SPECIFICATIONS

Model)	**OPA 705RKTBG-P ECO**
Configuration	Horizontal Supply Air
Item No. (Standard / Opposite Hand)	866-071-701 / 866-071-710
Unit c/w Fresh Air Cowl (OPA 705RKTBG-PC)	868-071-701 / 868-071-710
Cooling capacity (net) to AS/NZS 3823 T1	67.9 kW
Heating capacity H1	67.5 kW
Electrical input - cooling	20 kW
Electrical input - heating	18 kW
EER / AEER (cooling)	3.30 / 3.28
COP / ACOP (heating)	3.75 / 3.73
Unit Controller	UC8 (x2)
Refrigerant	R410A
Refrigerant Charge	14 kg/sys.
Compressor oil type	POE 32-3MAF (or equivalent)
Compressor type	digital + fixed scroll
Power supply	3 ph. 400V ac 50Hz
Compressor (3ph.) run amps at rating cond.	16 A/ph. (x2)
Compressor overload setting	22 A (x2)
Compressor circuit breaker	40 A (x2)
Indoor fan motor size	EC Plug 500 dia. 2.65 kW (x2)
Nominal air flow at rating conditions	3700 l/s
Indoor fan motor (3ph.)	4.5 A/ph. (x2)
Outdoor fan motor (1ph.) - full load	1.7 A (x4)
Oudoor fan capacitor size	8 μfd (x4)
Control circuit breaker (internal)	4 A
Single phase socket circuit breaker	10 A
Running amps (total system)	33 / 40 / 34 A
Max. running amps (total system)	46 / 54 / 47 A
Net weight	1105 kg
Weight c/w Fresh Air Cowl option	1144 kg

Accessories:

Filters - rated EU4/G4 disposable	019-400-008 500x450x50 (x9)

Optional Controls:

TZT-100 Room temperature controller	201-000-350

Refer to temperzone for other options.

Tested in accordance with AS/NZS 3823

16085

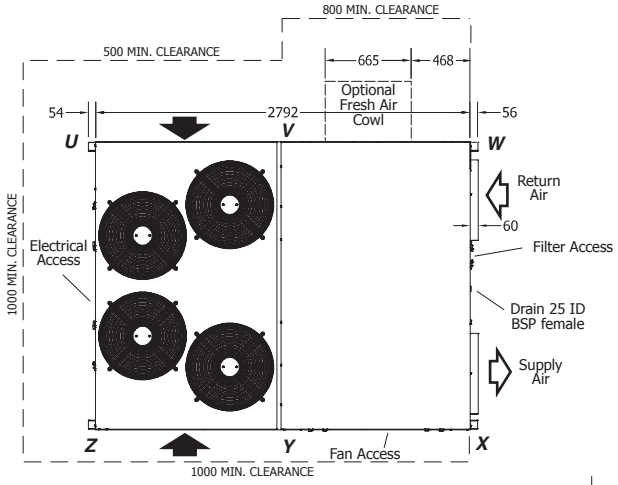
DIMENSIONS (mm)

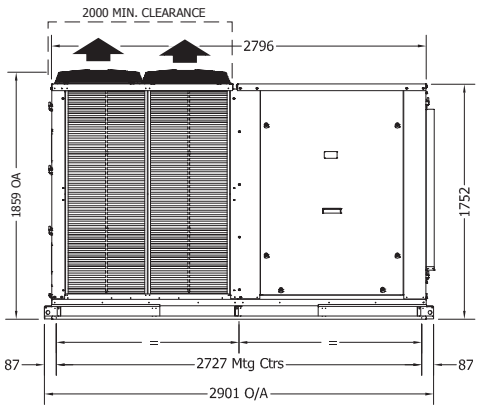
PROJECTION

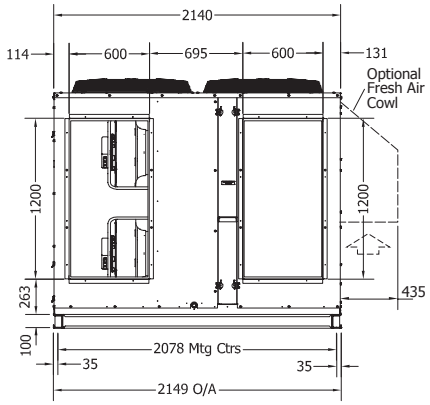
Not to Scale

OPA 705RKTBG01-P(C) Standard Hand

	POINT LOADS (kg)					
	U	V	W	X	Y	Z
no F/A	195	173	151	190	195	201
cw F/A	216	189	164	185	191	199

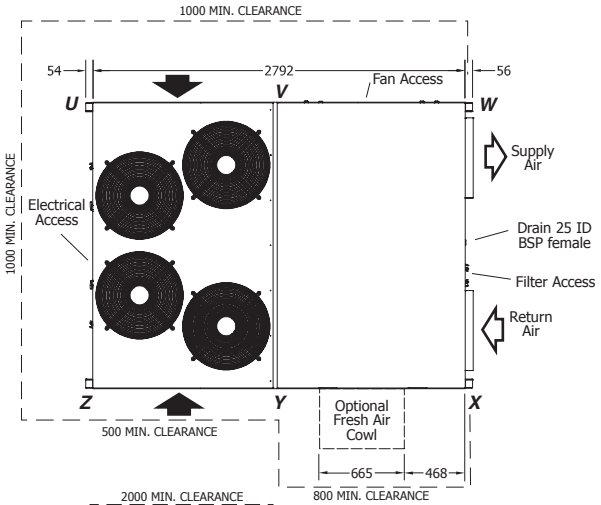


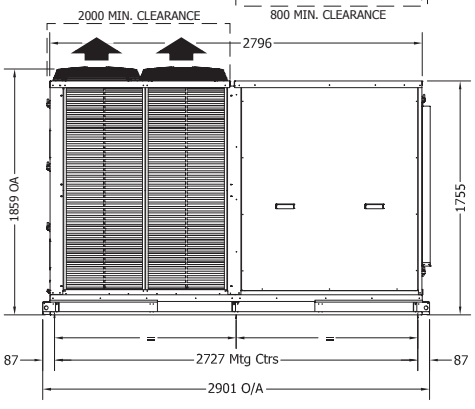


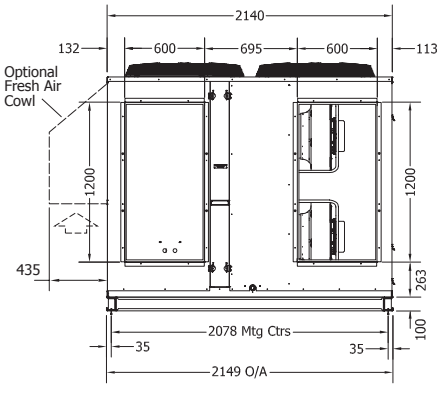


OPA 705RKTBG10-P(C) Opposite Hand

	POINT LOADS (kg)					
	U	V	W	X	Y	Z
no F/A	201	195	190	151	173	195
cw F/A	199	191	185	164	189	216







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

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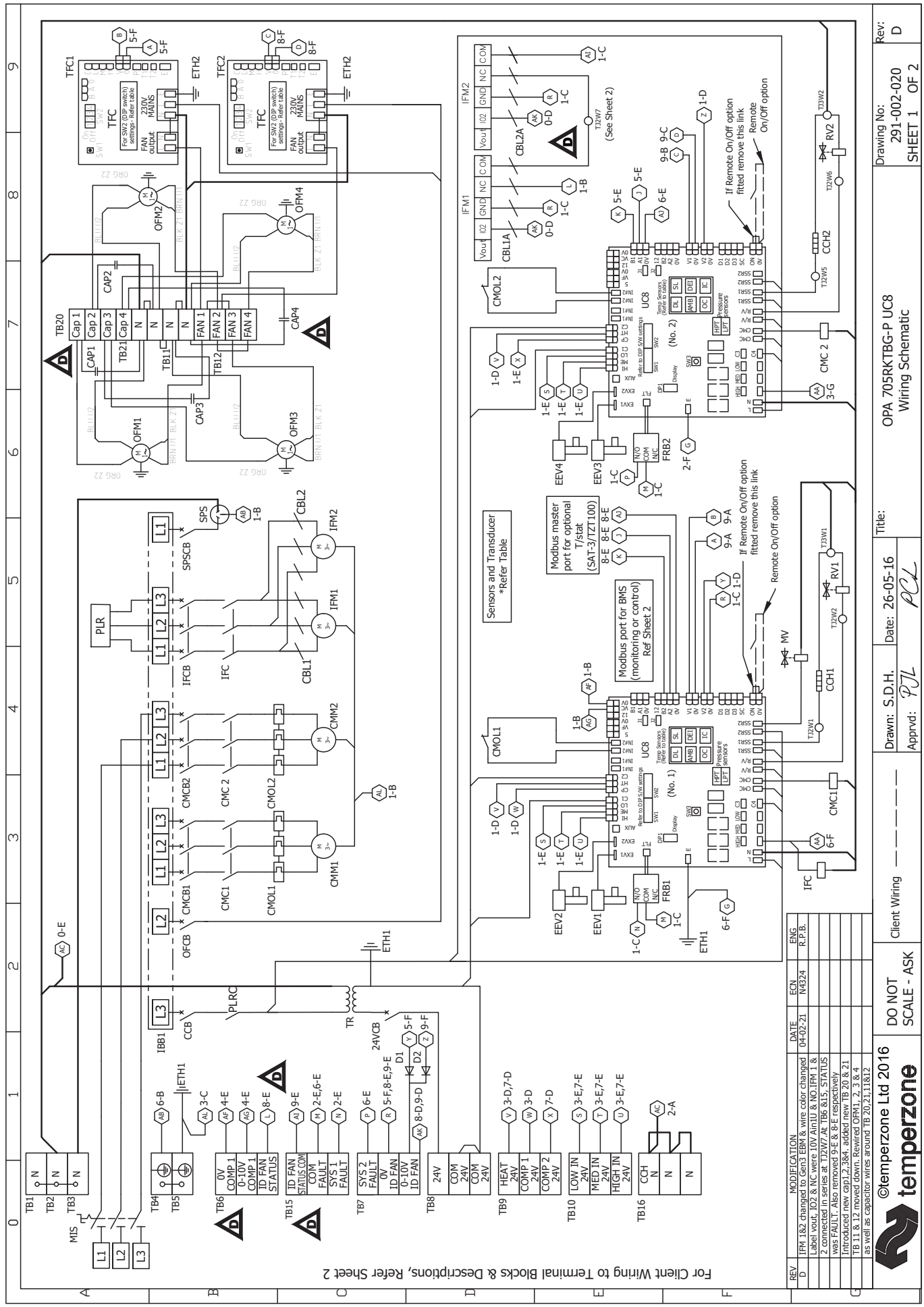
OPA 705RKTBG-P UC8
Wiring Schematic
Drawing No: 291-002-020
SHEET 1 OF 2
Rev: D
Drawn: S.D.H.
Date: 26-05-16
Apprvd: PJL
Client Wiring
DO NOT SCALE - ASK
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For Client Wiring to Terminal Blocks & Descriptions, Refer Sheet 2
Sensors and Transducer *Refer Table
Modbus master port for optional T/stat (SAT-3/TZT100)
Modbus port for BMS (monitoring or control) Ref Sheet 2
If Remote On/Off option fitted remove this link
Remote On/Off option
TFC1
TFC2
IFM1
IFM2
UC8
CMOL1
CMOL2
CMC1
CMC 2
CMCB1
CMCB2
OFCB
IFCB
IFC
PLR
PLRC
CCB
TR
SPS
SPSCB
CBL1
CBL2
IFM1
IFM2
CMM1
CMM2
OFM1
OFM2
OFM3
OFM4
CAP1
CAP2
CAP3
CAP4
TB20
TB21
TB11
TB12
EEV1
EEV2
EEV3
EEV4
FRB1
FRB2
CCH1
CCH2
RV1
RV2
MV
ETH1
ETH2
MIS
TB1
TB2
TB3
TB4
TB5
TB6
TB7
TB8
TB9
TB10
TB15
TB16
IBB1
24VCB
SYS 2 FAULT
ID FAN STATUS
SYS 1 FAULT
HEAT 24V
COMP 1 24V
COMP 2 24V
LOW IN 24V
MED IN 24V
HIGH IN 24V
CCH IN
REV
MODIFICATION
DATE
ECN
ENG
D
IFM 1&2 changed to Gen3 EBM & wire color changed
04-02-21
N4324
R.P.B.
Label vout, IO2 & NC were 10V AinU & NO,IFM 1 &
2 connected in series at T2W7,A: TB6 &15, STATUS
was FAULT. Also removed 9-E & 8-E respectively
Introduced new cap1,2,3&4. added new TB 20 & 21
TB 11 & 12 moved down. Rewired OFM1, 2, 3 & 4
as well as capacitor wires around TB 20,21,11&12

Important Notes:

1) Crankcase Heater Note
24 Hour power required for control circuit and crankcase heaters

2) SAT-3 & TZT 100 Note
To connect TZT100 to unit use 2 pair twisted cable - screen grounded. (F/UTP 24G (0.2mm²) or thicker recommended)

3) Master-slave note
When the unit is controlled with a TZT-100 or SAT-3 wall thermostat then the two UC8 controllers must be linked and configured as master and slave.
Master DIP switch settings: 11 OFF 12 OFF
Slave DIP switch settings: 11 ON 12 OFF

24VCB	24 VOLT CIRCUIT BREAKER
CAP	CAPACITOR
CBL	CABLE
CCB	CONTROL CIRCUIT BREAKER
CCH	CRANKCASE HEATER
CMC	COMPRESSOR CONTACTOR
CMCB	COMPRESSOR CIRCUIT BREAKER
CMM	COMPRESSOR MOTOR
CMOL	COMPRESSOR OVERLOAD
EEV	ELECTRONIC EXPANSION VALVE
ETH	EARTH
FRB	FAULT RELAY BOARD
IFC	INDOOR FAN CONTACTOR
IFCB	INDOOR FAN CIRCUIT BREAKER
IFM	INDOOR FAN MOTOR
IBB	INSULATED BUS BAR
MIS	MAIN ISOLATOR SWITCH
MV	MODULATING VALVE
OFCB	OUTDOOR FAN CIRCUIT BREAKER
OFM	OUTDOOR FAN MOTOR
PLR	PHASE LOSS RELAY
PLRC	PHASE LOSS RELAY CONTACT
RV	REVERSING VALVE
SPS	SINGLE PHASE SOCKET
SPSCB	SINGLE PHASE SOCKET CIRCUIT BREAKER
TB	TERMINAL BLOCK
TFC	TRIAC FAN CONTROLLER
TJ	TERMINAL JOINER
TR	TRANSFORMER
UC8	UNIT CONTROLLER 8
L1	IBB1 L1 LINE SUPPLY
L2	IBB1 L2 LINE SUPPLY
L3	IBB1 L3 LINE SUPPLY

Sensors (S) / Transducers (T)			
	Name	Type	Colour
DL	Discharge Temp	S	RED
SL	Suction Temp	S	WHITE
AMB	Ambient Temp	S	BLACK
DEI	De-ice Temp	S	BLUE
LPT	Suction Pressure	T	
HPT	High Pressure	T	

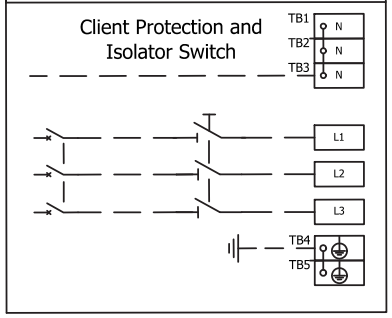
SAT-3 & TZT100 connection to UC8 terminals		
UC8 terminals(No.1)	SAT-3	TZT100 Terminals
12	12V	24
B2	B	B
A2	A	A
0V	GND	24C
Screen to 0V		

UC8 DIP switch settings (No.1)	
DIP switch	↑ On/Off ↓
1,2,4,6,7,10	On
All Others Off	Off

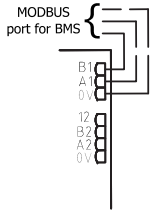
UC8 DIP switch settings (No.2)	
DIP switch	↑ On/Off ↓
1,4,6,7,10	On
All Others Off	Off

TFC DIP switch settings	
DIP switch	On/Off
-	On
1, 2, 3, 4	Off

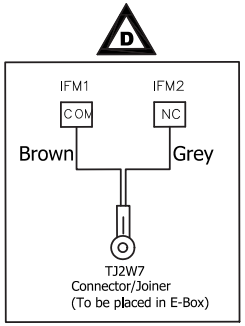
Client Wiring



BMS Control



Remote option



REV	MODIFICATION	DATE	ECN	ENG
D	IFM 1&2 changed to Gen3 EBM & wire color changed	04-02-21	N4324	R.P.B.
	Label vout, IO2 & NC were 10V Ain1U & NO.IFM 1 &			
	2 connected in series at TJ2W7.At TB6 &15, STATUS			
	was FAULT. Also removed 9-E & 8-E respectively			
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	as well as capacitor wires around TB 20,21,11&12			

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DO NOT SCALE - ASK

Client Wiring

Drawn: S.D.H. Date: 26-05-16
Apprvd: PJL PCL

Title: OPA 705RKTBG-P UC8 Wiring Schematic

Drawing No: 291-002-020 SHEET 2 OF 2

Rev: D