

SPECIFICATIONS



| | |
|--|------------------------------|
| Model) | OPA 960RKTBG-P ECO |
| Configuration | Downward Supply Air |
| Item No. (Standard / Opposite Hand) | 866-096-723 / 866-096-732 |
| Unit c/w Fresh Air Cowl (OPA 960RKTBG-PC) | 868-096-723 / 868-096-732 |
| Cooling capacity (net) to AS/NZS 3823 T1 | 87.9 kW |
| Heating capacity H1 | 90.0 kW |
| Electrical input - cooling | 29.4 kW |
| Electrical input - heating | 26.5 kW |
| EER / AEER (cooling) | 2.99 / 2.98 |
| COP / ACOP (heating) | 3.40 / 3.39 |
| Unit Controller | UC8 (x2) |
| Refrigerant | R410A |
| Refrigerant Charge | 15 kg/sys. |
| Compressor oil type | POE 32-3MAF (or equivalent) |
| Compressor type | digital scroll (x2) |
| Power supply | 3 ph. 400V ac 50Hz |
| Compressor (3ph.) run amps at rating cond. | 27.5 A/ph. (x2) |
| Compressor overload setting | 32 A (x2) |
| Compressor circuit breaker | 63 A (x2) |
| Indoor fan motor size | EC Plug 500 dia. 2.65kW (x2) |
| Nominal air flow at rating conditions | 4750 l/s |
| Indoor fan motor (3ph.) | 4.5 A/ph. (x2) |
| Outdoor fan motor (1ph.) - full load | 1.7 A (x4) |
| Outdoor fan capacitor size | 8 μ fd (x4) |
| Control circuit breaker (internal) | 4 A |
| Auxiliary power outlet (1ph.) overload setting | 10 A |
| Running amps (total system) | 58 / 66 / 57 A |
| Max. running amps (total system) | 68 / 77 / 67 A |
| Net weight | 1149 kg |
| Weight c/w Fresh Air Cowl option | 1189 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

16087

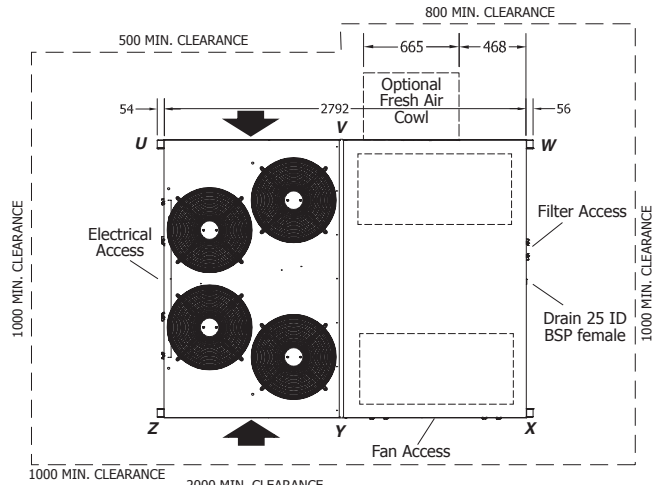


DIMENSIONS (mm)

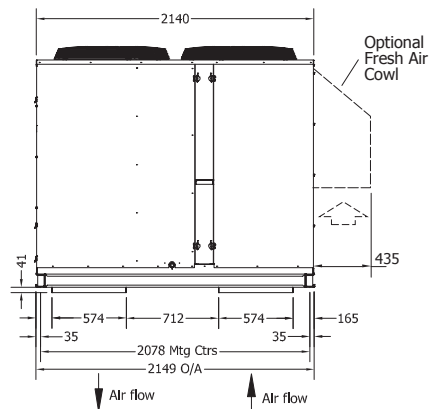
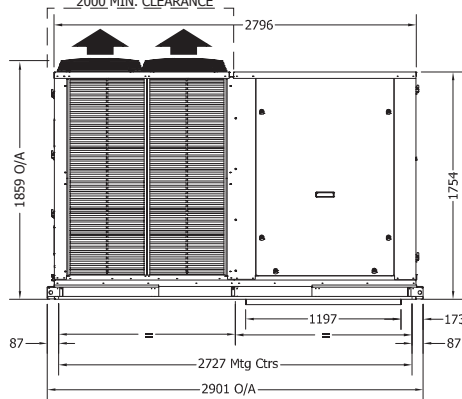


OPA 960RKTG23-P(C) Standard Hand

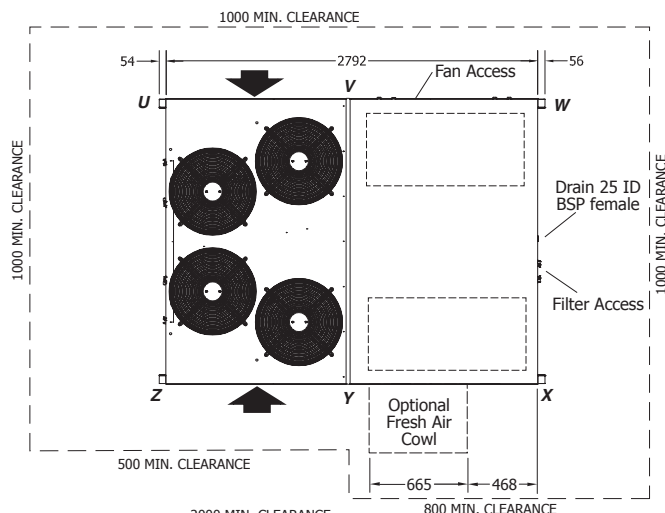
Not to Scale



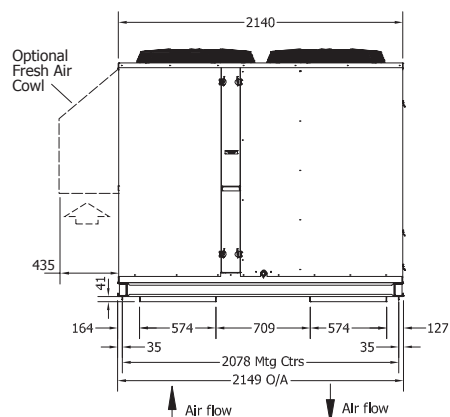
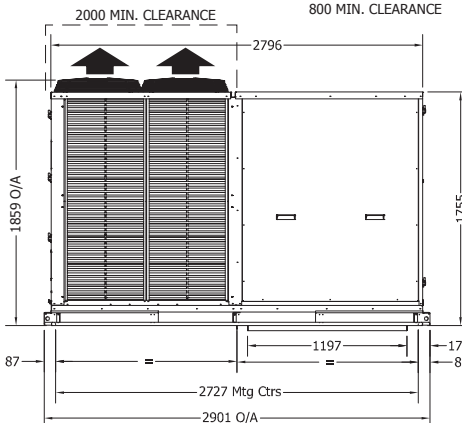
| | | POINT LOADS (kg) | | | | | |
|--------|--|------------------|-----|-----|-----|-----|-----|
| | | U | V | W | X | Y | Z |
| no F/A | | 205 | 180 | 155 | 195 | 203 | 211 |
| cw F/A | | 224 | 195 | 167 | 189 | 207 | 207 |



OPA 960RKTG32-P(C) Opposite Hand



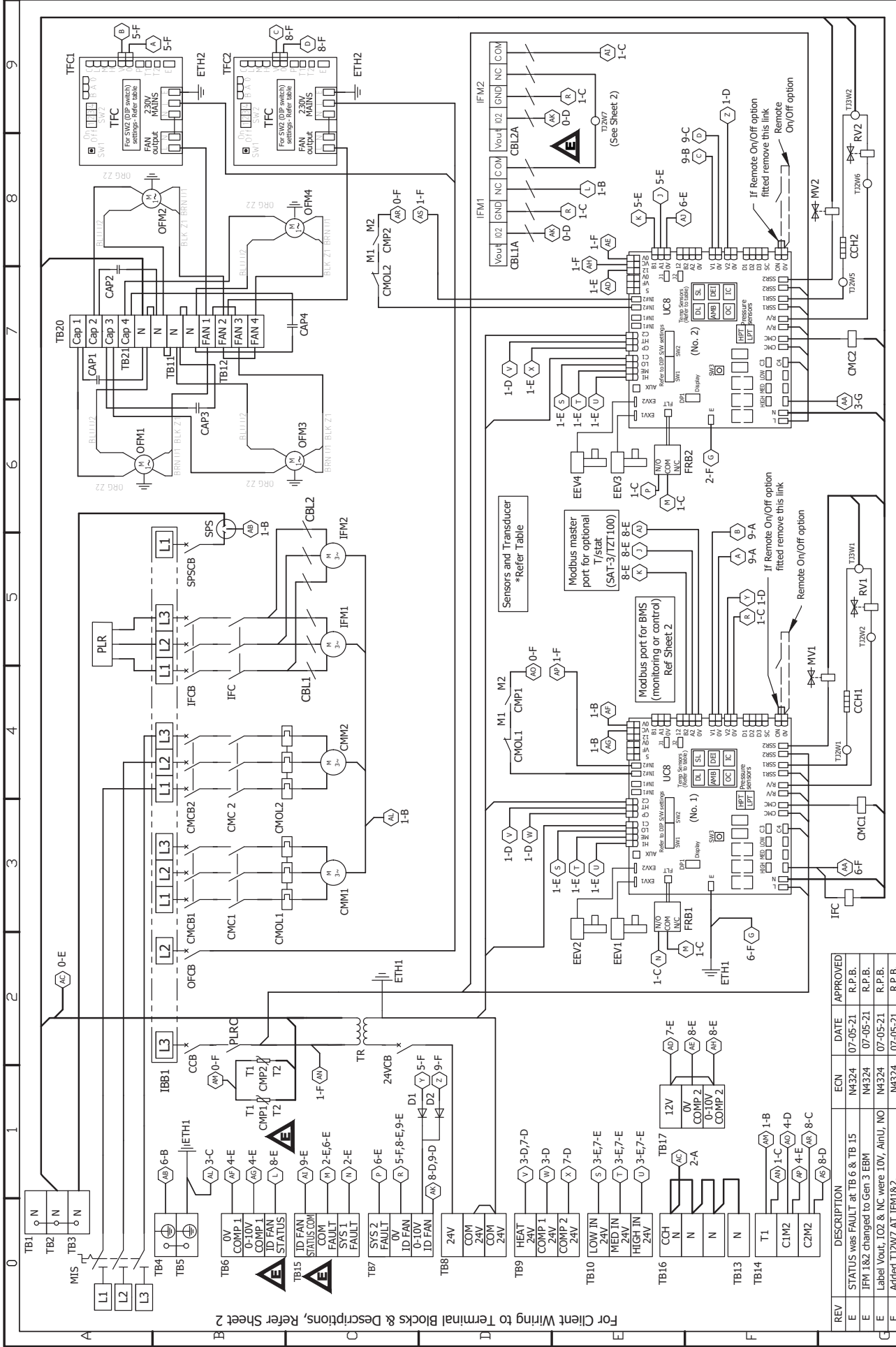
| | | POINT LOADS (kg) | | | | | |
|--------|--|------------------|-----|-----|-----|-----|-----|
| | | U | V | W | X | Y | Z |
| no F/A | | 211 | 203 | 195 | 155 | 180 | 205 |
| cw F/A | | 207 | 207 | 189 | 167 | 195 | 224 |



NOTE

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





| REV | DESCRIPTION | ECN | DATE | APPROVED |
|-----|---|-------|----------|----------|
| E | STATUS was FAULT at TB 6 & TB 15 | N4324 | 07-05-21 | R.P.B. |
| E | IFM1 I82 changed to Gen 3 EBM | N4324 | 07-05-21 | R.P.B. |
| E | Label Vout, I02 & NC were I0V, AnIU, NO | N4324 | 07-05-21 | R.P.B. |
| E | Added T12M7 AT IFM1R2. | N4324 | 07-05-21 | R.P.B. |

| | |
|--|--------------------|
| Client Wiring | DO NOT SCALE - ASK |
| Drawn: C.M.W. | Date: 16-06-16 |
| Approved: P.J.L. | A.C.L. |
| Title: OPA 960RKTBG-P UC8 Wiring Schematic | |
| Drawing No: 291-002-035 SHEET 1 OF 2 | |
| Rev: E | |



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| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|----------|--|------------|---|--------|--|------|------|----------------|-----|----------------|--|-----|----------------------------------|--------------|----------|------------|--------|------------------------------|--------------|----------|--------|----------------|---|-------|---|------------------|-------------------------|------------------------|-------|---------------|--------|--------|---|----|--|--|-----|---------------------|-------|------------------|----|-----|----|----|---|---|----|---|---|----|-----|-----|---|--|---------------------------|--|
| <p>Important Notes:</p> <p>1) Crankcase Heater: Note 24 Hour power required for control circuit and crankcase heaters</p> <p>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)</p> | | <p>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</p> | | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Sensors (S) / Transducers (T)</th> </tr> <tr> <th>Name</th> <th>Type</th> <th>Colour</th> </tr> </thead> <tbody> <tr> <td>DL</td> <td>Discharge Temp</td> <td>S</td> <td>RED</td> </tr> <tr> <td>SL</td> <td>Suction Temp</td> <td>S</td> <td>WHITE</td> </tr> <tr> <td>AMB</td> <td>Ambient Temp</td> <td>S</td> <td>BLACK</td> </tr> <tr> <td>DEI</td> <td>De-ice Temp</td> <td>S</td> <td>BLUE</td> </tr> <tr> <td>LPT</td> <td>Suction Pressure</td> <td>T</td> <td></td> </tr> <tr> <td>HPT</td> <td>High Pressure</td> <td>T</td> <td></td> </tr> </tbody> </table> | | 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 | | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">SAT-3 & TZT100 connection to UC8 terminals</th> </tr> <tr> <th>UC8 terminals(No.1)</th> <th>SAT-3</th> <th>TZT100 Terminals</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>12V</td> <td>24</td> </tr> <tr> <td>B2</td> <td>B</td> <td>B</td> </tr> <tr> <td>A2</td> <td>A</td> <td>A</td> </tr> <tr> <td>0V</td> <td>GND</td> <td>24C</td> </tr> </tbody> </table> | | 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 | <p>Client Wiring</p> <p>Remote option</p> | | <p>BMS Control</p> | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| DIP switch | On/Off | On/Off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4,6,7,10 | On | On | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| All Others Off | Off | Off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UC8 DIP switch settings (No.2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIP switch | On/Off | On/Off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4,6,7,10 | On | On | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| All Others Off | Off | Off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TFC DIP switch settings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIP switch | On/Off | On/Off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1, 2, 3, 4 | On | On | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | <p>temperzone Ltd 2016</p> <p>DO NOT SCALE - ASK</p> | | <p>Client Wiring</p> | | <p>Drawn: <i>PJL</i> Date: 16-06-16</p> <p>Approved: <i>PCL</i></p> | | <p>Drawing No: 291-002-035</p> <p>SHEET 2 OF 2</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>©temperzone limited 2021</p> | | <p>www.temperzone.biz</p> | | <p>Client Wiring</p> | | <p>OPA 960RKTBG-P UC8</p> <p>Wiring Schematic</p> | | <p>Rev: E</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |