

Highly Efficient * Durable * Reliable

Product Features

- High cell efficiency with quality silicon material for long term output stability and reliability
- Stringent quality controls to meet the highest international standards
- High transmittance, low iron, tempered glass with enhanced stiffness and impact resistance
- Unique frame design with high level mechanical strength for easy installation
- Advanced encapsulation material with multilayer sheet lamination to provide long-life and enhanced cell performance
- Outstanding electrical performance under high temperature and low irradiance conditions
- 54 polycrystalline, high-efficiency solar cells (approx. 16%)
- Entire module certified to withstand high wind loads (2400 Pascal) and snow loads (6400 Pascal)
- All critical components from well-known manufacturers

ENP-M210PO
ENP-M200PO
ENP-M190PO
ENP-M180PO



Applications

- Any large or small on-grid /off-grid solar power station
- Residential/Commercial/Industrial building roof-top systems
- Any commercial/industrial ground mount system
- Other industrial and commercial applications

Warranty & Certifications

- 5 year limited product warranty on materials and workmanship
- 10 years for 90% power output
- 25 years for 80% power output



IEC 61215 IEC 61730,



CE Certified,



UL 1703

Components & Mechanical Data

Front Glass	High Transparency Tempered Glass, 3.2mm - Saint Gobain (Albarino) // CSG
Junction Box	Tyco, 1740971-1
Bypass Diode	Diotec SL1515 (15A)
Output Cables	Cable Tyco 1m, ZHSCG (4mm ² and 12AWG), IEC and UL approved
Connectors	MC4 // Tyco, IP67, IEC & UL approved
Frame	Anodized aluminum alloy type 6063-T5
Encapsulation Material	Bridgestone EVAS11 (0.50 + 0.03mm thickness)
Back Foil	White TPT ISOVOLTA 3469(0.32mm thickness, Dupont cast film) //Krempel PTL 1000 (0.32mm thickness, Dupont cast film) //SFC TT350 (0.35mm thickness, Dupont original film)
Silicone Sealant	Dow Corning 7091 // TONSUN 1527
Max Load	6400 Pa
Impact Resistance	Steel ball - 1040g dropped from 1m high
Dimensions	1482 × 992 × 35mm (58.3 × 39.0 × 1.38 inch)
Weight	17.5 kg (38.6 lbs.)
Solar Cell	Polycrystalline 156 × 156 mm (6 inch)
Number of Cells	54 (6 x 9)

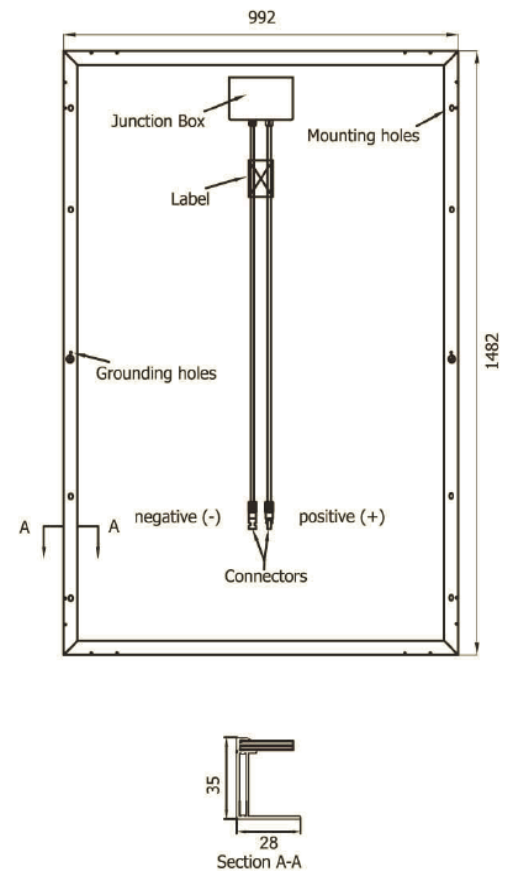
Electrical Characteristics				
Standard Test Conditions (STC)	ENP-M210PO	ENP-M200PO	ENP-M190PO	ENP-M180PO
Maximum Power at STC P_{max} (W)	210	200	190	180
Max-Power Voltage V_m (V)	26.8	26.0	25.3	24.5
Max-Power Current I_m (A)	7.84	7.70	7.51	7.35
Open-Circuit Voltage V_{oc} (V)	33.3	33.1	32.8	32.6
Short-Circuit Current I_{sc} (A)	8.4	8.25	8.10	7.80
Cell Efficiency	16.3%	15.5%	14.8%	14.0%
Maximum System Voltage (V)	1000V(TUV), 600V(UL)			
Maximum Series Fuse Rating	15 A			
Power Tolerance	±3.0%			
Operating Temperature	-40 °C to +90 °C			

STC: irradiance 1000 W/m², module temperature 25 °C, AM=1.5. Deviation of V_m , I_m , V_{oc} , I_{sc} of ±10%

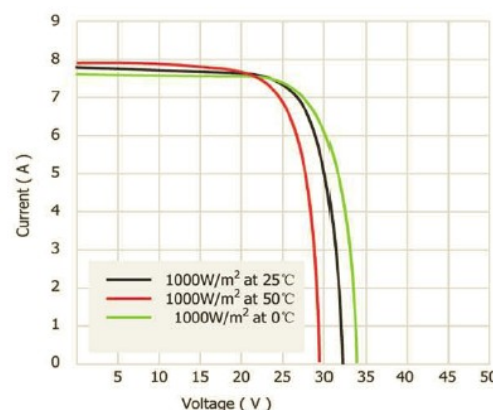
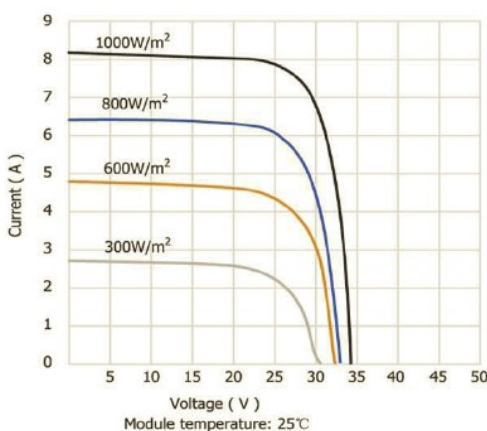
Temperature Coefficients	
NOCT (°C)	45±2
Current Temperature Coefficient of I_{sc} (%/°C)	0.06±0.01
Voltage Temperature Coefficient of V_{oc} (%/°C)	-0.34±0.01
Temperature Coefficient of I_m (%/°C)	-0.02±0.01
Temperature Coefficient of V_m (%/°C)	-0.50±0.01
Temperature Coefficient of P_m (%/°C)	-0.40±0.05

NOCT: Irradiance 800 W/m², ambient temperature 20 °C, wind speed 1 m/s

Packing Configuration	
Number of modules per box	23
Box size L x W x H (mm)	1535 x 1045 x 120
Box Gross Weight	410kg (904 lbs)
Boxes per Pallet	1
Pallets per 20'GP container	14
Pallets per 40'GP container	28



Current-Voltage & Power-Voltage Curve



Electrical equipment, check with your installer

Dealer Information Box

Specifications are subject to change without prior notification