

# GreenShelf Solar System

PERFECT FOR OFF-GRID SITES

PRODUCT SHEET

**POWER  
OUTPUTS**

**MAX  
OUTPUT  
8.0kW**

**DC OUT  
48V**

## 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 OPEX
- Increases your ROI



2 Way Front Connect Shelf



4 Way Rear Connect Shelf



1U System: Maximum 1 solar module

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.

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## Specifications

ELECTRICAL	2 WAY FRONT CONNECT	4 WAY REAR CONNECT	1U SYSTEM
DC INPUT:	60–400V (refer to solar converter specification for full details)		
TERMINATION:	6mm <sup>2</sup> tunnel terminals for each solar module		
DC OUTPUT RATINGS:	43 - 60V DC		
NOMINAL VOLTAGE:	48V		
MAXIMUM OUTPUT POWER:	4.0kW <sup>1</sup>	8.0kW <sup>1</sup>	2.0kW <sup>1</sup>
DC DISTRIBUTION:	Bused O/P		Breaker
DC TERMINALS:	DC bulk busbar		M4 terminals
I/P SURGE PROTECTION:	Yes	No	Yes
I/P SOLAR ISOLATOR:	Yes	No	Yes
PLUGGABLE SOLAR ISOLATORS:	Yes	No	No
SPD MODULE:	Yes	No	Yes
LOAD LVD:	No	No	Yes
MONITOR FITTED:	No	No	Yes

MECHANICAL	FRONT CONNECT:	REAR CONNECT:
DIMENSIONS:	W: 482.6 mm [19" mount]	482.6 mm [19" mount]
	H: 44.45 mm [1.75 in] (1U)	44.45 mm [1.75 in] (1U)
	D: 360.0 mm [14.17 in]	350.0 mm [13.78 in]
WEIGHT:	5.0 kg [15.43 lb] (excluding modules)	

COMPLIANCES	
SAFETY:	EN 60950-1
OTHER:	CE & RoHS Compliant

MONITORING AND CONTROL (See SM34/EM4X product sheets)

CONFIGURATION OPTIONS	
SOLAR CHARGER:	SM1848HE: 1.8kW modular converter: 110V DC input, 48V DC output, 32.0A maximum output SM2048HE: 2.0kW modular converter: 220V DC input, 48V DC output, 41.7A maximum output
ENERGY MANAGER:	SM36: enhanced monitor featuring full temperature compensation, automated and manual battery testing/ equalisation with TCP/IP EM4x: advanced controller with phase balancing, peak shaving, lithium battery management, enhanced logic input and reporting.

<sup>1</sup>Refer to module specifications

Due to product development, specifications are subject to change without prior notice. Pictures may be representative: actual products may differ.