

The Climate Wizard
By SEELEY INTERNATIONAL ™

Indirect Evaporative Air Conditioning



World leading climate control solutions

Seeley International is Australia's largest air conditioning manufacturer and a global leader in developing ingenious, energy-efficient cooling and heating products.

Award Winning Company

Seeley International consistently wins awards each year for new product design, innovation and the environment.

Recent awards include:



Breezair
By SEELEY INTERNATIONAL 

The world's coolest, quietest and most energy efficient evaporative air conditioners

Hyper-efficient indirect evaporative air conditioners

The Climate Wizard
By SEELEY INTERNATIONAL 

High performance evaporative air conditioning. Unbelievable value.

coolair
By SEELEY INTERNATIONAL 

Compact, modular indirect evaporative air conditioners

Coolerado
By SEELEY INTERNATIONAL 



About The Climate Wizard

The Climate Wizard's unique indirect evaporative heat exchange core provides hyper-efficient cooling of outside air.

Generate **100% fresh, cool, outside air**, at temperatures that rival refrigerated systems, with up to **80% lower energy costs***.

Reduce carbon emissions Low GWP



- Reduced running costs by up to 80%*
- Reduce the energy use and improve the cooling performance of existing refrigerated systems
- No high electrical demand charges even in hot weather
- Savings on the installation costs

Comfortable Indoor Air Quality



- Temperatures are similar to those produced by refrigerated systems
- Improved IAQ (Indoor Air Quality) with 100% fresh, cool outside air
- No moisture added to the air**
- Total cooling performance increases when air temperature rises

Flexible applications



- Flexible design and engineering configurations
- Ideal for use as a DOAS (dedicated outdoor air system), data centres cooling or for comfort cooling applications
- Covers an exceptionally large range of flexible configurations in a wide range of industries
- Supported by a team of experienced design consultants and engineers

Supporting Sustainability



- Wiser use of water (R-718)
- Responsible use of renewable resources
- No synthetic refrigerants or chemicals
- Features an Auto-Cleanse™ to minimise water consumption and to maintain quality

Hyper-efficient



- Simple, reliable solution to improve COP / EER (coefficient of performance / energy efficiency ratio)
- Tested in NATA (National Association of Testing Authorities) accredited laboratory*

Low maintenance with technical support



- Australian designed, made and owned
- Easy access to spare parts
- International sales and technical support

*Compared to refrigerated systems performing the same duty.

** The Climate Wizard Supercool (indirect/direct option) adds a small amount of moisture to the supply air.

#Testing of the CW-80 units in the NATA accredited Meridian Test Laboratory is not possible due to their large and unique size.

How it works

The Climate Wizard indirect evaporative air conditioners use a hyper-efficient counter-flow heat exchanger to produce 100% fresh, cool, outside air, with no added moisture.

The fresh cold air produced by The Climate Wizard can be similar to that produced by refrigerated systems, with temperatures that approach the ambient dew-point temperature.

1. Hot air enters the cooler

- Hot outside air enters the cooler via the inlet.
- A powerful, energy-efficient, electric fan moves the air towards the core.

2. Hot air passes through the core

- The core is an air-to-air heat exchanger consisting of alternating dry and wet channels.
- All of the air passes along the dry channels and gains no additional moisture.

3. Warm and moist working air exhausted outside

- As the air exits the dry channels, a portion of the conditioned air is returned through the wet channels, where it is cooled by evaporative cooling process.
- No moisture is transferred across the membranes between the dry and wet channels; only heat is transferred.

- The heat passes out of the air in the dry channels through the membrane and into the air passing through the wet channels.
- In this way, the air in the dry channels becomes progressively colder but gains no moisture.
- The wet channels are continuously soaked with water to allow the evaporative cooling process along the entire length of the core. This moist, warm air is then exhausted outside.

4. Fresh, cool outside air passes into the building

- The air passing along the dry channels in the core is cooled, with no moisture added.
- This fresh, cool air passes into the building.

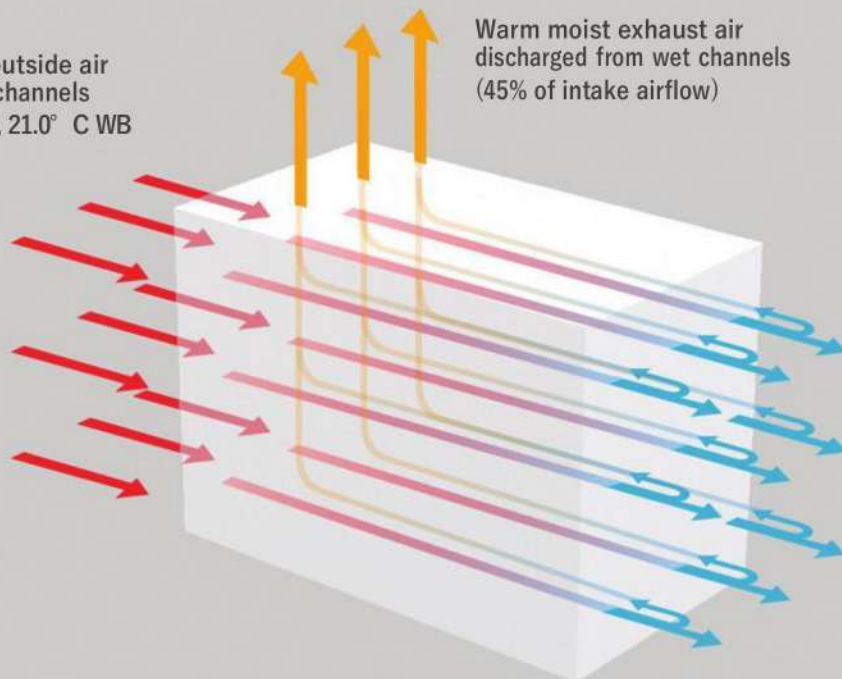
The Climate Wizard counter-flow heat exchanger

100% hot outside air enters dry channels
38.0° C DB, 21.0° C WB

Warm moist exhaust air discharged from wet channels
(45% of intake airflow)

Exhaust air pushed back through wet channels
(45% of intake airflow)

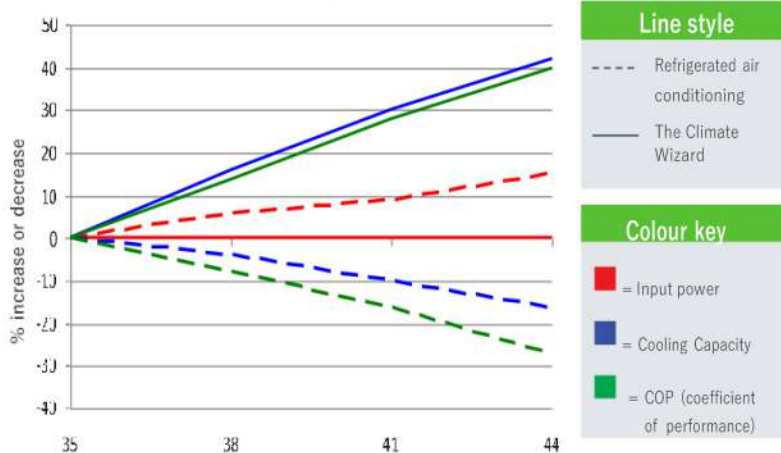
100% fresh, cool, supply air pushed into the building from dry channels
(55% of intake airflow)
19.4° C DB, 14.8° C WB





Performance comparison

The Climate Wizard vs refrigerated cooling
as temperature rises



The Climate Wizard's cooling performance can rival that of refrigerated systems, using up to 80% less energy.

That's not only great for reducing power bills; it's also great for the environment. And, no matter how hot it gets outside, The Climate Wizard uses the same amount of power and still delivers 100% fresh, cool air inside.

This is in direct contrast to refrigerated systems, which require increasing amounts of power as outside temperatures rise. The Climate Wizard's cost-saving capabilities actually increase, when the heat is at its highest.

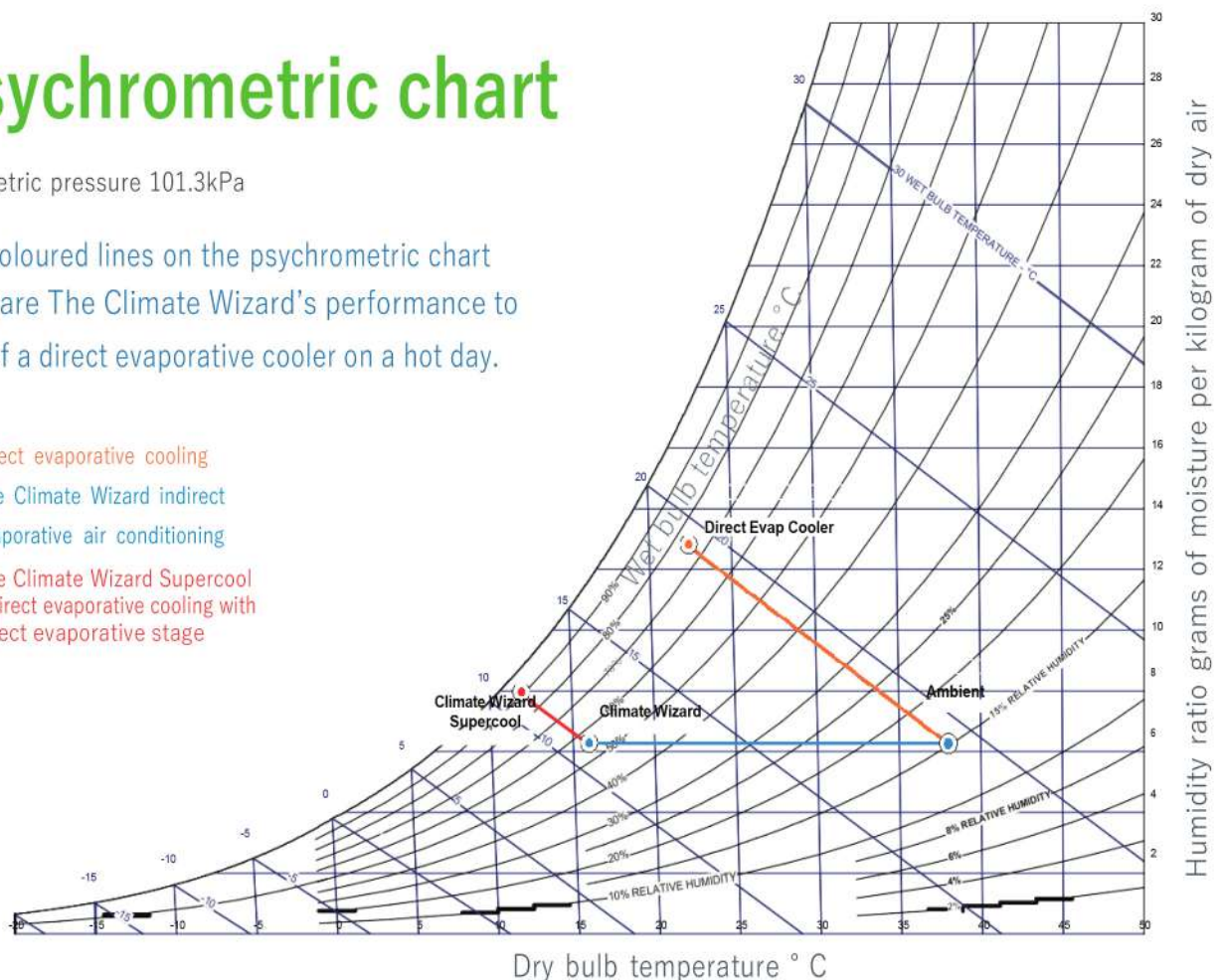
At the same time, The Climate Wizard's performance also increases as temperatures rise – again, in complete contrast to refrigerated systems.

Psychrometric chart

Barometric pressure 101.3kPa

The coloured lines on the psychrometric chart compare The Climate Wizard's performance to that of a direct evaporative cooler on a hot day.

- Direct evaporative cooling
- The Climate Wizard indirect evaporative air conditioning
- The Climate Wizard Supercool indirect evaporative cooling with direct evaporative stage



Standard product range

The Climate Wizard

Indirect evaporative air conditioning

Dramatically reduces energy consumption and cooling costs compared to equivalent refrigerated systems



CW-H10

UP TO
18kW
COOLING
CAPACITY

- COP 12
- Up to 800 L/s (2,880 m³/h) supply air @180 Pa
- Input Power 1.5 kW

Electrical supply

3-phase, 380-415 V, 50 Hz

Dimensions

2,330mm (L) x 1,230mm (W) x 1,325mm (H)

Operating weight

255 kg



CW-H15

UP TO
25kW
COOLING
CAPACITY

- COP 14
- Up to 1,100 L/s (3,960 m³/h) supply air @150 Pa
- Input Power 1.8 kW

3-phase, 380-415 V, 50 Hz

2,290mm (L) x 1,825mm (W) x 1,285mm (H)

330 kg



CW-80

- COP 13
- Up to 8,500 L/s (30,600 m³/h) supply air @270 Pa
- Input Power 12.5 kW

Electrical supply

3-phase, 380-415 V, 50 Hz

Dimensions

3,980mm (L) x 2,550mm (W) x 3,515mm (H)

Operating weight

2,700 kg

UP TO
180kW
COOLING
CAPACITY

CW-80 and CW-80S can work at external static pressure of up to 820 Pa!

The Climate Wizard Supercool

Indirect evaporative cooling with direct evaporative stage

Designed to maintain precise temperature and humidity levels – at very low operating costs



CW-H15S Plus

UP TO
40 kW
COOLING
CAPACITY

- COP 19
- Up to 1,600 L/s (5,760 m³/h) supply air @80 Pa
- Input Power 2.1 kW

Electrical supply

3-phase, 380-415 V, 50 Hz

Dimensions

2,290mm (L) x 1,825mm (W) x 1,285mm (H)

Operating weight

345 kg

CW-H15S

UP TO
29 kW
COOLING
CAPACITY

- COP 16
- Up to 1,100 L/s (3,960 m³/h) supply air @120 Pa
- Input Power 1.8 kW

3-phase, 380-415 V, 50 Hz

2,290mm (L) x 1,825mm (W) x 1,285mm (H)

345 kg



CW-3

UP TO
29 kW
COOLING
CAPACITY

- COP 17
- Up to 1,300 L/s (4,680 m³/h) supply air @150 Pa
- Input Power 1.75 kW

Electrical supply

1-phase, 220-240 V, 50/60 Hz

Dimensions

1,160mm (L) x 1,160mm (W) x 1,020mm (H)

Operating weight

210 kg



CW-80S

UP TO
214 kW
COOLING
CAPACITY

- COP 15
- Up to 8,200 L/s (29,500 m³/h) supply air @240 Pa
- Input Power 12.5 kW

3-phase, 380-415 V, 50 Hz

3,980mm (L) x 2,550mm (W) x 3,515mm (H)

2,850 kg

Note: Nominal cooling capacity is based on design conditions of 38.0 ° C db / 21.0 ° C wb. Stand alone cooling capacity may be different, depending on application.

Control options

Seeley International has designed the most advanced technology to give you full control of your coolers in the smartest way.

MagIQcool™ controller

Optional with CW-3

Operate The Climate Wizard cooler from an easy to use, wall mounted thermostat controller



External air sensor

Optional with all coolers

- Measures current outside temperature
- Intuitively optimises water and energy usage based on outside ambient conditions
- Extends the life of your air conditioner by automatically draining the water tank when temperature nears freezing



Remote indoor temperature sensor

Optional with all coolers

- A remote temperature and humidity sensing module
- Enables the Controller to be mounted in a convenient location (e.g. control room), while still sensing air from the conditioned space

BMS interface

Standard on all models

Separate BMS module to be ordered only for CW-3,
Embedded in all other models

All The Climate Wizard air conditioning models are supplied with an interface to enable the cooler to be controlled from an external location, using a Building Management System.



Multi-Magic™ controller and electronic control module

For CW-H and CW-80

- Controls unit operation to minimise water consumption and maximise efficiency
- Can be configured to accept external BMS system inputs to control system operation (while retaining control of water management and system efficiency) or Modbus Master commands through RS485.

Multi-Magic™ duct sensor

For CW-80

This sensor measures the air temperature and relative humidity inside ducts.



Control system

Seeley International has delivered, in collaboration with Schneider Electric, a new standard in climate control for its hyper-efficient commercial cooling range, The Climate Wizard.

Providing Smart connectivity, Multi-Magic® delivers state-of-the-art control for optimising performance, energy-efficiency and operational savings, as well as easy installation with an intuitive user interface.

Design and performance features CW-H Series

Indirect heat exchange core

- The Climate Wizard patented counter-flow heat exchanger
- Uses indirect evaporative cooling to keep added moisture separate from the supply air stream
- Designed for long service life and consistent performance

Supply air pressure damper

- Regulates air pressure in the discharge plenum
- Used to control exhaust flow

Water reservoir

- One piece moulded polymer construction
- Durable and corrosion free
- Provides excellent sound deadening properties
- Sloped to prevent standing water when drained

Water management system

- Custom designed water management system minimises water consumption and maximises cleanliness
- Continuously monitors and controls the water salinity level in the reservoir
- Controls water cleanliness using a factory installed electro-chlorinator
- Automatic drain valve

Supply air fan and electric motor

- Backward curved, direct drive, plug fan
- Variable speed electronically commutated motor



Water distributor

- The water distributor delivers a calibrated volume of water to efficiently cool the unit's leaving air
- A dedicated pump and water distributor are used to independently water the direct evaporative media to maximise versatility*
- Minimum water consumption and maximum cooling efficiency



Tornado® circulation water pump

- Exceptional reliability under all conditions
- Includes 'clever impact start' feature that will overcome any tendency for the pump to become locked up with residue during prolonged off periods



The Climate Wizard CW-3

CW3 is the latest breakthrough in the Climate Wizard range: with its polymer case and compact footprint, CW3 is easy to install and much lighter, if compared with other models.

Filtering section

- The filter cowling has been designed to ensure rigidity and strength while also allowing for quick and simple servicing
- Weather proof and corrosion resistant
- The filter cowling comes factory assembled to reduce installation requirements on site.

Cabinetry

- Powder coated, marine grade aluminium
- Weather proof and corrosion resistant

Supercool Models

Adding a Direct Evaporative Cooling pad after the hyper-efficient indirect stage, we have the so-called Supercool Model.

The result of adding this new direct stage downstream to the heat-exchanger core is that we can reduce the DB (dry bulb) supply air temperature adding a very small quantity of moisture only, for ever lower temperatures and super-cool effect!

Seeley International designs Supercool models of all sizes, browse our catalogue to learn more!

All features marked with * are available only in the Supercool Models.

Chillcel® Pads

- Revolutionary cell structure for optimum cooling capacity
- Only the best quality paper is used, which gives the pads optimal saturation efficiencies to suit the harshest climates



Micro-core™ technology

CW3 has an innovative heat exchanger based on patented Micro-Core™ technology which is fully manufactured by Seeley International and provides sub-wet bulb cooling.

- Exceptionally compact footprint
- Polymer structure for a lighter unit
- Supercool (Indirect + Direct stage)
- Can be installed directly on the duct
- Can be used in Free-cooling mode



Diverse configurations and applications

Dramatically reduce energy consumption and cooling costs by incorporating The Climate Wizard with other HVAC systems.

Stand-alone cooling

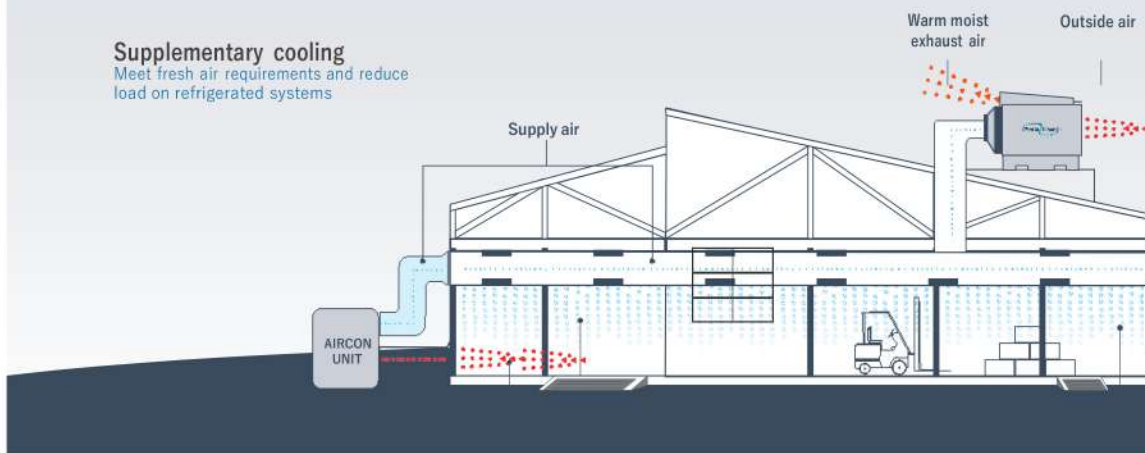
Ideal for open plan and outdoor access applications

STAND ALONE COOLING



Supplementary cooling

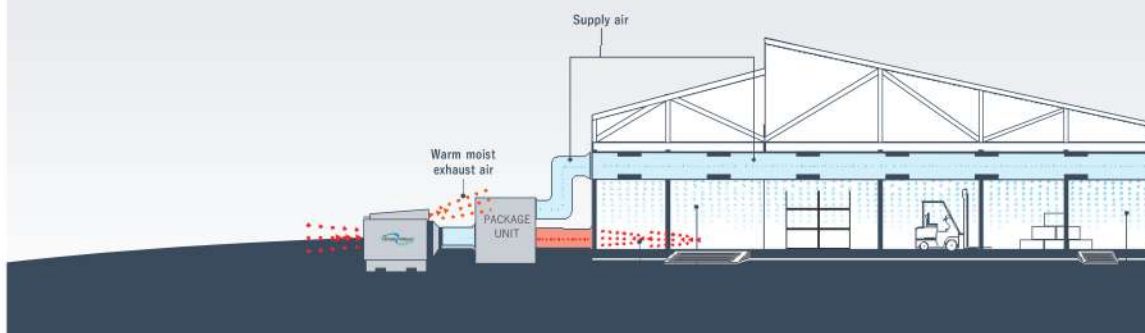
Meet fresh air requirements and reduce load on refrigerated systems



Pre-cooling

A super cost effective way of cooling outside air required by refrigerated systems

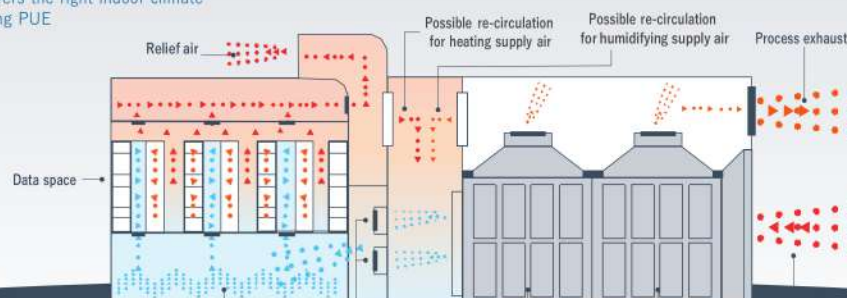
PRE-COOLING / FIRST STAGE COOLING



DATA CENTRES

Data centre cooling

The Climate Wizard delivers the right indoor climate and achieves outstanding PUE



TECHNICAL SPECIFICATIONS - CW3 (AUSTRALIA & EUROPE)

MODEL:			CW3
OPTIMUM PERFORMANCE	Airflow	Supply Air	1300 L/s @ 150 Pa 4680 m3/h @ 150 Pa
		Exhaust Air	600 L/s 2160 m3/h
	Temperature*	Supply Air	19.3 oC
	Cooling Capacity*	Standalone	13 kW
		Pre-Cooling	29 kW
	COP*	Standalone	7.5
		Pre-Cooling	17
ENVIRONMENT	Maximum Inlet Air Temperature		50 oC
SERVICES	Electrical	Voltage	220-240 V / 1~
		Current	7 A
		Input Power	1.75 kW
	Water	Supply	10 L/min Minimum 20 L/min Recommended @ 100 kPa - 800 kPa
		Max Temperature	40 oC
		Inlet	1/2" Male BSP
		Consumption*	60 L/hr
		Drain	40mm Male BSP
		Drain Flow Rate	15 L/m
	Duct Connections	Supply Air	Bottom Discharge 530 x 530 mm
		Exhaust Air	Top Discharge
AIR SYSTEMS	Supply Air Fan/Motor	Fan	1x 400mm Axial Forward Curve
		Motor	750W
		Control	Variable Speed, ECM, PWM Control
		Max Speed	2400 rpm
	Exhaust Air Fan/Motor	Fan	1x 380mm Centrifugal Backward Curve
		Motor	950W
		Control	Variable Speed, ECM, PWM Control
		Max Speed	1100 rpm
	Air Filters	Inlet	8x G4 Pleated Washable 356 x 635 x 25mm
HEAT EXCHANGERS	Indirect Evaporative	Inlet	8x Micro-Core™
	Direct Evaporative		8x Chillcel Pads
WATER SYSTEMS	Tank (Reservoir) Capacity		30 L
	Inlet Valve		12 VDC Solenoid Valve
	Pumps		1 Pump
	Indirect Heat Exchangers		13 LPM @ 1.5m Head 230V 50Hz 30W
	Pump		1 Pump
	Direct Heat Exchangers		13 LPM @ 1.5m Head 230V 50Hz 30W
	Salinity Management		Conductivity Probe
	Chlorinator		12 VDC
	Drain Valve		12 VDC Vertical
DIMENSIONS	Shipping		1175mm Long 1175mm Wide 1045mm High
	Operating inc. Accessories		1160mm Long 1160mm Wide 1020mm High
WEIGHT	Shipping		175 kg
	Operating inc. Water/Accessories		210 kg
STANDARDS COMPLIANCE			Electrical Safety IEC 60335.1:2011 +A1 +A2 IEC 60335.2.98:2002 +A1 +A2 Ingress Protection : IEC 60529:2011 EMC : CISPR14.1: 2013 EMF : EN 62233:2008

* Supply Air Temperatures, Cooling Capacities, COP and Water Consumption tested to Australian Standard AS 2913-2000 and ASHRAE 143 with design condition of: 38 C dry-bulb, 21 C wet-bulb and 27.4 C room exit temperature.

MODEL:			CW-H10	CW-H15	CW-H15S	CW-H15S Plus
OPTIMUM PERFORMANCE	Airflow	Supply Air	800 L/s @ 180 Pa	1100 L/s @ 150 Pa 3960 m³/h @ 150 Pa	1100 L/s @ 120 Pa 3960 m³/h @ 120 Pa	1600 L/s @ 80 Pa 5760 m³/h @ 80 Pa
		Exhaust Air	655 L/s	900 L/s 3240 m³/h	900 L/s 3240 m³/h	530 L/s 1910 m³/h
	Temperature*	Supply Air	19.5 °C	19.5 °C	15.8 °C	17.4 °C
		Standalone	8 kW	11 kW	16 kW	20 kW
	Cooling Capacity*	Pre-Cooling	18 kW	25 kW	29 kW	40 kW
		COP*	Standalone	5	6	8.5
	Pre-Cooling		12	14	16	19
ENVIRONMENT	Maximum Inlet Air Temperature		55 °C	55 °C	55 °C	55 °C
SERVICES	Electrical	Voltage	380-415 V / 3N~ / 50Hz	380-415 V / 3N~ / 50Hz	380-415 V / 3N~ / 50Hz	380-415 V / 3N~ / 50Hz
		Current	4.9 A	4.9 A	4.9 A	4.9 A
		Input Power	1.50 kW	1.80 kW	1.80 kW	2.10 kW
	Water	Supply	20 L/min @ 100 kPa - 800 kPa	20 L/min @ 100 kPa - 800 kPa	20 L/min @ 100 kPa - 800 kPa	20 L/min @ 100 kPa - 800 kPa
		Max Temperature	40 °C	40 °C	40 °C	40 °C
		Inlet	1/2" Male BSP	1/2" Male BSP	1/2" Male BSP	1/2" Male BSP
		Consumption*	44 L/hr	56 L/hr	60 L/hr	72 L/hr
		Drain	40mm Male BSP or 40mm Flexible Coupling	40mm Male BSP or 40mm Flexible Coupling	40mm Male BSP or 40mm Flexible Coupling	40mm Male BSP or 40mm Flexible Coupling
		Drain Flow Rate	15 L/m	35 L/m	35 L/m	35 L/m
		Duct Connections	Supply Air	Side Discharge 500 x 500 mm	Side Discharge 500 x 500 mm	Side Discharge 500 x 500 mm
	Exhaust Air		Side Discharge 1230 x 260 mm	Side Discharge 1825 x 220 mm	Side Discharge 1825 x 220 mm	Side Discharge 1825 x 220 mm
	AIR SYSTEMS	Supply Air Fan/Motor	Fan	1x 560mm Centrifugal Backward Curve	1x 560mm Centrifugal Backward Curve	1x 560mm Centrifugal Backward Curve
Motor			3.5 kW	3.5 kW	3.5 kW	3.5 kW
Control			Variable Speed, ECM, PWM Control	Variable Speed, ECM, PWM Control	Variable Speed, ECM, PWM Control	Variable Speed, ECM, PWM Control
Max Speed			1285 rpm	1390 rpm	1390 rpm	1450 rpm
Exhaust Air Fan/Motor		Fan	NONE	NONE	NONE	NONE
		Motor				
		Control				
		Max Speed				
Air Filters		Inlet	G4 Pleated Washable 305 x 610 x 50mm - 2 610 x 610 x 50mm - 1	6x G4 Pleated Washable 457 x 508 x 50mm	6x G4 Pleated Washable 457 x 508 x 50mm	6x G4 Pleated Washable 457 x 508 x 50mm
HEAT EXCHANGERS	Indirect Evaporative		2 Cores	3 Cores	3 Cores	3 Cores
	Direct Evaporative		NONE	NONE	3 Chillcel Pads	3 Chillcel Pads
WATER SYSTEMS	Tank (Reservoir) Capacity		45 L	65 L	65 L	65 L
	Inlet Valve		12 VDC Solenoid Valve	12 VDC Solenoid Valve	12 VDC Solenoid Valve	12 VDC Solenoid Valve
	Pumps Indirect Heat Exchangers		2 Pumps 13 LPM @ 1.5m Head 230V 50Hz Input Power 30W ea.	2 Pumps 13 LPM @ 1.5m Head 230V 50Hz Input Power 30W ea.	2 Pumps 13 LPM @ 1.5m Head 230V 50Hz Input Power 30W ea.	2 Pumps 13 LPM @ 1.5m Head 230V 50Hz Input Power 30W ea.
	Pump Direct Heat Exchangers		NONE	NONE	1 Pump 13 LPM @ 1.5m Head 230V 50Hz Input Power 30W ea.	1 Pumps 13 LPM @ 1.5m Head 230V 50Hz Input Power 30W ea.
	Salinity Management		Conductivity Probe	Conductivity Probe	Conductivity Probe	Conductivity Probe
	Chlorinator		12 VDC	12 VDC	12 VDC	12 VDC
	Drain Valve		12 VDC Vertical	12 VDC Vertical	12 VDC Vertical	12 VDC Vertical
DIMENSIONS	Shipping		2050 L * 1375 W * 1280mm High	2290 L * 1950 W * 1270mm High		
	Operating inc. Accessories		2330 L * 1230 W * 1325mm High	2290 L * 1825 W * 1285mm High		
WEIGHT	Shipping		250 kg	340 kg	355 kg	
	Operating inc. Water/Accessories		255 kg	330 kg	345 kg	

* Supply Air Temperatures, Cooling Capacities, COP and Water Consumption tested to Australian Standard AS 2913-2000 and ASHRAE 143 with design condition of: 38 C dry-bulb, 21 C wet-bulb and 27.4 C room exit temperature.

TECHNICAL DATA SHEET – CW-80 WITH MULTI-MAGIC CONTROLS

CW-80 IEC STANDARD CAPACITY SPEED 10 PERFORMANCE SUMMARY*					
	A	B	C	D	E
EXTERNAL STATIC PRESSURE (Pa)	610	505	400	295	190
SUPPLY AIR FLOWRATE (L/s)	5800	6200	6600	7000	7400
SUPPLY AIR FLOWRATE (m³/h)	20,900	22,300	23,800	25,200	26,600
IEC SUPPLY TEMPERATURE (°C)	19.1	19.3	19.5	19.7	20.0
STANDALONE COOLING CAPACITY (kW)	59	61	64	66	67
PRE-COOLING CAPACITY (kW)	133	140	148	155	161
INPUT POWER (kW)	12.5	12.5	12.5	12.5	12.5
STANDALONE COP	5	5	5	5	5
PRE-COOLING COP	11	11	12	12	13
WATER CONSUMPTION (L/hr)	240	245	250	255	260

CW-80 SUPERCOOL STANDARD CAPACITY SPEED 10 PERFORMANCE SUMMARY*					
	A	B	C	D	E
EXTERNAL STATIC PRESSURE (Pa)	580	485	380	275	180
SUPPLY AIR FLOWRATE (L/s)	5500	5900	6300	6700	7100
SUPPLY AIR FLOWRATE (m³/h)	19,800	21,200	22,700	24,100	25,600
IEC SUPPLY TEMPERATURE (°C)	19.2	19.4	19.7	19.9	20.1
SUPERCOOL SUPPLY TEMPERATURE (°C)	15.9	16.0	16.1	16.2	16.3
STANDALONE COOLING CAPACITY (kW)	78	83	88	92	96
PRE-COOLING CAPACITY (kW)	147	157	167	177	186
INPUT POWER (kW)	12.5	12.5	12.5	12.5	12.5
STANDALONE COP	6	7	7	7	8
PRE-COOLING COP	12	13	13	14	15
WATER CONSUMPTION (L/hr)	255	265	275	285	295

* Leaving Air Temperatures, Cooling Capacities and Water Consumption valid at design condition of: 38 °C dry-bulb, 21 °C wet-bulb, 27.4 °C relief temperatures

INPUT POWER (KW)					
SPEED	CW-80 IEC STANDARD CAPACITY	CW-80 SUPERCOOL STANDARD CAPACITY	SPEED	CW-80 IEC STANDARD CAPACITY	CW-80 SUPERCOOL STANDARD CAPACITY
10	12.5	12.5	5	3.3	3.5
9	9.9	9.9	4	2.8	2.9
8	7.4	7.5	3	2.0	2.2
7	5.6	5.7	2	1.4	1.6
6	4.4	4.6	1	1.0	1.2

TECHNICAL SPECIFICATIONS - CW-80 WITH MULTI-MAGIC CONTROLS

MODEL			CW-80 IEC Standard Capacity Fans	CW-80 SUPERCOOL Standard Capacity Fans
SERVICES	Electrical	Voltage	380-415 V / 3~ / 50Hz	380-415 V / 3~ / 50Hz
		Maximum Rated Current	26 A	27 A
		Input Power	12.5 kW	12.5 kW
	Water	Supply	45 L/min @ 85 kPa - 800 kPa	45 L/min @ 85 kPa - 800 kPa
		Max Temperature	40 °C	40 °C
		Inlet	3/4" Male BSP	3/4" Male BSP
		Drain	50mm Flexible Coupling	50mm Flexible Coupling
		Drain Flow Rate	40 L/m	40 L/m
	Duct Connections	Supply Air	Side Discharge 1890 x 2310mm	Side Discharge 1890 x 2310mm
		Exhaust Air	4x Top Discharge Vents	4x Top Discharge Vents
ENVIRONMENT	Maximum Inlet Air Temperature		50 °C	50 °C
AIR SYSTEMS	Supply Air Fan/Motor	Fan	2x 560mm Centrifugal	2x 560mm Centrifugal
		Motor	3.5 kW	3.5 kW
		Control	Variable Speed, ECM, 0-10V	Variable Speed, ECM, 0-10V
		Maximum Speed	1750rpm	1750rpm
	Exhaust Air Fan/Motor	Fan	4x 355mm Centrifugal	4x 355mm Centrifugal
		Motor	1.7 kW	1.7 kW
		Control	Variable Speed, ECM, 0-10V	Variable Speed, ECM, 0-10V
		Maximum Speed	2600 rpm	2600 rpm
	Air Filters	Inlet	16x G4 Washable 635 x 635 x 50mm	16x G4 Washable 635 x 635 x 50mm
HEAT EXCHANGERS	Indirect Evaporative		16 Cores	16 Cores
	Direct Evaporative		None	2 Chillcel Pads
WATER SYSTEMS	Tank (Reservoir) Capacity		180 L	180 L
	Inlet Valve		24 VAC Solenoid Valve	24 VAC Solenoid Valve
	Pumps - Indirect Heat Exchangers		1x 75 LPM @ 24.7m Head 380-415V / 3~ / 50 Hz Input Power 0.75 kW	1x 75 LPM @ 24.7m Head 380-415V / 3~ / 50 Hz Input Power 0.75 kW
	Pump - Direct Heat Exchangers		NONE	1x 38 LPM @ 13.8m Head 380-415V / 3~ / 50 Hz Input Power 0.25 kW
	Salinity Management		Conductivity Probe	Conductivity Probe
	Chlorinator		230V, 50Hz	230V, 50Hz
	Drain Valve		12 VAC Vertical	12 VAC Vertical
DIMENSIONS	Shipping	Note: Exhaust Fans/Motors, Weatherseals & Filters shipped loose.	3980mm(L) x 2310mm(W) x 2550mm(H)	3980mm(L) x 2310mm(W) x 2550mm(H)
	Operating		3980mm(L) x 2550mm(W) x 3515mm(H)	3980mm(L) x 2550mm(W) x 3515mm(H)
WEIGHT	Shipping	exc. Loose items	2000 kg	2100 kg
	Operating	inc. Water & Accessories	2700 kg	2850 kg

CW-80 IEC HIGH CAPACITY SPEED 10 PERFORMANCE SUMMARY*						
	A	B	C	D	E	F
EXTERNAL STATIC PRESSURE (Pa)	820	710	600	485	360	270
SUPPLY AIR FLOWRATE (L/s)	5300	5900	6500	7200	7900	8500
SUPPLY AIR FLOWRATE (m³/h)	19,100	21,200	23,400	25,900	28,400	30,600
IEC SUPPLY TEMPERATURE (°C)	18.7	19.1	19.4	19.7	20.1	20.4
STANDALONE COOLING CAPACITY (kW)	56	60	64	68	71	73
PRE-COOLING CAPACITY (kW)	124	135	146	159	171	181
INPUT POWER (kW)	14.2	14.2	14.2	14.2	14.2	14.2
STANDALONE COP	4	4	5	5	5	5
PRE-COOLING COP	9	10	10	11	12	13
WATER CONSUMPTION (L/hr)	235	245	255	265	270	275

CW-80 SUPERCOOL HIGH CAPACITY SPEED 10 PERFORMANCE SUMMARY*					
	A	B	C	D	E
EXTERNAL STATIC PRESSURE (Pa)	825	675	555	415	240
SUPPLY AIR FLOWRATE (L/s)	5000	5900	6500	7300	8200
SUPPLY AIR FLOWRATE (m³/h)	18,000	21,200	23,400	26,300	29,500
IEC SUPPLY TEMPERATURE (°C)	18.6	19.1	19.4	19.8	20.2
SUPERCOOL SUPPLY TEMPERATURE (°C)	15.5	15.8	16.0	16.2	16.4
STANDALONE COOLING CAPACITY (kW)	73	84	91	101	111
PRE-COOLING CAPACITY (kW)	136	159	173	193	214
INPUT POWER (kW)	14.2	14.2	14.2	14.2	14.2
STANDALONE COP	5	6	6	7	8
PRE-COOLING COP	10	11	12	14	15
WATER CONSUMPTION (L/hr)	265	280	295	310	335

* Leaving Air Temperatures, Cooling Capacities and Water Consumption valid at design condition of:
38 °C dry-bulb, 21 °C wet-bulb, 27.4 °C relief temperatures

INPUT POWER (KW)					
SPEED	CW-80 IEC HIGH CAPACITY	CW-80 SUPERCOOL HIGH CAPACITY	SPEED	CW-80 IEC HIGH CAPACITY	CW-80 SUPERCOOL HIGH CAPACITY
10	14.2	14.2	5	3.8	3.9
9	11.6	11.6	4	2.9	3.0
8	8.2	8.6	3	2.1	2.3
7	6.4	6.6	2	1.4	1.6
6	5.0	5.1	1	1.0	1.2

TECHNICAL DATA SHEET – CW-80 WITH MULTI-MAGIC CONTROLS

MODEL:			CW-80 IEC HIGH CAPACITY FANS	CW-80 SUPERCool HIGH CAPACITY FANS
SERVICES	Electrical	Voltage	380-440 V / 3~ / 50-60Hz	380-440 V / 3~ / 50-60Hz
		FLA	29 A	30 A
		Input Power	14 kW	14 kW
	Water	Supply	45 L/min @ 85 kPa - 800 kPa	45 L/min @ 85 kPa - 800 kPa
		Max Temperature	40 °C	40 °C
		Inlet	3/4" Male BSP	3/4" Male BSP
		Drain	2" Flexible Coupling	2" Flexible Coupling
		Drain Flow Rate	40 L/min	40 L/min
	Duct Connections	Supply Air	Side Discharge 1890 x 2310mm	Side Discharge 1890 x 2310mm
		Exhaust Air	4x Top Discharge Vents	4x Top Discharge Vents
ENVIRONMENT	Maximum Inlet Air Temperature		50 °C	50 °C
AIR SYSTEMS	Supply Air Fan/Motor	Fan	2x 560mm Centrifugal	2x 560mm Centrifugal
		Motor	3.5 kW	3.5 kW
		Control	Variable Speed, ECM, 0-10V	Variable Speed, ECM, 0-10V
		Maximum Speed	1750 rpm	1750 rpm
	Exhaust Air Fan/Motor	Fan	4x 355mm Centrifugal	4x 355mm Centrifugal
		Motor	1.7 kW	1.7 kW
		Control	Variable Speed, ECM, 0-10V	Variable Speed, ECM, 0-10V
		Maximum Speed	2600 rpm	2600 rpm
	Air Filters	Inlet	16x G4 Washable 635 x 635 x 50mm	16x G4 Washable 635 x 635 x 50mm
HEAT EXCHANGERS	Indirect Evaporative		16 Cores	16 Cores
	Direct Evaporative		NONE	2 Chillcel Pads
WATER SYSTEMS	Tank (Reservoir) Capacity		180 L	180 L
	Inlet Valve		24 VAC Solenoid Valve	24 VAC Solenoid Valve
	Pump Indirect Heat Exchangers		1x 75 LPM @ 24.7m Head 380-440V / 3~ / 50-60 Hz Input Power 0.75 kW	1x 75 LPM @ 24.7m Head 380-440V / 3~ / 50-60 Hz Input Power 0.75 kW
	Pump Direct Heat Exchangers		NONE	1x 38 LPM @ 13.8m Head 380-440V / 3~ / 50-60 Hz Input Power 0.25 kW
	Salinity Management		Conductivity Probe	Conductivity Probe
	Chlorinator		230V, 50-60Hz	230V, 50-60Hz
	Drain Valve		12 VAC Vertical	12 VAC Vertical
DIMENSIONS	Shipping	Note: Exhaust Fans/ Motors, Weatherseals & Filters shipped loose.	3980mm (L) x 2310mm (W) x 2550mm (H)	3980mm (L) x 2310mm (W) x 2550mm (H)
	Operating		3980mm (L) x 2550mm (W) x 3515mm (H)	3980mm (L) x 2550mm (W) x 3515mm (H)
WEIGHT	Shipping	exc. Loose items	2000 kg	2100 kg
	Operating	inc. Water & Extras	2700 kg	2850 kg



The Climate Wizard Cooling Performance

Supply Air Temperature

Location	Design condition	The Climate Wizard Leaving Air Temp (° C)						
		CW-3	CW-H10	CW-H15	CW-H15S	CW-H15S Plus	CW-80	CW-80S
Arid	42° C DB / 21° C WB	19	18	18	15	16	19	16
Temperate	37° C DB / 19° C WB	18	17	17	14	15	18	15
Continental	31° C DB / 20° C WB	20	19	19	17	18	20	18
Sub-Tropical	31° C DB / 23° C WB	23	23	23	20	22	23	21
Tropical	33° C DB / 26° C WB	26	26	26	25	25	26	25

Stand-Alone Cooling Capacity

Location	Design condition	CW-3		CW-H10		CW-H15		CW-H15S		CW-H15S Plus		CW-80		CW-80S	
		kW	COP	kW	COP	kW	COP	kW	COP	kW	COP	kW	COP	kW	COP
Arid	42° C DB / 21° C WB	14	8	9	6	12	7	17	9	22	10	86	6	117	9
Temperate	37° C DB / 19° C WB	17	10	10	7	14	8	19	10	25	11	102	8	132	10
Continental	31° C DB / 20° C WB	13	8	8	6	11	6	14	8	19	9	82	6	100	8
Sub-Tropical	31° C DB / 23° C WB	8	4	5	4	8	4	9	5	13	6	48	4	60	5

Pre-Cooling Capacity

Location	Design condition	CW-H10		CW-H15		CW-H15S		CW-H15S Plus		CW-80		CW-80S	
		kW	COP	kW	COP	kW	COP	kW	COP	kW	COP	kW	COP
Arid	42° C DB / 21° C WB	23	17	32	18	37	21	52	23	239	18	266	21
Temperate	37° C DB / 19° C WB	20	14	27	15	32	18	44	20	203	15	230	17
Continental	31° C DB / 20° C WB	12	8	16	9	19	11	26	12	120	9	136	11
Sub-Tropical	31° C DB / 23° C WB	9	6	12	7	13	8	19	9	85	6	95	7
Tropical	33° C DB / 26° C WB	7	5	10	6	11	6	16	7	73	5	81	6

The Climate Wizard cooling performance calculator

Enter the key parameters to check The Climate Wizard performance for your project. Typically the results are compelling.

You will be provided with a summary and a report of your results to meet local climate conditions.

Go to seeleyinternational.com/eu/commercial/tools





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