

## DESIGNED FOR OFF-GRID APPLICATIONS

altE solar modules are designed specifically for use in off grid applications.

## APPLICATIONS

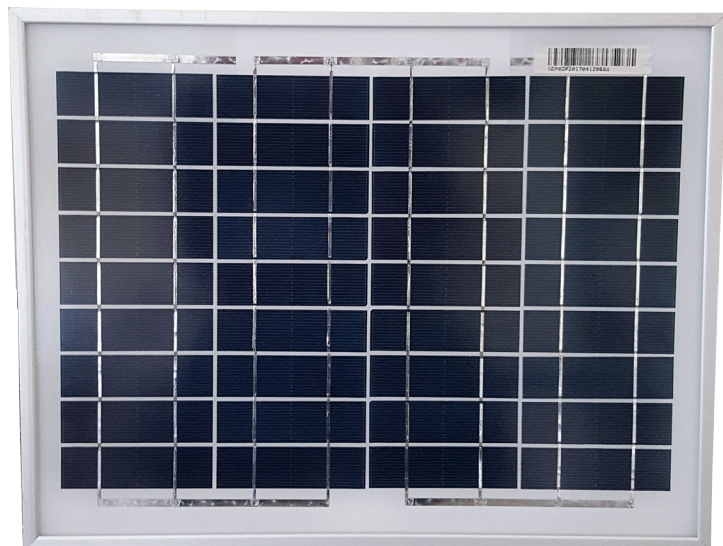
- Off-grid Power for Cabins and Vacation Homes
- Solar Water Pumping
- Solar Powered Refrigerators
- Remote WiFi and Wireless Repeaters
- Power for RVs and Campers
- Electrification of Remote Villages
- Hobbyist Projects Needing Remote or Mobile Power
- Power for Remote Monitoring Systems

## WARRANTY INFO

altE modules offer 3 year workmanship / 25 year performance warranty.

# ALT10-12P

## 10 WATTS, 12 VOLTS



# Polycrystalline Photovoltaic Module



## ELECTRICAL SPECIFICATIONS

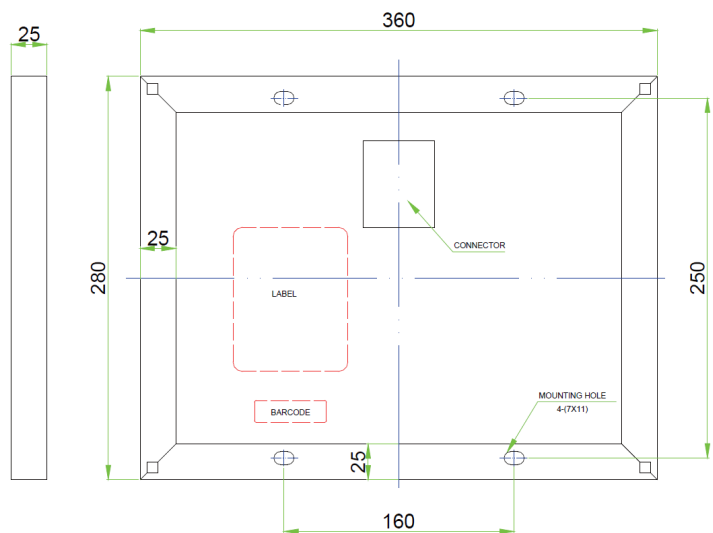
Open-Circuit Voltage (Voc)	21.73V
Optimum Operating Voltage (Vmp)	18.11V
Short-Circuit Current (Isc)	0.59A
Optimum Operating Current (Imp)	0.55A
Maximum Power at STC* (Pmax)	10W
Module Efficiency	10%
Operating Temperature	-40°C to 85°C
Maximum System Voltage	600V DC
Power Tolerance	±2W
Nominal Voltage	12V

## TEMPERATURE CHARACTERISTICS

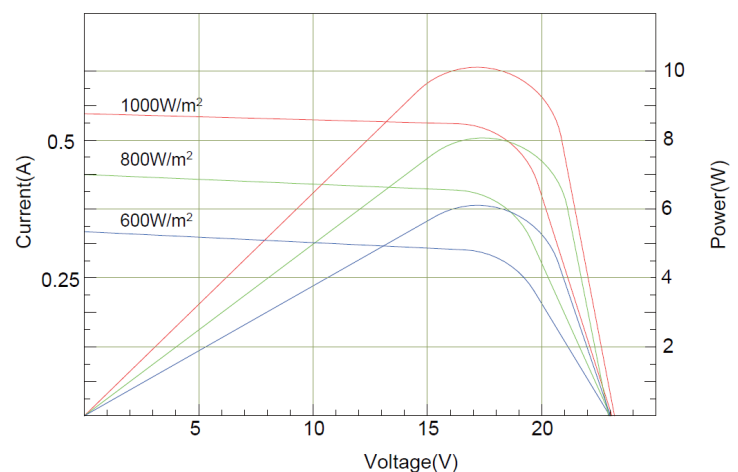
Nominal Operating Cell Temperature (NOCT)	45 ± 5°C
Temperature Coefficient of Pmax	-(0.410 ± 0.05)%/K
Temperature Coefficient of Voc	-(0.320 ± 0.01)%/K
Temperature Coefficient of Isc	+(0.050 ± 0.05)%/K
Maximum Series Fuse/Current Rating	1A

## MODULE CHARACTERISTICS

Module Dimensions	360 x 280 x 25mm 14.2" x 11" x 1"
Weight	1.5Kg 3.3lbs
Cells Array & Numbers	4 x 9 (36 Cells)



## I-V Characteristics Curve



**SOLAR CELLS:** Poly crystalline (78x22mm)  
**LAMINATE:** Glass/EVA/TPT (tedlar/pet/tedlar) or TPE  
**FRONT SIDE:** High-transmission 3.2mm tempered glass  
**BACK SIDE:** TPT/TPE  
**FRAME:** Clear anodized aluminum frame  
**RELATIVE HUMIDITY:** 0 to 100%  
**RESISTANCE:** 227g steel ball dropped from 1m high and 60 m/s wind  
**SNOW LOAD PARAMETERS:** 2400Pa  
**OUTPUT:** Junction box  
 (+/red terminal on right and -/black terminal on left)  
**STC:** Irradiance 1000W/m<sup>2</sup>, Module temperature 25°C, AM = 1.5