

# MERC-1100/1300W-P

## Smart PV Optimizer



One-Fits-All Optimizer  
Easier Business



<5s Module Auto-Mapping



Arc Fault Pinpoint Positioning Along PV  
Cable

Technical Specification	MERC-1100W-P	MERC-1300W-P
<b>Input</b>		
Rated Input DC Power <sup>1</sup>	1100 W	1300 W
Absolute maximum input voltage	125 V	
MPPT operating voltage range	12.5 - 105 V	
Maximum Short Circuit Current (Isc)	20 A	
Max. efficiency	99.5 %	
Weighted efficiency	99.0 %	
Overvoltage category	II	
<b>Output</b>		
Max. output voltage	80 V	
Max. output current	20 A	
Output bypass <sup>2</sup>	Yes	
Shutdown output voltage per optimizer <sup>3</sup>	0 V	
Shutdown output impedance per optimizer	1kΩ ± 10 %	
<b>Standard Compliance</b>		
Safety	IEC62109-1 (class II safety)	
RoHS	Yes	
<b>General Data</b>		
Dimension (W x H x D)	85 x 140 x 50 mm (3.3 x 5.5 x 2.0 inch)	
Weight (including cables)	0.8 kg (1.8 lb.)	
Installation part (optional)	PV Module Frame Plate, T-shaped Bolt	
Input connector	MC4	
Input wire length	0.1 m	
Output connector	MC4	
Output wire length	0.1 m (+), 5.1 m (-) <sup>4</sup>	
Operating temperature / humidity range	-40 °C ~ 85 °C <sup>5</sup> / 0 %RH ~ 100 %RH	
Degree of protection	IP68	
Compatible product	SUN2000-8/10/12/15/17/20KTL-M2 SUN2000-20/29.9/30/36/40KTL-M3 SUN2000-12/15/17/20/23/25KTL-M5	
<b>Long String Design (Full Optimizer)</b>		
Minimum optimizer number per string	6	
Maximum optimizer number per string	25	
Maximum DC power difference per strings	13,500 W	

<sup>\*1</sup> Rated power of the module at STC shall not exceed "Rated Input DC Power" of power optimizer. Modules with power up to +5% power tolerance are acceptable.

<sup>\*2</sup> Power optimizer is bypassed in the string connected to an operating inverter when it fails to work.

<sup>\*3</sup> Power optimizer output 0Vdc when disconnecting to the inverter or inverter is shutdown.

<sup>\*4</sup> Fits PV module in landscape and portrait installation.

<sup>\*5</sup> Full power capability refers to online smart design tool.