Cooling Capacity 4.0kW - 215.6kW

Heating Capacity
4.4kW - 231.3kW

eco series

Chilled Water Air Conditioning

Giving you complete control





More than just another air conditioning company.

We're dedicated to pioneering innovative new technologies and creating marketleading, easy-to-use solutions that offer you complete control.

Temperzone's ECO Water Chiller range: making short work of long pipes

Take a large commercial space like an airport or hospital, and there's no escaping the need for vast extended networks of air conditioner piping.

The question therefore becomes:

How can climate control performance be maximised? After all, traditional refrigerant suffers a dramatic performance loss due to the pressure drop that occurs the further it travels.

The answer is chilled water, which enables near loss of cooling performance when pumped over extended pipe lengths.

Ranging in capacity from 4kW to 215.6kW, Temperzone's ECO Chilled Water range harnesses the power of chilled water to deliver unprecedented levels of climate control capability.

Utilising a fan coil unit that passes water through a heat exchanger at 6 to 12°C*, the Temperzone range is also the ideal choice for commercial buildings that struggle to accommodate multiple outdoor units.

And while offering superior performance in large commercial settings, our smaller chilled water fan-cooled unit is ideal for confined spaces like hotel rooms, where limited wall or ceiling cavity sizes would normally provide serious installation challenges.

* Contact Temperzone for Applications



How we manage to combine superior performance and energy savings

In the complex world of chilled water technology, higher water temperature equates to higher cooling efficiency.

With Temperzone's fan coil unit having the ability to accommodate water temperatures as high as 12°C*, it's no surprise that our chilled water systems are increasingly forming an integral part of sustainable energy strategies.

Significant energy and cost savings also stem from the unique capability to reduce fan speed as room temperature drops, meaning that the unit only works hard when you need it to. This type of scenario simply isn't possible with AC fan-equipped units, which only tend to have limited fixed setting capabilities. Most Temperzone chilled water units also incorporate EC fans, which are renowned for their high efficiency when compared to the traditional AC alternative.



Page 2

A



The IXDL zoning advantage

An integral part of the Temperzone ECO Chilled Water range, IXDL is the Premium chilled water fan coil on the market that allows you to individually zone different areas.

Incorporating multiple fans within each unit, IXDL allows you to set different temperatures for different rooms within the same building simultaneously.

For example, a hospital application might see different zones allocated for areas such as doctors' rooms, patient wards, food preparation areas, and laboratories. Similarly, a hotel application might see zones allocated for areas like reception, conference and ballrooms, restaurants, and gym areas.

It's just another way Temperzone is putting the power of individual control into the hands of the user.

Other key benefits:

- The ability to accommodate a wide range of water temperatures thereby enabling greatly improved chiller efficiency.
- Ease of use.
- Precise comfort and temperature control capability.
- The ability to significantly reduce noise levels by limiting fan speed.
- The ability to gradually reduce fan speed, ensuring that changes in noise levels are unnoticeable.
- Ease of servicing due to simple design and small number of components.

Why Temperzone?

As innovative market leaders in air conditioning technology development, Temperzone is ideally positioned to play a partnering role in your commercial projects and to ensure you select the right solutions for your needs.

Because our systems are all designed, manufactured and supported using home-grown expertise, you can always rely on the convenience of ready availability and easily accessible technical support.



Efficiency and Comfort

The stepless modulation capability of EC fan speeds make it possible to accurately regulate air volume in strict relation to a room's real air conditioning requirements. This also enables temperature and humidity fluctuations to be significantly minimised, leading to superior comfort levels.



Fig1

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Our aerodynamically-optimised EC fans respond to changes in occupied space thermal loads by creating a continuously modulating airflow, leading to greatly reduced noise levels.

Zone Temperature Control

Our IXDL system's individual zoning capacity enables you to maximise energy savings and comfort levels while offering you the flexibility to cool and heat simultaneously.

Energy Savings

Depending on project specifics, the employment of Temperzone EC technology can lead to energy savings of up to 70%.



– – Thermalload

Fig 3







- Traditional 3 Speed Fan Coil

Time



24 hour day

ECO Features

Versatility

- Flexible handing configurations
- High static Indoor fans up to 300Pa**
- Powder coated panels to withstand 1000 hour salt spray test optional
- Galvanised Steel construction
- AS1530.3 compliant Insulation
- High outside air application*
- Glycol and Low Temperature application

Control

- Large water temperature range
- Individual zone temperature control with IXDL's*
- 3rd Party Control /BMS Integration*
- In-built safety protection
- VAV Compatible

Installation

- Ease of wiring
- Low Profile models
- Vertical handling on IJD
- Adjustable Indoor Airflow control
- Rigid structural construction
- Simplistic maintenance with Access Panels
- Drain tray compliant to AS/NZS 3666
- Circular or rectangular connection spigots on IMDL units

EC Fans*

- Increase energy savings at part load conditions with variable 0-10V dc control signal
- Increase fan reliability and efficiency by soft starting
- Superior noise attenuation with forward curved fans.

Coils

- Superior epoxy coated fins and advanced rifle bore copper tubes
- Increase coil reliability with split cooling and heating coils
- Wide choice of coil configuration**

Sheet metal

- Durable polyester powder coated galvanised steel cabinet option
- Leak free hinges access door construction
- Easy service and maintenance access lusing panels.
- and BS 476 parts 6 and 7.

the air stream

Insulation



Chilled **Water Units**

• High Efficiency EC Motors*

Efficiency

- Epoxy coated Evaporator Coils
- Advanced Rifle bore Copper Tubes
- Foil face polyurethane insulation

• Highly durable foil faced insulation to ensure no particles are introduced into

• Low noise attenuation material fitted with the individual supply air plenum chambers • Meets fire test standards AS 1530.3 (1989)

ECO Range Comparison Chart

Options	IMDL-Y Low Height	IMD -Y Standard Height	IJD Air Handlers	GMW Under Ceiling	IXDL-Y Multi Zone Fan Coils
kW Range	4.0 - 12.0	9.8 - 52.7	37.8 - 215.6	5.0 - 16.3	4.0 - 16.0
EC Fan			•	_	
0 - 10V Fan Speed Control			•	-	
3rd Party Controls Input					
Handing Options	•	•	•	_	•
Low Noise					
High Static Fans	-			_	-
Electrical Heating	•	•	•	-	-
Hot Water Heating			•		
Stainless Steel Cabinet	-	•	•	-	-
Cabinet Colour	-	•	•	_	-

OPTION

□ STANDARD

– N/A

The range of options available allow you to customise your desired unit, giving you ultimate control and flexibility.







ECO Range Checklist Chart IXDL-Y

Model	IXDL 40Y	IXDL 90Y	IXDL 130Y	IXDL 160Y	IXDL 200Y
Nominal Air Flow @ 50 Pa external static* (l/s)	200	400	600	800	1000
Air Flow Range (I/s)	0 - 225	0 - 450	0 - 675	0 - 900	0 - 1125
Control		Vdc (High/Med/Lc	w optional with co	onversion boards a	added)
Fan Type		Forward curved o	centrifugal double	inlet double width)
No. of Fans	1	2	3	4	5
Motor Type	ŀ	Electronically	Commutated (EC)) DC direct drive	
Power Source**	.	1 Pł	nase 230Volt AC 5	0 Hz	
No. of Motors	1	2	3	4	5
Motor Rating (W)	182	182	182	182	182
Full Load Amps (A)	1.4	2×1.4	3×1.4	4 x 1.4	5x1.4
Amps at Nominal Air Flow (A)	0.4	2×0.4	3×0.4	4 x 0.4	5×0.4
Heat Exchanger Type	Epoxy coate	d aluminium corru	ugated plate fins to	expanded rifled	copper tubing
Cooling/Heating Medium	+	Chi	illed water or hot w	vater	
Coil Rows Options	3 or 4 row cooling or 3 or 4 row cooling + 1 row heating				
Finish		Natu	ıral zinc galvanised	dsteel	
Test Pressure	2100 kPa				
Connection Sizes Cooling Coil (mm)	Ø 25 (1" BSP)				
Connection Sizes Heating Coil (mm)	Ø 13 (½" BSP)				
Filter			G2 (EU2) washabl	e	
No. of Filters	1	2	2	2	2
Static to allow for Air Filter (Clean)			45 Pa		
Static to allow for wet surface coil			25 Pa		
Outlet Spigot Options (mm)	+		Ø 250		
No. of Outlet Spigots	1	2	3	4	5
Weight (with water) (kg)	34	53	73	92	112
Nett Weight (without water) (kg)	32	49	68	84	103
Shipping Weight (kg)	34	53	72	90	110

Multi Zone Fan Coils Shown model: IXDL90Y



Summary of Choices	
Size	40/90/130/160/200
	3 Row Cooling
Cooling and Heating Coil	3 Row Cooling + 1 Row Heating
Configurations	4 Row Cooling
	4 Row Cooling + 1 Row Heating
Multi S/A Spigot	Ø 250mm Standard
Handing	Standard / Opposite

* With no filters fitted, a dry coil surface, and approx. 7 voltdc control voltage. ** Voltage fluctuation limits 200 - 252 V

Nominal Conditions: Cooling Entering Air 23°C db / 17°C wb Heating Entering Air 21°C db



ECO Range Checklist Chart IMD-Y

Model	IMD 95Y	IMD 135Y	IMD 170Y	IMD 210Y	IMD 280Y	IMD 420Y	IMD 550Y
Nominal Air Flow (I/s) *	450	600	750	900	1250	1800	2350
Fan type		Fc	orward curve	d centrifugal	double inlet double w	idth	t
No. of fan scrolls	1	1	1	2	2	2	2
Motor type	J		Electronical	y Commutat	ed (EC) DC direct driv	/e	
Power Source **	þ			Phase 230 V	oltAC 50 Hz		
No. of motors	1	1	1	1	1	2	2
Motor Rating (W)	900	900	1250	1250	1250	900	1250
Amps at Nominal Air Flow (A)****	1.5	1.9	3.1	2.6	4.0	4.9	10.3
Heat Exchanger type	ŀ	Epoxy alur	ninium corru	gated plate fi	ns to expanded rifled	copper tube	
Cooling/Heating Medium	ŀ			Chilled water of	or hot water		
Coil Rows Options	.		4 r 4 r	row cooling + row cooling +	1 row heating Electric heat		••••••
Finish				Zincgalvan	ised steel		
Test Pressure				2100	kPa		
Connection Sizes Cooling Coil (mm)	ŀ	Ø25(1″ BSP)		, Ø32	(1¼″BSP)	
Connection Sizes Heating Coil (mm)	ŀ	Ø 15 (}	⁄2″ BSP)		Ø 25 (1" BSP)	Ø32(1¼″BSF	2)
Air Filter Type ***	ŀ			G2/EU2W	/ashable		••••••
No. of Air Filters***	1	1	1	1	2	2	2
Air Filter Size***	593 x 275	767 x 275	914 x 275	1064 x 275	593 x 345	685 x 415	712×542
Static to allow for Air Filter (Clean) at Nominal Air Flow (Pa) ***	55	60	60	63	63	68	63
Static to allow for wet surface coil (Pa)	28	30	32	34	36	32	32
Optional Electric Heating (kW)	4	6	6	9	9	12	18
Weight (4/1 row unit, incl water) (kg)	49	50	64	66	94	133	ТВА
Nett Weight (4/1 row unit, excl water) (kg)	45	45	59	60	86	120	ТВА
Shipping Weight approx. (kg)	48	48	62	63	96	145	ТВА

Standard Height Shown model: IMD 210 Y



Summary of Choices

Size	95/135/170/210/280/420		
Cooling and Heating Coil Configurations	4 row cooling + 1 row heating		
	4 row cooling + electric heat		
Handing	Standard / Opposite		

* With no filters fitted and with a dry coil surface and 100Pa external resistance
** Voltage fluctuation limits 200 - 252 V
*** Standard filters not to be used in Australian market (see note on page 14)
****Excludes Electric Heat Option'

Nominal Conditions: Cooling Entering Air 23°C db / 17°C wb Heating Entering Air 21°C db



Chilled Water Units

)/550

ECO Range Checklist Chart IJD

Model	IJD 370	IJD 450	IJD 620	IJD 950	IJD 1400	IJD 2000	IJD 2400
Nominal Air Flow (I/s)	1500	1800	2400	3600	5500	7200	8600
Fan type			Forward curv	ved centrifuga	al double inlet double	width	
Power Source *				- 3 Phase 4	15V 50Hz		
Amps at Nominal Air Flow (A)**	5	5	7	9	16	22	22
Heat Exchanger type	F	Epoxy aluminium corrugated plate fins to expanded rifled copper tube					
Cooling/Heating Medium	F	······ (Chilled water/	hot water or (Chilled Water/Electric	Heat	
Finish	Zinc galvanised steel						
Test Pressure				2100) kPa		
Connection Sizes 4 row Cooling Coil (mm)	F	Ø 32 (1 ¼″ BS	P)	Ø 40 (1 ½″ BSP)	,	50 (2″ BSP)	
Connection Sizes 6 Row Cooling Coil (mm)	Ø 32 (1 ¼″ BSP)	I	-Ø40 (1½″ B	SP)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	50 (2″ BSP)	
Connection Sizes Heating Coil (mm)		Ø 32 (1 ¼″ BS	P)	Ø 40 (1 ½″ BSP)	,	50 (2" BSP)	
Weight kg Exc. Water***	166	201	224	285	398	583	723
Weight kg Inc. Water ***	180	217	245	316	445	657	809
Connection Sizes Cooling Coil (mm)	32	32	32	40	50	50	50

Air Handlers Shown model: IJD 450

Summary of Choices	
Size	370/450/620/950/1400/2
	4 Row Cooling
	4 Row Cooling + 1 Row Heating
Cooling and Heating Coil	4 Row Cooling + Electric Heatir
Configurations	6 Row Cooling
	6 Row Cooling + 1 Row Heating
	6 Row Cooling + Electric Heatir
	Horizontal / Vertical Supply Air
Handing	Standard / Opposite Hand

* 3 Phase Power – 342 – 436V AC 50Hz ** Excluding Electric Heat *** Based on 4 /1 Configuration

Nominal Conditions: Cooling Entering Air 23°C db / 17°C wb Heating Entering Air 21°C db



Chilled Water Units



2000/2400

ng

ECO Range Checklist Chart IMDL-Y

Model	IMDL 40Y	IMDL 60Y	IMDL 90Y	IMDL 130Y	
Nominal Air Flow High Speed @ 60 Pa external static * (I/s)	200	325	480	700	
Fan type	Forwa	ard curved centrifuga	al double inlet double	e width	
No. of fan scrolls	1	2	2	3	
Motor type	Elec	ctronically Commuta	ated (EC) DC direct (drive	
Power Source**	ŀ	1 Phase 230	VoltAC 50 Hz		
No. of motors	1	1	1	2	
Motor Rating (W)	230	230	230	230	
Full Load Amps (A)	1.3	1.3	1.3	2.6 (2 x 1.3)	
Amps at Nominal Air Flow (A)	0.49	0.74	1.05	1.4 (2 × 0.7)	
Heat Exchanger type	, Aluminium	corrugated plate fins	to expanded rifled	copper tube	
Cooling/Heating Medium	H	Chilled wate	r or hot water		
Optional Electric Heating*** (kW)	1.5	2.0	3.0	4.0	
Max. Current with Electric Heat (A)	7.01	9.44	14.09	18.79	
Cooling/Heating Options	3 row cooling + 1 row heating or 4 row cooling + Electric heat				
Finish		Zinc galva	nised steel		
Test Pressure		2100	OkPa		
Connection Sizes Cooling Coil (mm)	, Ø 20 (3	¾″ BSP)	, Ø 25 (1″ BSP)	
Connection Sizes Heating Coil (mm)	H	Ø 15 (3	⁄2″ BSP)		
Air Filter Type (mm)	ŀ	12 Wash	able EU2		
No. of Air Filters	1	1	1	2	
Dimensions	545 x 234 x 13	795 x 234 x 13	1045 x 243 x 13	725 x 243 x 13	
Static to allow for Air Filter (Clean) at Nominal Air Flow (Pa)	21	24	29	30	
Static to allow for wet surface coil (Pa)	16	18	13	14	
Optional Electric Heating (kW)	1.5	2	3	4	
Weight (With Water) (kg)	25	34	46	67	
Nett Weight (Without Water) (kg)	24	32	42	62	
Shipping Weight approx. (kg)	25	34	45	65	



Summary of Choices

Size	40/60/90/130		
Cooling and Heating Coil Configurations	3 Row Cooling + 1 Row Heating		
	4 Row Cooling + Electric Heat		
Handing	Standard / Opposite		

* With no filters fitted and with a dry coil surface ** Voltage fluctuation limits 200 - 252 V *** Options Only

Nominal Conditions: Cooling Entering Air 23°C db / 17°C wb Heating Entering Air 21°C db



ECO Range Checklist Chart GMW

Model	GMW 50	GMW 70	GMW 80	GMW 140	GMW 160
Nominal Air Flow I/sec	175	240	375	625	815
Fan type		Forward cu	urved centrifugal dou	ble inlet double width	٦١
Power Source*	+		1Phase230 VoltA	C50Hz	
Full Load Amps (A)	0.3	0.42	0.7	1.42	2.3
Heat Exchanger type		Aluminium.corru	ugated plate fins to ex	kpanded rifled coppe	ertube
Cooling/Heating Medium			Chilled water or he	otwater	
Coil Rows Options		2 Row C	ooling/1Row Heatir	ng or 3 Row Cooling	
Coil Connection - Cooling (mm)	Ø 15 (1/2" BSP)	+	Ø 20 (¾	BSP)	
Coil Connection - Heating (mm)	ŀ		Ø 15 (½" BSP)		
Finish	•	Po	lyester Powder Coat	t + White PVC	
Test Pressure			2100 kPa		
Air Filter Type	+		Plastic Net - Wa	shable	
Weight (3 Row Unit inc. Water) kg	28	40	51	79	79
Nett Weight (3 Row Unit esc. Water) kg	27	38	48	74	74
Shipping Weight approx. kg	30	41	51	78	78

Under Ceiling Shown model: GMW 70H 2/1



Summary of Choices	
Size	50/70/80/140/160
Cooling and Heating Coil	3 Row Cooling
Configurations	2 Row Cooling + 1 Row Heating

* Power Supply 1 phase 200 – 252V AC 50Hz

Nominal Conditions: Cooling Entering Air 23°C db / 17°C wb Heating Entering Air 21°C db







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