

Solar PV module SI-60MP

Electrical data (STC)			SI-60MP280	SI-60MP285	SI-60MP290	SI-60MP295
Rated Power	P_{MPP}	[W]	280	285	290	295
Rated voltage	V_{MPP}	[V]	31.2	31.3	31.3	31.3
Rated current	I_{MPP}	[A]	8.97	9.10	9.25	9.42
Open-circuit voltage	V_{OC}	[V]	39.2	39.2	39.3	39.3
Short circuit current	I_{SC}	[A]	9.67	9.73	9.80	9.87
Efficiency	η	[%]	17.0	17.3	17.6	18.0

Electrical values measures under standard test conditions (STC): 1000 W/m² ; 25°C; AM 1.5

Electrical data (NOCT)			SI-60MP280	SI-60MP285	SI-60MP290	SI-60MP295
Power	P_{MPP}	[W]	205	208	212	215
Voltage	V_{MPP}	[V]	28.4	28.4	28.4	28.4
Current	I_{MPP}	[A]	7.21	7.33	7.45	7.59
Open-circuit voltage	V_{OC}	[V]	36.1	36.1	36.2	36.2
Short-circuit current	I_{SC}	[A]	7.82	7.87	7.93	7.99
Efficiency	η	[%]	15.6	15.8	16.1	16.4

Electrical values measures under operating conditions of cells: 800 W/m²; 20°C; AM 1.5; wind 1 m/s
NOCT: 48°C (nominal operating cell temperature)

Additional electrical data		
Reduction of STC efficiency from 1000 W/m ² to 200 W/m ²	[%] rel.	0
Classification range (positive classification)	[W]	0/+4.99

Loads		
Max. module pressure load	[Pa]	5400
Max. module suction load	[Pa]	5400
Max. system voltage	[V _{DC}]	1000
Reverse current load I_R	[A]	20

Mechanical load acc. to IEC/EN 61215

Temperature coefficients			
Temperature coefficient I_{SC}	$\alpha(I_{SC})$	[%/k]	+0.05
Temperature coefficient V_{OC}	$\beta(V_{OC})$	[%/k]	-0.30
Temperature coefficient P_{MPP}	$\gamma(P_{MPP})$	[%/k]	-0.43

Basic modules data		
Length x width x height	[mm]	1660 x 990 x 50
Weight	[kg]	20
Number of cells		60
Cell size	[mm]	156 x 156
Cell material		Polycrystalline Si
Front sheet		Solar glass (TSG)
Back sheet		Polymer sheet
Frame material		Al alloy

Basic data junction box		
Length x width x height	[mm]	148 x 123 x 28
IP class		IP65
Cable length	[mm]	1200 (+), 800 (-)
Connectors		PV-JM601
Bypass diodes		3

Measurement tolerance of P_{MPP} under STC $\pm 3\%$. Accuracy of other electrical values $\pm 10\%$.

