

Solar PV module SI-48P

Electrical data (STC)			SI-48P195	SI-48P200	SI-48P205	SI-48P210
Rated Power	P_{MPP}	[W]	195	200	205	210
Rated voltage	V_{MPP}	[V]	24.2	24.3	24.4	24.5
Rated current	I_{MPP}	[A]	8.07	8.24	8.41	8.58
Open-circuit voltage	V_{OC}	[V]	30.0	30.0	30.1	30.1
Short circuit current	I_{SC}	[A]	8.6	8.76	8.92	9.08
Efficiency	η	[%]	14.6	15.0	15.4	15.8

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

Electrical data (NOCT)			SI-48P195	SI-48P200	SI-48P205	SI-48P210
Power	P_{MPP}	[W]	143	146	150	154
Voltage	V_{MPP}	[V]	21.8	21.9	22.0	22.1
Current	I_{MPP}	[A]	6.53	6.67	6.81	6.95
Open-circuit voltage	V_{OC}	[V]	27.6	27.6	27.7	27.7
Short-circuit current	I_{SC}	[A]	6.99	7.12	7.25	7.38
Efficiency	η	[%]	13.4	13.7	14.1	14.4

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.	<4
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]	15

Mechanical load acc. to IEC/EN 61215

Temperature coefficients			
Temperature coefficient I_{SC}	$\alpha(I_{SC})$	[%/k]	+0.04
Temperature coefficient V_{OC}	$\beta(V_{OC})$	[%/k]	-0.31
Temperature coefficient P_{MPP}	$\gamma(P_{MPP})$	[%/k]	-0.43

Basic modules data		
Length x width x height	[mm]	1345 x 990 x 50
Weight	[kg]	16
Number of cells		48
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 ±3%. Accuracy of other electrical values ±10%.

