

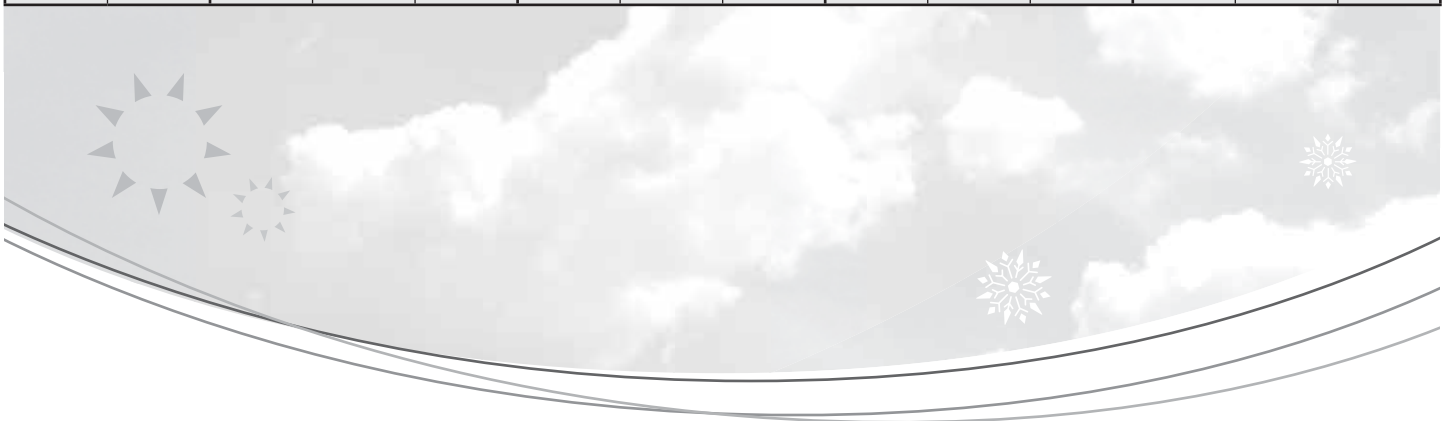


**DUNNAIR**  
(Aust) Pty Ltd

R407c Refrigerant  
**SHE100**  
*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	100.4	61.6	11.5	95.2	59.4	11.8	89.7	57.2	12.2	85.9	57.2	12.4
	18	103.9	55.6	12.1	98.6	53.4	13.0	92.8	50.9	13.3	89.2	49.3	13.6
	19	107.3	49.3	13.9	102.1	47.1	14.2	95.8	44.5	14.6	92.5	43.1	14.8
	20	111.7	42.7	14.8	105.8	40.3	15.3	99.5	37.8	15.7	95.8	36.3	16.0
23	17	100.8	73.6	11.4	95.6	71.6	11.8	90.1	69.2	12.1	86.3	67.7	12.4
	18	103.9	67.5	12.5	98.6	65.3	12.8	92.8	62.7	13.3	89.2	61.2	13.6
	19	107.3	61.2	13.7	102.1	59.0	14.1	96.0	56.5	14.5	92.5	55.0	14.8
	20	111.7	54.6	14.8	105.8	52.2	15.3	99.5	49.7	15.7	96.0	48.2	15.9
	21	115.8	48.1	15.9	109.6	45.6	16.3	103.4	43.0	16.7	99.5	41.4	17.1
25	17	101.8	84.7	11.3	96.6	82.3	11.6	91.2	79.8	12.1	87.7	78.2	12.3
	18	104.2	81.9	12.6	98.9	77.7	13.0	93.1	75.2	13.4	89.4	73.6	13.7
	19	107.5	78.0	13.7	102.1	70.9	14.1	96.0	68.5	14.5	92.4	67.0	14.7
	20	111.7	73.5	14.8	105.9	64.3	15.3	99.6	61.6	15.7	96.0	60.3	15.9
	21	115.8	68.6	15.9	109.6	53.6	16.3	103.4	54.9	16.7	99.5	53.6	17.0
27	17	103.4	93.9	11.2	96.7	91.2	11.5	93.4	88.0	11.9	90.0	86.0	12.2
	18	105.5	91.9	12.4	99.8	89.6	12.7	94.0	87.1	13.2	91.5	85.6	13.4
	19	108.7	85.3	13.5	102.4	82.9	13.9	96.3	80.5	14.3	92.8	79.0	14.5
	20	111.8	79.2	14.7	105.9	76.8	15.1	99.6	74.4	15.5	96.0	72.9	15.7
	21	115.8	71.8	15.9	109.8	69.4	16.3	103.4	66.7	16.7	99.7	65.4	17.0
29	17	106.2	97.1	11.1	101.4	98.5	11.5	96.0	94.6	11.9	92.2	92.2	12.1
	18	107.1	95.5	12.3	102.0	96.9	12.7	96.3	93.9	13.2	92.8	89.6	13.4
	19	108.7	93.8	13.6	103.2	95.8	13.9	97.1	93.2	14.3	93.2	88.0	14.6
	20	111.8	90.8	14.7	106.0	88.5	15.1	99.7	85.7	15.6	96.2	84.5	15.8
	21	115.8	83.7	15.9	109.8	81.4	16.3	103.4	78.7	16.7	99.7	77.3	17.0
31	17	109.6	108.6	10.7	105.0	104.3	11.1	99.3	99.3	11.5	96.2	96.2	11.7
	18	110.1	107.2	12.1	105.1	103.9	12.4	99.7	99.3	12.8	96.7	96.1	13.2
	19	110.7	106.2	13.4	105.5	103.5	13.8	99.7	98.8	14.2	96.7	96.1	14.4
	20	112.5	103.3	14.6	106.9	101.0	15.1	100.5	97.5	15.5	97.0	95.8	15.8
	21	115.9	96.5	15.9	110.0	94.1	16.3	103.4	95.5	16.7	99.8	90.0	17.1



## Technical Specification SHE100 Economy Cycle Split Ducted

Indoor Unit Model Number	SHE100N	Nominal Evaporator Air Flow (l/s)	5500
Outdoor Unit Model Number	SHE100W	Number of Compressors	2
Total Cooling Capacity (kW)	102.2	Power V / Ph	415 / 3
Sensible Cooling Capacity (kW)	82.9	Nominal Max. Current (A)	91.0
Heating Capacity (kW)	98.5	Power Input (kW)	41.0
*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	77.2	85.2	98.7	108.4	130.4

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	24.4 / 35.7
Locked Rotor Amps	2 × 145
Displacement (m <sup>3</sup> /h)	2 × 37.7

### 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 (m <sup>2</sup> )	2.07

### Condenser Coil

Type	Copper tube alum. fins
Face Area (m <sup>2</sup> )	2 × 1.65

### Evaporator Fan

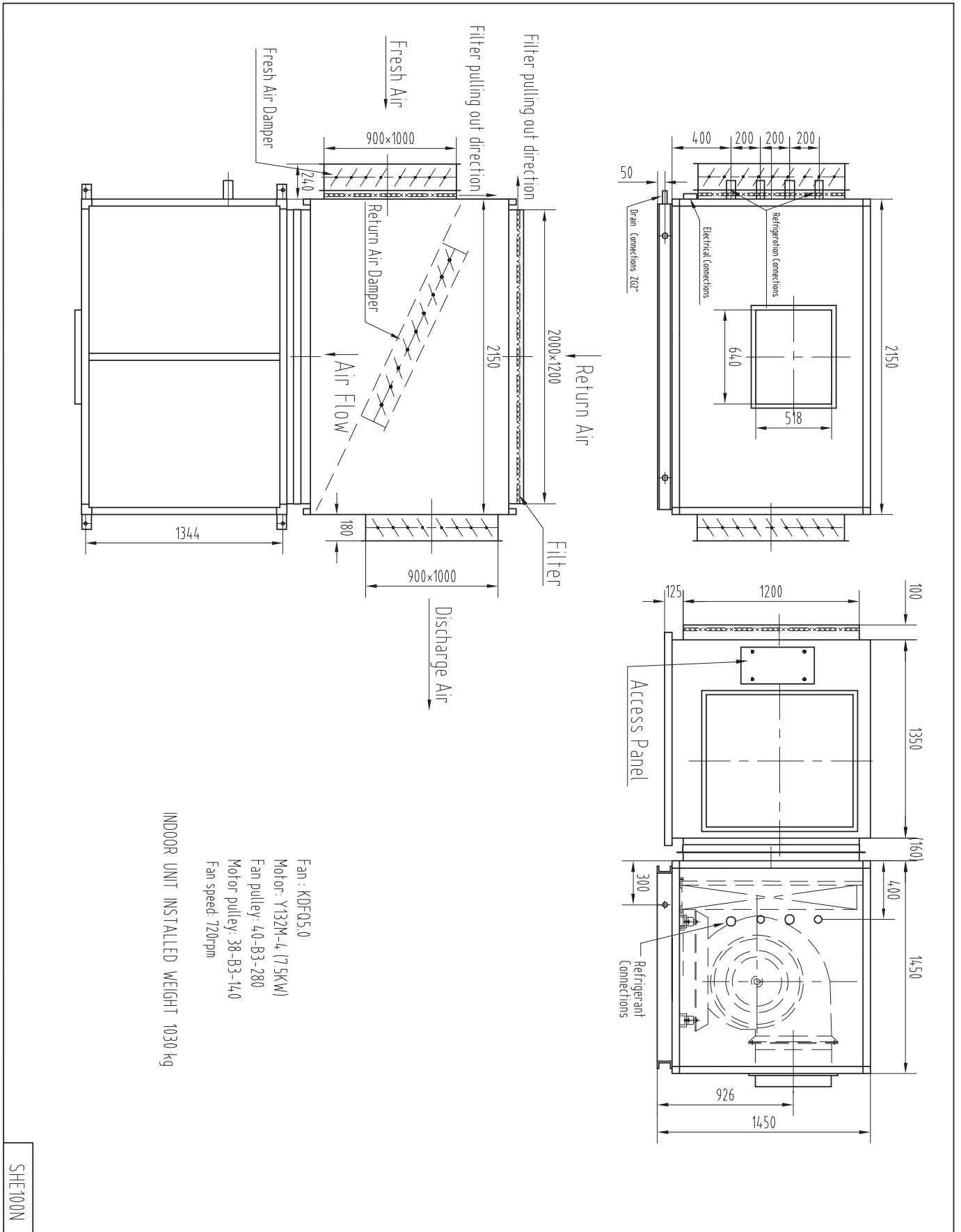
Number of Fans	1
Type	Centrifugal
Drive	Belt
Motor V / Ph / Hz	415 / 3 / 50
Motor Output Power (kW)	7.5
Max. Fan Speed (rpm)	720

### Condenser Fan

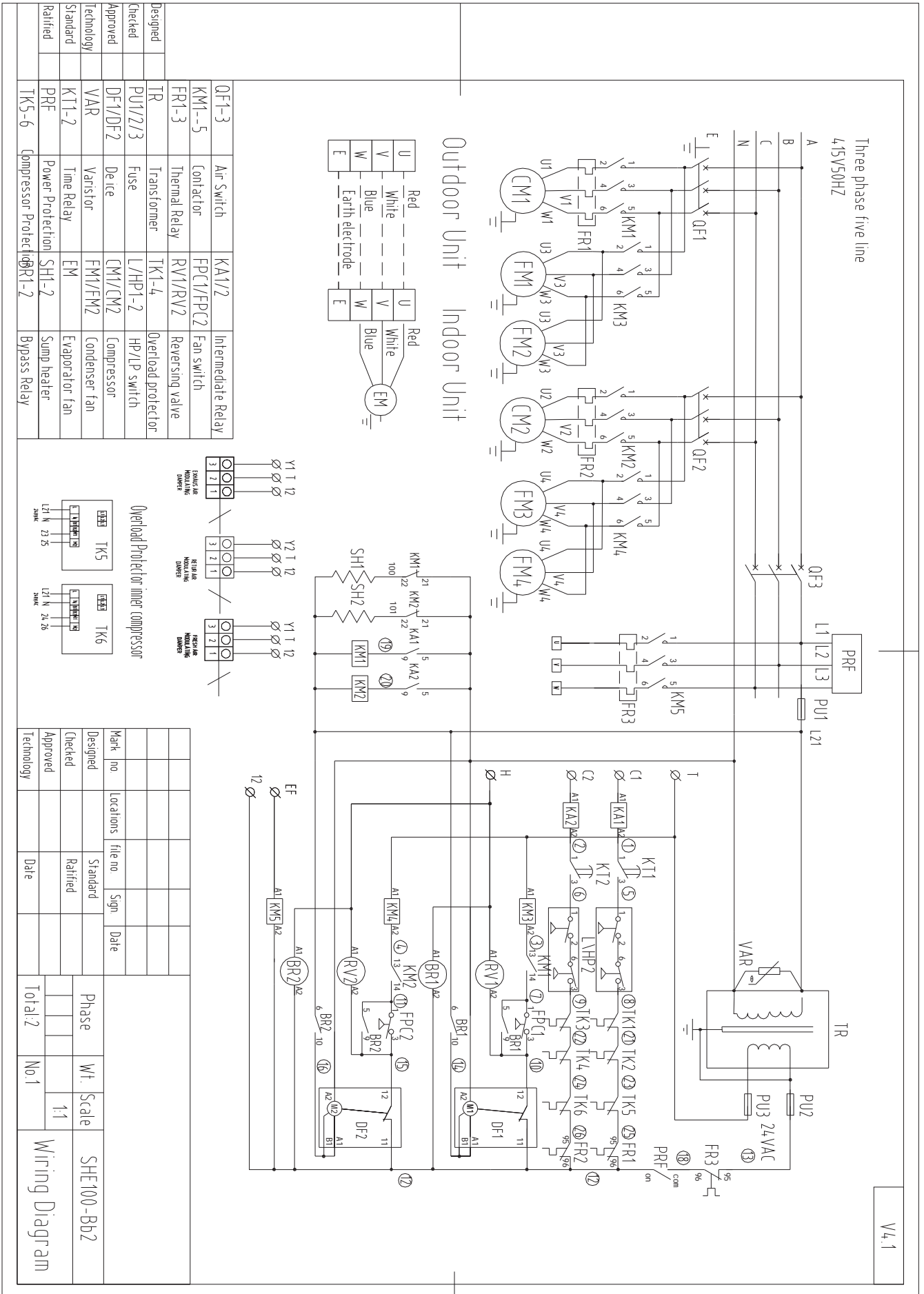
Number of Fans	4
Type	Axial
Drive	Direct
Motor Output Power (kW)	4 × 0.75
Motor V / Ph / Hz	415 / 3 / 50

### Refrigerant System

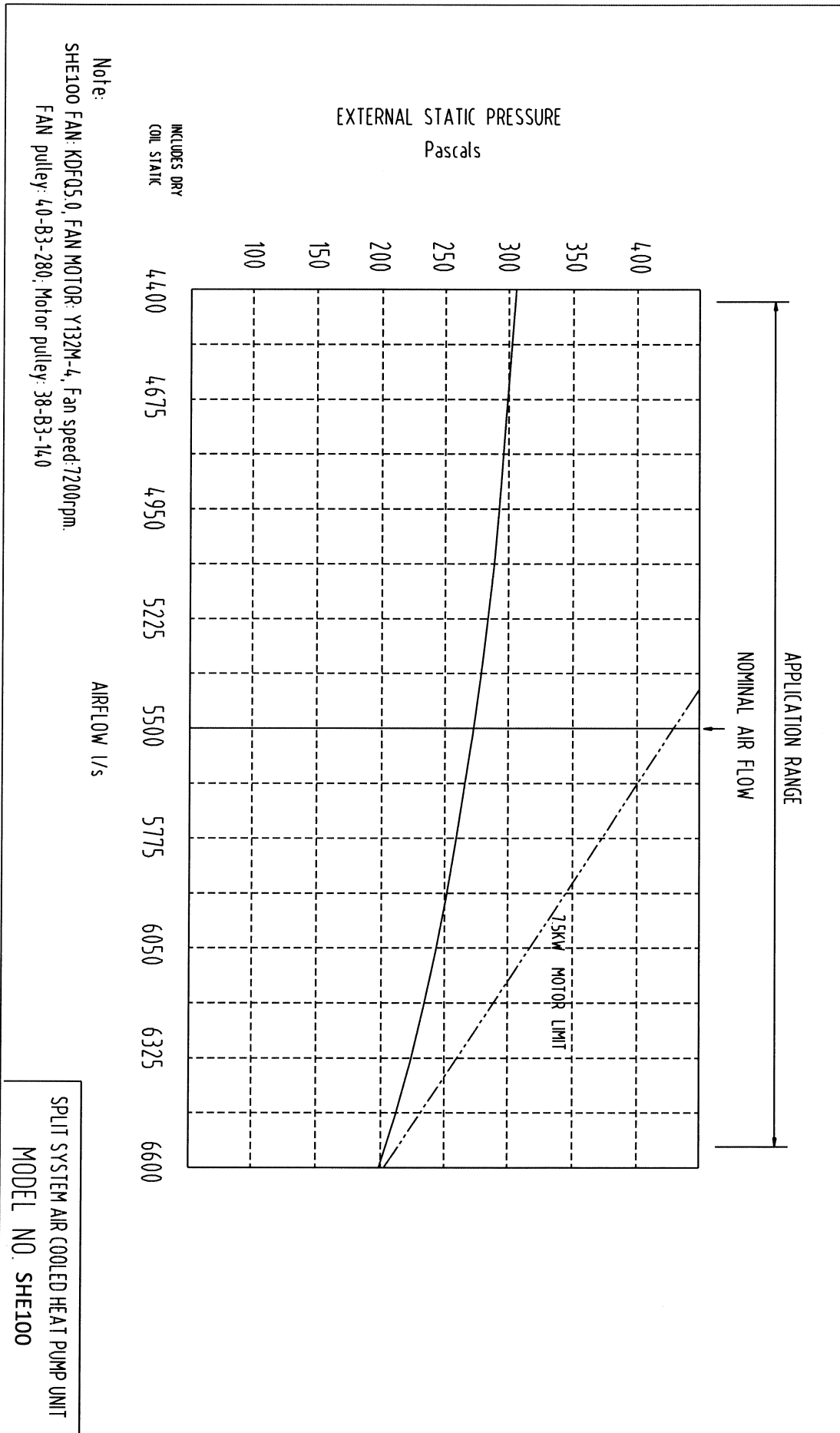
Refrigerant Type	R407c
Nominal Charge Required	9.8 / 14.6kg
Line Size (mm)	
Liquid 0–15 metres	22
Gas 0–15 metres	29
Liquid 15–30 metres	28
Gas 15–30 metres	42
Service Connection	Rotor Lock Valve
Expansion Control	TX Valve



SHE100N



V4.1

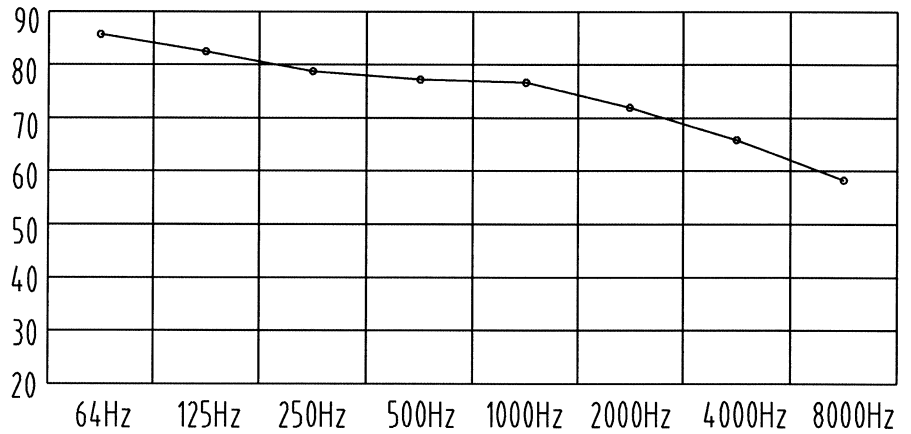


SHE100W Noise rate analysing chart

A Class: 80.6dB

Hz	dB
64Hz	85.1
125Hz	82.8
250Hz	78.8
500Hz	77.4
1000Hz	76.8
2000Hz	71.8
4000Hz	66.5
8000Hz	58.5

Noise rate analysing chart ( A Class: 80.6dB) dB



SHE100N Noise rate analysing chart

A Class: 77.3dB

Hz	dB
64Hz	84.1
125Hz	82.6
250Hz	76.3
500Hz	72.4
1000Hz	73.3
2000Hz	68.3
4000Hz	65.6
8000Hz	58.1

Noise rate analysing chart ( A Class: 77.3dB) dB

