



GreenShelf Solar Systems

Perfect for Off Grid Sites

8.0kW
MAX

48V
OUT



GREEN
ENERGY

With an industry-leading efficiency of >97.5%, in combination with advanced MPPT algorithmic response times of 99.5% efficiency, the greenSHELF ensures the greatest utilization of photovoltaic (PV) panel power generation and offers both a considerable reduction in operating costs and an increased return on investment. Solar harvesting starts sooner and lasts longer than comparable devices and each charging module is designed for use with one or two PV strings.

Its multiple expansion capability means greenSHELF can be used to meet and extend existing requirements. Standalone versions are also available.

The integrated energy controller in standalone applications is easily configured for individual site demands and includes advanced battery management functionality, logging and communication options for remote monitoring.

The design of the solar module is based on a high-frequency transformer, guaranteeing galvanic isolation between the PV panels and the load and batteries to improve lightning-strike immunity. Various additional elements such as surge protection devices, earth fault detection and back-feed protection ensure safety and investment preservation.

KEY FEATURES

- Modular design for ease of installation
- Widest range of DC input for greatest PV panel flexibility
- Highest efficiency conversion, more than 97.5%.
- Leading MPPT for maximum panel utilization and solar harvesting
- Intelligent and intuitive blending of energy inputs
- Easily customized for individual needs
- Assists with reducing operating costs
- Increases your return on investment



Specifications

ELECTRICAL	greenSHELF V1	greenSHELF V2
DC Input:	60–400V (refer to solar converter specification for full details)	
Termination:	2x 6mm ² tunnel terminals	Phoenix screw terminals
DC Output Nominal Voltage:	48V DC	48V DC
Max Output Power:	2.0kW	8.0kW
DC Distribution:	1x load circuit breaker (6–63A) 1x battery circuit breaker (max 63A)	
Breaker Fail Detection:	Electronic fail detection	
DC Terminals:	Load: 2x 6mm ² rear connect tunnel terminals Battery: 2x 6mm ² rear connect tunnel terminals	DC bulk busbar

MONITORING AND CONTROL (See SM35/SM36 datasheets)

ENVIRONMENTAL REQUIREMENTS	
Ambient Temperature:	-20°C to +70°C (maximum output power is derated above +55°C)

MECHANICAL		COMPLIANCES
Dimensions (W, H, D):	482.6mm (19" mount), 44.45mm (1U), 350.0mm	Safety: EN60950
Weight:	5.0kg (excluding solar modules)	Other: CE & RoHS compliant

PART NUMBERS	
greenSHELF V1:	ultraCOMPACT system, 1x modular charger, 1x load 1x battery MCBs, SM36 supervisory module
greenSHELF V2:	Expansion shelf allows combinations of charger and isolation modules up to 8kw output

CONFIGURATION OPTIONS	
Solar Charger:	SM1848HE: 1.8kW modular convertor: 110V DC input, 48V DC output, 32.0A maximum output SM2048HE: 2.0kW modular convertor: 220V DC input, 48V DC output, 41.7A maximum output
Supervisory Modules:	SM35: standard monitor featuring full temperature compensation, automated and manual battery testing/equalisation SM36: enhanced monitor featuring full temperature compensation, automated and manual battery testing/equalisation with TCP/IP
AIM V1:	Aux Isolation Module
AIM V2:	Aux Isolation Module with SPD
ABM-DIN2 V1:	Aux Breaker Module with Shunt



Contact Enatel for datasheets and characterization details. Due to product development, specifications are subject to change without prior notice. Pictures may be representative: actual products may differ.

