

# M10 **Multi-Busbar** MonoPERC 144 Half-Cut Cell **BIFACIAL**

SDG535-555-M10HC144WM 535 ~ 555 W



Market proven P Type Mono Crystal Solar Cell Technology



High efficiency with Multi-Busbar and Half-Cut Cell technology



Less power loss with minimal shadow effect



Resistance to harsh environmental and climatic conditions



Quality assurance with multiple quality control points



High efficiency at low radiation



Safe and stable power generation



year will not exceed 0.5%.



20



Less reflection effect with anti-reflective coating



Maximizing Efficiency with Bifaciality Effect







100%

97.5%

80%

Years

Power Performance 90%



LINEAR PERFORMANCE GUARANTEE

15

The average annual power loss from the 2nd year to the 30th



#### **OUR CERTIFICATES**





25



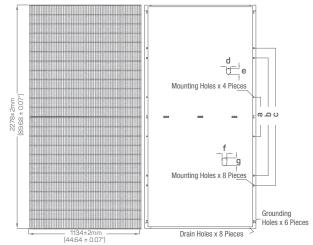






#### **MECHANICAL SPECIFICATIONS**

Cell Size	182x91mm (7.17x3.58in)		
Cell Type	Mono-Crystallatine P Type		
Cell Orientation	144 Pcs (6x12x2)		
	Single Glass, 3.2mm (0.13in) Anti-Reflection Coated		
Glass	& Tempered High Transmittance Glass		
Junction Box	IP68, 3 diodes		
Connectors	MC4 Compatible		
Cable	4mm²		
Cable Length	400-1300mm (15.75-51.18in)		
Frame	Silver-Anodized Aluminium Alloy		
Weight	28.3Kg (62.39lbs)		
Dimensions	1134±2x2278±2x35±0.5mm (44.65x89.69x1.18in)		
Backsheet	White Mesh Transparent		



a=400mm(15.74") b=1200mm(47.24") c=1400mm(55.12") d=7mm(0.27") e=10mm(0.39") f=9mm(0.35") g=14mm(0.55")

#### **ELECTRICAL CHARACTERISTIC**

Module Type  Maximum Power (Pmax/W)  Open Circuit Voltage (Voc/V)  Short Circuit Current (Isc/A)  Voltage at Maximum Power (Vmp/V)  Current at Maximum Power (Imp/A)  Module Efficiency (%)  Temperature Coefficient of Isc (α_Isc)  Temperature Coefficient of Voc (β_Voc)  Temperature Coefficient of Pmax (y_Pmp)  Power Tolerance  Testing Condition	
Open Circuit Voltage (Voc/V) Short Circuit Current (Isc/A)  Voltage at Maximum Power (Vmp/V) Current at Maximum Power (Imp/A) Module Efficiency (%) Temperature Coefficient of Isc (α_Isc) Temperature Coefficient of Voc (β_Voc) Temperature Coefficient of Pmax (y_Pmp) Power Tolerance	Module Type
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Current at Maximum Power (Imp/A)  Module Efficiency (%)  Temperature Coefficient of Isc (a_Isc)  Temperature Coefficient of Voc (B_Voc)  Temperature Coefficient of Pmax (y_Pmp)  Power Tolerance	Short Circuit Current (Isc/A)
Module Efficiency (%)  Temperature Coefficient of Isc (α_Isc)  Temperature Coefficient of Voc (β_Voc)  Temperature Coefficient of Pmax (y_Pmp)  Power Tolerance	Voltage at Maximum Power (Vmp/V)
Temperature Coefficient of Isc (α_Isc)  Temperature Coefficient of Voc (β_Voc)  Temperature Coefficient of Pmax (y_Pmp)  Power Tolerance	Current at Maximum Power (Imp/A)
Temperature Coefficient of Voc (β_Voc)  Temperature Coefficient of Pmax (y_Pmp)  Power Tolerance	Module Efficiency (%)
Temperature Coefficient of Pmax (y_Pmp)  Power Tolerance	Temperature Coefficient of Isc ( $\alpha$ _Isc)
Power Tolerance	Temperature Coefficient of Voc (β_Voc)
	Temperature Coefficient of Pmax (y_Pmp)
Testing Condition	Power Tolerance
	Testing Condition

SDG535-M10HC144WM	SDG540-M10HC144WM	SDG545-M10HC144WM	SDG550-M10HC144WM	SDG555-M10HC144WM
535	540	545	550	555
49.97	50.23	50.49	50.74	51.00
13.18	13.65	14.12	14.59	15.08
41.73	42.07	42.42	42.76	43.10
12.82	12.84	12.85	12.87	12.88
20.7	20.9	21.1	21.3	21.5
		+0.0332%/°C		
-0.2270%/°C				
-0.3017%/°C				
0~+5W				
STC				

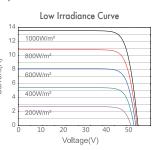
STC : Irradiance 1000 W/m² , Cell Temperature 25°C , AM 1.5 G - Measurement uncertainty  $\pm\,3\%$ 

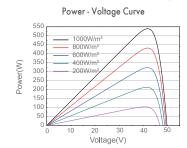
#### **OPERATING CONDITIONS**

Operating Temperature	-40°C ~+85°C (-40°F~185°F)	
Front Maximum Static Load	5400 Pa (113lbs/ft2)	
Back Maximum Static Load	2400 Pa (50.1lbs/ft2)	
Maximum System Voltage	DC 1500 V (IEC/UL)	
Maximum Series Fuse Rating	25 A	
Nominal Operating Cell Temp.	45 ± 2°C (113±35.6°F)	
Protection Class	Class II	
Fire Rating	Class C (IEC) Type 29 (UL)	
Bifaciality*	%70±%10	



## I-V and P-V CURVES





### **BIFACIAL GAIN**

#### GAIN% 561.75 582.75 +%5 567 572 25 577.5 +%15 615.25 621 626.75 632.5 638.25 +%25 675 681.25 687.5 693.75 668.75

The additional gain obtained from the rear side may vary due to reasons such as location during installation, building height, and inclination angle.

#### **PACKAGING INFORMATION**

Module quantity of a pallet	30 Pcs/Pallet	
Pallet Package Dimension (LxWxH)	2335x1155x1280mm	
rallel rackage Differision (LXWXH)	(91.93×45.47×50.39in)	
Pallet Quantity of a 40ft HQ Container	20 Pcs/18 Pcs (USA)	
Module quantity of a 40ft HQ Container	600 Pcs/540 Pcs (USA)	

<sup>\*</sup>The technical data contained in this document is for informational purposes only and cannot be used as part of contracts. Net values will be specified in the contracts. SDG Solar Energy Technologies Inc. reserves the right to make changes without notice.



