

APPLIES TO: SPR-E20-327, SPR-E19-320, SPR-E18-305, SPR-E20-245, SPR-E19-235

TESTS AND CERTIFICATIONS		WARRANTY, IMPACT RESISTANCE, FUSE RATING, J-BOX	
Standard tests	UL 1703 (Type 2 UL Module Fire Rating), IEC61215, IEC61730, Class C IEC Fire Rating	WARRANTIES	25-YEAR LINEAR POWER WARRANTY 25-YEAR LIMITED PRODUCT WARRANTY
Quality tests	ISO 9001:2008, ISO 14001:2004	Impact Resistance	(hail) 25mm (1 inch) diameter at 23 m/s (52 mph)
EHS Compliance	RoHS, OHSAS 18001:2007, C2C (Cradle to Cradle), PV Cycle, WEEE	Max Series Fuse	15 Amp rating
Ammonia test	IEC 62716	Connectors	MC4 Compatible and Yukita with cable length 1000mm (96 & 72 cell)
Salt-spray test	IEC 61701 (max. severity)	Junction Box	JBox, IP 65, no larger than (cm) 2.5 x 11.5 x 13.1. For specifics, contact your regional sales
PID test	Potential-Induced Degradation free:1000V		
Max Load	72 cell (Generation 5 frame) Wind: 83 psf, 4000 Pa, 407 kg/m ² front & back Snow: 167 psf, 8000 Pa, 815 kg/m ² front 96 cell (Generation 5 frame) Wind: 62 psf, 3000 Pa, 305 kg/m ² front & back Snow: 125 psf, 6000 Pa, 611 kg/m ² front 72 & 96 cell (Generation 3 frame) Wind: 50 psf, 2400 Pa, 244 kg/m ² front & back Snow: 112 psf, 5400 Pa, 550 kg/m ² front		
Operating Temps	-40°F to +185°F (-40°C to +85°C)		

E-SERIES MAJOR GLOBAL MARKET LISTINGS		
Residential Modules	96-Cell Modules	72-Cell Modules
Major Market Listings*	CEC, JET, MCS, FSEC, CSA, UL, TUV	CEC, JET, MCS, FSEC, CSA, UL, TUV
*Platforms options available in listed markets, but every individual sku may not be available in each referenced market		

PLATFORM ELECTRICAL DATA

STC Values

Module	Platform (Number of cells)	At Standard Test Conditions							
		Nominal Power	Power Tolerance (%)	Rated Voltage Vmp (V)	Rated Current Imp (A)	Open Circuit Voltage Voc (V)	Short Circuit Current, Isc (A)	Max System Voltage UL Vmax (V)	Max System Voltage IEC Vmax (V)
SPR-E20-327	96	327	+5/-0	54.7	5.98	64.9	6.46	600	1000
SPR-E19-320	96	320	+5/-0	54.7	5.86	64.8	6.24	600	1000
SPR-E18-305	96	305	+5/-0	54.7	5.58	64.2	5.96	600	1000
SPR-E20-245	72	245	+5/-0	40.5	6.05	48.8	6.43	600	1000
SPR-E19-235	72	235	+5/-0	40.5	5.80	48.4	6.18	600	1000

PLATFORM ELECTRICAL DATA (continued) TEMPERATURE COEFFICIENTS & EFFICIENCY REFERENCES

Module	At Standard Test Conditions		Basic Temperature Data				Efficiency Numbers		
	Nominal Power	Avg Power	Current (Isc) Temp. Coeff. (mA/°C)	Voltage (Voc) Temp. Coeff. (mV/°C)	Power Temp. Coeff. (%/°C)	NOCT @ 20°C (Value +/- 2°C)	Average Power Efficiency (%)	Nominal Peak Power per Unit Area (W/m ²)	Nominal Peak Power per Unit Area (W/ft ²)
SPR-E20-327	327	333	2.6	-176.6	-0.35%	45.0	20.4%	204.2	19.0
SPR-E19-320	320	324	2.6	-176.6	-0.35%	45.0	19.9%	198.6	18.4
SPR-E18-305	305	308	2.6	-176.6	-0.35%	45.0	18.9%	187	17.4
SPR-E20-245	245	249	2.6	-132.5	-0.35%	45.0	20.0%	200.2	18.6
SPR-E19-235	235	240	2.6	-132.5	-0.35%	45.0	19.3%	192.9	17.9

PLATFORM PERFORMANCE AT NOCT

(800 W/m², 20°C ambient, 1 m/s wind speed)

Module	At STC	Nominal Electrical data at NOCT (NOCT : 800W/m ² , 20°C amb. Temp., 1m/s wind speed)					
		NOCT Pnom	NOCT Vmpp	NOCT Impp	NOCT Voc	NOCT Isc	NOCT % of rated
SPR-E20-327	327	246	51.5	4.82	60.8	5.22	75.2%
SPR-E19-320	320	243	51.5	4.72	60.7	5.04	75.9%
SPR-E18-305	305	227	50.4	4.49	60.0	4.82	74.3%
SPR-E20-245	245	182	37.4	4.88	45.7	5.20	74.4%
SPR-E19-235	235	175	37.4	4.68	45.3	5.00	74.4%

PLATFORM PERFORMANCE AT LOW IRRADIANCE

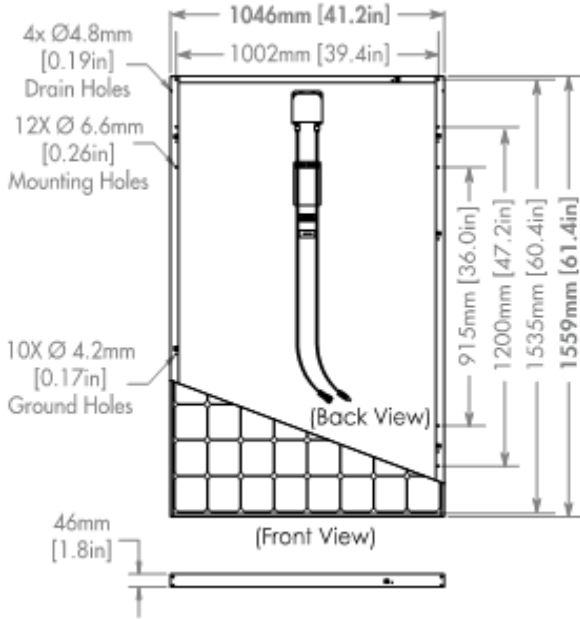
(200 W/m², 25°C cell temperature, air mass 1.5 SSID*)

Module	At STC	Irradiance vs. Power at Low Irradiance (200W/m ² and @25°C (SNL coefficients))			
		Low irradiance Pmpp (W)	Low irradiance Vmpp (V)	Low irradiance Impp (A)	Pctg. of nominal power
SPR-E20-327	327	62.8	52.0	1.21	19.2%
SPR-E19-320	320	61.5	52.0	1.18	19.2%
SPR-E18-305	305	61.5	52.5	1.18	20.2%
SPR-E20-245	245	47.0	38.5	1.22	19.2%
SPR-E19-235	235	45.1	38.5	1.17	19.2%

*SSID = Solar Spectral Irradiance Distribution

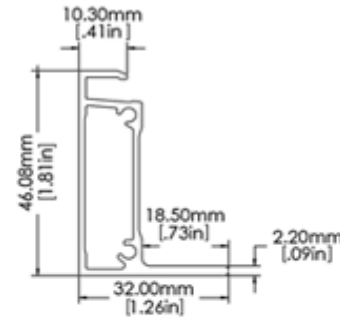
MODULE PLATFORM DIMENSIONS

Gen 3 frame - 96 CELL
(SPR-E20-327, SPR-E19-320)

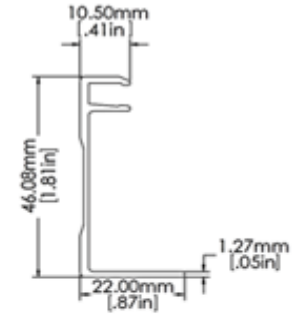


Gen 3 Frame Profile for 96 cell

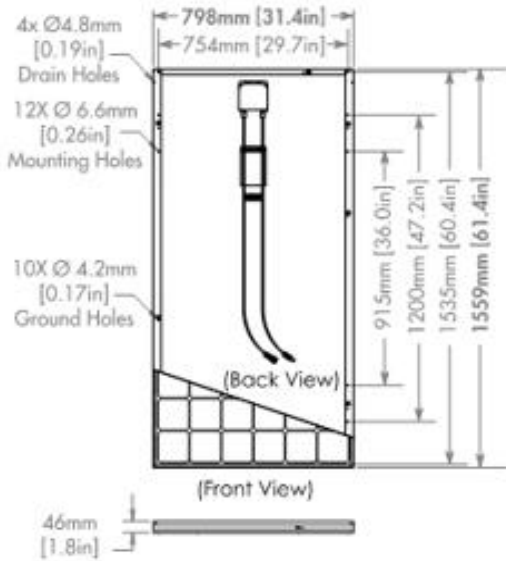
Frame Extrusion, Side



Frame Extrusion, End

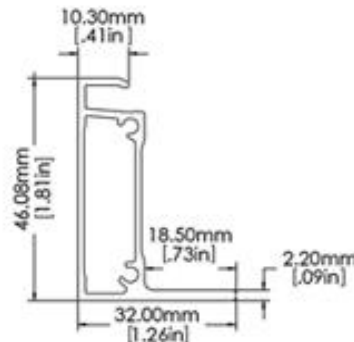


Gen 3 Frame 72-CELL
(SPR-E20-245, SPR-E19-235)

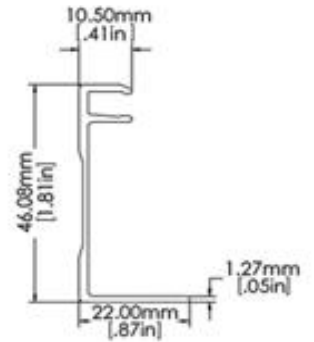


Gen 3 Frame Profile for 72 cell

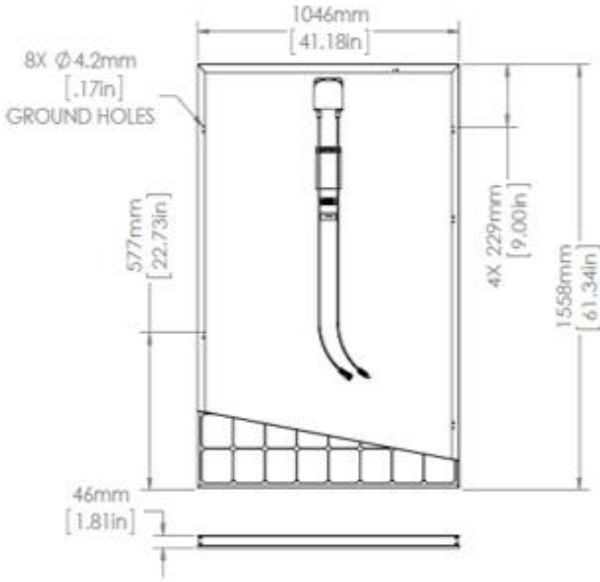
Frame Extrusion, Side



Frame Extrusion, End

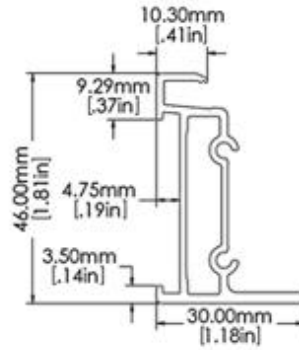


InvisiMount™ Compatible frame - 96 CELL (SPR-E20-327, SPR-E19-320)

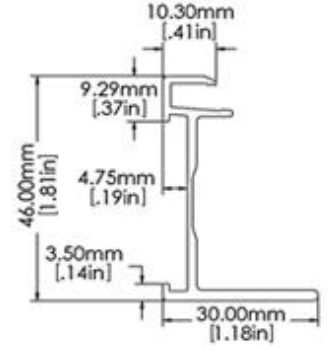


InvisiMount Compatible Frame profile for 96 cell

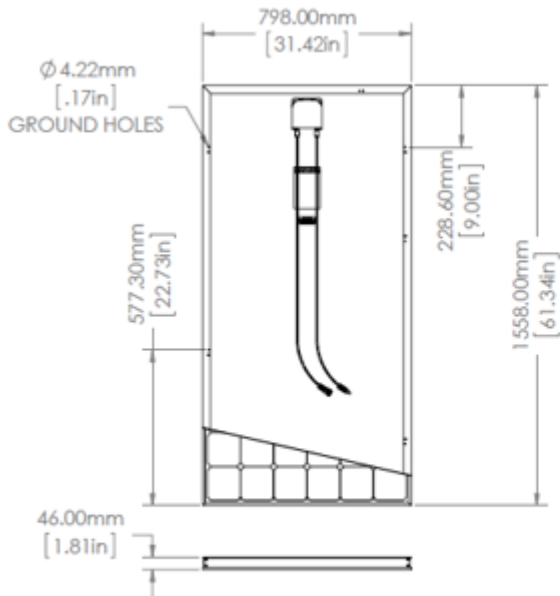
Frame Extrusion, Side



Frame Extrusion, End

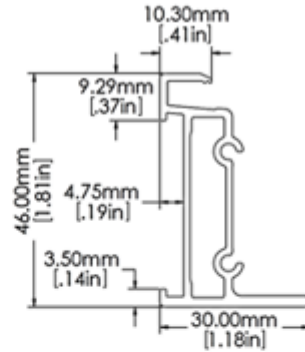


InvisiMount Compatible frame - 72 CELL (SPR-E20-245, SPR-E19-235)

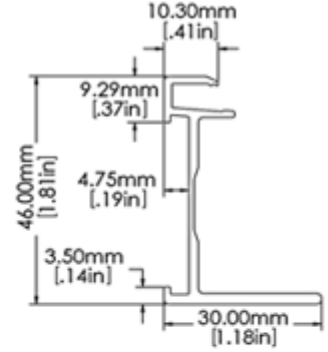


InvisiMount Compatible Frame profile for 72 cell

Frame Extrusion, Side

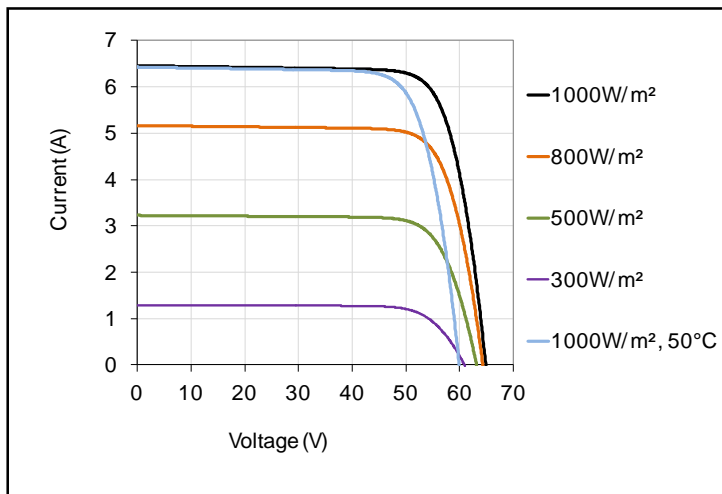


Frame Extrusion, End



IV CURVES OF PRIMARY PLATFORM MODELS

SPR-E20-327



SPR-E20-245

