Powerstar

POWERFUL. SMART. ROBUST

mlt INVERTERS

THE TRUSTED POWER SOLUTION FOR AFRICA. SINCE 1986.

The Powerstar inverter range is designed to be a robust and reliable hybrid energy storage platform. It is ideal for applications as varied as off-grid farms and lodges to urban houses and factories.

It provides a smart and seamless interface between the grid, generators, renewable energy and storage.

- Designed for harsh environments
- Single phase transformer-based
- Low-voltage DC (48 V)

- NRS097-2-1:2017 Compliant

- Built in CAN port for communication with a BMS
- Built in remote monitoring

Features

Automatic Generator Start

In off-grid systems, the Powerstar will automatically start the generator when the battery voltage is low. The inverter synchronises with the generator and connects seamlessly. When the charge cycle is complete the inverter will turn off the generator and transition back to stand-alone mode with no power interruption to the load.

SmartLoad Load Prioritization

The Powerstar features SmartLoad, a programmable three priority level load-shedding system. The inverter will automatically connect/disconnect user-defined loads based on the current state of charge of your batteries. For example, SmartLoad can allow non-critical loads such as air-con systems to run when the batteries are full and grid power is available but to shed these loads when running off batteries so that critical loads such as fridges & lights can be powered for longer.

Export Power Control

The Powerstar has advanced export power control that prevents power from flowing back into the grid and tripping pre-paid meters.

Specifications

Specification	Nominal (Range)
AC Parameters	**PowerStar10H**
Inverter Rated Power* (Continuous / 30 minutes)	8000 W / 10000 W
Voltage	230 V (184 V to 276 V)
Frequency	50 Hz (47 Hz to 58 Hz)
Source Current Input	63 A
Load Current Output	63 A
Inverter Current (Continuous / 30 minutes / 2 s)	35 A / 45 A / 80 A
Inverter Power factor range	+1 to -1
DC Parameters	
Input Voltage	48 V (42 V to 63 V)
Rated Input Current** (battery discharge current)	190 A
Rated / Max Output Current** (battery charge current)	155 A / 190 A
General	
Protective Class	I
Ingress Protection	IP20
Operating Temperature	−5°C to 45°C
Relative Humidity	5% to 85%
Cooling	Forced
Tare losses (No Load / Standby)	< 60 W / < 8 W
Maximum altitude for rated power	1000 m above sea level
Supported battery types	Lead Acid $LiFePO_4$ with CAN BMS
Minimum battery size	250 Ah
Mechanical	
Wall-mounted	
Dimension (W × H × D)	450 mm × 730 mm × 220 mm
Weight	95 kg
Source Input Connections (External / Internal)	M40 Gland / Terminal Block 25mm^2
Load Output Connections (External / Internal)	M40 Gland / Terminal Block 25mm^2
Battery Connections (External / Internal)	2 × M40 Glands / 2 × M8 Studs
Internal Battery Fuse	300 A
Features	
Human Machine Interface (HMI)	Full colour 3.5 inch touch screen
Local Communication Interfaces	RS485 (Modbus), CAN (BMS)
Remote Monitoring Built In	Ethernet (standard), Wifi
2 x Programmable Digital Inputs	
2 x Programmable Digital Outputs	
Battery Temperature Input	
External AC Current measurement	

* At 230 V, 50 Hz, 25°C

** At 25°C

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