

Breezair EXH170 Owner's Manual

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----- Manual continues below -----

Breezair Icon Series Evaporative Coolers Technical Specifications

Specifications		EXH 170	EXH 210	
Airflow	Industry standard (cfm)	7500	9500	
Cooling capacity*	0.3 IWG-(BTU/hr)	45,000	51,000	
Power consumption (total)	Watts max Watts min	1290 100	2040 100	
Total max cooler current	Amps	5.8	7.6	
Fan	Dia x width (inches)	18 1/8" x 15"	18 1/8" x 15"	
	Variable speed range (rpm)	170 to 556	170 to 584	
Motor	Output Watts max/min	750/60 @200-264V	1500/60 @200-264V	
	Туре	Direct drive	Direct drive	
	Variable speed range (rpm)	170 to 556	170 to 584	
Controller	Voltage/phases/Hz (input)	208-230/1/60	208-230/1/60	
	Voltage/phases/Hz (output)	(75-220)/3/(28-110)	(75-220)/3/(28-110)	
Pump	Туре	Centrifugal	Centrifugal	
	Motor	Synchronous	Synchronous	
	Rating Watts (input)	30	30	
	Flow rate (gal/min)	5.1@3.9ft head	5.1@3.9ft head	
	Voltage/phases/Hz	208-230/1/60	208-230/1/60	
Cooling pad	Size (inches)	31 1/2" x 25" x 3 1/2"	31 1/2" x 25" x 3 1/2"	
Chillcel™			31 1/2" x 25" x 4"	
	Number of pads	4	4 (2 each)	
	Pad area (sq. feet)	22	22	
	Maximum velocity (fpm)	227 (@0.3wg)	268 (@0.3wg)	
	Saturation efficiency %	87.4	86.1	
Water	Tank capacity (gal)	3.6	3.6	
	Inlet (inches)	1/2" male BSP	1/2" male BSP	
Shipping	Dimensions including pallet (inches)	45 1/2" x 45 1/2" x 38 1/2" (H)	45 1/2" x 45 1/2" x 38 1/2" (H)	
	Volume (cu. feet)	42	42	
	Mass - shipping (lbs)	197	197	
	Mass - net unit (lbs)	184	184	
			212	

^{*}This cooler has been tested in accordance with the requirements of the California Energy Commission Appliance Efficiency Regulations, Section 1603 and 1604

Cooler Discharge Air Temperature Chart

Ambient Dry Bulb Temperature	Ambient Relative Humidity %									
°F	10	20	30	40	50	60	70	80	90	
50	36.2	37.9	39.6	41.2	42.8	44.3	45.8	47.2	48.7	
60	42.9	45.1	47.2	49.3	51.3	53.2	55.0	56.7	58.4	
70	49.2	52.1	54.7	57.3	59.7	61.9	64.1	66.1	68.1	
80	55.3	58.9	62.2	65.2	68.1	70.7	73.3	75.6	77.8	
90	61.4	65.7	69.6	73.3	76.5	79.7	82.4	85.1	87.7	
100	67.2	72.5	77.1	81.3	85.1	88.5	91.7	na	na	
110	72.9	79.1	84.5	89.3	93.6	97.5	na	na	na	
120	78.7	86.0	92.2	97.5	na	na	na	na	na	
130	84.5	92.8	99.9	na	na	na	na	na	na	

This chart represents approximate air temperatures based on 90% saturation efficiency at sea level. From tests carried out to Australian Standard 2913



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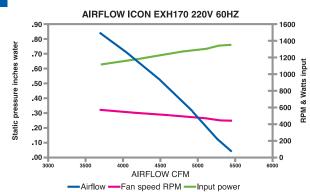
www.breezaircooler.com

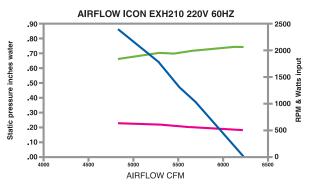
Cabinet Details DRAIN OUTLET E 1/2BSP WATER INLET

A B C D E F G H I J K L M N O 34 45.5 45.5 45.2 21.65 3.25 2.5 8.25 81 11.75 3.66 21.65 32 1.5 3.33

Fan Curves

Note: All dimensions are in inches









How evaporative cooling works

Evaporative cooling takes place when water and warm air converge. The simple process of evaporation cools the air by several degrees.



The healthy advantage

Evaporative cooling is an economical and remarkably efficient way to cool a large area, such as your home or business.

Doors and windows are kept open – and they actually **contribute** to the cooling efficiency. The result: **100% fresh air**, with no recirculated fumes, germs or odors.

Even better, as the surrounding temperature rises, the cooler it becomes inside – and the benefits don't stop there!

How do Breezair evaporative coolers operate?

All Breezair coolers contain large Chillcel™ instance cooling pads. When the cooler is operating, the media is kept consistently wet. The quiet, powerful fan in the Breezair cooler draws hot, ambient air into the water-soaked Chillcel™ pads. The water absorbs much of the heat through the natural evaporation process – resulting

The combination of a reduced temperature and constant air flow produces a more comfortable environment – at work or at home.

in a cool, refreshing breeze.

Keep your cool – as you keep your energy bills down.

A Breezair system can use up to **90%** less energy than conventional air conditioning. That contributes to a tremendous savings on your monthly summer cooling bills!

The advantages to the environment are obvious with this green, environmentally conscious alternative. The advantages to your budget are obvious right away.

The **Breezair Icon** Series is the world

The Breezair Icon is a new generation of centrifugal fan evaporative coolers. It incorporates electronically commutated (ECM) direct drive motor technology. The result is a more economical, reliable, efficient cooling choice that requires less frequent maintenance.

The Icon series has all of the features of the traditional Breezair coolers – plus many more. The Auto Drain, the Tornado water pump and the long life Chillcel™ pads are features incorporated within the Icon cooler.

Using the revolutionary ECM direct drive variable speed motor technology, the Icon employs an efficient centrifugal fan. These well-designed advantages contribute to make the Breezair Icon the world's most quiet ducted evaporative cooling system.

Advanced electronic controls manage and monitor the motor. This ensures that the system operates at its optimum efficiency at all times.

The Icon adjusts its motor speed automatically to accommodate different ducting systems and back pressures.

The cooler's quiet operation makes it suitable for all commercial and residential installations where fan or motor noise may be a problem.

Air passes through

watersoaked Chillcel™ cooling pads



For more than 30 years, the secret of Breezair's energy-efficient performance has been state-of-the-art technology, innovative design and superior cooling.

New Icon Series Direct Drive Motor/Fan

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





Harmony SensorTouch® Wall Controller

- · Variable speed
- · Programmable climate control
- · Auto mode, manual mode, timer
- · Drain function



Horizon SensorTouch® Remote Control

- Variable speed
- Programmable climate control
- · Auto mode, manual mode, timer
- Drain function



Water absorbs heat by the

Cool, fresh air is produced

natural evaporation process.

Non-clogging Water Distribution System

- Unique water flow distributor (patented worldwide by Breezair)
- Fully balanced and continuous water distribution to all Chillcel™ cooling pads
- Maintains perfect pad saturation, maximizing cooling efficiency