

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)

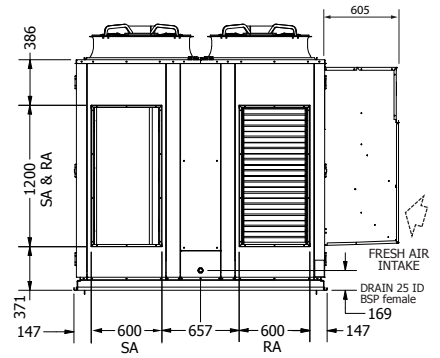
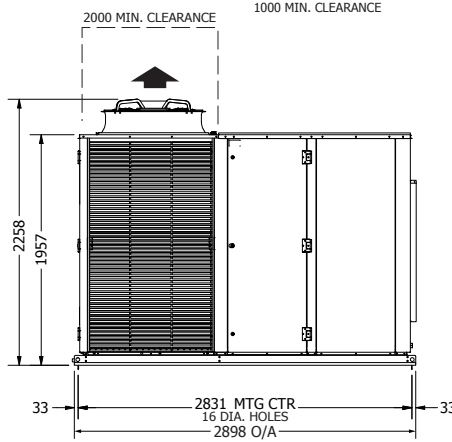
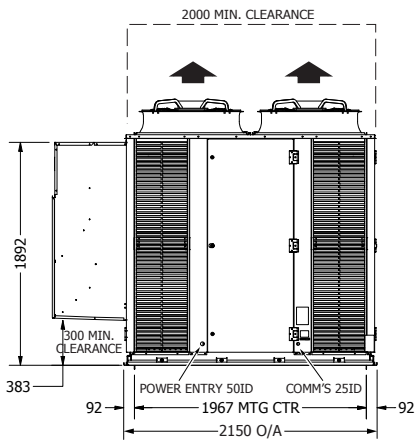
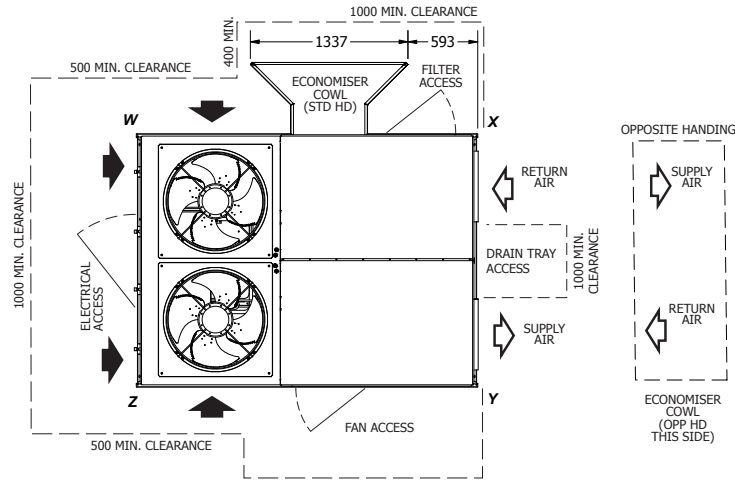


OPA 970RLTBFPQD01-Z Standard Hand, Horizontal Supply

Not to Scale

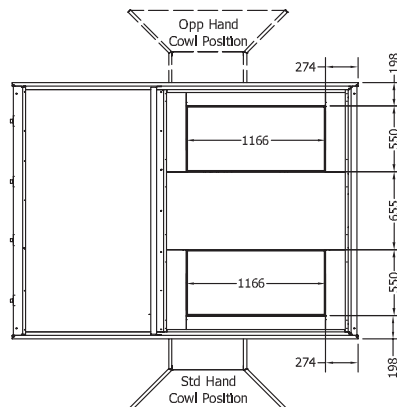
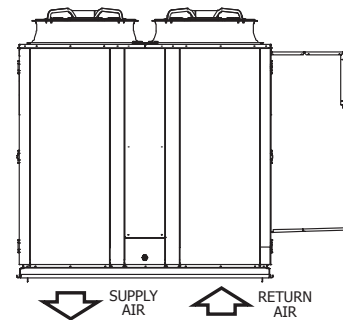
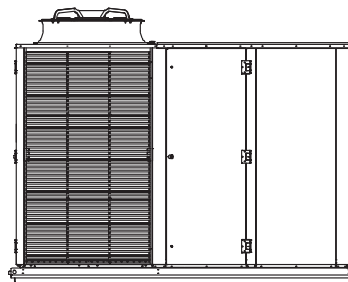
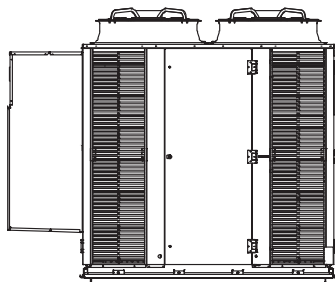
POINT LOADS (kg)

	W	X	Y	Z
Eco Std	356	304	295	391
Eco Opp	349	281	319	398



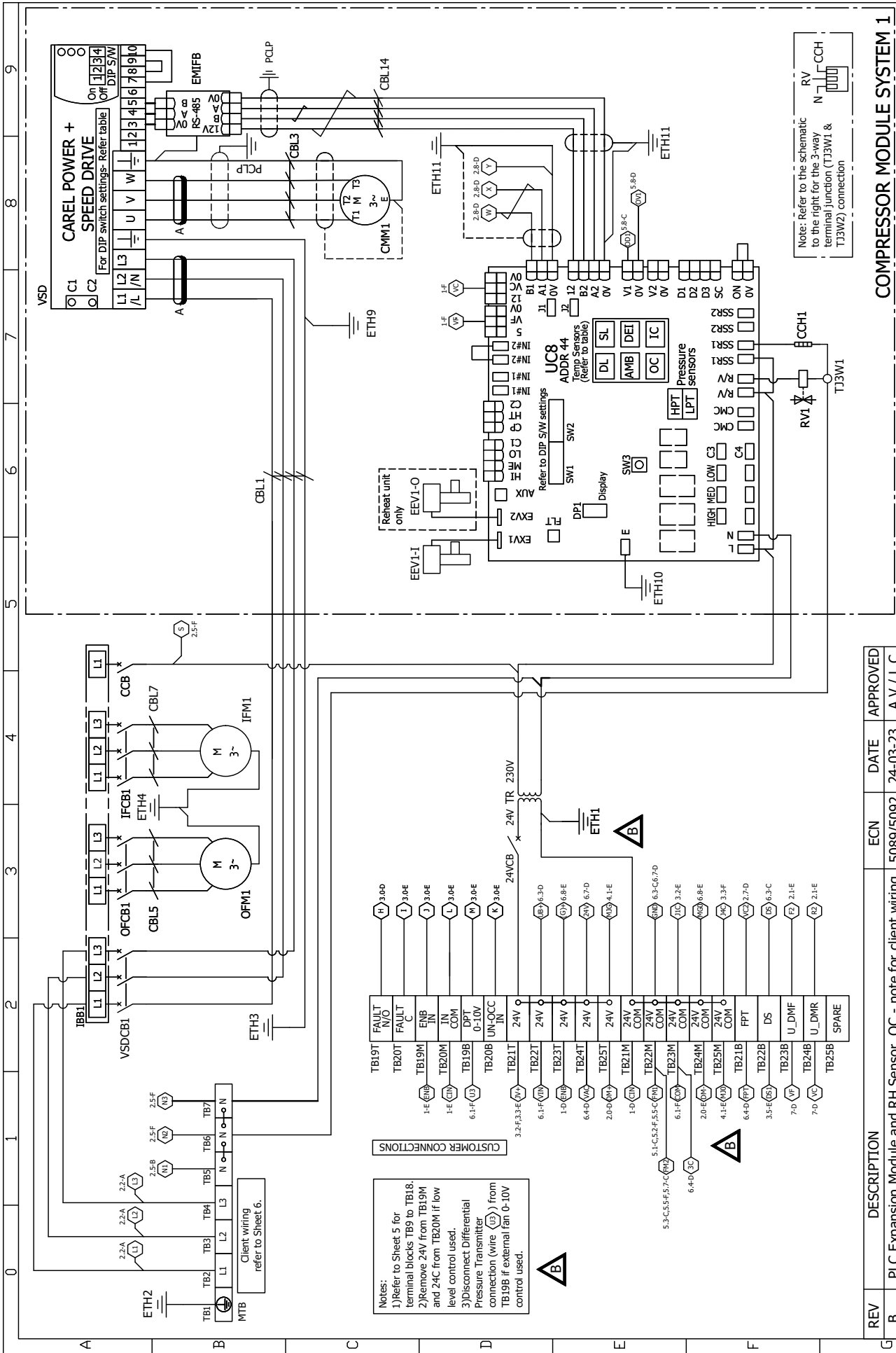
OPA 970RLTBFPQD23-Z Standard Hand, Downward Supply

Clearances as above



NOTE

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



COMPRESSOR MODULE SYSTEM 1

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
 Approved: A.V / L.C

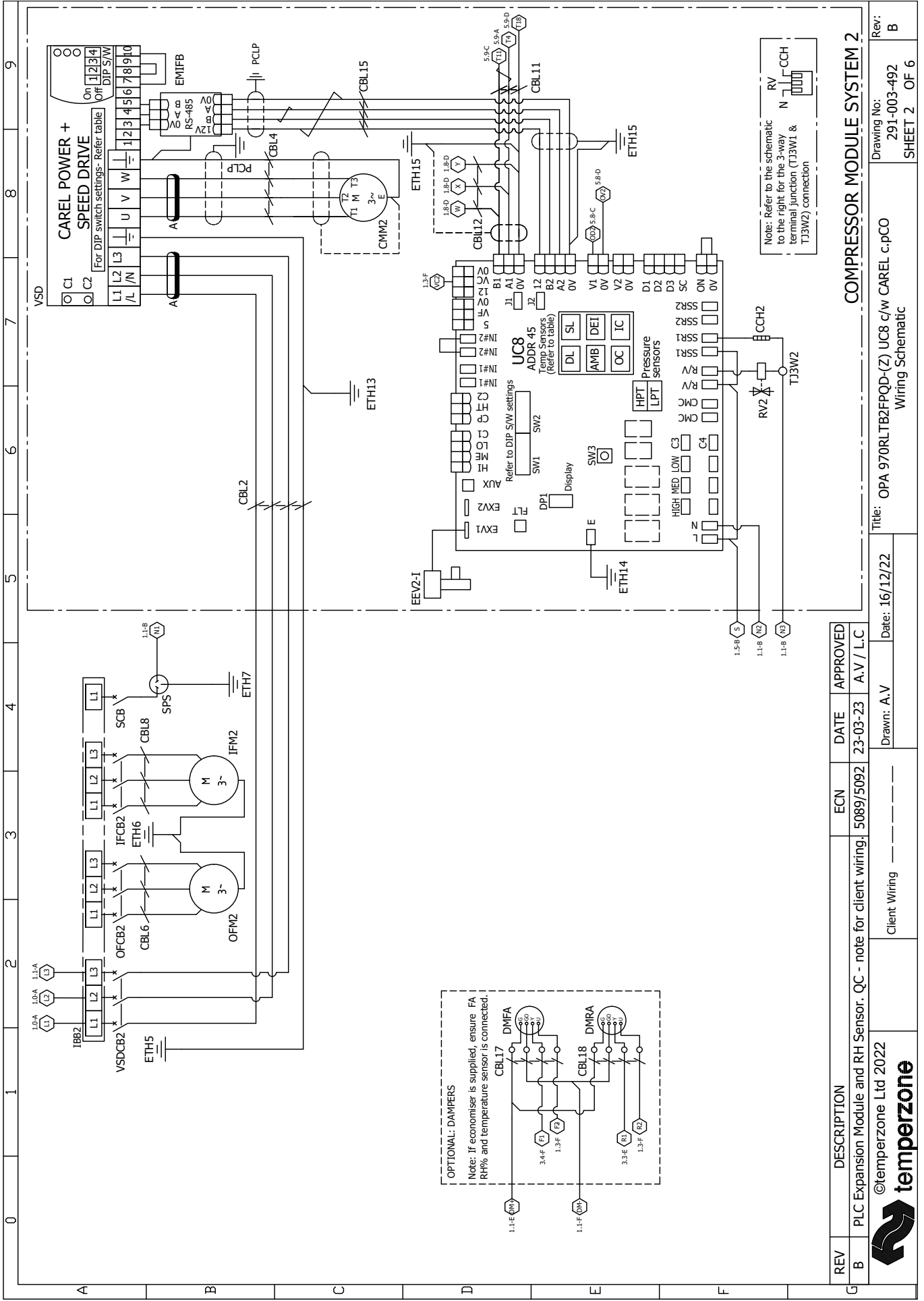
REV	DESCRIPTION	ECN	DATE	APPROVED
B	PLC Expansion Module and RH Sensor. QC - note for client wiring.	5089/5092	24-03-23	A.V / L.C



- Notes:
- 1) Refer to Sheet 5 for terminal blocks TB9 to TB18, and 24C from TB20M if low level control used.
 - 2) Disconnect Differential Pressure Transmitter connection (Wire (L3) from TB19B if external fan 0-10V control used.

CUSTOMER CONNECTIONS

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

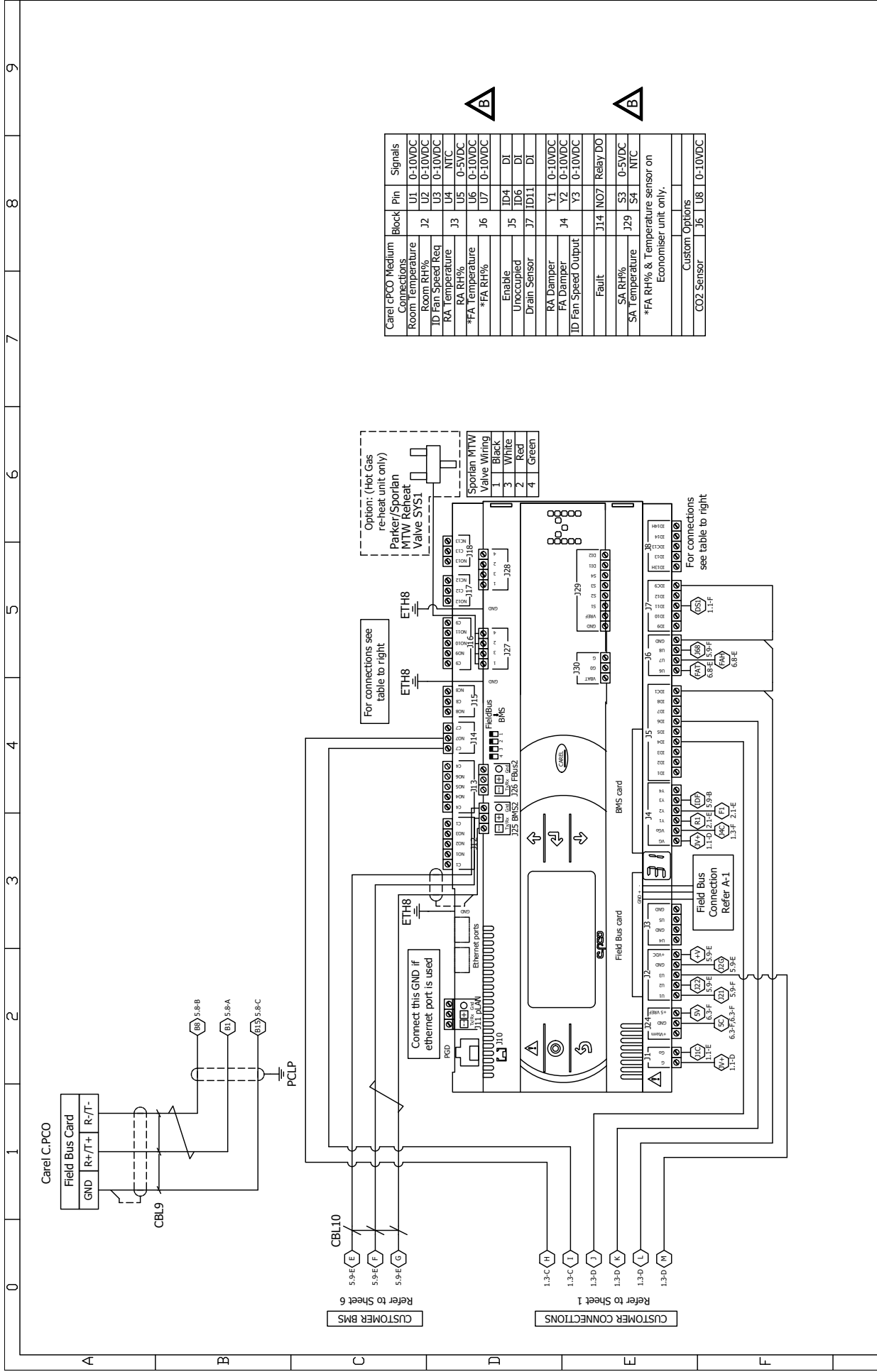


COMPRESSOR MODULE SYSTEM 2

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

Client Wiring	Date: 16/12/22	Title: OPA 970RLTB2FPQD-(Z) UC8 c/w CAREL c.pCO
Drawn: A.V	Date: 16/12/22	Wiring Schematic
Rev: B	Drawing No: 291-003-492	Rev: B
Sheet 2	Sheet 2	OF 6



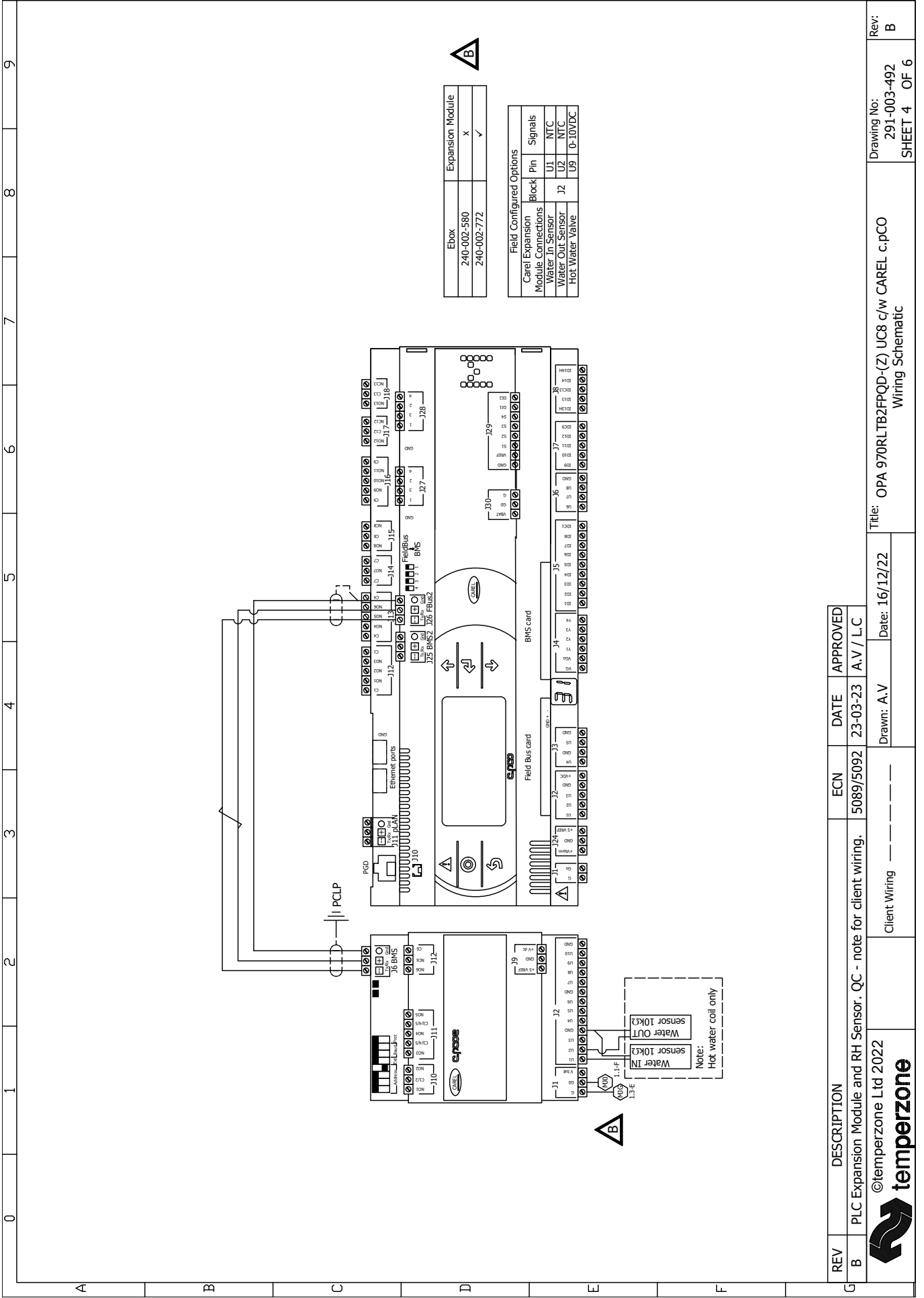


Carel c.p.CO Medium Connections	Block	Pin	Signals
Room Temperature	J2	U1	0-10VDC
Room RH%		U2	0-10VDC
ID Fan Speed Req		U3	0-10VDC
RA Temperature	J3	U4	NTC
RA RH%		U5	0-5VDC
*FA Temperature	J6	U6	0-10VDC
*FA RH%		U7	0-10VDC
Enable	J5	ID4	DI
Unoccupied		ID6	DI
Drain Sensor	J7	ID11	DI
RA Damper		Y1	0-10VDC
FA Damper	J4	Y2	0-10VDC
ID Fan Speed Output		Y3	0-10VDC
Fault	J14	NO7	Relay DO
SA RH%		S3	0-5VDC
SA Temperature	J29	S4	NTC
*FA RH% & Temperature sensor on Economiser unit only.			
Custom Options			
CO2 Sensor	J6	U8	0-10VDC

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

Client Wiring	Date: 16/12/22
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	Title: OPA 970RLTB2FPQD-(Z) UC8 c/w CAREL c.p.CO Wiring Schematic Drawing No: 291-003-492 SHEET 3 OF 6 Rev: B
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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
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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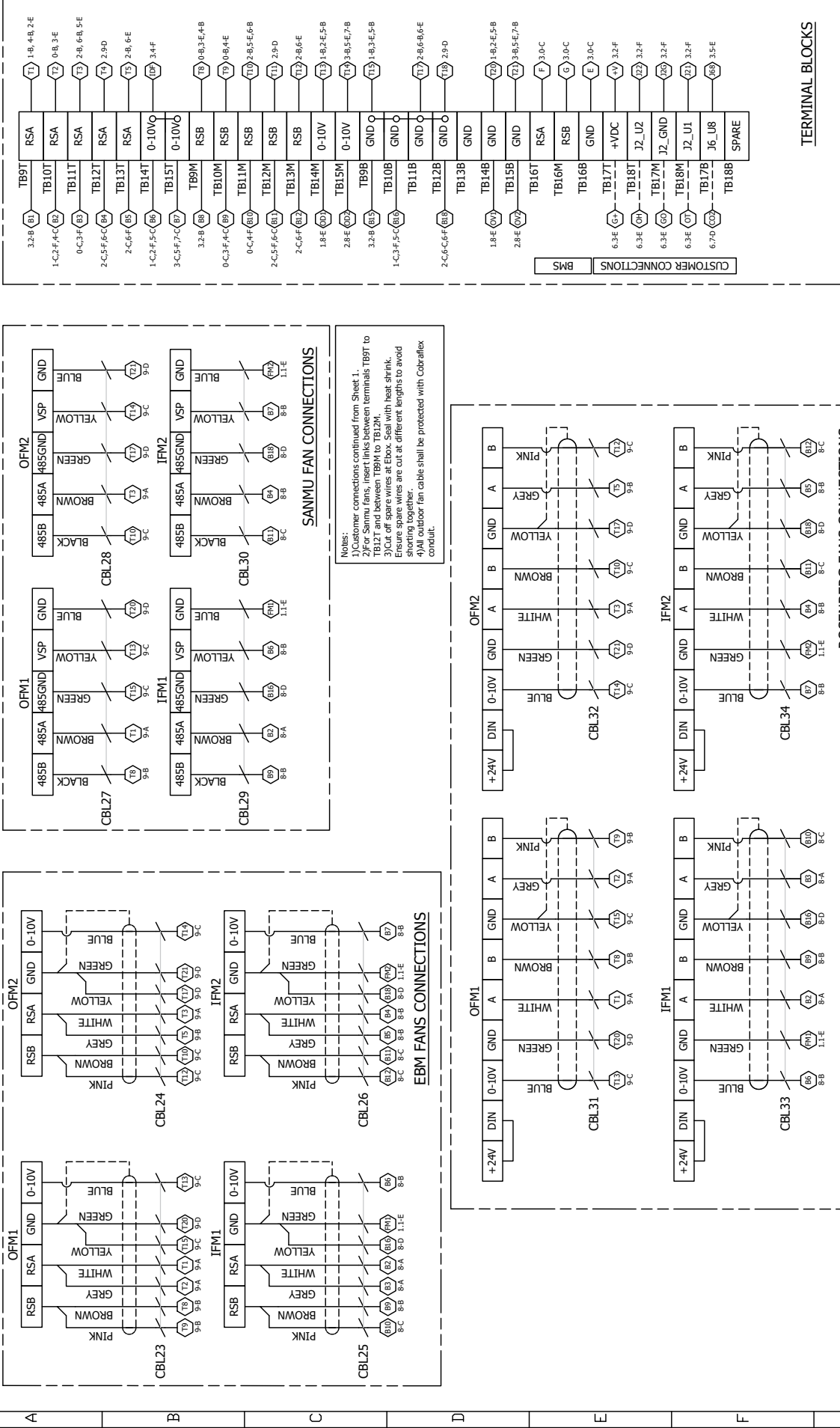

Client Wiring --- --- --- --- ---
 Drawn: A.V Date: 16/12/22

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

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

0 1 2 3 4 5 6 7 8 9

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



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

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 5 OF 6
Rev: B

