

Model	OPA 1410RLTM4FPQD(-Z) Econex Pro
Configuration	Horizontal Supply Air
Item No. (Standard / Opposite Hand)	876-141-701 / 876-141-710
Unit c/w Economiser (Standard / Opposite Hand)	877-141-701 / 877-141-710
Configuration	Downward Supply Air
Item No. (Standard / Opposite Hand)	876-141-723 / 876-141-732
Unit c/w Economiser (Standard / Opposite Hand)	877-141-723 / 877-141-732
Cooling capacity (net) ¹	146 kW
Cooling capacity (gross) range	11.8 ~ 189 kW
Heating capacity ¹	145 kW
Heating capacity (gross) range	12.9 ~ 181 kW
Electrical input - cooling	45.1 kW
Electrical input - heating	43.2 kW
EER / AEER (cooling) ¹	3.24 / 3.22
COP / ACOP (heating) ¹	3.35 / 3.34
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 (x4)
Refrigerant	R32
Refrigerant Charge	7.1 kg/sys.
Minimum floor area (@2.4m/5m below ceiling diffuser)	27 m ² / 6 m ²
Compressor oil type	POE-46 (NXG5020 or equivalent)
Compressor type	Inverter scroll (x4)
Power supply ²	3 ph. 400V ac 50Hz + N + E
Compressor (3ph.) run amps at rating cond.	14.7 A/ph. (x4)
Compressor circuit breaker	32 A (x4)
Indoor fan motor size	EC Plug 3.65kW (x4)
Nominal air flow at rating conditions	8 100 l/s
Indoor fan motor (3ph.)	4.6 A/ph. (x4)
Outdoor fan motor (3ph.) - full load	1.9 A/ph. (x4)
Outdoor fan motor – max. ext. static pressure available	120 Pa (@12,100 l/s)
Control circuit breaker (internal)	4 A
Auxiliary power outlet (1ph.) overload setting	10 A
Running amps (total system)	69 / 67 / 74 A
Max. running amps (total system)	116 / 111 / 121 A
RCD type recommended	type B, 30mA, 3 pole
Net weight	2064 kg
Shipping weight (excl. cowl)	2204 kg
Net weight c/w Economiser	2154 kg

Accessories:

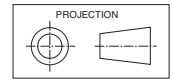
Remote wired Service Interface Display (<i>pGDN1</i>)	201-000-367
Filters - rated EU4/G4 disposable	019-400-005 600x500x50 (x3) ³ 019-400-007 600x600x50 (x6)
Filters - rated EU4/G4 washable (NZ only)	019-000-034 600x500x50 (x3) ³ 019-000-031 600x600x50 (x6)

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)

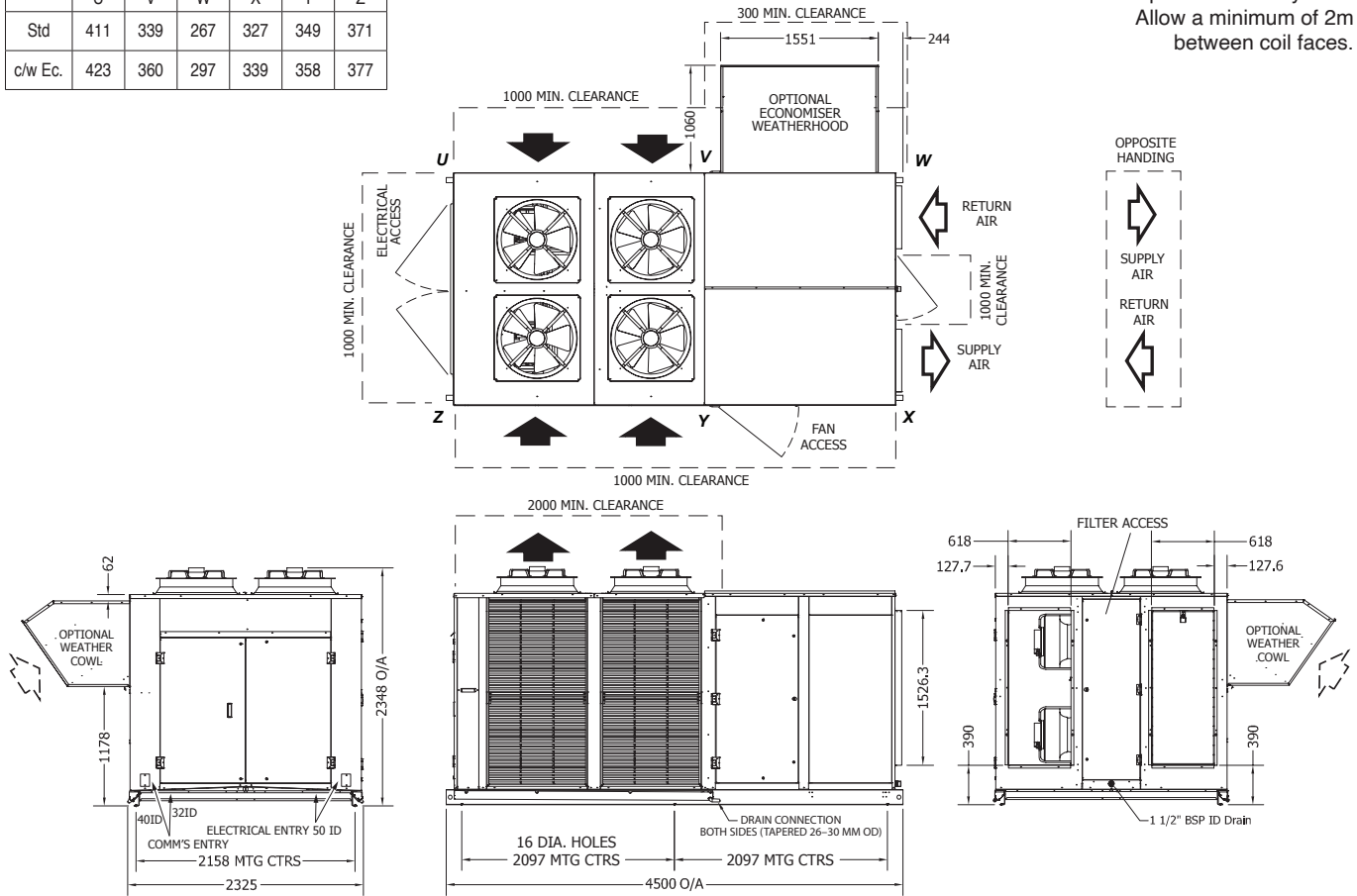


OPA 1410RLTM4FPQD01(-Z) Horizontal Supply / Standard Hand

Not to Scale

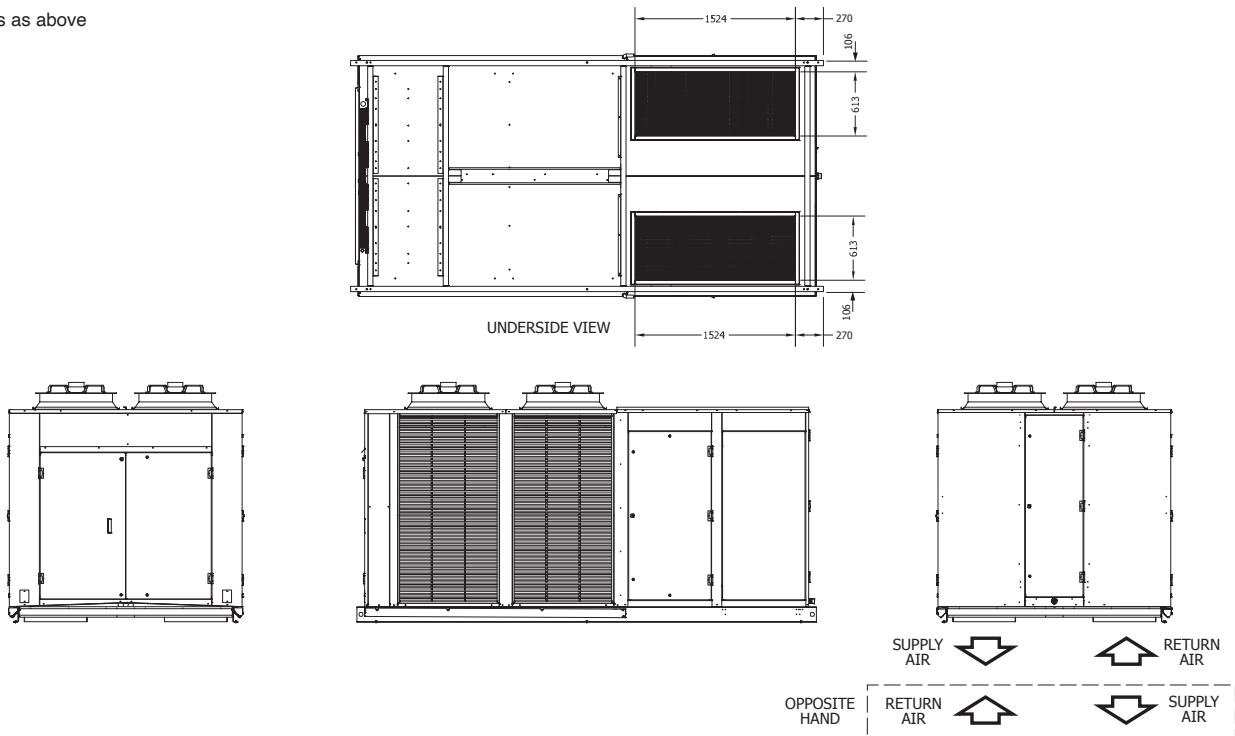
Multiple units side-by-side:
Allow a minimum of 2m
between coil faces.

	POINT LOADS (kg)					
	U	V	W	X	Y	Z
Std	411	339	267	327	349	371
c/w Ec.	423	360	297	339	358	377



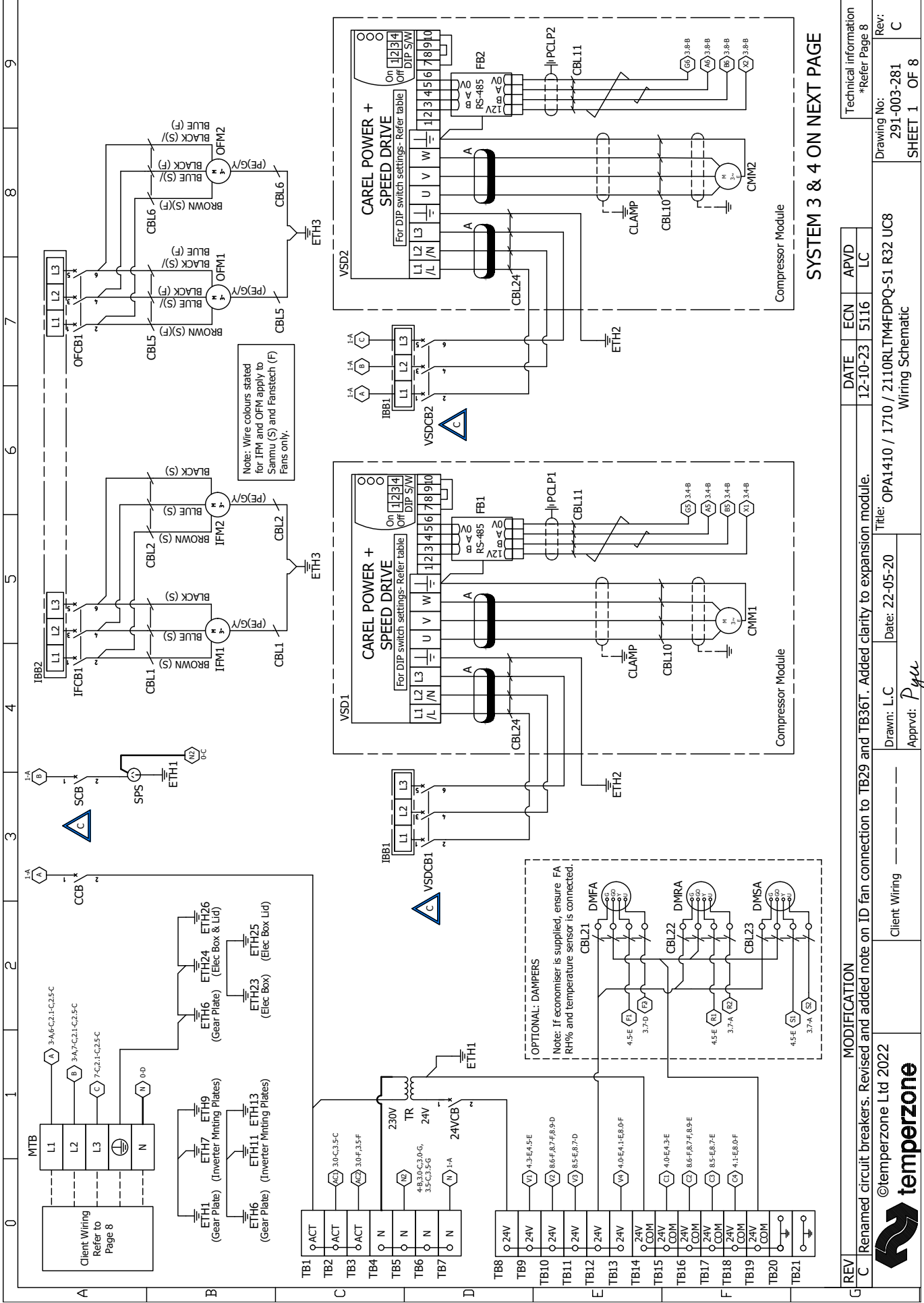
OPA 1410RLTM4FPQD23(-Z) Downward Supply / Standard Hand

Clearances as above



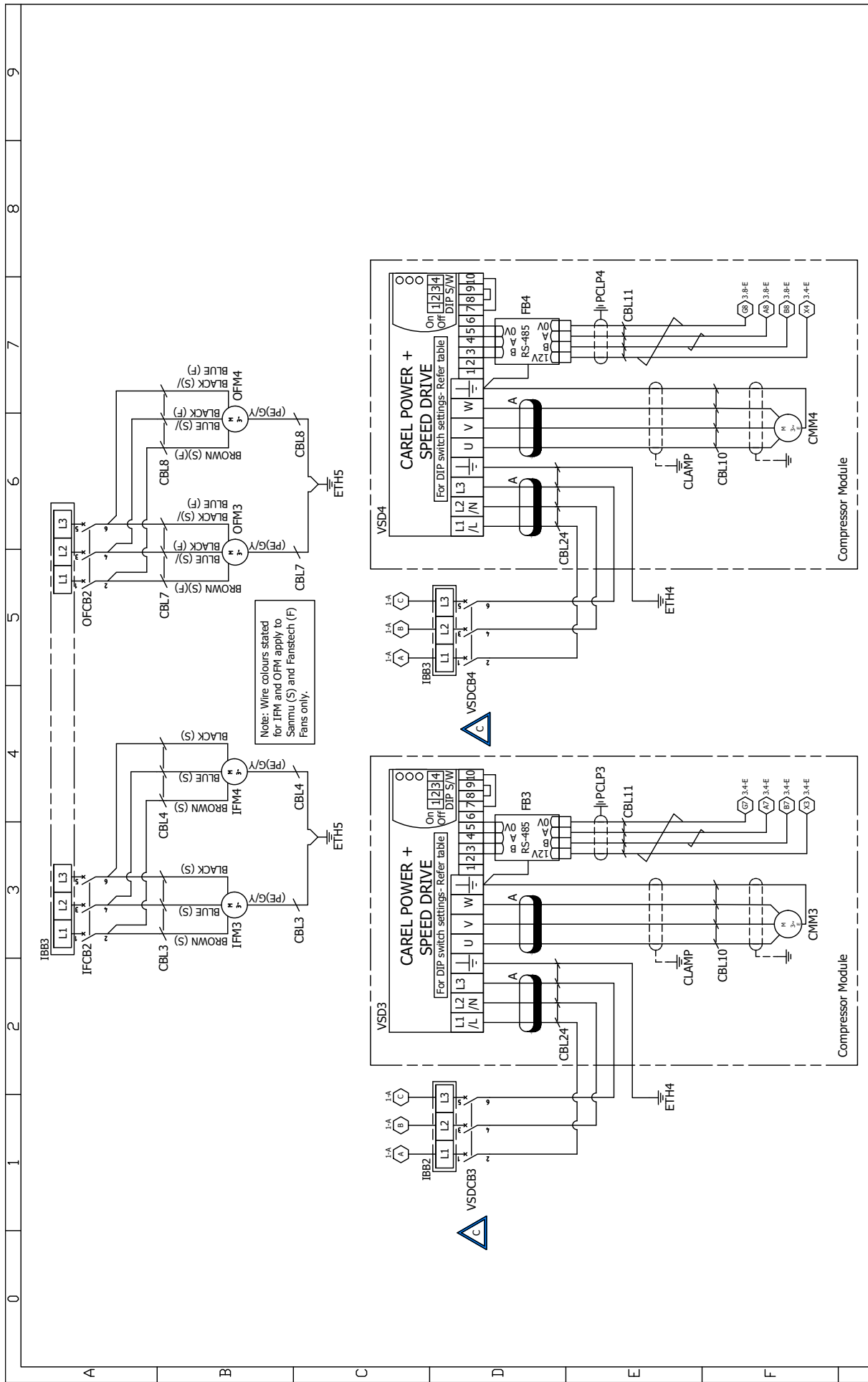
NOTE


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



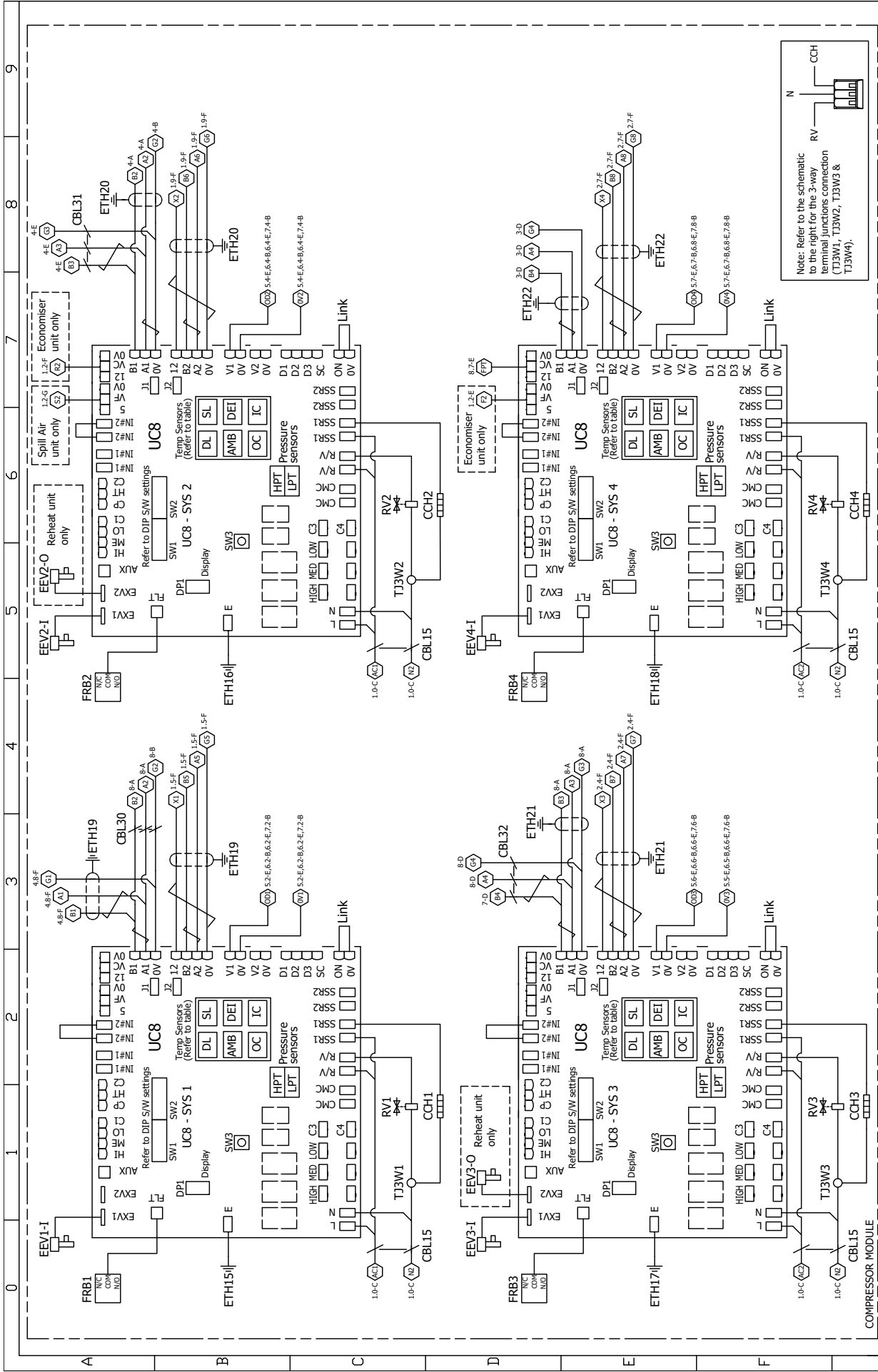
SYSTEM 3 & 4 ON NEXT PAGE

REV	C	MODIFICATION	Renamed circuit breakers. Revised and added note on ID fan connection to TB29 and TB36T. Added clarity to expansion module.	DATE	12-10-23	ECN	5116	APVD	LC	Technical information	*Refer Page 8	
Drawn:	L.C	Date:	22-05-20	Title:	OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8							
Client Wiring	_____		Client Wiring	_____								
©temperzone Ltd 2022			Wiring Schematic									
temperzone			Drawing No: 291-003-281									
			SHEET 1 OF 8									
			Rev: C									



REV	MODIFICATION	DATE	ECN	APVD	Technical information
C	Renamed circuit breakers. Revised and added note on ID fan connection to TB29 and TB36T. Added clarity to expansion module.	12-10-23	5116	LC	*Refer Page 8
©temperzone Ltd 2022		Drawn: L.C	Date: 22-05-20	Drawing No: 291-003-281	
		Client Wiring	Approved: <i>P. Yu</i>	Rev: C	
		Title: OPA1410 / 1710 / 2110RLTM4FDPO-S1 R32 UC8 Wiring Schematic			SHEET 2 OF 8

WIRING (3)



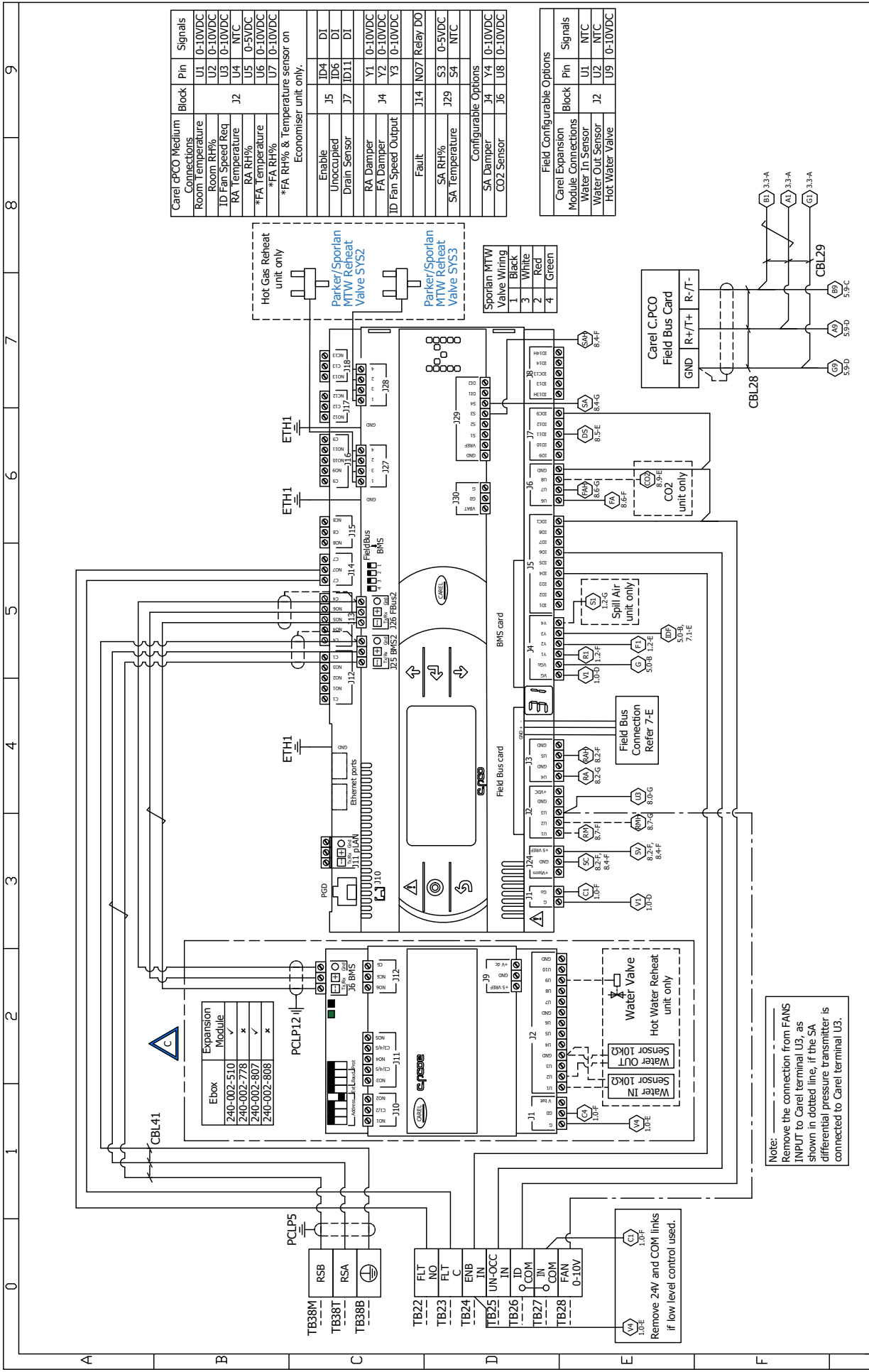
REV	MODIFICATION	DATE	ECN	APVD
C	Renamed circuit breakers. Revised and added note on ID fan connection to TB29 and TB36T. Added clarity to expansion module.	12-10-23	5116	LC

Client Wiring	Drawn: L.C	Date: 22-05-20	Approved: <i>Pyle</i>
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Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8 Wiring Schematic		Technical information *Refer Page 8
Drawing No: 291-003-281		Rev: C
SHEET 3 OF 8		



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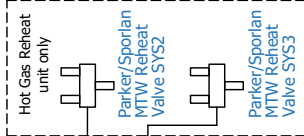
Carel dPCO Medium Connections	Block	Pin	Signals
Room Temperature	U1	0-10VDC	U1
Room RH%	U2	0-10VDC	U2
ID Fan Speed Req	U3	0-10VDC	U3
RA Temperature	U4	0-10VDC	U4
RA RH%	U5	0-5VDC	U5
*FA Temperature	U6	0-10VDC	U6
*FA RH%	U7	0-10VDC	U7

*FA RH% & Temperature sensor on Economiser unit only.

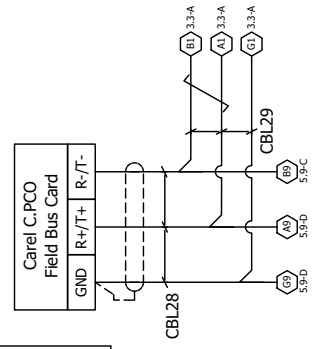
Enable	ID4	DI
Unoccupied	J5	DI
Drain Sensor	J7	DI
RA Damper	Y1	0-10VDC
FA Damper	Y2	0-10VDC
ID Fan Speed Output	Y3	0-10VDC
Fault	J14	NO7 Relay DO
SA RH%	J29	S3 0-5VDC
SA Temperature	S4	NTC

Configurable Options	
SA Damper	J4 Y4 0-10VDC
CO2 Sensor	J6 U8 0-10VDC

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



Sporlan MTW Valve Wiring	
1	Black
2	White
3	Red
4	Green



Note:
 Remove the connection from FANS INPUT to Carel terminal U3, as shown in dotted line, if the SA differential pressure transmitter is connected to Carel terminal U3.

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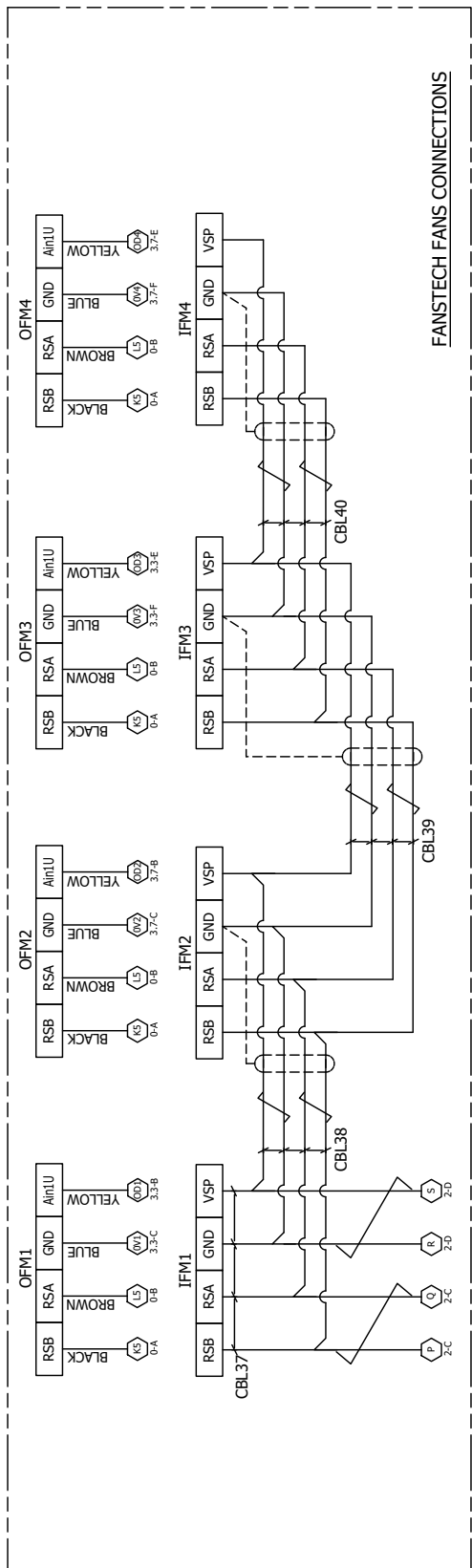
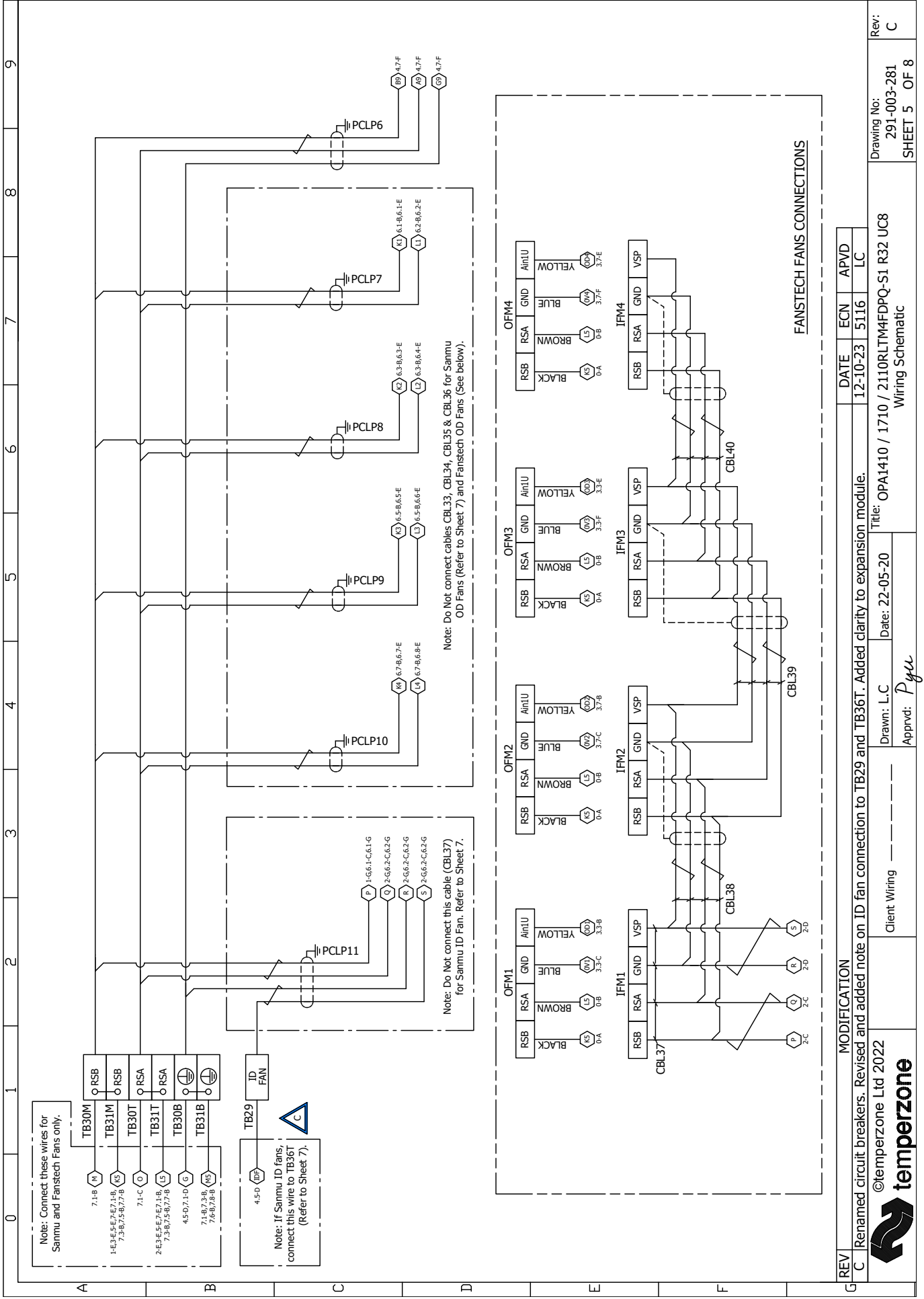
Expansion Module	Exbox	240-002-510	✓
		240-002-778	✗
		240-002-807	✓
		240-002-808	✗

Client Wiring	_____
Drawn: L.C	Date: 22-05-20
Approved: <i>Pyu</i>	

Drawing No:	291-003-281	Rev:	C
SHEET 4	OF 8		



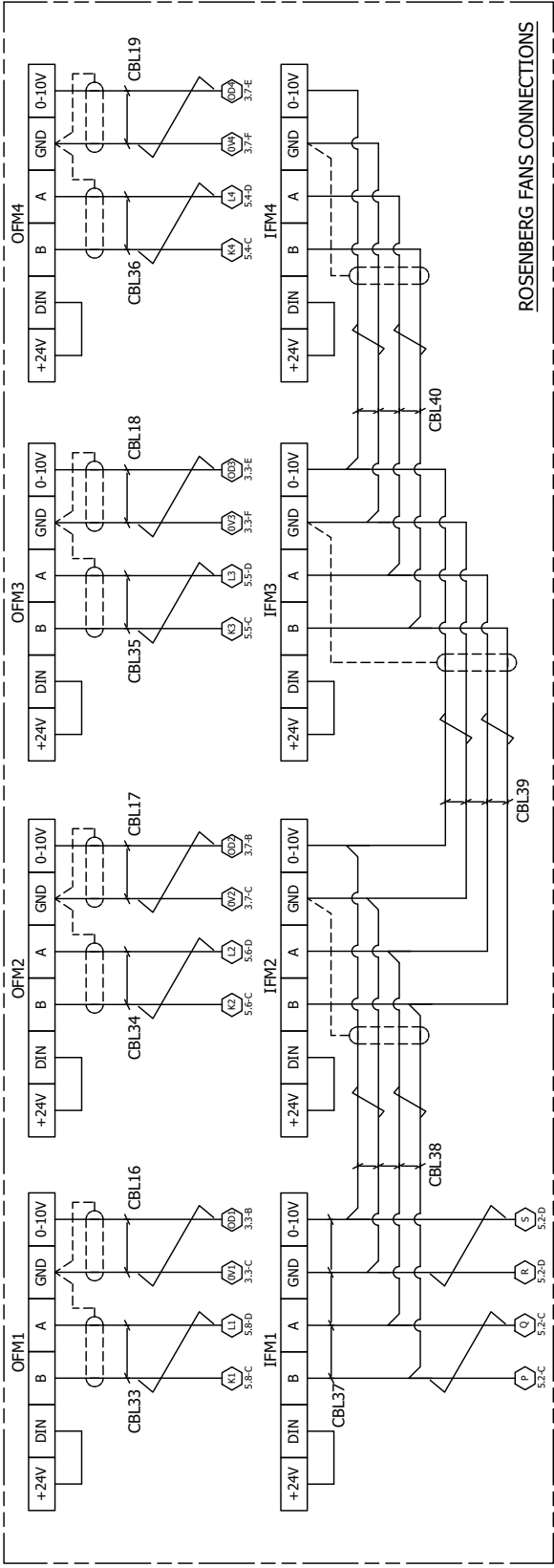
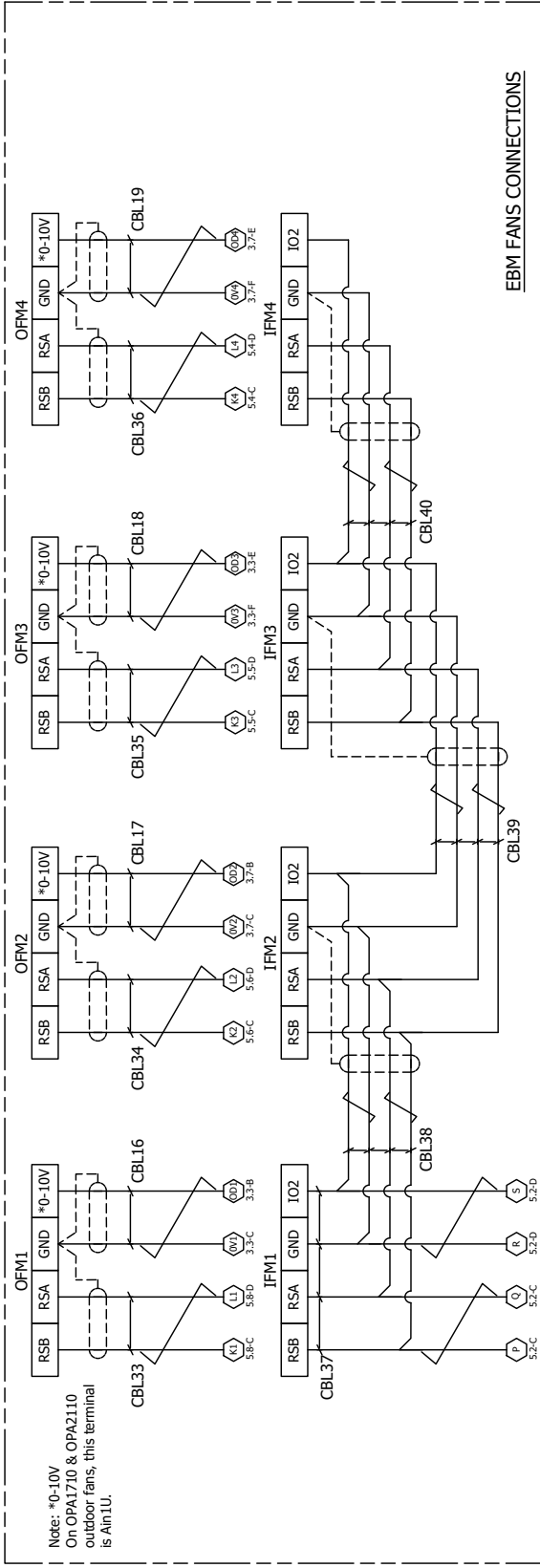
©temperzone Ltd 2022
 Title: OPA1410 / 1710 / 2110RLTM4FDPO-S1 R32 UC8
 Wiring Schematic




REV	C	Renamed circuit breakers. Revised and added note on ID fan connection to TB29 and TB36T. Added clarity to expansion module.	DATE	12-10-23	ECN	5116	APVD	LC
MODIFICATION			Title: OPA1410 / 1710 / 2110RLTM4FDPO-Q-S1 R32 UC8					
Client Wiring			Date: 22-05-20					
Client Wiring			Approved: <i>Pgu</i>					
©temperzone Ltd 2022			Drawing No: 291-003-281					
temperzone			SHEET 5 OF 8					
			Rev: C					

0 1 2 3 4 5 6 7 8 9

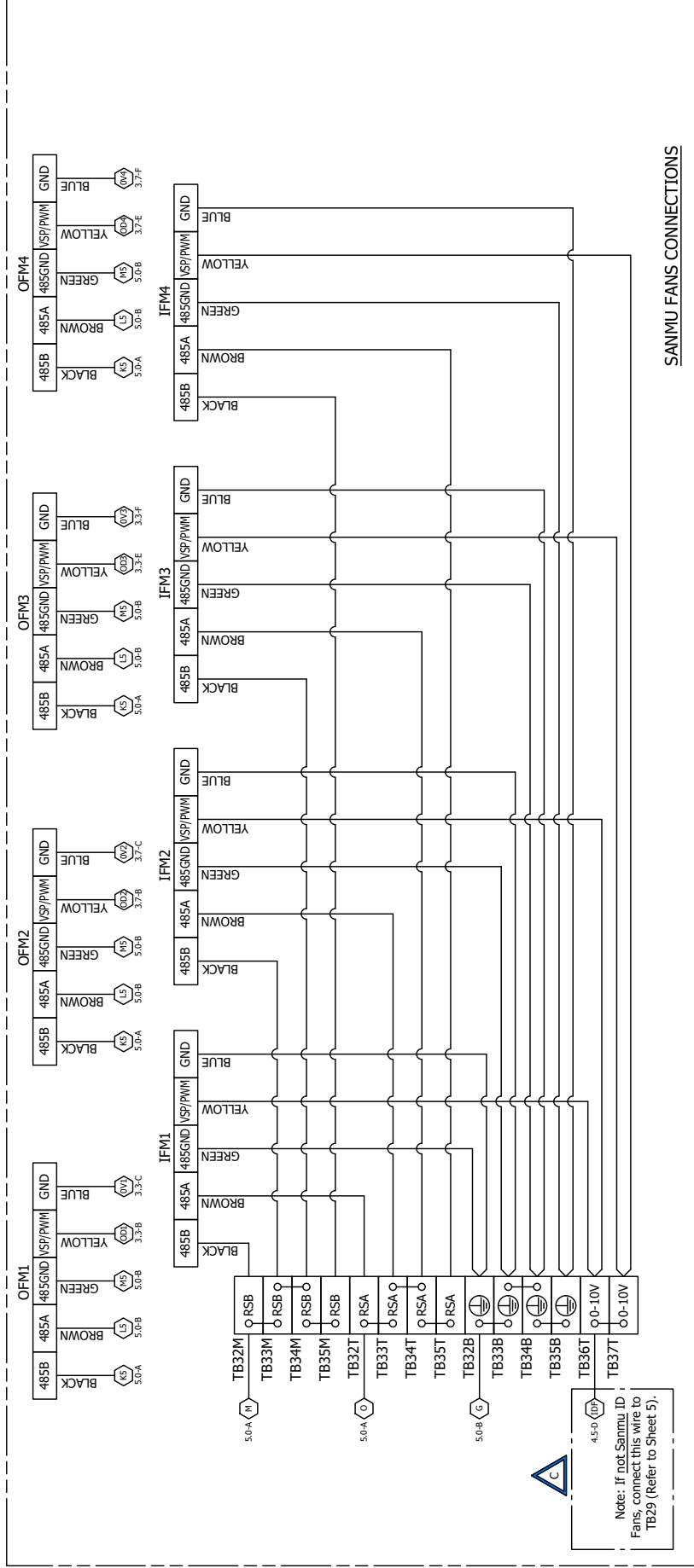
NOTE: THE FOLLOWING FANS CONNECTIONS APPLY, DEPENDING ON THE MAKE OF FANS INSTALLED IN THE UNIT.



REV	MODIFICATION			DATE	ECN	APVD
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©temperzone Ltd 2022				Drawn: LC	Date: 22-05-20	Title: OPA1410 / 1710 / 2110RLTM4FDPO-S1 R32 UC8
				Client Wiring		Wiring Schematic
				Approved: <i>Pgu</i>		Rev: C
						Drawing No: 291-003-281
						SHEET 6 OF 8

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.



SANIMU FANS CONNECTIONS

Note: If not Sanmu ID Fans, connect this wire to TB29 (Refer to Sheet 5).

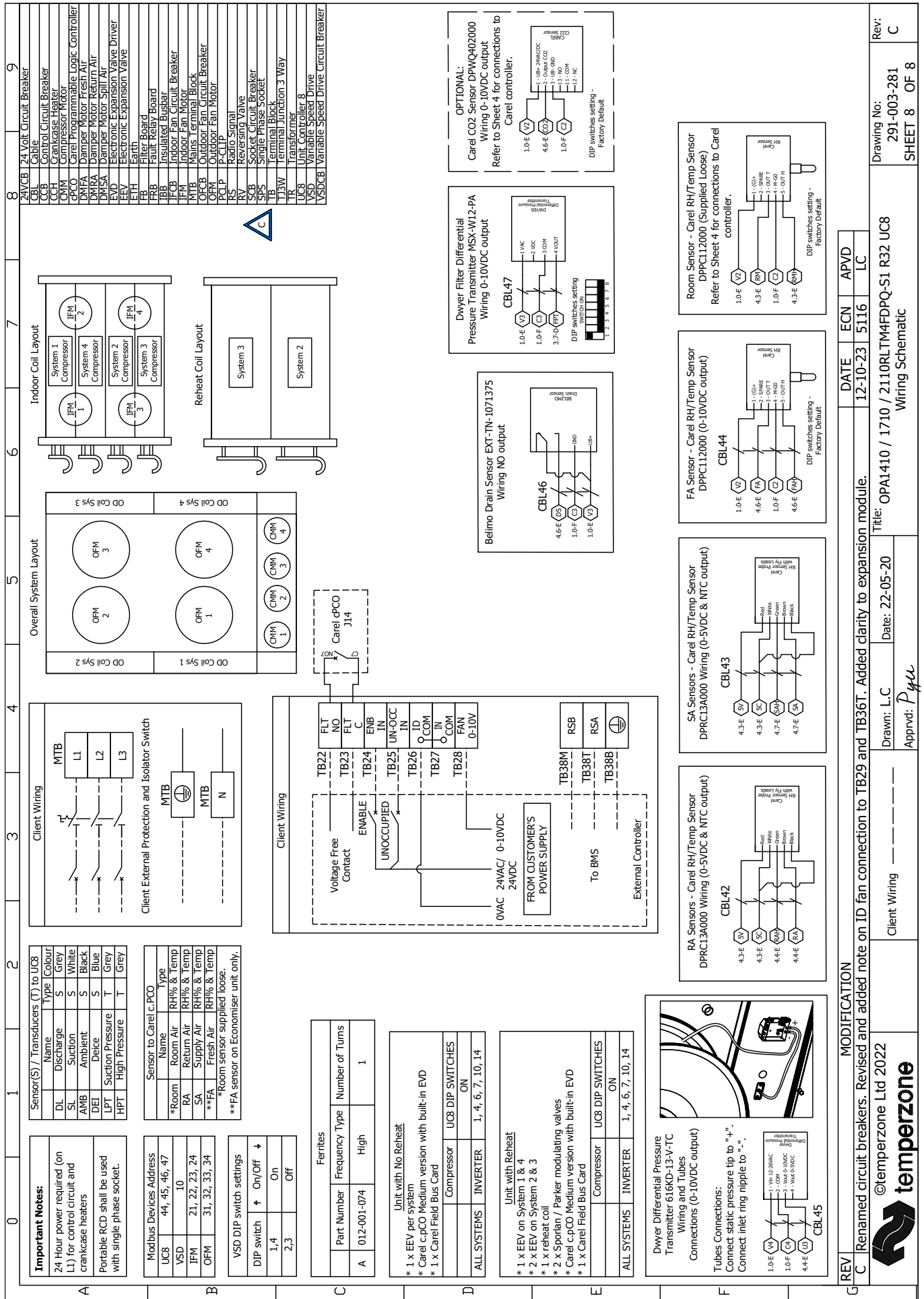
REV	MODIFICATION	DATE	ECN	APVD
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 Drawing No: 291-003-281
 SHEET 7 OF 8

Client Wiring
 Drawn: L.C
 Date: 22-05-20
 Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8
 Wiring Schematic

Approved: *Pgll*





Important Notes:

- 24 Hour power required (on LI) for control circuit and crankscale heaters
- Portable RCD shall be used with single phase socket.

Sensor(S) / Transducers (T) to UC8

Name	Type	Colour
DL Discharge	S	Grey
SL Suction	S	White
AMB Ambient	S	Black
DEF Defce	S	Blue
LPT Suction Pressure	T	Grey
HPT High Pressure	T	Grey

Sensor to Carel c.PCO

Name	Type
*Room Air	RRH% & Temp
RA Return Air	RRH% & Temp
SA Supply Air	RRH% & Temp
**FA Fresh Air	RRH% & Temp

**FA sensor supplied loose.

**Room sensor supplied loose.

Modbus Devices Address

UC8	Address
VSD	44, 45, 46, 47
VSD	10
IFM	21, 22, 23, 24
OFM	31, 32, 33, 34

VSD DIP switch settings

DIP switch	On/Off
1,4	On
2,3	Off

Ferrites

Part Number	Frequency	Type	Number of Turns
A 012-001-074	High		1

Unit with No Reheat

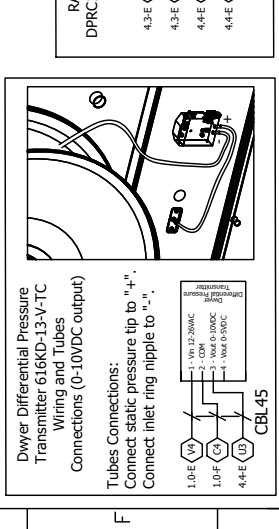
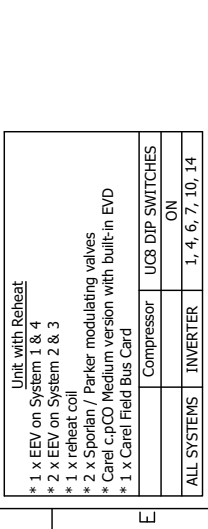
- * 1 x EEV per system
- * Carel c.PCO Medium version with built-in EVD
- * 1 x Carel Field Bus Card
- Compressor UC8 DIP SWITCHES ON

Unit with Reheat

- * 1 x EEV on System 1 & 4
- * 2 x EEV on System 2 & 3
- * 1 x reheat coil
- * 2 x Sporlan / Parker modulating valves
- * Carel c.PCO Medium version with built-in EVD
- * 1 x Carel Field Bus Card
- Compressor UC8 DIP SWITCHES ON

ALL SYSTEMS

System	Inverter	EEV	Compressor	UC8 DIP SWITCHES
1, 4, 6, 7, 10, 14	ON			



MODIFICATION

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C	12-10-23	5116	LC

Renamed circuit breakers. Revised and added note on ID fan connection to TB29 and TB36T. Added clarity to expansion module.

Client Wiring

Drawn: LC Date: 22-05-20

Approved: *Piyu*

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Drawing No: 291-003-281

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Rev: C