



HPU HANDING CONFIRMATION

| | |
|------------------------------------|------------------------------------|
| SO NUMBER (INTERNAL USE) | WO NUMBER (INTERNAL USE) |
|------------------------------------|------------------------------------|

ROOF TOP PACKAGED UNITS (RTU)

| | |
|---------------------------------|---|
| MODELS | All |
| GENERAL | This document details the airside configurations available on all HPU models. |
| SOURCING | Standard configuration is detailed in the unit general arrangement drawings. Optional airside configurations to be specified at time of order. |
| HOW TO USE THIS DOCUMENT | <ol style="list-style-type: none"> 1. Choose if the supply air fan position is required on the left or right. 2. Circle the required supply air outlet. 3. Circle the required return air inlet. 4. Complete the information at the bottom of this document and return to your APAC representative. |

LEFT HAND SUPPLY AIR (STANDARD)

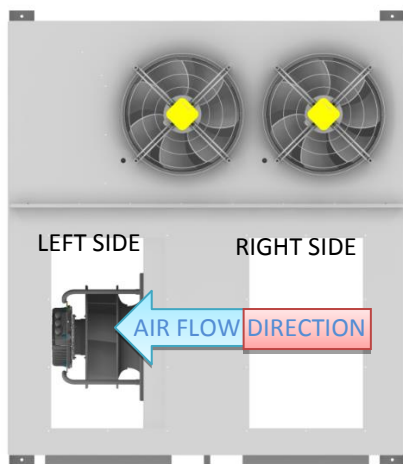


Fig1. Left hand unit from the top view

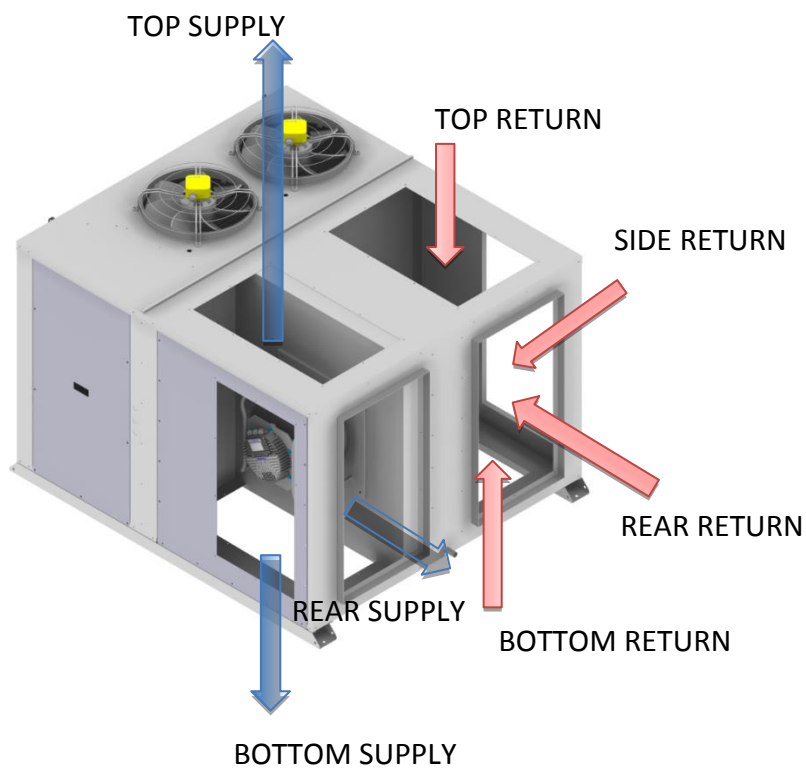


Fig2. Air flow schematic of the left hand unit

RIGHT HAND SUPPLY AIR (OPTIONAL)

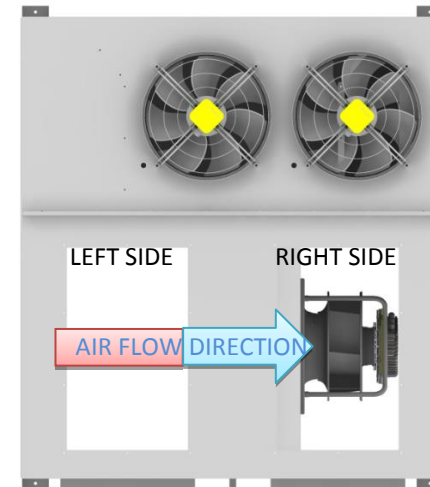


Fig3. Right hand unit from top view

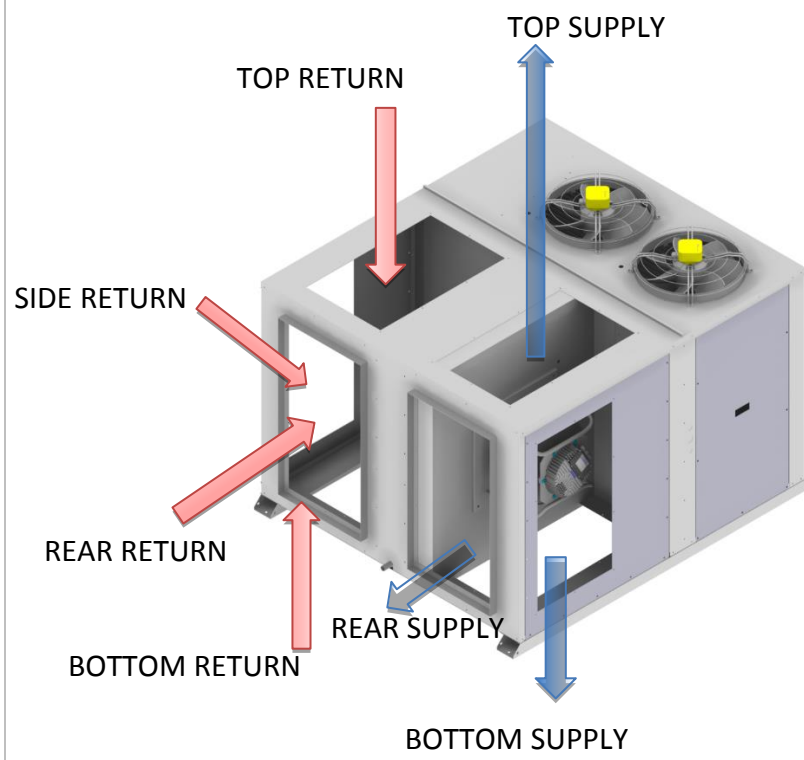
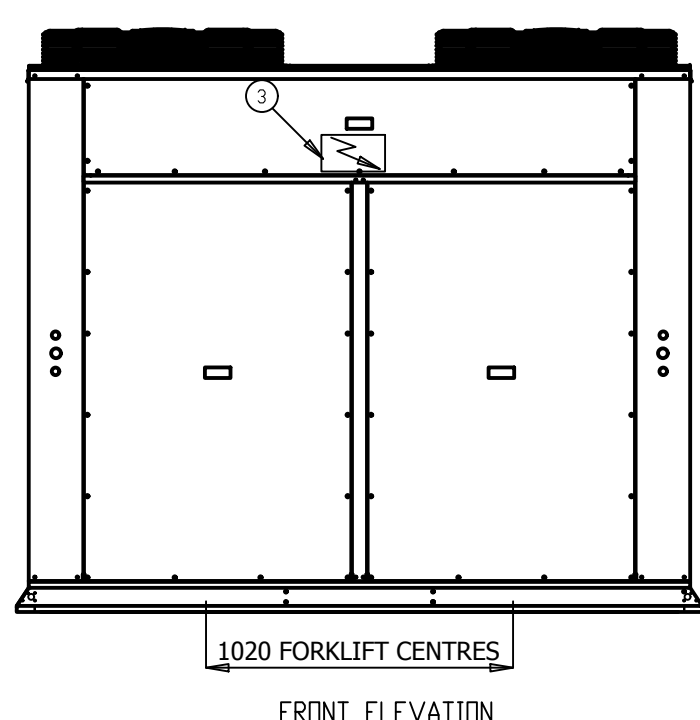
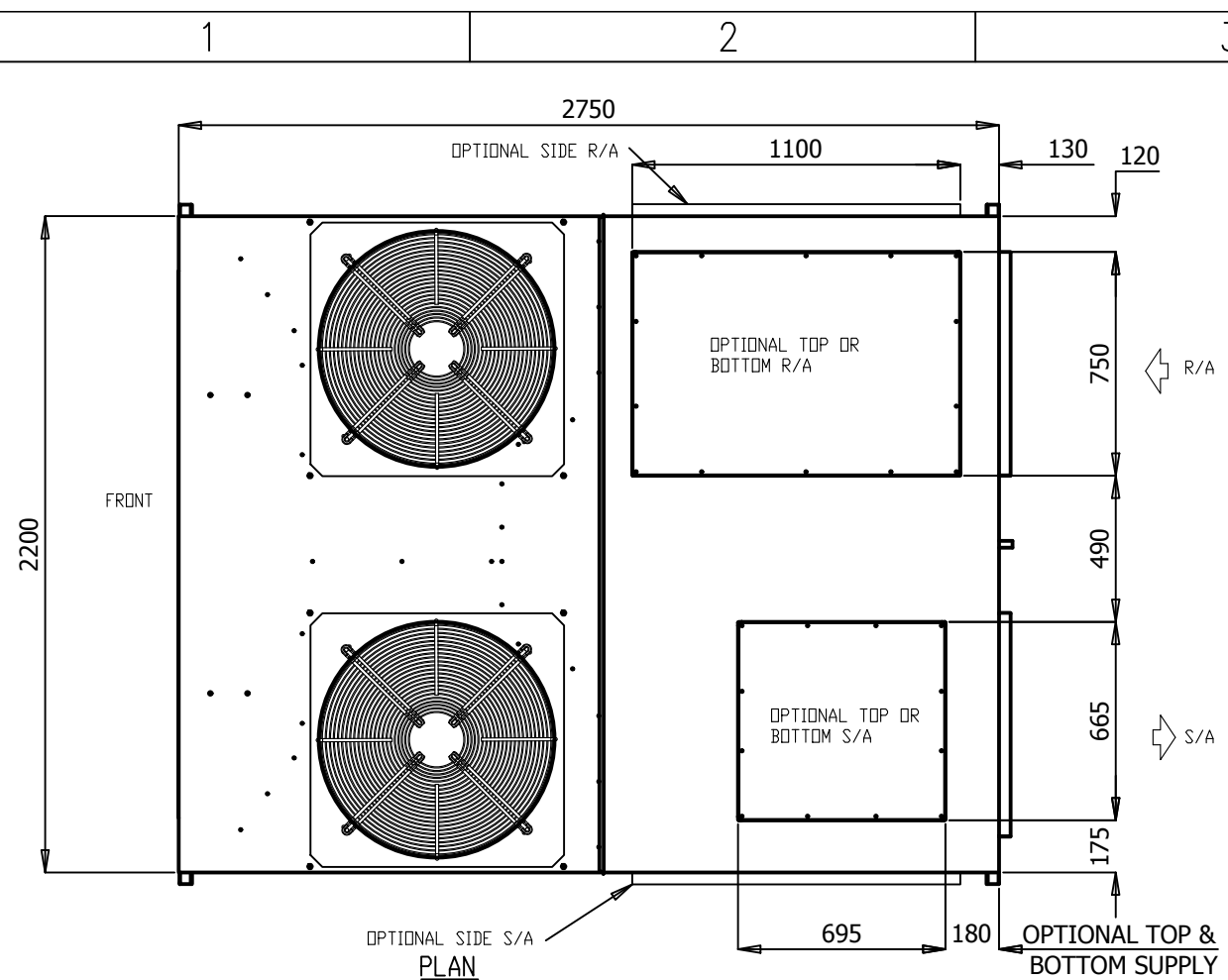


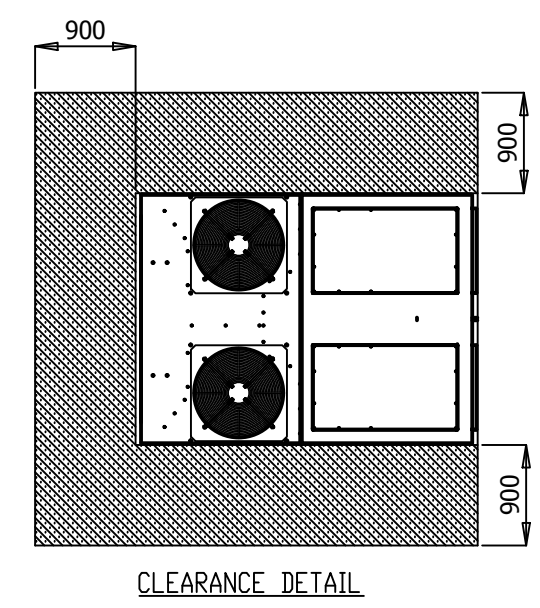
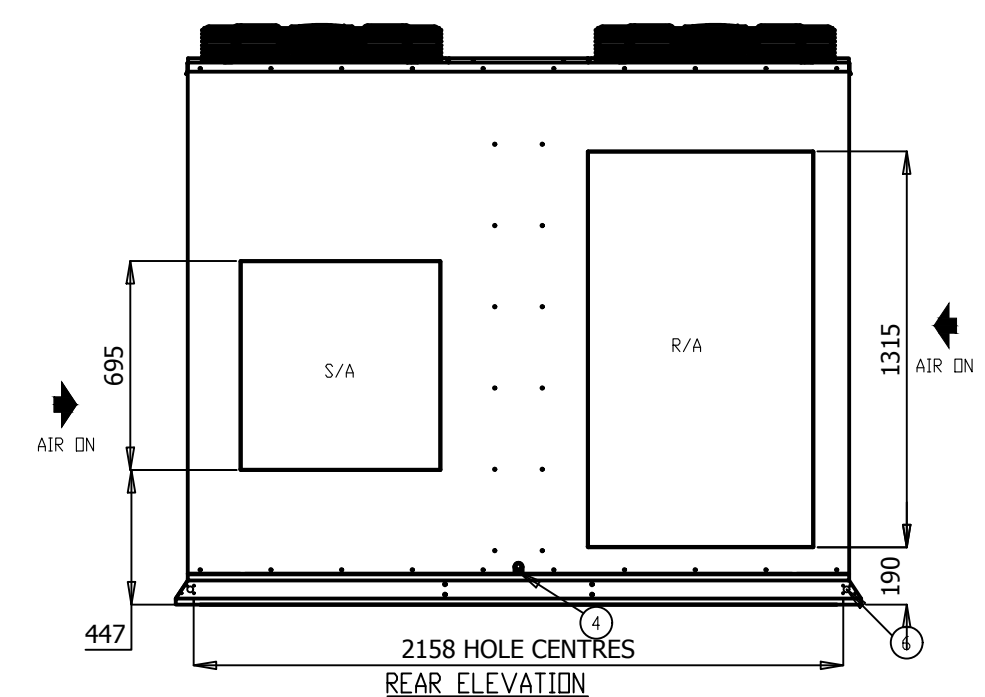
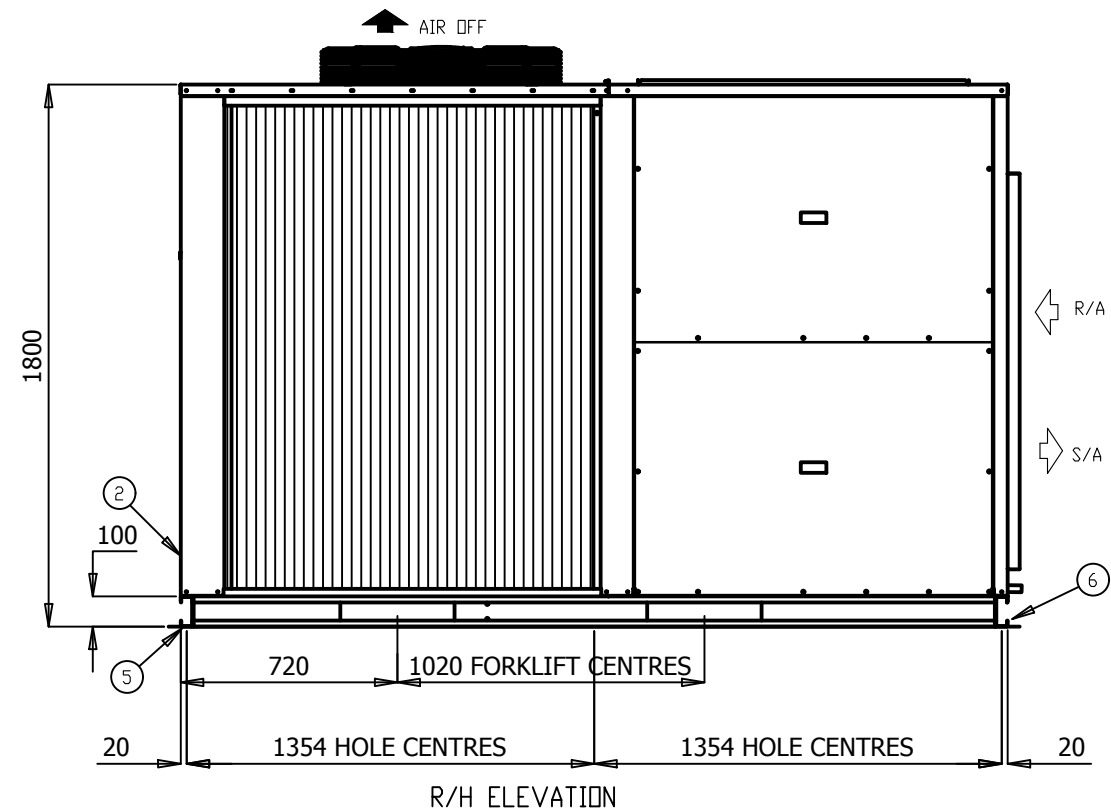
Fig 4. Air flow schematic of the right hand unit

CUSTOMER TO COMPLETE AND RETURN

| CUSTOMER | PROJECT | UNIT REF | NAME / SIGN | DATE |
|----------|---------|----------|-------------|------|
| | | | | |



- NOTES:
1. GENERAL ARRANGEMENT OF A HORIZONTAL AIR COOLED PACKED UNIT
 2. POWER AND FIELD CABLE ENTRIES, 1 x 32 ϕ AND 2 x 25 ϕ
 3. ELECTRICAL PANEL LOCATED BEHIND SERVICE ACCESS
 4. CONDENSATE OUTLET 32 ϕ
 5. UNIT BASE 6 x 16 ϕ FIXING POINTS
 6. UNIT HAS 4 x 20 ϕ LIFTING POINTS
 7. UNIT CONFIGURATION AS STANDARD IS REAR LEFT SUPPLY, REAR RIGHT RETURN, OTHER CONFIGURATIONS AVAILABLE.
 8. UNIT CONFIGURATION CAN BE CONVERTED IN FIELD WITH OPTIONAL ACCESSORIES.



- ALL DIMENSIONS IN mm.
- GENERAL TOLERANCE ± 1 mm.
- DO NOT SCALE DRAWING.
- MASTER DRAWINGS ARE HELD ELECTRONICALLY. ANY COPY IS DEEMED UNCONTROLLED AND THEREFORE NOT NECESSARILY THE LATEST REVISION.
- ALL INFORMATION REMAINS THE PROPERTY OF THE COMPANY.

GENERAL ARRANGEMENT

P085AHR3SA- P095AHR3SA-

www.apacair.com.au

ABN: 74 005 138 769

| | | | | |
|---|-------------------------------------|----------|----------------|----|
| REVISION | REVISED NAMEPLATE WITH APAC DETAILS | | | |
| ATLANTIC DR. KEYSBOROUGH VIC 3173 1300 555 545 | DRAWN | MT | DRAWING No. | A4 |
| | DATE | 14.07.17 | GAD0088 | |
| | SCALE | N.T.S. | | |
| | CHECKED | HA | APP'D. | CM |

TECHNICAL DATA SHEET

| MODEL NUMBER | | P055AHR3SA- | P065AHR3SA- | P075AHR3SA- | P085AHR3SA- | P095AHR3SA- | |
|---|----------------------------|------------------------|---|------------------------|------------------------|------------------------|------------------------|
| MEPS REGISTRATION NUMBER | | AAC3206 | AAC3215 | N/A | N/A | N/A | |
| CONDENSER SECTION | CAPACITY | | | | | | |
| | Cooling | kW TOTAL* | 52.98 | 63.89 | 72.95 | 83.74 | 94.04 |
| | | kW SENSIBLE* | 44.29 | 54.50 | 58.51 | 69.34 | 77.49 |
| | | EER (kW / ikW)* | 3.06 | 3.28 | 3.49 | 3.47 | 3.24 |
| | Heating | kW TOTAL | 54.40 | 65.00 | 73.40 | 84.30 | 96.08 |
| | | COP | 3.40 | 3.61 | 3.59 | 3.60 | 3.60 |
| | CAPACITY STEPS (%) | | 50/100 | 50/100 | 50/100 | 50/100 | 50/100 |
| | COMPRESSOR | | | | | | |
| | TYPE | | SCROLL | SCROLL | SCROLL | SCROLL | SCROLL |
| | STARTER TYPE | | D.O.L (Opt Soft/Start) | D.O.L (Opt Soft/Start) | D.O.L (Opt Soft/Start) | D.O.L (Opt Soft/Start) | D.O.L (Opt Soft/Start) |
| | PHASE | | 3Ø | 3Ø | 3Ø | 3Ø | 3Ø |
| | No. OFF | | 2 | 2 | 2 | 2 | 2 |
| | PROTECTION DEVICES | | HP SWITCH, LP SWITCH, MOTOR OVERLOAD'S | | | | |
| | ALL COMPRESSORS HAVE | | CRANKCASE HEATER | | | | |
| | FAN | | | | | | |
| | TYPE | | AXIAL | AXIAL | AXIAL | AXIAL | AXIAL |
| | ikW (MAX INPUT) | | 0.97 | 0.93 | 0.93 | 0.93 | 0.93 |
| | PHASE | | 3Ø | 3Ø | 3Ø | 3Ø | 3Ø |
| | No. OFF | | 2 | 2 | 2 | 2 | 2 |
| | FAN SPEED CONTROL | | VARIABLE SPEED | VARIABLE SPEED | VARIABLE SPEED | VARIABLE SPEED | VARIABLE SPEED |
| HEAT EXCHANGER | | | | | | | |
| TYPE | | PLATE FIN COIL | PLATE FIN COIL | PLATE FIN COIL | PLATE FIN COIL | PLATE FIN COIL | |
| NOM. AIRFLOW l/s | | - | - | - | - | - | |
| REFRIGERANT SYSTEM | | | | | | | |
| TYPE | | R410A | | | | | |
| CHARGE PER CIRCUIT (KG) | | 5.75 | 6.75 | 9.5 | 11 | 10.8 | |
| No. OF CIRCUITS | | 2 | 2 | 2 | 2 | 2 | |
| REFRIGERANT CONTROL | | TXV | | | | | |
| ALL SYSTEMS INCLUDE | | DRIERS & SIGHT GLASSES | | | | | |
| EVAPORATOR SECTION | FAN | | | | | | |
| | TYPE | | CENTRIFUGAL | CENTRIFUGAL | CENTRIFUGAL | CENTRIFUGAL | CENTRIFUGAL |
| | ikW (MAX INPUT) | | 3 | 2.73 | 2.73 | 2.82 | 2.82 |
| | PHASE | | 3Ø | 3Ø | 3Ø | 3Ø | 3Ø |
| | No. OFF | | 1 | 2 | 2 | 2 | 2 |
| | FAN SPEED CONTROL | | VARIABLE SPEED | VARIABLE SPEED | VARIABLE SPEED | VARIABLE SPEED | VARIABLE SPEED |
| | HEAT EXCHANGER | | | | | | |
| TYPE | | PLATE FIN COIL | PLATE FIN COIL | PLATE FIN COIL | PLATE FIN COIL | PLATE FIN COIL | |
| NOM. AIRFLOW l/s | | 2880 | 3550 | 3750 | 4400 | 4930 | |
| EXT STATIC pa | | 100 | | | | | |
| COMBINED SECTIONS | ELECTRICAL | | | | | | |
| | MAINS POWER | | 415v / 3Ø / 50hz | 415v / 3Ø / 50hz | 415v / 3Ø / 50hz | 415v / 3Ø / 50hz | 415v / 3Ø / 50hz |
| | H.P. CUT OUT / IN kPa | | 4500 / 3450 | 4500 / 3450 | 4500 / 3450 | 4500 / 3450 | 4500 / 3450 |
| | L.P. CUT OUT / IN kPa | | 175 / 345 | 175 / 345 | 175 / 345 | 175 / 345 | 175 / 345 |
| | NOM. R.L.A. (TOTAL SYSTEM) | | 31.1 | 35.5 | 38.1 | 43.6 | 56.4 |
| | MAX. F.L.A. (TOTAL SYSTEM) | | 49.8 | 55.4 | 61.4 | 73.6 | 79.6 |
| | GENERAL | | | | | | |
| | CABINET | | GALVANISED SHEET STEEL | | | | |
| | INSULATION | | ALUMINIUM FOIL FACED POLYETHYLENE ACOUSTIC INSULATION | | | | |
| | EXTERNAL FINISH | | POLYESTER POWDER COAT - COLOUR LIGHT GREY AS STANDARD - OPTIONS AVAILABLE | | | | |
| | DIMENSIONS | | | | | | |
| | H X W X D (mm) | | 1390 x 1850 x 2400 | 1595 x 2200 x 2400 | | 1800 x 2200 x 2750 | |
| | WEIGHT | | | | | | |
| OPERATING KG | | 730 | 900 | 920 | 1060 | 1070 | |
| SHIPPING KG | | 735 | 905 | 925 | 1065 | 1075 | |
| NOISE LEVELS [Based on condenser fan's sound data] | | | | | | | |
| Sound Power db(A) | | 70.9 | 71.5 | 71.5 | 71.5 | 71.5 | |

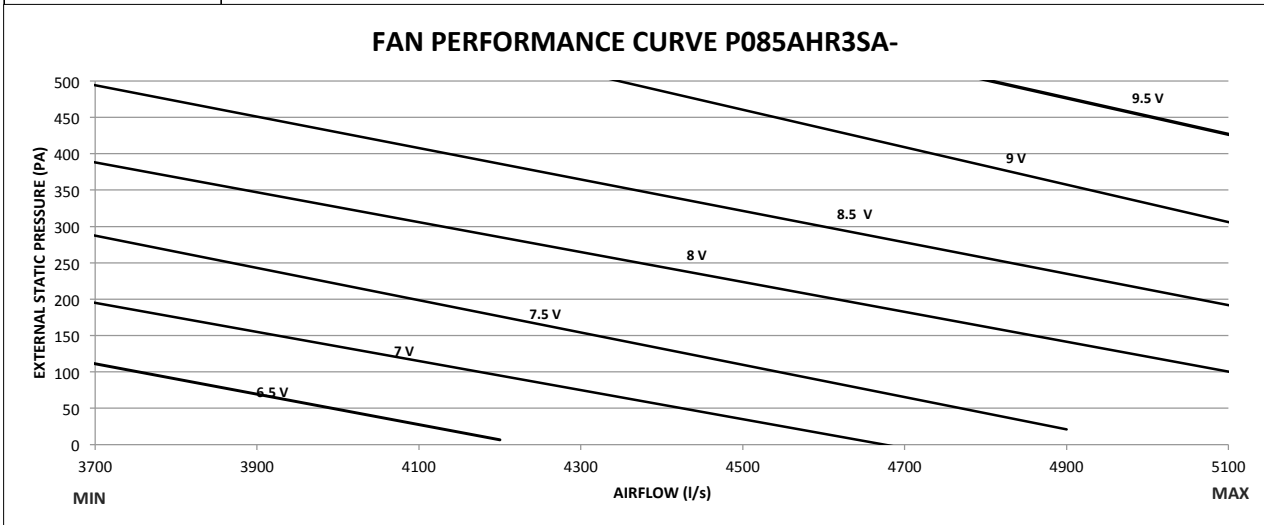
Note: Rated in accordance with Australian standard AS/NZS 3823.1:2012
Performance excludes ikW of evaporator fan motor.
R.L.A - Run Load Amps are based on current drawn at nominal conditions
F.L.A - Full Load Amps are based on the overload settings [Max Current] of all Compressor and Fan Motor(s).

| Date | Document # | Approved By | Revision |
|----------|------------|-------------|----------|
| 31/05/18 | TDS0018 | CM | D |

NOTE: Due to continuous improvement Rinnai Australia Pty Ltd reserve the right to change details without notice.

FAN PERFORMANCE CURVE

P085AHR3SA-



Note:

1. 6.5 V, 7V, 7.5V, 8V, 8.5V, 9V and 9.5V represents potentiometer voltage. Potentiometer can be adjusted to achieve desired flowrates.
2. Potentiometer voltage can be varied infinitely between 0 to 10V.

| Date | Document # | Approved By | Revision |
|----------|------------|-------------|----------|
| 28.05.18 | FPC0021 | CM | D |

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SOUND DATA

MODEL NUMBER

P085AHR3SA-

Outdoor Fan

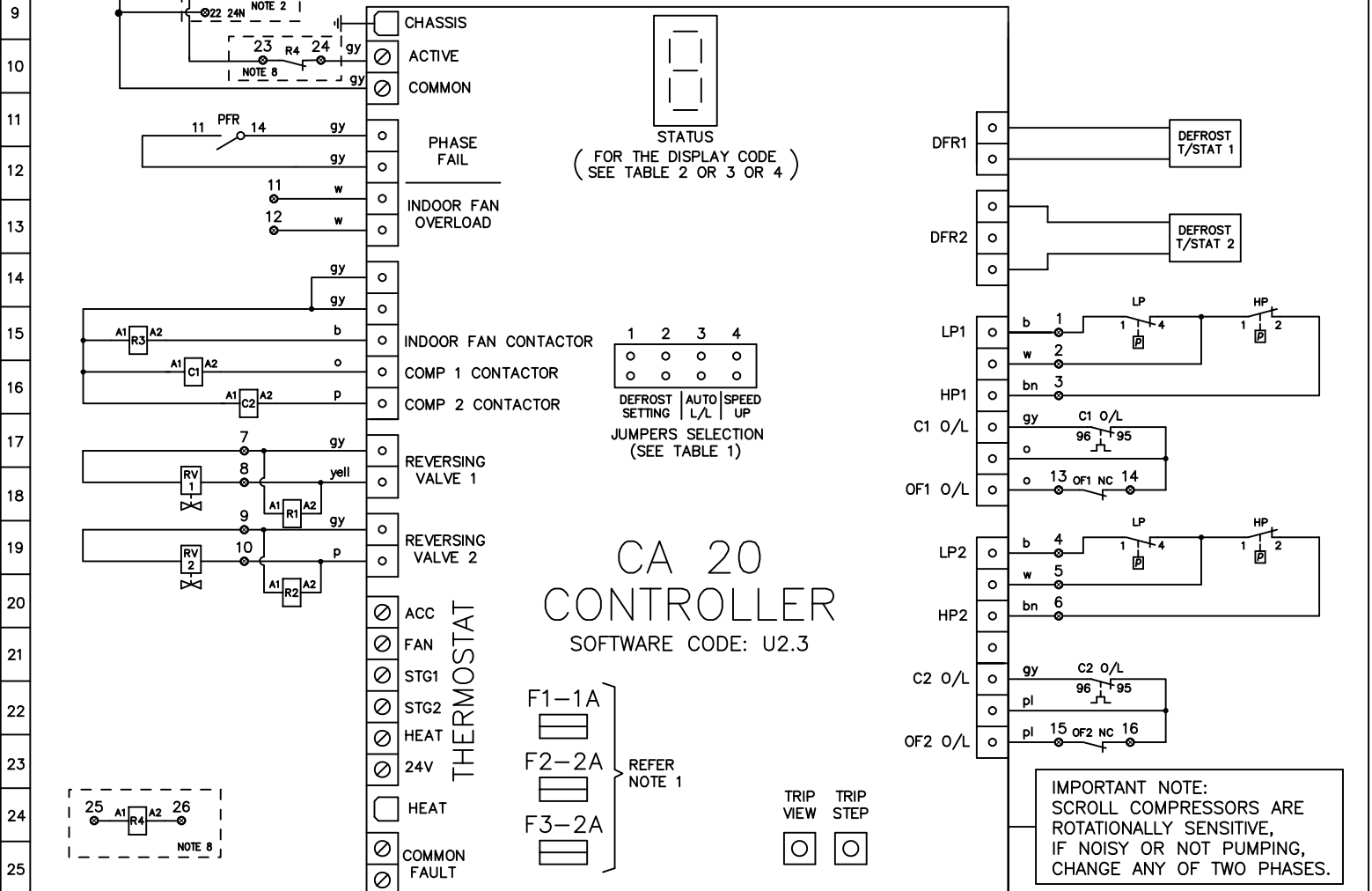
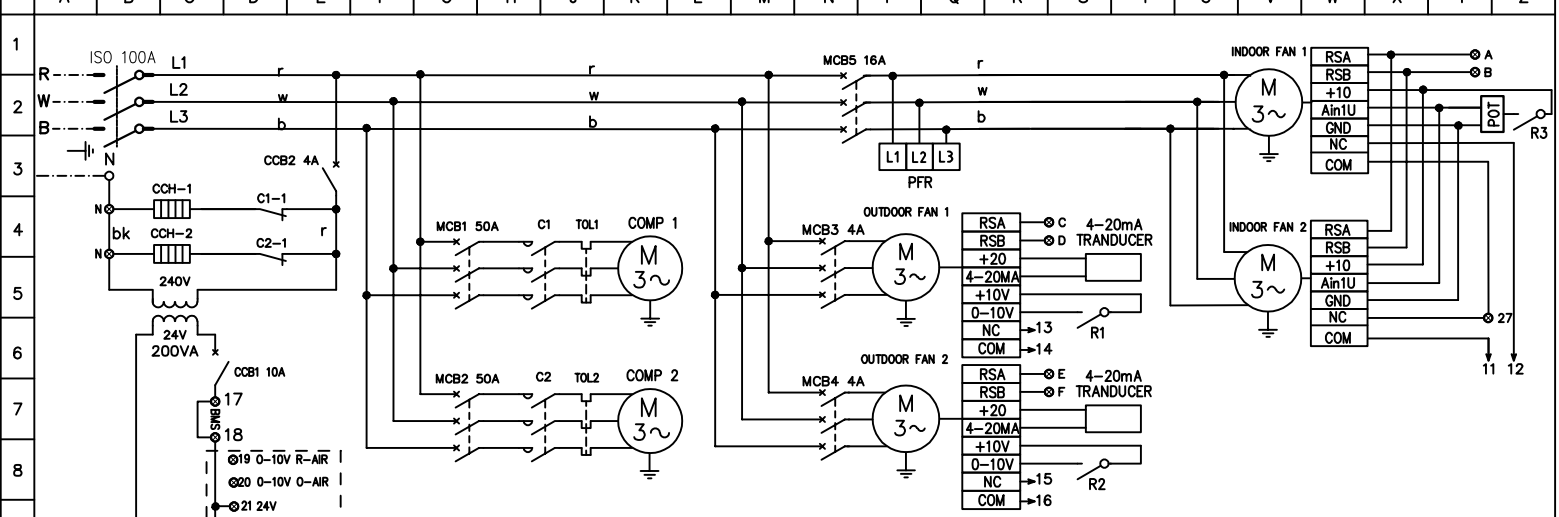
| Sound Power Level dB(A) | Octave band Centre Frequency (Hz), dB | | | | | | |
|-------------------------|---------------------------------------|------|------|------|------|----|------|
| | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 71.5 | 73.9 | 68.9 | 66.5 | 64.6 | 65.7 | 62 | 58.4 |

Indoor Fan

| Sound Power Level dB(A) | Air Flow (l/s) | Octave band Centre Frequency (Hz), dB | | | | | | |
|-------------------------|----------------|---------------------------------------|------|------|------|------|------|------|
| | | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
| 86.2 | 4400 | 70.9 | 77.2 | 80.7 | 80.6 | 79.2 | 79.2 | 73.9 |

| Date | Document # | Approved By | Revision |
|----------|------------|-------------|----------|
| 01.06.18 | SD0012 | CM | B |

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IMPORTANT NOTE:
SCROLL COMPRESSORS ARE ROTATIONALLY SENSITIVE, IF NOISY OR NOT PUMPING, CHANGE ANY OF TWO PHASES.

WARNING! THE SOFTWARE OF THE CA20 CONTROLLER IS NOT DESIGNED TO FUNCTION AS A PRIMARY PERSONAL SAFETY DEVICE, AS CONNECTED EQUIPMENT CAN START AUTOMATICALLY WITHOUT WARNING. ALSO, OPENING THERMOSTAT CONTACTS MAY NOT CAUSE THE EQUIPMENT TO STOP. OUTDOOR FAN MOTORS HAVE INTERNAL OVERLOADS AND MAY RESTART AUTOMATICALLY.

- NOTES:**
- TIME DELAY GLASS FUSES ON THE PCB CONTROLLER ARE THE FOLLOWING:
 - F1 PROTECTS THE THERMOSTAT CIRCUIT.
 - F2 PROTECTS THE REVERSING VALVE CIRCUITS AND THE "HEAT" OUTPUT. THIS FUSE F2 ALSO SUPPLIES FUSE F1.
 - F3 PROTECTS BOTH COMPRESSOR CONTACTOR CIRCUITS AND THE INDOOR FAN CONTACTOR CIRCUIT.
 - OPTIONAL 24VAC POWER SUPPLY AND 0-10V TERMINALS FOR ECONOMY CYCLE DAMPER MOTORS
 - HP CUT OUT , LP CUT OUT - AUTO RESET.
 - THERMAL OVERLOAD RELAYS - AUTO RESET, UNLESS OTHERWISE STATED.
 - DO NOT CONNECT ANY ADDITIONAL EQUIPMENT TO THE CONTROL TRANSFORMER OTHER THAN THE EQUIPMENT SHOWN ON THE ELECTRICAL DRAWING.
 - ALL FIELD WIRING IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR AND MUST COMPLY WITH AS/NZS 3000 AND LOCAL RULES.
 - SOFTWARE CODE MUST BE CHECKED AFTER REPLACEMENT OF THE CA-20 CONTROLLER BY CHECKING THE DISPLAY CODE ON THE 7 SEGMENT DISPLAY AFTER THE CONTROLLER IS ACTIVATED.
 - OPTIONAL FIRE ALARM RELAY

| JUMPERS SELECTION | DEFROST INTERVAL TIME SETTING | JUMPERS SELECTION | AUTO LEAD/LAG | JUMPERS SELECTION | SPEED UP |
|-------------------|-------------------------------|-------------------|---------------|-------------------|----------|
| 1 2 ○ ○ | 15 min | 3 ○ | OFF | 4 ○ | OFF |
| 1 2 ■ ○ | FACTORY SETTING 30 min | 3 ■ | ON | 4 ■ | ON |
| 1 2 ■ ■ | 45 min | 3 ■ | ON | 4 ■ | ON |

UNIT MUST BE SWITCHED OFF BEFORE CHANGING THE JUMPER SELECTION

| LEGEND | | LEGEND | | COLOUR CODE | COMPRESSOR (EACH) | | MODEL: P085AHR3SA |
|--------|--|--------|----------------------------------|-------------|-------------------|----------------|------------------------|
| ○ | TERMINAL SWITCHBOARD TERMINAL | TOL | THERMAL OVERLOAD RELAY CONTACTOR | r | RED | KW | OPTIONS DESCRIPTION |
| ○ | FIELD WIRING | R | OUTDOOR FAN CONTACTOR | w | WHITE | 9.88 | |
| --- | CONTROL PARAMETER MAINS/CONTROL WIRING | C | COMPRESSOR ISOLATOR SWITCH | b | BLUE | RATED CURRENT | STANDARD |
| --- | ISO | COMP | MINIATURE CIRCUIT BREAKER | bk | BLACK | 31.00 | |
| CCH | CRANK CASE HEATER | MCB | CONTROL CIRCUIT BREAKER | bn | BROWN | O/L SETTING | FLA |
| PFR | PHASE FAILURE RELAY | CCB | CONTROL CIRCUIT BREAKER | o | ORANGE | 34.10 | |
| RV | REVERSING VALVE | O/L | OVERLOAD | p | PINK | FANS (EACH) KW | OUTDOOR |
| HP | HIGH PRESSURE SWITCH | POT | POTENTIOMETER | pl | PURPLE | 0.93 | |
| LP | LOW PRESSURE SWITCH | | | gy | GREY | 1.50 | 4.30 |
| | | | | yell | YELLOW | | |

DATE: 3/07/2018
DWN: S.P APPD: ENG
REV: B GRID: B76
DWG No: EWS02073