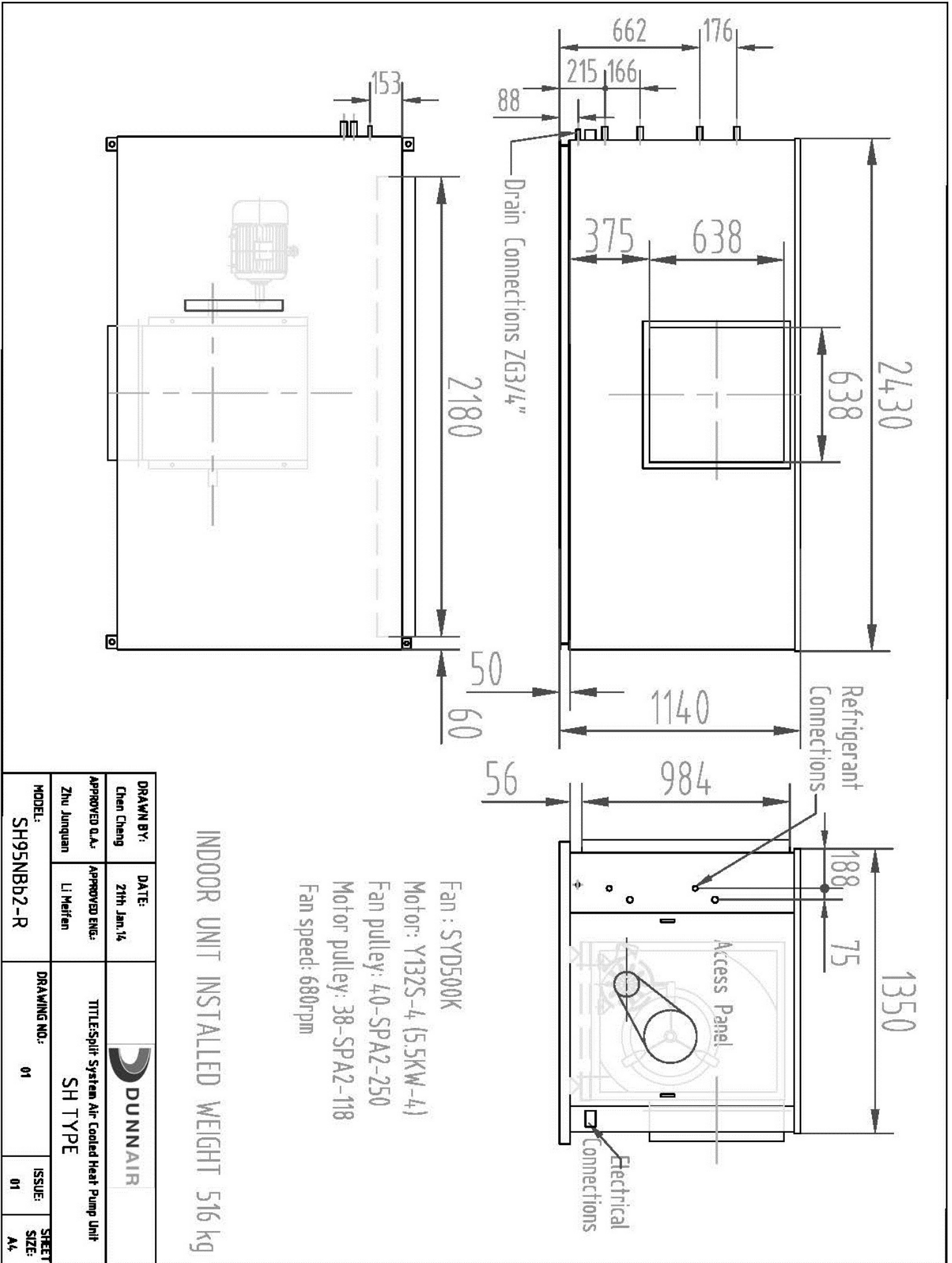
Refrigeration System

Refrigerant Type	R410A
Charge (kg)	2 x 12.0
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	29 (1 1/8")
Liquid Line 15 - 30 Meters	29 (1 1/8")
Gas Line 15 - 30 Meters	35 (1 3/8")




OUTDOOR UNIT INSTALLED WEIGHT 710 kg

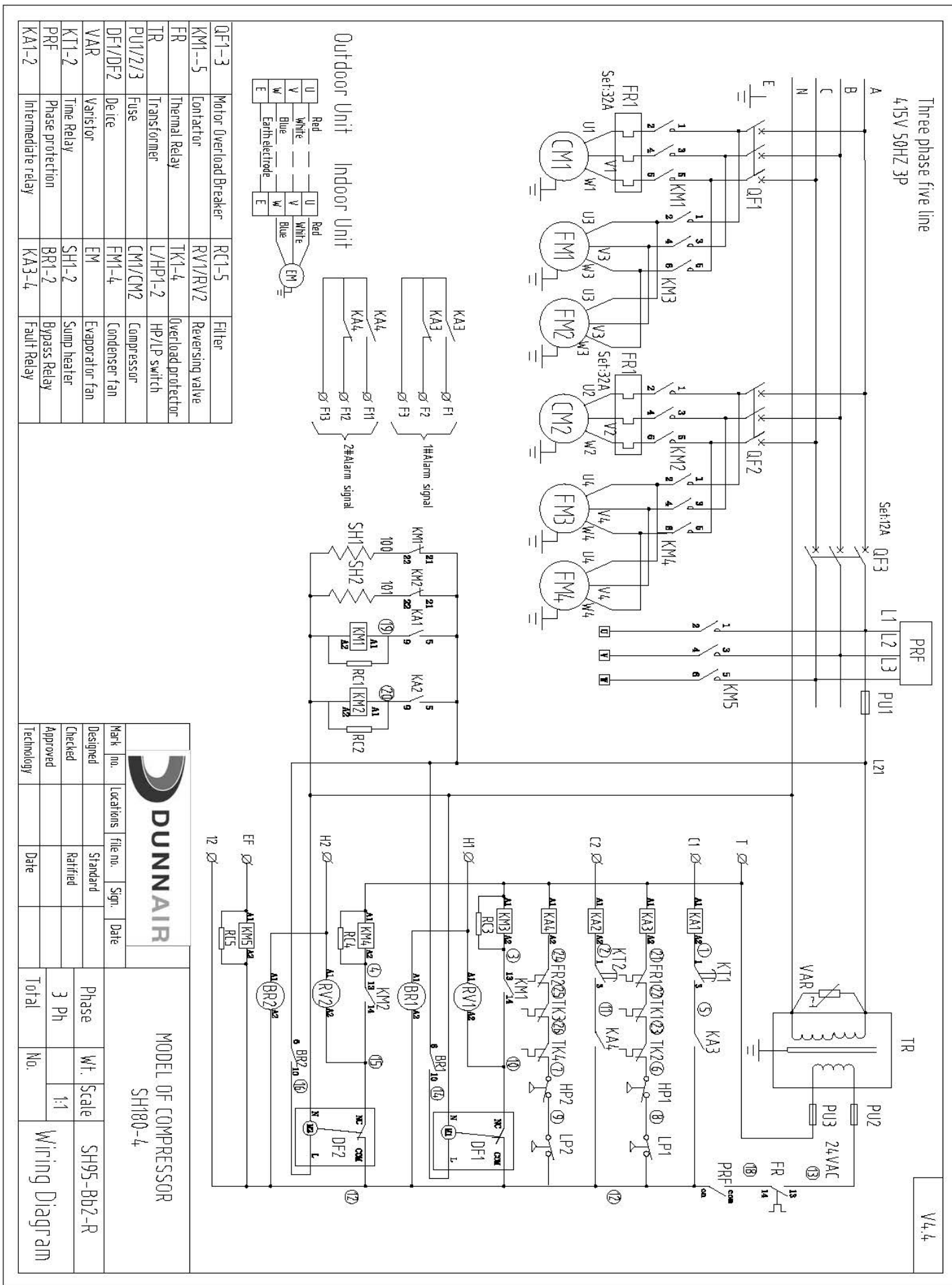
DRAWN BY: Chen Cheng	DATE: 21th Jan.14	
APPROVED O.A.: Zhu Junquan	APPROVED ENG.: Li Meifen	
TITLE: Split System Air Cooled Heat Pump Unit SH TYPE		
MODEL: SH95WBB2-R	DRAWING NO.: 01	ISSUE: 01
		SHEET SIZE: A4



INDOOR UNIT INSTALLED WEIGHT 516 kg

Fan : SYD500K
 Motor: Y132S-4 (5.5KW-4)
 Fan pulley: 40-SPA2-250
 Motor pulley: 38-SPA2-118
 Fan speed: 680rpm

DRAWN BY: Chen Chang		DATE: 21th Jan 14			
APPROVED O.A.: Zhu Junquan		APPROVED ENG.: Li Meifen			
MODEL: SH95NBB2-R		DRAWING NO.: 01		TITLE: Split System Air Cooled Heat Pump Unit SH TYPE	
		ISSUE: 01		SHEET SIZE: A4	

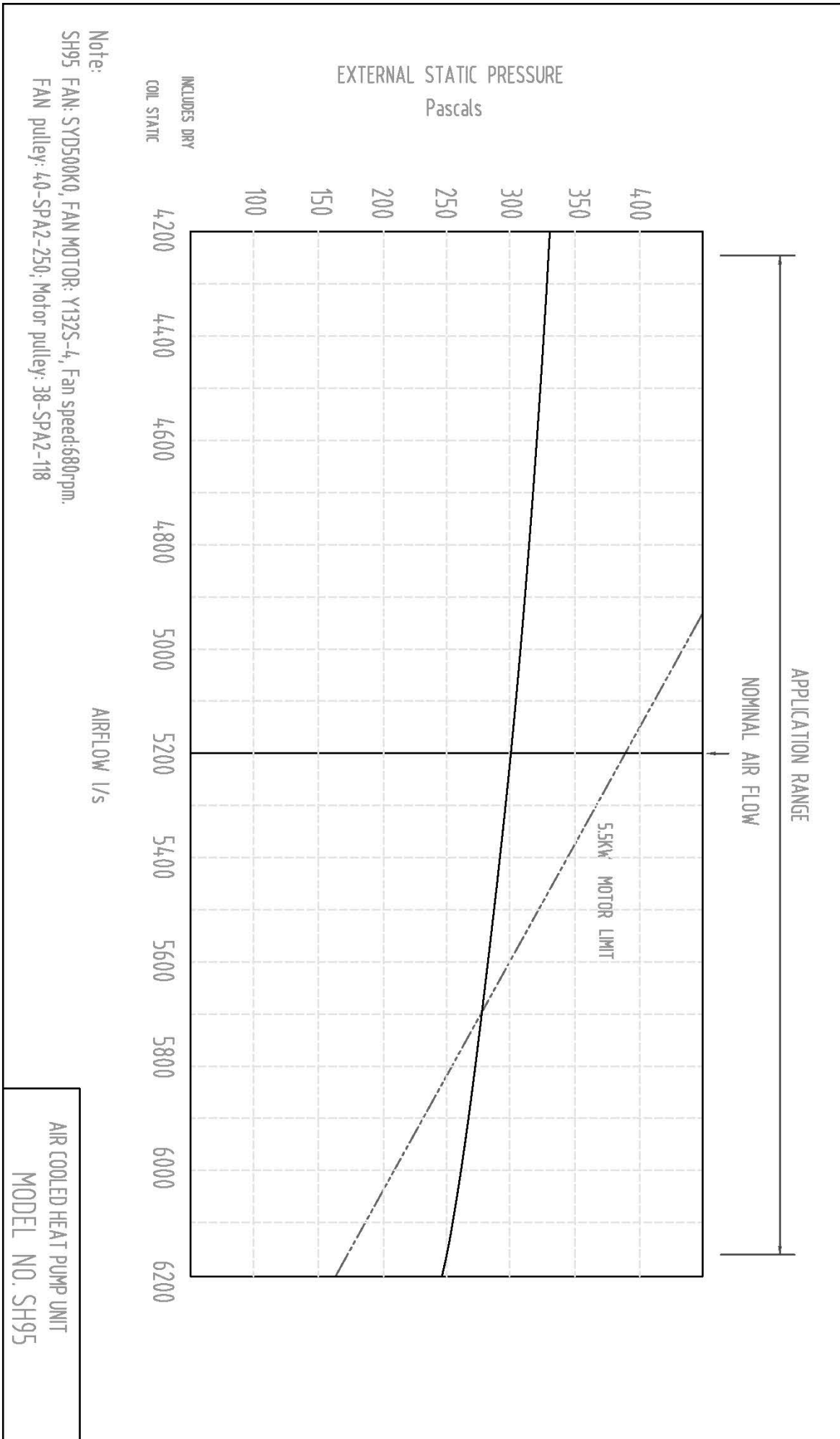


DUNNAIR

MODEL OF COMPRESSOR
SH180-4

Mark no.	Locations	file no.	Sign.	Date
Designed		Standard		
Checked		Ratified		
Approved				
Technology				

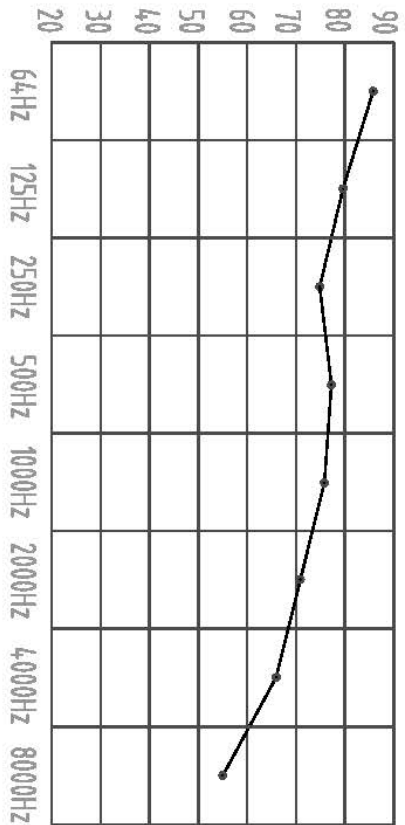
Phase 3 Ph
Wt. Scale 1:1
Total No. Wiring Diagram



SH95W Sound Pressure Curve
A Class: 79.6dB

Hz	dB
64Hz	85.1
125Hz	79.5
250Hz	75.4
500Hz	77.5
1000Hz	76.0
2000Hz	70.6
4000Hz	66.0
8000Hz	54.5

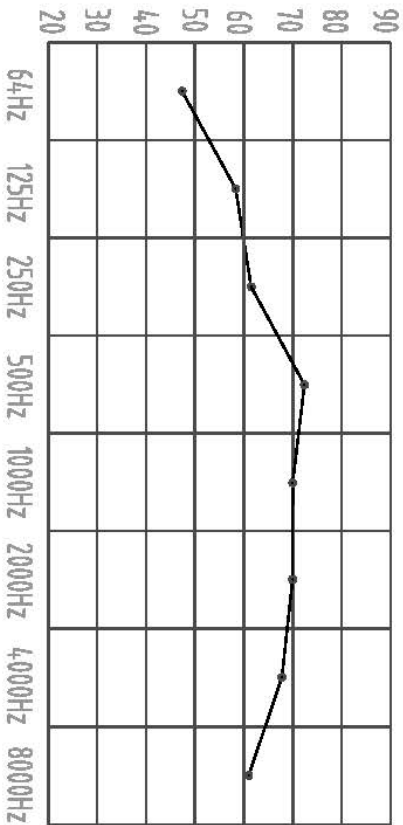
Sound Pressure Curve (A Class: 79.6dB) dB




SH95N Sound Pressure Curve
A Class: 76dB

Hz	dB
64Hz	48
125Hz	59
250Hz	62
500Hz	72
1000Hz	70
2000Hz	70
4000Hz	68
8000Hz	61

Sound Pressure Curve (A Class: 76dB) 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: SH95	DRAWING NO.: 01	SH TYPE	
		ISSUE: 01	SHEET SIZE: A4
TITLE: Split System Air Cooled Heat Pump Unit			