

# 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

## AWARDS

2012 AIRAH Award Finalist for Excellence in Innovation

2013 AIRAH Award Finalist for Excellence in Sustainability

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

49.10 kW      48.60 kW

CAY500T / EVY500T  
Std Profile

CAY500T/ELY500T  
Low Profile

60.80 kW      61.00 kW

CAY620T/EVY620T  
Std Profile

CAY620T/ELY620T  
Low Profile



*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
- » Separate run outputs
- » Fault notification output
- » Multiple Handling Options
- » Individual motor protection
- » Circuit breaker and thermal overload
- » DRED enabled (AS4755)
- » Large indoor heat exchangers
- » Large outdoor heat exchangers
- » Low ambient cooling option to below 15°C
- » TX valves for improved efficiency
- » Foil face polyethylene insulation
- » Two speed condenser fans
- » Inbuilt economy control logic
- » In-built evaporator safety tray for EVY and ELY indoor units

## Compressor

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- » Compliant Scroll

## Power

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

## Controller Options

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- » CP05
- » 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
- » Air discharge<sup>†</sup>
- » Horizontal Condenser Fan
- » 3 Phase Soft Starter
- » Phase Sequence Protection Relay
- » Coil Coat Indoor & Outdoor
- » High static condenser fan

<sup>\*</sup>Requires Group Control  
<sup>†</sup>Only available on EVY series.

## Technical Specifications - Split Ducted Tri-Capacity 49-73kW

		Technical Information			
		Three Phase			
OUTDOOR MODEL		CAY500T	CAY500T	CAY620T	CAY620T
INDOOR MODEL		EVY500T	ELY500T	EVY620T	ELY620T
		Std Profile	Low Profile	Std Profile	Low Profile
<sup>1</sup> Total (Gross) Capacity (kW) (AS/NZS3823.1.2)	Cooling	50.50	50.10	63.00	63.00
	Heating	50.60	50.40	60.00	60.00
Nett (Rated) Capacity (kW) (AS/NZS3823.1.2)	Cooling	49.10	48.60	60.80	61.00
	Heating	51.80	51.90	62.47	62.30
Input Power (kW) (AS/NZS3823.1.2)	Cooling	15.34	15.23	20.50	20.35
	Heating	15.36	15.36	20.15	19.98
<sup>2</sup> EER Rated (AS/NZS3823.1.2)	Cooling	3.20	3.19	2.97	3.00
<sup>3</sup> COP Rated (AS/NZS3823.1.2)	Heating	3.37	3.38	3.10	3.12
Power Supply (V / Ph / Hz)	Outdoor	400V / 3Ph + N / 50Hz			
	Indoor	400V / 3Ph + N / 50Hz			
Rated Load Amps (AS/NZS3823.1.2)	Outdoor / Indoor / Total	27.7 / 2.3 / 30.0	27.7 / 2.7 / 30.4	35.7 / 3.5 / 39.2	35.7 / 3.2 / 38.9
Full Load Amps (AS/NZS3823.1.2)	Outdoor / Indoor / Total	36.4 / 5.3 / 41.7	36.4 / 5.2 / 41.6	47.9 / 6.0 / 53.9	47.9 / 6.7 / 54.6
<sup>4</sup> Circuit Breaker Amps		50.0		63.0	
IP Rating	Outdoor	IP44			
	Indoor	IP20			
Compressor	Type / No. per Unit	Compliant Scroll / 2			
	Starting Method	D.O.L.			
No. Refrigeration Circuits/No. Capacity Stages (Capacity range)		2 / 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 EC Motor Direct Drive Backward Curve Plug Fan x1 (EVY Models), 2 (ELY Models)			
Airflow Range Indoor (l/s)	Maximum	3100		3900	
	Nominal	2600		3200	
	Minimum	2000		2500	
External Static Pressure (Pa) at:	Maximum Airflow	303	500	210	275
	Nominal Airflow	470	500	390	500
Nominal Outdoor Dimensions (mm)	Depth	1195		1195	
	Height	1465		1695	
	Width	2305		2305	
Nominal Indoor Dimensions (mm)	Depth	1450	1160	1450	1160
	Height	1280	770	1510	895
	Width	1590	2410	1590	2410
<sup>5</sup> Nominal Weight (kgs)	Outdoor	542		577	
	Indoor	292	298	340	274
<sup>6</sup> Sound Pressure Level (dBA)	Outdoor (low/high fan)	58 / 63		59 / 64	
<sup>7</sup> Sound Power Level (dBA)	Outdoor (low/high fan)	75 / 80		76 / 81	
MEPS Certified		Yes	Yes	Yes	Yes

### 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, AS12172 - 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 and Options				
OUTDOOR MODEL	CAY500T	CAY500T	CAY620T	CAY620T
INDOOR MODEL	EVY500T	ELY500T	EVY620T	ELY620T
	Std Profile	Low Profile	Std Profile	Low Profile
Tri-Capacity 33% 66% 100% Capacity Stages	Standard	Standard	Standard	Standard
Pre-Charged with R10A Refrigerant	Standard	Standard	Standard	Standard
Louvered Outdoor Coil Guard	Standard	Standard	Standard	Standard
External Stainless Steel Screws (Outdoor Unit Only)	Standard	Standard	Standard	Standard
Blue Epoxy Coated Coil Fin Protection (Indoor & Outdoor Coils)	Standard	Standard	Standard	Standard
25mm Foil Faced Polyethylene Insulation - Indoor Unit	Standard	Standard	Standard	Standard
Indoor Unit Integral Fan Coil Safety Tray (Included)	Standard	Standard	Standard	Standard
<sup>8</sup> Demand Response Capability (AS4755.3)	Standard	Standard	Standard	Standard
Low Ambient / High Static Outdoor Fans	Optional	Optional	Optional	Optional

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

Control Options and Features				
CP05 Control Interface with LCD Display for System Operation	Standard	Standard	Standard	Standard
Automatic / Manual Operation	Standard	Standard	Standard	Standard
7 Day Programmable Time-Clock	Standard	Standard	Standard	Standard
365 Day Time-Clock With 12 Special Days	Standard	Standard	Standard	Standard
Compressor Discharge Temperature Control	Standard	Standard	Standard	Standard
Adjustable Indoor Fan Airflow Setpoint	Standard	Standard	Standard	Standard
Indoor Coil Anti-Freeze Protection	Standard	Standard	Standard	Standard
Adaptive Demand Defrost	Standard	Standard	Standard	Standard
Return Air Offset	Standard	Standard	Standard	Standard
High and Low Pressure Protection	Standard	Standard	Standard	Standard
Alarm Fault Data Logger	Standard	Standard	Standard	Standard
BMS Compatibility	Optional	Optional	Optional	Optional
CP05 / CP10 Control Interface (Available as Dual Control Option)	Optional	Optional	Optional	Optional
CL01 7-Day Programmable Control Interface (BCA Compliant)	Optional	Optional	Optional	Optional
CO <sub>2</sub> Sensor for economy cycle (accessory)	Optional	Optional	Optional	Optional
Humidity Sensor for economy cycle (accessory)	Optional	Optional	Optional	Optional
Group Control Interface and Controller (accessory)	Optional	Optional	Optional	Optional

## Technical Specifications

Variations				
OUTDOOR MODEL	CAY500T	CAY500T	CAY620T	CAY620T
INDOOR MODEL	EVY500T	ELY500T	EVY620T	ELY620T
	Std Profile	Low Profile	Std Profile	Low Profile
F - Dedicated Input for Remote Stop / Start	Optional	Optional	Optional	Optional
K - Additional Full Coil Coat Protection (Outdoor Unit Only)	Optional	Optional	Optional	Optional
L - Additional Full Coil Coat Protection (Indoor Unit Only)	Optional	Optional	Optional	Optional
P - IP44 Rated (Indoor Unit Only)	Optional	Optional	Optional	Optional
U - Low Ambient +5°C	Optional	Optional	Optional	Optional
W - Three-Phase Sequence Protection Relay (Outdoor Unit Only)	Optional	Optional	Optional	Optional
X - IP55 Rated (outdoor Unit Only)	Optional	Optional	Optional	Optional
Y - Powder Coating (Indoor Unit Only)	Optional	Optional	Optional	Optional
Z - Compressor 3-Phase Soft Starter (Outdoor Unit Only)	Optional	Optional	Optional	Optional

Field Piping and Connections				
Refrigerant Charge (Crt #1 & Crt #2)	Factory Charge - (g)	8,250 & 14,010		7,900 & 15,400
	Pre-Charge Length - (m)	5		5
	Additional Refrigerant Charge - (g/m)	50 & 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)		12.70 (1/2) & 15.90 (5/8)
	Gas Pipe - mm (inch)	22.22 (7/8) & 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)		12.70 (1/2) & 15.90 (5/8)
	Gas Pipe - mm (inch)	22.22 (7/8) & 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)		12.70 (1/2) & 15.90 (5/8)
	Gas Pipe - mm (inch)	22.22 (7/8) & 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
	Return Duct H x W - (mm)	1130 x 1135	620 x 2000	1360 x 1135      745 x 2000

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