

Harvest the Sunshine

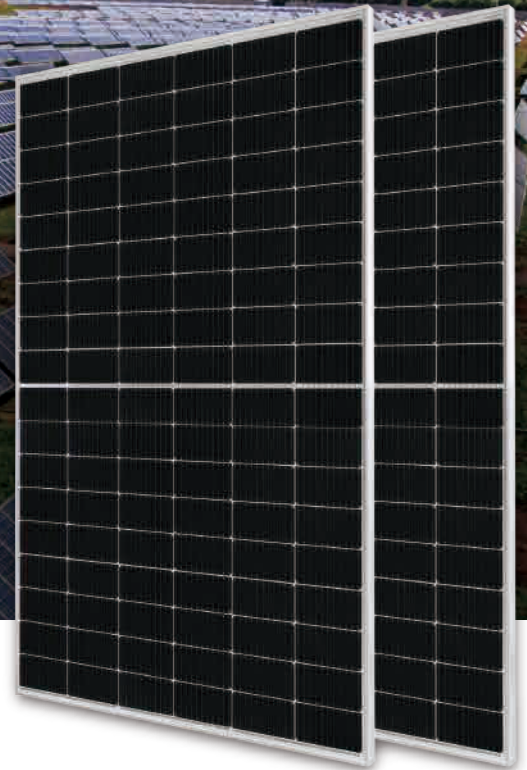
DEEP BLUE 3.0 Light

Mono

460W MBB Half-cell Module
SM541460 Series

Introduction

Assembled with 11BB PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.



Higher output power



Lower LCOE



Less shading and lower resistive loss

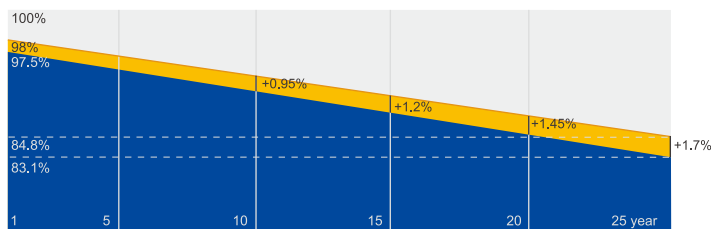


Better mechanical loading tolerance

Superior Warranty

- 12-year product warranty
- 25-year linear power output warranty

0.55% Annual Degradation Over 25 years



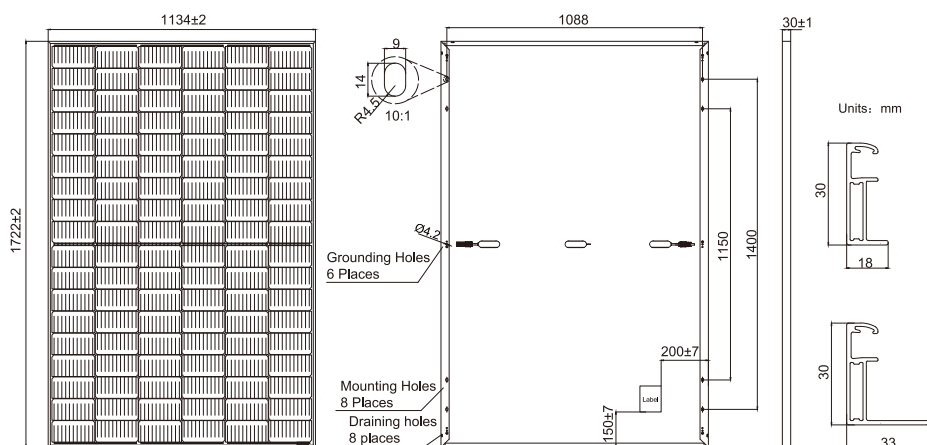
■ New linear power warranty ■ Standard module linear power warranty

Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval



MECHANICAL DIAGRAMS



SPECIFICATIONS

Cell	Mono
Weight	21.5kg±3%
Dimensions	1722±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm ² (IEC) , 12 AWG(UL)
No. of cells	108(6x18)
Junction Box	IP68, 3 diodes
Connector	QC 4.10(1000V) QC 4.10-35(1500V)
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1200mm(+)/1200mm(-)
Packaging Configuration	36pcs/Pallet, 936pcs/40ft Container

Remark: customized frame color and cable length available upon request

ELECTRICAL PARAMETERS AT STC

	SM541460	SM541460	SM541460	SM541460	SM541460	SM541460
TYPE	-390/MR	-395/MR	-400/MR	-405/MR	-410/MR	-460/MR
Rated Maximum Power(Pmax) [W]	390	395	400	405	410	460
Open Circuit Voltage(Voc) [V]	36.85	36.98	37.07	37.23	37.32	37.45
Maximum Power Voltage(Vmp) [V]	30.64	30.84	31.01	31.21	31.45	31.61
Short Circuit Current(Isc) [A]	13.61	13.70	13.79	13.87	13.95	14.02
Maximum Power Current(Imp) [A]	12.73	12.81	12.90	12.98	13.04	13.13
Module Efficiency [%]	20.0	20.2	20.5	20.7	21.0	21.3
Power Tolerance						0~+5W
Temperature Coefficient of Isc(α_{Isc})						+0.045%/°C
Temperature Coefficient of Voc(β_{Voc})						-0.275%/°C
Temperature Coefficient of Pmax(γ_{Pmp})						-0.350%/°C
STC	Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

ELECTRICAL PARAMETERS AT NOCT

TYPE	SM541460 -390/MR	SM541460 -395/MR	SM541460 -400/MR	SM541460 -405/MR	SM541460 -410/MR	SM541460 -460/MR	OPERATING CONDITIONS	
Rated Max Power(Pmax) [W]	294	298	302	306	310	314	Maximum System Voltage	1000V/1500V DC
Open Circuit Voltage(Voc) [V]	34.62	34.75	34.88	35.12	35.23	35.37	Operating Temperature	-40 C ~+85 C
Max Power Voltage(Vmp) [V]	28.87	29.08	29.26	29.47	29.72	29.89	Maximum Series Fuse Rating	25A
Short Circuit Current(Isc) [A]	10.89	10.96	11.03	11.10	11.16	11.22	Maximum Static Load, Front* Maximum Static Load, Back*	5400Pa(112lb/ft ²) 2400Pa(50lb/ft ²)
Max Power Current(Imp) [A]	10.18	10.25	10.32	10.38	10.43	10.50	NOCT	45±2 °C
NOCT	Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM1.5G						Safety Class	Class II
							Fire Performance	UL Type 1

CHARACTERISTICS

