



Commercial

TRI-CAPACITY

Performance and efficiencies
through smart engineering.



That's better. That's Actron.



ActronAir

ActronAir. Because Australia needs Australian air conditioning.

TRI-CAPACITY

The year 1984 saw Advanced Australia Fair become our National Anthem, the 1 dollar coin come into circulation and a small family air conditioning business open its doors. Today, ActronAir is a proud Australian company recognised for making world-class air conditioners. Well, it stands to reason. The team at ActronAir experience our harsh Australian conditions first hand, and our climate places demands on air conditioning not found in other parts of the world.

And that's why ActronAir's engineers have developed the most advanced air conditioning systems specifically for the unique and harsh Australian environment.

Made with a superior operating range of up to 50°C, and a host of innovative features, ActronAir's Tri-Capacity system is engineered to withstand the hottest and coldest conditions Australia can throw at it.

We know that particularly in the commercial world, things need to happen fast. You need service fast. You need parts fast. You need a solution fast. That's why when you call ActronAir, we'll be there for you there and then.




**More than
a quarter of a
million Aussies
take comfort in
ActronAir**

Better energy efficiency, better performance, better reliability

ActronAir's unique Tri-Capacity technology, is designed and engineered in-house in our Sydney headquarters specifically for Australian conditions. Ideal for medium to large sized applications such as restaurants, banks, conference spaces, two-storey offices and cinemas, our Tri-Capacity delivers demonstrable benefits in energy efficiency, performance and ease of installation.



A superior operating range **made for Australia**

Most overseas air conditioners are only designed with a maximum temperature range of 43°C to 46°C. The made-for-Australia Tri-Capacity operates up to 50°C. Big deal? Yes.

Given that commercial units are typically found on the roof in the direct sun, this is important. In the Australian sun, where other air conditioners can struggle and even shut down, it's better for business to have a system you can rely on.

Tri-Capacity not only operates at higher temperatures, it also performs at a higher capacity leading up to that peak temperature.

“ Nothing beats performing under extremes. Engineered for Australia, you can trust ActronAir to be there when you need it most. ”

Mark 'Frosty' Winterbottom
2015 V8 Supercars Champion

A quiet achiever



HyBlade® outdoor fans

- User friendly wiring layout
- Two speed operation

Three stages for more savings



Unique compressor operation

- Designed for improved seasonal energy efficiency vs. traditional compressor configurations
- Tri-Capacity delivers 3 steps of cooling/heating (~33%, ~67% and 100% capacity)
- Designed for maximum durability and lower lifecycle operating costs
- Compliant scroll compressors

Stay in control



Controls

- In-built controls solution
- BMS connectivity using the BACNET/MODBUS option
- Dual control capability for enhanced user access
- Enhanced service and maintenance features
 - Event alarm notification
 - Monitor system operation parameters
- Program control feature for set airflow requirements



Built to perform



Large outdoor heat exchangers

- Optimised refrigeration circuit
- Enhanced rifle bore tube
- Blue fin epoxy coated hydrophilic coil protection

Aussie tough



Louvered grille

The powder coated louvered grille guard allows for better airflow and protection in Australia's extreme weather conditions. It's mighty tough – engineered to withstand over 1,000 hours of salt spray exposure under stringent Australian testing standards.

Better choice



Low Profile



Split Ducted



Packaged

Big on choice



Other features

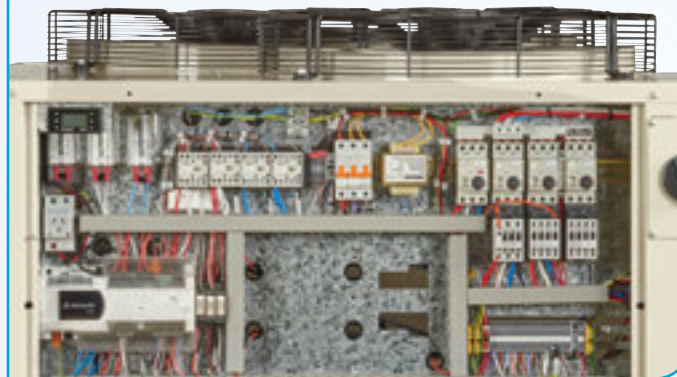
- Lockable three phase load break isolation switch
- Various return and supply air options available
- Optional economy kit with outside air and return air dampers and motors

We've got you covered



Electrical control board

- User friendly wiring layout
- Standard inclusions
 - Individual motor protection
 - Circuit breaker and thermal overload
 - Lockable isolation switch
 - DRED enabled (AS4755)



Filter forethought



Filter cavity with in-built filter slides

- To suit 96mm wide pleated filters

Exact efficiency



High efficiency EC plug fans

- High static up to 500Pa
- Eliminates belt and pulley drive losses and maintenance
- Backward curve non overloading for maximum durability
- Program control feature for setting airflow requirements

Big thinking indoors



Large indoor heat exchangers

- Optimised refrigeration circuit
- Enhanced rifle bore tube
- Blue fin epoxy coated hydrophilic coil protection

Ticks all the boxes



Other features

- Low ambient cooling option to below 15°C
- TX valves for improved efficiency
- 25mm foil face polyethylene insulation
- Two speed condenser fans
- In-built evaporator safety tray for EVY and ELY indoor units

Engineering better outcomes

ActronAir's Tri-Capacity unit is designed and manufactured in Australia, for Australia.

That's important. Australia's climate puts demands on air conditioning not found in other parts of the world, particularly in summer. And that has meant our engineers have made design decisions accordingly.

For example, Tri-Capacity features high efficiency EC electronically commutated motors that don't generate as much heat and therefore don't have to force the system to work as hard to cool. It also helps Tri-Capacity be more reliable and less prone to breakdown.

From the componentry, to the magnets, coils and high performance outdoor fans, the material choice is high quality, reliable and made to last for the long term. That's better for business – yours and ours.

Above and beyond Australian Standards

Tri-Capacity is engineered to not just comply with, but exceed Australian MEPS (Minimum Energy Performance Standards).

In fact, this approach is a source of company pride from the smallest single-room split systems to commercial systems the size of shipping containers. It's about doing the right thing by our customers and the environment, and we take that responsibility very seriously.



High efficiency EC fan technology

EC plug fans deliver exact airflow requirements while minimising power usage, and are up to 50% more efficient versus traditional forward curve belt and pulley systems. This provides enhanced comfort and improved maintenance of system performance.

- Key benefits include:
- Variable airflow range for improved efficiency and comfort
 - Programmable control feature for setting airflow
 - High static easily achieved (up to 500Pa)
 - Significant time saved for on-site commissioning
 - Eliminates belt dust and belt adjustment, providing a cleaner environment, and lowers operational maintenance cost
 - Improved occupant comfort



Better Comfort

Comfort by degrees

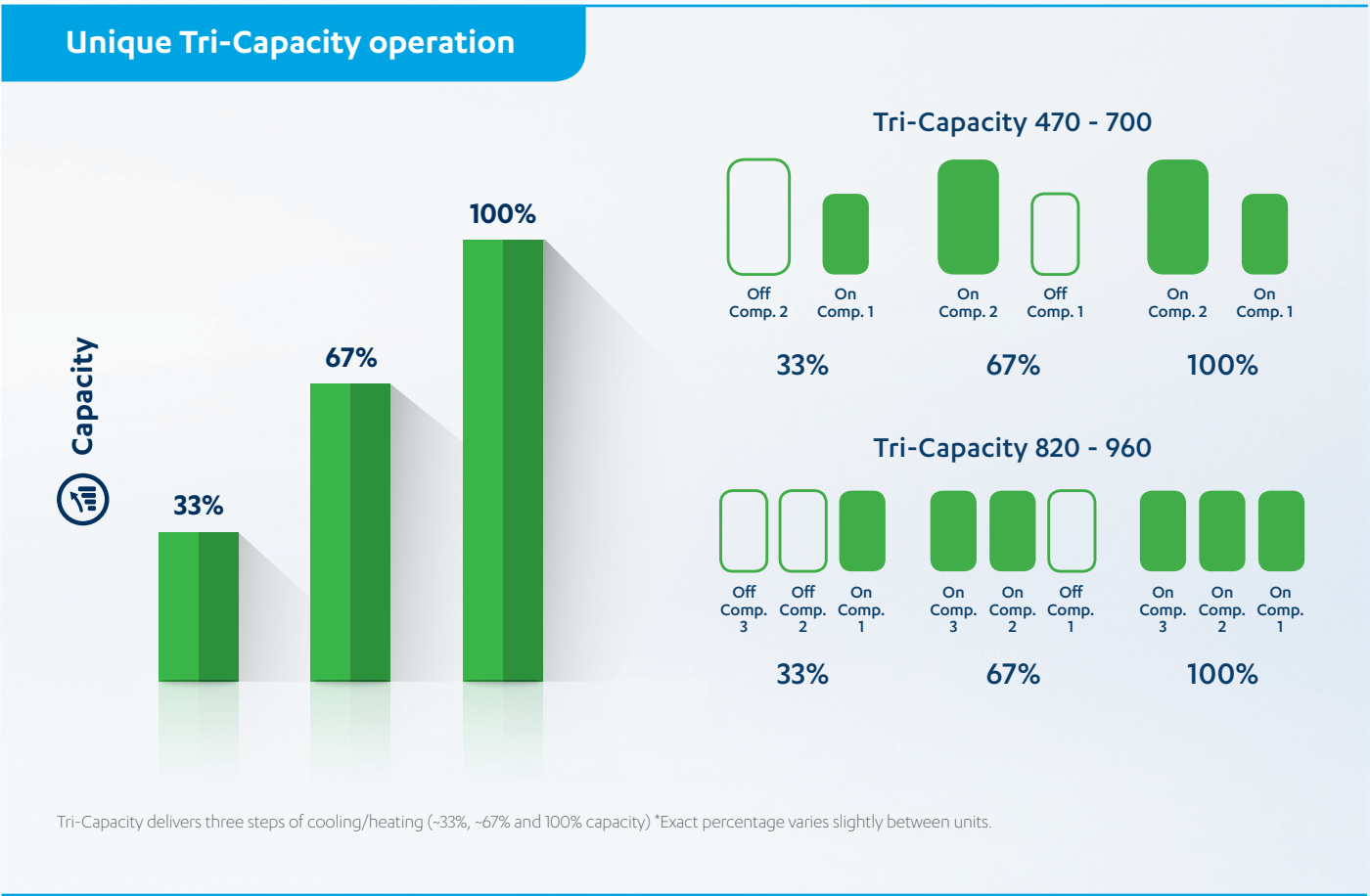
Tri-Capacity offers superior comfort, a crucial factor for the success of businesses keen to draw customers in through the doors.

Tri-Capacity better matches the thermal load of a building, which research shows rarely reaches 100%. In fact, commercial buildings typically operate between 60% and 75% capacity for most of the time, and Tri-Capacity is simply better suited to conditioning these types of environments.

Unique compressor technology

As its name indicates, Tri-Capacity offers a unique three step capacity configuration of 33%, 67% and 100%.

Tri-Capacity's unique compressor configuration also delivers improved seasonal energy efficiency through fewer adjustments, and also results in less cyclic degradation and more finely tuned occupant comfort.



Better Control

Power and control is all yours

ActronAir is renowned for its controls, logic and electronics, and a lot of thought has gone into making controlling the Tri-Capacity flexible, comprehensive and user friendly. The system features fully integrated factory-fitted controls, eliminating the need for the added complexity of third party controls.

And while control of comfort, energy efficiency and performance is available at the touch of a button, there's more it can do with the following features:

- Configurable temperature sensors
- BMS compatibility to integrate with most MODBUS and BACNET operating systems
- 3rd party web browsing with BACNET and MODBUS
- Fault diagnostics
- User friendly factory fitted LCD interface
- Maintenance and service activities are enhanced with a 100-event register
- Dedicated input for remote stop/start and fire alarms
- 7/365 day time clock scheduler with programmable operating times (two on/off cycles per day)
- 12 special event days
- Secondary optional remote LCD user interface
- Discharge line temperature safety
- HP & LP safety
- Password protected service manager
- Automatic daylight savings change over
- Non-volatile memory



CP05 interface



CM100 control



Optional CL01 interface

TRI-CAPACITY

Better Energy Efficiency

Significant energy efficiency for a more comfortable bottom line

Tri-Capacity delivers superb energy efficiency with an IEER, or **Integrated Energy Efficiency Ratio**, of **3.62*** – **up to 32% more efficient** than the minimum BCA compliant system. It also surpasses ASHRAE 90.1, one of the most recognised standards for building energy efficiency in the USA. That can make a huge difference to long term energy costs as the following real life examples demonstrate.



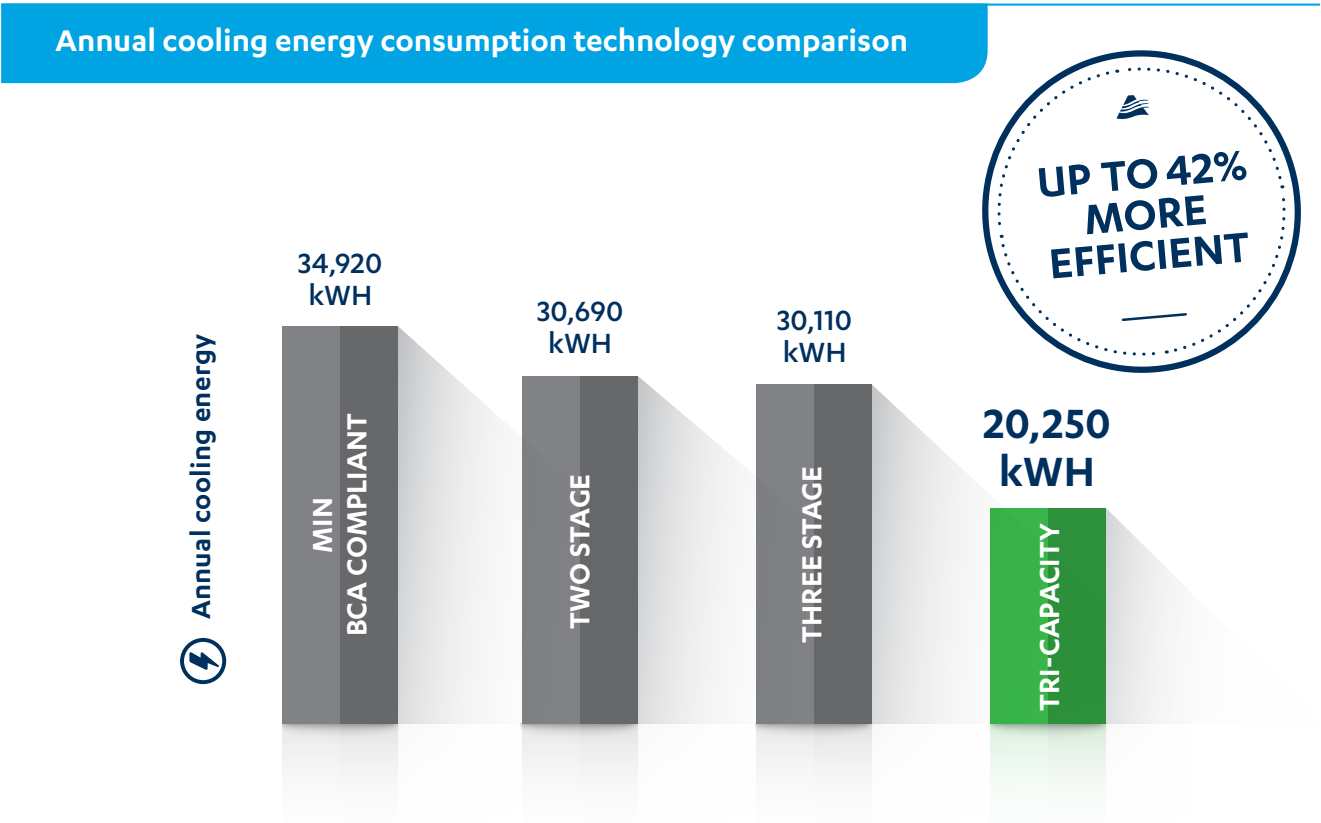
*IEER of 3.62 achieved on PKY620T. *IEER based on AHRI 340/360 clause 6.2.2.

Case Study 1: Commercial premises, Richmond NSW

Energy modelling was conducted from 6am to 9pm for seven days in a commercial premises in Richmond, on the outer fringes of Sydney. The technologies compared were:

- Minimum BCA Section J5.4 Compliant – 1 stage fixed speed AC belt drive
- Two stage fixed speed with AC fan motor and belt drive
- Three stage fixed speed with AC fan motor and belt drive
- Tri-Capacity – Three stage fixed speed with EC Plug Fan

Over a one year period, modelling for energy consumption was calculated for each system. Tri-Capacity was found to be **up to 42% more efficient** than minimum BCA requirements. Based on an electricity price of 15c per kW/h and the cooling energy consumption, this translates to **a saving of \$2,200 per year** compared to the BCA minimum requirement, and **\$1,566 per year** compared to two stage fixed speed AC fan motor and belt drive technology.



Case Study 2: Retail big box store, Brisbane QLD

In 2014, independent field testing and energy analysis was conducted in two ‘big box’ retail stores in Rocklea and Browns Plains, located 12 km apart. The testing compared each store’s packaged unit technologies:

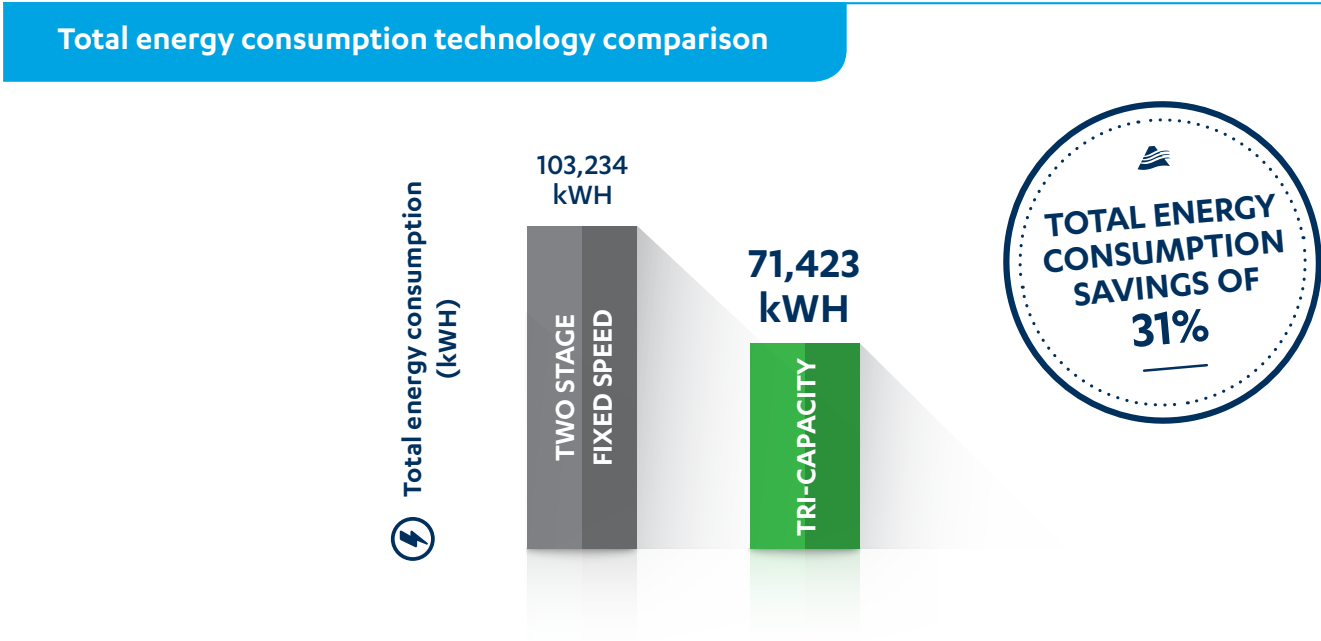
- Tri-Capacity technology
- Two stage fixed speed AC fan motor and belt drive technology

Over a 43 day period, total energy consumption savings of 31% was observed for Tri-Capacity. On a daily basis, energy consumption savings of 10% to 50% were achieved.

Using regression analysis and weather data for the region, Ecosave, an independent energy company, projected annual energy consumption savings of up to 37% versus conventional two stage fixed speed AC fan motor and belt drive technology.

Over a 15 year lifecycle this equates to a projected saving of \$407,891, based on \$0.15/kWh.

| | Browns Plain Store | Rocklea Store |
|-------------------------------|-------------------------------------|---------------|
| Technology | Two stage fixed speed AC technology | Tri-Capacity |
| Floor area m² | 7,515 | 8,459 |
| Number of units | 10 | 11 |
| Floor area per unit (m² unit) | 752 | 769 |



Better Support

Flexibility and tailored thinking for your unique project

Tri-Capacity technology has a great degree of flexibility. Our engineers are based here in Australia, so we can often apply some lateral thinking to achieve great results under challenging circumstances. We're committed to working together with businesses so please talk to us about your particular project requirements.

Better Installation

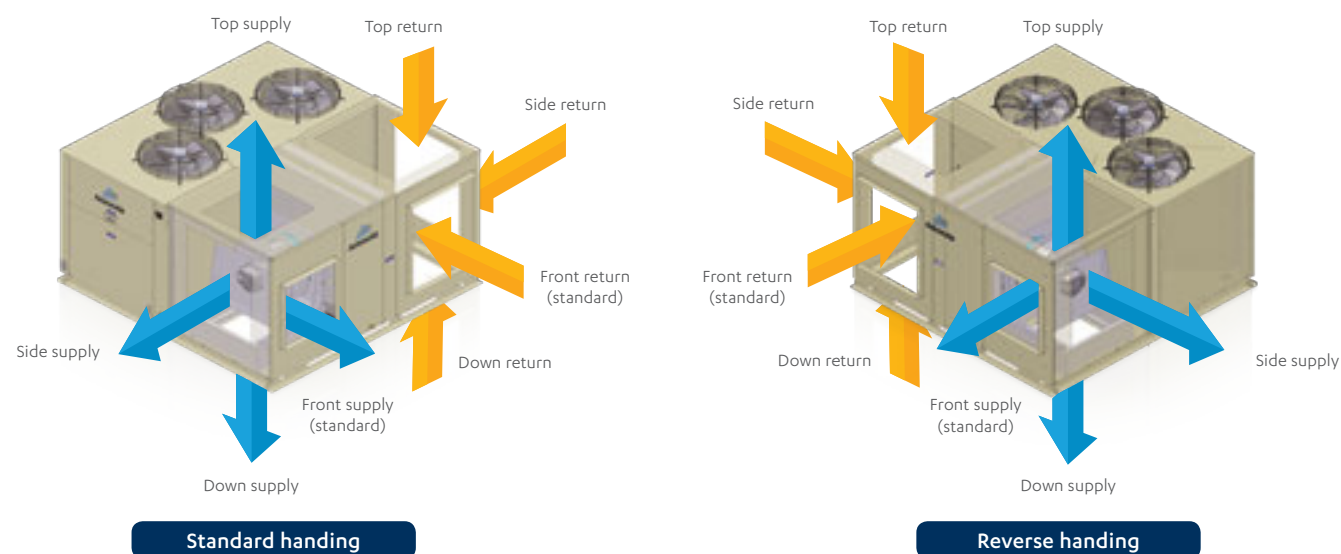


Installation & configuration benefits

Flexible and configurable, Tri-Capacity is superbly installation-friendly. With up to 32 combinations of supply and return air connections, the Tri-Capacity series has the flexibility to accommodate most site ductwork requirements.

Other benefits include:

- Multiple handing options to suit most applications.
- Outside air can be introduced manually or automatically with optional dampers, to comply with the Building Code of Australia (BCA).
- A factory fitted lockable three phase load break isolation switch, which reduces installer cost and time on-site.



Better Service

Service and parts, where you need it, when you need it

A great benefit of ActronAir, right across our range, is that parts are available off the shelf, here in Australia.

We know that waiting for weeks for a part to come from overseas is simply bad for business, let alone having to talk to someone overseas to order it. Being locally based and proudly service oriented, we've always gone that extra mile to provide prompt and friendly service to our customers all over Australia.

Technicians will think it's their birthday, and so will you

The Tri-Capacity control interface makes it easy to access system status information such as discharge line and set point temperature.

Tri-Capacity also eliminates the maintenance and service associated with belt and pulley driven systems. This results in improved airflow accuracy and reduced maintenance costs on-site.

So instead of a maintenance job that could take all day, adjusting the airflow can take mere minutes.



Don't just take our word for it

When we design our products, we don't do it with the goal of receiving awards in mind. Instead we choose to focus on producing the best products possible, designed to suit our unique conditions while delivering reliable, energy efficient performance.

However, we are always pleased when any of our products achieve industry recognition. We believe in our products and the performance they provide, but it's always nice when those who know our industry best agree with us. And it's no different with Tri-Capacity, which over time has attracted its fair share of recognition from the HVAC industry, in particular for its strong Innovation and Sustainability credentials.



2012 AIRAH Awards
Excellence in Innovation
Finalist



2013 AIRAH Awards
Excellence in Sustainability
Finalist

Technical Specifications

TRI-CAPACITY

Split Ducted Tri-Capacity 47-71kW (Three Phase)

| Technical Information | | | | | | | | | |
|---|--------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| OUTDOOR MODEL | | CAY470T-6Q2 | CAY470T-6Q2 | CAY540T-6Q2 | CAY540T-6Q2 | CAY620T-6Q2 | CAY620T-6Q2 | CAY700T-6Q2 | CAY700T-6Q2 |
| INDOOR MODEL | | EVY470T-6Q2 | ELY470T-6Q2 | EVY540T-6Q2 | ELY540T-6Q2 | EVY620T-6Q2 | ELY620T-6Q2 | EVY700T-6Q2 | ELY700T-6Q2 |
| | | Std Profile | Low Profile | Std Profile | Low Profile | Std Profile | Low Profile | Std Profile | Low Profile |
| ¹ Total (Gross) Capacity (kW) (AS/NZS3823.1.2) | Cooling | 47.00 | 47.00 | 53.50 | 53.50 | 63.00 | 63.00 | 71.00 | 71.00 |
| | Heating | 46.00 | 46.00 | 51.50 | 51.50 | 60.00 | 60.00 | 67.00 | 67.00 |
| Nett (Rated) Capacity (kW) (AS/NZS3823.1.2) | Cooling | 45.77 | 46.00 | 51.85 | 52.20 | 60.80 | 61.00 | 68.17 | 68.30 |
| | Heating | 47.37 | 47.20 | 53.20 | 52.96 | 62.47 | 62.30 | 70.20 | 70.00 |
| Input Power (kW) (AS/NZS3823.1.2) | Cooling | 15.40 | 15.42 | 17.57 | 17.57 | 20.50 | 20.35 | 24.12 | 23.94 |
| | Heating | 14.16 | 14.02 | 16.20 | 16.03 | 20.15 | 19.98 | 22.32 | 22.12 |
| ² EER Rated (AS/NZS3823.1.2) | Cooling | 2.97 | 2.98 | 2.95 | 2.97 | 2.97 | 3.00 | 2.83 | 2.85 |
| ³ COP Rated (AS/NZS3823.1.2) | Heating | 3.35 | 3.37 | 3.28 | 3.30 | 3.10 | 3.12 | 3.15 | 3.16 |
| Power Supply (V / Ph / Hz) | Outdoor | 415V / 3Ph + N / 50Hz 415V / 3Ph + N / 50Hz | | | | | | | |
| | Indoor | | | | | | | | |
| Rated Load Amps (AS/NZS3823.1.2) | Outdoor / Indoor / Total | 25.9 / 2.1 / 28.0 | 25.9 / 1.7 / 27.6 | 28.3 / 2.7 / 31.0 | 28.3 / 2.2 / 30.5 | 35.7 / 3.5 / 39.2 | 35.7 / 3.2 / 38.9 | 40.6 / 4.5 / 45.1 | 40.6 / 4.2 / 44.8 |
| Full Load Amps (AS/NZS3823.1.2) | Outdoor / Indoor / Total | 35.5 / 4.8 / 40.3 | 35.5 / 4.6 / 40.1 | 38.0 / 4.8 / 42.8 | 38.0 / 4.6 / 42.6 | 46.4 / 6.4 / 52.8 | 46.4 / 6.2 / 52.6 | 52.8 / 6.4 / 59.2 | 52.8 / 6.2 / 59.0 |
| ⁴ Circuit Breaker Amps | | 50.0 | | | | 63.0 | | 80.0 | |
| IP Rating | Outdoor | IP44 IP20 | | | | | | | |
| | Indoor | | | | | | | | |
| Compressor | Type / No. per Unit | Compliant Scroll / 2 D.O.L. | | | | | | | |
| | Starting Method | | | | | | | | |
| No. Refrigeration Circuits/No. Capacity Stages (Capacity range) | | 2 / Tri-Capacity (~33% 66% 100%) | | | | | | | |
| Refrigerant | | R410a | | | | | | | |
| Fans (Type x Number per unit) | Outdoor | Axial Low Noise / 6 Pole External Rotor / Direct Drive x 3 Variable Speed EC Motor Direct Drive Backward Curve Plug Fan x1 (EVY Models), 2 (ELY Models) | | | | | | | |
| | Indoor | | | | | | | | |
| Airflow Range Indoor (l/s) | Maximum | 2900 | | 3300 | | 3900 | | 4100 | |
| | Nominal | 2400 | | 2700 | | 3200 | | 3600 | |
| | Minimum | 1900 | | 2100 | | 2500 | | 2800 | |
| External Static Pressure (Pa) at: | Maximum Airflow | 305 | 325 | 125 | 75 | 155 | 175 | 75 | |
| | Nominal Airflow | 500 | | 390 | | 410 | | 500 | 270 |
| Nominal Outdoor Dimensions (mm) | Depth | 1195 | | | | 1195 | | | |
| | Height | 1465 | | | | 1695 | | | |
| | Width | 2305 | | | | 2305 | | | |
| Nominal Indoor Dimensions (mm) | Depth | 1450 | 1160 | 1450 | 1160 | 1450 | 1160 | 1450 | 1160 |
| | Height | 1280 | 770 | 1280 | 770 | 1510 | 895 | 1510 | 895 |
| | Width | 1590 | 2410 | 1590 | 2410 | 1590 | 2410 | 1590 | 2410 |
| ⁵ Nominal Weight (kgs) | Outdoor | 532 | | 542 | | 577 | | 604 | |
| | Indoor | 292 | 231 | 298 | 239 | 340 | 274 | 340 | 274 |
| ⁶ Sound Pressure Level (dBA) | Outdoor (low/high fan) | 58 / 63 | | | | 59 / 64 | | | |
| ⁷ Sound Power Level (dBA) | Outdoor (low/high fan) | 75 / 80 | | | | 76 / 81 | | | |
| MEPS Compliant | | Yes | Yes | Yes | Yes | Yes | Yes | BCA Compliant | |

| Unit Features and Options | | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Tri-Capacity 33% 66% 100% Capacity Stages | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Pre-Charged with R10A Refrigerant | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Louvred Outdoor Coil Guard | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| External Stainless Steel Screws (Outdoor Unit Only) | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Blue Epoxy Coated Coil Fin Protection (Indoor & Outdoor Coils) | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| 25mm Foil Faced Polyethylene insulation (Indoor Unit) | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Indoor Unit Integral Fan Coil Safety Tray (Included) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Lockable Three Phase Load Break Isolator | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Low Ambient / High Static EC Outdoor Fans (V-Option) | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |

| Air Handling | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| F - Front Discharge (EVY & ELY Models Only) | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| T - Top Discharge (CAY Models Only) | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| T- Top Discharge (EVY Models Only) | Optional | - | Optional | - | Optional | - | Optional | - |

Foot Notes 1-8

- Based on unit rating excluding indoor fan kW.
- EER Rated = Energy Efficiency Ratio (Rated Capacity Cooling / Rated Input Cooling).
- COP Rated = Coefficient of Performance (Rated Capacity Heating / Rated Input Heating).
- Refer to AS/NZS 3000 'Australian/New Zealand Wiring Rules' for more details.
- Refer to Catalogue Unit Weight Distribution Guide section for details of weight points.
- Sound Pressure Level at 3m distance is determined as the measured sound pressure at 3m perpendicular to the coil side of the condenser.
- Determination of Sound Power Levels of Noise Sources, AS1272 - Precision Methods for Broad-Band Sources in Reverberation Rooms.
- When Demand Response capability is chosen, the air conditioner will fully comply with AS4755.3 in the following modes: DRM1, 2, 3.

Important Notes:

- The Local Electricity Supply Authority may require limits on - starting current, running current and voltage drop, please check prior to purchase.
- When the outdoor temperature exceeds the rated conditions, the cooling/heating capacities may decrease the rated nett values.
- Specifications subject to change without notice.

Rated Conditions:

Cooling: 35°C DB Outdoor / Air Entering Indoor 27°C DB, 19°C WB
Heating: 7°C DB, 6°C WB Outdoor / Air Entering Indoor 20°C DB

Warranty:

For full terms and conditions of ActronAir warranty, please refer to warranty terms document - www.actronair.com.au

Control Options and Features

| OUTDOOR MODEL | CAY470T-6Q2 | CAY470T-6Q2 | CAY540T-6Q2 | CAY540T-6Q2 | CAY620T-6Q2 | CAY620T-6Q2 | CAY700T-6Q2 | CAY700T-6Q2 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| INDOOR MODEL | EVY470T-6Q2 | ELY470T-6Q2 | EVY540T-6Q2 | ELY540T-6Q2 | EVY620T-6Q2 | ELY620T-6Q2 | EVY700T-6Q2 | ELY700T-6Q2 |
| | Std Profile | Low Profile | Std Profile | Low Profile | Std Profile | Low Profile | Std Profile | Low Profile |
| CP05 Control Interface with LCD Display for System Operation | Included | Included | Included | Included | Included | Included | Included | Included |
| Automatic / Manual Operation | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 7 Day Programmable Time-Clock | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| 365 Day Time-Clock With 12 Special Days | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Compressor Discharge Temperature Control | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Adjustable Indoor Fan Airflow Setpoint | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Indoor Coil Anti-Freeze Protection | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Return Air Offset | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| High and Low Pressure Protection | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Alarm Fault Data Logger | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| ⁸ Demand Response Capability (AS4755.3) | Standard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| BMS Compatibility | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| CP05 / CPI0 Control Interface (Available as Dual Option) | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| CL01 7-Day Programmable Control Interface (BCA Compliant) | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |

Options & Accessories

| | | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Low Ambient / High Static Outdoor Fans | Optional | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| Indoor Unit Integral Fan Coil Safety Tray - Included | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Variations

| | | | | | | | | |
|---------------|--|----------|----------|----------|----------|----------|----------|----------|
| OUTDOOR MODEL | F - Economy Control Access 3rd Party Controls | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| | K - Additional Full Coil Coat Protection | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| | U - Low Ambient +5°C | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| | W - Three-Phase Sequence Protection Relay | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| | TV/SV - EC Motor High Static Condenser Fan (Up to 150Pa) | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| INDOOR MODEL | Z - Compressor 3-Phase Soft Starter | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| | L - Additional Full Coil Coat Protection | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| | T - Vertical Discharge (EVY Models Only) | Optional | - | Optional | - | Optional | - | Optional |
| | Y - Powder Coating | Optional | Optional | Optional | Optional | Optional | Optional | Optional |

Field Piping and Connections

| | | | | | | | | | |
|---|---------------------------------------|----------------------------------|------------|----------------------------|------------|---------------------------|------------|---------------------------|------------|
| Refrigerant Charge (Crt #1 & Crt #2) | Factory Charge - (g) | 5200 & 10,900 | | 7100 & 13,600 | | 7900 & 15,400 | | 9200 & 15,500 | |
| | Pre-Charge Length - (m) | 5 | | 5 | | 5 | | 5 | |
| | Additional Refrigerant Charge - (g/m) | 50 & 165 | | 50 & 165 | | 100 & 165 | | 100 & 165 | |
| Maximum Field Pipe Length Range - (m) | | 75 | | | | | | | |
| Maximum Vertical Height Differential - (m) included in max length | | 20 | | | | | | | |
| Field Pipe Size (Crt #1 & Crt #2) | Liquid Pipe - mm (inch) | 9.52 (3/8) & 15.90 (5/8) | | 9.52 (3/8) & 15.90 (5/8) | | 12.70 (1/2) & 15.90 (5/8) | | 12.70 (1/2) & 15.90 (5/8) | |
| | Gas Pipe - mm (inch) | 19.05 (3/4) & 28.6 (1-1/8) | | 22.22 (7/8) & 28.6 (1-1/8) | | 25.40 (1) & 28.6 (1-1/8) | | 25.40 (1) & 28.6 (1-1/8) | |
| Outdoor Unit Connection (Crt #1 & Crt #2) | Liquid Pipe - mm (inch) | 9.52 (3/8) & 15.90 (5/8) | | 9.52 (3/8) & 15.90 (5/8) | | 12.70 (1/2) & 15.90 (5/8) | | 12.70 (1/2) & 15.90 (5/8) | |
| | Gas Pipe - mm (inch) | 19.05 (3/4) & 28.6 (1-1/8) | | 22.22 (7/8) & 28.6 (1-1/8) | | 25.40 (1) & 28.6 (1-1/8) | | 25.40 (1) & 28.6 (1-1/8) | |
| Indoor Unit Connection (Crt #1 & Crt #2) | Liquid Pipe - mm (inch) | 9.52 (3/8) & 15.90 (5/8) | | 9.52 (3/8) & 15.90 (5/8) | | 12.70 (1/2) & 15.90 (5/8) | | 12.70 (1/2) & 15.90 (5/8) | |
| | Gas Pipe - mm (inch) | 19.05 (3/4) & 28.6 (1-1/8) | | 22.22 (7/8) & 28.6 (1-1/8) | | 25.40 (1) & 28.6 (1-1/8) | | 25.40 (1) & 28.6 (1-1/8) | |
| Condensate Drain Connection - (Size /Type) | | 25.4 mm (1") Ø/BSP Female Thread | | | | | | | |
| Safety Tray Connection - Size/Type | | 25.4 mm (1") Ø/BSP Socket | | | | | | | |
| Air Duct | Supply Duct H x W - (mm) | 580 x 650 | 380 x 1000 | 580 x 650 | 380 x 1000 | 580 x 650 | 380 x 1000 | 580 x 650 | 380 x 1000 |
| | Return Duct H x W - (mm) | 1130 x 1135 | 620 x 2000 | 1130 x 1135 | 620 x 2000 | 1360 x 1135 | 745 x 2000 | 1360 x 1135 | 745 x 2000 |



Technical Specifications

Package Unit Tri-Capacity 47-96kW (Three Phase)

| Technical Information | | | | | | | |
|---|------------------------|--|-------------|-------------|---------------|---------------|---------------|
| PACKAGE MODEL | | PKY470T-6Q2 | PKY540T-6Q2 | PKY620T-6Q2 | PKY700T-6Q2 | PKY820T-3Q2 | PKY960T-3Q2 |
| ¹ Total (Gross) Capacity (kW) (AS/NZS3823.1.2) | Cooling | 47.00 | 53.50 | 63.00 | 71.00 | 82.50 | 96.00 |
| | Heating | 46.00 | 51.50 | 60.00 | 67.00 | 80.00 | 92.00 |
| Nett (Rated) Capacity (kW) (AS/NZS3823.1.2) | Cooling | 45.77 | 51.85 | 60.80 | 68.17 | 80.04 | 92.96 |
| | Heating | 47.37 | 53.20 | 62.47 | 70.20 | 82.75 | 95.40 |
| Input Power (kW) (AS/NZS3823.1.2) | Cooling | 15.40 | 17.57 | 20.50 | 24.12 | 27.21 | 32.54 |
| | Heating | 14.16 | 16.20 | 20.15 | 22.32 | 24.55 | 27.20 |
| ² EER Rated (AS/NZS3823.1.2) | Cooling | 2.97 | 2.95 | 2.97 | 2.83 | 2.94 | 2.86 |
| ³ COP Rated (AS/NZS3823.1.2) | Heating | 3.35 | 3.28 | 3.10 | 3.15 | 3.37 | 3.51 |
| Power Supply (V / Ph / Hz) | | 400 - 415V / 3Ph + N / 50Hz | | | | | |
| Rated Load Amps (AS/NZS3823.1.2) | | 28.0 | 31.0 | 39.2 | 45.1 | 50.6 | 60.0 |
| Full Load Amps (AS/ NZS3823.1.2) | | 40.3 | 42.8 | 52.8 | 59.2 | 81.7 | 82.7 |
| ⁴ Circuit Breaker Amps | | 50.0 | 50.0 | 63.0 | 80.0 | 100.0 | 100.0 |
| IP Rating | | IP44 | | | | | |
| Compressor | Type / No. per Unit | Compliant Scroll / 2 (470-700 Models), 3 (820-960 Models) | | | | | |
| | Starting Method | D.O.L. | | | | | |
| No. Refrigeration Circuits/No. Capacity Stages (Capacity range) | | 2 (470-700 Models), 3 (820-960 Models) / Tri-Capacity (~33% 66% 100%) All Models | | | | | |
| Refrigerant | | R410a | | | | | |
| Fans (Type x Number per unit) | Outdoor | Axial Low Noise / 6 Pole External Rotor / Direct Drive x 3 | | | | | |
| | Indoor | Variable Speed ECM Direct Drive Backward Curve Plug Fan x 1 (6Q2 Models), 2 (3Q2 Models) | | | | | |
| Airflow Range Indoor (l/s) | Maximum | 2900 | 3300 | 3900 | 4100 | 4800 | 6000 |
| | Nominal | 2400 | 2700 | 3200 | 3600 | 4000 | 5000 |
| | Minimum | 1900 | 2100 | 2500 | 2800 | 3200 | 4000 |
| External Static Pressure (Pa) at: | Maximum Airflow | 305 | 125 | 155 | 75 | 410 | 100 |
| | Nominal Airflow | 500 | 390 | 410 | 270 | 500 | 365 |
| Nominal Unit Dimensions (mm) | Depth | 2305 | | | | 2250 | |
| | Height | 1465 | | 1695 | | 2155 | |
| | Width | 2365 | | | | 2920 | |
| ⁵ Nominal Weight (kgs) | | 836 | 853 | 937 | 964 | 1263 | 1350 |
| ⁶ Sound Pressure Level (dBA) | Outdoor (low/high fan) | 59 / 64 | | 60 / 65 | | 61 / 66 | |
| ⁷ Sound Power Level (dBA) | Outdoor (low/high fan) | 76 / 81 | | 77 / 82 | | 78 / 83 | |
| MEPS Compliant | | Yes | Yes | Yes | BCA Compliant | BCA Compliant | BCA Compliant |

| Unit Features and Options | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|----------|
| Tri-Capacity 33% 66% 100% Capacity | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Full Factory Charged with R410A Refrigerant | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Louvred Outdoor Coil Guard | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| External Stainless Steel Screws (Outdoor Unit Only) | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Blue Epoxy Coated Coil Fin Protection (Indoor & Outdoor Coils) | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| 25mm Foil Faced Polyethylene Insulation (Indoor Unit) | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Lockable Three Phase Load Break Isolator | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Return Air Filter Rails Fitted | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| Low Ambient / high Static EC Outdoor Fans (V-Option) | Optional | Optional | Optional | Optional | Optional | Optional | Optional |

| Air Handling Configurations | | | | | | | |
|-----------------------------|----------|----------|----------|----------|----------|----------|----------|
| F- Front Discharge | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| T- Top Discharge | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| S- Side Discharge | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| D- Down Discharge | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| Reverse Air Handling | Optional | Optional | Optional | Optional | Optional | Optional | Optional |

Foot Notes 1-9

- Based on unit rating excluding indoor fan kW.
- EER Rated = Energy Efficiency Ratio (Rated Capacity Cooling / Rated Input Cooling).
- COP Rated = Coefficient of Performance (Rated Capacity Heating / Rated Input Heating).
- Refer to AS/NZS 3000 "Australian/New Zealand Wiring Rules" for more details.
- Refer to Catalogue Unit Weight Distribution Guide section for details of weight points.
- Sound Pressure Level at 3m distance is determined as the measured sound pressure at 3m perpendicular to the coil side of the condenser.
- Determination of Sound Power Levels of Noise Sources, AS1217.2 - Precision Methods for Broad-Band Sources in Reverberation Rooms.
- Return air sensor needs to be relocated by installer. Specific to site requirements.
- When Demand Response capability is chosen, the air conditioner will fully comply with AS4755.3 in the following modes: DRM 1, 2, 3.

Important Notes:

- The Local Electricity Supply Authority may require limits on - starting current, running current and voltage drop, please check prior to purchase.
- When the outdoor temperature exceeds the rated conditions, the cooling/heating capacities may decrease the rated nett values.
- Specifications subject to change without notice.

Rated Conditions:

Cooling: 35°C DB Outdoor / Air Entering Indoor 27°C DB, 19°C WB
Heating: 7°C DB, 6°C WB Outdoor / Air Entering Indoor 20°C DB

Warranty:

For full terms and conditions of ActronAir warranty, please refer to warranty terms document - www.actronair.com.au

| Control Options and Features | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|--|
| PACKAGE MODEL | PKY470T-6Q2 | PKY540T-6Q2 | PKY620T-6Q2 | PKY700T-6Q2 | PKY820T-3Q2 | PKY960T-3Q2 | |
| CP05 Control Interface with LCD Display for System Operation | Included | Included | Included | Included | Included | Included | |
| Automatic / Manual Operation | Yes | Yes | Yes | Yes | Yes | Yes | |
| 7 Day Programmable Time-Clock | Standard | Standard | Standard | Standard | Standard | Standard | |
| 365 Day Time-Clock With 12 Special Days | Standard | Standard | Standard | Standard | Standard | Standard | |
| Compressor Discharge Temperature Control | Standard | Standard | Standard | Standard | Standard | Standard | |
| Adjustable Indoor Fan Airflow Setpoint | Standard | Standard | Standard | Standard | Standard | Standard | |
| Indoor Coil Anti-Freeze Protection | Standard | Standard | Standard | Standard | Standard | Standard | |
| Return Air Offset | Standard | Standard | Standard | Standard | Standard | Standard | |
| High and Low Pressure Protection | Standard | Standard | Standard | Standard | Standard | Standard | |
| Alarm Fault Data Logger | Standard | Standard | Standard | Standard | Standard | Standard | |
| BMS Compatibility | Optional | Optional | Optional | Optional | Optional | Optional | |
| CP05/CP10 Control Interface (Available as Dual Control Option) | Optional | Optional | Optional | Optional | Optional | Optional | |
| CL01 7-Day Programmable Control Interface (BCA Compliant) | Optional | Optional | Optional | Optional | Optional | Optional | |

| Variations | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|----------|
| E- ⁸ Economy Starter Kit* | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| G- ⁸ Auto Outside Air Kit | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| H- ⁸ Manual Outside Air Kit | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| K- Additional Full Coil Coat Protection (Outdoor Coil) | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| L- Additional Full Coil Coat Protection (Indoor Coil) | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| R- ⁹ Demand Response Capability (AS4755.3) | Standard | Standard | Standard | Standard | Standard | Standard | Standard |
| U- Low Ambient +5°C | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| V- EC Motor High Static Condenser Fan - Up to 150Pa | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| W- Three-Phase Sequence Protection Relay | Optional | Optional | Optional | Optional | Optional | Optional | Optional |
| Z- Compressor 3-Phase Soft Starter (Outdoor Unit Only) | Optional | Optional | Optional | Optional | Optional | Optional | Optional |

| Field Information | | | | | | | |
|---|--------------------------|----------------------------------|---------------|---------------|---------------|--------------------------------------|---------------|
| Refrigerant Factory Charge -(g) For 6Q1 Models - (Crt #1 & Crt #2), For 3Q1 Models (each Compressor) | | 4600 & 8800 | 5800 & 12,000 | 7200 & 12,700 | 8300 & 12,800 | 8,300 (each) | 11,000 (each) |
| Condensate Drain Connection - Size/Type | Indoor Section | 25.4 mm (1") Ø BSP Female Thread | | | | 31.8 mm (1-1/4") Ø BSP Female Thread | |
| | Outdoor Section | 25.4 mm (1") Ø BSP Socket | | | | 31.8 mm (1-1/4") Ø BSP Socket | |
| Air Duct | Supply Duct H x W - (mm) | 650 x 580 | | | | 1200 x 600 | |
| | Return Duct H x W - (mm) | 900 x 700 | | | | 1200 x 600 | |

* Outside Air Damper available on the LHS or RHS only. Return Air Damper available on the front LHS or RHS only.





ActronAir

That's better. That's Actron.

actronair.com.au

1300 522 722