



Manufacturer	SUNPOWER	Number of modules	12	Test number	1
Model	SPR-E19-315-BLK	Number of strings	1	Date and time	2022-03-28 19:47
Module Type	Std - Single side PV module	Age of service [Year]	0.0		
Degradation [%]	0.0	Irradiance front [W/m ²]	850.0	Marker 1	Plant
Pmax Tolerance+ [%]	15.0	Irradiance back side Top Bottom [W/m ²]	---- ----	Marker 2	Combiner box
Pmax Tolerance- [%]	15.0	Temperature [°C]	5.7	Marker 3	Array
Alpha [%/°C]	0.042	Temperature measurement mode	No measurements		
Beta [%/°C]	-0.320	Temperature measurement mode	AUTO (IEC 60904-5)		
Rs [Ω]	----	Reference cell temperature [°C]	----		
FF@Nominal	0.79	FF@OPC	0.73	FF@STC	0.71
Voc@Nominal [V]	64.6	Voc@OPC [V]	817.2	Voc@STC [V]	64.4
Vmpp@Nominal [V]	54.7	Vmpp@OPC [V]	656.2	Vmpp@STC [V]	50.4
Imp@Nominal [A]	5.76	Imp@OPC [A]	5.46	Imp@STC [A]	6.48
Isc@Nominal [A]	6.14	Isc@OPC [A]	5.98	Isc@STC [A]	7.09
Pmax@Nominal [W]	315.0	Pmax@OPC [W]	3582.7	Pmax@STC [W]	326.5
Ok (3.6%)					
Manufacturer	SUNPOWER	Number of modules	12	Test number	2
Model	SPR-E19-315-BLK	Number of strings	1	Date and time	2022-03-28 19:51
Module Type	Std - Single side PV module	Age of service [Year]	0.0		
Degradation [%]	0.0	Irradiance front [W/m ²]	1000.0	Marker 1	Plant
Pmax Tolerance+ [%]	15.0	Irradiance back side Top Bottom [W/m ²]	---- ----	Marker 2	Combiner box
Pmax Tolerance- [%]	15.0	Temperature [°C]	8.1	Marker 3	Array
Alpha [%/°C]	0.042	Temperature measurement mode	No measurements		
Beta [%/°C]	-0.320	Temperature measurement mode	AUTO (IEC 60904-5)		
Rs [Ω]	----	Reference cell temperature [°C]	----		
FF@Nominal	0.79	FF@OPC	0.73	FF@STC	0.72
Voc@Nominal [V]	64.6	Voc@OPC [V]	817.2	Voc@STC [V]	64.4
Vmpp@Nominal [V]	54.7	Vmpp@OPC [V]	656.2	Vmpp@STC [V]	51.0
Imp@Nominal [A]	5.76	Imp@OPC [A]	5.46	Imp@STC [A]	5.50
Isc@Nominal [A]	6.14	Isc@OPC [A]	5.98	Isc@STC [A]	6.02
Pmax@Nominal [W]	315.0	Pmax@OPC [W]	3582.7	Pmax@STC [W]	280.7
Ok* (-10.9%)					
Manufacturer	SUNPOWER	Number of modules	12	Test number	3
Model	SPR-E19-315-BLK	Number of strings	1	Date and time	2022-03-28 19:53
Module Type	Std - Single side PV module	Age of service [Year]	0.0		
Degradation [%]	0.0	Irradiance front [W/m ²]	1100.0	Marker 1	Plant
Pmax Tolerance+ [%]	15.0	Irradiance back side Top Bottom [W/m ²]	---- ----	Marker 2	Combiner box
Pmax Tolerance- [%]	15.0	Temperature [°C]	9.5	Marker 3	Array
Alpha [%/°C]	0.042	Temperature measurement mode	No measurements		
Beta [%/°C]	-0.320	Temperature measurement mode	AUTO (IEC 60904-5)		
Rs [Ω]	----	Reference cell temperature [°C]	----		
FF@Nominal	0.79	FF@OPC	0.73	FF@STC	0.73
Voc@Nominal [V]	64.6	Voc@OPC [V]	817.2	Voc@STC [V]	64.4
Vmpp@Nominal [V]	54.7	Vmpp@OPC [V]	656.2	Vmpp@STC [V]	51.4
Imp@Nominal [A]	5.76	Imp@OPC [A]	5.46	Imp@STC [A]	5.00
Isc@Nominal [A]	6.14	Isc@OPC [A]	5.98	Isc@STC [A]	5.47
Pmax@Nominal [W]	315.0	Pmax@OPC [W]	3582.7	Pmax@STC [W]	256.7
Not Ok* (-18.5%)					
Manufacturer	SUNPOWER	Number of modules	12	Test number	4
Model	SPR-E19-315-BLK	Number of strings	1	Date and time	2022-03-28 19:54
Module Type	Std - Single side PV module	Age of service [Year]	0.0		
Degradation [%]	0.0	Irradiance front [W/m ²]	1150.0	Marker 1	Plant
Pmax Tolerance+ [%]	15.0	Irradiance back side Top Bottom [W/m ²]	---- ----	Marker 2	Combiner box
Pmax Tolerance- [%]	15.0	Temperature [°C]	10.2	Marker 3	Array
Alpha [%/°C]	0.042	Temperature measurement mode	No measurements		
Beta [%/°C]	-0.320	Temperature measurement mode	AUTO (IEC 60904-5)		
Rs [Ω]	----	Reference cell temperature [°C]	----		

FF@Nominal	0.79	FF@OPC	0.73	FF@STC	0.73	
Voc@Nominal [V]	64.6	Voc@OPC [V]	817.2	Voc@STC [V]	64.4	
Vmpp@Nominal [V]	54.7	Vmpp@OPC [V]	656.2	Vmpp@STC [V]	51.5	
Imp@Nominal [A]	5.76	Imp@OPC [A]	5.46	Imp@STC [A]	4.78	
Isc@Nominal [A]	6.14	Isc@OPC [A]	5.98	Isc@STC [A]	5.23	
Pmax@Nominal [W]	315.0	Pmax@OPC [W]	3582.7	Pmax@STC [W]	246.1	Not Ok (-21.9%)