SPECIFICATIONS

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Model	**OPA 2110RLTM4FPQD(-Z)** Econex Pro
Configuration	Horizontal Supply Air
Item No. (Standard / Opposite Hand)	876-211-701 / 876-211-710
Unit c/w Economiser (Standard / Opposite Hand)	877-211-701 / 877-211-710
Configuration	Downward Supply Air
Item No. (Standard / Opposite Hand)	876-211-723 / 876-211-732
Unit c/w Economiser (Standard / Opposite Hand)	877-211-723 / 877-211-732
Cooling capacity (net) [1]	207 kW
Cooling capacity (gross) range	27 ~ 239 kW
Heating capacity [1]	203 kW
Heating capacity (gross) range	15 ~ 244 kW
Electrical input - cooling	67.3 kW
Electrical input - heating	57.4 kW
EER / AEER (cooling) [1]	3.07 / 3.06
COP / ACOP (heating) [1]	3.54 / 3.53
Operating Range (outdoor ambient) - cooling	–10°C ~ 50°C
Operating Range (outdoor ambient) - heating	–10°C ~ 25°C
Master Controller	*c.pCO*
Slave Controllers	UC8 (x4)
Refrigerant	R32
Refrigerant Charge	9.8 kg/sys.
Minimum floor area (@5m below ceiling diffuser)	11.8 m^2/sys.
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.	22 A/ph. (x4)
Compressor circuit breaker	32 A (x4)
Indoor fan motor size	EC Plug 3.5kW (x4)
Nominal air flow at rating conditions	11 000 l/s
Indoor fan motor (3ph.) - full load	9.1 A/ph. (x4)
Outdoor fan motor (3ph.) - full load	4.7 A/ph. (x4)
Outdoor fan motor – max. ext. static pressure available	120 Pa (@20,600 l/s)
Control circuit breaker (internal)	4 A
Auxilary power outlet (1ph.) overload setting	10 A
Running amps (total system)	108 / 101 / 111 A
Max. running amps (total system)	158 / 153 / 159 A
RCD type recommended	type B, 30mA, 3 pole
Net weight	2 577 kg
Shipping weight (excl. cowl)	2,636 kg
Net weight (c/w Economiser)	2 667 kg

Accessories:

Remote wired Service Interface Display (*pGDN1*)	201-000-867
Filters - rated EU4/G4 disposable	019-400-004 500x500x50 (x12) 019-400-005 500x600x50 (x4) [3]
Filters - rated EU4/G4 washable (NZ only)	019-000-004 500x500x50 (x12) 019-000-005 500x600x50 (x4) [3]

[1] Tested in accordance with AS/NZS 3823

22007

[2] Voltage range: 380 – 440 V

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

econex
nex gen R32 inverter

DIMENSIONS (mm)

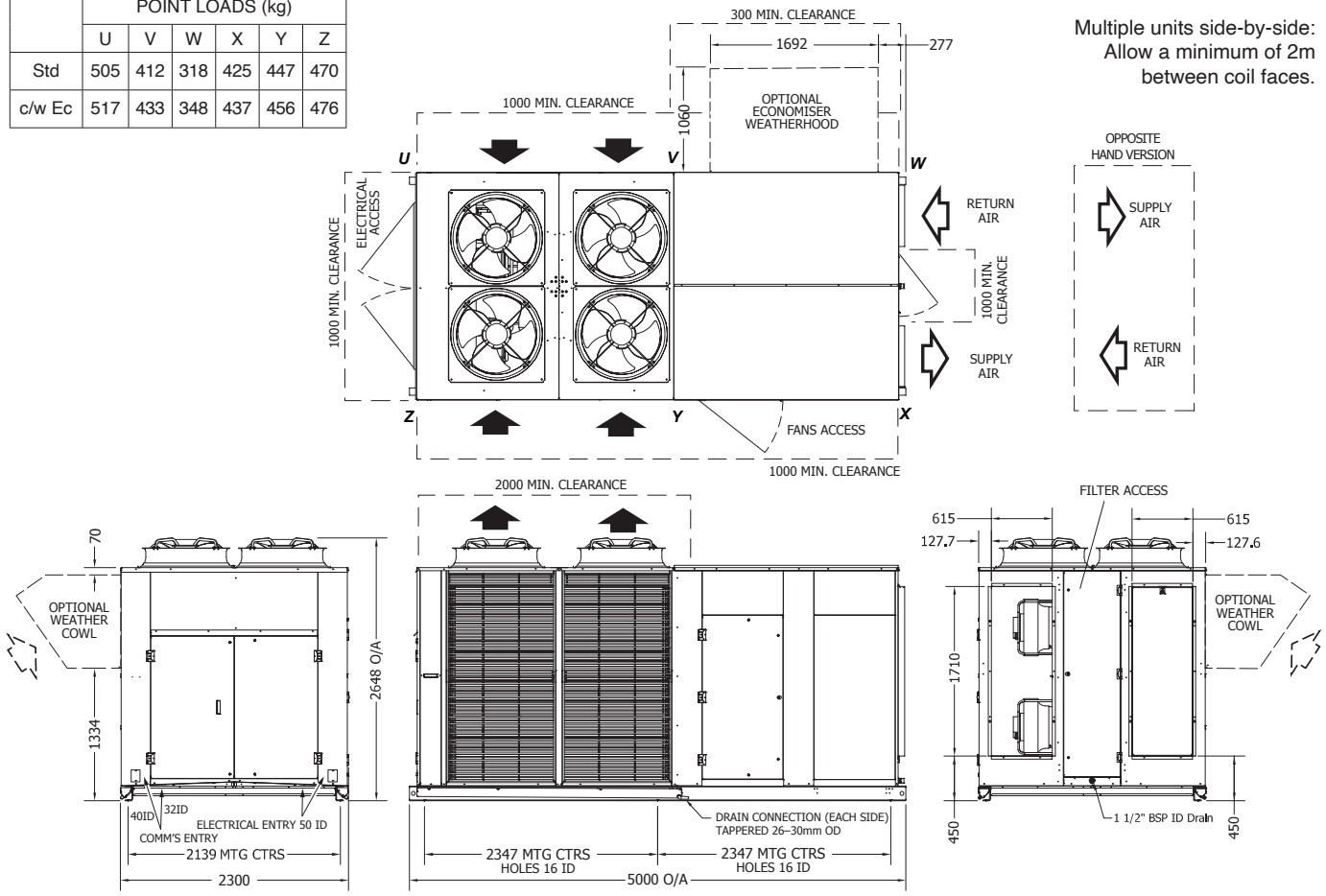
PROJECTION

Not to Scale

OPA 2110RLTMFPQD01(-Z) Horizontal Supply, Standard Hand

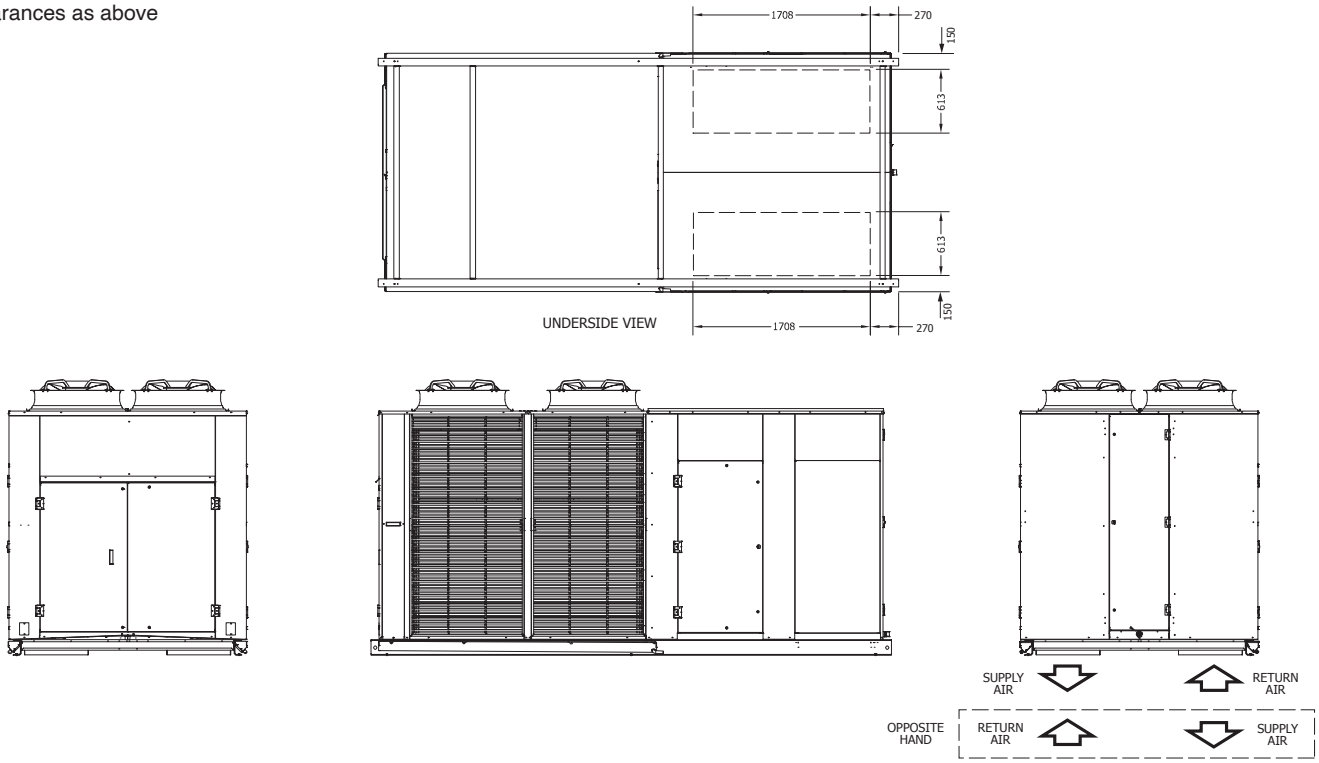
	POINT LOADS (kg)					
	U	V	W	X	Y	Z
Std	505	412	318	425	447	470
c/w Ec	517	433	348	437	456	476

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



OPA 2110RLTMFPQD23(-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.

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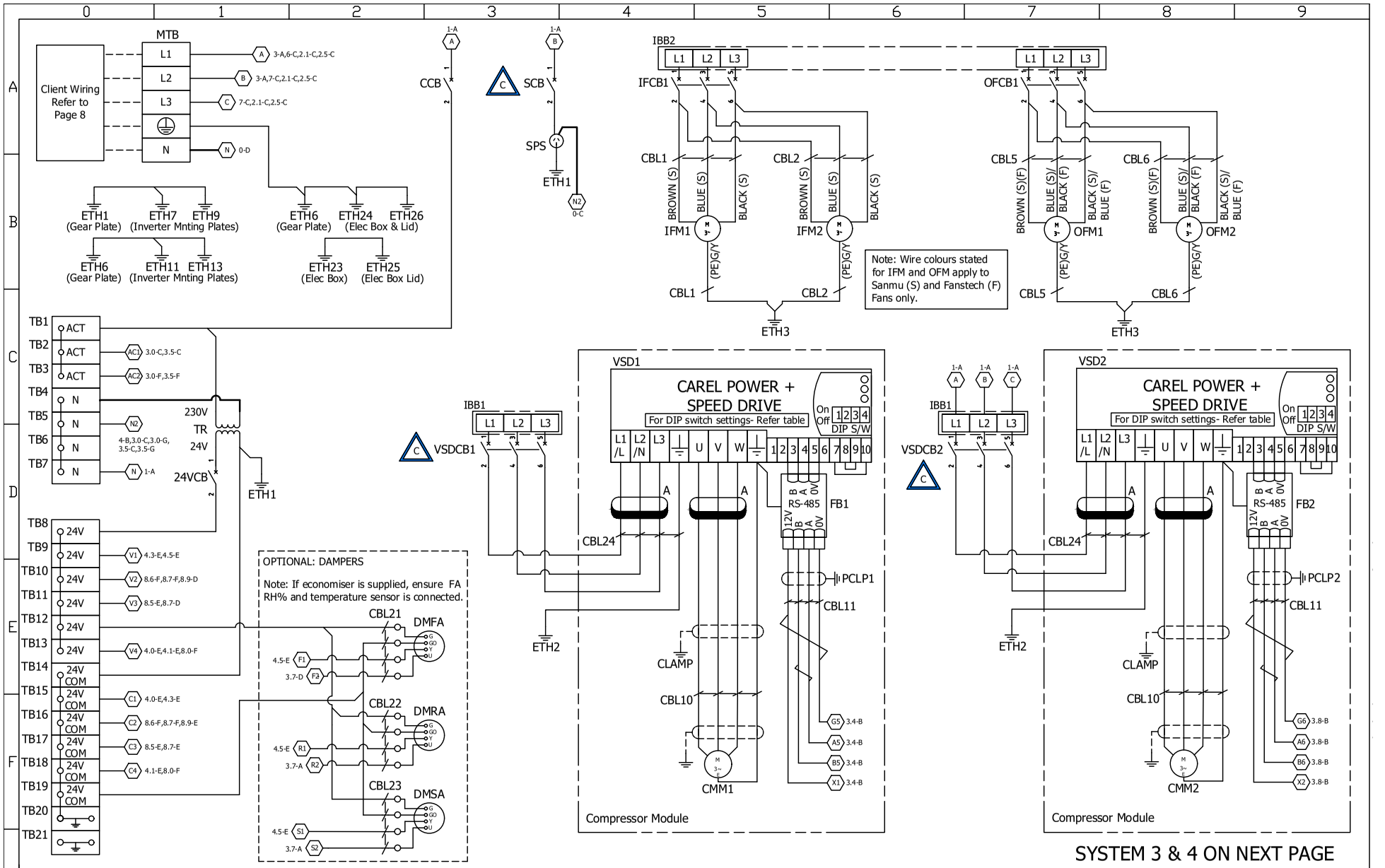

REV	MODIFICATION	DATE	ECN	APVD
C	Renamed circuit breakers. Revised and added note on ID fan connection to TB29 and TB36T. Added clarity to expansion module.	12-10-23	5116	LC

Technical information *Refer Page 8

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Client Wiring

Drawn: L.C

Date: 22-05-20

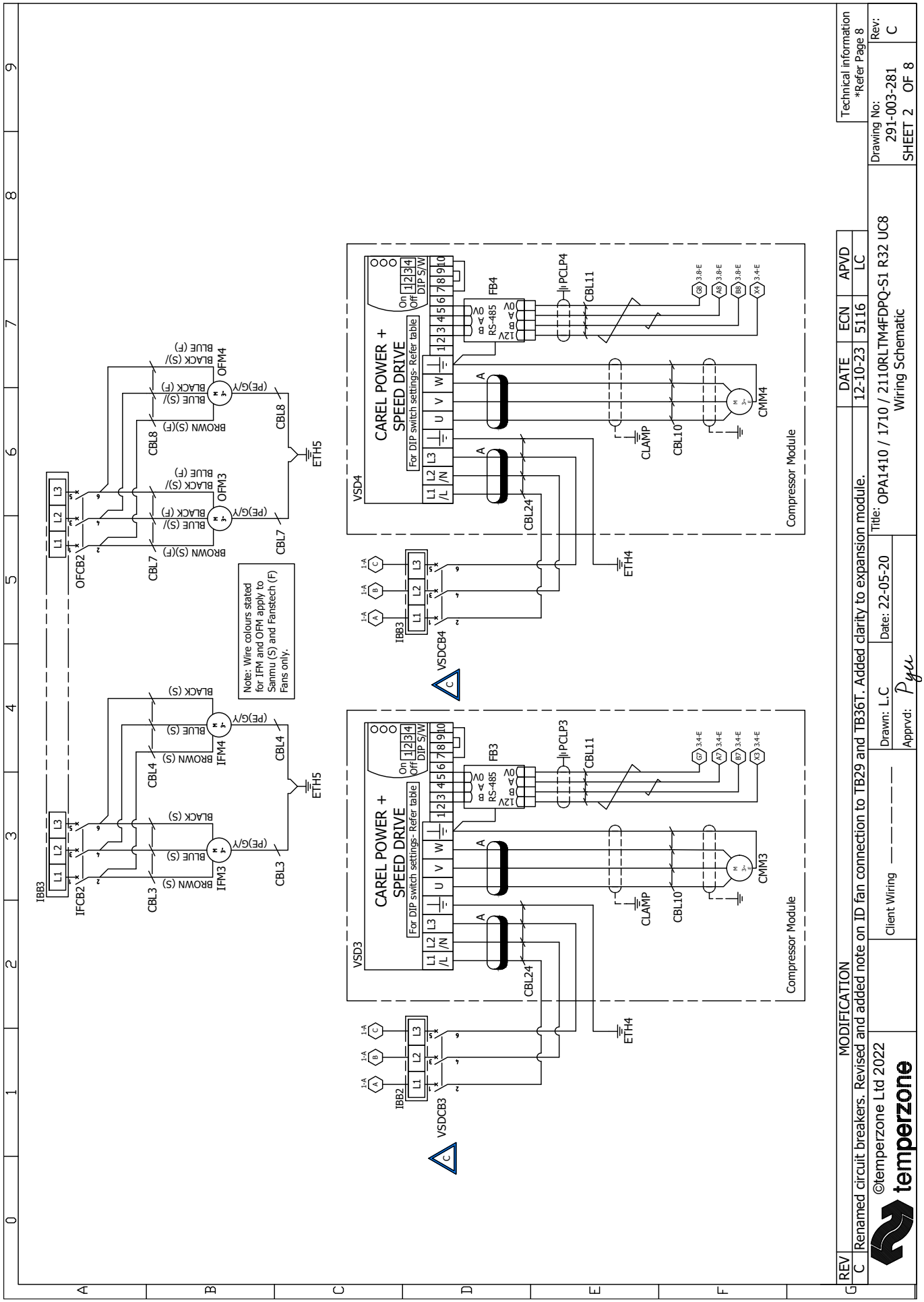
Apprvd: Pyu

Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8 Wiring Schematic

Drawing No: 291-003-281

SHEET 1 OF 8

Rev: C


CAREL POWER + SPEED DRIVE
For DIP switch settings- Refer table
DIP S/W
RS-485
Compressor Module
VSD3
VSD4
FB3
FB4
PCLP3
PCLP4
CBL11
CBL10
CBL24
CLAMP
CMM3
CMM4
IBB2
IBB3
VSDCB3
VSDCB4
ETH4
IFM3
IFM4
OFM3
OFM4
IFCB2
OFCB2
CBL3
CBL4
CBL7
CBL8
ETH5
BROWN (S)
BLUE (S)
BLACK (S)
BROWN (S)(F)
BLUE (S)/
BLACK (F)
BLUE (F)
(PE)G/Y
Note: Wire colours stated for IFM and OFM apply to Sanmu (S) and Fanstech (F) Fans only.
REV
MODIFICATION
DATE
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APVD
C
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12-10-23
5116
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Technical information
*Refer Page 8
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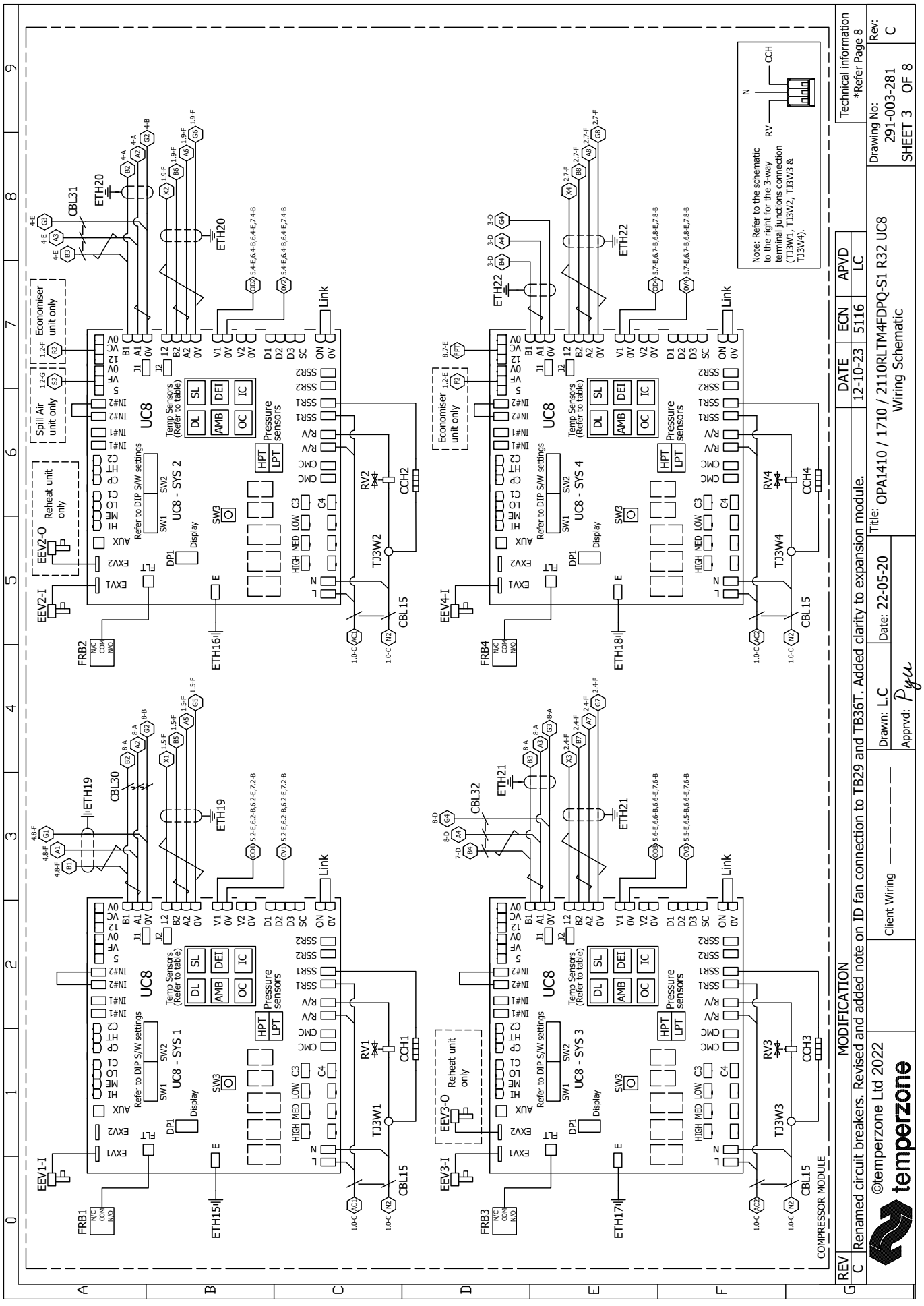
Client Wiring
Drawn: L.C
Date: 22-05-20
Apprvd:
Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8
Wiring Schematic
Drawing No: 291-003-281
SHEET 2 OF 8
Rev: C


UC8
UC8 - SYS 1
UC8 - SYS 2
UC8 - SYS 3
UC8 - SYS 4
Refer to DIP S/W settings
Temp Sensors (Refer to table)
Pressure sensors
Reheat unit only
Economiser unit only
Spill Air unit only
Display
Link
Note: Refer to the schematic to the right for the 3-way terminal junctions connection (TJ3W1, TJ3W2, TJ3W3 & TJ3W4).
COMPRESSOR MODULE
REV
MODIFICATION
DATE
ECN
APVD
C
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12-10-23
5116
LC
Technical information *Refer Page 8
Drawing No: 291-003-281
Rev: C
SHEET 3 OF 8
Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8 Wiring Schematic
Drawn: L.C
Date: 22-05-20
Apprvd: Pyu
Client Wiring
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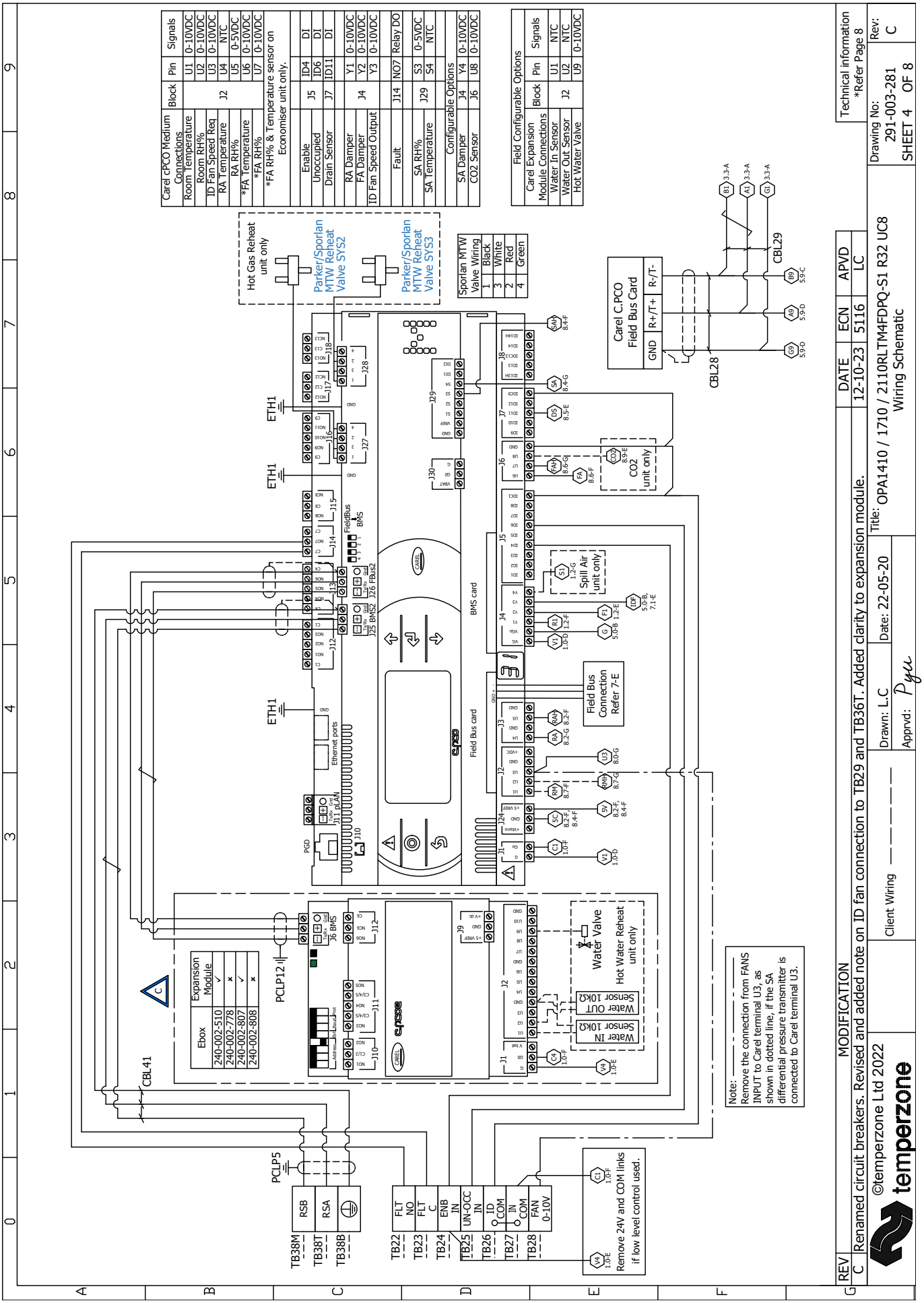
Carel cPCO Medium Connections
Block
Pin
Signals
Room Temperature
Room RH%
ID Fan Speed Req
RA Temperature
RA RH%
*FA Temperature
*FA RH%
*FA RH% & Temperature sensor on Economiser unit only.
J2
U1 0-10VDC
U2 0-10VDC
U3 0-10VDC
U4 NTC
U5 0-5VDC
U6 0-10VDC
U7 0-10VDC
Enable
Unoccupied
Drain Sensor
J5
J7
ID4 DI
ID6 DI
ID11 DI
RA Damper
FA Damper
ID Fan Speed Output
J4
Y1 0-10VDC
Y2 0-10VDC
Y3 0-10VDC
Fault
J14
NO7 Relay DO
SA RH%
SA Temperature
J29
S3 0-5VDC
S4 NTC
Configurable Options
SA Damper
CO2 Sensor
J4
J6
U8 0-10VDC
Field Configurable Options
Carel Expansion Module Connections
Water In Sensor
Water Out Sensor
Hot Water Valve
Block
J2
Pin
U1
U2
U9
Signals
NTC
NTC
0-10VDC
Hot Gas Reheat unit only
Parker/Sporlan MTW Reheat Valve SYS2
Parker/Sporlan MTW Reheat Valve SYS3
Sporlan MTW Valve Wiring
1 Black
3 White
2 Red
4 Green
Carel C.PCO Field Bus Card
GND
R+/T+
R-/T-
CBL28
CBL29
B1 3.3-A
A1 3.3-A
G1 3.3-A
B9 5.9-C
A9 5.9-D
G9 5.9-D
Ebox Expansion Module
240-002-510 ✓
240-002-778 ×
240-002-807 ✓
240-002-808 ×
PCLP12
CBL41
PCLP5
TB38M RSB
TB38T RSA
TB38B
TB22 FLT NO
TB23 FLT C
TB24 ENB IN
TB25 UN-OCC IN
TB26 ID COM
TB27 IN COM
TB28 FAN 0-10V
Remove 24V and COM links if low level control used.
Water Valve
Hot Water Reheat unit only
Water IN Sensor 10K2
Water OUT Sensor 10K2
Spill Air unit only
CO2 unit only
Field Bus Connection Refer 7-E
Field Bus card
BMS card
Ethernet ports
FieldBus
BMS
FBus2
ETH1
PGD
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.
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
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Technical information *Refer Page 8
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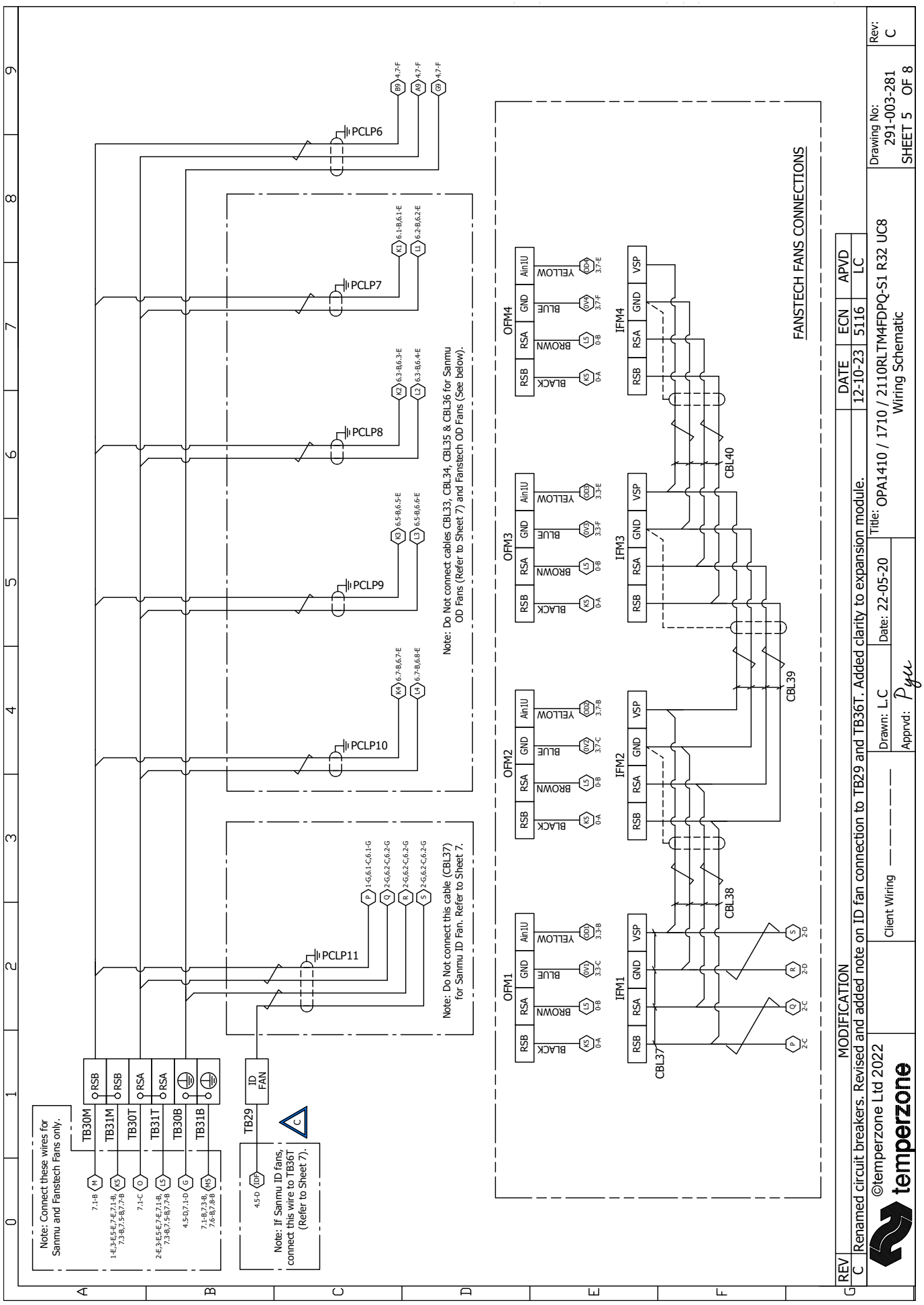
Client Wiring
Drawn: L.C
Date: 22-05-20
Apprvd:
Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8 Wiring Schematic
Drawing No: 291-003-281
Rev: C
SHEET 4 OF 8


FANSTECH FANS CONNECTIONS
Note: Connect these wires for Sanmu and Fanstech Fans only.
Note: If Sanmu ID fans, connect this wire to TB36T (Refer to Sheet 7).
Note: Do Not connect this cable (CBL37) for Sanmu ID Fan. Refer to Sheet 7.
Note: Do Not connect cables CBL33, CBL34, CBL35 & CBL36 for Sanmu OD Fans (Refer to Sheet 7) and Fanstech OD Fans (See below).
TB30M
TB31M
TB30T
TB31T
TB30B
TB31B
TB29
ID FAN
PCLP6
PCLP7
PCLP8
PCLP9
PCLP10
PCLP11
OFM1
OFM2
OFM3
OFM4
IFM1
IFM2
IFM3
IFM4
RSB
RSA
GND
Ain1U
VSP
BLACK
BROWN
BLUE
YELLOW
CBL37
CBL38
CBL39
CBL40
REV
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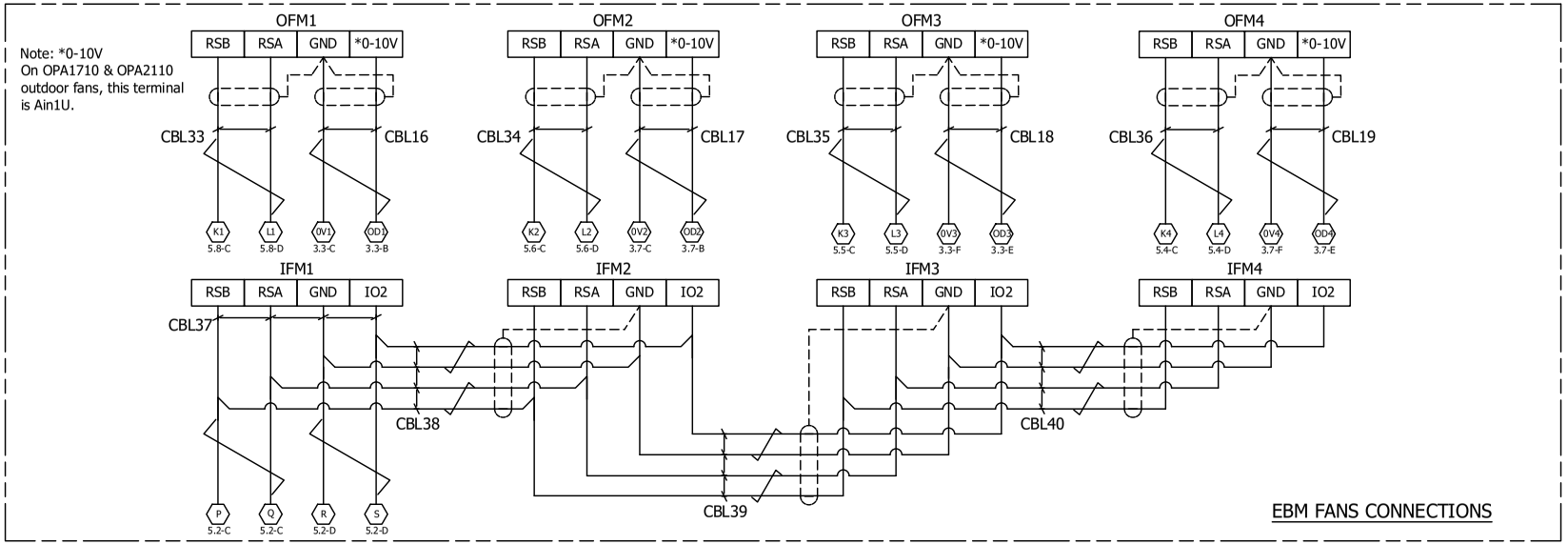
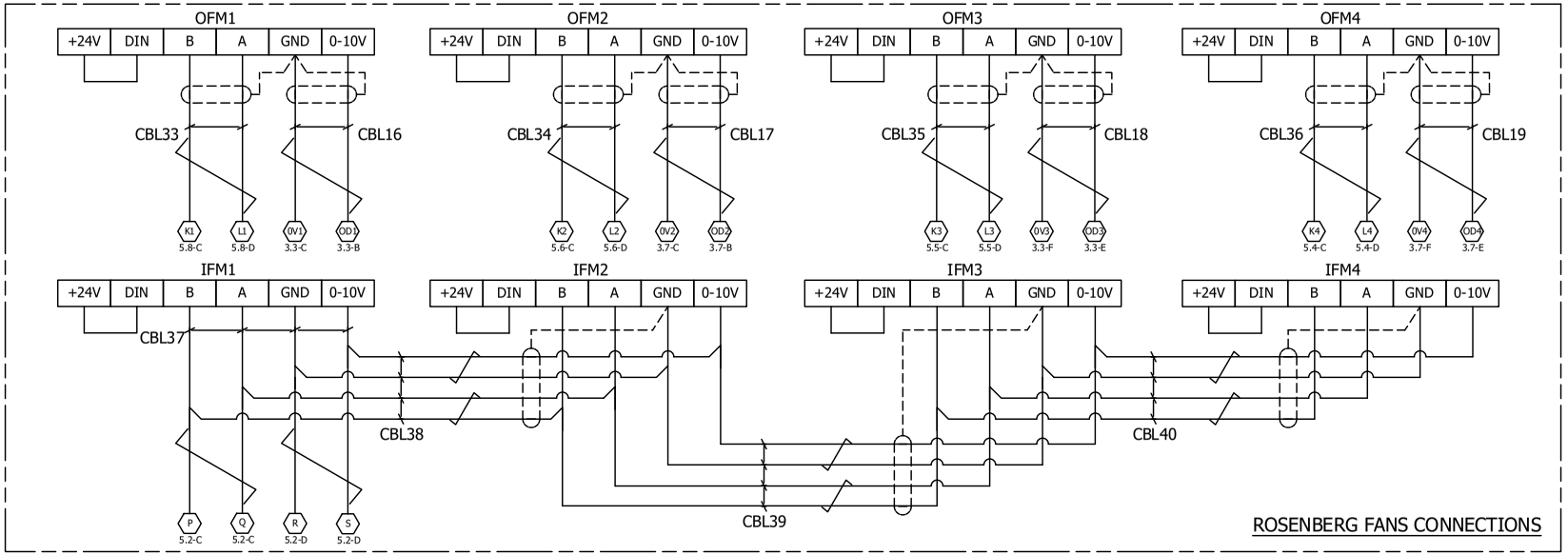
Client Wiring
Drawn: L.C
Date: 22-05-20
Apprvd: Pyu
Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8
Wiring Schematic
Drawing No: 291-003-281
SHEET 5 OF 8
Rev: C

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





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Client Wiring

Drawn: L.C

Date: 22-05-20

Apprvd: Pyu

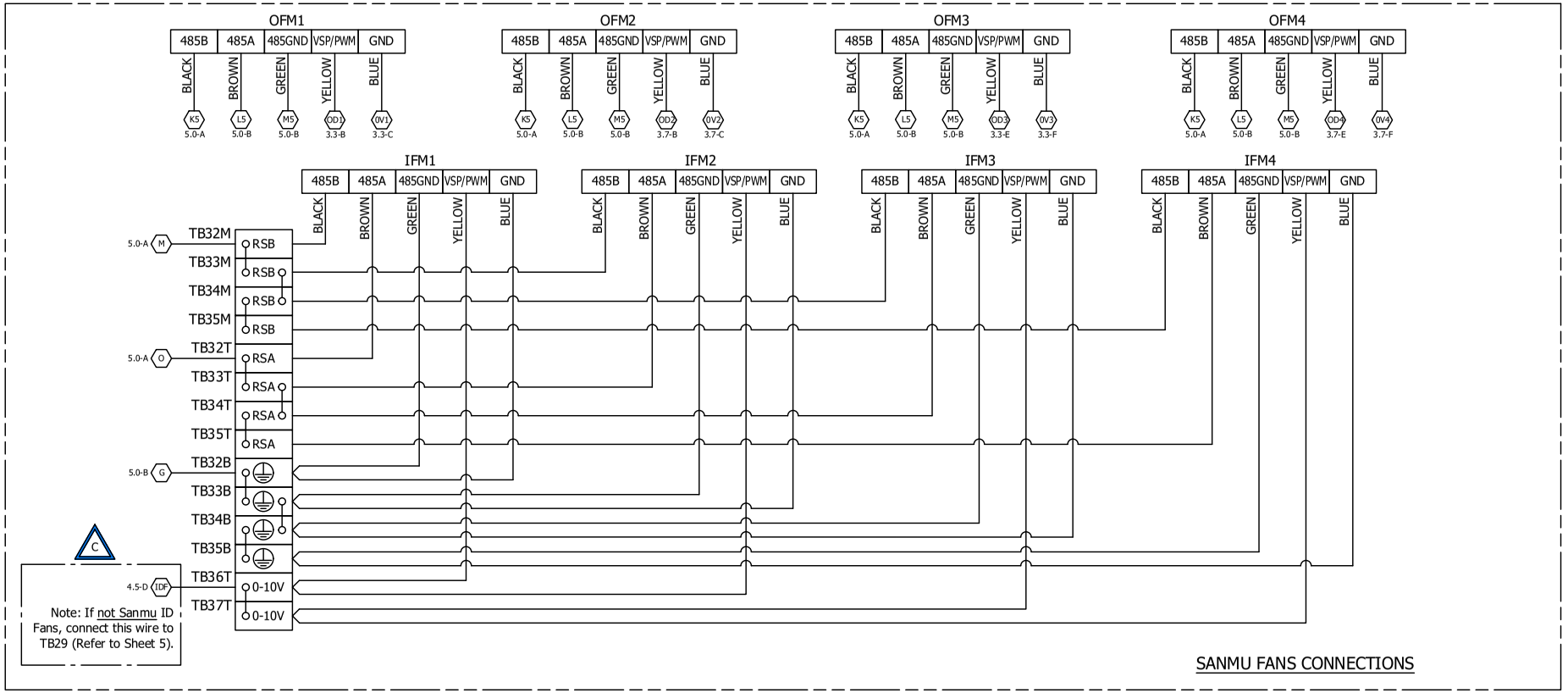
Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8 Wiring Schematic

Drawing No: 291-003-281

SHEET 6 OF 8

Rev: C

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



SANMU FANS CONNECTIONS

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

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Client Wiring

Drawn: L.C Date: 22-05-20

Apprvd: Pyu

Title: OPA1410 / 1710 / 2110RLTM4FDPQ-S1 R32 UC8 Wiring Schematic

Drawing No: 291-003-281

Rev: C