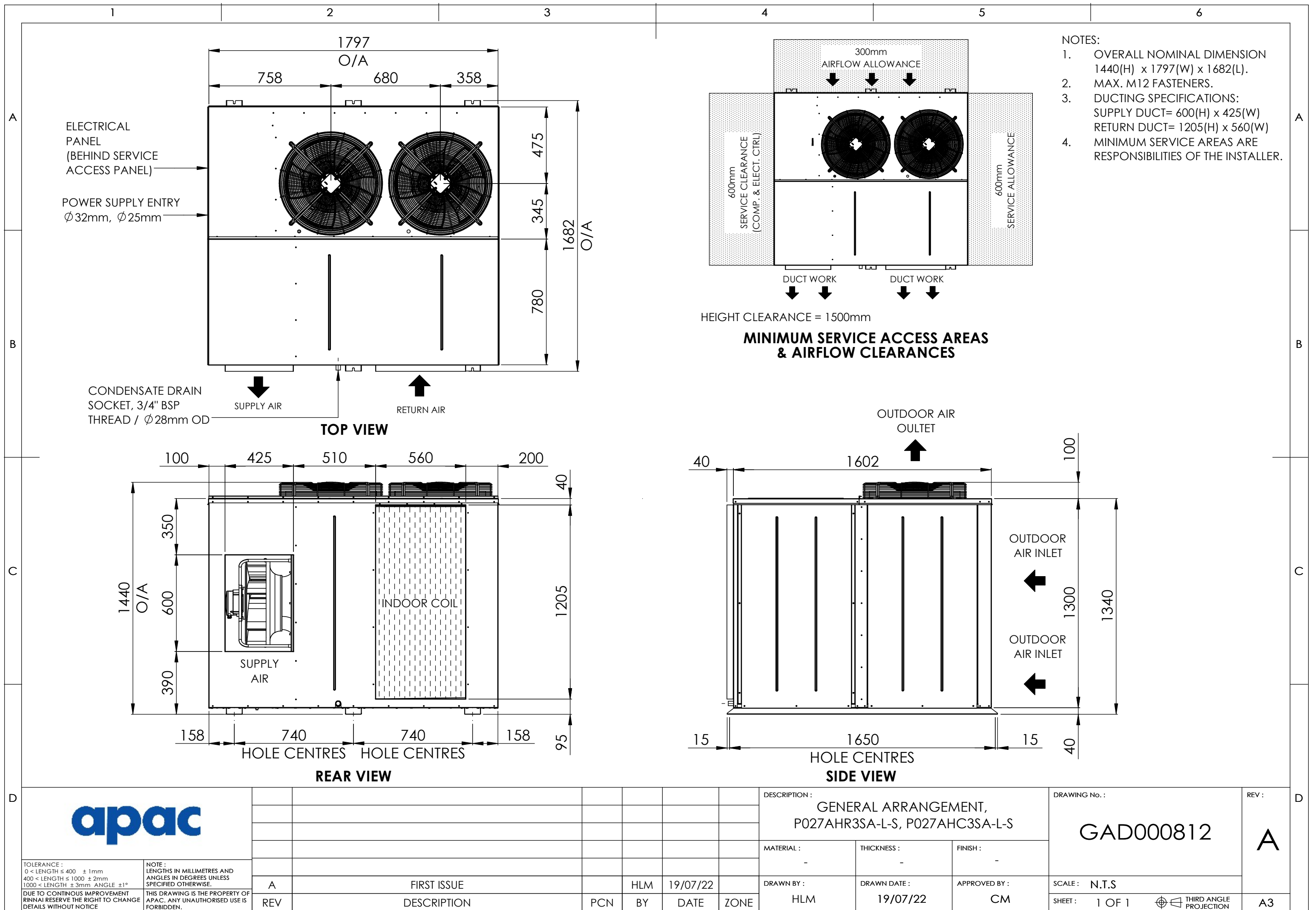
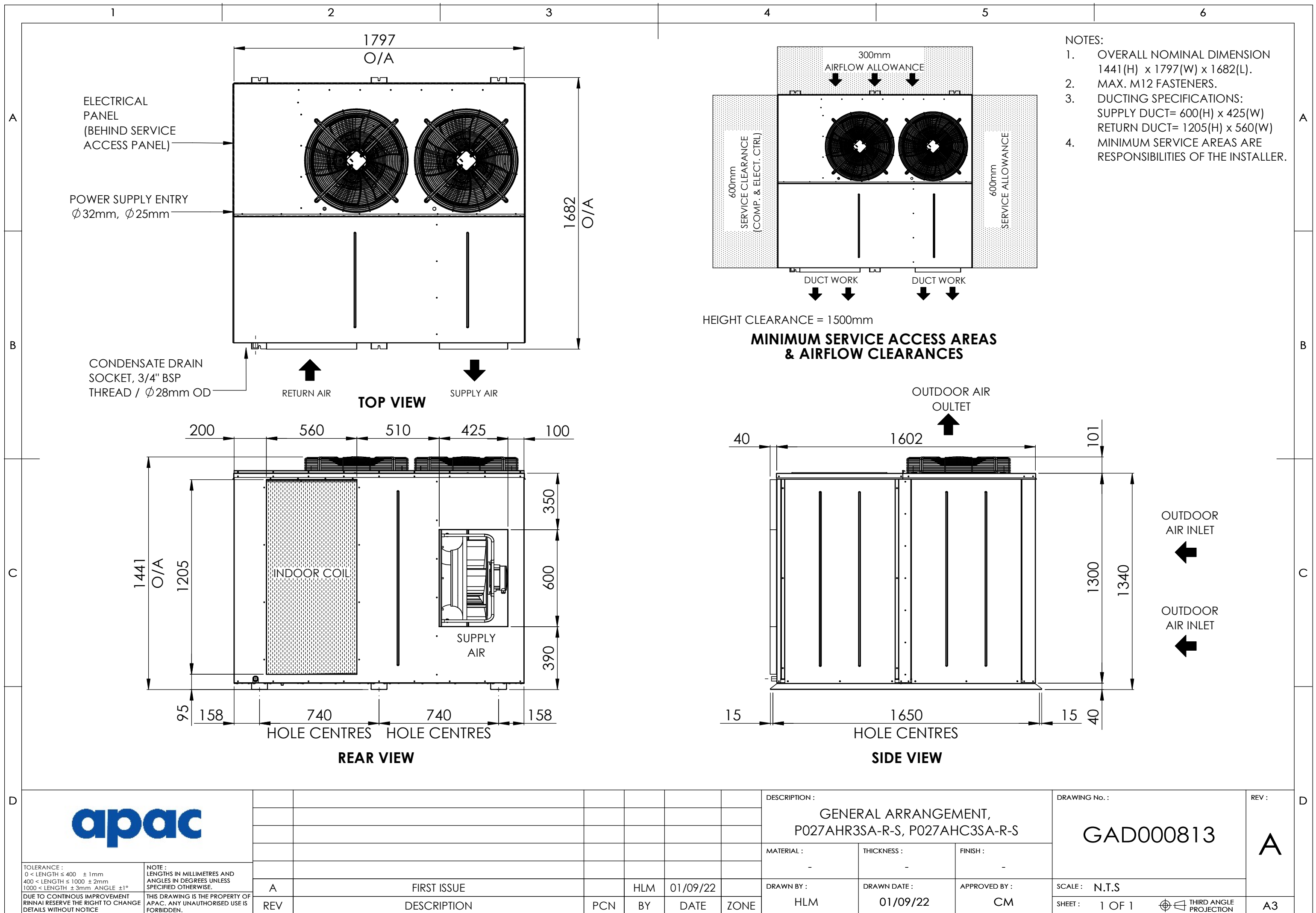






# TECHNICAL DATA SHEET

| MODEL NUMBER       |                                                    |                 | P027AHC3SA-L/R-S                                           | P032AHC3SA-L/R-S       | P036AHC3SA-L/R-S       | P042AHC3SA-L/R-S       | P046AHC3SA-L/R-S       |
|--------------------|----------------------------------------------------|-----------------|------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|
| CONDENSER SECTION  | CAPACITY                                           |                 |                                                            |                        |                        |                        |                        |
|                    | Cooling                                            | kW TOTAL*       | 28.65                                                      | 34.40                  | 39.42                  | 45.97                  | 47.18                  |
|                    |                                                    | kW SENSIBLE*    | 21.60                                                      | 26.83                  | 29.76                  | 33.69                  | 35.97                  |
|                    |                                                    | EER (kW / ikW)* | 3.34                                                       | 3.37                   | 3.23                   | 3.23                   | 3.04                   |
|                    | CAPACITY STEPS (%)                                 |                 | 0/100                                                      | 0/100                  | 0/50/100               | 0/50/100               | 0/50/100               |
|                    | 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                                            |                 | 1                                                          | 1                      | 1                      | 1                      | 1                      |
|                    | PROTECTION DEVICES                                 |                 | HP SWITCH, LP SWITCH, INTERNAL THERMAL CUTOUT              |                        |                        |                        |                        |
|                    | ALL COMPRESSORS HAVE                               |                 | SUMP HEATER                                                |                        |                        |                        |                        |
|                    | FAN                                                |                 |                                                            |                        |                        |                        |                        |
|                    | TYPE                                               |                 | AXIAL                                                      | AXIAL                  | AXIAL                  | AXIAL                  | AXIAL                  |
|                    | ikW (MAX INPUT)                                    |                 | 0.39                                                       | 0.39                   | 0.39                   | 0.39                   | 0.39                   |
|                    | PHASE                                              |                 | 1Ø                                                         | 1Ø                     | 1Ø                     | 1Ø                     | 1Ø                     |
|                    | No. OFF                                            |                 | 2                                                          | 2                      | 2                      | 2                      | 2                      |
|                    | FAN SPEED CONTROL                                  |                 | 2 SPEED VIA CAPACITOR                                      | 2 SPEED VIA CAPACITOR  | 2 SPEED VIA CAPACITOR  | 2 SPEED VIA CAPACITOR  | 2 SPEED VIA CAPACITOR  |
|                    | HEAT EXCHANGER                                     |                 |                                                            |                        |                        |                        |                        |
|                    | TYPE                                               |                 | ALU / CU COIL                                              | ALU / CU COIL          | ALU / CU COIL          | ALU / CU COIL          | ALU / CU 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                                    |                 | 1                                                          | 1                      | 1                      | 1                      | 1                      |
|                    | REFRIGERANT CONTROL                                |                 | TXV                                                        |                        |                        |                        |                        |
| EVAPORATOR SECTION | FAN                                                |                 |                                                            |                        |                        |                        |                        |
|                    | TYPE                                               |                 | EC PLUG                                                    | EC PLUG                | EC PLUG                | EC PLUG                | EC PLUG                |
|                    | ikW (MAX INPUT)                                    |                 | 1.32                                                       | 1.32                   | 1.32                   | 3.35                   | 3.35                   |
|                    | PHASE                                              |                 | 3Ø                                                         | 3Ø                     | 3Ø                     | 3Ø                     | 3Ø                     |
|                    | No. OFF                                            |                 | 1                                                          | 1                      | 1                      | 1                      | 1                      |
|                    | FAN SPEED CONTROL                                  |                 | VARIABLE SPEED                                             | VARIABLE SPEED         | VARIABLE SPEED         | VARIABLE SPEED         | VARIABLE SPEED         |
|                    | HEAT EXCHANGER                                     |                 |                                                            |                        |                        |                        |                        |
|                    | TYPE                                               |                 | ALU / CU COIL                                              | ALU / CU COIL          | ALU / CU COIL          | ALU / CU COIL          | ALU / CU COIL          |
|                    | NOM. AIRFLOW l/s                                   |                 | 1450                                                       | 1775                   | 1875                   | 2200                   | 2470                   |
|                    | 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)                         |                 | 18.39                                                      | 21.50                  | 21.31                  | 23.92                  | 30.21                  |
|                    | MAX. F.L.A. (TOTAL SYSTEM)                         |                 | 23.86                                                      | 27.26                  | 30.66                  | 39.76                  | 42.76                  |
|                    | GENERAL                                            |                 |                                                            |                        |                        |                        |                        |
|                    | CABINET                                            |                 | GALVANISED SHEET STEEL                                     |                        |                        |                        |                        |
|                    | INSULATION                                         |                 | 25MM ALUMINIUM FOIL FACED POLYETHYLENE ACOUSTIC INSULATION |                        |                        |                        |                        |
|                    | EXTERNAL FINISH                                    |                 | POLYESTER POWDER COAT - RAL 7035 LIGHT GREY AS STANDARD    |                        |                        |                        |                        |
|                    | DIMENSIONS                                         |                 |                                                            |                        |                        |                        |                        |
|                    | H X W X D (mm)                                     |                 | 1563 X 1900 X 1755                                         | 1766 X 1900 X 1755     |                        | 1969 X 1900 X 1755     |                        |
|                    | WEIGHT                                             |                 |                                                            |                        |                        |                        |                        |
|                    | OPERATING KG                                       |                 | 392                                                        | 423                    | 488                    | 534                    | 534                    |
|                    | SHIPPING KG                                        |                 | 452                                                        | 486                    | 538                    | 584                    | 584                    |
|                    | NOISE LEVELS [Based on condenser fan's sound data] |                 |                                                            |                        |                        |                        |                        |
| Sound Power db(A)  |                                                    | 67.1            | 67.5                                                       | 66.9                   | 67.2                   | 67.2                   |                        |

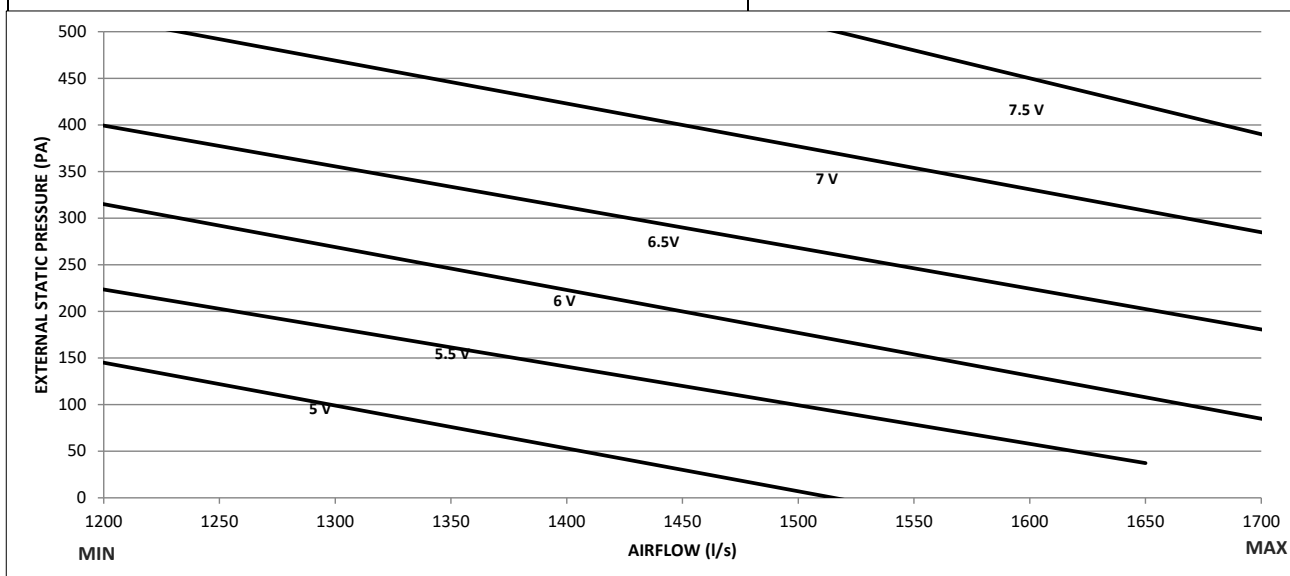
**Note:** Rated in accordance with AHRI 210/240 or 340/360  
Performance excludes ikW of indoor fan motor  
R.L.A - Run Load Amps are based on current drawn at nominal conditions  
F.L.A - Full Load Amps are based on the overload settings [Max Current] of all Compressor and Fan Motor(s)

| Date     | Document # | Approved By | Revision |
|----------|------------|-------------|----------|
| 20/12/22 | TDS001155  | AY          | B        |

**NOTE:** Due to continuous improvement Rinnai reserve the right to change details without notice.

## FAN PERFORMANCE DATA

P027AHR(C)3SA-L/R-S



Note:

1. 4V, 4.5V, 5V, 5.5V, 6V, 6.5 V, 7V and 7.5 V 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 |
|--------|------------|-------------|----------|
| 4/2/22 | FPD000573  | CM          | A        |

**NOTE:** Due to continuous improvement Rinnai reserve the right to change details without notice.

## SOUND DATA TABLE

**MODEL NUMBER**

**P027AHR(C)3SA-L/R-S**

### Outdoor Fan

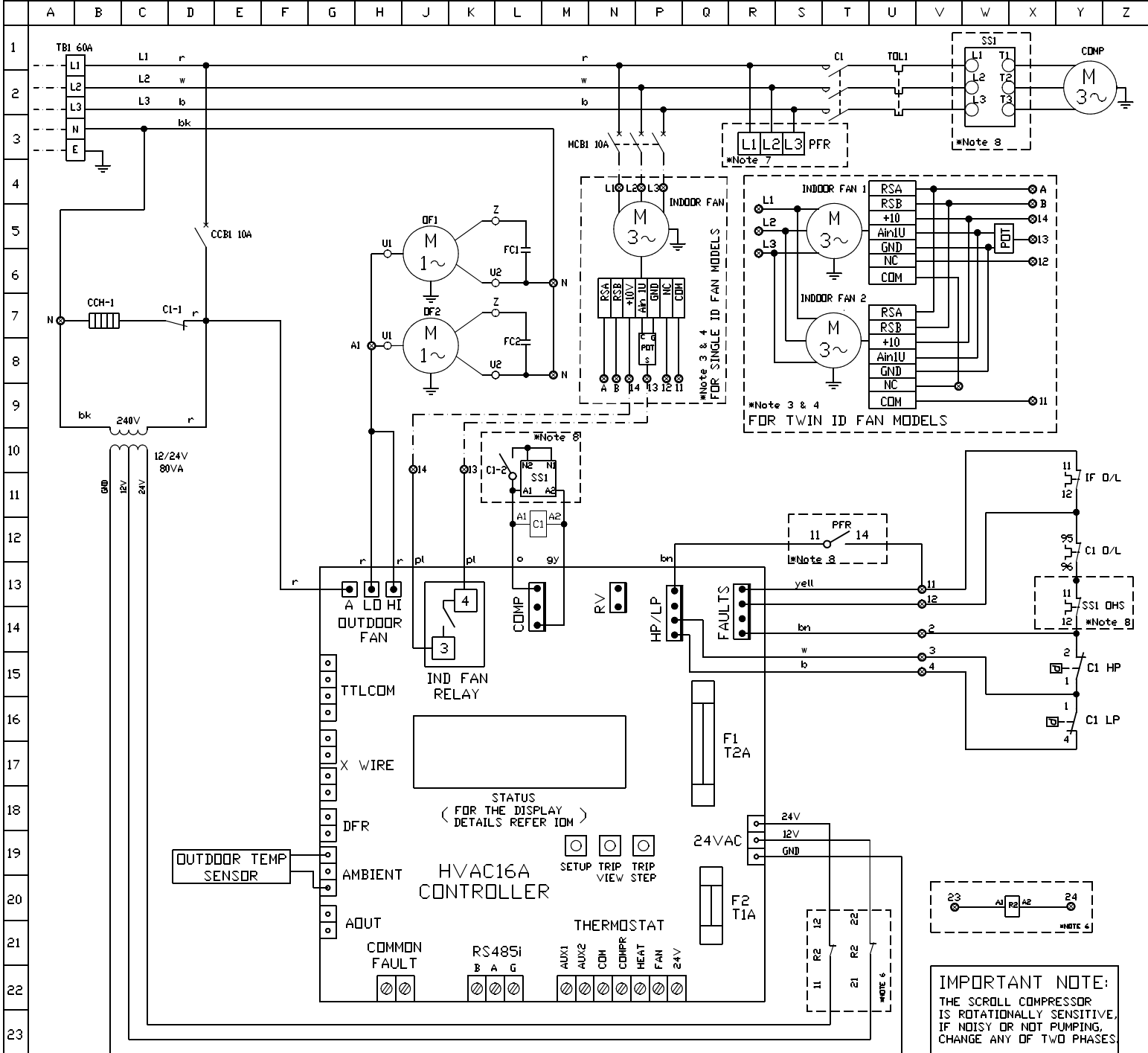
| Sound Power Level dB(A) | Octave band Centre Frequency (hz), dB |      |      |      |      |      |      |
|-------------------------|---------------------------------------|------|------|------|------|------|------|
|                         | 125                                   | 250  | 500  | 1k   | 2k   | 4k   | 8k   |
| 67.1                    | 73.1                                  | 62.4 | 62.6 | 62.5 | 60.1 | 53.9 | 50.4 |

### Indoor Fan

| Sound Power Level dB(A) | Air Flow (l/s) | Octave band Centre Frequency (hz), dB |      |      |      |      |      |      |
|-------------------------|----------------|---------------------------------------|------|------|------|------|------|------|
|                         |                | 125                                   | 250  | 500  | 1k   | 2k   | 4k   | 8k   |
| 73                      | 1444           | 67.7                                  | 66.5 | 69.6 | 70.3 | 63.8 | 58.2 | 52.2 |

| Date    | Document # | Approved By | Revision |
|---------|------------|-------------|----------|
| 27/1/23 | SDT000579  | CM          | A        |

**NOTE: Due to continuous improvement Rinnai reserve the right to change details without notice.**



**WARNING:** THE SOFTWARE OF THE HVAC16A CONTROLLER IS **NOT** DESIGNED TO FUNCTION AS A PRIMARY PERSONAL SAFETY DEVICE AS CONNECTED EQUIPMENT CAN START AUTOMATICALLY WITHOUT WARNING. ALSO OPENING THE THERMOSTAT CONTACTS MAY **NOT** CAUSE THE EQUIPMENT TO STOP. OUTDOOR FAN MOTORS HAVE INTERNAL OVERLOADS AND MAY RESTART AUTOMATICALLY.

- NOTES:**
1. THERMAL OVERLOAD RELAYS ARE MANUAL RESET. HP SWITCH AND LP SWITCH ARE AUTO RESET, UNLESS OTHERWISE STATED.
  2. ALL FIELD WIRING IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR AND MUST COMPLY WITH AS/NZS 3000 AND LOCAL RULES.
  3. FOR SPLIT SYSTEMS, OTHERS TO INSTALL ISOLATOR AND FIELD WIRING FOR INDOOR FAN TO TERMINATE TO TERMINALS 13 & 14.
  4. FOR PACKAGE SYSTEMS THE WIRING FOR INDOOR FAN TO INDOOR FAN RELAY WILL BE FACTORY FITTED TO TERMINALS 13 & 14.
  5. ISOLATOR FOR ELECTRICAL PROTECTION TO BE SUPPLIED BY THE INSTALLER.
  6. OPTIONAL FIRE ALARM RELAY. JUMPER SHORT IF NOT SELECTED.
  7. OPTIONAL PHASE MONITORING RELAY (PFR). JUMPER SHORT IF NOT SELECTED.
  8. OPTIONAL SOFT STARTER (SS).
  9. FOR 42 & 46kW UNITS SOFT STARTER SS1 OHS NOT CONNECTED AND NI-12 ON THE SOFT STARTER TO BE WIRED AS SHOWN.

| REV | ECN    | DESCRIPTION                         | DATE       |
|-----|--------|-------------------------------------|------------|
| C   | K10317 | REVISED BOARD TO HVAC16A            | 16/04/2024 |
| B   | K10298 | THERMAL OVERLOAD AS STANDARD SUPPLY | 16/10/2023 |
| A   |        | FIRST RELEASE                       | 07/03/2022 |

| NO | MODEL                              | COMPRESSOR |       |       | ID FAN |      | ID FAN |      |
|----|------------------------------------|------------|-------|-------|--------|------|--------|------|
|    |                                    | kW         | FLA   | O/L   | kW     | FLA  | kW     | FLA  |
| 1  | P027AHC3SA-L-S/S0320VC3SA-S-ILC3SA | 6.74       | 18.20 | 20.00 | 0.39   | 1.78 | 2.73   | 4.20 |
| 2  | P032AHC3SA-L-S/S0320VC3SA-S-ILC3SA | 7.83       | 21.60 | 23.80 | 0.39   | 1.78 | 2.73   | 4.20 |
| 3  | P036AHC3SA-L-S/S0360VC3SA-S-ILC3SA | 8.87       | 25.00 | 27.50 | 0.39   | 1.78 | 2.73   | 4.20 |
| 4  | P042AHC3SA-L-S/S0420VC3SA-S-ILC3SA | 9.88       | 31.00 | 34.10 | 0.39   | 1.78 | 2.82   | 4.30 |
| 5  | P046AHC3SA-L-S/S0460VC3SA-S-ILC3SA | 11.60      | 34.00 | 36.00 | 0.39   | 1.78 | 2.82   | 4.30 |

| TABLE 1           |                               |                   |          |
|-------------------|-------------------------------|-------------------|----------|
| JUMPERS SELECTION | DEFROST INTERVAL TIME SETTING | JUMPERS SELECTION | SPEED UP |
|                   | 15 min                        |                   | OFF      |
|                   | FACTORY SETTING 30 min        |                   | ON       |
|                   | 45 min                        |                   | ON       |

| LEGEND  |                           |     |                         |
|---------|---------------------------|-----|-------------------------|
| COMP C1 | COMPRESSOR CONTACTOR      | O/L | OVERLOAD                |
| TOL     | THERMAL OVERLOAD          | CCH | CRANK CASE HEATER       |
| HP      | HIGH PRESSURE SWITCH      | LP  | LOW PRESSURE SWITCH     |
| MCB     | MINIATURE CIRCUIT BREAKER | CCB | CONTROL CIRCUIT BREAKER |
| PFR     | PHASE FAILURE RELAY       |     |                         |

| LEGEND                    |        | COLOUR CODE |
|---------------------------|--------|-------------|
| OUTDOOR FAN POTENTIOMETER | OF POT |             |
| FIELD WIRING              | ---    |             |
| MAINS/CONTROL WIRING      | ---    |             |
| OPTION WIRING             | ---    |             |
| SWITCHBOARD TB2           | ---    |             |
| TERMINAL                  | ---    |             |

| TYPE: 3-S (AHC) |              |
|-----------------|--------------|
| OPTIONS         |              |
| REF             | DESCRIPTION  |
| A               | STANDARD     |
| B               | SOFT STARTER |

**apac**

DATE: 07/03/2022

DWN: 001W/L APPD: CM

REV: C

DWG No: EWS000590