

## TECHNICAL SPECIFICATIONS - CW-H10, CW-H15, H15S, H15S Plus

### GENERAL

Climate Wizard air-conditioners operate with a high energy efficient ratio and are characterized by the provision of cool fresh air that has had NO additional moisture added to the supply air stream, and that is delivered at extremely low energy cost. The air-conditioners comprise of a supply air fan, an indirect heat exchanger pack, water reservoir and pumps, complete with all components for satisfactory operation. Climate Wizard Air Conditioners comply with AS 2913-2000 where applicable and are capable of functioning continuously in ambient temperatures up to 55°C (131°F).

### CABINET

The cabinet is constructed from coated marine grade aluminium incorporating the motor/fan assembly, non-corrodible heat exchange core and other ancillary equipment mounted on a heavy gauge base frame for structural stability.

Fork lift tie channels are provided within the frame to facilitate transport and lifting. Components are effectively treated to ensure corrosion resistance and mechanical fasteners are zinc coated, stainless steel or aluminium. Connection surfaces are provided for inlet, outlet and exhaust ductwork to be fitted using established industry practices.

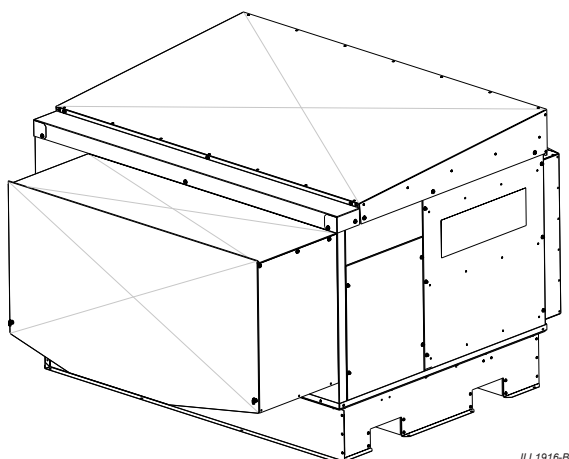
### FAN ASSEMBLY

The fan is a multi-blade, centrifugal type with backward curved blades and single inlet. It has a cast aluminium rotor and plastic impeller which is statically and dynamically balanced. The fan is directly mounted to the electric motor. The electric motor is high efficiency, electronically commutated and responsive to pulse width modulation to implement speed control that delivers optimum efficiency at lower speed operation.

### HEAT EXCHANGE CORE

The heat exchange core is designed to facilitate heat exchange between the wet air passages and the dry air passages such that high efficiency heat transfer takes place without the addition of any additional moisture. It is designed to provide long life and consistent, long term high efficiency.

Supercool models are fitted with additional Chillcel® fabricated, honeycomb cooling pads.



### RESERVOIR

The reservoir is a one piece moulded polymer construction to ensure durability, life-long corrosion eradication, and to provide excellent sound deadening properties. The reservoir is provided with integrated housings for the water pumps, level control, chlorinators, and salinity monitoring water management system. The design of the reservoir ensures that no water remains after draining.

### ELECTRICAL CABINET AND CONTROLS

All electrical control equipment including supply connection terminals, motor control hardware, water management hardware and BMS interface hardware, is pre-wired and factory mounted within a robust IP66 enclosure meeting the requirements for outdoor mounting.

### WATER MANAGEMENT SYSTEM

The water supply connection is a ½" fitting that connects directly to the internally mounted electric water solenoid valve. Heat exchange core saturation is achieved through internally mounted pumps delivering water to a specially designed non clog water distribution system guaranteeing continuous uniform flow. The pumps are manufactured from engineering plastics, with stainless steel shafts and fully encapsulated synchronous motors with thermal overload protection. They are provided with an easily cleanable strainer within the reservoir section.

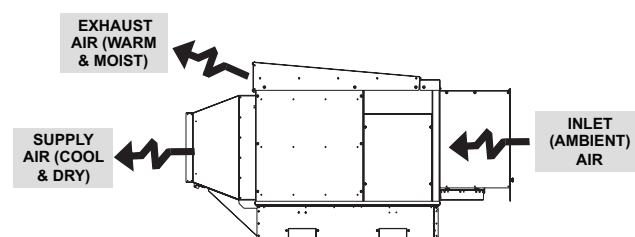
The air-conditioner is fitted ex-factory with an electronic water management system that controls the maximum salinity level and chlorination of the reservoir water through continuous monitoring and replenishment as determined by the control system. The air-conditioner is fitted with an electrically operated drain valve that responds to the water management control system.

### AIR FILTER

Intake air is filtered through replaceable pleated filters. The assembly includes a safety screen to protect the fan and a cover to minimise intrusion of rain.

### BMS INTERFACE

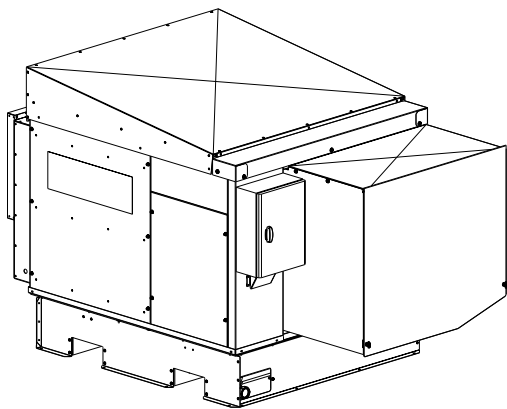
Remote control of the Fan ON-OFF, Fan Speed, Pumps ON-OFF, Error Signal is possible via plug receptacles fitted inside the electrical cabinet.



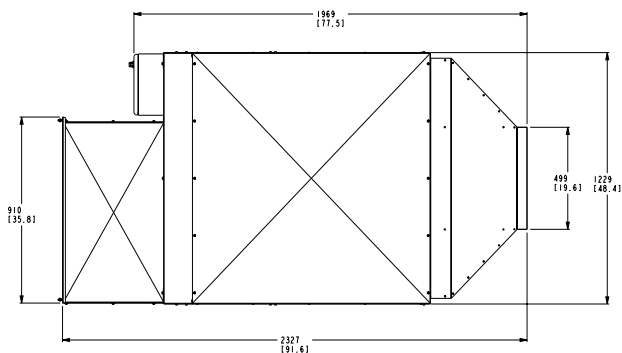
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### ISOMETRIC

CW-H10 views shown



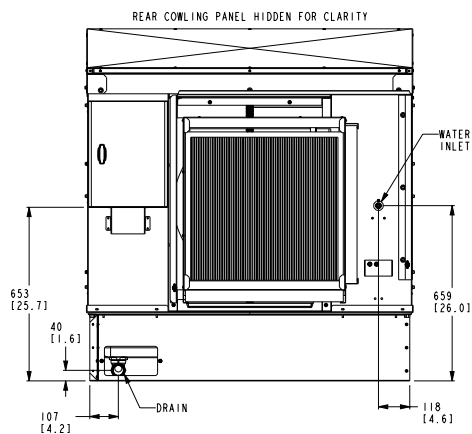
### TOP



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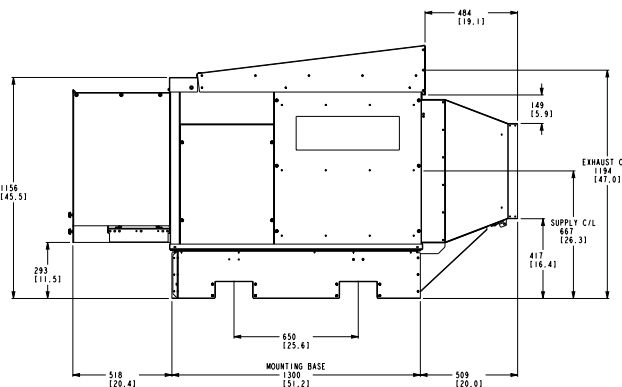
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### REAR



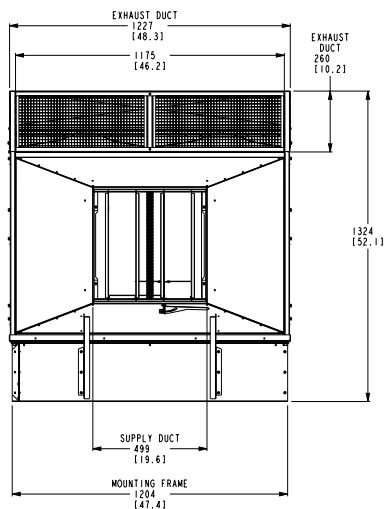
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### SIDE

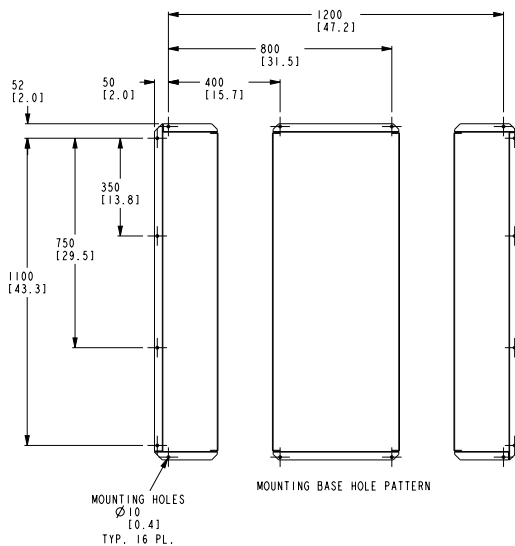


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### FRONT



### BOTTOM



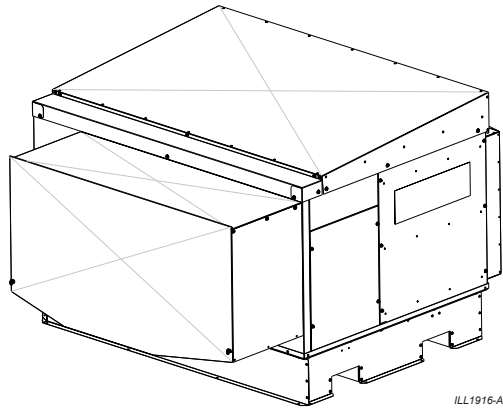
Dimensions are in mm (inches in brackets).

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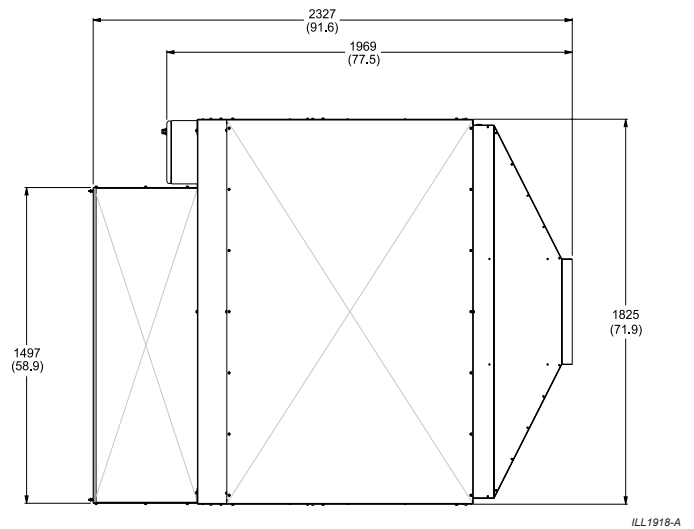
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### ISOMETRIC

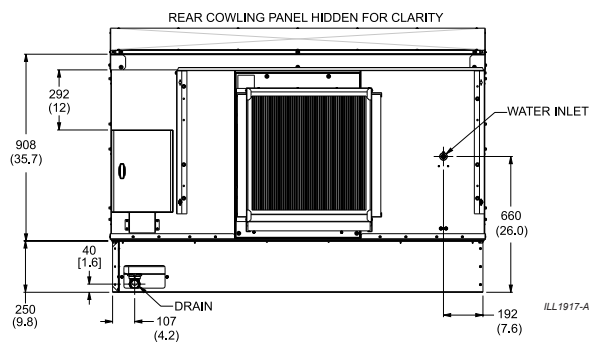
CW-H15 views shown



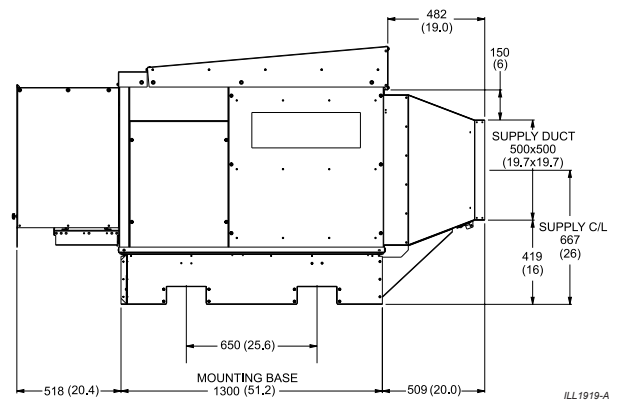
### TOP



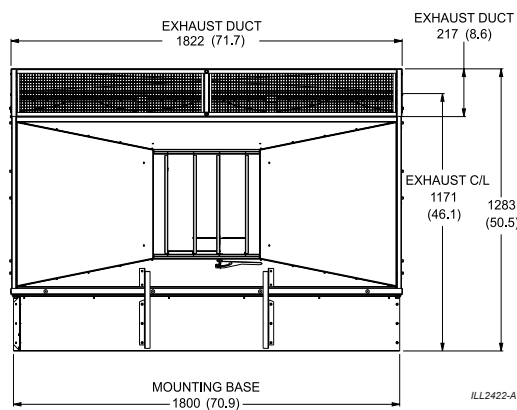
### REAR



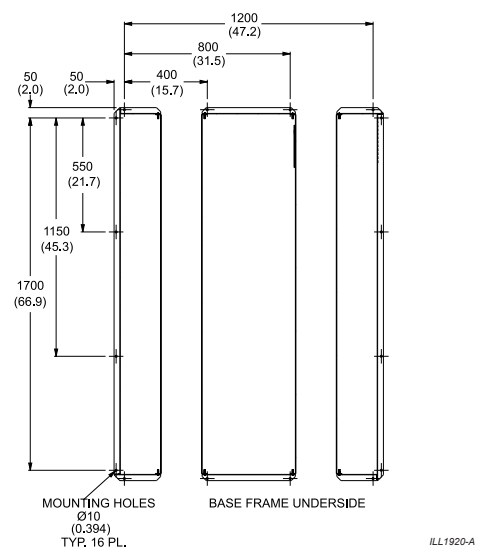
### SIDE



### FRONT



### BOTTOM



Dimensions are in mm (inches in brackets).

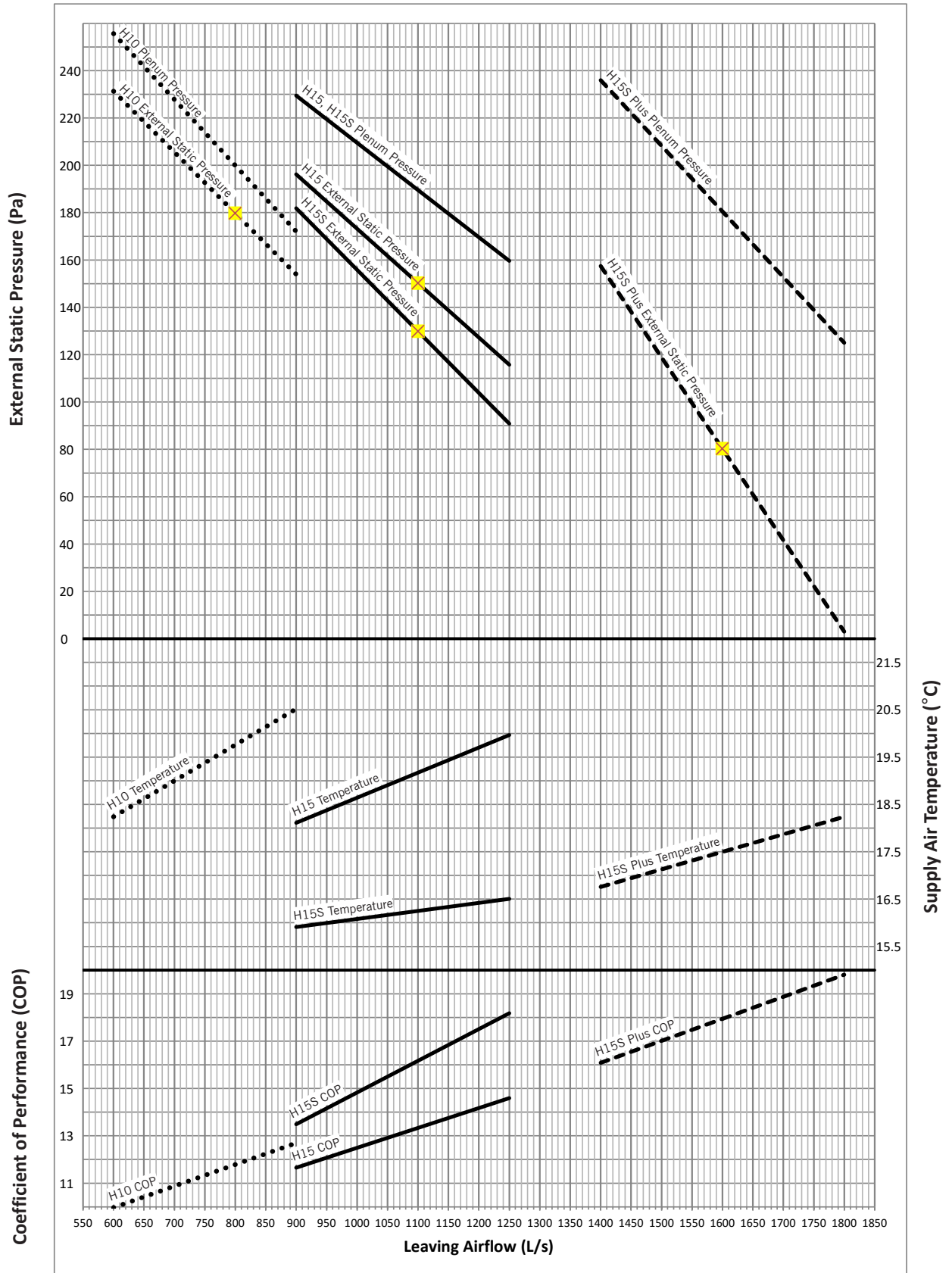
## TECHNICAL SPECIFICATIONS - CW-H10, CW-H15, H15S, H15S Plus

Specification		CW-H10	CW-H15	CW-H15S	CW-H15S Plus
Capacity	Airflow	800 L/s @ 180 Pa	1100 L/s @ 150 Pa	1100 L/s @ 130 Pa	1600 L/s @ 80 Pa
	Maximum External Static Pressure	230 Pa	215 Pa	195 Pa	155 Pa
	Nominal Cooling Capacity*	18 kW	24 kW	28 kW	40 kW
	COP	12	14	16	18
Electrical Supply	Voltage	380-415V/3N~	380-415V/3N~	380-415V/3N~	380-415V/3N~
	Frequency	50 Hz	50 Hz	50 Hz	50 Hz
	Rated Current	3A	3A	3A	3A
	Input Power	1.5 kW	1.8 kW	1.8 kW	2.2 kW
Fan/Motor	Type	560mm dia Backward Curved	560mm dia Backward Curved	560mm dia Backward Curved	560mm dia Backward Curved
	Control	Variable Speed ECM PWM Control	Variable Speed ECM PWM Control	Variable Speed ECM PWM Control	Variable Speed ECM PWM Control
	Maximum Speed	1285 rpm	1350 rpm	1350 rpm	1460 rpm
Heat Exchanger	Indirect Evaporative	2 Cores	3 Cores	3 Cores	3 Cores
	Direct Evaporative	None	None	3 Chillcel Pads	3 Chillcel Pads
Water	Water Supply	Min. 100kPa, Max 800kPa, 20L/min	Min. 100kPa, Max 800kPa, 20L/min	Min. 100kPa, Max 800kPa, 20L/min	Min. 100kPa, Max 800kPa, 20L/min
	Inlet	1/2" male BSP 12V Solenoid	1/2" male BSP 12V Solenoid	1/2" male BSP 12V Solenoid	1/2" male BSP 12V Solenoid
	Water Consumption	44 L/hr	56 L/hr	60 L/hr	72 L/hr
	Tank	45 L	65 L	65 L	65 L
	Pumps	2 pumps, 13 L/min @ 1.5m head. 230V 50Hz Input power 30W/ea	3 pumps, 13 L/min @ 1.5m head. 230V 50Hz Input power 30W/ea	4 pumps, 13 L/min @ 1.5m head. 230V 50Hz Input power 30W/ea	4 pumps, 13 L/min @ 1.5m head. 230V 50Hz Input power 30W/ea
	Drain	1 1/2" male BSP 12 V motor	1 1/2" male BSP 12 V motor	1 1/2" male BSP 12 V motor	1 1/2" male BSP 12 V motor
	Chlorinators	1 chlorinator	1 chlorinator	1 chlorinator	1 chlorinator
Air Filters	Type G4 washable	305 * 610 * 50mm Qty 2 610 * 610 * 50 Qty 1	305 * 610 * 50mm Qty 3 610 * 610 * 50 Qty 1	305 * 610 * 50mm Qty 3 610 * 610 * 50 Qty 1	305 * 610 * 50mm Qty 3 610 * 610 * 50 Qty 1
Dimensions	Shipping (Including Pallet)	2050mm long 1375mm wide 1280mm high	2050mm long 2000mm wide 1280mm high	2050mm long 2000mm wide 1280mm high	2050mm long 2000mm wide 1280mm high
	Operating (Including Filters and Cowling)	2330mm long 1230mm wide 1610mm high	2330mm long 1825mm wide 1285mm high	2330mm long 1825mm wide 1285mm high	2330mm long 1825mm wide 1285mm high
Weight	Shipping (Including Pallet)	250 kg	320 kg	335 kg	335 kg
	Operating (Including Filters, Cowling, Water)	255 kg	325 kg	340 kg	340 kg
Duct Connections	Supply	500 x 500 mm	500 x 500 mm	500 x 500 mm	500 x 500 mm
	Exhaust	1230 x 260 mm	1825 x 220 mm	1825 x 220 mm	1825 x 220 mm

\*Tested in accordance with ASHRAE 143 with conditions of 38.0 C Dry Bulb / 21.0 C Wet Bulb.  
Stand alone cooling capacity may be lower, depending on application.

Frequency (Hz)	Radiated Sound Power Level (dB(A) re 1pw) Octave Band Centre Frequency							Total Sound Power dB(A) re 1pw
	125	250	500	1k	2k	4k	8k	
CW-H10	70	60	58	57	54	50	42	63
CW-H15	84	68	65	62	55	51	44	70
CW-H15S	68	69	64	63	60	53	44	73
CW-H15S Plus	71	70	66	64	61	55	48	75

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\*Tested in accordance with ASHRAE 143 with conditions of 38.0 C Dry Bulb / 21.0 C Wet Bulb.

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## TECHNICAL SPECIFICATIONS - CW-H10, CW-H15, H15S, H15S Plus

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