

SPECIFICATIONS



Model	OPA 970RLTB2FPQD-Z Econex Pro
Configuration	Horizontal Supply Air
Item No. (Standard / Opposite Hand)	877-097-701 / 877-097-710
Configuration	Downward Supply Air
Item No. (Standard / Opposite Hand)	877-097-723 / 877-097-732
Cooling capacity (net) ¹	91 kW
Cooling capacity range (gross)	16 ~ 102 kW
Heating capacity ¹	95.8 kW
Heating capacity range	13 ~ 110 kW
Electrical input - cooling	29.9 kW
Electrical input - heating	28.7 kW
EER / AEER (cooling) ¹	3.04 / 3.03
COP / ACOP (heating) ¹	3.34 / 3.33
Operating Range (outdoor ambient) - cooling	-10°C ~ 50°C
Operating Range (outdoor ambient) - heating	-10°C ~ 25°C
Master Controller	<i>c.pCO</i>
Slave Controllers	UC8 (x2)
Refrigerant	R32
Refrigerant Charge	10 kg/sys.
Minimum floor area (@2.4m below ceiling diffuser)	53 m ²
Compressor oil type	POE-46 (NXG5020 or equivalent)
Compressor type	inverter scroll (x2)
Power supply ²	3 ph. 400 V ac 50 Hz + N + E
Compressor (3ph.) run amps at rating cond.	19 A/ph. (x2)
Compressor + VSD circuit breaker	40 A (x2)
Indoor fan motor size	EC Plug 500 dia. 3.65kW (x2)
Nominal air flow at rating conditions	4 700 l/s
Indoor fan motor (3ph.) - full load	4.5 A/ph. (x2)
Outdoor fan motor (3ph.) - full load	5.5 A/ph. (x2)
Outdoor fan max. static pressure@ 10 500 l/s	125 Pa
Control circuit breaker (internal)	2 A
Single phase socket circuit breaker	10 A
Running amps (total system) ¹	46 / 41 / 47 A.
Max. running amps (total system)	74 / 74 / 77 A
RCD type recommended	type B, 30mA, 3 pole
Net weight (excl. cowl)	1294 kg
Shipping weight (excl. cowl)	1320 kg
Net Weight c/w Economiser	1346 kg

Accessories:

Remote wired Service Interface Device (<i>pGD1</i>)	201-000-379
Filters - rated EU4/G4 disposable	019-400-004 500x500x50 (x9) ³
Filters - rated EU4/G4 washable (NZ Only)	019-000-033 500x500x50 (x9) ³
Drain tundish (2 per set; 2 sets required)	060-000-653

Refer to temperzone for other options.

¹ Tested in accordance with AS/NZS 3823

² Voltage range: 380-440V

³ Filter sizes are nominal; refer to Temperzone for actual measurements.

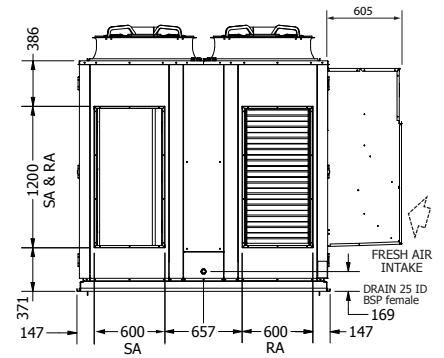
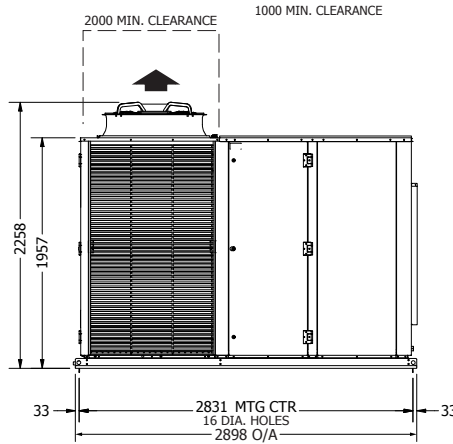
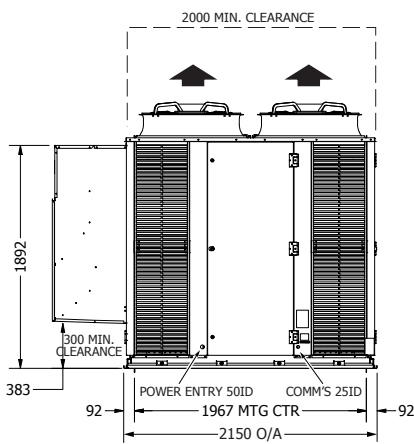
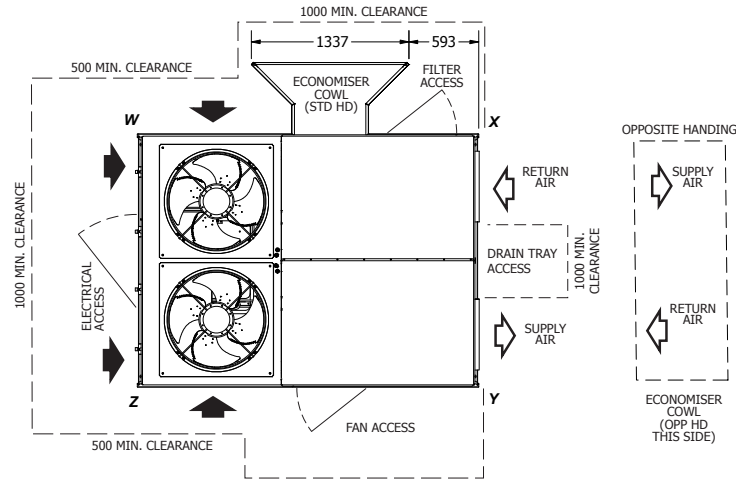
DIMENSIONS (mm)



OPA 970RLTBFPQD01-Z Standard Hand, Horizontal Supply

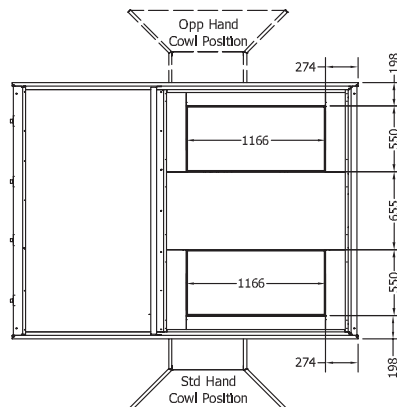
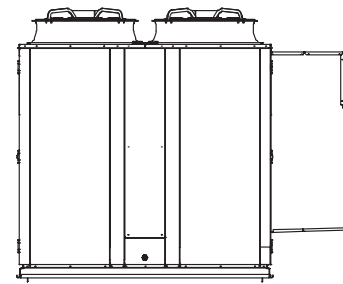
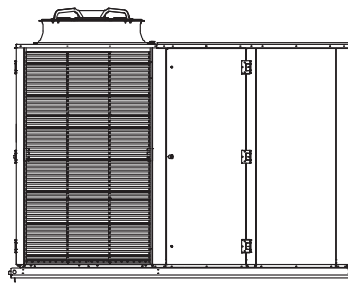
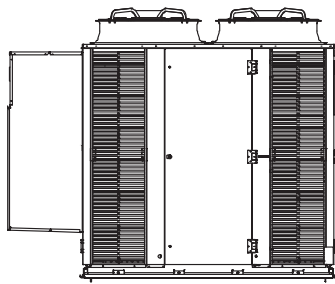
Not to Scale

	POINT LOADS (kg)			
	W	X	Y	Z
Eco Std	356	304	295	391
Eco Opp	349	281	319	398



OPA 970RLTBFPQD23-Z Standard Hand, Downward Supply

Clearances as above

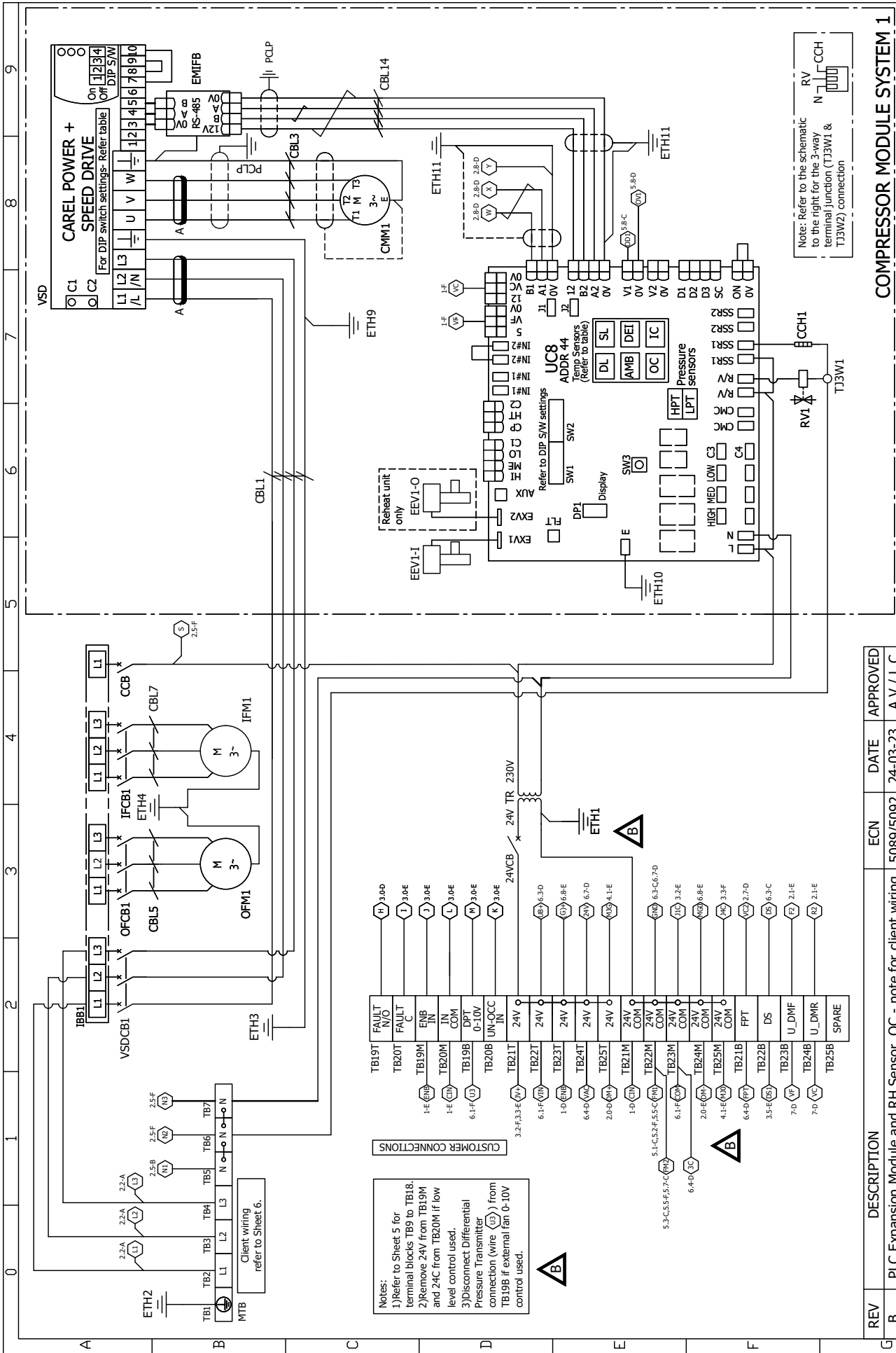


NOTE

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

WIRING (1)

Refer Sheet 5 for client wiring & descriptors



COMPRESSOR MODULE SYSTEM 1

Note: Refer to the schematic to the right for the 3-way terminal junction (TJ3W1 & TJ3W2) connection

Rev: B
Drawing No: 291-003-492
SHEET 1 OF 6

Title: OPA 970RLTB2FPQD-(Z) UC8 c/w CAREL c.pCO
Wiring Schematic

Date: 16/12/22

Drawn: A.V

ECN 5089/5092

DATE 24-03-23

APPROVED A.V / L.C

Client Wiring

DESCRIPTION

PLC Expansion Module and RH Sensor. QC - note for client wiring.

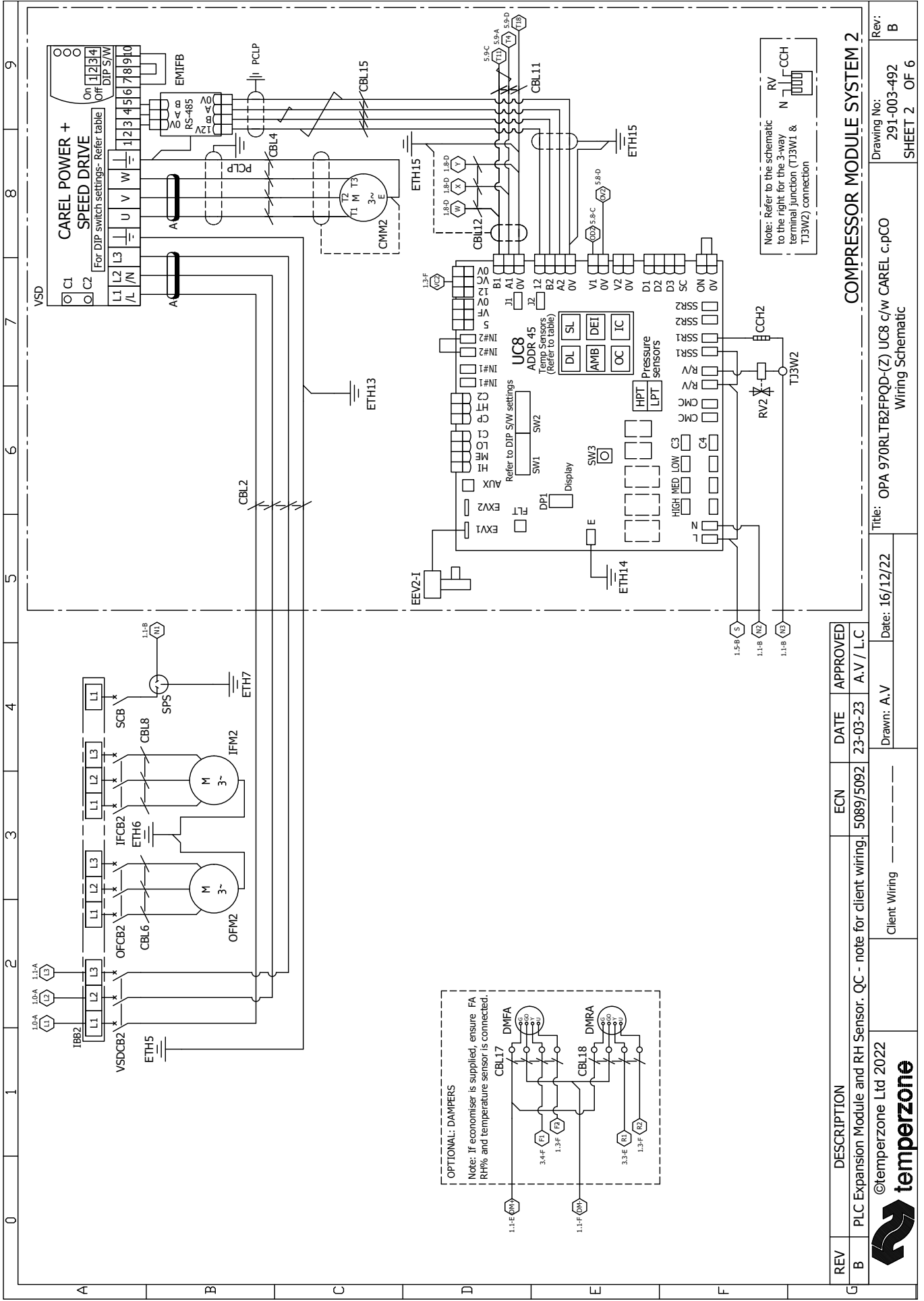


- Notes:
- 1) Refer to Sheet 5 for terminal blocks TB9 to TB18, and 24C from TB20M if low level control used.
 - 2) Remove 24V from TB19M and 24C from TB20M if low level control used.
 - 3) Disconnect Differential Pressure Transmitter connection (Wire (L2) from TB19B if external fan 0-10V control used.

CUSTOMER CONNECTIONS

TB19T	FAULT N/O	3.00D
TB20T	FAULT C	3.00E
TB19M	ENB IN	3.00E
TB20M	IN COM	3.00E
TB19B	DPT 0-10V	3.00E
TB20B	UN/OCC IN	3.00E
TB21T	24V	3.2F, 3.3E
TB22T	24V	6.1F, 6.2D
TB23T	24V	6.1F, 6.8E
TB24T	24V	6.4D, 6.8E
TB25T	24V	2.0A, 6.8E
TB21M	24V COM	1.0, 6.8E
TB22M	24V COM	5.1, 5.2F, 5.5, 5.6, 6.8E
TB23M	24V COM	6.1F, 6.8E
TB24M	24V COM	2.0, 6.8E
TB25M	24V COM	4.1, 6.8E
TB21B	FPT	6.4D, 6.8E
TB22B	DS	3.5, 6.8E
TB23B	U_DMFM	7.0, 6.8E
TB24B	U_DMIR	7.0, 6.8E
TB25B	SPARE	7.0, 6.8E

WIRING (2)



REV	DESCRIPTION	ECN	DATE	APPROVED
B	PLC Expansion Module and RH Sensor. QC - note for client wiring.	5089/5092	23-03-23	A.V / L.C



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Client Wiring

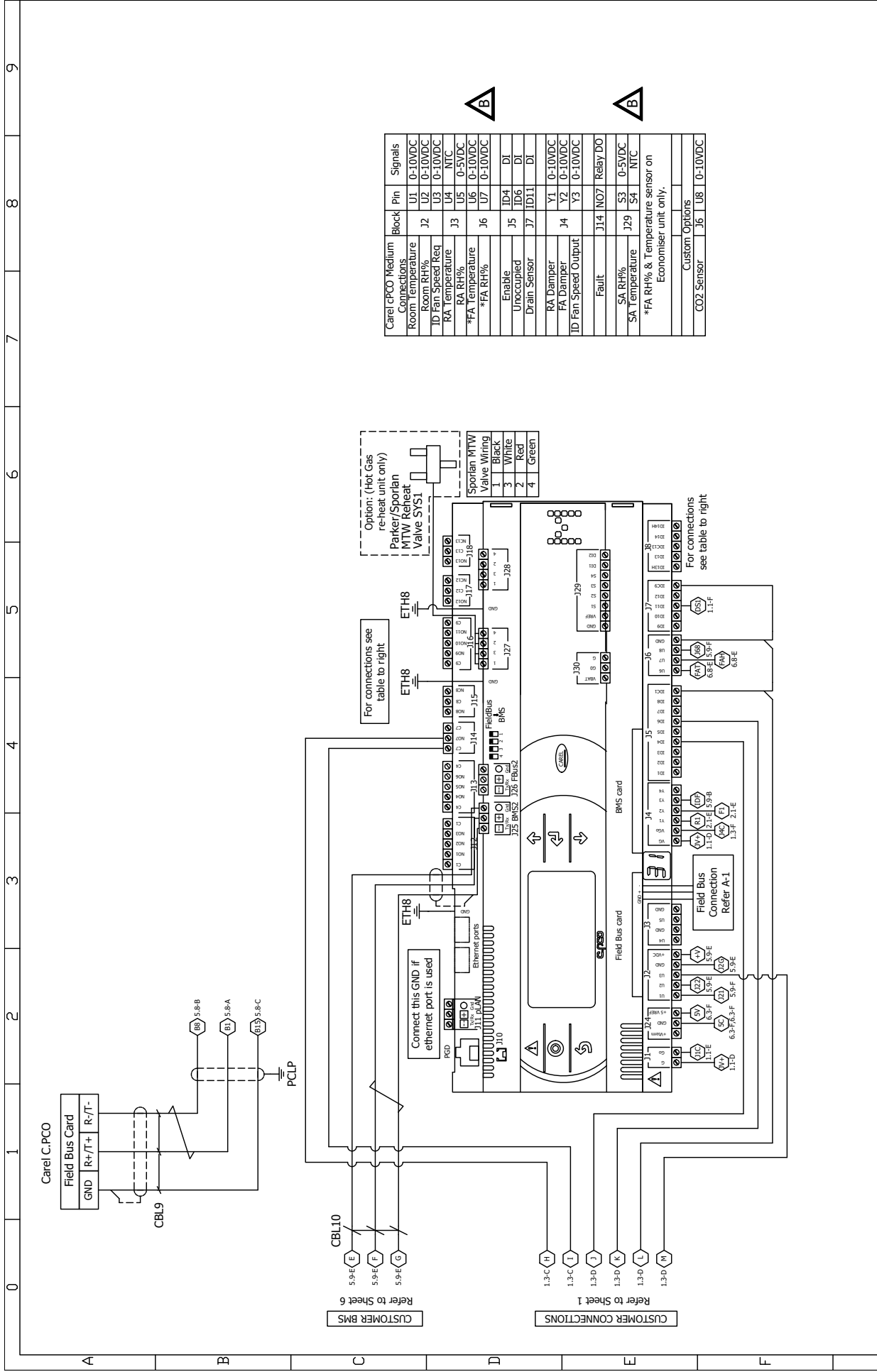
Drawn: A.V

Date: 16/12/22

Title: OPA 970RLTB2FPQD-(Z) UC8 c/w CAREL c.pCO
 Wiring Schematic

Drawing No: 291-003-492
 SHEET 2 OF 6

Rev: B

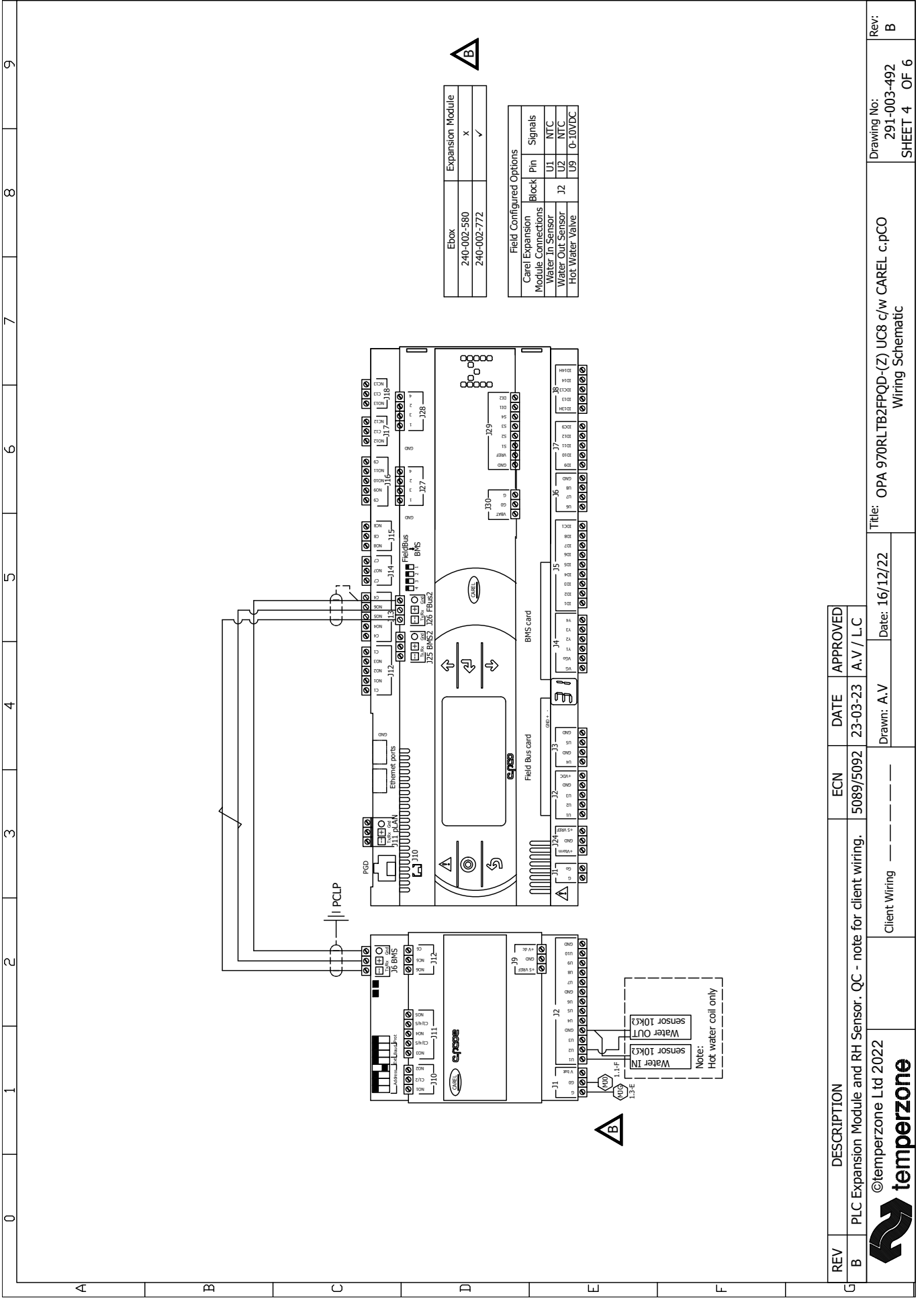


REV	DESCRIPTION	ECN	DATE	APPROVED
B	PLC Expansion Module and RH Sensor. QC - note for client wiring.	5089/5092	23-03-23	A.V / L.C

Drawn: A.V	Date: 16/12/22
Client Wiring	

Title: OPA 970RLTB2FPQD-(Z) UC8 c/w CAREL c.p.CO Wiring Schematic	Drawing No: 291-003-492	Rev: B
SHEET 3		OF 6





Expansion Module	Expansion Module
240-002-580	x
240-002-772	✓

Field Configured Options	
Carel Expansion Module Connections	Block Pin Signals
Water In Sensor	U1 U2 NTC
Water Out Sensor	J2 U9 0-10VDC
Hot Water Valve	

REV	DESCRIPTION	ECN	DATE	APPROVED
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Client Wiring

Drawn: A.V Date: 16/12/22

Title: OPA 970RLTB2FPQD-(Z) UC8 c/w CAREL c.pCO Wiring Schematic

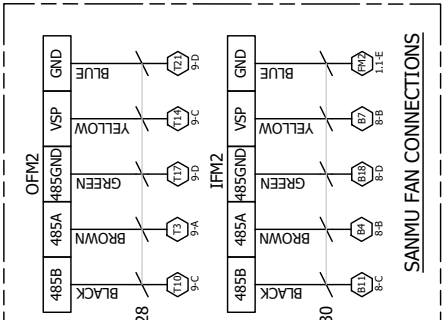
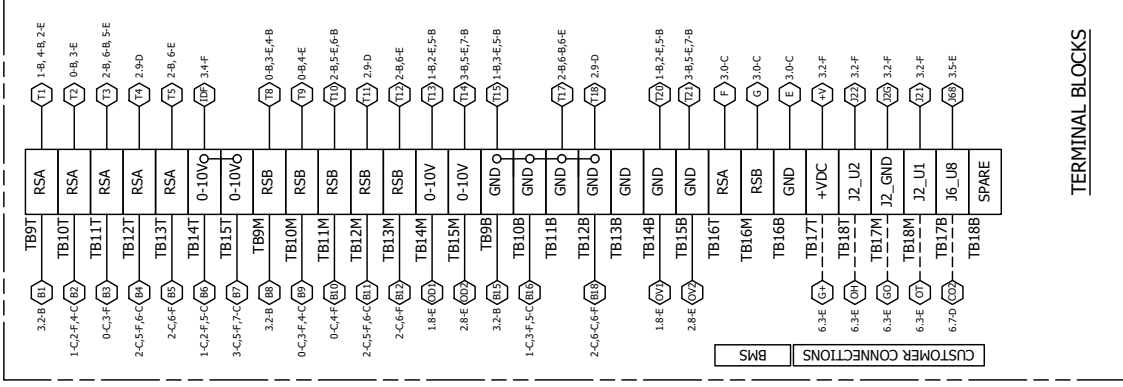
Drawing No: 291-003-492
SHEET 4 OF 6

Rev: B

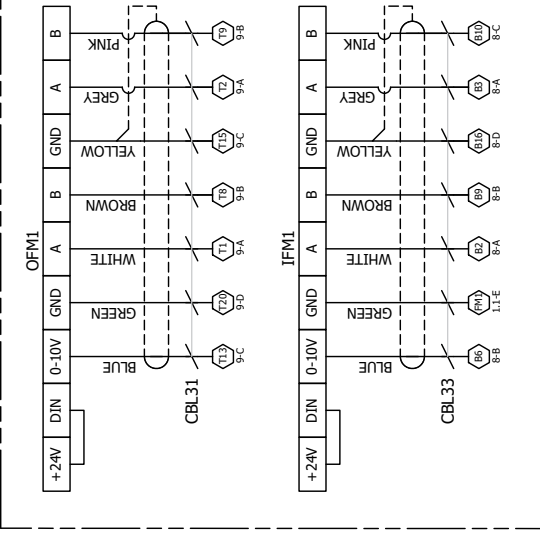
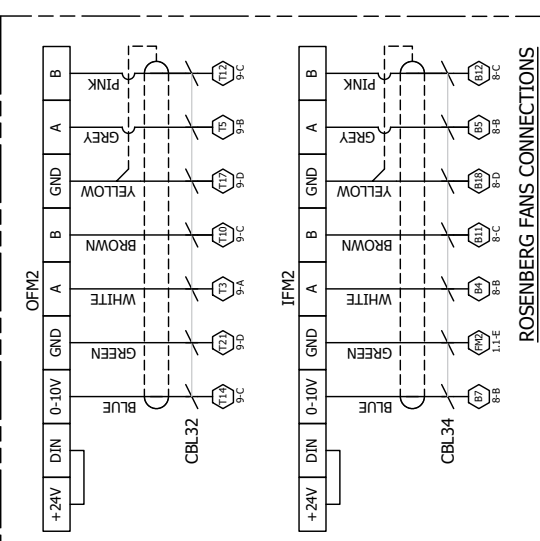
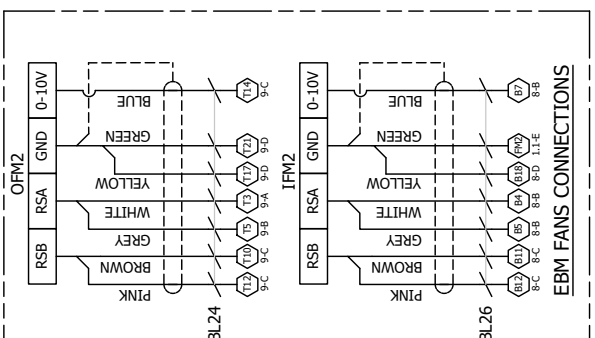
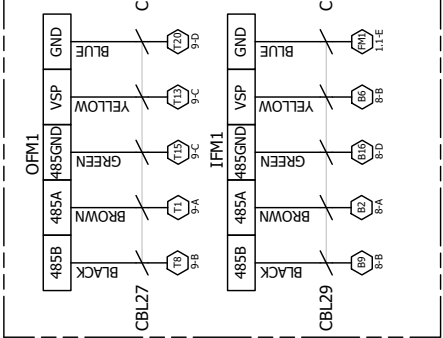
0 1 2 3 4 5 6 7 8 9

A B C D E F

NOTE: THE FOLLOWING FANS CONNECTIONS APPLY, DEPENDING ON THE MAKE OF FANS INSTALLED IN THE UNIT.



Notes:
 1) Customer connections continued from Sheet 1.
 2) For Sanmu fans, insert links between terminals TB99T to TB12T and between TB9M to TB12M.
 3) Cut off spare wires at Elbow. Seal with heat shrink.
 4) Ensure spare wires are cut at different lengths to avoid shorting together.
 5) All outdoor fan cable shall be protected with Conrallex conduit.



REV	DESCRIPTION	ECN	DATE	APPROVED
B	PLC Expansion Module and RH Sensor. QC - note for client wiring.	5089/5092	23-03-23	A.V / L.C

Drawn: A.V	Date: 16/12/22	Title: OPA 970RLTB2FPQD-(Z) UC8 c/w CAREL c.pCO
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Client Wiring	Wiring Schematic
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Drawing No: 291-003-492	Rev: B
SHEET 5	OF 6



