PV module - LR5-72HBD-545M

Manufacturer	LONGi	**Commercial data**	
Model	LR5-72HBD-545M	Data source :	RETCCT-LRI294-240920
Pnom STC power (manufacturer)	545 Wp	Technology	Si-mono
Module size (W x L)	1.134 x 2.278 m²	Rough module area (Amodule)	2.58 m²
Number of cells	2 x 72	Sensitive area (cells) (Acells)	2.41 m²

Specifications for the model (manufacturer or measurement data)

Reference temperature (TRef)	25 °C	Reference irradiance (GRef)	1000 W/m²
Open circuit voltage (Voc)	49.7 V	Short-circuit current (Isc)	13.92 A
Max. power point voltage (Vmpp)	41.8 V	Max. power point current (Impp)	13.04 A
=> maximum power (Pmpp)	545.1 W	Isc temperature coefficient (muIsc)	4.3 mA/°C

One-diode model parameters

Shunt resistance (Rshunt)	550 Ω	Diode saturation current (IoRef)	0.017 nA
Serie resistance (Rserie)	0.21 Ω	Voc temp. coefficient (MuVoc)	-134 mV/°C
Specified Pmax temper. coeff. (muPMaxR)	-0.34 %/°C	Diode quality factor (Gamma)	0.98
		Diode factor temper. coeff. (muGamma)	0.000 1/°C

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

Reverse characteristics (dark) (BRev)	3.20 mA/V²	(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 (Vmpp)	41.2 V	Max. power point current (Impp)	13.25 A
Maximum power (Pmpp)	546.0 Wp	Power temper. coefficient (muPmpp)	-0.34 %/°C
Efficiency(/ Module area) (Eff_mod)	21.1 %	Fill factor (FF)	0.790
Efficiency(/ Cells area) (Eff_cells)	22.6 %