



PV module - LR7-72HVHF-650M

Manufacturer	Longi Solar	Commercial data	
Model	LR7-72HVHF-650M	Availability :	Prod. Since 2025
		Data source :	TUV SUD
Pnom STC power (manufacturer)	650 W _p	Technology	Si-mono
Module size (W x L)	1.134 x 2.382 m ²	Rough module area (A _{module})	2.70 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})	54.0 V	Short-circuit current (I _{sc})	15.29 A
Max. power point voltage (V _{mpp})	44.6 V	Max. power point current (I _{mpp})	14.59 A
=> maximum power (P _{mpp})	650.1 W	Isc temperature coefficient (μI _{sc})	7.6 mA/°C
One-diode model parameters			
Shunt resistance (R _{shunt})	10500 Ω	Diode saturation current (I _{oRef})	0.021 nA
Serie resistance (R _{serie})	0.23 Ω	Voc temp. coefficient (μV _{oc})	-115 mV/°C
Specified P _{max} temper. coeff. (μP _{MaxR})	-0.26 %/°C	Diode quality factor (Gamma)	1.07
		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})	44.5 V	Max. power point current (I _{mpp})	14.66 A
Maximum power (P _{mpp})	650.1 W _p	Power temper. coefficient (μP _{mpp})	-0.26 %/°C
Efficiency(/ Module area) (Eff _{mod})	24.1 %	Fill factor (FF)	0.787

