



PV module - LR5-72HPH-545M

Manufacturer	Longi Solar	Commercial data	
Model	LR5-72HPH-545M	Data source :	Longi 202101
Pnom STC power (manufacturer)	545 W _p	Technology	Si-mono
Module size (W x L)	1.133 x 2.256 m ²	Rough module area (A _{module})	2.56 m ²
Number of cells	2 x 72		

Specifications for the model (manufacturer or measurement data)

Reference temperature (T _{Ref})	25 °C	Reference irradiance (G _{Ref})	1000 W/m ²
Open circuit voltage (V _{oc})	49.7 V	Short-circuit current (I _{sc})	13.92 A
Max. power point voltage (V _{mpp})	41.8 V	Max. power point current (I _{mpp})	13.04 A
=> maximum power (P _{mpp})	545.1 W	Isc temperature coefficient (μI _{sc})	6.6 mA/°C

One-diode model parameters

Shunt resistance (R _{shunt})	290 Ω	Diode saturation current (I _{oRef})	0.014 nA
Serie resistance (R _{serie})	0.20 Ω	Voc temp. coefficient (μV _{oc})	-146 mV/°C
Specified Pmax temper. coeff. (μP _{maxR})	-0.35 %/°C	Diode quality factor (Gamma)	0.97
		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 _{Rev})	3.20 mA/V ²	(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/m², AM=1.5)

Max. power point voltage (V _{mpp})	41.3 V	Max. power point current (I _{mpp})	13.25 A
Maximum power (P _{mpp})	545.6 W _p	Power temper. coefficient (μP _{mpp})	-0.35 %/°C
Efficiency(/ Module area) (Eff _{mod})	21.3 %	Fill factor (FF)	0.789

