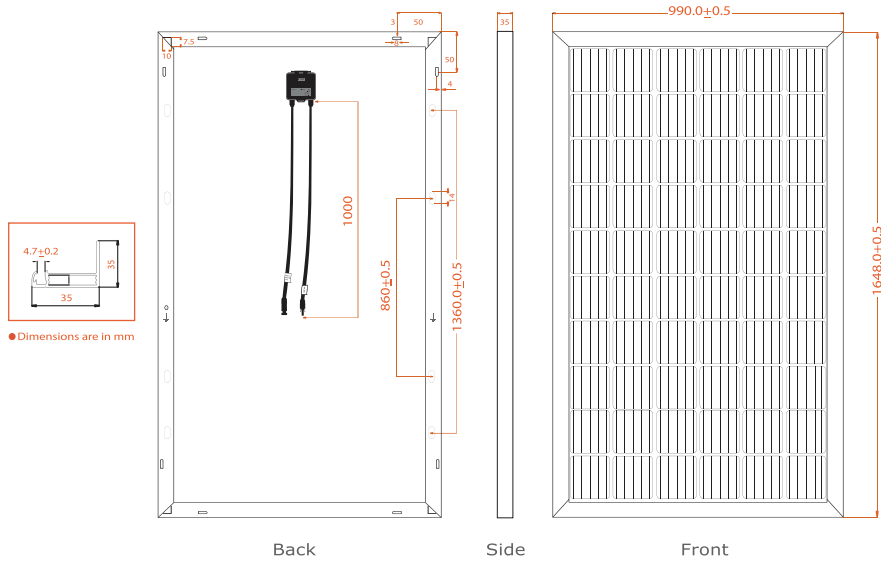


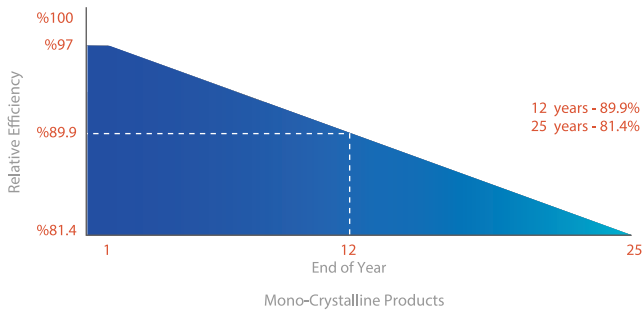
BLACK PS-M60-(305-320W) Mono PERC Crystalline Module

Module Drawings



Philadelphia Solar's Mono-Crystalline modules with power up to **320 Wp** are produced using the state-of-the-art (automated) robotic production lines. These modules are suitable to be used for most electrical power applications and have excellent durability to prevailing weather conditions.

Linear Performance Warranty



- 12 Year Product Warranty
- 25 Year Linear Power Warranty
- Only -0.65% Annual Degradation

Certificates

- Bankability Report DNV GL









ELECTRICAL CHARACTERISTICS (STC)	305W	310W	315W	320W
Module System Voltage (v)	1000/1500	1000/1500	1000/1500	1000/1500
Open Circuit Voltage - Voc (V)	40.15	40.42	40.67	40.95
Short Circuit Current - Isc (A)	9.78	9.84	9.90	9.97
Maximum Power Voltage - Vmpp (V)	32.95	33.27	33.59	33.87
Maximum Power Current - Impp (A)	9.26	9.32	9.38	9.45
Maximum Power - Pmax (W)	305	310	315	320
Module Efficiency - η' (%)	18.7	19.0	19.3	19.6

Values at Standard Test Conditions STC (Air Mass AM 1.5, Irradiance 1000 W/m², Cell Temperature 25°C).

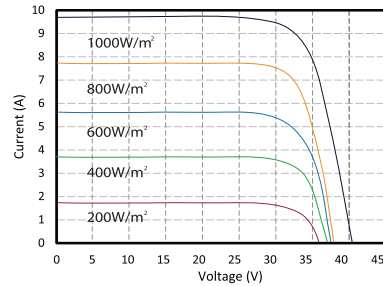
MATERIAL CHARACTERISTICS		PACKAGING	
Characteristics	Value	Physical Characteristics	Value
Cells per Module	60 (10x6)	Module Dimensions (mm)	1648 x 990 x 35
Cell Type	Grade A - Mono PERC Crystalline Silicon, 156.75X156.75mm	Module Weight (kg)	18
Front Surface	Anti-Reflective Coated Tempered 3.2 mm Glass	Pallet Dimensions W,D,H (mm)	1715 x 1135 x 1130
Encapsulant	PID Free EVA	Modules per Pallet	30
Back Cover	Backsheet	Container Capacity	Value
Frame	Anodized Aluminum	20 Feet Container	360 Modules
Junction Box	IP 68, 3 Bypass Diodes	40 Feet High-Cube Container	840 Modules
Connector and Cable	MC4 interconnection, 1-m Cables Length (Can be Customized)		
Fire Classification	Type I		

THERMAL CHARACTERISTICS		OPERATING CONDITIONS	
Characteristics	Value		
Open Voltage Temperature Coefficient β_{voc} (%/°C)	-0.30	Maximum Sytem Voltage - Vmax (V)	1000/1500
Short Current Temperature Coefficient α_{isc} (%/°C)	+0.06	Maximum Series Fuse (A)	15
Power Temperature Coefficient γ_{Pmp} (%/°C)	-0.39	Operating Temperature Range (°C)	IEC: -40 to +85 UL: -40 to +90
NOCT (°C)	45±2		

FEATURE

-  Positive power tolerance up to %3 extra output.
-  Excellent low light performance.
-  Salt mist and ammonia resistant to endure coastal and agricultural environments.
-  Excellent high mechanical loads, certified to withstand high wind load (2400 pa) and snow load (5400 pa).
-  In-line and post EL (Electroluminescence) machines.
-  PID resistant.

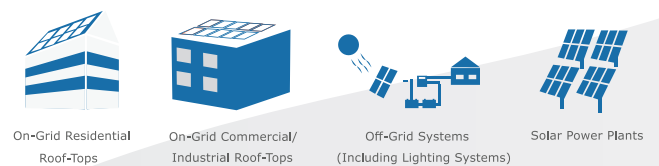
IV - Curve M60-305W



Benefits

- Outstanding technical support.
- Pre and after sales-service.
- Marketing support to official distributors.
- Customized mounting solutions.

Applications



- Power measuring tolerance: \pm %3, other measurements tolerances: \pm %5
- Datasheet is subjected to changes without prior notice, always obtain the most recent version of the datasheet.
- Caution: For professional use only, the installation and handling of PV modules and cleaning modules require professional skills and should only be performed by qualified professionals, please read the Installation and Operation Manual before using the modules, also Cleaning Guidelines.