



SOLARTECH[®]
POWER, INC.

F-Series 85W PV Module SPM085P-MF

Solartech F-Series Modules

Solartech photovoltaic F-Series Modules are constructed with high efficient polycrystalline solar cells and produce higher output per module than others in its class. This industrial grade module is an industry standard among various industry professionals.

Features

Class 1, Division 2, (C1D2) Group A,B,C and D

- Accessible junction box with 4-1/2" knockout for ease of installation.
- (EVA) with TPT cushions the solar cells within the laminate and ensures the operating characteristics of the solar cells under virtually any climatic condition
- Rigid anodized aluminum frame and low iron tempered glass
- Easily accessible grounding points on all four corners for fast installation
- Proven junction box technology

Reliability

- Proven superior field performance
- Tight power tolerance

Qualifications and Certifications



Applications

- Traffic & Safety
- Federal Government
- Oil & Gas
- Security
- Telecommunications
- Water and Wastewater
- Weather & Environmental Monitoring
- RV Camper
- Emergency Power
- Telemetry
- SCADA, RTU, GPS
- Marine
- Area Lighting & Sign

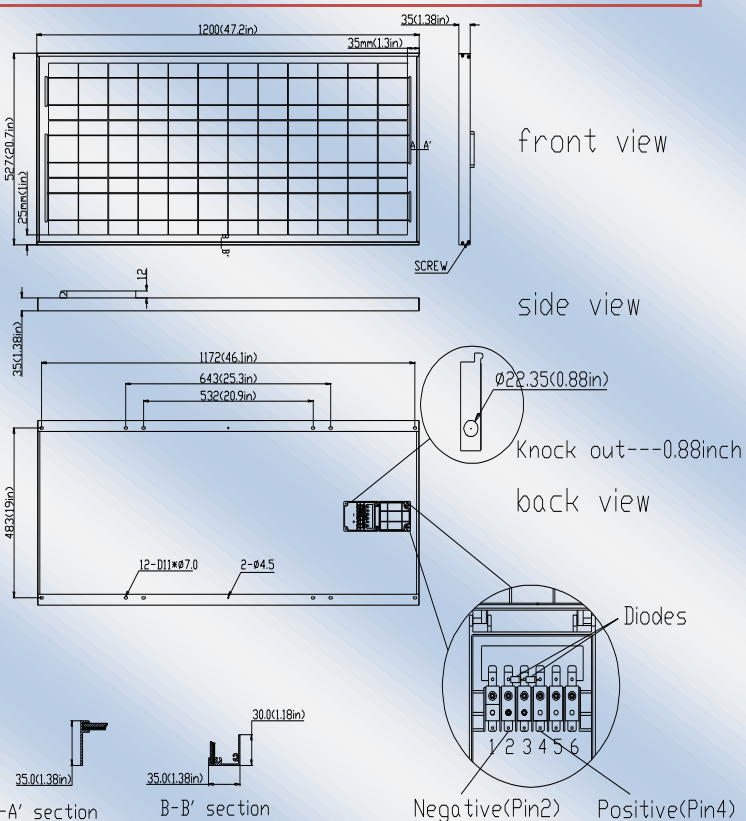
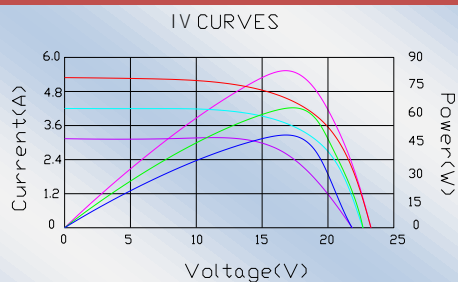
Electrical Characteristics

| | |
|--------------------------------|----------|
| Max power(Pm) | 85W |
| Maximum power voltage(Vpm) | 17.9V |
| Maximum power current (Ipm) | 4.84A |
| Short circuit current (Isc) | 5.17A |
| Open circuit voltage (Voc) | 22.2V |
| Module efficiency | 12.53% |
| Tolerance | ±5% |
| Nominal Voltage | 12V |
| Temperature coefficient of Voc | -0.36%/K |
| Temperature coefficient of Pm | -0.46%/K |
| Temperature coefficient of Isc | 0.05%/K |
| NOCT | 48°C±2°C |
| Maximum series fuse rating | 12A |
| Maximum system voltage | 600V |

Mechanical Characteristics

| | |
|-----------------------|--|
| Construction | Tempered glass, silicon cell, EVA, Polyester with Tedlar |
| Solar Cells | 36 cells (156mm x 91mm) in a 3x12 matrix connected in series |
| Front Cover | High transmission 3.2mm(1/8") glass |
| Encapsulant | EVA(Double layers) |
| Back Cover | White polyester |
| Frame | Anodized aluminum |
| Junction Box | IP65, UL94-5VA material |
| Diodes | Schottky by-pass diodes |
| Terminal | Accept 8-14 AWG wire |
| Dimensions | 47.2in(1200mm)x20.7in(527mm)x1.38in(35mm) |
| Weight | 17.6lb (8.0kg) |
| Operating Temperature | -40°C ~ 90°C |
| Storage Humidity | <90% |

IV Curves



Warranty

25-year limited warranty of 80% power output;
12-year limited warranty of 90% power output;
5-year limited warranty of materials and workmanship

Certifications

UL 1703 certification

ETL Class I, Division 2, Groups A, B, C and D certification