

Cooling Capacity
16.6kW - 38.5kW

Heating Capacity
14.0kW - 37.2kW



Mid Range Air Cooled Units

MORE THAN JUST ANOTHER
AIR CONDITIONING COMPANY,
WE'RE DEDICATED TO
PIONEERING INNOVATIVE
TECHNOLOGIES THAT OFFER
YOU COMPLETE CONTROL.

⚡ EFFICIENCY

✳ CONNECTIVITY

📈 COMFORT



A SOLUTION FOR MANY SPACES

Designed exclusively using temperzone's in-house R&D expertise, Eco Ultra mid-range is ideal for use in a wide range of commercial spaces such as:



NURSING HOMES AND ASSISTED LIVING FACILITIES



SHOPPING VILLAGES



HOTELS AND APARTMENTS



INDUSTRIAL COMPLEXES



INDUSTRIAL FACILITIES AND FACTORY OFFICES



MUSEUMS AND COMMUNITY HALLS



FOOD PROCESSING OR MANUFACTURING PLANTS



SCHOOLS, UNIVERSITIES AND DAY CARE CENTRES



LABORATORIES

SOMETHING FOR EVERYONE

Eco Ultra is highly flexible with a range of benefits to suit every point of business.

CONSULTING AND SPECIFYING ENGINEERS

- Makes it easy to meet the building energy efficiency targets
- Gives design flexibility
- Easily demonstrate the energy savings

CONTRACTORS INSTALLERS AND SERVICE

- User friendly and sophisticated diagnostic capabilities
- Installation and commissioning assistance
- Opportunity for differentiation

END USER

- Lower utility bills
- Improved year-round comfort
- Lower maintenance charges

WHY CALL TEMPERZONE?

As innovative market leaders in sustainable air conditioning technology development, temperzone is ideally positioned to play a partnering role in your commercial projects.

Because our advanced systems are all designed, manufactured and supported using home-grown R&D expertise, you can always depend on the convenience of easily accessible back-up, advice and technical support.

Perhaps most importantly, you can always rely on us to leverage our world-class systems knowledge to lead the way in the use of emerging technologies.

OUR CORE STRENGTHS IN AUSTRALIA AND NEW ZEALAND:



Our design engineers develop products that meet current and future market requirements.



We aim to maximise performance by utilising our local team of engineers, who are able to provide the best solution for your application.



We work closely with customers to ensure equipment is available and delivered when needed.



Our Sales Team work with our customers ensuring the correct product is supplied to suit the application, and our Technical Services Team is available to assist in installation and commissioning issues if they arise.



TECH SPECS

temperzone has created a smart, resilient air-conditioner to overcome the complexities of today and meet the challenges of tomorrow.



DIVERSITY



ADAPTATION



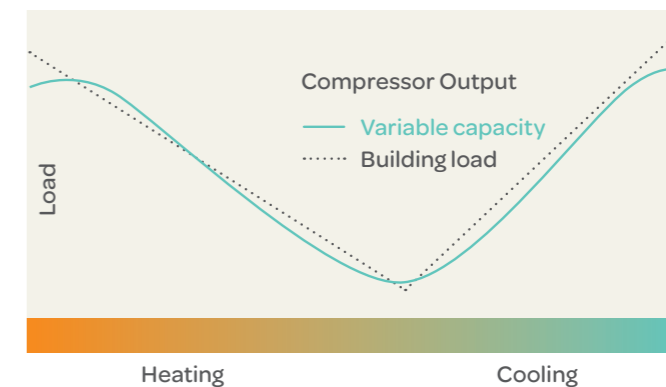
ENERGY
MINIMISATION



DIVERSITY

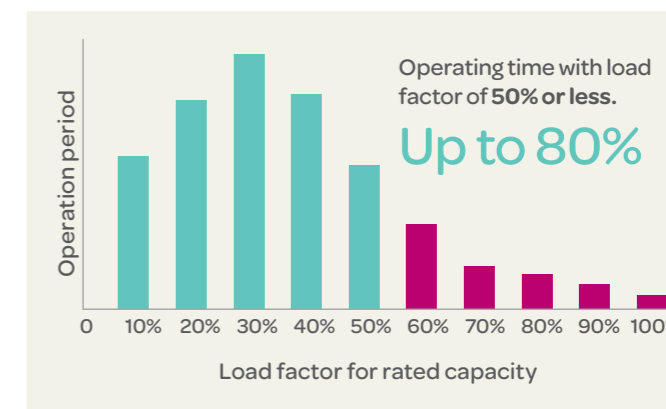
The ability to control the space temperature and minimise energy usage.

Variable compressor matches the energy requirements during operating time to provide high levels of comfort.

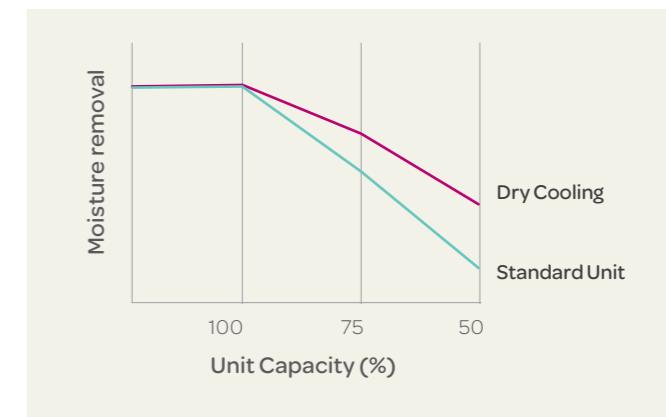


The Eco Series only uses the amount of energy to suit the operating condition.

Maximize your SEER performance with Eco Ultra.



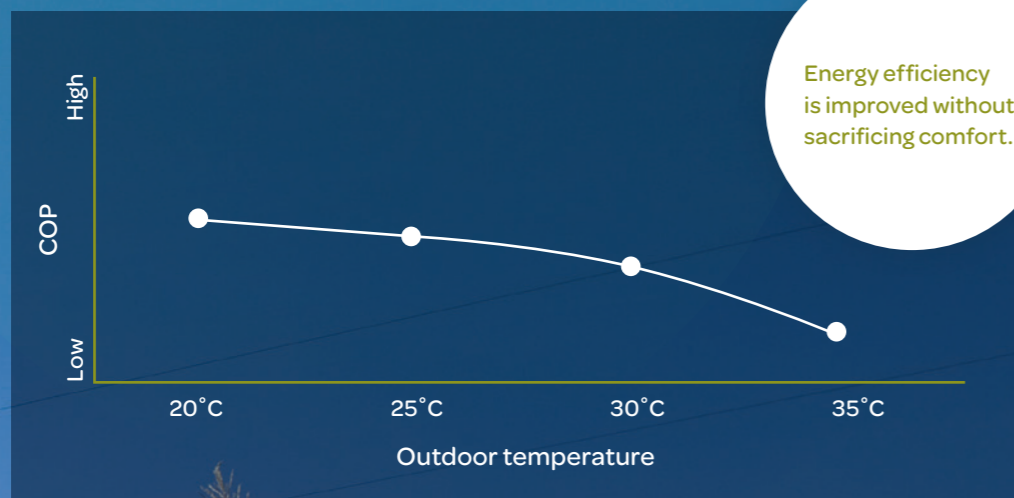
Experience ultra comfort - with **Dry Cooling Mode** when you have a high humidity climate.



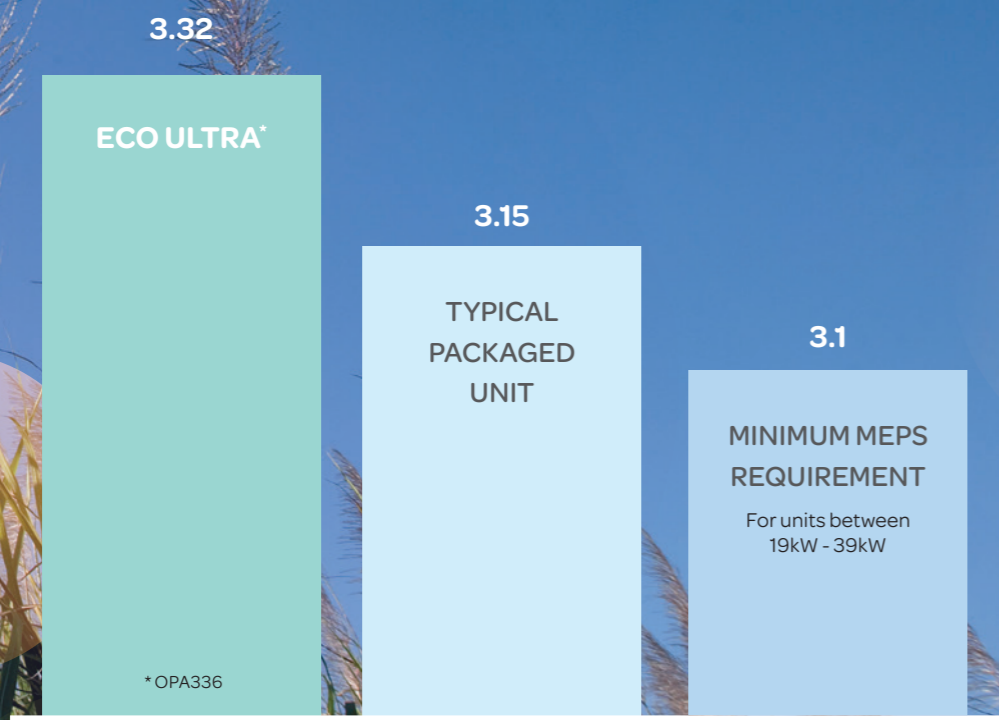


ADAPTATION

Eco Ultra's variable speed compressor ensures your HVAC system runs efficiently at all load levels. The result is high AEER. Our leading variable speed technology ensures the unit matches the load required.



Energy efficiency is improved without sacrificing comfort.



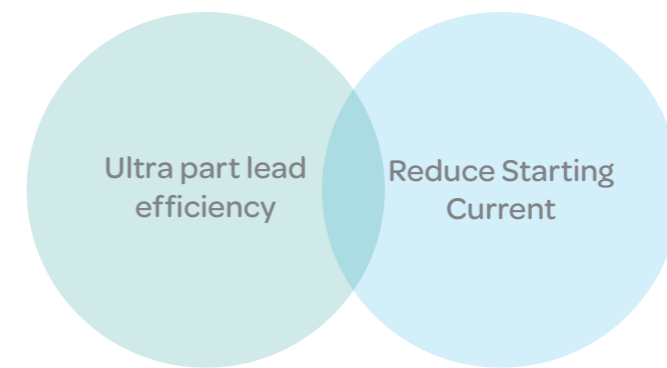
ENERGY EFFICIENCY RATIO



ENERGY MINIMISATION

The Eco Ultra series is so smart that it can immediately understand everything it needs to in order to operate safely and efficiently.

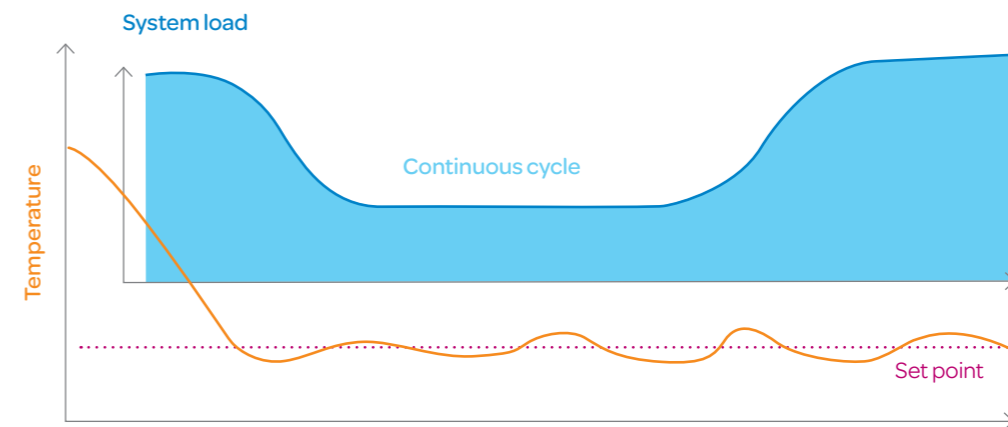
An example of this is as the system load varies, variable speed compressors adjust the cooling capacity by changing speed. At higher speeds, more cooling capacity is provided and at lower speeds, the capacity is reduced.



VARIABLE SPEED SOLUTION

Compressor Start stop cycling

A variable speed compressor will adapt as the load changes, producing smooth control of temperature and less power usage.



ADAPTIVE CONTROLS



Modbus over RS485,
and BacNet Over TCP/IP
and RS 485



Night Set
Back Mode*



Adaptive
Compressor
Control



Local Control,
BMS Control and Third
Party Input Control



Temperature
Measurement
and Control



Run and Common Fault
Alarm Status



Airflow setup
via push button

* When using TZT 100 controller supplied by temperzone.

TECHNOLOGY

Combining the below technologies provides the basis of a flexible, robust, energy-efficient unit.

VARIABLE SPEED COMPRESSOR

By only using the power required to cool or heat the occupied space, energy is saved.

HIGH EFFICIENCY MOTOR

Inverter compressors used by temperzone offer high efficiency. This superior performance is achieved using a new rotor core shape design and rare earth magnets.

See figure 1

ULTRA EC FANS

- High-level monitoring with simplicity
- When it comes to controlling a motor accurately and efficiently, a unit's integrated electronics have to continuously monitor its speed and adjust input accordingly. With Eco Ultra's required circuitry being available to external sources, simple speed control is possible.

Frequency inverters are not required for infinitely variable speed control.

See figure 2

Additionally:
Outdoor fans have high ambient rating/humidity protection, ensuring their suitability to the harshness of the Australian and New Zealand climate.

FIG 1



FIG 2



Note: ISD 324YX uses a forward curved centrifugal fan / ec motor arrangement



TECHNOLOGY

TZT CONTROLLER

Easy to set up, allows for full operational control of the unit and can also be configured to operate economy cycle arrangement.

Also has Time Clock, After Hours Run Timer and Night set Back Functions available.

See figure 3

UC CONTROLLER

The latest version of temperzone's UC controller provides easy connection for BMS control and incorporates all unit safeties for reliable operation over a wide range of conditions.

See figure 4

POWER DRIVER

The Power Driver controls the speed of the Inverter compressor, ensuring the speed of the compressor matches the required load.

The Power Driver will perform reliably in a wide range of ambient conditions (-20°C to 60°C).

Ambient air is provided into the electrical section to provide cooling. The Power Driver also has an inbuilt fan to provide additional air movement for cooling when required.

See figure 5

ELECTRONIC EXPANSION VALVES

Using Electronic Expansion Valves, temperzone provides optimum control of superheat at varying load for outstanding comfort.

Increased efficiencies are achieved by lowering the head pressure and optimum feeding of the heat exchange coils.

See figure 6

FIG 3



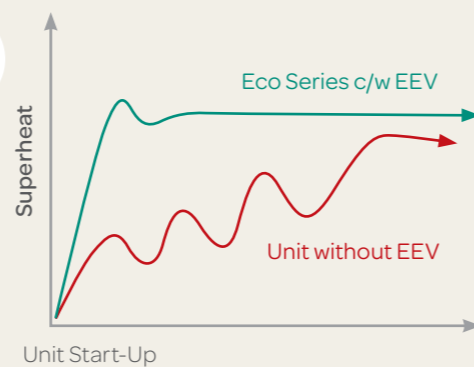
FIG 4



FIG 5



FIG 6



ECO ULTRA FEATURES AND OPTIONS

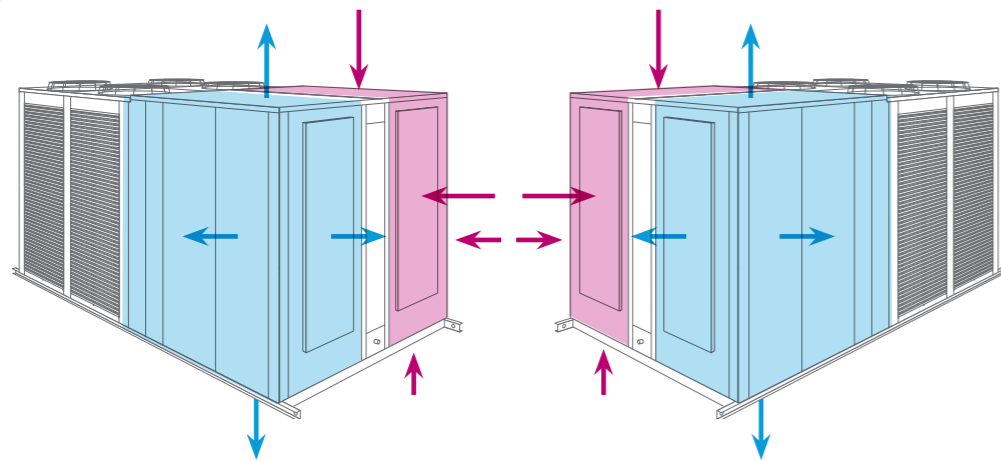
Model	OPA 336	ISD / OSA 324
Remote Common Fault Indication	<input type="checkbox"/>	<input type="checkbox"/>
Electronic Expansion Valve	<input type="checkbox"/>	<input type="checkbox"/>
Variable Speed Compressor	<input type="checkbox"/>	<input type="checkbox"/>
0-10V DC Indoor Fan Motor	<input type="checkbox"/>	<input type="checkbox"/>
BMS Connection	<input type="checkbox"/>	<input type="checkbox"/>
Treated Indoor Coil	<input type="checkbox"/>	<input type="checkbox"/>
Treated Outdoor Coil	<input type="checkbox"/>	<input type="checkbox"/>
Vari Speed Cond. Fans	<input type="checkbox"/>	<input type="checkbox"/>
Louver Outdoor Coil Guard	<input type="checkbox"/>	<input type="checkbox"/>
Spring Hanging Kit / ISD	N/A	<input checked="" type="checkbox"/>
Anti Vibration Mounts / OSA	N/A	<input checked="" type="checkbox"/>
TZT 100 Temperature Controller	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Remote Sensor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Remote R/A Sensor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Economy Cycle Damper Kit Fitted	★	N/A
Fresh Air Damper Fitted	★	N/A
Cabinet Color Change	★	N/A

- STANDARD
- OPTION
- ★ CUSTOM OPTION



FLEXIBLE HANDING OPTIONS – OPA SERIES

- Flexible handing options are available to suit the application.
- The table below shows the standard factory handing's available. Other handing's are available as a custom option.



STANDARD HAND

Supply Air	Return Air
Front	Front
Down	Down

OPPOSITE HAND

Supply Air	Return Air
Front	Front
Down	Down

ECO ULTRA TECHNICAL SPECS

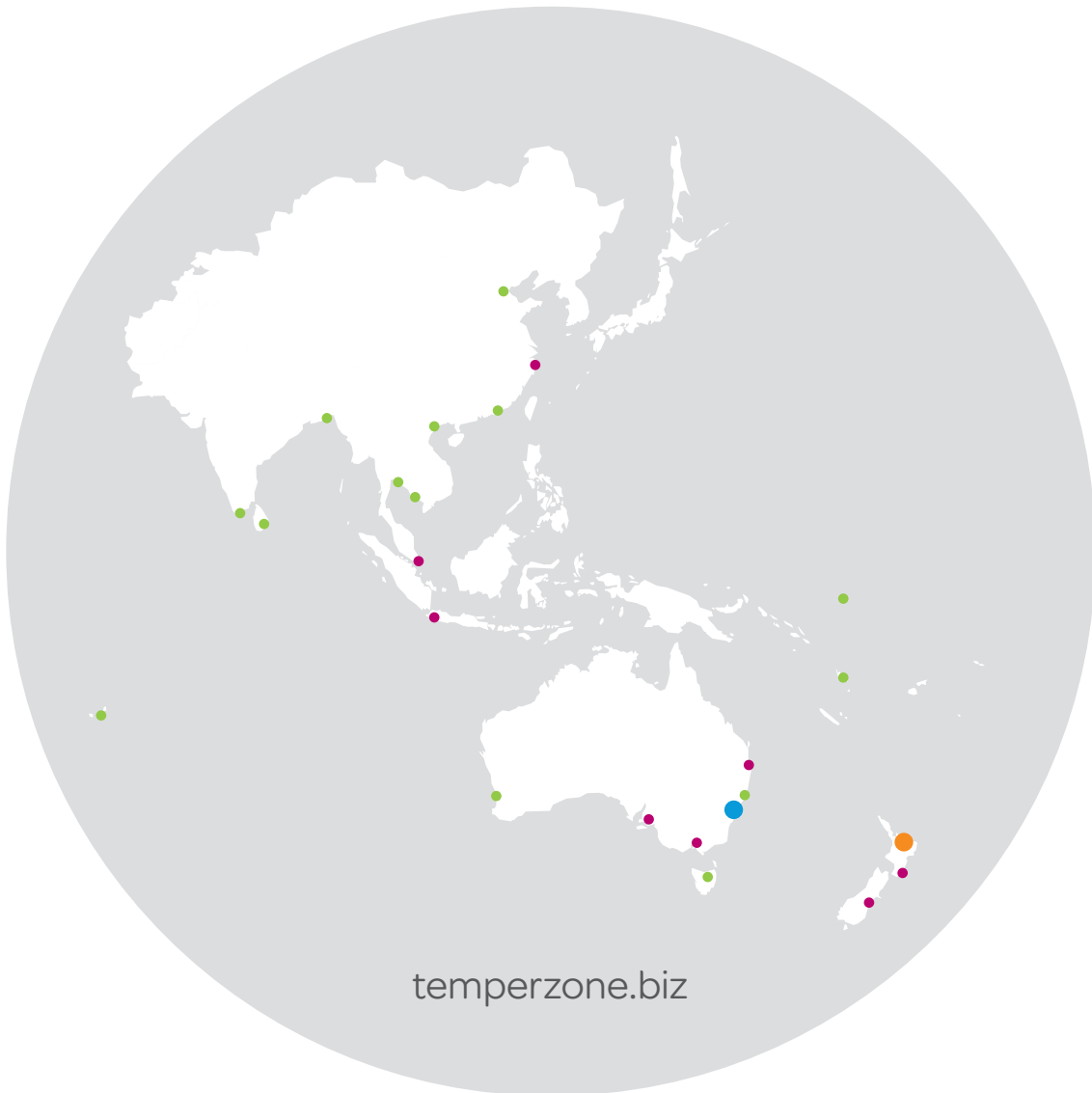
Model	OPA 336	ISD / OSA 324
Rated Capacity (kW)		
Cooling – Gross* / Nett**	29.3 / 28.3	34.0 / 33.3
Heating***	23.7	32.2
Capacity Range (kW)		
Cooling – Gross*	16.6 – 33.6	21.3 – 38.5
Heating	14.0 – 28.9	17.5 – 37.2
Airflow (l/sec)		
Nominal	1700	1725
Min – Max****	1200 – 2230	1200 – 2230
Operating Range (°C db.)		
Outdoor Temp – Cooling	-10 - 52	-10 - 52
Outdoor Temp – Heating	-15 - 25	-15 - 25
Outdoor Noise Levels*****		
SPL @ 3 Metres - dB (a)	63	55
Energy Efficiency		
AEER – Cooling	3.32	3.16
ACOP – Heating	3.43	3.77
Electrical (V / P / H)		
Power Supply	400 / 3 / 50	400 / 3 / 50
Nom Amps	14 / 13 / 16	21 / 21 / 21
Full Load Amps	19 / 17 / 21	34 / 34 / 34
Refrigeration		
Refrigerant	R 410A	R 410A
Compressor	Variable Capacity	Variable Capacity
Pipe Sizes		
Liquid / Suction (Ømm / Ømm)	-	28 / 13
Max. Pipe Length (m)	-	60
Max. Vert. Separation (m)	-	20
Pre Charged Line Length (m)	-	10
Pipe Connections		
Indoor (Liquit / Suction)	-	Brazed / Brazed
Outdoor (Liquit / Suction)	-	Brazed / Brazed
Dimensions		
Indoor Unit - H x W x L (mm)	-	555 x 2020 x 690
Outdoor Unit - H x W x L (mm)	1500 x 1468 x 1781	1335 x 1595 x 840
Weight – Indoor / Outdoor (kg)	- / 510	143 / 275
Supply Air Spigot - W x H (mm)	772 x 422	1505 x 253
Return Air Spigot - W x H (mm)	772 x 422	1772 x 485

NOTES:

- * Nominal (Gross) Cooling Capacity to AS / NZS 3823 Conditions
- ** Nett Cooling Capacity to AS / NZS 3823 Conditions
- *** Heating Capacity to AS / NZS 3823 Conditions

- **** Max Airflow @ 2/5 m/sec face velocity
- ***** Sound Levels measured at Nominal Conditions





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