

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



PVsyst V7.4.8

	Pv module - i	_R5-72HBD-545M	
lanufacturer	LONGi	Commercial data	
lodel	LR5-72HBD-545M	Data source : RETCCT-LRI29	94-240920
nom STC power (manufacturer)	545 Wp	Technology	Si-mono
lodule size (W x L)	1.134 x 2.278 m²	Rough module area (Amodule)	2.58 m ²
umber of cells	2 x 72	Sensitive area (cells) (Acells)	2.41 m ²
pecifications for the model (manufacturer or measureme	ent data)	
deference temperature (TRef)	25 °C	Reference irradiance (GRef)	1000 W/m ²
pen circuit voltage (Voc)	49.7 V	Short-circuit current (Isc)	13.92 A
lax. power point voltage (Vmpp)	41.8 V	Max. power point current (Impp)	13.04 A
> maximum power (Pmpp)	545.1 W	Isc temperature coefficient (mulsc)	4.3 mA/°C
One-diode model parameters			
hunt resistance (Rshunt)	550 Ω	Diode saturation current (loRef)	0.017 nA
erie resistance (Rserie)	0.21 Ω	Voc temp. coefficient (MuVoc)	-134 mV/°C
pecified Pmax temper. coeff. (muP	PMaxR) -0.34 %/°C	Diode quality factor (Gamma)	0.98
	,	Diode factor temper. coeff. (muGamma)	0.000 1/°C
leverse Bias Parameters, for	use in behaviour of PV array	ys under partial shadings or mismatch	
everse characteristics (dark) (BRe	-	(quadratic factor (per cell))	
lumber of by-pass diodes per modu	ule 3	Direct voltage of by-pass diodes	-0.7 V
Model results for standard co	nditions (STC: T=25°C G=	:1000 W/m² AM=1 5)	
iodoi ioddito ioi otaliddia ooi	•		13.25 A
lax. power point voltage (Vmpp)	41.2 V	Max. power point current (Impp)	13.23 A
		Max. power point current (Impp) Power temper. coefficient (muPmpp)	
fax. power point voltage (Vmpp) faximum power (Pmpp) fficiency(/ Module area) (Eff mod)	546.0 Wp	Power temper. coefficient (muPmpp)	-0.34 %/°C
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flaximum power (Pmpp) fficiency(/ Module area) (Eff_mod) fficiency(/ Cells area) (Eff_cells)	546.0 Wp 21.1 %	Power temper. coefficient (muPmpp)	-0.34 %/°C
Maximum power (Pmpp) Ifficiency(/ Module area) (Eff_mod) Ifficiency(/ Cells area) (Eff_cells)	546.0 Wp 21.1 % 22.6 %	Power temper. coefficient (muPmpp)	-0.34 %/°C
flaximum power (Pmpp) fficiency(/ Module area) (Eff_mod) fficiency(/ Cells area) (Eff_cells)	546.0 Wp 21.1 % 22.6 % PV mbdule: LON	Power temper. coefficient (muPmpp) Fill factor (FF)	-0.34 %/°C
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Maximum power (Pmpp) Ifficiency(/ Module area) (Eff_mod) Ifficiency(/ Cells area) (Eff_cells) Cells temp. = 25 ° 14 12 10 10 10 10 10 10 10 10 10	546.0 Wp 21.1 % 22.6 % PV module: LON C Incident Irrad. = 1000 W/m² Incident Irrad. = 800 W/m²	Power temper. coefficient (muPmpp) Fill factor (FF) Gi, LR5-72HBD-545M 546.0 W	-0.34 %/°C
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0

10

20

Voltagge [V]

40

50