

Model	OPA 1410RLTM1FPQ(-Z) Econex
Configuration	Horizontal Supply Air
Item No. (Standard / Opposite Hand)	866-141-701 / 866-141-710
Unit c/w Economiser (Standard / Opposite Hand)	867-141-701 / 867-141-710
Configuration	Downward Supply Air
Item No. (Standard / Opposite Hand)	866-141-723 / 866-141-732
Unit c/w Economiser (Standard / Opposite Hand)	867-141-723 / 867-141-732
Cooling capacity (net) ¹	140.2 kW
Cooling capacity (gross) range	11.9 ~ 145.7 kW
Heating capacity ¹	142.1 kW
Heating capacity (gross) range	12.9 ~ 142.1 kW
Electrical input - cooling	46.0 kW
Electrical input - heating	39.6 kW
EER / AEER (cooling) ¹	3.05 / 3.04
COP / ACOP (heating) ¹	3.59 / 3.58
Operating Range (outdoor ambient) - cooling	-10°C ~ 50°C
Operating Range (outdoor ambient) - heating	-10°C ~ 25°C
Unit Controller	UC8 (x4)
Refrigerant	R32
Refrigerant Charge.(inv./fixed)	7.1/6.6 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 (x1) + fixed scroll (x3)
Power supply ²	3 ph. 400V ac 50Hz + N + E
Compressor (3ph.) run amps at rating cond.(inv./fixed)	15.5 A/ph.(x1) / 15 A/ph.(x3)
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)	75 A/ph.
Max. running amps (total system)	119 A/ph.
RCD type recommended	type B, 30mA, 3 pole
Net weight (excl. cowl)	2064 kg
Shipping weight (excl. cowl)	2124 kg
Net weight (c/w Economiser)	2154 kg

Accessories:

TZT-100 Room temperature controller ⁴	201-000-792
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)

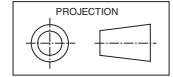
¹ Tested in accordance with AS/NZS 3823

² Voltage range: 376–440V

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

⁴ Not suitable for controlling Economiser dampers (-Z model)

DIMENSIONS (mm)

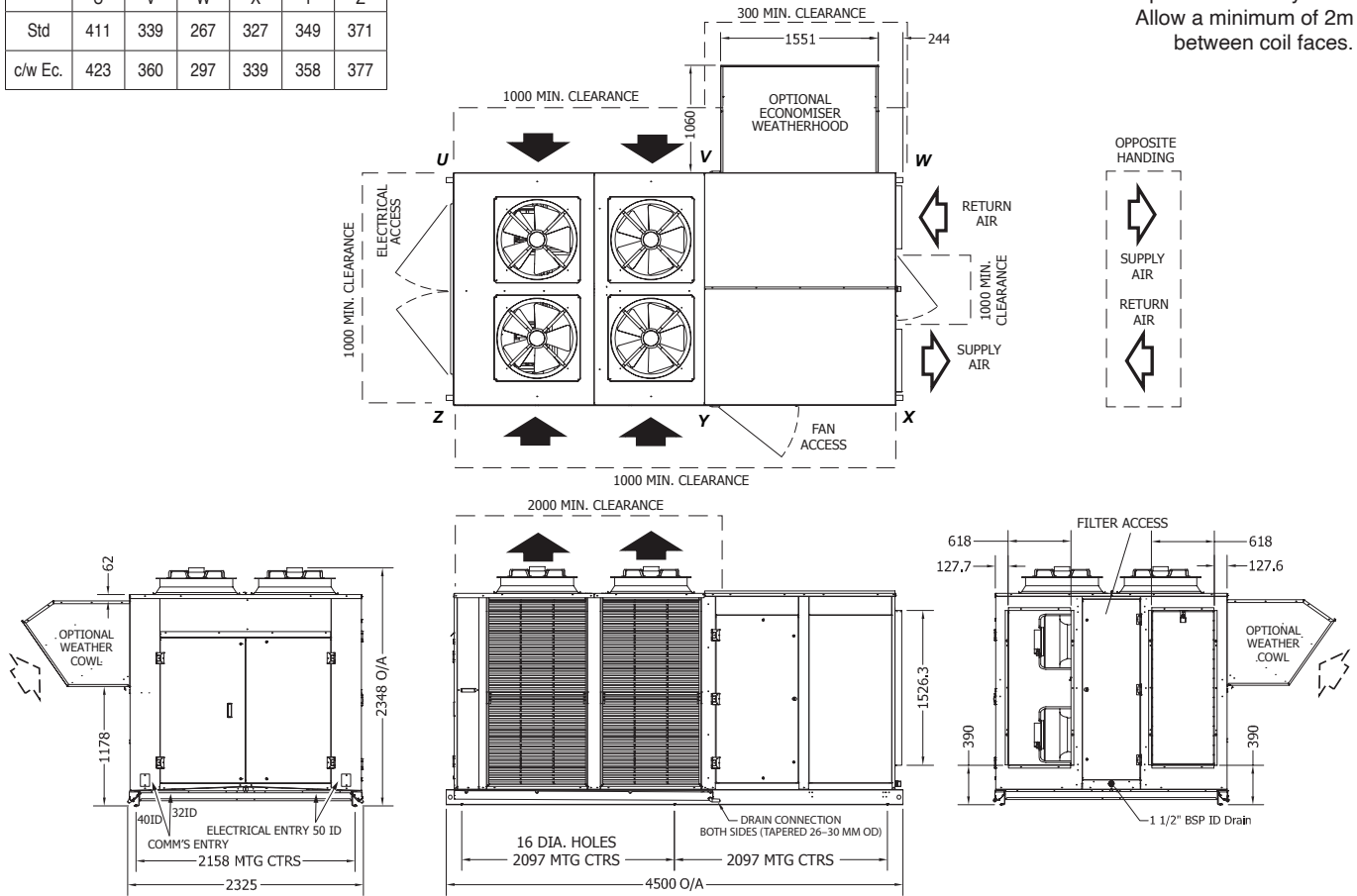


OPA 1410RLTM1FPQ01(-Z) Horizontal Supply / Standard Hand

Not to Scale

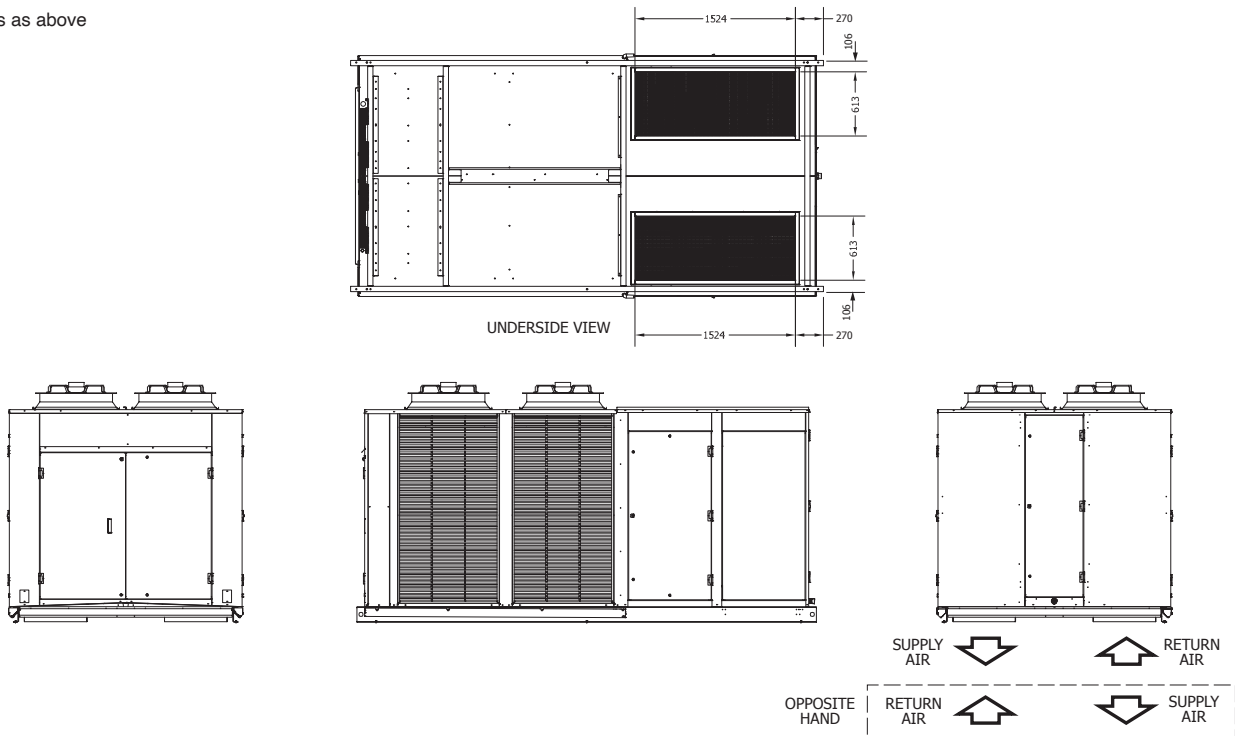
Multiple units side-by-side:
Allow a minimum of 2m
between coil faces.

	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 1410RLTM1FPQD23(-Z) Downward Supply / Standard Hand

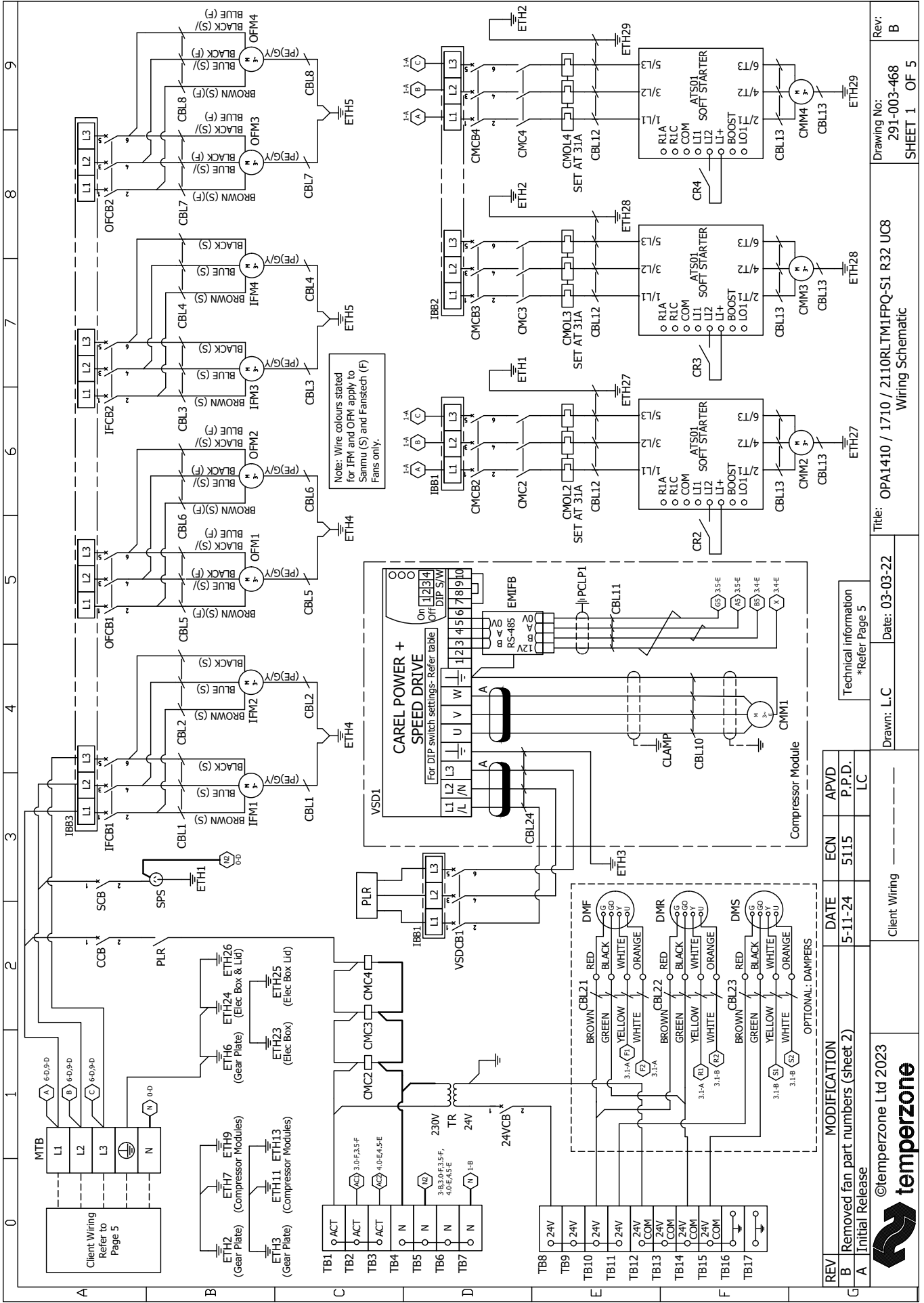
Clearances as above



NOTE

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

WIRING (1)



Note: Wire colours stated for IFM and OFM apply to Sanmu (S) and Fanstech (F) Fans only.

REV	MODIFICATION	DATE	ECN	APVD
B	Removed fan part numbers (sheet 2)	5-11-24	5115	P.P.D.
A	Initial Release			LC

Client Wiring	Client Wiring
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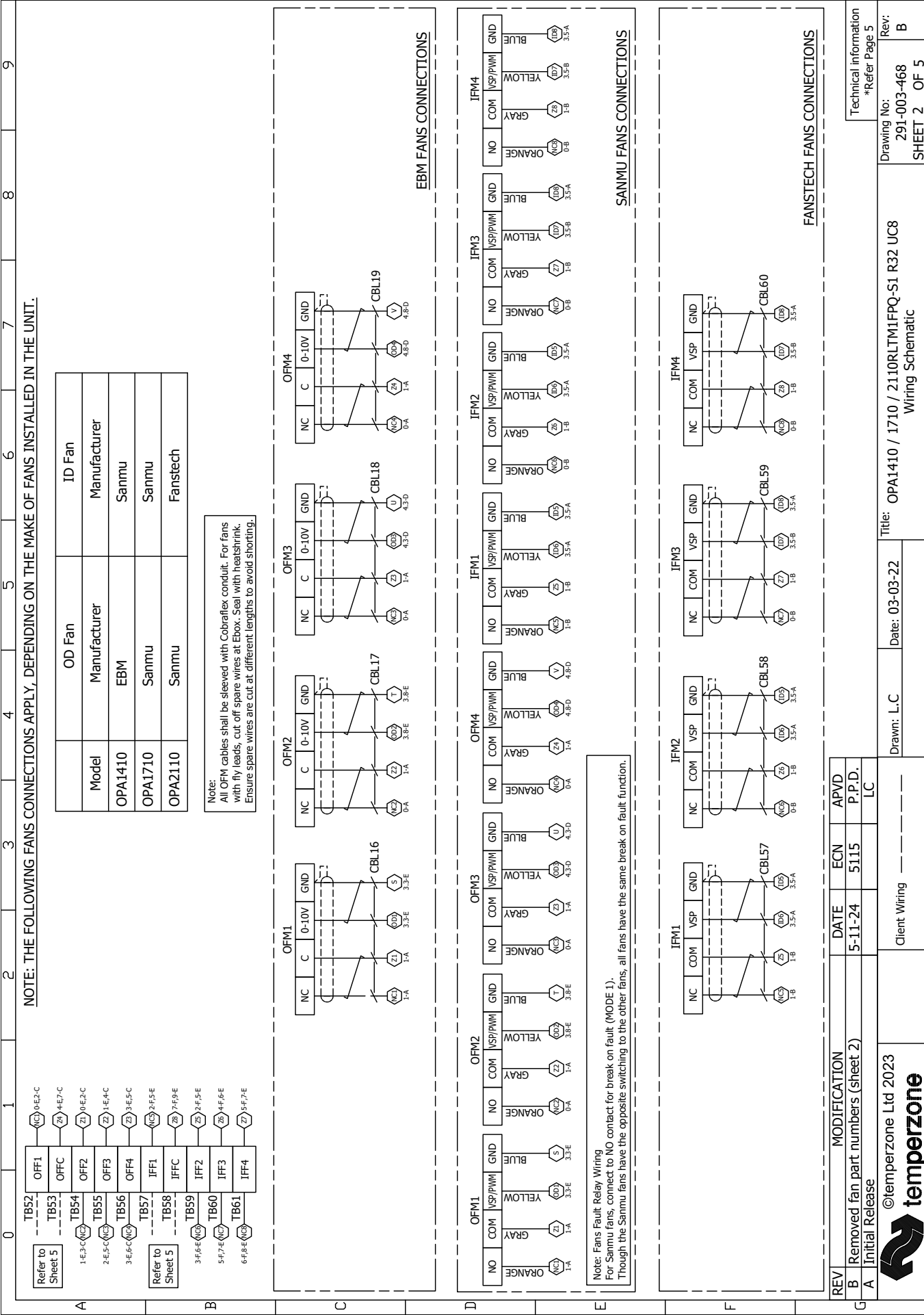
Technical information	Date: 03-03-22
*Refer Page 5	

Drawn: L.C	Date: 03-03-22
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Title: OPA1410 / 1710 / 2110RLTM1FPQ-S1 R32 UC8	Wiring Schematic
Drawing No: 291-003-468	Rev: B
SHEET 1	OF 5



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Client Wiring

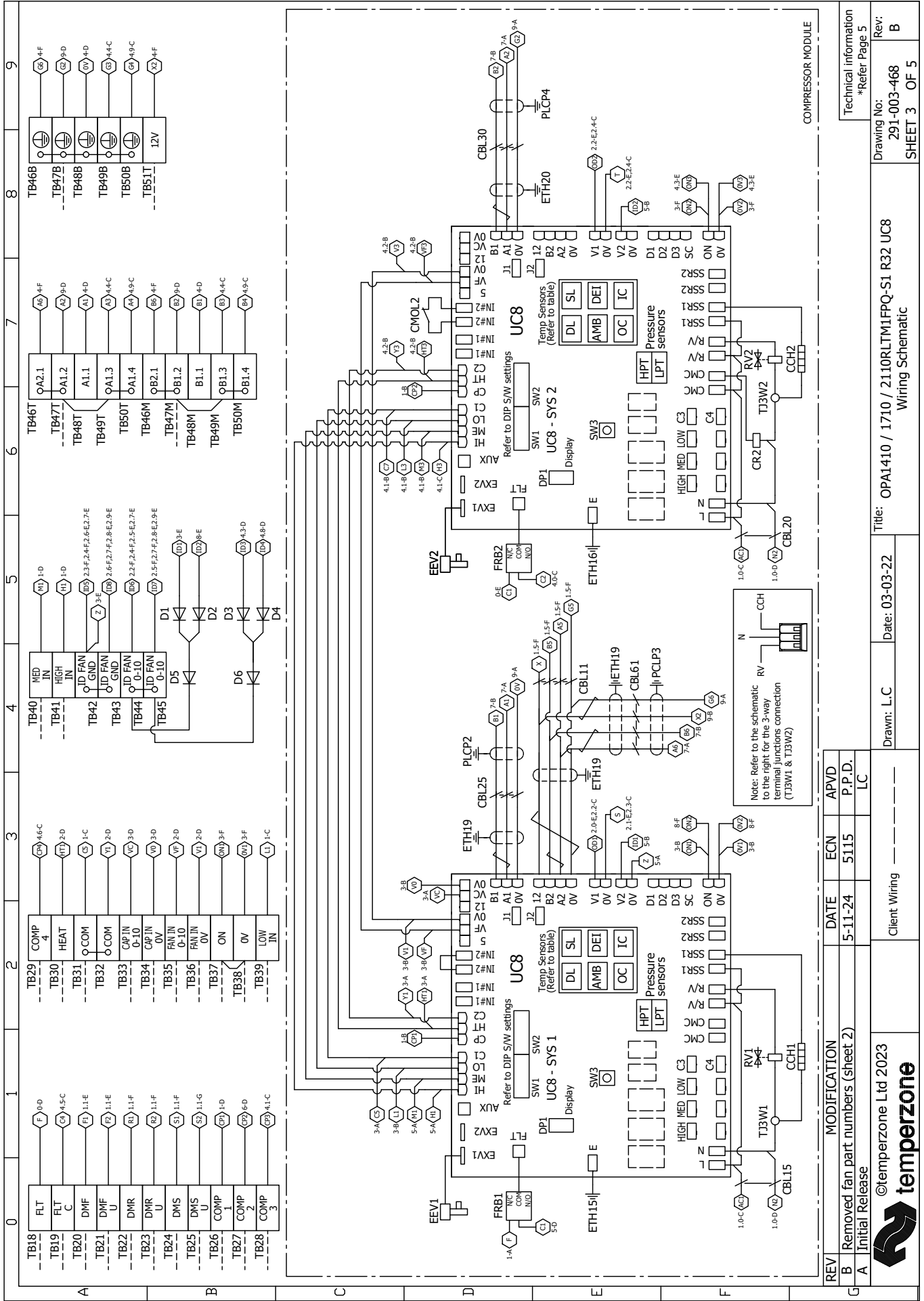
Drawn: L.C

Date: 03-03-22

Title: OPA1410 / 1710 / 2110RLTM1FPQ-S1 R32 UC8
 Wiring Schematic

Technical information
 *Refer Page 5

WIRING (3)



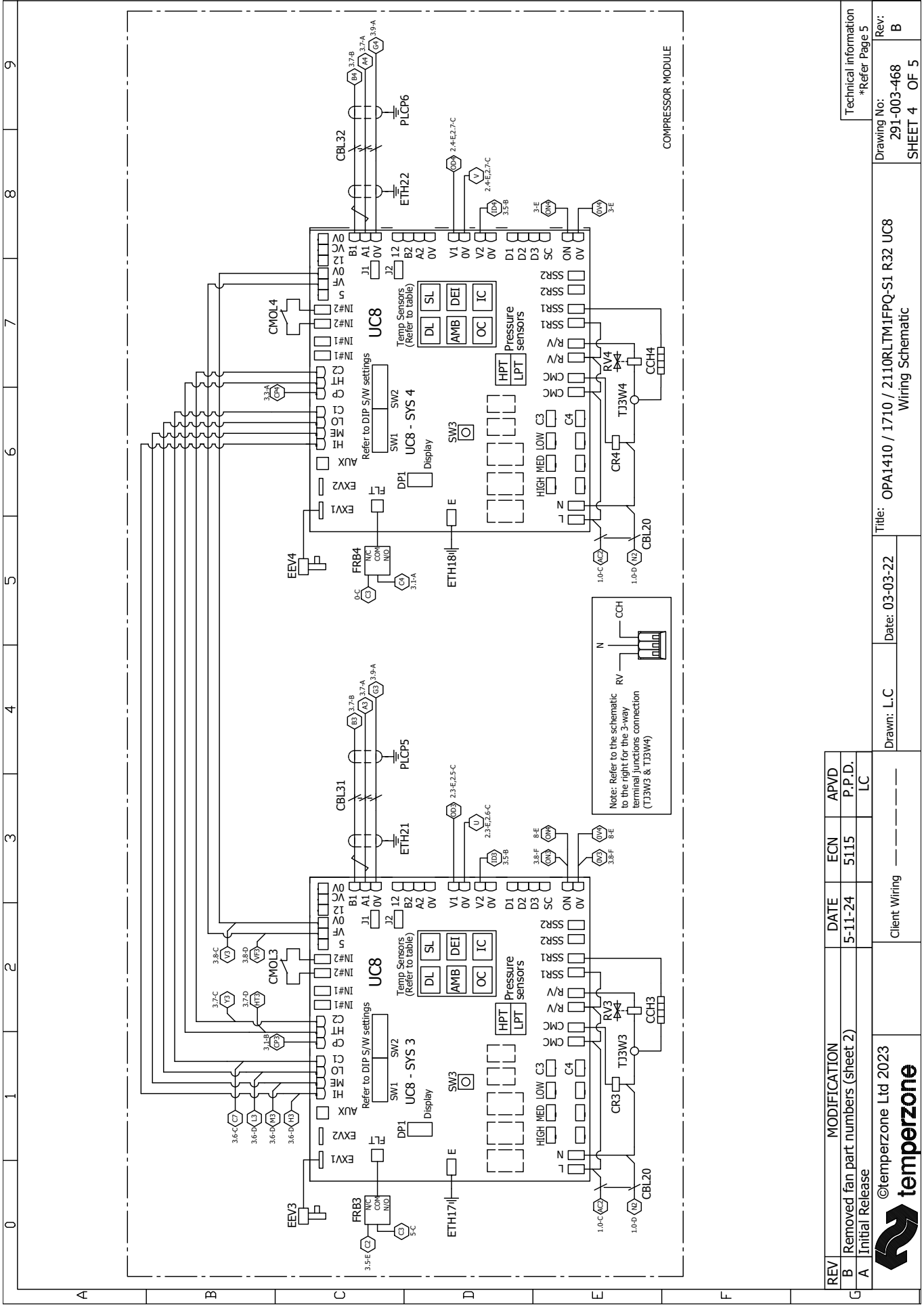
REV	MODIFICATION	DATE	ECN	APVD
B	Removed fan part numbers (Sheet 2)	5-11-24	5115	P.P.D.
A	Initial Release			LC

Title: OPA1410 / 1710 / 2110RLTMIFFQ-S1 R32 UC8 Wiring Schematic		Drawing No: 291-003-468 SHEET 3 OF 5	Rev: B
Drawn: L.C	Date: 03-03-22	Technical Information *Refer Page 5	



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Client Wiring



REV	MODIFICATION	DATE	ECN	APVD
B	Removed fan part numbers (sheet 2)	5-11-24	5115	P.P.D.
A	Initial Release			LC

Client Wiring -----



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Drawn: L.C Date: 03-03-22

Title: OPA1410 / 1710 / 2110RLTM1FPQ-S1 R32 UC8
Wiring Schematic

Technical information
*Refer Page 5
Drawing No: 291-003-468
Rev: B
SHEET 4 OF 5

0123456789

Important Notes:

- 24 Hour power required (on L1) for control circuit and crankcase heaters
- Portable RCD shall be used with single phase socket.
- Phase Loss Relay
 - PWR (Green) Indicator lits when power is being supplied.
 - RY (Yellow) Indicator lits when relay is operating.

COMPRESSOR UC8 DIP SWITCHES

System	Inverter	Fixed Capacity	UC8 DIP Switches
SYS 1	INVERTER	1, 4, 6, 7, 10, 14	ON
SYS 2	FIXED CAPACITY	1, 4, 6, 7, 10, 11, 14	
SYS 3	FIXED CAPACITY	1, 4, 6, 7, 10, 12, 14	
SYS 4	FIXED CAPACITY	1, 4, 6, 7, 10, 11, 12, 14	

Ferrites

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

Indoor Coil Layout

Modbus Devices Address

Device	Address
UC8	44, 45, 46, 47
VSD	10

VSD DIP switch settings

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

Client Wiring

Instructions To Convert To Master-Master Control

- Turn off power to entire system.
- Turn off the following dip switches for system 2, system 3 and system 4 fixed speed UC8 control.
 - UC8 System 2 - dip switch 11
 - UC8 System 3 - dip switch 12
 - UC8 System 4 - dip switch 11 and 12
- Move the jumper between terminal blocks TB46T and TB47T to between TB47T and TB48T (refer to sheet 3).
- Move the jumper between terminal blocks TB46M and TB47M to between TB47M and TB48M (refer to sheet 3).
- Turn power back on.
- Check UC8 System 2 address is set as 45, UC8 System 3 address is set as 46 and UC8 System 4 address is set as 47. If the address is wrong, it needs to be changed.

Temperature Soft Starter Default Settings

Client BMS Input

Client External Protection and Isolator Switch

Overall System Layout

Legend

TAV	24VAC Enable Link Common
TAV	24VAC Internal Supply
TAV	24VAC Active Supply
TAV	24VAC Internal Supply Common
ACT	RS485 A (+) Communication Signal
Bx.x	RS485 B (-) Communication Signal
CAP IN 0-10V	Compressor Capacity 0-10VDC Analogue Speed Control
CAP IN 0V	Compressor Capacity Analogue Speed Control Common
COM	UC8 Control Input Signals Common
COMP	Compressor ON/ OFF Signal
DMF U	Damper Motor Fresh Air 0-10VDC Command
DMR U	Damper Motor Return Air 0-10VDC Command
DMS U	Damper Motor Spill Air 0-10VDC Command
FAN IN 0-10V	Indoor Fan 0-10VDC Analogue Speed Control
FAN IN 0V	Indoor Fan Analogue Speed Control Common
FLT	UC8 Fault Relay Output Normally Closed Contact
FLT C	UC8 Fault Relay Output Common Contact
HEAT	Cooling / Heating Mode Selection Signal
HIGH IN	Indoor Fan Fixed High Speed Control Signal Input
ID FAN GND	Indoor Fan 0-10VDC Analogue Speed Control Ground
IFC	Indoor Fan Relay Contact Signal
IFC	Indoor Fan Relay Contact Signal
LOW IN	Indoor Fan Fixed Low Speed Control Signal Input
MED IN	Indoor Fan Fixed Medium Speed Control Signal Input
N	Neutral
OFF	Outdoor Fan Fault Relay Contact Signal
OFFC	Outdoor Fan Fault Relay Common
ON	UC8 Enable Link Contact

Legend

TAVCB	24VAC Circuit Breaker
CB	Circuit Breaker
CH	Chokes
CCH	Capacitors Heater
CNC	Compressor Contactor
CMCB	Compressor Circuit Breaker
CM	Compressor Motor
CMOL	Compressor Overload
CR	Control Relay
DMF	Damper Motor Fresh Air
DMR	Damper Motor Return Air
DMS	Damper Motor Spill Air
EEV	Electronic Expansion Valve
EMIFB	Electromagnetic Interference Filter Board
ETH	Earth
FRB	Fault Relay Board
HPT	High Pressure Transducer
IFE	Insulated Bus Bar
IFM	Indoor Fan Motor
LPT	Low Pressure Transducer
MTB	Main Terminal Block
OFM	Outdoor Fan Motor
OFM	Outdoor Fan Motor
P CLIP	P Clip
PLR	Phase Loss Relay
RV	Reversing Valve
SCB	Socket Circuit Breaker
SJS	Single Phase Socket
TP	Terminal Block
TAV	Terminal Function 3 Way
UC8	Unit Controller 8
VSD	Variable Speed Drive
VSDCB	Variable Speed Drive Circuit Breaker

Legend

UV	UC8 Enable Link Common
TAV	24VAC Internal Supply
TAV	24VAC Active Supply
TAV	24VAC Internal Supply Common
ACT	RS485 A (+) Communication Signal
Bx.x	RS485 B (-) Communication Signal
CAP IN 0-10V	Compressor Capacity 0-10VDC Analogue Speed Control
CAP IN 0V	Compressor Capacity Analogue Speed Control Common
COM	UC8 Control Input Signals Common
COMP	Compressor ON/ OFF Signal
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DMR U	Damper Motor Return Air 0-10VDC Command
DMS U	Damper Motor Spill Air 0-10VDC Command
FAN IN 0-10V	Indoor Fan 0-10VDC Analogue Speed Control
FAN IN 0V	Indoor Fan Analogue Speed Control Common
FLT	UC8 Fault Relay Output Normally Closed Contact
FLT C	UC8 Fault Relay Output Common Contact
HEAT	Cooling / Heating Mode Selection Signal
HIGH IN	Indoor Fan Fixed High Speed Control Signal Input
ID FAN GND	Indoor Fan 0-10VDC Analogue Speed Control Ground
IFC	Indoor Fan Relay Contact Signal
IFC	Indoor Fan Relay Contact Signal
LOW IN	Indoor Fan Fixed Low Speed Control Signal Input
MED IN	Indoor Fan Fixed Medium Speed Control Signal Input
N	Neutral
OFF	Outdoor Fan Fault Relay Contact Signal
OFFC	Outdoor Fan Fault Relay Common
ON	UC8 Enable Link Contact

MODIFICATION

REV	Removed fan part numbers (sheet 2)	DATE	ECN	APVD
B	Initial Release	5-11-24	5115	P.P.D.
A				LC

DO NOT SCALE - ASK

Client Wiring

Date: 03-03-22

Drawn: L.C

Title: OPA1410 / 1710 / 2110RLTMI1FPQ-S1 R32 UC8 Wiring Schematic

Rev: B

Drawing No: 291-003-468 SHEET 5 OF 5