



DUNNAIR
(Aust) Pty Ltd

R410a Refrigerant
SHE66
Economy Cycle Split Ducted

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	64.5	39.1	10.1	61.0	37.6	10.5	57.5	36.0	11.0	54.6	36.0	11.3
	18	66.7	35.3	10.9	63.1	33.8	11.7	59.5	32.2	12.1	56.7	31.0	12.4
	19	69.0	31.7	12.4	65.4	30.2	12.9	61.6	28.6	13.3	58.9	27.5	13.7
	20	71.5	27.4	13.4	67.8	25.8	13.9	63.9	24.2	14.3	61.2	23.1	14.6
23	17	64.6	46.1	10.1	61.2	44.6	10.5	57.7	43.1	11.0	54.8	41.8	11.3
	18	66.6	42.2	11.1	63.1	40.7	11.5	59.5	39.2	12.0	56.6	38.0	12.3
	19	69.0	38.6	12.2	65.3	37.1	12.6	61.6	35.6	13.1	58.8	34.4	13.4
	20	71.4	34.4	13.3	67.7	32.8	13.7	63.9	31.2	14.1	61.2	30.0	14.4
	21	74.0	30.9	14.4	70.2	29.4	14.8	66.2	27.8	15.3	63.6	26.8	15.5
25	17	65.1	52.7	10.1	61.7	51.1	10.5	58.2	49.5	10.9	55.4	48.2	11.2
	18	66.8	50.8	11.1	63.3	47.9	11.5	59.6	46.4	11.9	56.8	45.2	12.3
	19	68.9	48.4	12.2	65.3	44.2	12.6	61.6	42.6	13.1	58.8	41.4	13.4
	20	71.3	45.7	13.3	67.7	39.8	13.7	63.8	38.2	14.1	61.1	37.0	14.4
	21	73.9	42.7	14.4	70.2	36.4	14.8	66.2	34.8	15.3	63.6	33.8	15.6
27	17	66.0	58.2	9.9	62.7	56.3	10.2	59.4	54.4	10.6	57.0	52.9	10.9
	18	67.2	56.3	11.1	63.7	54.8	11.5	60.1	53.3	12.0	58.0	52.1	12.3
	19	69.1	52.5	12.1	65.5	50.9	12.5	61.7	49.3	13.0	59.0	48.1	13.3
	20	71.2	48.4	13.2	67.6	46.8	13.6	63.7	45.2	14.1	61.0	44.1	14.4
	21	73.9	44.9	14.5	70.1	43.4	14.9	66.1	41.8	15.3	63.5	40.7	15.6
29	17	67.2	63.2	9.7	64.1	61.1	10.1	60.8	58.8	10.5	58.3	58.3	10.8
	18	68.2	61.5	10.9	64.8	59.8	11.3	61.3	58.0	11.7	58.3	58.3	12.0
	19	69.4	59.5	12.1	65.9	57.9	12.6	62.1	56.3	13.0	58.3	55.6	13.3
	20	71.4	55.9	13.1	67.7	54.4	13.6	63.9	52.9	14.0	61.2	51.8	14.3
	21	73.8	51.9	14.2	70.1	50.4	14.6	66.1	48.8	15.0	63.5	47.7	15.3
31	17	68.9	67.9	9.4	66.0	65.3	9.8	62.8	62.8	10.2	60.6	60.6	10.5
	18	69.6	66.4	10.7	66.4	64.3	11.0	62.8	62.8	11.5	60.6	60.6	11.7
	19	70.5	65.9	12.0	67.0	64.2	12.5	62.8	62.8	12.9	60.6	60.2	13.2
	20	71.7	62.9	13.2	68.1	61.3	13.7	64.3	59.8	14.1	61.7	58.7	14.4
	21	74.0	58.6	14.3	70.2	57.0	14.7	66.3	55.4	15.1	63.7	54.4	15.4

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



Technical Specification SHE66 Economy Cycle Split Ducted

Indoor Unit Model Number	SHE66N	Nominal Evaporator Air Flow (l/s)	3500
Outdoor Unit Model Number	SHE66W	Number of Compressors	2
Total Cooling Capacity (kW)*	65.5	Power Requirements (Volt / Phase)	415 / 3
Sensible Cooling Capacity (kW)*	50.9	Normal Max. Current (Amps / Phase)	46.3
Heating Capacity (kW)**	60.7		

*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 3500 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
	64.5	71.4	82.5	90.5	108.0

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 × 17.1
Locked Rotor Current (Amps / Phase)	2 × 125
Displacement (m ³ /h)	2 × 34

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)	3500

Indoor Fan

Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor Voltage / Phase / Frequency	415 / 3 / 50
Motor (kW) Standard	4.0
Max. Fan Speed (rpm)	790

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Normal Max. Current (Amps / Phase)	46.3

Outdoor Coil

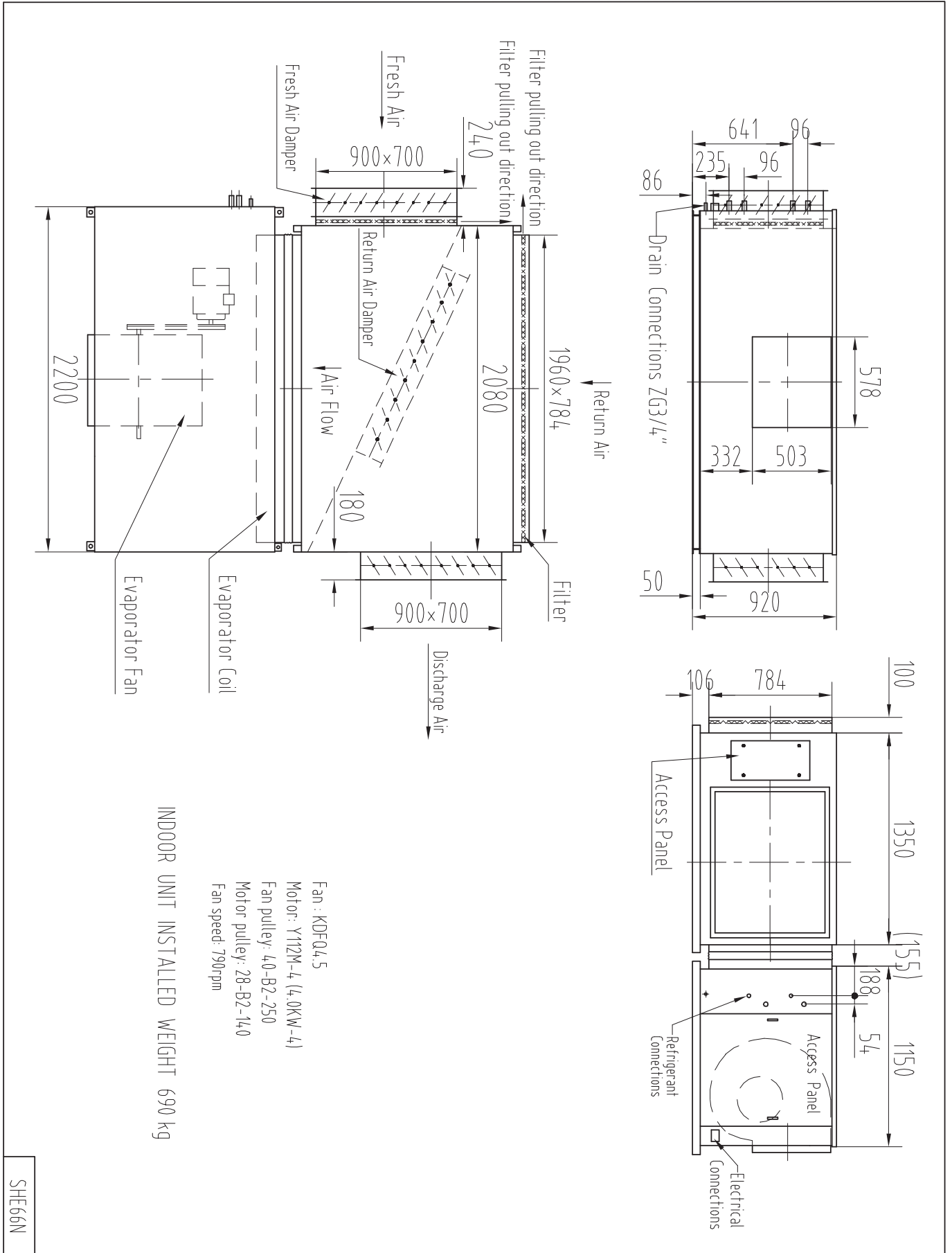
Type	Copper Tube / Aluminium Fins
Face Area	2 × 1.03

Outdoor Fan

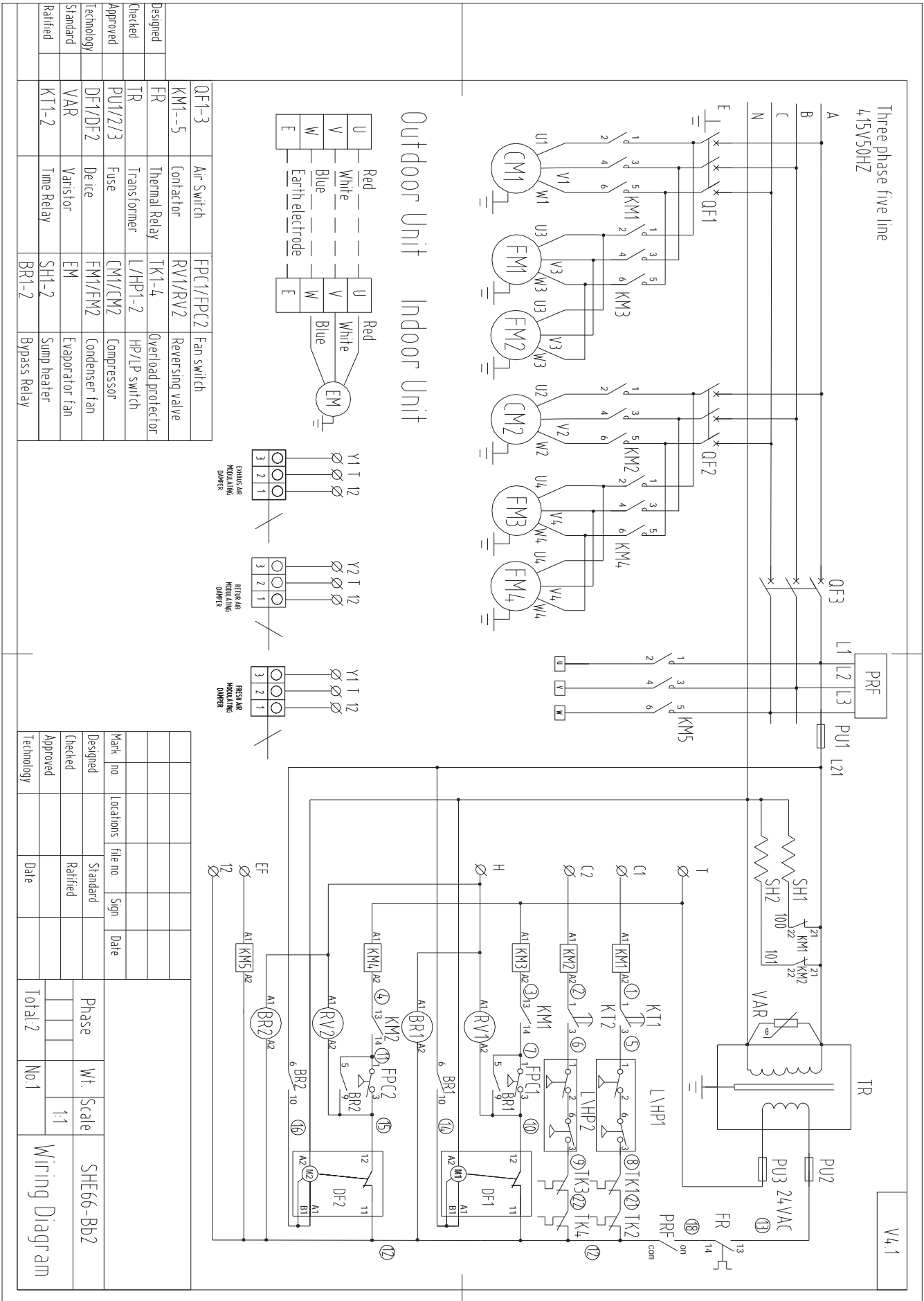
Number of Fans	4
Type	Axial
Drive	Direct
Motor Watts / rpm	4 × 300 / 950
Motor Voltage / Phase / Frequency	415 / 3 / 50

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



SHE66N

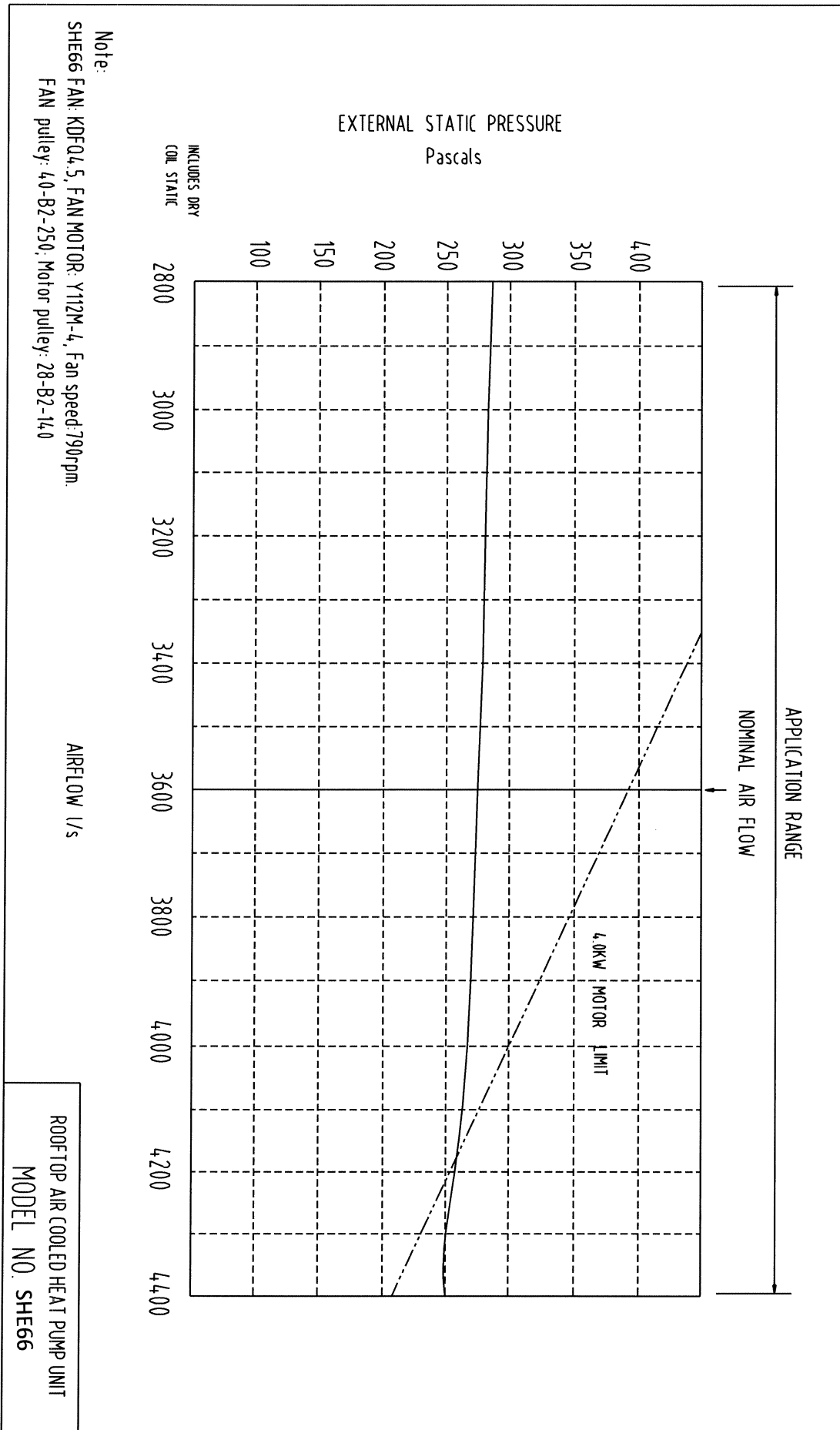


QF1-3	Air Switch	FP1/FP2	Fan switch
KM1-5	Contactors	RV1/RV2	Reversing valve
FR	Thermal Relay	TK1-4	Overload protector
TR	Transformer	L/HP1-2	HP/LP switch
PU1/2/3	Fuse	CM1/CM2	Compressor
DF1/DF2	De Ice	FM1/FM2	Condenser fan
VAR	Varistor	EM	Evaporator fan
KT1-2	Time Relay	SH1-2	Sump heater
		BR1-2	Bypass Relay

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

Phase	Wt.	Scale
		1:1
Total: 2		No. 1

Wiring Diagram

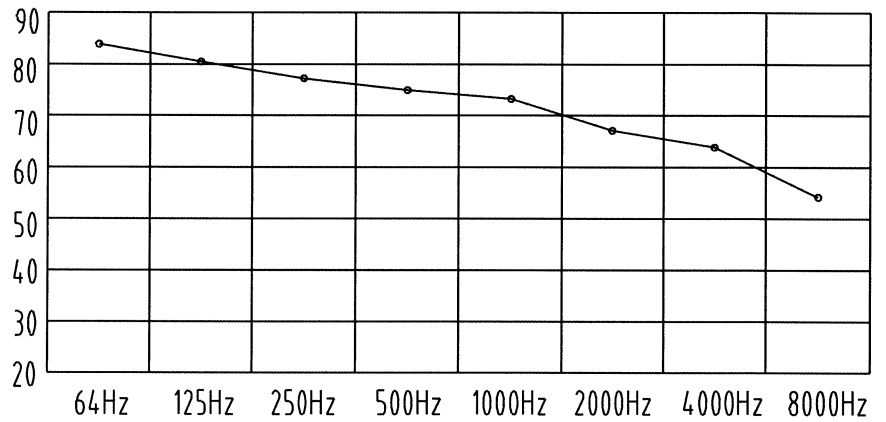


SHE66W Noise rate analysing chart

A Class: 77.7dB

Hz	dB
64Hz	83.3
125Hz	80.1
250Hz	76.8
500Hz	76.1
1000Hz	72.8
2000Hz	67.6
4000Hz	64.0
8000Hz	53.5

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



SHE66N Noise rate analysing chart

A Class: 73.1dB

Hz	dB
64Hz	81.0
125Hz	78.2
250Hz	73.0
500Hz	67.1
1000Hz	69.1
2000Hz	64.1
4000Hz	62.0
8000Hz	52.1

Noise rate analysing chart (A Class: 73.1dB) dB

