

Solar PV module SI-60MN

Electrical data (STC)			SI-60MN275	SI-60MN280	SI-60MN285
Rated Power	P_{MPP}	[W]	275	280	285
Rated voltage	V_{MPP}	[V]	31.1	31.2	31.3
Rated current	I_{MPP}	[A]	8.83	8.97	9.10
Open-circuit voltage	V_{OC}	[V]	39.1	39.2	39.2
Short circuit current	I_{SC}	[A]	9.62	9.67	9.73
Efficiency	η	[%]	16.7	17.0	17.3

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

Electrical data (NOCT)			SI-60MN275	SI-60MN280	SI-60MN285
Power	P_{MPP}	[W]	200	20	207
Voltage	V_{MPP}	[V]	28.2	28.2	28.3
Current	I_{MPP}	[A]	7.10	7.21	7.33
Open-circuit voltage	V_{OC}	[V]	35.9	35.9	36.0
Short-circuit current	I_{SC}	[A]	7.78	7.83	7.88
Efficiency	η	[%]	15.2	15.5	15.8

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.	<2
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 black
Frame material		Al alloy black

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 ±3%. Accuracy of other electrical values ±10%.

