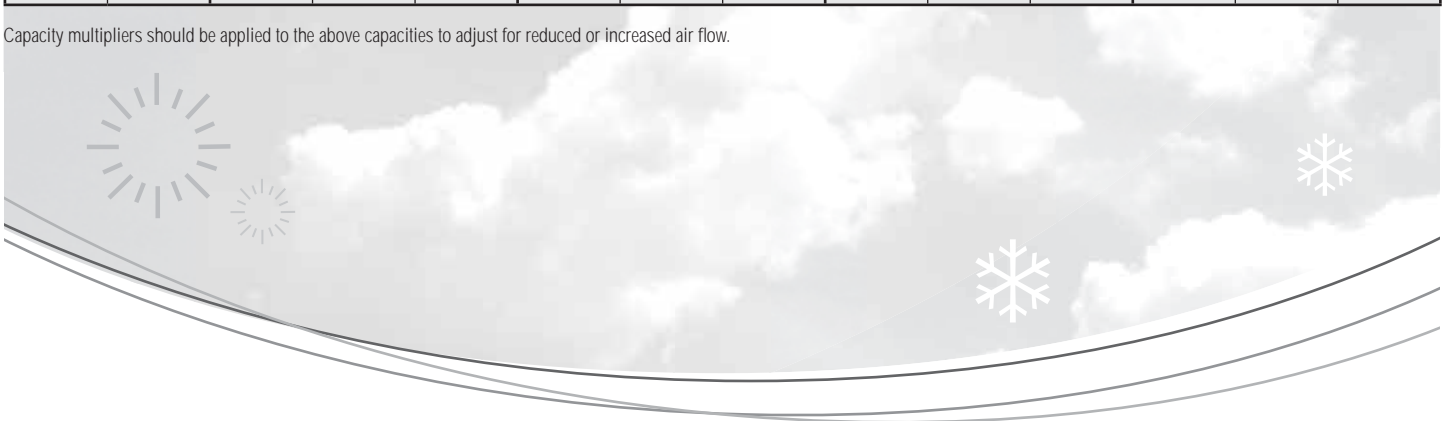




Performance Data

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	34.1	21.1	11.4	32.5	20.4	11.7	30.8	19.7	12.0	29.9	19.7	12.2
	18	35.3	18.9	12.0	33.7	18.2	12.8	31.9	17.5	13.1	31.1	17.1	13.2
	19	36.5	16.5	13.6	34.8	15.8	13.9	33.0	15.0	14.2	32.2	14.7	14.3
	20	37.7	14.3	14.7	36.0	13.6	15.0	34.1	12.8	15.3	33.4	12.5	15.5
23	17	34.1	25.5	11.5	32.6	24.8	11.7	30.8	24.1	12.1	30.0	23.7	12.2
	18	35.2	22.9	12.4	33.6	22.2	12.7	31.8	21.5	13.0	31.0	21.1	13.2
	19	36.4	20.7	13.5	34.8	20.0	13.8	33.0	19.2	14.2	32.2	18.9	14.3
	20	37.7	18.5	14.7	36.0	17.8	15.0	34.1	17.0	15.3	33.4	16.7	15.4
	21	38.9	16.3	15.7	37.2	15.7	16.0	35.3	14.9	16.3	34.6	14.7	16.4
25	17	34.3	29.7	11.4	32.7	29.0	11.7	31.0	28.3	12.0	30.2	27.9	12.1
	18	35.3	28.7	12.5	33.7	26.8	12.8	31.9	26.1	13.1	31.1	25.7	13.2
	19	36.4	27.5	13.5	34.7	24.2	13.8	32.9	23.5	14.1	32.1	23.2	14.3
	20	37.6	26.2	14.7	36.0	22.0	15.0	34.1	21.2	15.3	33.3	20.9	15.4
	21	38.9	27.9	15.7	37.2	19.8	16.0	35.2	19.1	16.3	34.6	18.8	16.4
27	17	34.9	32.4	11.2	33.4	31.6	11.5	31.7	30.7	11.7	31.0	30.2	11.9
	18	35.4	31.5	12.4	33.8	30.8	12.7	32.1	30.0	13.0	32.0	29.7	13.2
	19	36.4	29.5	13.5	34.8	28.8	13.7	33.0	28.1	14.1	33.0	27.8	14.2
	20	37.6	26.9	14.7	35.9	26.2	15.0	34.0	25.5	15.3	33.3	25.2	15.4
	21	38.9	24.7	15.7	37.2	24.0	16.0	35.2	23.3	16.3	34.5	23.0	16.4
29	17	35.8	35.0	11.1	34.4	33.9	11.4	32.8	32.8	11.7	32.1	32.1	11.8
	18	36.0	34.5	12.3	34.5	33.7	12.6	32.8	32.8	12.9	32.1	32.1	13.0
	19	36.6	33.5	13.5	34.8	32.9	13.8	33.1	32.1	14.1	32.1	32.1	14.3
	20	37.7	31.3	14.6	36.0	30.6	14.9	34.1	29.8	15.2	33.4	29.5	15.3
	21	38.8	28.9	15.7	37.1	28.3	15.9	35.1	27.5	16.3	34.5	27.2	16.4
31	17	37.0	37.0	10.9	35.6	35.6	11.2	34.1	34.1	11.6	33.5	33.5	11.7
	18	37.1	36.8	12.1	35.6	35.6	12.3	34.1	34.1	12.6	33.5	33.5	12.8
	19	37.1	36.7	13.3	35.6	35.6	13.6	34.1	34.1	13.9	33.5	33.5	14.1
	20	37.8	35.7	14.5	36.1	35.0	14.7	34.2	34.3	15.1	33.5	33.5	15.2
	21	38.9	32.9	15.7	37.2	32.2	16.0	35.3	31.4	16.4	34.6	31.1	16.5

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



Technical Specification PHSE35 Economy Cycle Rooftop Package

Total Cooling Capacity (kW)*	34.8	Number of Compressors	1
Sensible Cooling Capacity (kW)*	28.8	Power Requirements (Volt / Phase)	415 / 3
Heating Capacity (kW)**	32.4	Normal Max. Current (Amps / Phase)	25.4
Nominal Evaporator Air Flow (l/s)	2000		

*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 2000 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 temp				
	0	4	8	12	18
Heating Capacity kW	26.1	29.1	33.3	36.9	43.7

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)	18.7
Locked Rotor Current (Amps / Phase)	142
Displacement (m ³ /h)	38.7

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)	0.82
Air Quantity (l/s)	2000

Evaporator (Indoor)

Number of Fans	1
Type	Centrifugal
Drive	Direct
Motor Voltage / Phase / Frequency	415 / 3 / 50
Motor (kW) Standard	1.5
Maximum Fan Speed (rpm)	1014

Electrical

Power Requirements	3 Phase / 415V / 50Hz
Normal Max. Current (Amps / Phase)	25.4

Condenser

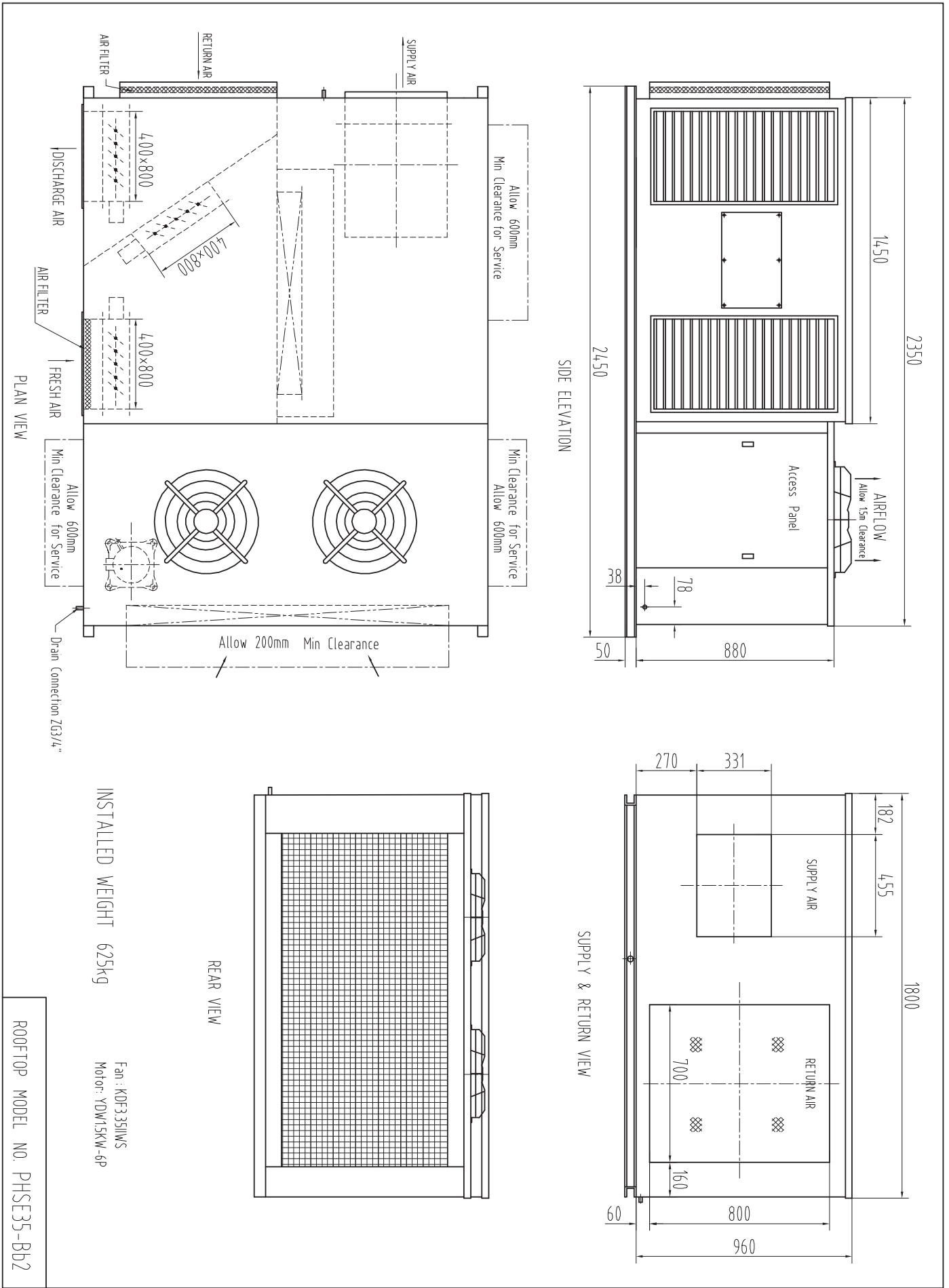
Type	Copper Tube / Aluminium Fins
Face Area	2 × 0.57

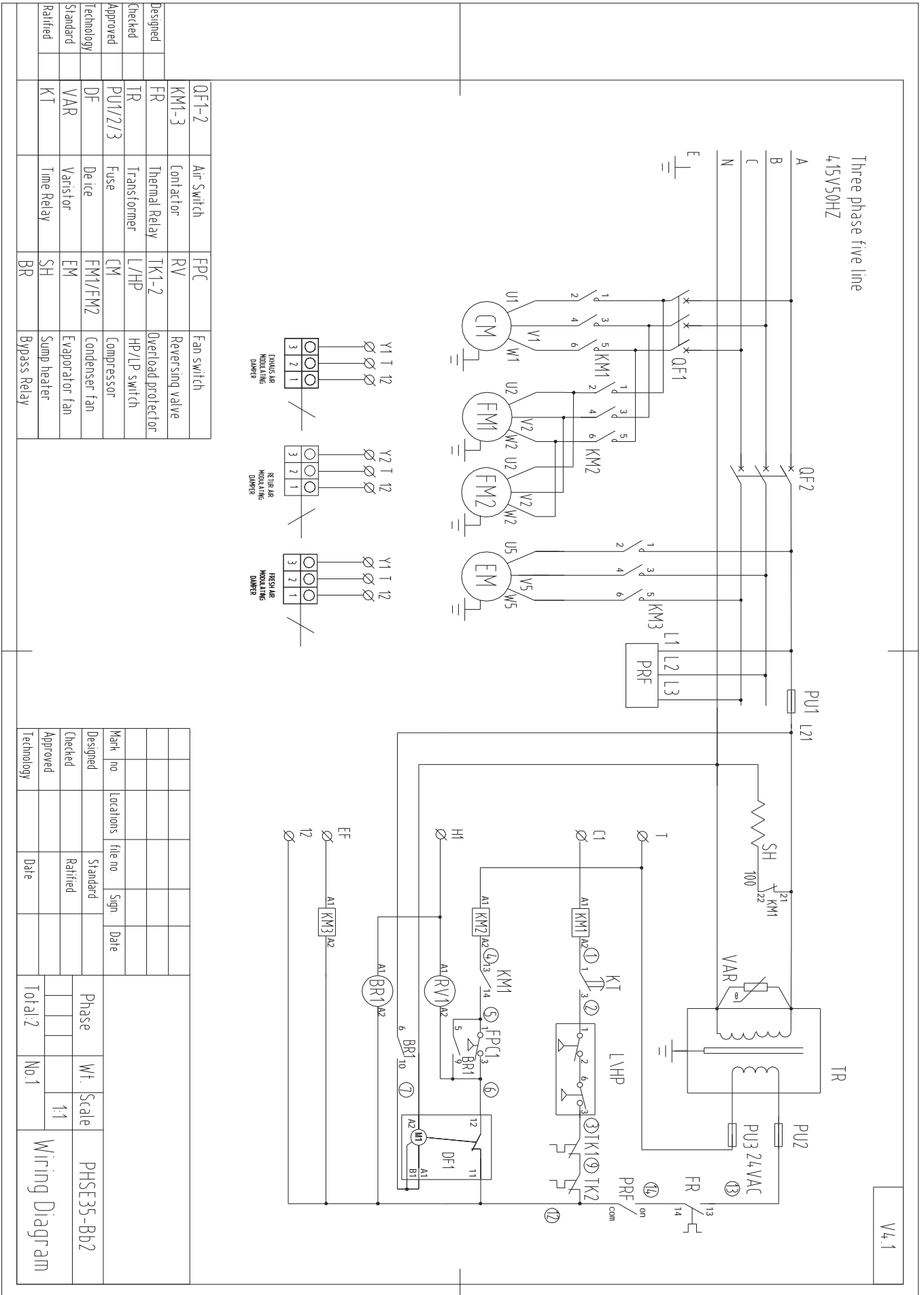
Condenser (Outdoor)

Number of Fans	2
Type	Axial
Drive	Direct
Motor Watts / rpm	300 / 950
Motor Voltage / Phase / Frequency	415 / 3 / 50

Refrigeration System

Refrigerant Type	R410a
Charge (kg)	9.0
Service Connections	Rotor Lock Valves
Expansion Control – in outdoor unit	TX Valve

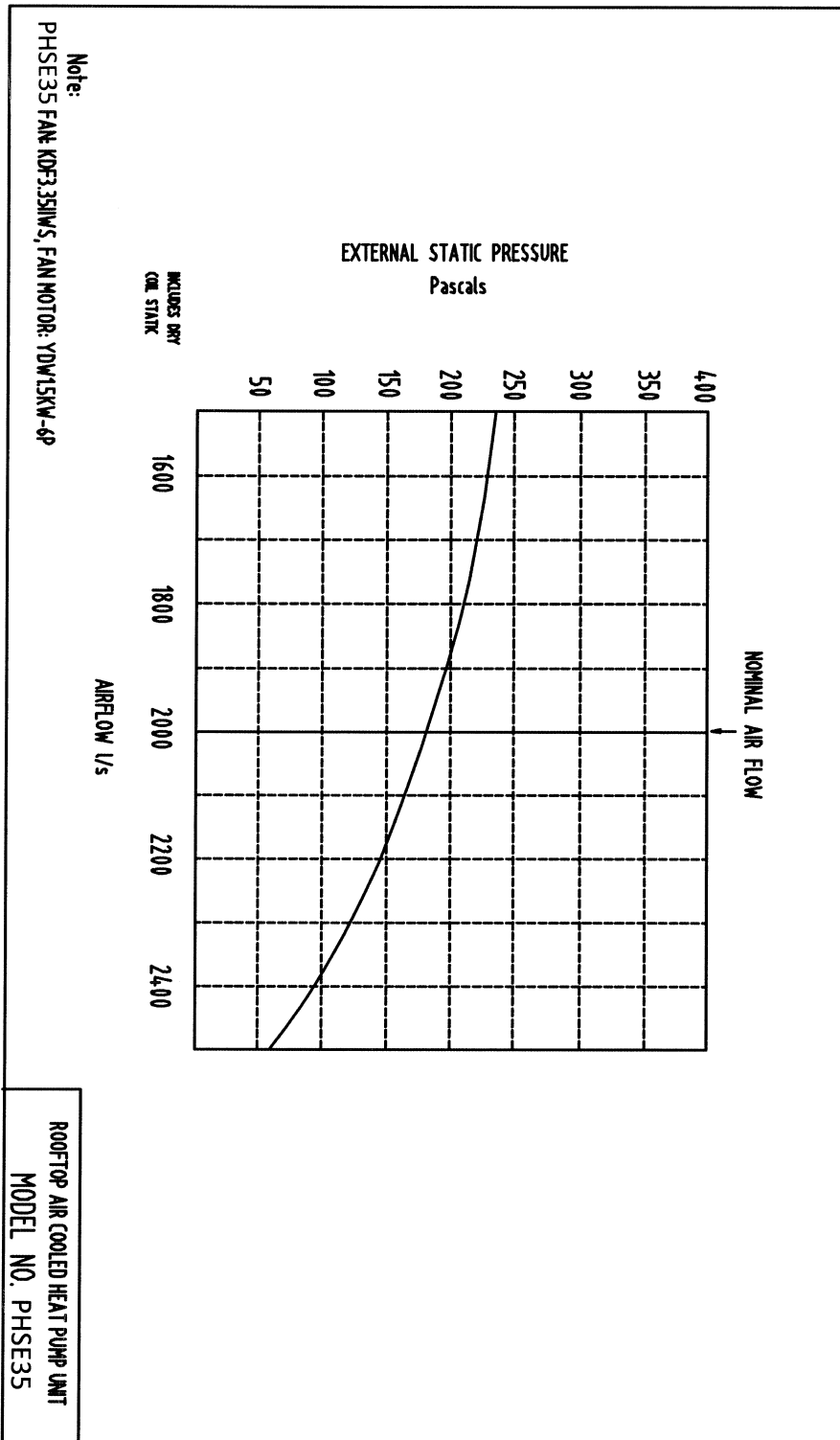




QF1-2	Air switch	FPC	Fan switch
KM1-3	Contactors	RY	Reversing valve
FR	Thermal Relay	TK1-2	Overload protector
TR	Transformer	L/HP	HP/LP switch
PU1/2/3	Fuse	CM	Compressor
DF	Device	FM1/FM2	Condenser fan
VAR	Varistor	EM	Evaporator fan
KT	Time Relay	SH	Sump heater
		BR	Bypass Relay

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

Phase	Wt. Scale	PHSE35-Bb2
Total: 2	No. 1	Wiring Diagram



PHSE35 Noise rate analysing chart

A Class: 75.2dB

Hz	dB
64Hz	79.5
125Hz	77.2
250Hz	76.1
500Hz	72.6
1000Hz	70.8
2000Hz	64.8
4000Hz	58.3
8000Hz	52.9

Noise rate analysing chart (A Class: 75.2dB) dB

