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# **Technical data sheet**

Comparison of Breezair to other products

#### Meridian laboratory tested cooling capacity (kW)



#### Meridian laboratory tested cooling capacity v claimed capacity

Model	Meridian lab tested cooling capacity (kW)	Claimed cooling capacity (kW)	% Variance
Coolbreeze D160	oolbreeze D160 6.4 8 <sup>°</sup>		-16%
Keruilai KD18A	7.9 <sup>1</sup>	N/A	N/A
JHCool B18	7.9	N/A	N/A
Coolbreeze D195	9.4	15.2 <sup>°</sup>	-38%
EcoCooling ECP08	9.5	35.0"	-73%
Aolan AZL18-LX10C	10.3 <sup>1, 3</sup>	N/A	N/A
Grisair AZL18-ZX10E	10.6 <sup>1</sup>	N/A	N/A
Coolbreeze D255	11.1	17.7	-37%
Breezair Icon EXH210	13.5	13.5	0%
Breezair TBA550	14.1	14.1	0%
Breezair EXS220	15.1	15.1	0%
Breezair TBS580	16.8	16.8	0%
Breezair TBSI580	18.4	18.4	0%

#### Meridian laboratory tested airflow v claimed airflow

	Model	Meridian lab tested airflow (m³/hr)	Claimed airflow (m <sup>3</sup> /hr)	% Variance
Low capacity	Keruilai KD18A	9,140 <sup>1</sup>	18,000†	-49%
	JHCool B18	6,800	18,000‡	-62%
	EcoCooling ECP08	9,430	14,000**	-33%
High capacity	Aolan AZL18-LX10C	10,890 <sup>1,2</sup>	18,000^	-40%
	Grisair AZL18-ZX10E	9,220 <sup>1</sup>	18,000^	-49%

#### **Test conditions**

- Coolers tested as new and complete units as specified by Australian Standard AS2913-2000. Cooling capacity was not determined by testing separate components.
- Coolers tested at inlet conditions of 38 °C dry bulb and 21 °C wet bulb and cooling capacity calculated based on room temperature of 27.4 °C as specified by Australian Standard AS2913-2000.
- Cooler Airflow tested at 80 Pa Duct Static Pressure as specified by Australian Standard AS2913-2000.
- All cooler pads pre-soaked before testing.



Correct at the time of printing to 06/01/17. The displayed data was drawn from Meridian Test Laboratory's test analysis. The testing was performed by a NATA accredited laboratory to the requirements of the Australian Standard AS2913-2000 "Evaporative Air Conditioning Equipment."

\*Claimed cooling capacities were calculated according to AS2913-2000 under standardised conditions - https://www.coolbreeze.com.au/ wp-content/uploads/CoolBreeze-2016\_LR\_web.pdf

\*\*Claimed cooling capacity and airflow as per http://www.ecocooling. co.uk/products/productdesc.php?id=1

<sup>†</sup>Claimed airflow were calculated by testing separate components and not to all AS2913-2000 conditions - http://www.keruilaipacific.com/ index.php?option=com\_content&view=article&id=179&Itemid=141.

‡Claimed airflow as per http://www.jhcool.com/products.

Claimed airflow were calculated by testing separate components and not to all AS2913-2000 conditions - http://www.aolan-china.com/ viewpro.aspx?id=147.

<sup>1</sup>Laboratory test performed prior to NATA accreditation. <sup>2</sup>Airflow results extrapolated from fan curve.

<sup>3</sup>Test performed at 107Pa Duct Static Pressure.





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## **Laboratory overview**

MERIDIAN TEST

I ABORATORY

The Meridian Psychrometric Test Laboratory is suitable for conducting performance and development testing on a range of cooling and heating products including direct and indirect evaporative coolers, refrigerated air conditioners and heat pumps.

The laboratory has two test chambers with independent control of dry bulb and wet bulb temperatures and three nozzle boxes that allow accurate measurement of a range of airflows. To enable testing of large evaporative coolers, the laboratory also has two desiccant dehumidifiers to extract additional moisture from the test chambers. The laboratory is fully PLC controlled with electronic measurement and data acquisition of all test results.

Appliance performance is calculated by measuring air conditions into and out of the appliance, airflow and power consumption. Seeley International is Australia's only air conditioning and heating manufacturer with a NATA accredited test laboratory.



### Specifications

	Test chamber 1	Test chamber 2
Chamber size	W: 8m x L: 6.5m x H: 4m	W: 5m x L: 6.5m x H: 4m
Dry bulb temperature	0°C to 55°C	0°C to 45°C
Dew point temperature	0°C to 20°C	8°C to 15°C
Temperature control	+/- 0.2°C	+/- 0.2°C
Airflow rate	100 l/sec to 3000 l/sec	100 l/sec to 1000 l/sec

## Product testing capability

	Product	Test Standard
	Fan performance	ISO 5801
	Assembled evaporative coolers	AS 2913, ASHRAE 133
	Indirect evaporative coolers	ASHRAE 143
	Air conditioners and heat pumps	AS/NZS 3823.1.1, AS/NZS 3823.1.2 – Capacity 9 kW



#### seeleyinternational.com