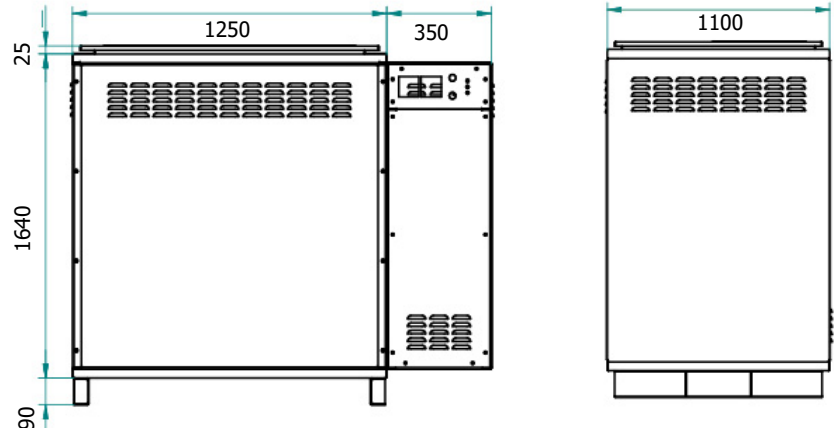


# TECHNICAL DATA SHEET EMC1450 & EMC1450i



Description	EMC1450	EMC1450i
Input Volts per phase	Nominal input voltage 216V-253V, 50Hz AC	Nominal input voltage 216V-253V, 50Hz AC
Optimised Output Volts	-6%, -7%, -8%, -9%, -10% of input as standard – other options available	-6%, -7%, -8%, -9%, -10% of input as standard – other options available
Continuous Current Rating	1450A 3PH	1450A 3PH
Efficiency	>99.7%	>99.7%
Operating Temperature	-5°C to +40°C	-5°C to +40°C
Humidity	80% (non-condensing)	80% (non-condensing)
Dimensions (mm)	1755h x 1250w x 1100d	1755h x 1600w x 1100d
Weight	791Kg	891Kg
Terminal Capacity	Incoming Live – 4x12mm Stud Incoming Neutral – 1x12mm Stud Outgoing Live – 4x12mm Stud Outgoing Neutral – 1x12mm Stud Earth – 1x12mm Stud	Incoming Live – 4x12mm Stud Incoming Neutral – 1x12mm Stud Outgoing Live – 4x12mm Stud Outgoing Neutral – 1x12mm Stud Earth – 1x12mm Stud
Copper Bus Bar Flag extension	1x14mm Standard (Complete Bespoke Service available for terminal lugs according to required specification)	1x14mm Standard (Complete Bespoke Service available for terminal lugs according to required specification)
Phase Terminal Tightening Torques	70-90 Nm	70-90 Nm
Cable Entries	2 x removable gland plates to top of unit	2 x removable gland plates to top of unit
Control Box Positioning	N/A	left or right sides, (shown to RHS in picture & drawing above)
Bypass Switch	Optional Extra	Standard - allows maintenance & adjustment of the output voltage without the need to isolate the main supply
Main Incoming Device	Optional Extra - Isolator, Fused Switch, MCCB or ACB on request	Optional Extra - Isolator, Fused Switch, MCCB or ACB on request

## TECHNICAL DATA SHEET cont . . .

### EMC1450 & EMC1450i

On board Status Indication	N/A	As Standard c/w Optimising, Inhibit, Over temp LEDs, input multifunction meter, output Voltmeter
Remote Status Indication	N/A	As standard c/w GSM remote metering & monitoring via PC or smart mobile
Remote Alarms and Email Notifications	N/A	Standard
Audible Alarm	N/A	Standard
<i>Auto BrownOut</i> Under Voltage Inhibit	N/A	Standard
Manual Key switch Inhibit	N/A	Standard
Manual Control Maintenance Bypass	N/A	Standard
Mounting Fixings	Floor Standing 12mm Hole	Floor Standing 12mm Hole
Enclosure	Mild Steel Powder Coated	Mild Steel Powder Coated
Colour	Grey (RAL 9035)	Grey (RAL 9035)
Ingress Protection	IP31	IP31
Packaging	Palletised	Palletised
Standards	BSEN61439-2:2011 BS EN 61558	BSEN61439-2:2011 BS EN 61558
Warranty	10	5(15) Years

## Remote Operation, Metering & Monitoring (EMCi Version Only)



### Technical Features

Communication	GPRS(GSM) (900/1800 MHz) (10/100 Ethernet available on request)
SIM Type	Mini – UK roaming (please state if to be used outside UK)
Minimum GSM signal strength requirement	-108dBm
Supported Meters	Modbus RS-485 (pulsed output meters via I/O expanders)
Maximum number of meters	8 (4,096 with expanders)
Meter wiring topology	Daisy Chain
Recommended Modbus cable specification	BELDEN 9842NH Multipair Screened Cable

# TECHNICAL DATA SHEET cont . . .

## EMC1450 & EMC1450i

Modbus end of line resistor value	120Ω
Maximum temperature sensors via 1-Wire bus	3

### Standard Alarms & Status Updates

Description	Action	
	Email	Inhibit
Voltage Optimisation Inhibit – (Grid supply voltage too low)		Yes
Manual Optimisation Inhibit - (ECO-MAX key switch in inhibit)		Yes
ECO-MAX @ 90% Loading – (phase current above 90% rating)	Yes	
ECO-MAX Overloaded – (phase current above 100% rating)	Yes	Yes
ECO-MAX Over Temperature – (winding temperature exceeded)	Yes	Yes

Please note that the standard alarms and status updates shown above represent only small selection of the available functionality. Please contact us to discuss any additional requirements that you may have.

