



**PV module - SS8-72HD-550M-IND**

Manufacturer	UNIMACTS	<b>Commercial data</b>	
Model	SS8-72HD-550M-IND	Data source :	DEKRA Testing and Certification
Phom STC power (manufacturer)	550 Wp	Technology	Si-mono
Module size (W x L)	1.134 x 2.278 m <sup>2</sup>	Rough module area (A <sub>module</sub> )	2.58 m <sup>2</sup>
Number of cells	2 x 72	Sensitive area (cells) (A <sub>cells</sub> )	2.38 m <sup>2</sup>

**Specifications for the model (manufacturer or measurement data)**

Reference temperature (T <sub>Ref</sub> )	25 °C	Reference irradiance (G <sub>Ref</sub> )	1000 W/m <sup>2</sup>
Open circuit voltage (V <sub>oc</sub> )	49.9 V	Short-circuit current (I <sub>sc</sub> )	14.02 A
Max. power point voltage (V <sub>mpp</sub> )	42.0 V	Max. power point current (I <sub>mpp</sub> )	13.10 A
=> maximum power (P <sub>mpp</sub> )	549.8 W	I <sub>sc</sub> temperature coefficient (μI <sub>sc</sub> )	6.2 mA/°C

**One-diode model parameters**

Shunt resistance (R <sub>shunt</sub> )	1500 Ω	Diode saturation current (I <sub>oRef</sub> )	0.016 nA
Serie resistance (R <sub>serie</sub> )	0.23 Ω	V <sub>oc</sub> temp. coefficient (μV <sub>oc</sub> )	-136 mV/°C
Specified P <sub>max</sub> temper. coeff. (μP <sub>MaxR</sub> )	-0.33 %/°C	Diode quality factor (Gamma)	0.98
		Diode factor temper. coeff. (μGamma)	0.000 1/°C

**Reverse Bias Parameters, for use in behaviour of PV arrays under partial shadings or mismatch**

Reverse characteristics (dark) (B <sub>Rev</sub> )	3.20 mA/V <sup>2</sup>	(quadratic factor (per cell))	
Number of by-pass diodes per module	3	Direct voltage of by-pass diodes	-0.7 V

**Model results for standard conditions (STC: T=25 °C, G=1000 W/m<sup>2</sup>, AM=1.5)**

Max. power point voltage (V <sub>mpp</sub> )	41.2 V	Max. power point current (I <sub>mpp</sub> )	13.41 A
Maximum power (P <sub>mpp</sub> )	551.6 Wp	Power temper. coefficient (μP <sub>mpp</sub> )	-0.33 %/°C
Efficiency(/ Module area) (Eff <sub>mod</sub> )	21.4 %	Fill factor (FF)	0.788
Efficiency(/ Cells area) (Eff <sub>cells</sub> )	23.1 %		

