



DUNNAIR
(Aust) Pty Ltd

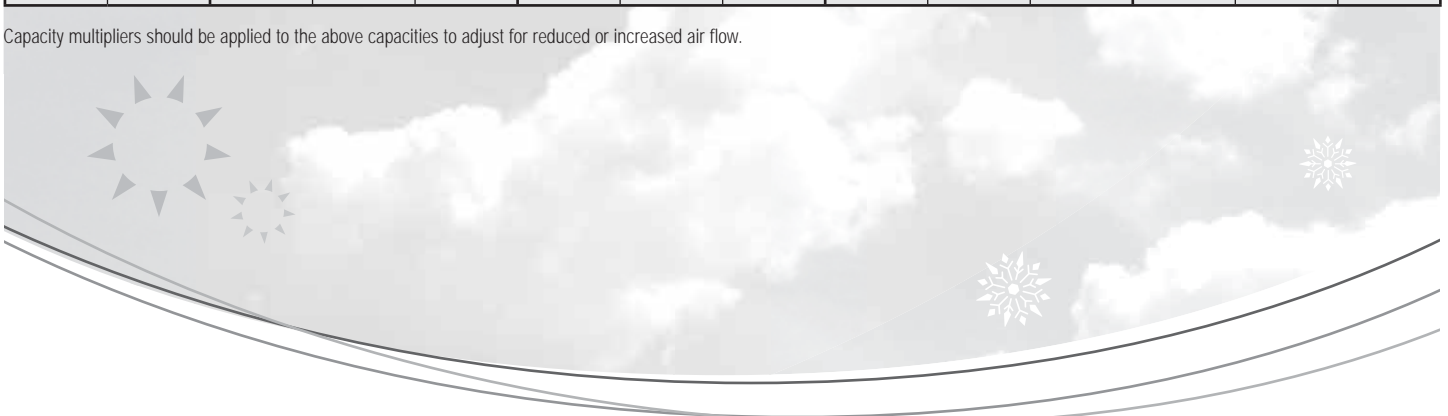
R410a Refrigerant

SHSE15
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	14.0	9.1	9.8	13.2	8.8	9.0	12.6	8.5	12.9	11.7	8.5	13.3
	18	14.7	8.1	9.0	13.7	7.8	13.6	13.0	7.5	14.0	12.2	7.0	14.3
	19	15.0	7.1	7.8	14.4	6.8	14.8	13.7	6.5	15.0	12.7	6.0	15.3
	20	16.0	6.0	6.7	15.0	5.7	15.8	14.3	5.5	16.0	13.3	5.0	16.3
23	17	14.0	11.1	12.3	13.3	11.0	12.6	12.8	10.6	13.0	11.7	10.2	13.1
	18	14.4	9.1	13.4	13.7	10.8	13.7	13.4	9.5	14.0	12.2	9.0	14.1
	19	15.0	9.1	15.4	14.3	9.8	14.7	13.6	8.5	15.0	12.8	8.1	15.2
	20	15.7	8.0	15.4	14.7	8.8	15.8	14.4	7.5	16.0	13.3	7.3	16.2
	21	16.3	7.0	16.4	15.4	7.7	16.8	15.0	6.4	17.0	14.0	6.0	17.1
25	17	14.2	12.8	12.4	13.5	12.7	12.4	13.0	12.2	12.8	12	11.7	13.0
	18	14.5	12.5	13.4	14.0	12.5	13.7	13.3	11.7	13.9	12.2	11.0	14.1
	19	15.0	12.0	14.4	14.3	11.9	14.7	13.6	10.5	15.0	12.8	10.1	15.2
	20	15.6	11.3	15.4	14.9	10.8	15.7	14.2	9.5	16.0	13.7	8.8	16.1
	21	16.3	10.7	16.6	15.6	10.0	17.3	15.0	8.2	17.0	14.0	7.3	17.1
27	17	14.5	14.1	12.0	14.0	13.8	12.4	13.3	12.8	12.5	12.6	12.6	12.8
	18	14.7	13.8	13.2	14.1	13.5	13.5	13.4	11.7	13.9	12.6	12.6	13.9
	19	15.1	13.6	14.3	14.3	13.0	14.8	13.7	10.9	15.0	12.7	12.1	15.2
	20	15.6	12.7	15.4	15.0	11.6	15.3	14.2	10.5	16.0	13.4	9.7	16.2
	21	16.3	11.6	16.5	15.8	10.7	16.0	15.0	9.4	17.0	14.0	8.6	17.2
29	17	15.0	14.3	12.0	14.4	14.2	12.0	14.0	14.0	12.1	13.2	13.2	12.5
	18	15.1	14.0	13.0	14.5	13.9	13.3	14.0	14.0	13.5	13.2	13.2	14.0
	19	15.2	13.7	14.4	14.5	13.5	15.0	14.0	14.0	15.0	13.2	13.2	15.2
	20	15.7	13.1	15.6	14.9	13.0	16.1	14.4	13.5	16.0	13.6	11.4	16.3
	21	16.3	12.7	16.5	15.8	12.7	17.0	15.0	12.0	17.0	14.0	9.9	17.3
31	17	15.6	15.2	11.5	15.0	15.0	12.0	14.6	14.6	13.5	14.0	14.0	12.5
	18	15.7	15.1	12.9	15.0	15.0	13.0	14.6	14.6	14.0	14.1	14.0	13.9
	19	15.7	14.9	13.9	15.0	15.0	15.4	14.6	14.6	15.0	14.2	14.1	15.0
	20	15.8	14.8	15.4	15.0	15.0	16.6	14.8	14.3	15.9	14.2	13.9	16.1
	21	16.3	14.5	16.4	15.8	14.6	16.7	15.4	14.0	17.1	14.2	13.6	17.4

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



Technical Specification SHSE15 Economy Cycle Split Ducted

Indoor Unit Model Number	SHSE15N	Nominal Evaporator Air Flow (l/s)	850
Outdoor Unit Model Number	SHSE15W	Number of Compressors	1
Total Cooling Capacity (kW)*	14.3	Power Requirements (Volt / Phase)	415 / 3
Sensible Cooling Capacity (kW)*	13	Normal Max. Current (Amps / Phase)	12.1
Heating Capacity (kW)**	14.2		

*Entering air @ 27/19°C and ambient 35°C ** Entering air @ 21°C DB and 7°C ambient

Air Quantity Multiplying Factors

	% Rated Air Quantity-Nominal 850 l/s				
	80	90	100	110	120
Capacity	0.95	0.98	1.00	1.02	1.04
Total	0.89	0.95	1.00	1.05	1.09
Sensible					

Heating Performance Data

	Outdoor Coil Entering DB temp				
	0	4	8	12	18
Heating Capacity kW	11	13	15	16.1	18.2

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	1
Type	Scroll
RPM (Nom)	2900
Normal Max. Current (Amps / Phase)	8.6
Locked Rotor Current (Amps / Phase)	65.8
Displacement (m ³ /h)	17.5

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

Evaporator

Type	Copper Tube / Aluminium Fins
Face Area (m)	0.36
Air Quantity (l/s)	850

Evaporator (Indoor)

Number of Fans	2
Type	Centrifugal
Drive	Direct
Motor Voltage / Phase / Frequency	240 / 1 / 50
Motor (kW) Standard	2 × 0.37
Max. Fan Speed (rpm)	1260

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Normal Max. Current (Amps / Phase)	12.1

Condenser

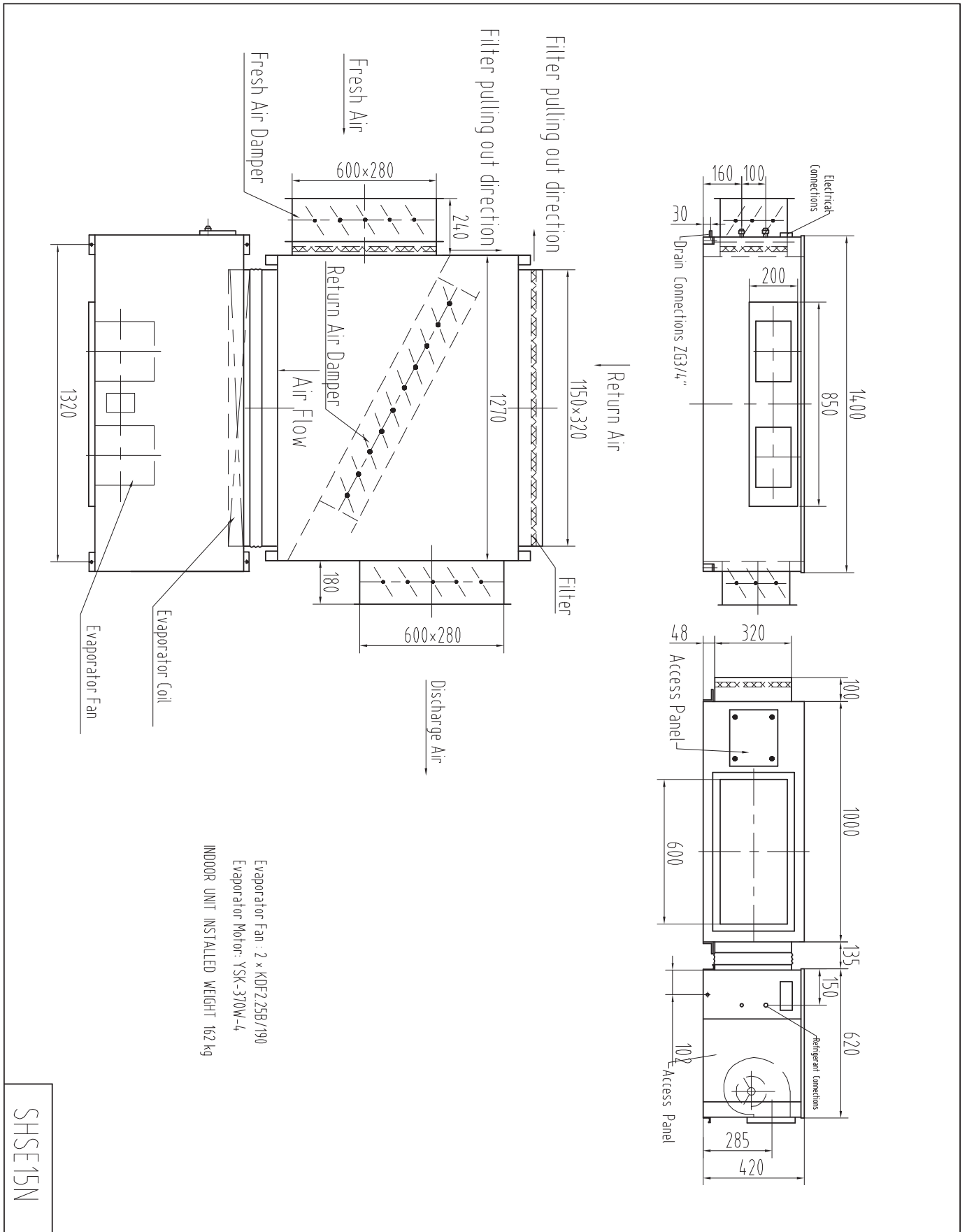
Type	Copper Tube / Aluminium Fins
Face Area	1

Condenser (Outdoor)

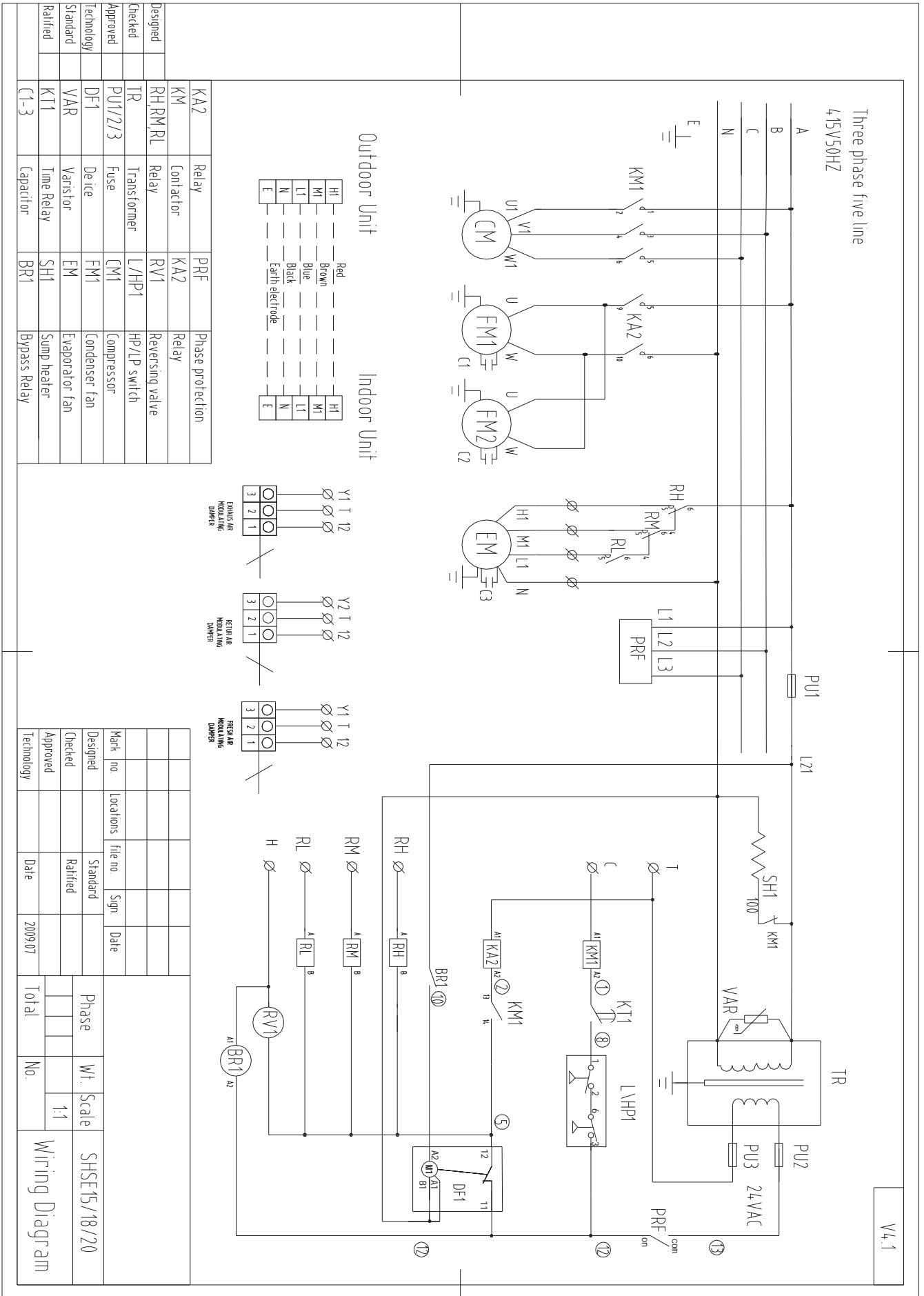
Number of Fans	2
Type	Axial
Drive	Direct
Type	Enclosed
Motor Watts / rpm	2 × 240 / 900
Motor Voltage / Phase / Frequency	240 / 1 / 50

Refrigerant System

Refrigerant Type	R410a
Charge (kg)	4.6
Line Size (mm)	
Liquid 0–10 metres	13
Gas 0–10 metres	19
Liquid 10–20 metres	–
Gas 10–20 metres	–
Service Connections	Rotor Lock Valve
Expansion Control – in outdoor unit	Capillary



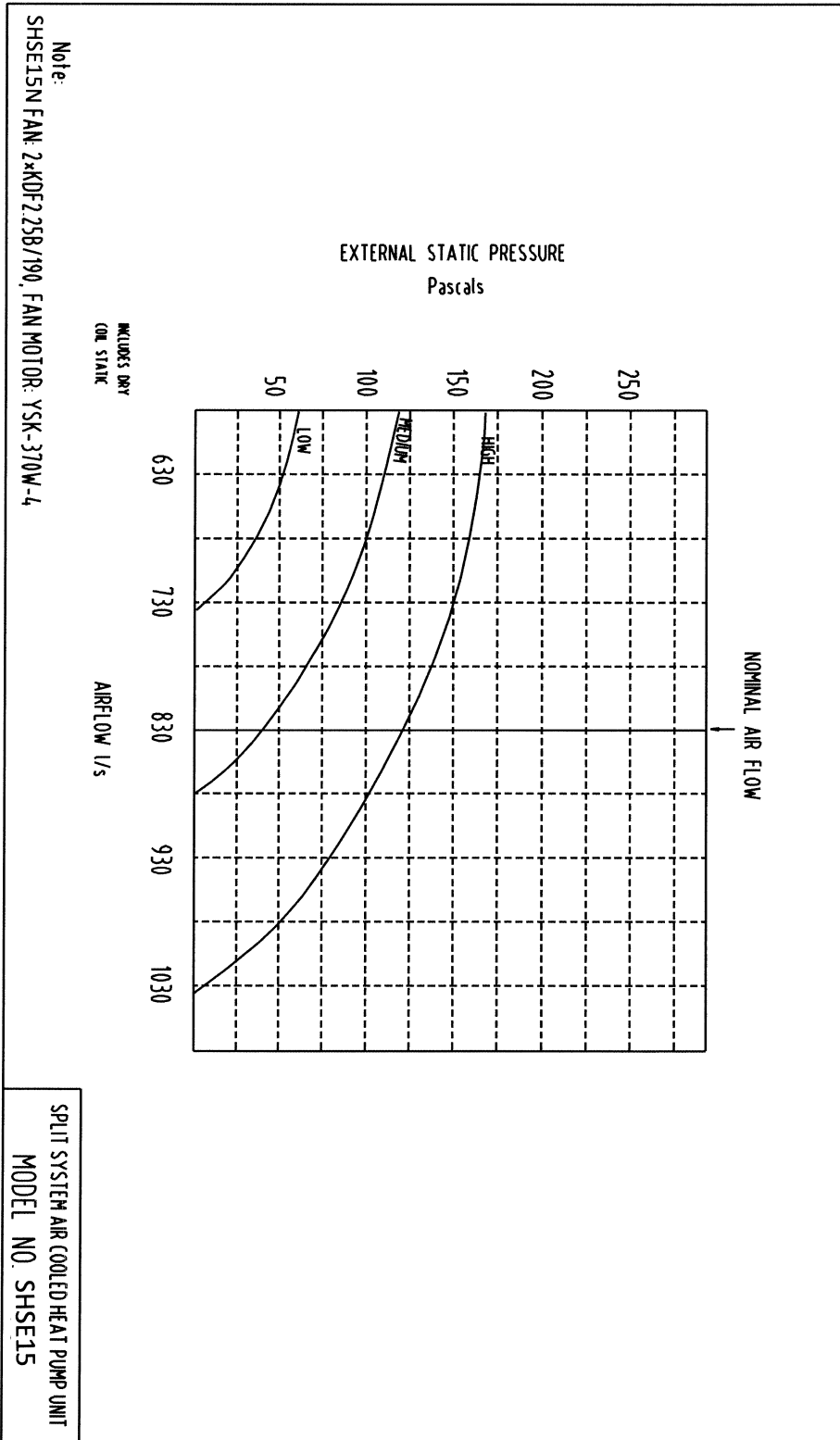
SHSE15N



V4.1

Designed	KAZ	Relay	PRF	Phase protection
Checked	KM	Contactors	KAZ	Relay
Approved	RH, RM, RL	Relay	RV1	Reversing valve
Technology	TR	Transformer	L/HP1	HP/LP switch
Standard	PU1/2/3	Fuse	CM1	Compressor
Ratified	DF1	De Ice	FM1	Condenser fan
	VAR	Varistor	EM	Evaporator fan
	KT1	Time Relay	SH1	Sump heater
	C1-3	Capacitor	BR1	Bypass Relay

Mark no.	Locations	file no.	Sign	Date
Designed		Standard		
Checked		Ratified		
Approved				
Technology		Date	2009/07	
Phase				Wt. Scale
				1:1
Total				No.
Wiring Diagram				

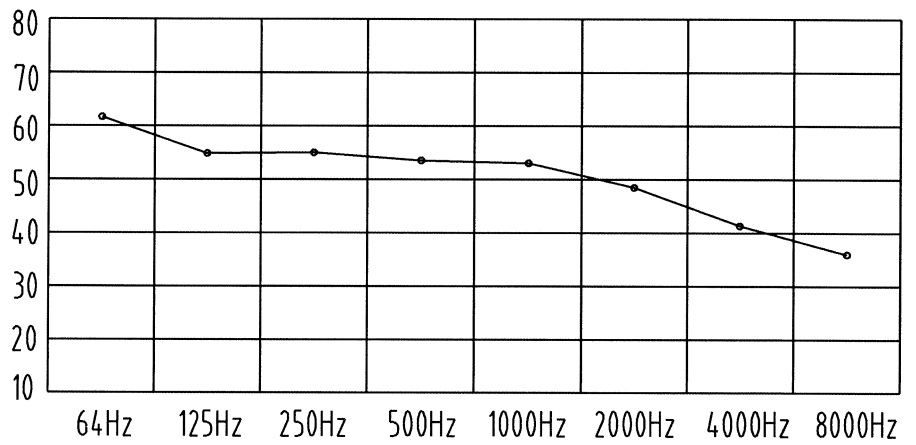


SHSE15W Noise rate analysing chart

A Class: 58.2dB

Hz	dB
64Hz	60.5
125Hz	55.4
250Hz	56.0
500Hz	52.6
1000Hz	52.4
2000Hz	49.0
4000Hz	41.2
8000Hz	37.0

Noise rate analysing chart (A Class: 58.2dB) dB



SHSE15N Noise rate analysing chart

A Class: 61.8dB

Hz	dB
64Hz	78.7
125Hz	71.2
250Hz	63.0
500Hz	57.8
1000Hz	57.1
2000Hz	49.0
4000Hz	41.8
8000Hz	31.5

Noise rate analysing chart (A Class: 61.8dB) dB

