

RETC Project Report: C-CS-2306-LRI-294



PVsyst V7.4.8

	— PV module - I	LR5-72HBD-560M —————	
Manufacturer Model	LONGi LR5-72HBD-560M	Commercial data Data source : RETCCT-LRI29	4e-240920
Pnom STC power (manufacturer)	560 Wp	Technology	Si-mono
	34 x 2.278 m ²	Rough module area (Amodule)	2.58 m ²
Number of cells	2 x 72	Sensitive area (cells) (Acells)	2.41 m ²
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Specifications for the model (man			
Reference temperature (TRef)	25 °C	Reference irradiance (GRef)	1000 W/m ²
Open circuit voltage (Voc)	50.1 V	Short-circuit current (Isc)	14.10 A
Max. power point voltage (Vmpp)	42.3 V	Max. power point current (Impp)	13.26 A
=> maximum power (Pmpp)	560.2 W	lsc temperature coefficient (mulsc)	4.4 mA/°C
One-diode model parameters			
Shunt resistance (Rshunt)	850 Ω	Diode saturation current (loRef)	0.015 nA
Serie resistance (Rserie)	0.20 Ω	Voc temp. coefficient (MuVoc)	-136 mV/°C
Specified Pmax temper. coeff. (muPMaxF		Diode quality factor (Gamma)	0.98
	,	Diode factor temper. coeff. (muGamma)	0.000 1/°C
Povorco Rias Parametero for use	in hohaviour of BV array	, , ,	
Reverse Blas Parameters, for use Reverse characteristics (dark) (BRev)	In benaviour of PV array 3.20 mA/V ²	ys under partial shadings or mismatch (quadratic factor (per cell))	
Number of by-pass diodes per module	3.20 ma/v ²	(quadratic factor (per cell)) Direct voltage of by-pass diodes	-0.7 V
number of by-pass diodes per module	S	Direct voltage of by-pass diodes	-0.7 V
Model results for standard condition			
Max. power point voltage (Vmpp)	41.7 V	Max. power point current (Impp)	13.46 A
laximum power (Pmpp)	561.1 Wp	Power temper. coefficient (muPmpp)	-0.34 %/°C
fficiency(/ Module area) (Eff_mod)	21.7 %	Fill factor (FF)	0.794
Efficiency(/ Cells area) (Eff_cells)	23.3 %		
16	' DVladada I ON	O: 1 DE 7011D'D 500M	
Cells temp. = 25 °C	PV module: LON	Gi, LR5-72HBD-560M	
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14		561.1 W	_
		\	1
12 -	noidant Irrad = 900 \M//==2	\	4
	ncident Irrad. = 800 W/m²	449.8 W	
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10 —		\ \	4
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<u> </u>	ncident Irrad. = 600 W/m²	337.0 W	1
Current [A]			_
Curr		\ \ \	
- 		\ \ \ \	1
6	ncident Irrad. = 400 W/m²	223.2 W	
		223.2 VV	
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ļ. '	ncident Irrad. = 200 W/m²	109.2 W	-

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Voltagge [V]

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