Characteristics of a PV module

Manufacturer, model : **Longi Solar, LR6-72OPH-400M-157.25**

Data source : Longi 201909

STC power (manufacturer)	**Pnom**	**400**	**Wp**	**Technology**		**Si-mono**	
Module size (W x L)		0.994 x 2.006	m²	Rough module area	Amodule	1.99	m²
Number of cells		6 x 64		Sensitive area (cells)	Acells	N/A	m²

Specifications for the model (manufacturer or measurement data)

Reference temperature	TRef	25	° C	Reference irradiance	GRef	1000	W/m²
Open circuit voltage	Voc	44.0	V	Short-circuit current	Isc	11.80	A
Max. power point voltage	Vmpp	36.2	V	Max. power point current	Impp	11.05	A
=> maximum power	Pmpp	400.0	W	Isc temperature coefficient	muIsc	6.6	mA/° C

One-diode model parameters

Shunt resistance	Rshunt	2100	ohm	Diode saturation current	IoRef	0.223	nA
Serie resistance	Rserie	0.26	ohm	Voc temp. coefficient	MuVoc	-134	mV/° C
				Diode quality factor	Gamma	1.08	
Specified Pmax temper. coeff.	muPMaxR	-0.37	%/° C	Diode factor temper. coeff.	muGamma	-0.001	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		2		Direct voltage of by-pass diodes		-0.5	V

Model results for standard conditions (STC: T=25° C, G=1000 W/m² , AM=1.5)

Max. power point voltage	Vmpp	35.8	V	Max. power point current	Impp	11.19	A
Maximum power	Pmpp	400.5	Wc	Power temper. coefficient	muPmpp	-0.36	%/° C
Efficiency(/ Module area)	Eff_mod	20.1	%	Fill factor	FF	0.771	
Efficiency(/ Cells area)	Eff_cells	N/A	%				

PV module: Longi Solar, LR6-72OPH-400M-157.25