



# Celair

## TECHNOLOGY SPECIFICATIONS AND A THREE YEAR\* WARRANTY TO MATCH

### XP/XR SERIES COMMERCIAL & INDUSTRIAL UNITS

Models starting from our small XR8 unit right up to our massive XP70 model means that Celair can provide the exact model to suit your every requirement. Models available XR8, XR10, XR12, XR14, XR15 (1 phase), XR15\_3, XP16, XP20, XP30, XP40, XP50, XP60, XP70, (3 phase) giving airflow performance from 2350 L/S right up to 19375 L/S nominal output. All Celair Commercial units are manufactured from durable marine grade aluminium, finished with a beige silicone polyester coating baked on at 300°C.

### CELAIR 3 YEAR\* WARRANTY

**Electric motors designed for Australian conditions**  
The fan and pump motors are manufactured in Australia, especially for Celair Units. Our suppliers regularly consult with our engineers to ensure continuing reliability. All motors used in the small Celair Units are 'tropical proof' construction and all pump motors feature stainless steel shafts which eliminate maintenance due to their immersion in water.

**Celair Water Management System – The Exclusive Celair 'Dialflo' unit** designed some 20 years ago is still arguably the simplest and most trouble free component we ever designed. It just keeps doing its job year in year out and is totally maintenance free. The Celair 'Dialflo' unit incorporates the most efficient water dumping system in the marketplace. This primary function is controlled by a small inner valve which 'bleeds' water away from the unit. The amount of water bled away from the unit is determined by the quality of the incoming water supply. Good, clean chemical and mineral free water requires a low water 'bleed-off' rate. Just set the Celair 'Dialflo' systems forget it – forever.

**CELdek High Performance Cooling Media** – This cooling media has revolutionised the entire evaporative cooling industry in Australia. All Celair evaporative cooling units are fitted with 75mm thick CELdek cooling filters and, for extra performance 100mm thick filters are available on the XP range. CELdek is so superior, it has no equal as a cooling media for evaporative air cooling applications. It is structurally strong and therefore cannot sag and cooling performance can be guaranteed. The material does not lose its saturation properties for a very long period, in fact, it is reputed to be able to outlast woodwool by up to five times the life span. Whichever way you look at it, you should specify Celair.

\* Three year warranty only applies to XR/XP units installed in a residential application. Standard 2 year warranty applies to any XR/XP unit installed in a commercial or industrial application under normal operation conditions.



# Celair XR/XP Series EAC Units

## Affordable Productivity



### XR SIZED 240V SINGLE PHASE CENTRIFUGAL UNITS MODELS XR8-XR15\_1

These units whilst light weight, are designed to incorporate all features of the large XR range including a motor positioning system which gives the unit a unique low centre of gravity. This low centre of gravity is important when installed in areas of high wind, as the stress forces are completely neutralised. Shipping is also made easier and there is less chance of damage. Models range from a low 2350 L/S up to 3600 L/S at 80 p.a. resistance.

**Service** – No sweat. All components in this Celair range are readily accessible so that should maintenance be required this can be carried out without losing your cool.

**Unlimited Reliability** – This new XR series features two speed fan control as standard and variable speed control as optional, giving you the ability of having precise air quantities for even the most complicated system designs. Added to this is the most tried and proven control station available, it gives you the options of HIGH/LOW for operation and VENT/COOL for those days when all you may require is fresh air ventilation. One of the most forgotten features of and evaporative cooling system is that it can be used simply as an efficient fresh air exhaust system which can at the same time, pressurise the building – the added advantage is that the industry conditions building pressurisation will eliminate dust problems.

The heart of all Celair XR Series Units is the forward curved centrifugal fan which is manufactured from galvabond metal and is available in a silicone polyester coating baked at 300°C to ensure it to be corrosion free for life. (Optional)



The 'sealed for life' bearings ensure that the fan operates effortlessly and is driven via pre-balanced alloy pulleys and a 'precision ground' fan shaft which all equates to smooth noise free operation.

**Electrical Supply** – The Celair XR Series units were designed especially for locations where three phase power supply is not available. With their rugged design, they will withstand the harshest of conditions, and at the same time deliver airflows of up to a staggering 3250 L/S. Multiple installations per site gives you the ability to design a system for most situations.



### XP MID RANGE 3 PHASE UNITS MODELS XP15\_3 – XP30

Celair XP Series mid product range offers outstanding value when assessing weight to performance ratio – all of these units feature three phase fan motors (TEFC type) and are designed to cope with most heavy duty applications. If operating conditions are so bad that you absolutely must have maximum reliability, stainless steel construction options available.

At Celair, we believe that as market leaders with our commercial units, it carries

a responsibility in quality, reliability and flexible options. Key factors in offering our customers exact requirements.

As with our XR series we offer the unique low centre of gravity design, rugged heavy duty engineering and access (via easily removable access panels) made easy.

Whilst at Celair, we do not believe that protective panels are necessary, we do understand that in some site locations



### CELAIR HEAVY DUTY UNITS MODELS XP40-XP70

These units can best be defined as the 'heavy weights' in an industry with the XP70 unit having no equal from any other manufacturer.

You will find Celair's XP Heavy Duty units in such diverse places of the world as the harsh West Australian desert where they are pressurising and cooling six satellite tracking stations to Africa's Malawi tobacco storing halls where they are humidifying and cooling millions of kilograms of pressed tobacco.

The Celair XP Heavy Duty unit's versatility of installation makes them ideal for use in large buildings. Available in silicon polyester coated marine grade aluminium, powder coated or stainless steel, these units have a free air capacity from 11850 L/S up to a huge 19375 L/S.

As you would expect from Celair, all the features available in other XP units such as overload relays, optional stainless steel shafts and dialflo water management system are included in these heavy duty units as is the unique low centre of gravity design.

where units are prone to mechanical damage or where architecturally they enhance the installed appearance, protective panels do serve a purpose and are available as an optional extra.

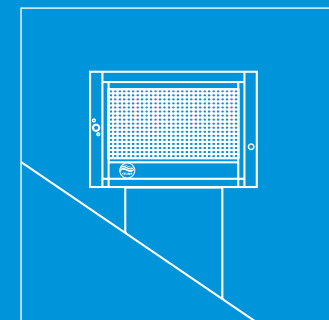
**Fan Wheel and Drives** – Engineered to a standard that guarantees optimum performance and reliability. Fan wheels are manufactured from quality galvabond steel and can optionally be supplied with a silicon polyester coating baked at 300°C for that extra harsh environment.

As with all Celair Commercial Units, the precision ground fan shaft is standard as are the individually dynamically balanced drive pulleys. Couple this to the heavy duty 'sealed for life' bearings and you are guaranteed years of trouble free operation.

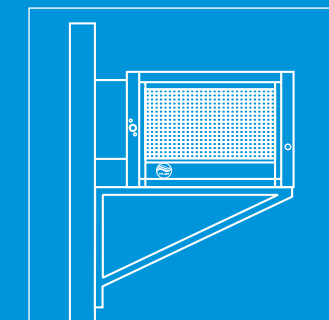
**Heavy Duty Motor Starters and Overload relays** – All three phase Celair Units are fitted with quality electrical starters and overload relays. We believe that the motor being the most expensive and important item, it should be well protected against power failure or any overload conditions which may occur.



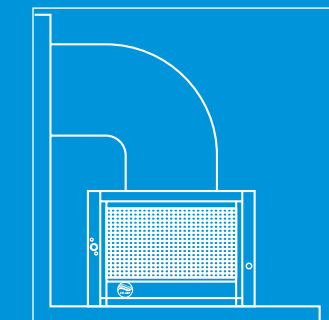
Bottom discharge



Side discharge



Top discharge



SPECIFICATION AND CONSTRUCTION		
Part	Standard Unit	Stainless Steel
Discharge	All units are available in Top, Side and Down Discharge to give you the maximum design options.	
Electrical System	All units are Factory Wired and Tested. Single Phase units have an Auto reset thermal overload built into the fan motors. Three Phase units are supplied with thermal overload relays and contactors, fitted and pre-wired. Isolating switches are mounted externally and isolate the power supply on each unit. 240V Control Switches are supplied with each unit and feature ON-OFF, HIGH-LOW and VENT-COOL functions.	
External Base Skirt	Heavy Gauge Powder Coated Aluminium Skirts.	
Fan Bearings	Pillow Block Mounting (XP16-XP70); Pre-lubricated, sealed bearings.	
Fan Housing	Injection and Rota moulded plastic for strength and corrosion resistance.	
Fan Drive	'A' and 'B' Section Vee Belts, Cast Alloy Pulleys are used on all models except the XP70 where 3 'B' section motor pulleys and fan pulleys are used.	
Fan Housing Frames & Bearing Supports	Heavy Gauge Aluminium Sections.	
Fan Motor	XR8-XR15 (single phase) are 240V Single Phase, vented motors with Auto Reset Overload. XR15 (three phase) - XR70 are 440V Three Phase, Motors wired to Contractors and Overload Relays, with an external isolation switch.	
Fan Shaft	Precision Ground Steel protected with epoxy coating.	Stainless Steel.
Fan Shaft	XR8-XR15 = 25mm, XP16-XP50 = 35mm, XP60-XP70 = 45mm.	
Fan Wheel	Heavy Duty Double Inlet Forward Curve Centrifugal type with Galvabond Steel construction. All fans are dynamically balanced.	Silicon Polyester Coated.
Filter Cooling Medium	High efficiency CELdek. 75mm thick (5090 45x45). The CELdek filter medium is CSIRO tested. It is the most revolutionary and modern form of filter pad available on the market today. CELdek provides longer life (up to FIVE times longer than conventional pads).	
Lid, Corner Posts, Centre Pads, Fill Panels & CELdek Frames	Silicon Polyester coated Marine Grade Aluminium with Beige finish.	304/2B Grade Stainless Steel.
Motor Mounting Plates	XR8-XP50 - Heavy Gauge Marine Grade Aluminium. XR60-XR70 - Heavy Gauge Stainless Steel.	
Protective Panels	Silicon Polyester Coated Marine Grade Aluminium - Protect the CELdek Filters. Optional on XP16-XP70. Astalac Plastic Decorative Panels standard on all XR8 to XR15_3 units.	
Water Distribution	Water is pumped through 20mm diameter PVC tube/s to the Distribution Troughs which are built into the tops of the CELdek Frames.	
Water Management System	Water flow control is by means of an exclusive valve unit called Dialflo. The Celair Dialflo controls the volume of water going to the filters and the bleed-off rate, for increased efficiency and the economical use of water.	
Water Pump	High volume, low pressure type with plastic base and impellor and a stainless steel motor shaft. Water filtering is via a plastic perforated type strainer.	
Water Tray	ABS plastic for strength and corrosion resistance.	
Water Supply	XR8-XR50 1/2" BSP Float Valve; XR60-XR70 3/4" BSP Sleeve Float Valve.	

MODEL	FAN SPEED		FREE AIR DISCHARGE		DISCHARGE DIMENSIONS		MOTORS		FAN SIZE	OVERALL DIMENSIONS LxBxH	OPERATING WEIGHT	PAD AREA (m <sup>2</sup> )	AIR VELOCITY THROUGH Pad M/s
			m <sup>3</sup> /h	l/s	STD	OPT							
XR8	HI	430		1350	550 x 550	.55	-	381 x 381	1052 x 1032 x 959	94	1.43	0.9	
XR10	HI	430		1800	550 x 550	.75	-	381 x 381	1052 x 1032 x 959	96	1.43	1.3	
XR12	HI	430		2250	600 x 600	.75	-	457 x 457	1264 x 1242 x 1069	117	2.12	1.1	
XR14	HI	420		2730	600 x 600	1.1	-	457 x 457	1264 x 1242 x 1069	123	2.12	1.3	
XR15 - 1 Phase	HI	465		3250	600 x 600	1.5	-	457 x 457	1264 x 1242 x 1069	127	2.12	1.5	
XR15 - 3 Phase	HI	496		3600	600 x 600	1.5	-	457 x 457	1264 x 1242 x 1069	136	2.12	1.7	
XP16	HI	500	16100	4472	640 x 640	1.5	2.2	532 x 520	1470 x 1470 x 1310	194	2.388	1.872	
	LO	330	10735	2982									
XP20	HI	410	19798	5500	710 x 710	2.2	1.5	600 x 568	1470 x 1470 x 1310	216	3.582	1.535	
	LO	275	12850	3570									
XP30	HI	360	32757	9100	820 x 820	4.0	2.2	675 x 650	1470 x 1470 x 1510	288	4.26	2.13	
	LO	245	20158	5600									
XP40	HI	280	42660	11850	950 x 950	4.0	-	820 x 777	1808 x 1808 x 1870	490	6.82	1.74	
	LO	190	23785	6600									
XP50	HI	360	52200	14500	950 x 950	7.5	10.0	820 x 777	1808 x 1808 x 1870	539	6.82	2.13	
	LO	245	31680	8800									
XP60	HI	350	61400	17050	1100 x 950	10.0	-	972 x 775	2112 x 2112 x 2075	595	8.4	1.87	
	LO	225	38160	10600									
XP70	HI	450	69750	19375	1100 x 950	15	-	972 x 775	2112 x 2112 x 2075	645	11.13	1.74	
	LO	295	42500	11808									

**WARNING:** This brochure contains general information only. No tolerances are stated and specifications may have changed since this publication. If you require certified and accurate dimensions or any other details which may effect your installation, please contact your distributor or our Engineering Department on Telephone: (02) 6953 6444 or Fax: (02) 6953 6266. E&OE.



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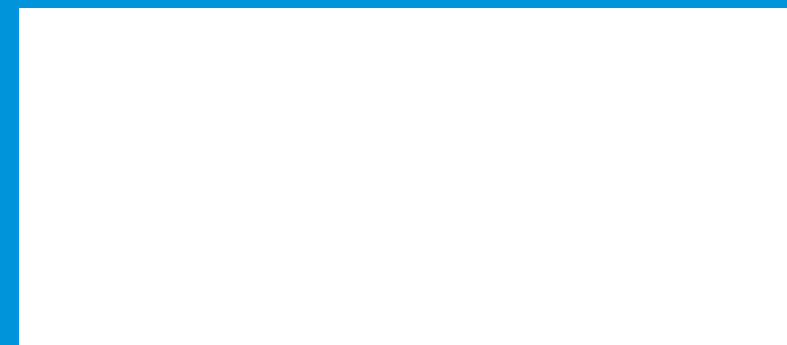
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Evaporative Airconditioning  
Commercial & Industrial