

# PACKAGE UNIT



## UNIT FEATURES

- Tru-Inverter™ Variable Speed Compressor and Drive Technology
- Pre-charged with R-410A Refrigerant
- Multiple Speed Outdoor Fans
- 40-100% Variable Refrigeration Capacity
- Low Ambient Cooling Operation to +5 deg
- Phase Protection
- Hydrophilic Blue Coat Coil Fin Protection - Indoor and Outdoor Coils
- Removable Louvred Outdoor Coil Guard
- Adaptive Demand Defrost
- EC Variable Speed Indoor Fan + Reduce Fan Airflow Feature
- Adjustable Indoor Airflow
- Foil Faced Polyethylene Insulation
- Active Power Factor Correction
- Bi-Flow Electronic Expansion Valves

## UNIT OPTIONS

- Additional Full Coil Coat Protection

## CONTROL OPTIONS AND FEATURES

### ActronAir LC7-2 (BCA Compliant)

- Available in White or Grey
- 7-day Programmable Controller with 2 Events per Day
- 24-hour ON/OFF Timer
- Temperature Setback
- After Hours Time
- Auto / Cool / Heat / Fan Only / Night Modes Functions
- Auto / Continuous Indoor Fan Operation
- Optional 2nd and 3rd Controllers with Mimic Logic
- On-Board Temperature Sensor

### ActronAir Neo

- 7" Colour Touch Screen
- In-built Wi-Fi
- Neo Connect App
- On-Board Temperature, Humidity and Proximity Sensors
- Available in White or Black

### ActronAir Group Control

### ActronAir BMS ICUNO (Modbus 485)

## THIRD PARTY CONTROL

- Manual Control Inputs (Heat, Cool and Fan Operation)
- Analogue Input (Fan and Cool Operation)

## SPECIFICATION SUMMARY

| UNIT MODEL                                         | PKV160T         |          |       |
|----------------------------------------------------|-----------------|----------|-------|
|                                                    | (1) TOTAL       | (2) NETT |       |
| (3) COOLING CAPACITY (kW)                          | MINIMUM         | 5.70     | 5.60  |
|                                                    | RATED           | 14.25    | 14.00 |
|                                                    | TRUMAX (9)      | 16.37    | 16.00 |
| (4) HEATING CAPACITY (kW)                          | MINIMUM         | 6.20     | 6.30  |
|                                                    | RATED           | 14.75    | 15.00 |
|                                                    | TRUMAX (9)      | 16.63    | 17.00 |
| (3) SENSIBLE CAPACITY (kW)                         | RATED           | 11.59    | 11.34 |
| (5) COOLING INPUT POWER (kW)                       | RATED           | 4.24     |       |
| (5) HEATING INPUT POWER (kW)                       | RATED           | 4.39     |       |
| EER                                                | RATED           | 3.36     | 3.30  |
| COP                                                | RATED           | 3.36     | 3.42  |
| (6) INDOOR AIRFLOW (l/s) - MIN. / NOMINAL / MAX.   | 600 / 750 / 900 |          |       |
| MINIMUM AIRFLOW WHEN IN MODULATION (l/s)           | 195             |          |       |
| OUTDOOR SOUND PRESS. LEVEL @ 3M dB(A) - LOW / HIGH | 48.0 / 53.0     |          |       |
| OUTDOOR SOUND POWER LEVEL dB(A) - LOW / HIGH       | 68.0 / 72.1     |          |       |
| POWER SUPPLY                                       | 400V/3Ph+N/50Hz |          |       |
| (2) RATED LOAD AMPS                                | 8.2             |          |       |
| (7) FULL LOAD AMPS                                 | 14.4            |          |       |
| (8) CIRCUIT BREAKER AND CABLE AMPS                 | 20              |          |       |
| APPROXIMATE STARTING AMPS                          | < 45            |          |       |
| POWER FACTOR                                       | 0.96            |          |       |
| WEIGHT (kg)                                        | 259             |          |       |

(1) Based on unit rating excluding indoor fan kW.

(2) Measured and tested in accordance with AS/NZS 3823.1.2.

(3) At 27°C DB / 19°C WB entering air temperatures and 35°C ambient.

(4) At 20°C DB entering air temperature and 7°C DB / 6°C WB ambient.

(5) Total input power excludes indoor fan kW.

Nett input power includes indoor fan kW.

(6) Max. - Min. airflow application range irrespective of external static pressure.

(7) Full Load Amps are based on compressor and fan motors' maximum expected current.

(8) See Specifications sheet for cable size and circuit breaker size details.

(9) TRUMAX - Maximum Capacity.

Note: Use nett input power to estimate running cost.



3 Phase 1 Stage 14.25 kW

# CAPACITY SELECTION DATA

# PKV160T

## COOLING PERFORMANCE

| AIR ENTERING    |                | TOTAL CAPACITY kW | TOTAL SENSIBLE CAPACITY - kW<br>AT DB TEMPERATURE ONTO INDOOR COIL - °C |      |       |       |       |       |       |       |       |       |       |
|-----------------|----------------|-------------------|-------------------------------------------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| OUTDOOR DB - °C | INDOOR WB - °C |                   | 20                                                                      | 21   | 22    | 23    | 24    | 25    | 26    | 27    | 28    | 29    | 30    |
| 25              | 16             | 14.48             | 9.14                                                                    | 9.69 | 10.25 | 10.80 | 11.36 | 11.95 |       |       |       |       |       |
|                 | 17             | 14.95             | 8.80                                                                    | 9.24 | 9.68  | 10.45 | 11.23 | 11.71 | 12.18 | 12.65 |       |       |       |
|                 | 18             | 15.41             | 8.47                                                                    | 8.79 | 9.11  | 10.11 | 11.11 | 11.47 | 11.82 | 12.57 | 13.32 |       |       |
|                 | 19             | 15.91             | 8.30                                                                    | 8.56 | 8.81  | 9.45  | 10.08 | 10.98 | 11.89 | 12.06 | 12.23 | 12.47 |       |
|                 | 20             | 16.42             | 8.13                                                                    | 8.44 | 8.78  | 9.02  | 9.27  | 10.14 | 11.02 | 11.72 | 12.42 | 12.50 | 12.58 |
|                 | 21             | 16.80             |                                                                         | 8.33 | 8.77  | 8.97  | 9.18  | 9.80  | 10.42 | 11.10 | 11.69 | 12.12 | 12.55 |
| 22              | 17.18          |                   |                                                                         | 8.75 | 8.92  | 9.08  | 9.45  | 9.81  | 10.48 | 10.95 | 11.73 | 12.52 |       |
| 30              | 16             | 13.99             | 8.85                                                                    | 9.45 | 10.05 | 10.63 | 11.20 | 11.66 |       |       |       |       |       |
|                 | 17             | 14.47             | 8.32                                                                    | 8.87 | 9.43  | 10.22 | 11.01 | 11.43 | 11.86 | 12.29 |       |       |       |
|                 | 18             | 14.95             | 7.78                                                                    | 8.30 | 8.81  | 9.81  | 10.81 | 11.21 | 11.62 | 11.99 | 12.37 |       |       |
|                 | 19             | 15.26             | 7.76                                                                    | 8.10 | 8.45  | 9.13  | 9.81  | 10.77 | 11.73 | 11.80 | 11.87 | 12.29 |       |
|                 | 20             | 15.70             | 7.74                                                                    | 8.01 | 8.39  | 8.67  | 8.95  | 9.84  | 10.74 | 11.47 | 11.96 | 12.20 | 12.44 |
|                 | 21             | 15.99             |                                                                         | 7.91 | 8.37  | 8.66  | 8.94  | 9.55  | 10.16 | 10.76 | 11.32 | 11.85 | 12.38 |
| 22              | 16.28          |                   |                                                                         | 8.34 | 8.64  | 8.94  | 9.26  | 9.58  | 10.05 | 10.67 | 11.50 | 12.32 |       |
| 35              | 16             | 13.80             | 8.42                                                                    | 9.04 | 9.67  | 10.40 | 11.12 | 11.59 |       |       |       |       |       |
|                 | 17             | 13.78             | 7.87                                                                    | 8.46 | 9.06  | 9.93  | 10.79 | 11.30 | 11.80 | 12.31 |       |       |       |
|                 | 18             | 13.76             | 7.31                                                                    | 7.88 | 8.45  | 9.46  | 10.46 | 11.01 | 11.55 | 11.71 | 11.86 |       |       |
|                 | 19             | 14.25             | 7.11                                                                    | 7.63 | 8.14  | 8.79  | 9.45  | 10.42 | 11.40 | 11.59 | 11.78 | 12.23 |       |
|                 | 20             | 14.77             | 6.91                                                                    | 7.50 | 7.74  | 8.10  | 8.46  | 9.43  | 10.40 | 11.16 | 11.84 | 12.01 | 12.31 |
|                 | 21             | 15.14             |                                                                         | 7.37 | 7.54  | 7.97  | 8.40  | 9.04  | 9.68  | 10.42 | 11.10 | 11.63 | 12.23 |
| 22              | 15.50          |                   |                                                                         | 7.34 | 7.84  | 8.34  | 8.65  | 8.95  | 9.69  | 10.35 | 11.25 | 12.15 |       |
| 40              | 16             | 12.54             | 8.21                                                                    | 8.86 | 9.50  | 10.19 | 10.87 | 11.38 |       |       |       |       |       |
|                 | 17             | 12.98             | 7.51                                                                    | 8.19 | 8.86  | 9.70  | 10.54 | 11.06 | 11.59 | 12.11 |       |       |       |
|                 | 18             | 13.41             | 6.81                                                                    | 7.51 | 8.21  | 9.21  | 10.21 | 10.74 | 11.27 | 11.57 | 11.87 |       |       |
|                 | 19             | 13.66             | 6.78                                                                    | 7.01 | 7.23  | 8.20  | 9.17  | 10.10 | 11.03 | 11.16 | 11.67 | 12.18 |       |
|                 | 20             | 14.16             | 6.75                                                                    | 6.75 | 6.81  | 7.49  | 8.16  | 9.19  | 10.22 | 10.74 | 11.94 | 12.06 | 12.26 |
|                 | 21             | 14.56             |                                                                         | 6.50 | 6.60  | 7.26  | 7.91  | 8.63  | 9.35  | 10.02 | 11.02 | 11.55 | 12.12 |
| 22              | 14.95          |                   |                                                                         | 6.40 | 7.03  | 7.67  | 8.07  | 8.48  | 9.30  | 10.10 | 11.04 | 11.99 |       |
| 45              | 16             | 11.91             | 7.93                                                                    | 8.52 | 9.10  | 9.85  | 10.60 | 11.08 |       |       |       |       |       |
|                 | 17             | 12.25             | 7.53                                                                    | 7.98 | 8.44  | 9.35  | 10.27 | 10.78 | 11.30 | 11.81 |       |       |       |
|                 | 18             | 12.60             | 7.12                                                                    | 7.45 | 7.77  | 8.86  | 9.94  | 10.48 | 11.03 | 11.45 | 11.86 |       |       |
|                 | 19             | 12.87             | 6.68                                                                    | 6.93 | 7.18  | 8.05  | 8.91  | 9.89  | 10.86 | 11.22 | 11.65 | 12.07 |       |
|                 | 20             | 13.25             | 6.24                                                                    | 6.67 | 6.71  | 7.29  | 7.87  | 8.86  | 9.86  | 10.79 | 11.71 | 11.92 | 12.13 |
|                 | 21             | 13.58             |                                                                         | 6.42 | 6.47  | 7.08  | 7.69  | 8.31  | 8.93  | 9.82  | 10.75 | 11.35 | 11.94 |
| 22              | 13.92          |                   |                                                                         | 6.23 | 6.88  | 7.52  | 7.76  | 8.00  | 8.85  | 9.79  | 10.77 | 11.76 |       |
| 50              | 16             | 11.21             | 7.65                                                                    | 7.99 | 8.32  | 9.33  | 10.34 | 10.97 |       |       |       |       |       |
|                 | 17             | 11.58             | 6.99                                                                    | 7.48 | 7.98  | 9.00  | 10.02 | 10.64 | 11.26 | 11.88 |       |       |       |
|                 | 18             | 11.96             | 6.32                                                                    | 6.98 | 7.64  | 8.66  | 9.69  | 10.31 | 10.93 | 11.16 | 11.39 |       |       |
|                 | 19             | 12.16             | 6.18                                                                    | 6.38 | 6.57  | 7.62  | 8.67  | 9.65  | 10.63 | 10.91 | 11.19 | 11.47 |       |
|                 | 20             | 12.50             | 6.04                                                                    | 6.08 | 6.24  | 6.95  | 7.66  | 8.65  | 9.64  | 10.43 | 11.21 | 11.36 | 11.52 |
|                 | 21             | 12.88             |                                                                         | 5.77 | 6.07  | 6.76  | 7.45  | 8.06  | 8.67  | 9.29  | 10.40 | 10.94 | 11.49 |
| 22              | 13.26          |                   |                                                                         | 5.90 | 6.57  | 7.23  | 7.47  | 7.70  | 8.15  | 9.58  | 10.52 | 11.45 |       |

3 Phase  
1 Stage  
14.25 kW

## HEATING PERFORMANCE

| WB TEMP ON OD COIL - °C | TOTAL HEATING CAPACITY - kW<br>AT DB ENTERING INDOOR - °C |       |       |       |       |       |       |       |       |       |
|-------------------------|-----------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                         | 16                                                        |       | 18    |       | 20    |       | 22    |       | 24    |       |
|                         | TH                                                        | IH    | TH    | IH    | TH    | IH    | TH    | IH    | TH    | IH    |
| -10                     | 9.36                                                      | 8.98  | 9.32  | 8.95  | 9.28  | 8.91  | 9.23  | 8.86  | 9.19  | 8.82  |
| -8                      | 9.97                                                      | 9.47  | 9.92  | 9.42  | 9.87  | 9.37  | 9.82  | 9.32  | 9.76  | 9.27  |
| -6                      | 10.60                                                     | 9.96  | 10.54 | 9.90  | 10.48 | 9.85  | 10.46 | 9.83  | 10.40 | 9.78  |
| -4                      | 11.27                                                     | 10.37 | 11.19 | 10.29 | 11.16 | 10.27 | 11.10 | 10.21 | 11.03 | 10.15 |
| -2                      | 12.00                                                     | 10.68 | 11.92 | 10.61 | 11.84 | 10.54 | 11.77 | 10.47 | 11.70 | 10.41 |
| 0                       | 12.71                                                     | 11.18 | 12.62 | 11.10 | 12.56 | 11.06 | 12.47 | 10.98 | 12.39 | 10.91 |
| 2                       | 13.41                                                     | 12.21 | 13.31 | 12.11 | 13.21 | 12.02 | 13.11 | 11.93 | 13.02 | 11.85 |
| 4                       | 14.19                                                     | 14.19 | 14.04 | 14.04 | 13.96 | 13.96 | 13.87 | 13.87 | 13.77 | 13.77 |
| 6                       | 15.00                                                     | 15.00 | 14.87 | 14.87 | 14.75 | 14.75 | 14.63 | 14.63 | 14.54 | 14.54 |
| 8                       | 15.84                                                     | 15.84 | 15.69 | 15.69 | 15.56 | 15.56 | 15.44 | 15.44 | 15.33 | 15.33 |
| 10                      | 16.70                                                     | 16.70 | 16.56 | 16.56 | 16.41 | 16.41 | 16.28 | 16.28 | 16.15 | 16.15 |
| 12                      | 17.60                                                     | 17.60 | 17.45 | 17.45 | 17.29 | 17.29 | 17.13 | 17.13 | 16.99 | 16.99 |
| 14                      | 18.53                                                     | 18.53 | 18.36 | 18.36 | 18.19 | 18.19 | 18.02 | 18.02 | 17.87 | 17.87 |
| 16                      | 19.50                                                     | 19.50 | 19.30 | 19.30 | 19.12 | 19.12 | 18.94 | 18.94 | 18.76 | 18.76 |
| 18                      | 20.50                                                     | 20.50 | 20.29 | 20.29 | 20.08 | 20.08 | 19.87 | 19.87 | 19.67 | 19.67 |

TH - Total Heating Capacity (kW),  
IH - Integrated Heating Capacity (kW)  
Includes defrost losses.

## AIRFLOW CORRECTION MULTIPLIER

| % VARIATION          | -20%  | -15%  | -10%  | -5%   | Nominal | +5%   | +10%  | +15%  |
|----------------------|-------|-------|-------|-------|---------|-------|-------|-------|
| INDOOR AIRFLOW (l/s) | 600   | 637   | 675   | 713   | 750     | 788   | 825   | 863   |
| TOTAL COOLING        | 0.965 | 0.982 | 0.989 | 0.997 | 1.000   | 1.004 | 1.009 | 1.015 |
| SENSIBLE COOLING     | 0.884 | 0.916 | 0.945 | 0.974 | 1.000   | 1.024 | 1.046 | 1.072 |
| HEATING FACTOR       | 0.969 | 0.976 | 0.983 | 0.991 | 1.000   | 1.011 | 1.022 | 1.033 |

### NOTES:

- No allowance has been made for the effect of indoor fan motor.
- Selection tables are based on nominal airflows.  
Correction factors must be applied for selection away from these conditions.



# INDOOR FAN DATA

# PKV160T

## APPLICATION RANGE (COMPRESSOR ON)

| AIRFLOW<br>(l/s) | EXTERNAL STATIC PRESSURE (Pa) |     |           |            |       |     |       |     |       |     |                      |     |
|------------------|-------------------------------|-----|-----------|------------|-------|-----|-------|-----|-------|-----|----------------------|-----|
|                  | 50                            |     | 100       |            | 150   |     | 200   |     | 250   |     | 300                  |     |
|                  | % PWM                         | W   | % PWM     | W          | % PWM | W   | % PWM | W   | % PWM | W   | % PWM                | W   |
| 600              | 40                            | 139 | 47        | 196        | 54    | 257 | 60    | 317 | 69    | 380 | 92                   | 450 |
| 650              | 45                            | 164 | 52        | 223        | 59    | 290 | 65    | 351 | 76    | 421 | 99                   | 492 |
| 700              | 51                            | 196 | 58        | 261        | 64    | 322 | 71    | 393 | 86    | 465 | MOTOR / BLOWER LIMIT |     |
| <b>750</b>       | 57                            | 231 | <b>63</b> | <b>291</b> | 70    | 362 | 78    | 443 | 95    | 509 |                      |     |
| 800              | 62                            | 259 | 70        | 339        | 77    | 413 | 84    | 485 |       |     |                      |     |
| 850              | 69                            | 304 | 77        | 387        | 83    | 459 | 94    | 539 |       |     |                      |     |
| 900              | 76                            | 349 | 83        | 431        | 89    | 507 |       |     |       |     |                      |     |

## REDUCED AIRFLOW \*(COMPRESSOR OFF)

| AIRFLOW<br>(l/s) | EXTERNAL STATIC PRESSURE (Pa) |     |       |     |       |     |       |     |       |     |       |     |     |
|------------------|-------------------------------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-----|
|                  | 50                            |     | 100   |     | 150   |     | 200   |     | 250   |     | 300   |     |     |
|                  | % PWM                         | W   | % PWM | W   | % PWM | W   | % PWM | W   | % PWM | W   | % PWM | W   |     |
| 200              | MOTOR / BLOWER LIMIT          |     |       | 22  | 87    | 27  | 123   | 31  | 150   |     |       |     |     |
| 250              |                               |     |       | 21  | 73    | 26  | 108   | 30  | 139   | 35  | 181   | 44  | 220 |
| 300              |                               |     |       | 24  | 85    | 29  | 121   | 34  | 162   | 38  | 197   | 51  | 245 |
| 350              | 21                            | 61  | 27    | 98  | 33    | 142 | 38    | 184 | 43    | 223 | 58    | 279 |     |
| 400              | 22                            | 64  | 30    | 109 | 36    | 155 | 42    | 206 | 48    | 255 | 64    | 306 |     |
| 450              | 27                            | 82  | 34    | 129 | 40    | 176 | 46    | 228 | 53    | 284 | 70    | 338 |     |
| 500              | 31                            | 98  | 38    | 149 | 44    | 197 | 51    | 259 | 58    | 316 | 76    | 373 |     |
| 550              | 36                            | 122 | 42    | 169 | 49    | 227 | 55    | 282 | 63    | 346 | 84    | 411 |     |

## NOTES

\* Reduced fan airflow is the airflow during compressor OFF operation (optional feature)

**W** = Indoor Fan Power, Watts

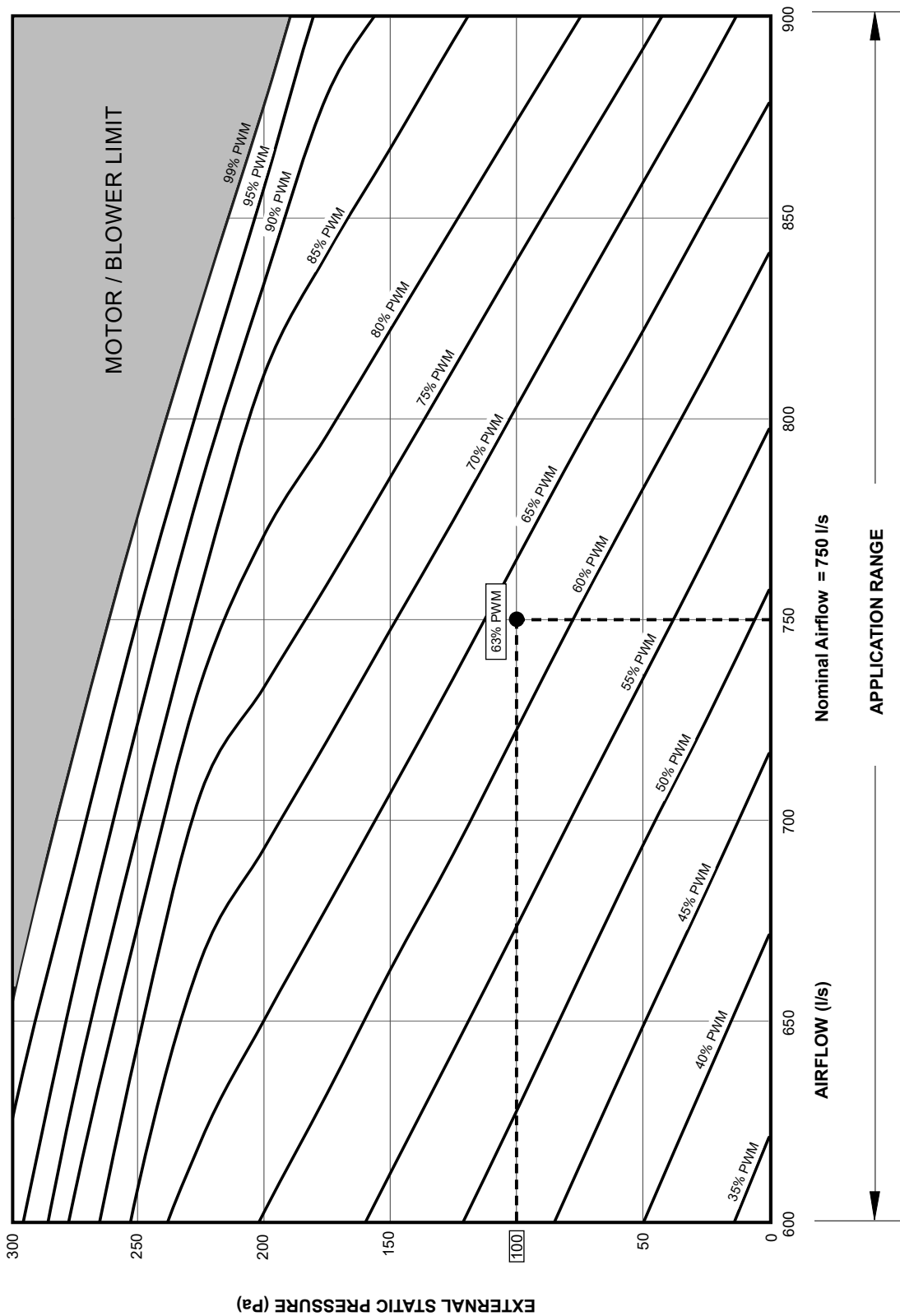
**PWM** = Pulse Width Modulation Setting, % PWM (Adjustable through the NEO / LC7-2 Control Interface or Outdoor Board)

| Default Fan Speed Value at 100Pa |                          |
|----------------------------------|--------------------------|
| Speed                            | Default PWM (adjustable) |
| High PWM (%)                     | 83                       |
| Medium PWM (%)                   | 63                       |
| Low PWM (%)                      | 48                       |

| Indoor Fan PWM Limits |    |
|-----------------------|----|
| PWM High Limit        | 99 |
| PWM Low Limit         | 40 |

3 Phase  
1 Stage  
14.25 kW





**Notes:**

1. Performance Fan Curve shown is at Dry Coil Condition.
2. Airflow should be reduced with respect to the moisture content in the air.
3. All data provided does not include filters. Please review filter manufacturer for application.
4. 2.5 m/s face velocity point will occur at 1025 l/s.

3 Phase | 1 Stage

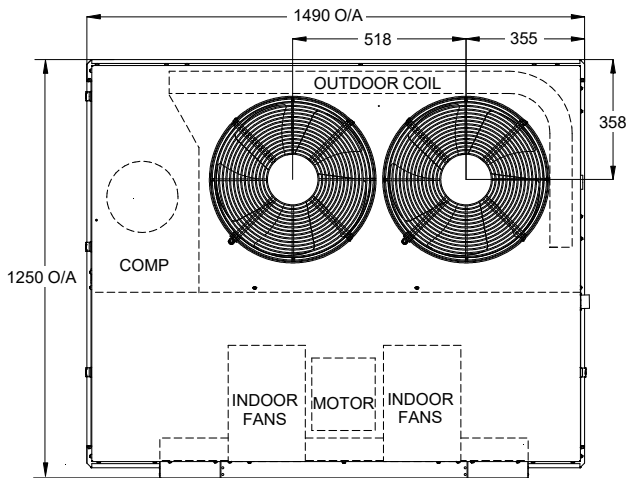
14.25 kW



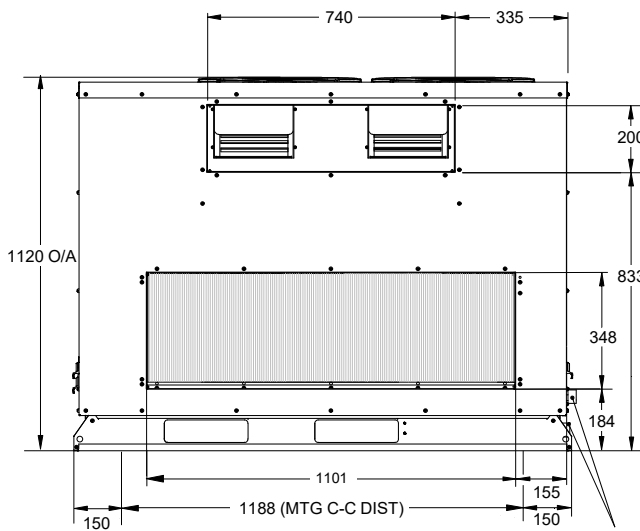
# UNIT DIMENSIONS

# PKV160T

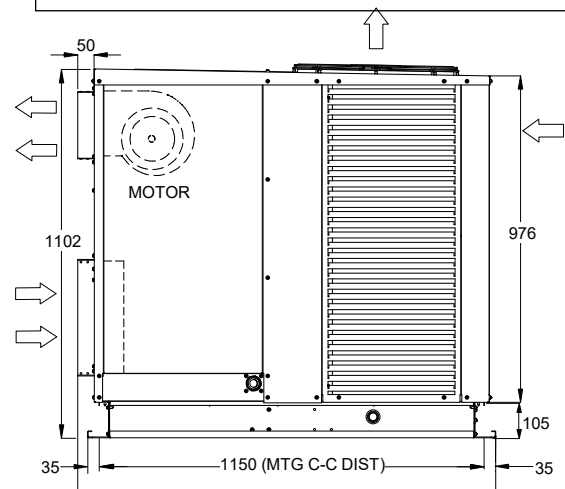
## PACKAGE UNIT - STANDARD MODEL



**TOP VIEW**



**SIDE VIEW**

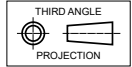


**FRONT VIEW**

OVERALL NOMINAL DIMENSION (H x W x D)  
= 1120 x 1490 x 1250  
SUPPLY DUCT (H x W) = 200 x 740  
RETURN DUCT (H x W) = 348 x 1101

**NOTES:**

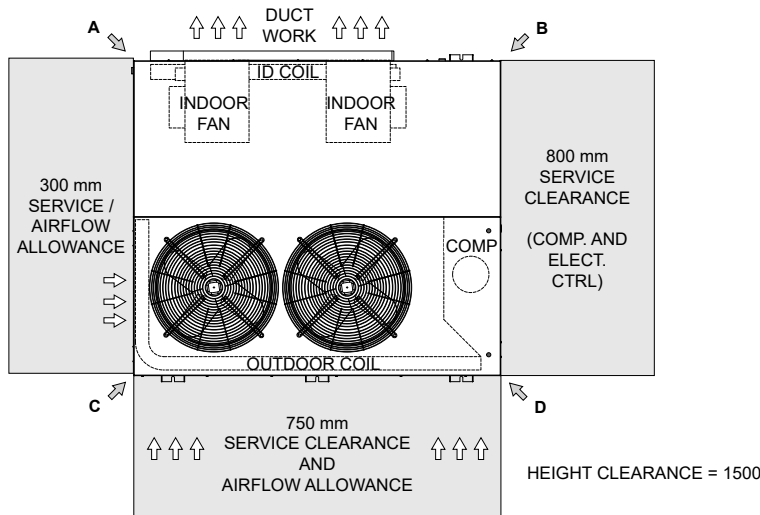
1. Do not scale drawing.
2. All dimensions are in mm unless specified. Refer to corresponding unit dimensional drawing for mounting hole details
3. Suggested Service Clearance and Airflow Allowances are based on conditions that the spaces are free from obstructions and walkway passage of 1m is available to allow coil replacement without lifting coil over the top of the unit.
4. Minimum service access areas and space for airflow clearances are responsibilities of the installer.
5. Under circumstances, condenser air must not recirculate back onto condenser coil. Keep all clearances free of any obstructions.
6. STACKING OF UNITS: Ensure that minimum airflow and service clearances are met.
7. MTG C-C DIST = Mounting Centre to Centre Distance.
8. Use M12 bolt for feet mounting.



3 Phase  
1 Stage  
14.25 KW

| UNIT MODEL NUMBER | UNIT WEIGHT (kg) | CORNER WEIGHTS (kg) |    |    |    |
|-------------------|------------------|---------------------|----|----|----|
|                   |                  | A                   | B  | C  | D  |
| PKV160T           | 259              | 45                  | 76 | 67 | 71 |

**MINIMUM SERVICE ACCESS CLEARANCES and AIRFLOW SPACE ALLOWANCES**



## Outdoor Radiated

### Sound Power Level (SWL)

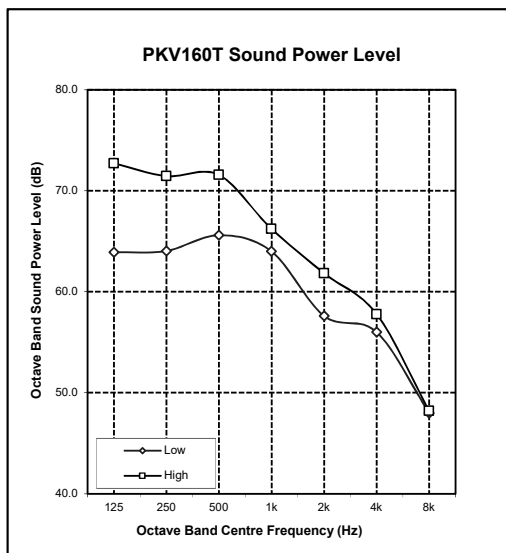
| Fan Speed | Sound Power Level dB(A) | Octave Band Centre Frequency (Hz), dB |      |      |      |      |      |      |
|-----------|-------------------------|---------------------------------------|------|------|------|------|------|------|
|           |                         | 125                                   | 250  | 500  | 1k   | 2k   | 4k   | 8k   |
| Low       | 68.0                    | 63.9                                  | 64.0 | 65.6 | 64.0 | 57.6 | 56.0 | 48.0 |
| High      | 72.1                    | 72.7                                  | 71.5 | 71.6 | 66.2 | 61.8 | 57.8 | 48.2 |

## Indoor Outlet

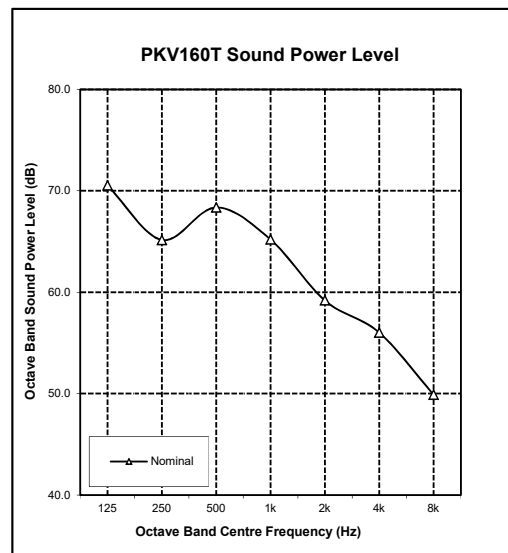
### Sound Power Level (SWL)

| Airflow Setting | Airflow l/s | Sound Power Level dB(A) | Octave Band Centre Frequency (Hz), dB |      |      |      |      |      |      |
|-----------------|-------------|-------------------------|---------------------------------------|------|------|------|------|------|------|
|                 |             |                         | 125                                   | 250  | 500  | 1k   | 2k   | 4k   | 8k   |
| Nominal         | 750         | 69.6                    | 70.5                                  | 65.2 | 68.4 | 65.2 | 59.2 | 56.0 | 49.9 |

OUTDOOR RADIATED



INDOOR OUTLET



3 Phase  
1 Stage

14.25 kW

**NOTES:**

Radiated sound power levels are based on ISO 3743-1.

# SPECIFICATIONS

# PKV160T

| CONSTRUCTION          |                                      |
|-----------------------|--------------------------------------|
| CABINET BASE          | 1.1 - 1.6 Galvanised Steel           |
| CABINET TOP AND SIDES | 0.9 - 1.1 mm Galvanised Steel        |
| SURFACE FINISH        | 65 $\mu$ Baked Polyester Powder Coat |

| INSULATION |                         |
|------------|-------------------------|
| TYPE       | Foil Faced Polyethylene |

| ELECTRICAL                       |                         |
|----------------------------------|-------------------------|
| POWER SUPPLY - 50 Hz             | 400 Volts x 3 Phase + N |
| VOLTAGE RANGE (min - max)        | 380 V - 440 V           |
| FULL LOAD AMPS* - (L1 / L2 / L3) | 11.9 / 14.4 / 10.5      |
| RATED LOAD AMPS**                | 8.2                     |
| APPROXIMATE STARTING AMPS        | < 45.0                  |
| IP RATING                        | IP44                    |

IMPORTANT - The local electricity authority may require limits on starting current and voltage drop, please check prior to purchase.

\* Full Load Amps are based on Compressor and Fan Motor's maximum expected current.  
\*\* Rated Load Amps are measured and tested in accordance with AS/NZS3823.1.2.

| CABLE SIZE and CIRCUIT BREAKER SIZE                                                                                                                                                     |                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Suggested minimum cable size should be used as a guide only, refer to the accordance with the latest edition of the AS/NZS 3000 "Australian/New Zealand Wiring Rules" for more details. |                                         |
| CABLE SIZE (main line)                                                                                                                                                                  | 2.5 mm <sup>2</sup> (SUGGESTED MINIMUM) |
| CIRCUIT BREAKER SIZE                                                                                                                                                                    | 20 Amps                                 |

| OUTDOOR COIL        |                                           |
|---------------------|-------------------------------------------|
| TUBE TYPE           | Copper - Rifle Bore                       |
| FIN TYPE            | Aluminium - Wave                          |
| FIN SPACING (per m) | 630                                       |
| COIL COATING        | Hydrophilic Blue Coat Coil Fin Protection |

| OUTDOOR FAN                                                                                             |                                |
|---------------------------------------------------------------------------------------------------------|--------------------------------|
| NUMBER OF FANS x TYPE                                                                                   | 2 x Axial                      |
| NUMBER OF BLADES PER FAN                                                                                | 5                              |
| DIAMETER (mm)                                                                                           | 450                            |
| OUTPUT kW (each)                                                                                        | 0.145                          |
| MOTOR TYPE / DRIVE TYPE                                                                                 | 6 Pole External Rotor / Direct |
| FAN SPEED CONTROL                                                                                       | 3 Speed via Capacitor          |
| The standard type outdoor fans fitted to this unit will only accept 5 Pa of external static resistance. |                                |

| INDOOR COIL         |                                           |
|---------------------|-------------------------------------------|
| TUBE TYPE           | Copper - Rifle Bore                       |
| FIN TYPE            | Aluminium - Louvre                        |
| FIN SPACING (per m) | 472                                       |
| COIL COATING        | Hydrophilic Blue Coat Coil Fin Protection |

| INDOOR FAN              |                                  |
|-------------------------|----------------------------------|
| NUMBER OF FANS x TYPE   | 1 x Twin Deck Centrifugal EC Fan |
| DIAMETER (mm)           | 204 x 204                        |
| INPUT kW                | 0.25                             |
| MOTOR TYPE / DRIVE TYPE | Variable Speed EC Motor / Direct |
| FAN SPEED CONTROL       | Electronic Control               |

| COMPRESSOR             |                                        |
|------------------------|----------------------------------------|
| NUMBER PER UNIT x TYPE | Tru-Inverter Variable Speed Scroll / 1 |
| FULL LOAD AMPS         | 10.5                                   |
| LOCKED ROTOR AMPS      | 128.0                                  |
| STARTING METHOD        | In-built Soft Starting                 |

| REFRIGERATION SYSTEM   |                                |
|------------------------|--------------------------------|
| REFRIGERANT TYPE       | R-410A                         |
| EXPANSION CONTROL      | Direct Expansion Orifice / EEV |
| FACTORY CHARGE (grams) | 5600                           |

| PROTECTION DEVICES          |                                  |
|-----------------------------|----------------------------------|
| HIGH PRESSURE CUTOFF SWITCH | Nonadjustable (Automatic Reset)  |
| LOW PRESSURE CUTOFF SWITCH  | Nonadjustable (Automatic Reset)  |
| COMPRESSOR MOTOR TEMP.      | Internal Thermal Cut-Out         |
| INDOOR FAN OVERLOAD         | Internal Thermal Cut-Out         |
| OUTDOOR FAN OVERLOAD        | Internal Thermal Cut-Out         |
| SUMP HEATER WATTS           | 37 W during compressor off cycle |

| ELECTRONIC CONTROLS        |                              |
|----------------------------|------------------------------|
| DEFROST METHOD             | Reverse Cycle                |
| DEFROST TYPE               | Adaptive Demand Defrost      |
| CONTROL CIRCUIT BREAKER    | 10.0 Amps                    |
| LC7-2 FIELD CONTROL WIRING | Cat5e UTP (AWG24) Data Cable |

| OPERATING RANGE                                                                                                                                        |       |                               |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------|--------------------------------|
| It is essential that the unit is correctly sized for the application and operates within its recommended range of operating conditions as shown below. |       |                               |                                |
| MODE                                                                                                                                                   | RANGE | INDOOR AIR INTAKE TEMPERATURE | OUTDOOR AIR INTAKE TEMPERATURE |
| Cooling                                                                                                                                                | Max.  | 30°C DB / 22°C WB             | 50°C DB                        |
|                                                                                                                                                        | Min.  | 20°C DB / 16°C WB             | 5°C DB                         |
| Heating                                                                                                                                                | Max.  | 24°C DB                       | 19.5°C DB / 18°C WB            |
|                                                                                                                                                        | Min.  | 16°C DB                       | -15°C DB                       |

| AIR FILTERS                                                                                                                                                                                                |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| All return air including fresh air must have adequate filters supplied and fitted by the installing contractor. Filters must be located in accessible location between the return air grille and the unit. |  |
| ActronAir does not supply or make any provisions for return air filter.                                                                                                                                    |  |

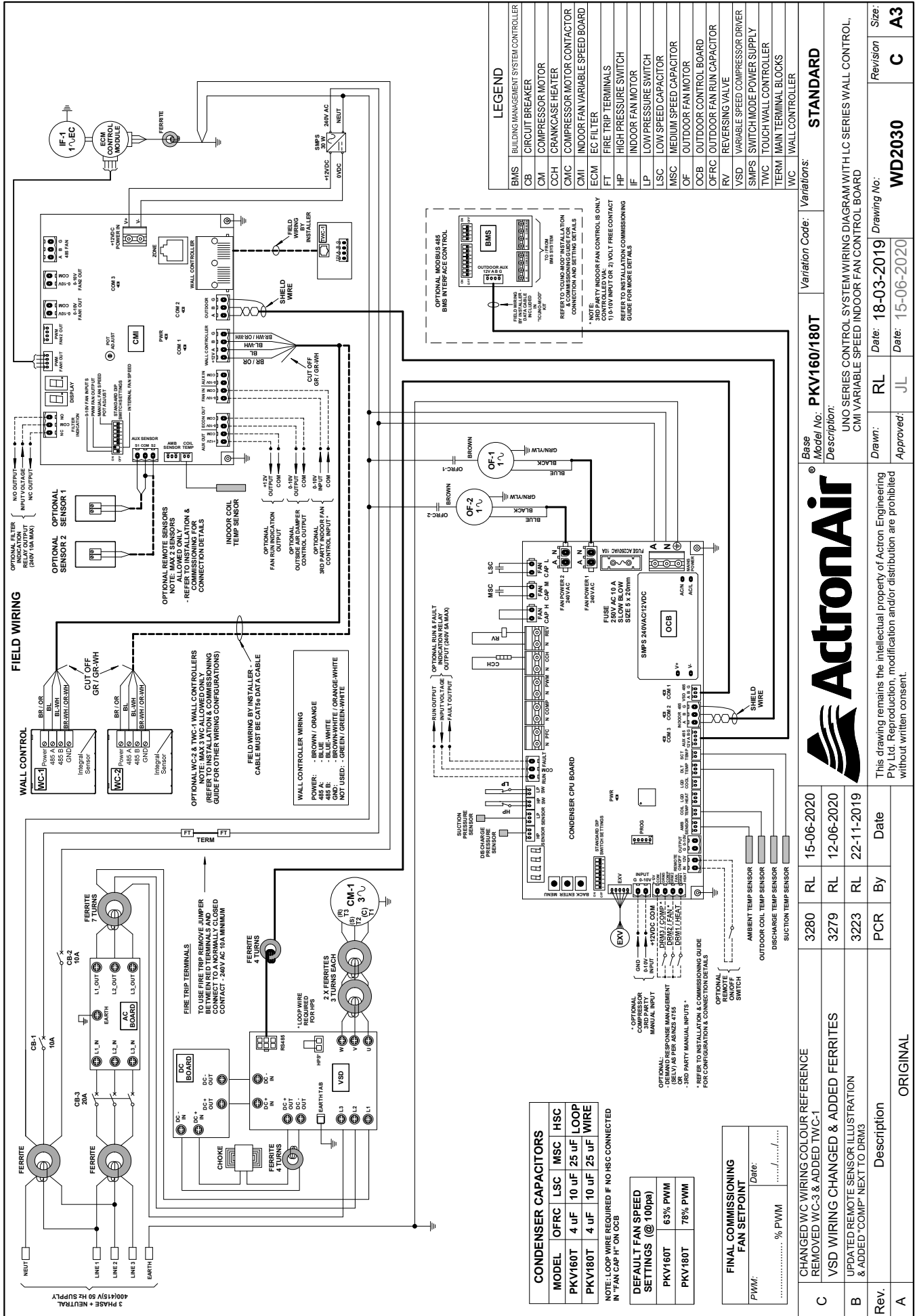
| UNIT COMPLIANCE                                                                                                                                                 |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ul style="list-style-type: none"> <li>AS/NZS 3823.2 (MEPS)</li> <li>AS/NZS 4755.3.1 (DRM1, 2 and 3)</li> <li>AS/NZS CISPR 11, Group 1 Class A (EMC)</li> </ul> |  |

3 Phase  
1 Stage  
14.25 kW



# WIRING DIAGRAM

# PKV160T



Base Model No: **PKV160/180T** Variation Code: **STANDARD**

Description: **UNO SERIES CONTROL SYSTEM WIRING DIAGRAM WITH LC SERIES WALL CONTROL, CMI / VARIABLE SPEED INDOOR FAN CONTROL BOARD**

Drawn: **RL** Date: **18-03-2019** Drawing No: **WD2030** Revision: **C** Size: **A3**

Approved: **JL** Date: **15-06-2020**

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**14.25 kW**  
**3 Phase 1 Stage**

| Rev. | Description                                                    | By  | Date       |
|------|----------------------------------------------------------------|-----|------------|
| A    | ORIGINAL                                                       | PCR | 22-11-2019 |
| B    | UPDATED REMOTE SENSOR ILLUSTRATION & ADDED 'COMP' NEXT TO DRW3 | RL  | 12-06-2020 |
| C    | CHANGED WC WIRING COLOUR REFERENCE REMOVED WC-3 & ADDED TWC-1  | RL  | 15-06-2020 |