

Model	OPA 450RLTFPQ-DZ-S1
Configuration Item No. (Standard / Opposite Hand)	Horizontal Supply Air + Economiser + Viking 877-045-701-002 / 877-045-710-002
Configuration Item No. (Standard / Opposite Hand)	Downward Supply Air + Economiser + Viking 877-045-723-002 / 877-045-732-002
Cooling capacity (net) *	43.3 kW
Cooling capacity range (gross)	18.2 ~ 52.4 kW
Heating capacity *	44.4 kW
Heating capacity range	16.5 ~ 54.5 kW
Electrical input - cooling	14.5 kW
Electrical input - heating	14.2 kW
EER / AEER (cooling)*	2.99 / 2.98
COP / ACOP (heating) *	3.14 / 3.13
Unit Controller	UC8
Refrigerant	R32
Refrigerant Charge Minimum floor area (@2.4m below ceiling diffuser)	10.5 kg 58.6 m ²
Compressor oil type	POE-46 (NXG5020 or equivalent)
Compressor type	inverter scroll
Power supply **	3 ph. 400 V ac 50 Hz + N + E
Compressor (3ph.) run amps *	19.5 A/ph. (x2)
Compressor + VSD circuit breaker	50 A
Indoor fan motor size	EC plug 500 dia. 3.58kW
Nominal air flow *	2 200 l/s
Indoor fan motor (3ph.) - full load	5.5 A/ph.
Outdoor fan motor (3ph.) - full load	5.2 A/ph.
Outdoor fan capacitor size	n/a
Outdoor fan max. static pressure @ 5 500	125 Pa
Control circuit breaker (internal)	2 A
Auxiliary power outlet (1ph.) overload setting	10 A
Running amps (total system)*	24 / 22 / 24 A
Max. running amps (total system)	40 A/ph.
RCD type recommended	type B, 30mA, 3 pole
Net weight c/w Economiser	697 kg
Shipping Weight c/w Economiser	762 kg

Accessories:

Filters - rated EU4/G4 disposable	019-400-004 500x500x50 (x4)
Filters - rated EU4/G4 washable	019-000-033 500x500x50 (x4)
Drain tundish (set of 2)	060-000-653

Viking Controls:

SMT-920 Controller + RS-SS Outdoor Air Sensor	supplied
RS-SSD Room temperature controller	supplied

Refer to temperzone for other options.

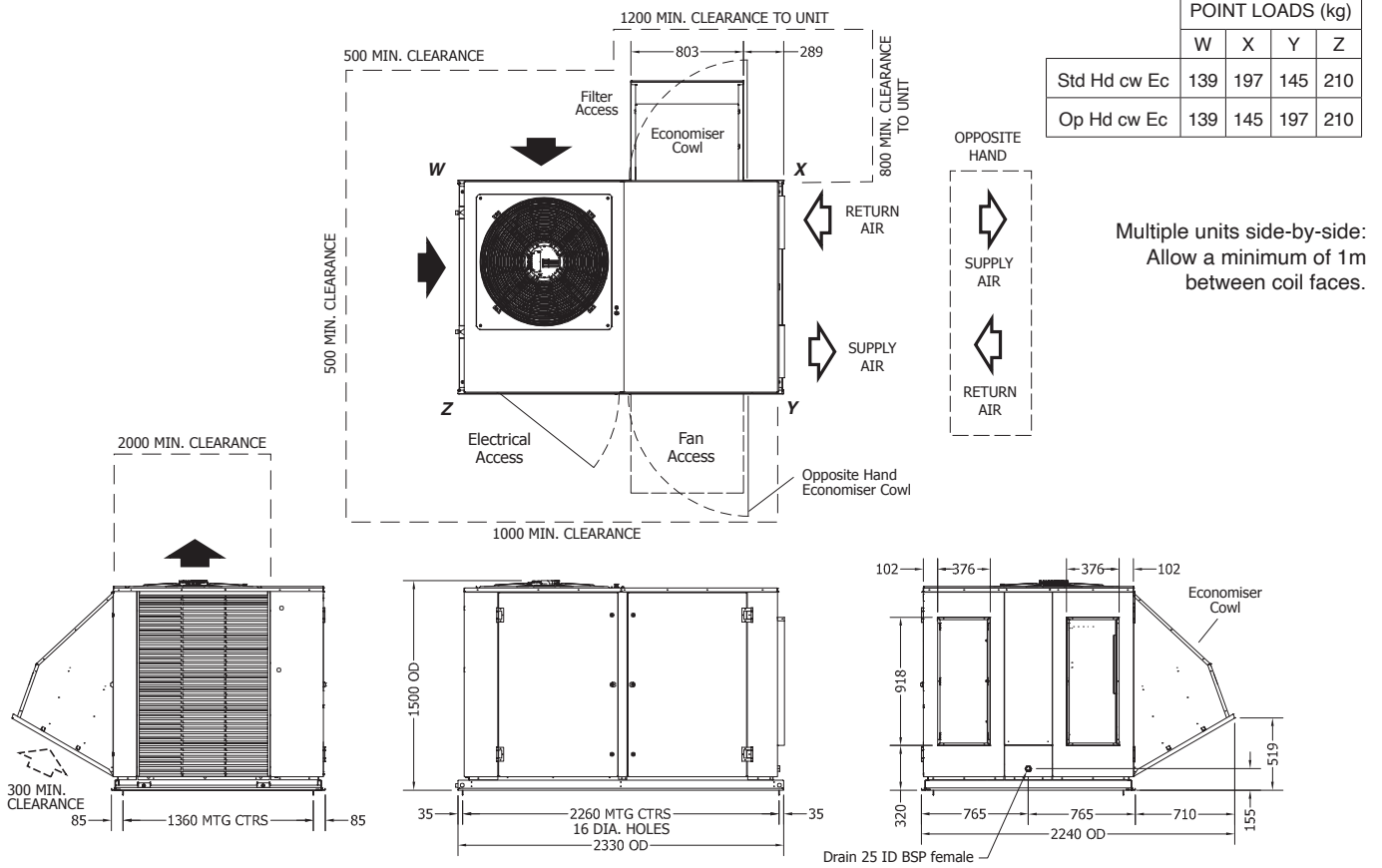
* Tested in accordance with AS/NZS 3823
** Voltage range: 380-440V

DIMENSIONS (mm)



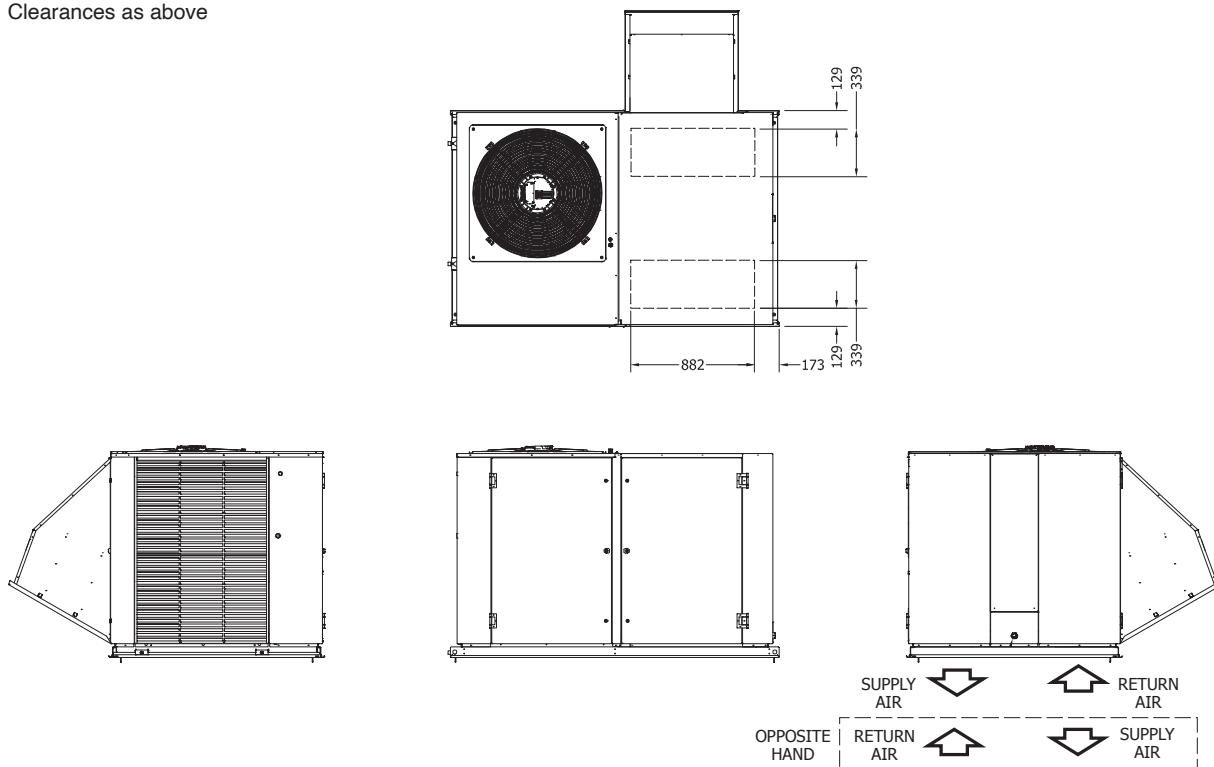
Not to Scale

OPA 450RLTFP01-DZ Standard Hand, Horizontal Supply



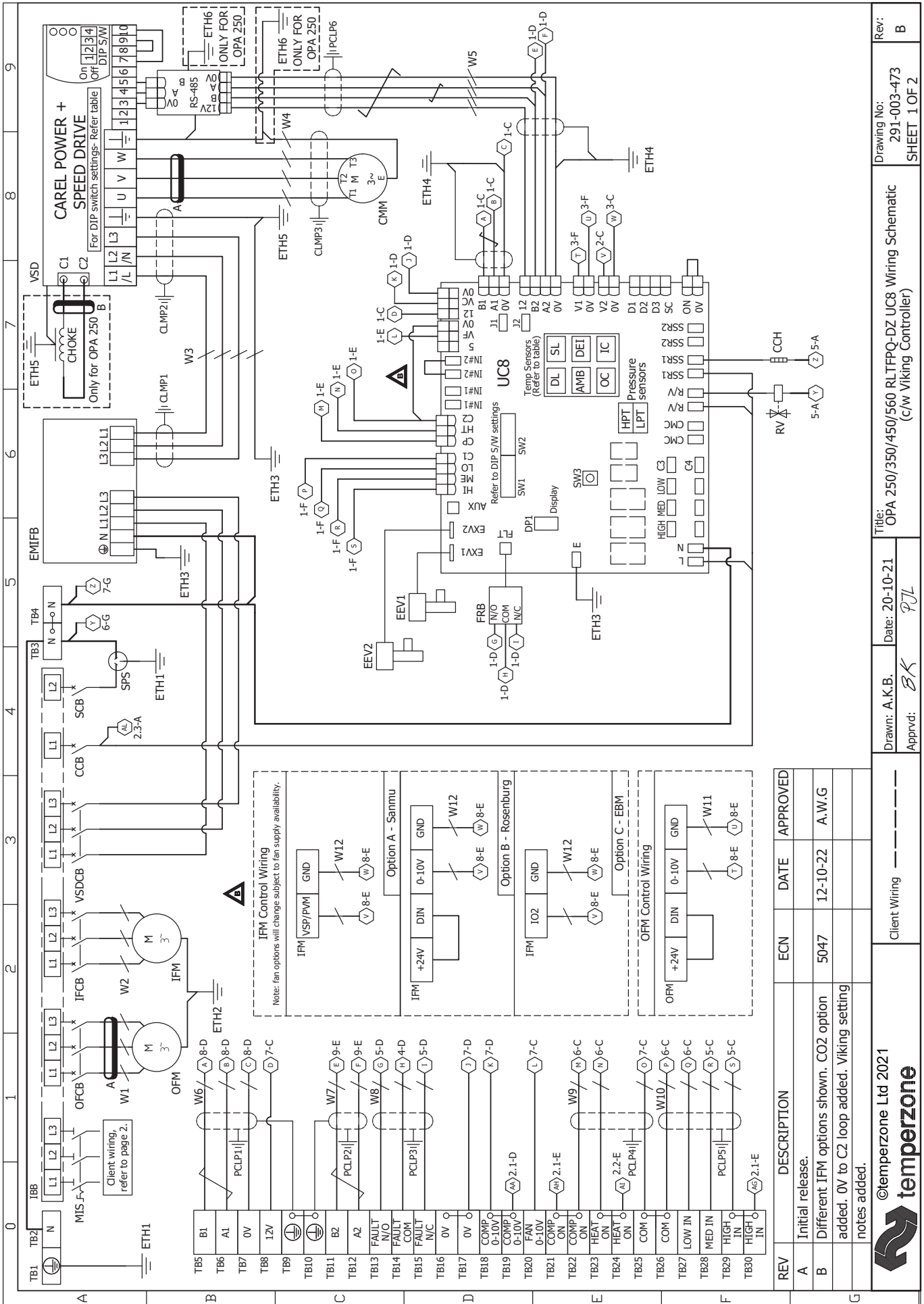
OPA 450RLTFP23-DZ Standard Hand, Downward Supply

Clearances as above



NOTE

Specifications are subject to change without notice due to the manufacturer's ongoing research and development programme.



REV	DESCRIPTION	ECN	DATE	APPROVED
A	Initial release.			
B	Different IFM options shown. CO2 option added. 0V to C2 loop added. Viking setting notes added.	5047	12-10-22	A.W.G

Drawn: A.K.B. Date: 20-10-21 Approved: <i>BK</i>	Title: OPA 250/350/450/560 RLTFPQ-DZ UC8 Wiring Schematic (c/w Viking Controller) Drawing No: 291-003-473 SHEET 1 OF 2
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Important Note:

Unit requires 24 hour power supply for control circuit and crankcase heaters.

UCB DIP Switch Settings	On/Off
DIP Switch 1,2,4,6,7,10,14	On
All Others Off	Off

PSD DIP Switch Settings	On/Off
DIP Switch 1,4	On
2,3	Off

Client Wiring

Client External Protection and Isolator Switch

Customer BMS Input

Connect cable screen to 'EARTH' terminal

Economiser Wiring

Viking Controller

VIKING Commercial HVAC Controller

Viking Sensors

Note: Indoor Smart Sensor is factory set to Manual Cycle selection. For Auto Changerover set parameter 'nm' to 0. Refer to the Installer Options Menu on page 6 of the Smart Sensor RS-SSD Manual for more information.

Client Wiring

Client External Protection and Isolator Switch

Customer BMS Input

Connect cable screen to 'EARTH' terminal

24VCB	24 Volt Circuit Breaker
CCB	Control Circuit Breaker
CCH	Crankcase Heater
CM	Compressor Motor
DMF	Damper Motor Fresh Air
DMR	Damper Motor Return Air
EEV	Electronic Expansion Valve
EMIFB	EMI Filter Board
ETH	Earth
FRB	Fault Relay Board
IFCB	Indoor Fan Circuit Breaker
IFM	Indoor Fan Motor
IBB	Insulated Bus Bar
MIS	Main Isolator Switch
OFCB	Outdoor Fan Circuit Breaker
OFM	Outdoor Fan Motor
PCLP	P Clip
RV	Reversing Valve
SCB	Socket Circuit Breaker
SPS	Single Phase Socket
TB	Terminal Block
TR	Transformer
UC8	Unit Controller 8
VSD	Variable Speed Drive
VSDCB	Variable Speed Drive Circuit Breaker
W	Cable Marker

Ferrites		
Part Number	Frequency Type	Number of Turns
A* 012-001-074	High	1
B 012-001-094	Low	1

*Ferrite 'A' on OFM only needed on OPA 450 and 560.

Sensors (S) / Transducers (T)		
Name	Type	Colour
DL Discharge Temp	S	GREY
SL Suction Temp	S	WHITE
AMB Ambient Temp	S	YELLOW
DEI De-ice Temp	S	BLUE
IC De-ice Temp	S	BLUE
LPT Suction Pressure	T	
HPT High Pressure	T	

Important Notes:

- Twisted pairs: S1 & S4, S2 & S3
- Connect both sensors directly to the Viking Controller.

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Appvd: BK PUL

Client Wiring

Drawing No: 291-003-473 SHEET 2 OF 2

Rev: B