

# Performance and efficiencies through smart engineering.

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.



Guaranteed to perform up to 50°C

Three stages of cooling/heating for more savings

Up to 32 combinations of supply and return air connections

#### AWARDS

2012 AIRAH Award Finalist for Excellence in Innovation

2013 AIRAH Award Finalist for Excellence in Sustainability

#### Nett (Rated) Capacity - Cooling - Three Phase

45.77 kW PKY470T	51.85 kW PKY540T	60.80 kW PKY620T
70.30 kW PKY700T	80.04 kW PKY820T	97.00 kW PKY960T



*That's better. That's Actron.*

## Features

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- » Vertical Discharge
- » High efficiency EC fan technology
- » Axial outdoor fan
- » BMS Option
- » In-built controls solution
- » Dual control capability for enhanced user access
- » R410A refrigerant
- » Filter notification output
- » Filter cavity with in-built filter slides
- » Separate run outputs
- » Fault notification output
- » Multiple Handing Options
- » Individual motor protection
- » Circuit breaker and thermal overload
- » DRED enabled (AS4755)
- » Large indoor heat exchangers
- » Large outdoor heat exchangers
- » TX valves for improved efficiency
- » Foil face polyethylene insulation
- » Two speed condenser fans
- » Inbuilt economy control logic

## Compressor

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- » Compliant Scroll

## Power

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- » Three phase – 400 - 415V / 3Ph + N / 50Hz

## Controller Options

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- » CP05 – Supplied with unit – Factory fitted
- » CL01
- » CP10
- » Group Control

## Connectivity & Sensor Options

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- » BMS Compatible – BACNET and MODBUS
- » Humidity Sensor – Duct Mount or Surface Mount
- » Temperature Sensor – Bead or Surface Mount
- » CO2 Sensor

## Additional Options

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- » Economy Cycle Kit
- » +5°C low ambient cooling operation
- » 3 Phase Soft Starter
- » Phase Sequence Protection Relay
- » Coil Coat Indoor & Outdoor
- » High static condenser fan
- » Manual or Auto – Outside air option

\*Requires Group Control

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## Technical Specifications - Package Unit Tri-Capacity 47-100kW

		Three Phase					
PACKAGE MODEL		PKY470T	PKY540T	PKY620T	PKY700T	PKY820T	PKY960T
<sup>1</sup> Total (Gross) Capacity (kW) (AS/NZS3823.1.2)	Cooling	47.00	53.50	63.00	73.13	82.50	100.00
	Heating	46.00	51.50	60.00	68.80	80.00	94.10
Nett (Rated) Capacity (kW) (AS/NZS3823.1.2)	Cooling	45.77	51.85	60.80	70.30	80.04	97.00
	Heating	47.37	53.20	62.47	72.00	82.75	97.50
Input Power (kW) (AS/NZS3823.1.2)	Cooling	15.40	17.57	20.50	24.16	27.21	32.51
	Heating	14.16	16.20	20.15	22.40	24.55	27.26
<sup>2</sup> EER Rated (AS/NZS3823.1.2)	Cooling	2.97	2.95	2.97	2.91	2.94	2.98
<sup>3</sup> COP Rated (AS/NZS3823.1.2)	Heating	3.35	3.28	3.10	3.21	3.37	3.58
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)		40.8	44.3	52.1	58.7	67	79.9
<sup>4</sup> Circuit Breaker Amps		50.0	50.0	63.0	80.0	80.0	100.0
IP Rating		IP44					
Compressor	Type / No. per Unit	Compliant Scroll / 2				Compliant Scroll / 3	
	Starting Method	D.O.L.					
No. Refrigeration Circuits/No. Capacity Stages (Capacity range)		2 / 3 (~33%, 66%, 100%)				3 / 3 (~33%, 66%, 100%)	
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 (470-700 Models), 2 (820 and 960 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	
<sup>5</sup> Nominal Weight (kgs)		836	853	937	964	1263	1350
<sup>6</sup> Sound Pressure Level (dBA)	Outdoor (low/high fan)	59 / 64		60 / 65		61 / 66	
<sup>7</sup> Sound Power Level (dBA)	Outdoor (low/high fan)	76 / 81		77 / 82		78 / 83	
MEPS Compliant		Yes	Yes	Yes	Yes	BCA Compliant	BCA Compliant
<sup>9</sup> Demand Response Capability (AS4755.3)		Capable					

### 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, AS1217.2 - 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: 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](http://www.actronair.com.au)

## Technical Specifications

Unit Features						
	PKY470T	PKY540T	PKY620T	PKY700T	PKY820T	PKY960T
Tri-Capacity 33% 66% 100% Capacity	Standard	Standard	Standard	Standard	Standard	Standard
Full Factory Charged with R410A Refrigerant	Standard	Standard	Standard	Standard	Standard	Standard
Louvered Outdoor Coil Guard	Standard	Standard	Standard	Standard	Standard	Standard
External Stainless Steel Screws (Outdoor Unit Only)	Standard	Standard	Standard	Standard	Standard	Standard
Blue Epoxy Coated Coil Fin Protection (Indoor & Outdoor Coils)	Standard	Standard	Standard	Standard	Standard	Standard
Foil Faced Polyethylene Insulation (Indoor Unit)	Standard	Standard	Standard	Standard	Standard	Standard
Indoor Unit Integral Fan Coil Safety Tray - Included	Standard	Standard	Standard	Standard	Standard	Standard
Return Air Filter Rails Fitted	Standard	Standard	Standard	Standard	Standard	Standard
*Demand Response Capability (AS4755.3)	Standard	Standard	Standard	Standard	Standard	Standard
Low Ambient / High Static EC Outdoor Fans (V-Option)	Optional	Optional	Optional	Optional	Optional	Optional

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

Control Options and Features						
CP05 Control Interface with LCD Display for System Operation	Standard	Standard	Standard	Standard	Standard	Standard
Automatic / Manual Operation	Standard	Standard	Standard	Standard	Standard	Standard
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 485/TCP-IP Compatibility (accessory)	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
CO <sub>2</sub> Sensor for economy cycle (accessory)	Optional	Optional	Optional	Optional	Optional	Optional
Humidity Sensor for economy cycle (accessory)	Optional	Optional	Optional	Optional	Optional	Optional
Group Control Interface and Controller (accessory)	Optional	Optional	Optional	Optional	Optional	Optional

## Technical Specifications

Variations						
	PKY470T	PKY540T	PKY620T	PKY700T	PKY820T	PKY960T
E- <sup>8</sup> Economy Starter Kit*	Optional	Optional	Optional	Optional	Optional	Optional
G- <sup>8</sup> Auto Outside Air Kit	Optional	Optional	Optional	Optional	Optional	Optional
H- <sup>8</sup> Manual Outside Air Kit	Optional	Optional	Optional	Optional	Optional	Optional
K- Additional Full Coil Coat Protection (Outdoor Coil)	Optional	Optional	Optional	Optional	Optional	Optional
L- Additional Full Coil Coat Protection (Indoor Coil)	Optional	Optional	Optional	Optional	Optional	Optional
U- Low Ambient +5°C	Optional	Optional	Optional	Optional	Optional	Optional
V- EC Motor Low Ambient/High Static Condenser Fans - Up to 150Pa	Optional	Optional	Optional	Optional	Optional	Optional
W- Three-Phase Sequence Protection Relay	Optional	Optional	Optional	Optional	Optional	Optional
Z- Compressor 3-Phase Soft Starter (Outdoor Unit Only)	Optional	Optional	Optional	Optional	Optional	Optional
Compressor Sound Jacket (as requested)	Optional	Optional	Optional	Optional	Optional	Optional
Weather Hood for outside air (accessory)	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.