

SOLAR SMOOTHER

Solving the problem of passing clouds



magellanpower



Solar Smoother

Problem

Passing clouds interrupt the generation of solar power and this causes problems for weak grids by effectively and suddenly dumping power loads on to the grid. This problem has forced some grid operators to place restrictions on the amount of solar PV allowed to be installed.

Solution

Using battery power, the Solar Smoother allows smooth transition between PV power and the grid and allows the grid time to respond to the reduction in solar generation.

Features

- Australian Made
- Complies with Horizon Power Generation Management requirements
- Low cost solution
- Includes a 5kW (nominal) solar inverter
- Easy to install
- 48V maintenance free lead acid battery bank
- Test push button
- UPS Feature
- Smart industrial design
- Low power option during heavy cloud conditions
- Touch screen interface
- Energy monitoring app



Specifications

Inverter Specifications	
Nominal Capacity	4600W
Input/Output Phases	Single
Standards Compliance	AS4777 -2/-3 AS3100/IEC62109-1/-2 C- Tick/ IEC61000
Maximum Humidity	95% R.H, Non condensing
Cooling	Passive
Enclosure	IP65
Weight	30kg
Dimension (WxDxH)	520mm x 440mm x 185mm
Max AC Current	20 A
AC Input Range	45 - 55Hz; 180 - 270 Vac
AC Current Total Harmonic Distortion	<1.5%
Efficiency	97.6% (Maximum) 97.0% (Euro)
Ambient Temperature Range	-20°C - 60°C (>45°C derating)
PV	
Max PV Power	5400 W
Max PV Voltage	580V
MPPT Voltage Range	125 - 550 V
Starting Voltage	125 V
Max PV Current	15A
PV Overcurrent Protection	20A
No. of PV Connectors	2
No. of MPPTs	2
MPPT Adaption Efficiency	99.5%
Battery Bank	
Nominal Bank Voltage	48V
Battery Enclosure Dimensions	800 x 700 x 420mm
Battery Enclosure IP Rating	IP54
Battery Enclosure Weight	210kgs (batteries included) 50kgs (batteries excluded)

Specifications

Battery Block Specifications	
Block Voltage	12V
Voltage Range	10.5 - 14.7
Battery Nominal Charge/ Discharge Current	0.25/1.0C
Chemistry	Valve Regulated Lead Acid
Nominal Battery Capacity	133Ah @ C10
Battery Cycle Life	3600 cycles @ 20% DOD
Weight	39.6kg
Battery Block Dimension	327mm x 176mm x 254mm
User Interface	
Remote Monitoring Interfaces	PVOutput Portal Magellan Portal Internal Website Smartphone App
Display	Colour Touch Screen 4:3"
Communications Interface	WiFi/USB
Data Logging	Internal non-volatile memory



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