



**PERLIGHT**  
smart.black

# MONO 60 CELL SERIES

320W • 300W • 285W

320W: PLM-320M-60 • PLM-320MB-60 • PLM-320MA-60  
 300W: PLM-300M-60 • PLM-300MB-60 • PLM-300MA-60  
 285W: PLM-285M-60 • PLM-285MB-60 • PLM-285MA-60



**SMART-READY**  
AT NO EXTRA COST

**EASY UPGRADE TO SMART**  
AT LOW COST

**PERC** PASSIVATED EMITTER  
REAR CELL TECH

**Black Plus**

**Delta Black**

**Silver Plus**

**BW Plus**

Powered by **Tigo**

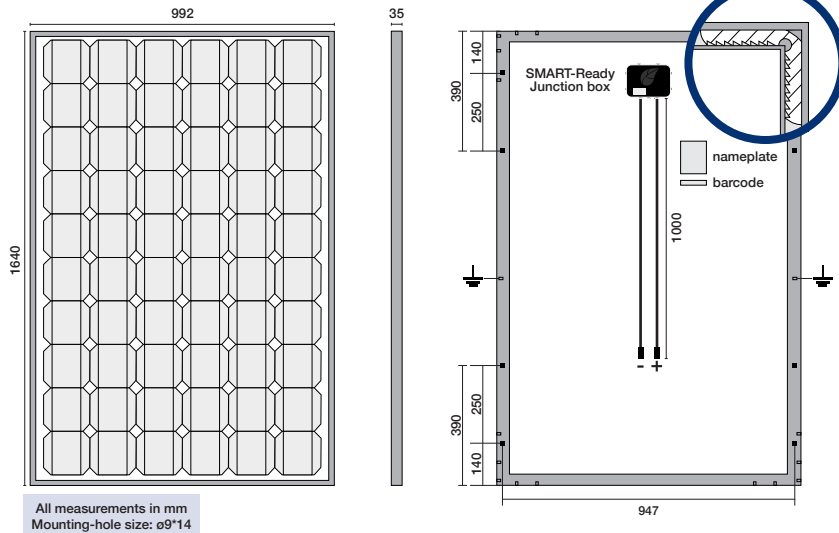
- ✓ Field replacable diode cover
- ✓ Lower junction box temperature
- ✓ Upgradable to add functionality
- ✓ Cover upgrade options:
  - Module-level monitoring
  - Advanced Safety
  - Optimisation
  - Long Strings
- ✓ Approved by all major inverter manufacturers

Guaranteed by **PERLIGHT**

- ✓ Quality Guaranteed
- ✓ 12 Year Workmanship Warranty
- ✓ 25 Year Output Performance Warranty
- ✓ >90% Output for 12 Years
- ✓ >80% Output for 25 Years
- ✓ Over 30 Years Manufacturing Experience



## MODULE FRAME



All measurements in mm  
Mounting-hole size:  $\phi 9 \times 14$

- ✓ Extremely reliable screw-less, interconnected frame for long-term flexibility and strength.
- ✓ 8 mounting holes for direct mounting option.
- ✓ Suitable for Insertion System on both long and short sides.
- ✓ 20 in-built drainage waterspouts.
- ✓ 2 earth (ground) points.
- ✓ Tempered ARC (anti-reflective) Front Glass.

Long Side Clamping Zones:  
0mm to 410mm from edge.

Short Side Clamping Zones:  
0mm to 248mm from edge.

## MECHANICAL CHARACTERISTICS

Front cover	3.2mm Tempered ARC glass
Backsheet colour	Black/White
Type of Cells	Mono PERC 156.75x156.75mm
Number of Cells	60
Frame	Black/Silver Anodised Aluminium
Junction box	TIGO TS4 IP67
Cables	1000mm/4mm <sup>2</sup>
Connectors	MC4 compatible IP67
Module dimensions	1640 x 992 x 35mm
Module weight	18kg

## ELECTRICAL PERFORMANCE

Model Number	PLM-320M-60		PLM-300M-60		PLM-285M-60	
	PLM-320MB-60	PLM-320MA-60	PLM-300MB-60	PLM-300MA-60	PLM-285MB-60	PLM-285MA-60
Power Output	P <sub>max</sub>	W	320	300	285	
Voltage at P <sub>max</sub>	V <sub>mp</sub>	V	34.01	32.54	31.78	
Current at P <sub>max</sub>	I <sub>mp</sub>	A	9.41	9.22	8.97	
Open-circuit voltage	V <sub>oc</sub>	V	41.55	40.11	39.35	
Short-circuit current	I <sub>sc</sub>	A	9.77	9.61	9.36	
Solar Module Efficiency	%		19.67	18.44	17.52	
Power Tolerance	%		-0/+3	-0/+3	-0/+3	

## OPERATING CONDITIONS

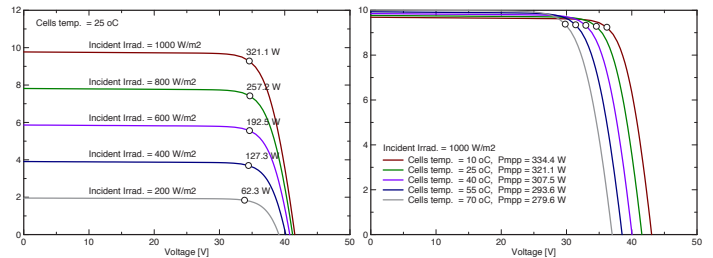
Max. system voltage	1000VDC
Limiting reverse current	15A
Operating temperature range	-40°C to 85°C
Max. static load front (e.g., snow)	5400Pa
Max. static load back (e.g., wind)	2400Pa
Max. hailstone impact	25mm@23m/s

## THERMAL CHARACTERISTICS

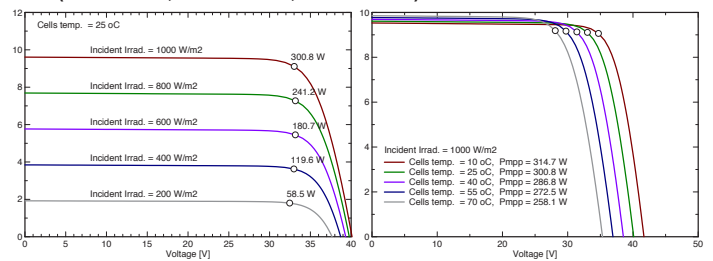
NOCT	45±2 °C
Temp. coefficient P <sub>max</sub>	-0.40 %/°C
Temp. coefficient V <sub>oc</sub>	-0.30 %/°C
Temp. coefficient I <sub>sc</sub>	0.06 %/°C
Temp. coefficient V <sub>mp</sub>	-0.35 %/°C

## ELECTRICAL CURVES

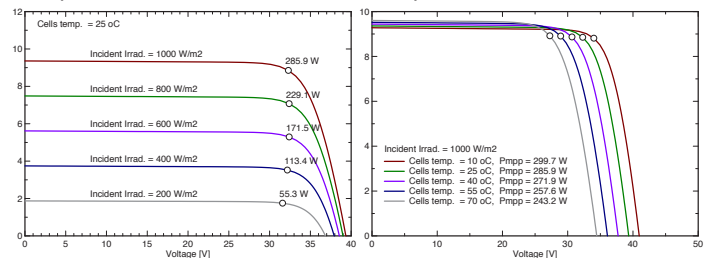
### 320W (PLM-320M-60, PLM-320MB-60, PLM-320MA-60)



### 300W (PLM-300M-60, PLM-300MB-60, PLM-300MA-60)



### 285W (PLM-285M-60, PLM-285MB-60, PLM-285MA-60)



- ✓ MCS Certified
- ✓ Positive output tolerance
- ✓ Fire safety certified
- ✓ PID-Free certified
- ✓ Ammonia corrosion resistance certified
- ✓ Salt mist corrosion resistance certified
- ✓ Worldwide accreditation



## MANUFACTURING BASE

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