



Solar Series

LV & ELV Solar Chargers

2.0kW
MAX

48V
OUT



GREEN
ENERGY

With peak efficiency near 98%, the Solar Series high-efficiency Solar Charger provides significant energy savings. Each charging module is designed for operation with solar panel configurations of one or two strings and, with a wide input operating voltage window, offers maximum flexibility for the greatest optimization. Module design is based on a high-frequency transformer guaranteeing galvanic isolation between that of solar panels and loads and batteries. Various additional protection elements ensure safety and investment preservation.

The Solar Series chargers include market leading MPPT algorithms, allowing commencement of solar harvesting far sooner and for much longer than other comparative devices. This combined with the highest conversion efficiency maximizes PV generation delivering the greatest ROI.

Enatel's solar chargers are New Zealand-made to guarantee design, manufacture and process integrity. The Solar Series represents unrivalled reliability with a robust proven conversion topology. Modules can be integrated into COMPACT solutions or operate as standalone units.

KEY FEATURES

- Industry-leading MPPT for the greatest solar harvesting
- Highest efficiency conversion
- Widest range of DC input for maximum PV flexibility
- Lowers OPEX by up to 80%
- Increases return on investment
- Modular architecture for quick and easy system integration/expansion
- Forced-air cooled by a temperature controlled, high-reliability, monitored fan



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Specifications

DC INPUT	SM2048HE	SM1848HE
Nominal Input Voltage:	220V DC	100V DC
Input Voltage Range:	85–400V (200–360V DC non-derating output power)	60–140V (limited to 17A input)
Start-up Voltage:	120V DC	60V DC
Maximum Open Circuit Voltage:	450V DC	160V DC
Maximum Input Current:	10.5A	18A
MPPT Efficiency:	98.5%	98.5%
Peak Efficiency:	>97% @ 20–85% load with 200-250V DC input	>96% @ 25–70% load with 85-100V DC input
DC OUTPUT		
Nominal Output Voltage:	48V DC	
Output Voltage Range:	43-60V DC	
Maximum Output Current:	41.7A	37.5A
Maximum Output Power:	2.0kW	1.8kW
ENVIRONMENTAL REQUIREMENTS		
Ambient Temperature:	-20°C to +70°C (maximum output power is derated above 55°C)	
Storage Temperature:	-30°C to +85°C	
MECHANICAL		
Dimensions (W, H, D):	111.5mm, 44.0mm (1U), 282.0mm overall (rack depth 260.0mm)	
Weight:	1.50kg	
Cooling:	Forced-air cooled (front to back airflow)	
COMPLIANCES		
Safety:	EN60950, IEC62109	
Immunity:	CISPR24	
Emissions:	CISPR22 Class B	
Other:	CE & RoHS compliant	



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.

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