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Solar Panel Guide Specification Data Sheet

Solartech Power, Inc. SPM005-020P-D SPM020P-D



# M-Series 5W PV Module SPM005P-D

#### **Solartech M-Series Modules**

Solartech photovoltaic M-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**

- An UL-approved AWG 18 cable is put into the fully sealed junction box (weather and UV resistant) material meet UL1703
- (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

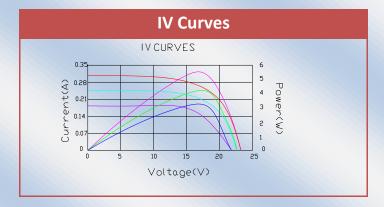
#### **Qualifications and Certifications**



## **Applications**

- Traffic & Safety
- Federal Government
- Agricultural
- Security
- Telecommunications
- Water and Wastewater
- Weather & Environmental Monitoring
- Telemetry
- •Wi-Fi & Wi-Max
- •Gate & Fence

Electrical	
Characteristics	
Max power(Pm)	5W
Maximum power voltage(Vpm)	17.1V
Maximum power current (Ipm)	0.29A
Short circuit current (Isc)	0.31A
Open circuit voltage (Voc)	21.7V
Module efficiency	6.5%
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	10A
Maximum system voltage	600V



# Warranty

25-year limited warranty of 80% power output;

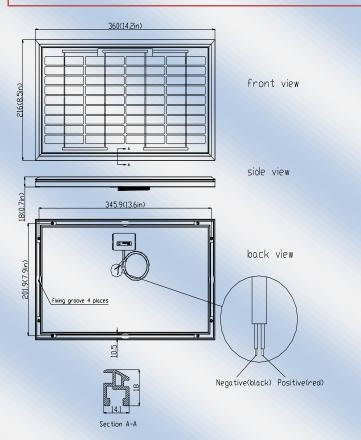
- 12 year limited warranty of 90% power output;
- 2-year limited warranty of materials and worksmanship\*

# **Certifications**

UL 1703 certification

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

Mechanical	
Characteristics	
Construction	Tempered glass, silicon cell, EVA, Polyester with Tedlar
Solar Cells	36 cells (78mm x 15.6mm) 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	None
Terminal	Open end, 9 feet (3m) 18 AWG wire
Dimensions	14.2in (360mm)x8.5in (216mm)x0.7in (18mm)
Weight	2.64b (1.2kg)
Operating Temperature	-40°C ~90°C
Storage Humidity	<90%





# M-Series 10W PV Module SPM010P-D

#### **Solartech M-Series Modules**

Solartech photovoltaic M-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**

- An UL-approved AWG 18 cable is put into the fully sealed junction box (weather and UV resistant) material meet UL1703
- (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

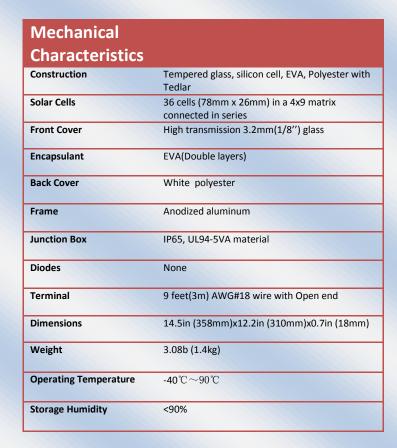
#### **Qualifications and Certifications**

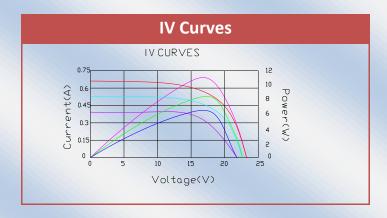


## **Applications**

- Traffic & Safety
- Federal Government
- Agricultural
- Security
- Telecommunications
- Water and Wastewater
- Weather & Environmental Monitoring
- Telemetry
- Wi-Fi & Wi-Max
- •Gate & Fence

Electrical	
Characteristics	
Max power(Pm)	10W
Maximum power voltage(Vpm)	17.3V
Maximum power current (Ipm)	0.59A
Short circuit current (Isc)	0.64A
Open circuit voltage (Voc)	21.8V
Module efficiency	9.5%
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	10A
Maximum system voltage	600V





## Warranty

25-year limited warranty of 80% power output;

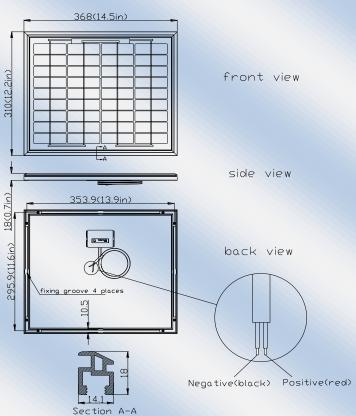
12 year limited warranty of 90% power output;

2-year limited warranty of materials and worksmanship\*



UL 1703 certification

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





# M-Series 20W PV Module SPM020P-D

#### **Solartech M-Series Modules**

Solartech photovoltaic M-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**

- An UL-approved AWG 18 cable is put into the fully sealed junction box (weather and UV resistant) material meet UL1703
- (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

- Proven superior field performance
- Tight power tolerance

Reliability

### **Qualifications and Certifications**

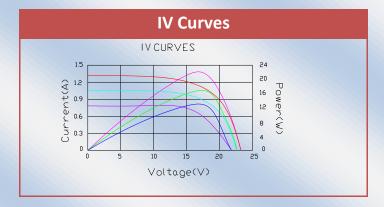




### **Applications**

- Traffic & Safety
- Federal Government
- Agricultural
- Security
- Telecommunications
- Water and Wastewater
- Weather & Environmental Monitoring
- Telemetry
- Wi-Fi & Wi-Max
- •Gate & Fence

Floatrical	
Electrical	
Characteristics	
Max power(Pm)	20W
Maximum power voltage(Vpm)	17.2V
Maximum power current (Ipm)	1.17A
Short circuit current (Isc)	1.25A
Open circuit voltage (Voc)	21.7V
Module efficiency	10.0%
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	10A
Maximum system voltage	600V



# Warranty

25-year limited warranty of 80% power output;

- 12 year limited warranty of 90% power output;
- 2-year limited warranty of materials and worksmanship\*

# **Certifications**

UL 1703 certification

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

Mechanical	
Characteristics	
Construction	Tempered glass, silicon cell, EVA, Polyester with Tedlar
Solar Cells	36 cells (156mm x 26mm) 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	None
Terminal	Open end, 9 feet (3m) 18 AWG wire
Dimensions	22.0in (560mm)x14.2in (360mm)x0.7in (18mm)
Weight	5.5b (2.5kg)
Operating Temperature	-40°C ~90°C
Storage Humidity	<90%

