SOLARTECH®
POWER, INC.

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 it class. This industrial grade module is an industry standard among various industry professionals.

Features

• Accessible junction box with 4-1/2 knockout for ease of installation.
• (EVA) with TPT cushions the solar cells within the laminate an 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

TÜV   IEC   ETL

Applications

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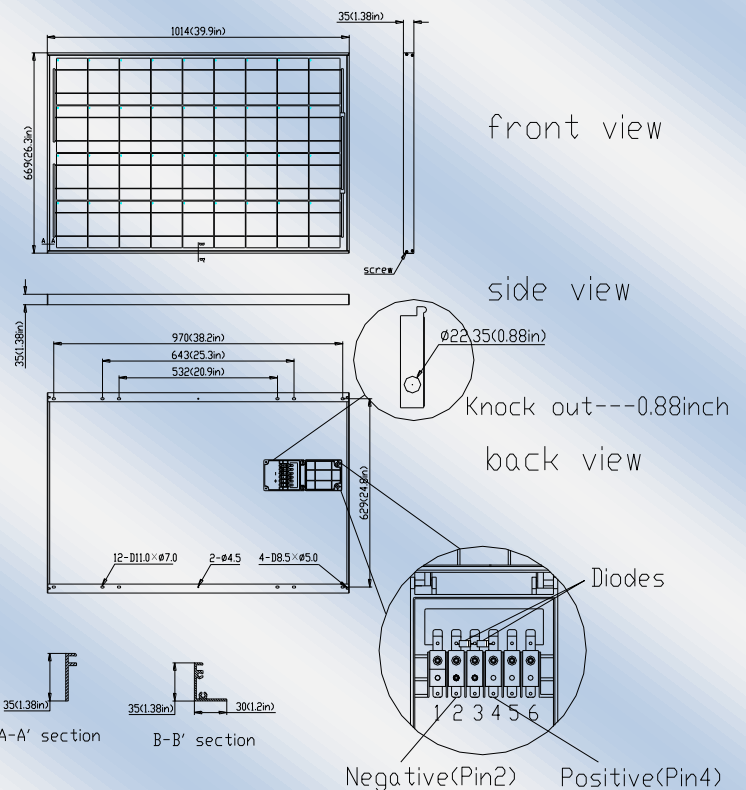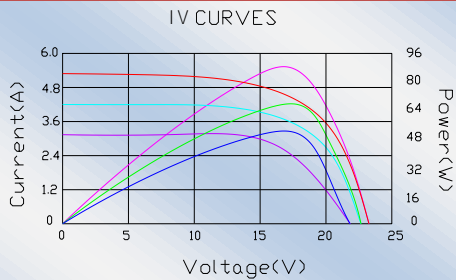• Marine
• Area Lighting & Sign

Electrical Characteristics

Max power(Pm)	90W
Maximum power voltage(Vpm)	18.3V
Maximum power current (Ipm)	5.04A
Short circuit current (Isc)	5.38A
Open circuit voltage (Voc)	22.2V
Module efficiency	13.27%
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℃±2℃
Maximum series fuse rating	12A
Maximum system voltage	1000V

Mechanical Characteristics

Construction	Tempered glass, silicon cell, EVA, Polyester with Tedlar
Solar Cells	36 cells (156mm x 104mm) in a 4x9 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	39.9in(1014mm)x26.3in(669mm)x1.38in(35mm)
Weight	19.8lb (9.0kg)
Operating Temperature	-40℃～90℃
Storage Humidity	<90%

IV Curves

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 worksmanship

Certifications

IEC61215, TUV certification

UL 1703 certification

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

front view

side view

Ø22.35(0.88in)

Knock out---0.88inch

back view

Diodes

1 2 3 4 5 6

Negative(Pin2)   Positive(Pin4)

A-A' section

B-B' section