

MSD144M/540W

Mono Half-cut single/Double Glass Module

INTRODUCTION

MONO half-cut single glass module, assembled with multi-busbar PERC technique and half-cut structure offer the advantages of higher power output, reduce shading effect on the energy generation, enhance the mechanical load bearing capacity as well.

LCOE save 6-8%

↓5% Saving logistics cost

↓7% Saving cable cost

↓8% Saving bracket cost

↓9% Saving labor cost

First-class Quality Assurance

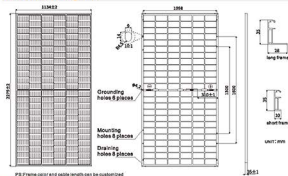
- 10-year warranty for material and technology
- 25-year linear power output warranty



Comprehensive Certificates

- IEC61215, IEC61730
- ISO9001:2015 Quality management systems
- ISO45001: Environmental management systems
- ISO45001:2018 Occupational health and safety management systems



Mechanical Diagrams

Specifications

Cell	Mono
Weight	27.3kg±3%
Dimensions	2279±2mmX1134±2mmX35±1mm
Cable Cross Section Size	4mm ² (IEC), 12AWG (UL)
Solar Cells	144(6X24)
Junction Box	IP68/FT50XY, 3'bypass diode
Connector	RHC2
Cable Length (Including Connector)	300mm
Front Glass	2.0mm
Packaging	31pcs/Pallet, 620 pcs/40HQ

Electrical Parameters at STC

Type	MSD144M/540
Rated Maximum Power (P _{max})[W]	540
Open Circuit Voltage (V _{oc})[V]	49.55
Maximum Power Voltage (V _{mp})[V]	41.62
Short Circuit Current (I _{sc})[A]	13.89
Maximum Power Current (I _{mp})[A]	12.89
Module Efficiency[%]	20.8
Power Tolerance	0~+5W
Temperature Coefficient of I _{sc} (α_{Isc})	+0.046%/°C
Temperature Coefficient of V _{oc} (β_{Voc})	-0.276%/°C
Temperature Coefficient of P _{max} (γ_{Pmp})	-0.350%/°C

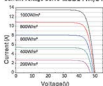
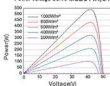
STC Irradiance 1000W/m², Cell temperature 25°C, AM1.5

Remark: Electrical data in this catalogue does not refer to a single module, and it's not part of the offer, it only serves for the comparison among different module types.

Electrical Parameters at NOCT (Suppose 10% Ratio of Solar Irradiance)

Type	MSD144M/540	Operating Conditions	
Rated Maximum Power (P _{max})[W]	578	Maximum System Voltage	1000V DC
Open Circuit Voltage (V _{oc})[V]	49.93	Operating Temperature	-40°C~+85°C
Maximum Power Voltage (V _{mp})[V]	42.24	Maximum Series Fuse	25A
Short Circuit Current (I _{sc})[A]	14.50	Maximum Static Load, Front	5400Pa (1.12 lb/ft ²)
Maximum Power Current (I _{mp})[A]	13.89	Maximum Static Load, Back	2400Pa (0.50 lb/ft ²)
		NOCT	45±2°C
		Backside Ratio	70%±10%
		Fireproof Performance	UL Type 29

rate of the back of solar panel = peak power of STC nominal power

Characteristics
Current Voltage Curve MSD144M/540

Power Voltage Curve MSD144M/540

Current Voltage Curve MSD144M/540
