

Smart Panel

60-Cell Monocrystalline PERC Panel with
Integrated Power Optimiser
For Australia

SPV300-60MMJ / SPV310-60MMJ

SMART PANEL



PV to grid solution including full service from SolarEdge

- Easy installation with panel pre-assembled optimiser
- Optimised energy output by constantly tracking the maximum power point (MPPT) of each panel individually
- Panel-level voltage shutdown for installer and firefighter safety
- Full visibility of system's performance from panels to grid
- Superior quality control with full automatic production line and 100% EL triple inspection
- Excellent mechanical loading and shock resistance performance
- Elegant design with black frame
- 15-year panel warranty and 25-year performance warranty
- Specifically designed to work with SolarEdge inverters

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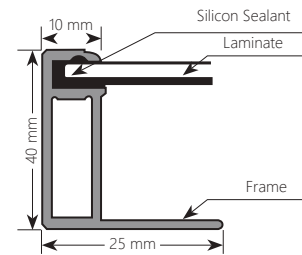
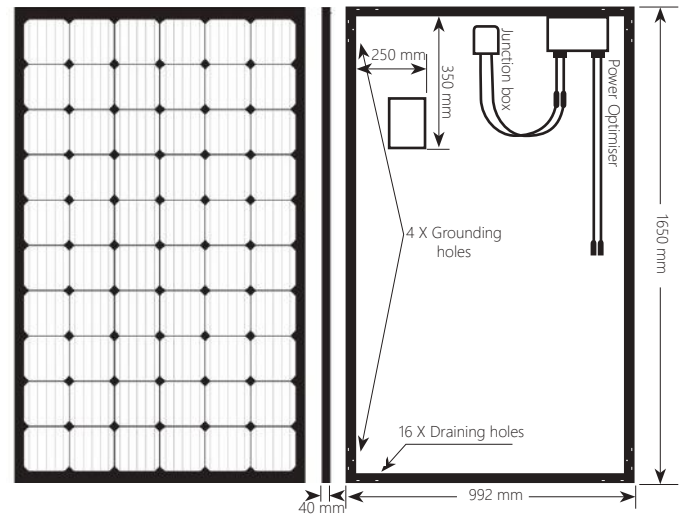
SPV300-60MMJ / SPV310-60MMJ

PANEL ELECTRICAL PROPERTIES

	SPV300-60MMJ	SPV310-60MMJ	
STC⁽¹⁾			
Panel Power	300	310	W
Max. Power Voltage (Vmp)	32.62	33.16	V
Max. Power Current (Imp)	9.2	9.35	A
Open Circuit Voltage (Voc)	39.75	40.09	V
Short Circuit Current (Isc)	9.64	9.76	A
Maximum System Voltage	1000		Vdc
Maximum Series Fuse Rating	15		A
Panel Efficiency	18.3	18.9	%
Power Tolerance	0 ~ +5		W
NOCT⁽²⁾			
Panel Power	223.3	230.7	W
Max. Power Voltage (Vmp)	30.34	30.84	V
Max. Power Current (Imp)	7.36	7.48	A
Open Circuit Voltage (Voc)	37.28	37.60	V
Short Circuit Current (Isc)	7.78	7.87	A

PANEL MECHANICAL PROPERTIES

Cells	60 (6 x 10)	
Cell Type	Monocrystalline PERC	
Cell Dimensions	156 x 156	mm
Dimensions (L x W x H)	1650 x 992 x 40	mm
Front Design Load (snow)	3600	Pa
Front Test Load ⁽³⁾	5400	Pa
Rear Design Load (wind)	2400	Pa
Rear Test Load ⁽³⁾	3600	Pa
Weight (with Power Optimiser)	18.8	kg
Front Glass	3.2mm, coated toughened glass	
Frame	Black anodized aluminium	
Junction Box	IP67	
Connector Type	MC4 (PVKST4II-UR, PV-KBT4II-UR)	
Operating Temperature	-40 to +85	°C
Packaging Information (units per pallet)	26	



CERTIFICATIONS & WARRANTY

Panel Certifications	IEC 61215:2016, IEC61730:2016, CEC listing AU, PID: IEC62804, SIL, AS4040.2:1992 (wind pressure)
Product Warranty	Power Optimiser — 25-year warranty, Panel — 15-year warranty
Output Warranty of Pmax	25-year linear Panel warranty ⁽⁴⁾

TEMPERATURE CHARACTERISTICS

Temperature Coefficient Power (Pm)	-0.40	% / °C
Temperature Coefficient Voltage (Voc)	-0.29	% / °C
Temperature Coefficient Current (Isc)	0.04	% / °C
Operating Cell Temperature (NOCT)	45 ± 2	°C

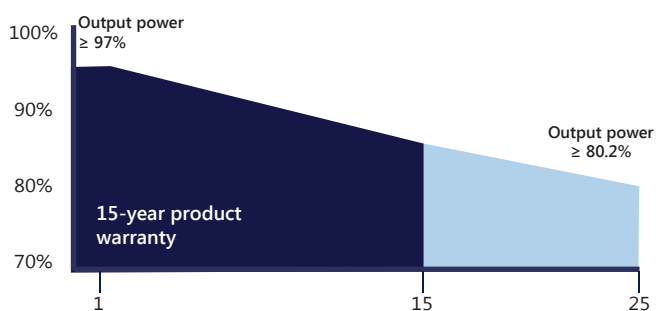
⁽¹⁾ STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5.

⁽²⁾ NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

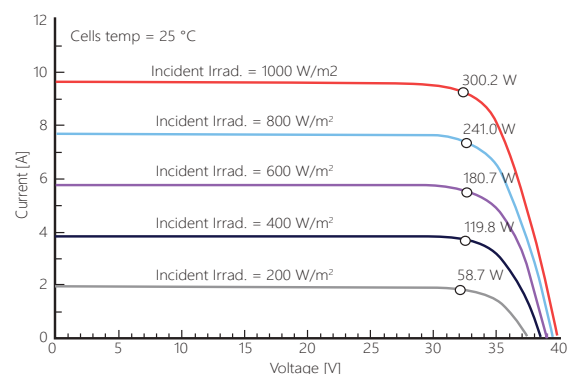
⁽³⁾ Safety factor of 1.5

⁽⁴⁾ 1st year: 97%, 80.2% power output over 25 years

Linear Warranty 15-Year Product Warranty + 25-Year Linear Power Warranty



Panel I-V Curve (SPV300-60MMJ)



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POWER OPTIMISER PROPERTIES

INPUT

Rated Input DC Power	370	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	60	
MPPT Operating Range	8 - 60	Vdc
Maximum Short Circuit Current (Isc)	11	Adc
Maximum Efficiency	99.5	%
Weighted Efficiency	98.8	%
Overvoltage Category	II	

OUTPUT DURING OPERATION (POWER OPTIMISER CONNECTED TO OPERATING SOLAREEDGE INVERTER)

Maximum Output Current	15	Adc
Maximum Output Voltage	60	Vdc

OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)

Safety Output Voltage per Power Optimiser	1 ± 0.1	Vdc
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STANDARD COMPLIANCE

EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3	
Safety	IEC62109-1 (class II safety), UL1741	
RoHS	Yes	
Fire Safety	VDE-AR-E 2100-712:2013-05	

INSTALLATION SPECIFICATIONS

Output Connector	MC4	
Output Wire Length	1.2	m
Operating Temperature Range	-40 - +85 / -40 - +185	°C / °F
Protection Rating	IP68 / NEMA6P	
Relative Humidity	0 - 100	%

PV System Design Using A SolarEdge Inverter		Single Phase HD-Wave	Single Phase	Three Phase Residential ⁽⁵⁾	Three Phase Commercial	
Minimum String Length (Power Optimisers)	P370	8		8 per array	16	
Maximum String Length (Power Optimisers)		25		25 per array	50	
Maximum Power per String		5700 (6000 with SE8000H, SE10000H)	5250	5700	11250	W
Parallel Strings of Different Lengths or Orientations		Yes				
Notes				Connect 2 arrays		

⁽⁵⁾ Optimisers must be connected in two separate arrays. For complete design guidelines for the three phase residential inverters refer to: https://www.solaredge.com/sites/default/files/three_phase_inverter_residential_design_installation_addendum_aus.pdf