

Incredible OFF GRID Operation

GENERAL DESCRIPTION

Neptun's Solar Panels feature a robust solar module with 72 solar cells. The meticulous design ensures a high-yield, long-term performance for every module produced. Can be used in a variety of applications along side Neptun's solar compatible lighting fixtures and battery systems.

APPLICATION

- Street Lighting
- Parking Lot Lighting
- Billboard & Sign Lighting
- Parking Garage Lighting
- Building Accent Lighting

STRUCTURE, MATERIALS, & FEATURES

- Low-iron solar glass front panel with anti-reflective surface.
- Outstanding performance at low irradiance.
- High energy yield at Low NOCT.
- High module efficiency up to 16%.
- Positive power tolerance: 0 - +5W.
- 1000V UL/1000V IEC Certified.
- Certified to withstand 2400 Pa wind load
- Certified to withstand 5400 Pa snow load
- Certified to withstand 25 mm hail stones @ 82 km/h
- 10 Year Product Warranty.

ORDERING INFORMATION

Sample Number: NE-MPV-300W
Custom options and accessories available. Please consult factory

Series	Module Type	Wattage
NE = Neptun Energy	MPV = Multicrystalline Solar Panel	300W = 300 Watt



ELECTRICAL DATA (STC)

Peak Power Watts-P _{MAX} (Wp)	295	300	305	310
Power Output Tolerance-P _{MAX} (%)	0 ~ +3			
Maximum Power Voltage-V _{MPP} (V)	35.8	36.2	36.6	37.0
Maximum Power Current-I _{MPP} (A)	8.25	8.28	8.33	8.38
Open Circuit Voltage-V _{OC} (V)	45.1	45.4	45.5	45.5
Short Circuit Current-I _{SC} (A)	8.72	8.77	8.81	8.85
Module Efficiency η _m (%)	15.2	15.5	15.7	16.0

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3.
Typical efficiency reduction of 4.5% at 200 W/m² according to EN 60904-1.

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	220	223	227	231
Maximum Power Voltage-V _{MPP} (V)	33.2	33.5	33.8	34.1
Maximum Power Current-I _{MPP} (A)	6.61	6.66	6.72	6.77
Open Circuit Voltage-V _{OC} (V)	41.8	42.1	42.2	42.2
Short Circuit Current-I _{SC} (A)	7.04	7.08	7.11	7.15

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

MECHANICAL DATA

Solar cells	Multicrystalline 156 × 156 mm (6 inches)
Cell orientation	72 cells (6 × 12)
Module dimensions	1956 × 992 × 40 mm(77× 39.05 × 1.57 inches)
Weight	27.6 kg (60.8lb)
Glass	4.0 mm, High Transmission, AR Coated Tempered Glass
Backsheet	White
Frame	Silver Anodized Aluminium Alloy
J-Box	IP 65 or IP 67 rated
Cables	Photovoltaic Technology cable 4.0mm ² (0.006 inches ²), 1200mm (47.2 inches)
Connector	MC4

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C (±2°C)
Temperature Coefficient of P _{MAX}	-0.41%/°C
Temperature Coefficient of V _{OC}	-0.32%/°C
Temperature Coefficient of I _{SC}	0.05%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1000V DC (IEC) 1000VDC(UL)
Max Series Fuse Rating	15A

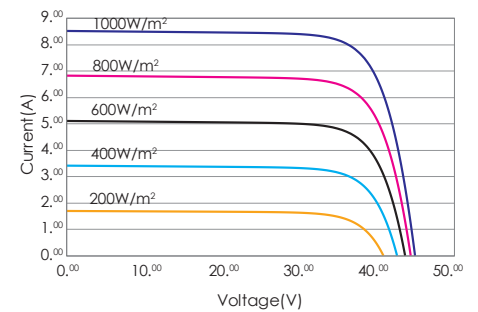
WARRANTY

10 year Product Workmanship Warranty
25 year Linear Power Warranty

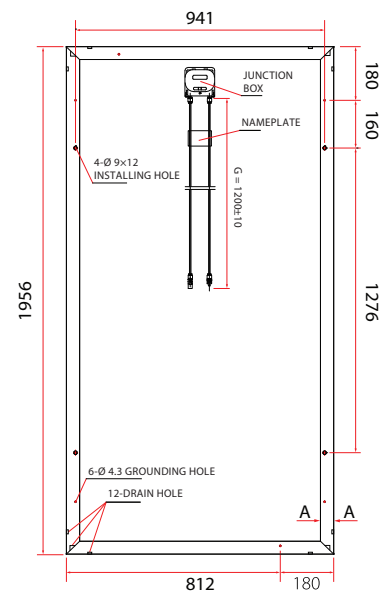
PACKAGING CONFIGURATION

Modules per box: 26 pieces
Modules per 40' container: 572 pieces

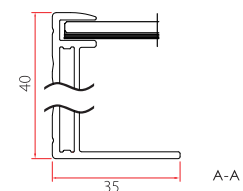
I-V CURVES OF PV MODULE(295W)



DIMENSIONS OF PV MODULE unit:mm



Back View



A-A

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Neptun Light, Inc. reserves the right to change materials or modify the design of its product without notification as part of the company's continuing product improvement program.
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