



DATA SHEET 1505

ECT 10800 Internal Evaporative Cooler

Front Discharge • Side Discharge • Down Discharge • Mixed Discharge

The ECT 10800 evaporative cooler is manufactured by EcoCooling in the United Kingdom. The cooler is designed to meet all European electrical, water and other safety legislation.

- The ECT10800 cools air through evaporation of water and serves as an air handling unit.
- The cooler is designed to handle 10,800m³/hr.
- All air supplied to the area being cooled must be extracted or exhausted from it.

Material

The cabinet is manufactured in stainless steel.
The sump is manufactured in ABS.

Dimensions

Unit Size (H x W x D) Installed (on plinth) Delivered	2585 x 1304 x 1060 mm
Cabinet (incl. pallet) Plinth (incl. pallet)	2235 x 1350 x 1060 mm 750 x 1350 x 1050 mm

Electrical Supply

Voltage	3~ 400V 50Hz
Current per phase Design Maximum	1.7 A 5.6 A
Power Design Maximum	0.9 kW 3.6 kW
Protection	Integrated isolator switch

Air Routes

Intake Size	1200 x 400mm
Recirculation Size	700 x 700mm

Water Requirements

Water Supply	
Water quality	Fresh potable water only
Minimum supply rate	500l/hr minimum
Minimum pressure	1 bar
Maximum pressure	7 bar
Connection	15 mm compression fitting to braided hose c/w adjustable flow restrictor
Control	<ul style="list-style-type: none"> • Ball-valve inlet • Float level probe activated shut off • Optional actuated valves available for frost protection
Compliance	<ul style="list-style-type: none"> • WRAS compliant • Double check valve recommended
Drain	
Capacity	2000 l/hr minimum
Connection offered	1" BSP male thread
Control	Drive Open-Drive Close drain valve

Weight

Ventilation mode	400kg
Cooling mode	415kg
Max. at overflow Delivered	441kg
Cabinet	340kg
Plinth	70kg

Cooling Pads

Manufacturer	Munters
Material	CELdek® 5090
Saturation Efficiency	85-89%
Dimensions	640 x 870 x 100 mm
Quantity	4

Circulation Pump

Flow Rate	30l/min (intermittent)
Power	50W
Voltage	220-240V
Pump Type	Centrifugal
Motor Type	Encapsulated shaded pole
Transmission	Magnetically coupled
Protection	Auto-reset Overload

Serviceable Cooling Load (kW)

Dependant on:

- Temperature rise between supply and exhaust.
- Volumetric air flow rate.

Note that this does not describe the adiabatic cooling function.

Temp. Rise, ΔT	5°C	7.5°C	10°C	12.5°C	15°C
Air Flow					
10,800 m ³ /hr	18	27	36	45	52

Calculated using $\dot{Q} = (\dot{m}C_p)_{air} \Delta T$ with $\rho_{air,NTP} = 1.204$ & $C_{p,air,NTP} = 1.005$

Control

- Integrated EcoCooling PLC control system
See associated documentation for further detail.
- 7" Touchscreen HMI/GUI for local control
- Remote communication options
 - VPN access to Touchscreen GUI
 - TCP/IP over Ethernet
 - Modbus RTU RS485

Air Filtration

- Intake air subject to EU4 filtration as standard
- Supply air subject to EU4 filtration as standard

Maintenance

- Integrated testing sequence
- Recommended interval of 3-6 months
Contact the manufacturer for application specific advice

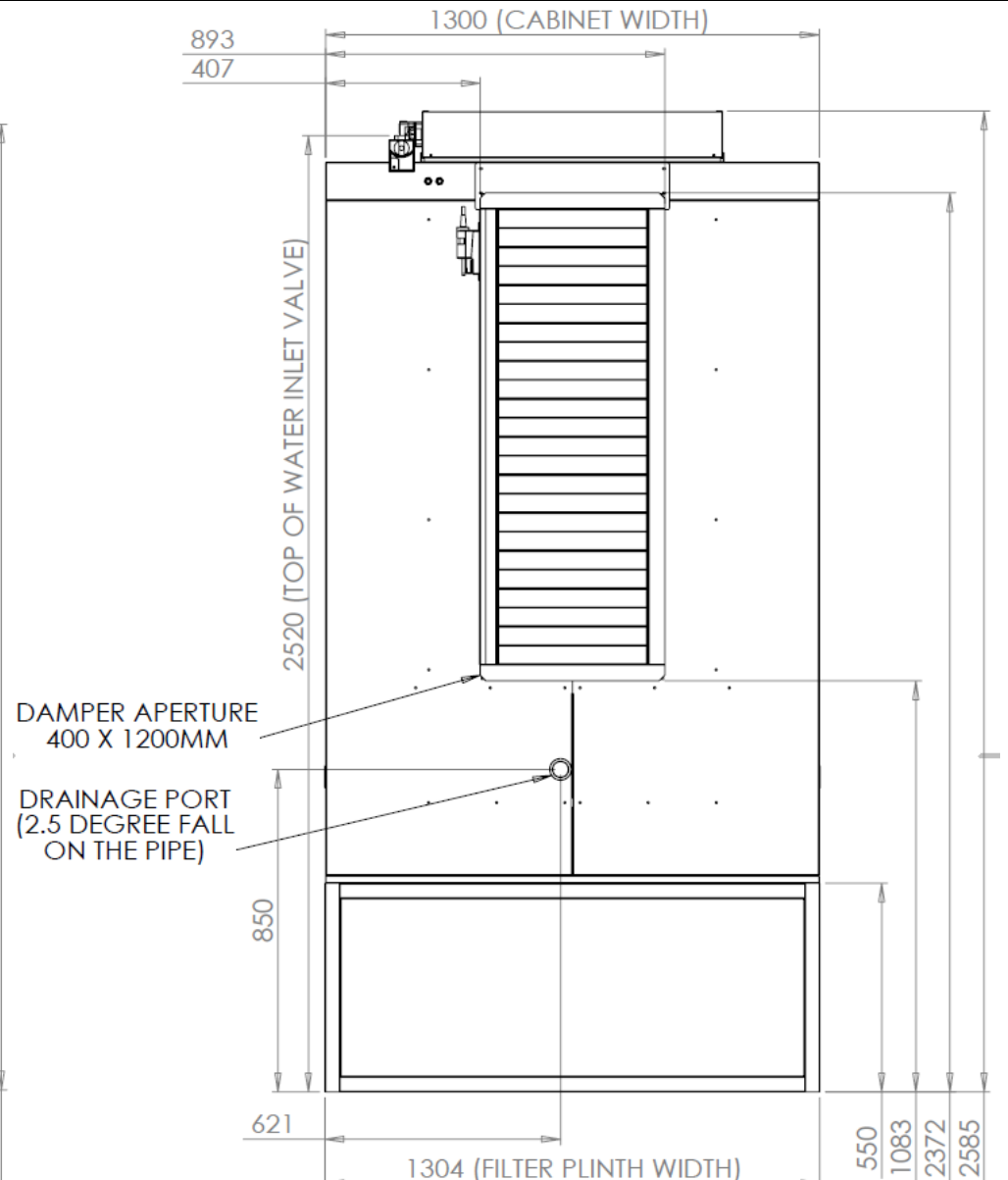
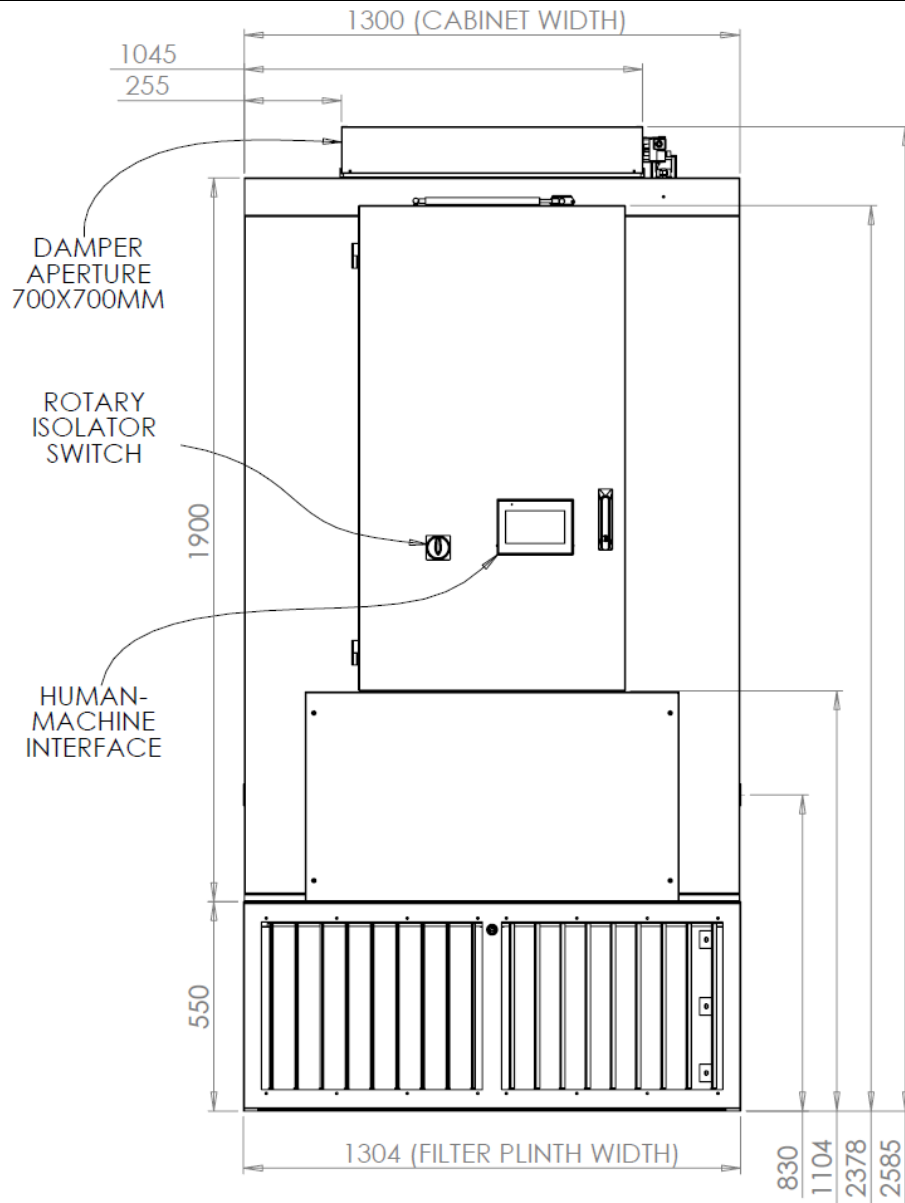
Warranty

2 years parts only



ECT5400 Technical Drawing

General Overview – Front and Rear Views

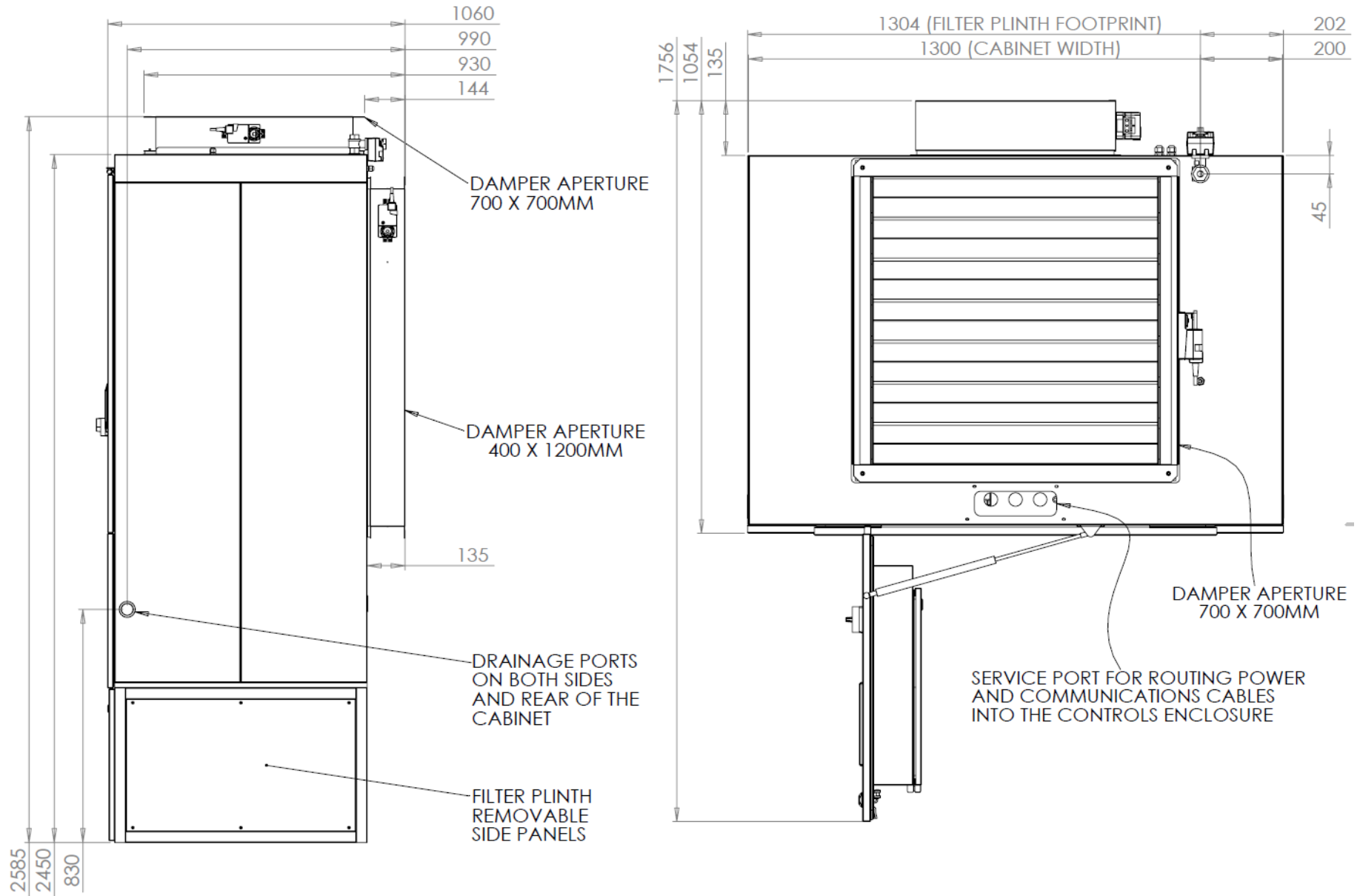


Do Not Scale. Front discharge filter plinth configuration shown. Contact EcoCooling for additional dimensioned drawings of alternative configurations.



ECT10800 Technical Drawing

General Overview – Side and Top Views



Do Not Scale. Front discharge filter plinth configuration shown. Contact EcoCooling for additional dimensioned drawings of alternative configurations.



ECT10800 Filter Plinth Configuration Options

Front Discharge • Side Discharge • Down Discharge • Mixed Discharge

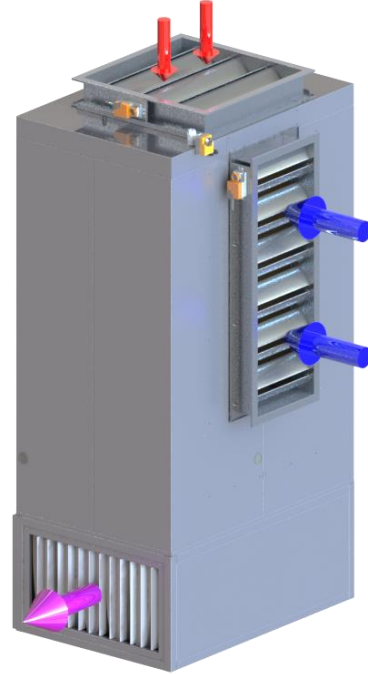
Front Discharge



Configuration Features

Air Supply Point	2 off 580 x 440mm grilles with single deflection vanes
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Side Discharge



Configuration Features

Air Supply Point	1 or 2 off 750 x 400mm grille with single deflection vanes Or 1 or 2 470x 820mm plain ports for ductwork connection
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Down Discharge



Configuration Features

Air Supply Point	820 x 1220mm port in base
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Mixed Discharge



Configuration Features

Air Supply Point	Combinations of the options above available
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