

The **Breezair**[™]
Icon Series

The world's quietest
evaporative air cooler



Breezair[™]
Advanced natural cooling

Let nature do the work

The beauty of **evaporative cooling** is its **simplicity**. It is a process which has been utilised for hundreds of years. The Arabs hung wet blankets in the entrances of their tents and the Greeks placed terracotta pots filled with water in their doorways.

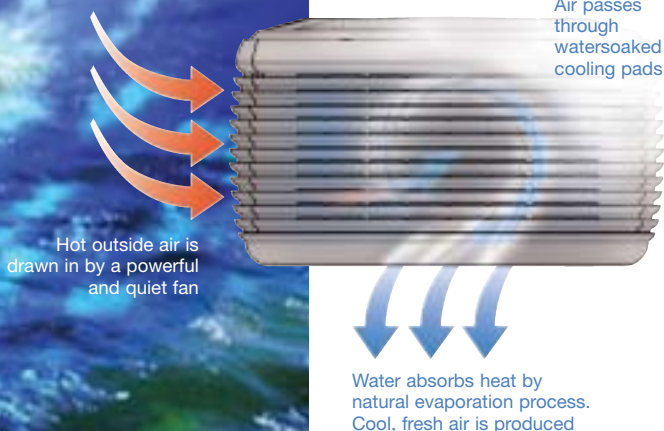


This process occurs naturally whenever water and hot air come into contact. Natural

evaporation takes place which absorbs the heat and cools the hot air by several degrees.

How does an evaporative cooler operate?

Each Breezair cooler contains large cooling pads and during the operating cycle these pads are kept constantly wet. Hot ambient air is drawn into the Breezair cooler by a quiet, powerful fan. The air passes through the water soaked pads and the water absorbs some of the heat by the natural evaporation process, resulting in a cool, refreshing breeze. This combination of a reduced temperature and constant air flow produces a more comfortable working environment, thus improving morale, absenteeism, production and ultimately productivity.



The Breezair™ Icon Series

The Breezair Icon series of evaporative coolers will build on the established and successful EA series. The Icon offers a new generation of centrifugal fan evaporative coolers which will be even more reliable and require less frequent maintenance.

The **Icon** series has all of the features of the EA coolers plus many more. The autodrain facility, the Tornado pump, the long life Chillcel™ pads are features incorporated within the **Icon** cooler.

They also use revolutionary “**Hushpower**” permanent magnet motor technology. This produces an efficient centrifugal fan, making it the quietest ducted evaporative cooling system available.

Advanced electronic controls, managing and monitoring the motor, ensure that the system operates at its optimum efficiency at all times. It even adjusts motor speed automatically to cope with different ducting systems and back pressures.

The quiet operation of this cooler makes it particularly suitable for commercial and retail installations where fan/motor noise may be a problem.

Innovative state of the art technology

What makes Breezair shine above all others as an innovative world-class evaporative air conditioning system is the investment made in developing next generation features. For over 20 years Breezair has been synonymous with leading-edge technology, innovative design and superior cooling.

Led by the state of the art Breezair Icon Series motor/fan combination, the Breezair Icon Series technology also boasts a host of other world-class features.

New Icon Series Fan

- Combined motor fan
- Ultra quiet centrifugal fan
- Responsive to duct sizing & back pressure
- Designed to deliver optimum air output



Tornado Pump

- Exceptional reliability in extreme conditions
- Australian designed & manufactured



Non Clogging Water Distribution

- Unique design ensures the whole cooling pad is saturated at all times
- Balanced continuous flow of water
- Maximises the cooling effect and outperforms competitors products





Cabinet

- Non fading
- Non discolouring
- UV resistant
- Non rusting

AutoWeatherseal

- Clever automatic sealing system
- Assists in preventing draughts and dust
- No need for unsightly winter covers



Hushpower Direct Drive Motor

- Super efficient over operating range
- Electronically controlled for optimum efficiency
- Exclusive to Breezair
- Corrosive resistant construction
- Reduced energy use
- Variable speed
- Unsurpassed reliability
- Quietness beyond belief



Control Power Module

- Advanced electronic controls ensure that the Icon operates at optimum efficiency at all times
- Microprocessor constantly analyses water quality, water consumption and power output
- Smart, reliable & durable



Clean and Dry function

- Automatic water draining when cooler not in use
- Prevents algae growth
- Maintains clean cooler



Long Life Chillcel™ cooling pads

- Breezair unique Chillcel™ pads provide maximum cooling
- Honeycomb design optimises the cooling effect
- Durable design outlasts competitive products



The intelligent choice

Evaporative cooling is fast becoming the only viable option when cooling large areas. A Breezair system consumes up to **80% less energy** than a conventional air conditioning system. Doors and windows can be left open with absolutely no loss in cooling efficiency, the air is **100% fresh**, with no risk of



recirculation fumes, germs or odours and most importantly as the ambient temperature rises, the more cooling

you get inside – the fundamental benefit of the evaporative process.

If you only need to cool small areas within a large space then evaporative cooling provides you with the only effective option - **spot cooling**. An envelope of cool, high velocity air can be directed to a specific area irrespective of the surrounding conditions.

- **More energy efficient**
- **Cleaner, healthier air**
- **Easier and cheaper to install**
- **Improves productivity**
- **Healthier to the environment**
- **Easier to maintain**



Technical specifications

| Specifications | | EXH 170 | EXH190 |
|----------------------------------|-----------------------------------|-----------------------|-----------------------|
| Airflow | High Speed at 80pa L/sec(m³/h) | 2319 (8350) | 2583 (9300) |
| Cooling Capacity* | kW | 12.6 | 14.4 |
| Power Consumption (total) | Watts max | 1350 | 1745 |
| | Watts min | 70 | 70 |
| Total Max Cooler Current | Amps | 5.8 | 7.3 |
| Fan | Dia x Width | 460 x 380 | 460 x 380 |
| | Variable Speed Range rpm | 170 to 556 | 170 to 584 |
| Motor | Output Watts max/min | 750/60 @200-264V | 1150/60 @200-264V |
| | Type | Direct Drive | Direct Drive |
| | Variable Speed Range rpm | 170 to 556 | 170 to 584 |
| Controller | Voltage/Phases/Hz (input) | 230/1/50 | 230/1/50 |
| | Voltage/Phases/Hz (output) | (75-220)/3/(28-110) | (75-220)/3/(28-110) |
| Pump | Type | Centrifugal | Centrifugal |
| | Motor | Synchronous | Synchronous |
| | Rating Watts (input) | 30 | 30 |
| | Flow Rate L/Min | 23 | 23 |
| Cooling Pad Chillcel™ | Size mm | 90 x 800 x 635(H) | 90 x 800 x 635(H) |
| | Number of Pads | 4 | 4 |
| | Pad Area m² | 2.05 | 2.05 |
| | Maximum Velocity m/sec | 1.13 (@80pa) | 1.26 (@80pa) |
| | Saturation Efficiency % | 88.5 | 89.1 |
| Water | Tank Capacity litres | 11 | 11 |
| | Inlet inches | 1/2" Male BSP | 1/2" Male BSP |
| | Drain mm | 40 Male BSP | 40 Male BSP |
| Shipping | Dimensions (inc pallet) mm | 1160 x 1160 x 975 (H) | 1160 x 1160 x 975 (H) |
| | Volume m³ | 1.31 | 1.31 |
| | Mass - Shipping Kg | 77 | 77 |
| | Mass - Nett Unit Kg | 68 | 68 |
| | Mass - Operating Kg | 84 | 84 |

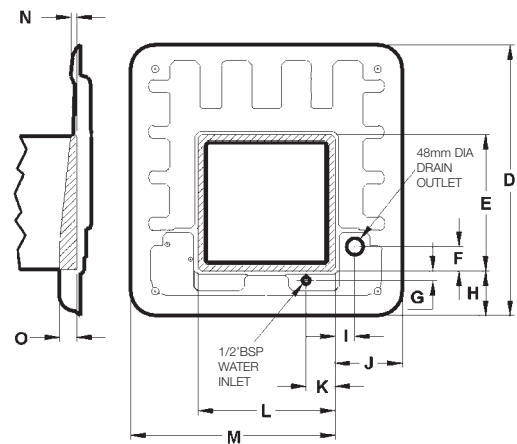
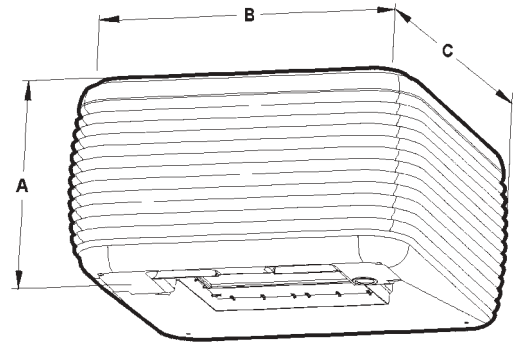
*Cooling capacity calculated to Australian standard AS 2913 - 2000, ambient of 38°C dry bulb & 21°C wet bulb, with room exit temperature of 27.4°C

Cooler Discharge Air Temperature Chart

| Ambient Dry Bulb Temperature | Ambient Relative Humidity % | | | | | | | | |
|------------------------------|-----------------------------|------|------|------|------|------|------|------|------|
| | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| 10 | 3.3 | 4.0 | 4.8 | 5.6 | 6.4 | 7.2 | 8.0 | 8.6 | 9.4 |
| 15 | 6.6 | 7.8 | 8.8 | 9.8 | 10.8 | 11.7 | 12.6 | 13.4 | 14.3 |
| 20 | 10.1 | 11.4 | 12.8 | 13.9 | 15.2 | 16.2 | 17.2 | 18.2 | 19.2 |
| 25 | 13.4 | 15.0 | 16.6 | 18.0 | 19.4 | 20.6 | 21.8 | 22.9 | 24.0 |
| 30 | 16.6 | 18.6 | 20.4 | 22.0 | 23.6 | 25.0 | 26.4 | 27.7 | 28.9 |
| 35 | 19.8 | 22.2 | 24.2 | 26.2 | 28.0 | 29.6 | 31.0 | 32.4 | 33.7 |
| 40 | 23.0 | 25.6 | 28.1 | 30.4 | 32.3 | 33.9 | na | na | na |
| 45 | 25.9 | 29.2 | 32.0 | 34.4 | na | na | na | na | na |
| 50 | 29.0 | 32.7 | 35.8 | na | na | na | na | na | na |

This chart represents approximate air temperatures based on 80% saturation efficiency at sea level. From tests carried out to Australian Standard 2913

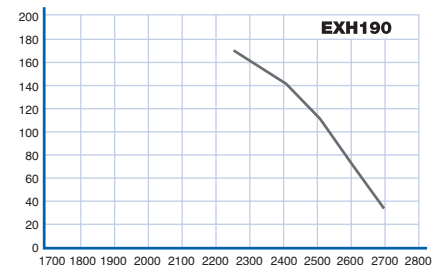
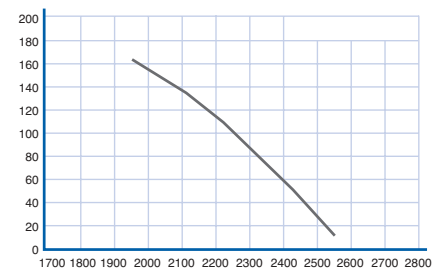
Cabinet Details



| Model | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|---------|-----|------|------|------|-----|-----|----|-----|----|-----|-----|-----|-----|----|----|
| 170/190 | 860 | 1160 | 1160 | 1108 | 555 | 109 | 38 | 182 | 81 | 274 | 118 | 555 | 834 | 38 | 84 |

Note: All dimensions are in mm

Fan Curves



Our Company has a policy of continuous product development and therefore reserves the right to make changes to these specifications without notice



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