

**HERCULES**

# The brains and brawn redefining air conditioning efficiencies.

Hercules is the most advanced, energy efficient packaged unit ever made in Australia. The first packaged system to have twin inverter compressors, it's big in lots of ways. Rated to a superior operating range, Hercules can handle the most extreme conditions Australia can throw at it, designed for large spaces such as warehouse stores, shopping centres, airport terminals, and car showrooms. But along with all that brawn comes some very brainy energy efficient thinking.

ActronAir was the first air conditioning company to use inverter technology in a large-scale commercial air conditioner, and it allows superb flexibility.



Guaranteed to perform up to 50°C

Uses just 25 amps at start-up

Over 46% more efficient than the minimum BCA compliant system

Nett (Rated) Capacity - Cooling - Three Phase

135.00 kW  
PKV1400T

187.50 kW  
PKV2000T



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



## Features

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- » Vertical Discharge – Condenser air
- » High efficiency EC fan technology
- » BMS Option
- » Powder coated outdoor panels (60~80 microns)
- » Blue fin epoxy coated indoor + outdoor coil protection
- » E-Prime™ Evaporator Drain Tray
- » Electronic Expansion Valve (EEV)
- » Dual inverter compressors
- » In-built controls solution
- » Dual control capability for enhanced user access
- » R410A refrigerant
- » Multiple Handling Options
- » Foil face polyethylene insulation
- » Sloped indoor coil drain pan
- » Economy cycle control logic
- » High Static condenser fans 80-120Pa

## Compressor

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- » Variable Capacity Scroll with Inverter Drive

## Power

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

## Controller Options

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- » CP05
- » CL01
- » CP10
- » CM100
- » Group Control

## Connectivity & Sensor Options

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

## Additional Options

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- » Economy Cycle Dampers and Motors
- » Reheat
- » Coil Coat Indoor & Outdoor

\*Requires Group Control

## Technical Specifications - Package Unit Variable Capacity 140-195kW

PACKAGE MODEL		Three Phase	
		PKV1400T	PKV2000T
		Maximum Capacity	Maximum Capacity
<sup>1</sup> Total (Gross) Capacity (kW) (AS/NZS3823.1.2)	Cooling (Min - Max)	140.00 (35.50 -140.00)	195.50 (49.00 - 195.50)
	Heating	147.00	202.10
Nett (Rated) Capacity (kW) (AS/NZS3823.1.2)	Cooling	135.00	187.50
	Heating	152.50	210.00
Nett (Rated) Input Power (kW) (AS/NZS3823.1.2)	Cooling	44.84	61.75
	Heating	39.50	59.60
<sup>2</sup> EER Rated (AS/NZS3823.1.2)	Cooling	3.01	3.04
<sup>3</sup> COP Rated (AS/NZS3823.1.2)	Heating	3.86	3.52
Power Supply (V / Ph / Hz)		400V / 3Ph + N / 50Hz	
Rated Amps (AS/NZS3823.1.2)		71.6	86.0
Full Load Amps (AS/ NZS3823.1.2)		89.9	117.0
<sup>4</sup> Circuit Breaker Amps		100.00	125.0
IP Rating		IP44	
Compressor	Type / No. per Unit	Variable Capacity Scroll with Inverter Drive / 2	
	Starting Method	Soft Start	
No. of Refrigeration Circuits/Capacity Range		2 / Variable	
Refrigerant		R410A	
Fans (Type x Number per unit)	Outdoor	Variable Speed ECM / Direct Drive Axial Fan x 4	
	Indoor	Variable Speed ECM / Direct Drive Backward Curve Plug Fan x 4	
Airflow Indoor (l/s)	Maximum	8880	11200
	Nominal	7400	9900
	Minimum	5920	7920
External Static Pressure (Pa) at:	Maximum Airflow	225	460
	Nominal Airflow	465	500
Unit Dimensions (mm)	Depth	5250	
	Height	2360	
	Width	2300	
<sup>5</sup> Nominal Weight (kgs)		2716	3012
<sup>6</sup> Sound Pressure Level (dBA)	Outdoor (high/maximum)	59.1 / 66.2	66.2 / 66.2
<sup>7</sup> Sound Power Level (dBA)	Outdoor (high/maximum)	76.1 / 83.2	83.2 / 83.2
BCA Compliant		Yes	Yes
<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, 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

Control Options and Features		
PACKAGE MODEL	PKV1400T	PKV2000T
CPIO Control Interface with LCD Display for System Operation	Standard	Standard
Automatic / Manual Operation	Standard	Standard
7 Day Programmable Time-Clock	Standard	Standard
Bi-Flow Electronic Expansion Valve (EEV)	Standard	Standard
Compressor Discharge Temperature Control	Standard	Standard
Adjustable Indoor Fan Airflow Setpoint	Standard	Standard
Indoor Coil Anti-Freeze Protection	Standard	Standard
Return Air Offset	Standard	Standard
High and Low Pressure Protection	Standard	Standard
Three Phase protection on all Motors	Standard	Standard
Alarm Fault Data Logger	Standard	Standard
BMS 485/TCP-IP Compatibility (accessory)	Optional	Optional
CP05 / CPIO Control Interface (Available as Dual Option)	Optional	Optional
CO <sub>2</sub> Sensor for economy cycle (accessory)	Optional	Optional
Humidity Sensor for economy cycle (accessory)	Optional	Optional
Group Control Interface and Controller (accessory)	Optional	Optional

Field Information		
Refrigerant Factory Charge - (g)	19,500 & 19,500	28,000 & 28,000
Condensate Drain Connection - Size/Type	Indoor Section	31.8 mm (1-1/4") Ø BSP Female Socket
	Outdoor Section	31.8 mm (1-1/4") Ø BSP Female Socket
Air Duct Connection	Supply Duct W x L - (mm)	553 x 1953
	Return Duct W x L - (mm)	803 x 1953

Variations		
B - Floor Mesh Supply Air - Down Supply Air	Optional	Optional
C - Floor Mesh Return Air - Bottom Return Air	Optional	Optional
<sup>§</sup> E - Economiser without Spill Air	Optional	Optional
F - Economy Control 3 <sup>rd</sup> Party Components	Optional	Optional
<sup>§</sup> G - Outside Air Auto	Optional	Optional
<sup>§</sup> H - Outside Air Manual	Optional	Optional
K - Additional Coil Coat Protection (Outdoor Section)	Optional	Optional
L - Additional Coil Coat Protection (Indoor Section)	Optional	Optional
<sup>§</sup> M - Economy Cycle with Spill Air	Optional	Optional
W - Reheat for RH Control* (Blue Fin + Complete Coil treatment)	Optional	Optional
X - IP55 Rated	Optional	Optional