



## PV module - LR5-72HBD-540M

Manufacturer	LONGi	Commercial data	
Model	LR5-72HBD-540M	Data source :	RETCT-LRI294e-240920
Pnom STC power (manufacturer)	540 Wp	Technology	Si-mono
Module size (W x L)	1.134 x 2.278 m <sup>2</sup>	Rough module area (Amodule)	2.58 m <sup>2</sup>
Number of cells	2 x 72	Sensitive area (cells) (Acells)	2.41 m <sup>2</sup>
<b>Specifications for the model (manufacturer or measurement data)</b>			
Reference temperature (TRef)	25 °C	Reference irradiance (GRef)	1000 W/m <sup>2</sup>
Open circuit voltage (Voc)	49.5 V	Short-circuit current (Isc)	13.85 A
Max. power point voltage (Vmpp)	41.7 V	Max. power point current (Impp)	12.97 A
=> maximum power (Pmpp)	540.2 W	Isc temperature coefficient (mulsc)	4.3 mA/°C
<b>One-diode model parameters</b>			
Shunt resistance (Rshunt)	450 Ω	Diode saturation current (IoRef)	0.015 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)	0.97
		Diode factor temper. coeff. (muGamma)	0.000 1/°C
<b>Reverse Bias Parameters, for use in behaviour of PV arrays under partial shadings or mismatch</b>			
Reverse characteristics (dark) (BRev)	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
<b>Model results for standard conditions (STC: T=25 °C, G=1000 W/m<sup>2</sup>, AM=1.5)</b>			
Max. power point voltage (Vmpp)	41.1 V	Max. power point current (Impp)	13.18 A
Maximum power (Pmpp)	541.1 Wp	Power temper. coefficient (muPmpp)	-0.34 %/°C
Efficiency(/ Module area) (Eff_mod)	20.9 %	Fill factor (FF)	0.789
Efficiency(/ Cells area) (Eff_cells)	22.4 %		

