BP 340

40 Watt Photovoltaic Module

High-efficiency photovoltaic module using silicon nitride multicrystalline silicon cells.

Performance

Rated power (P_{max})	40W
Nominal voltage	12V
Limited Warranty[1]	25 years

Configuration

BP 340U	Clear universal frame and standard J-box

Electrical Characteristics[2]	BP 340
Maximum power (P_{max})[3]	40W
Voltage at Pmax (V_{mp})	17.3V
Current at Pmax (I_{mp})	2.31A
Warranted minimum P_{max}	36W
Short-circuit current (I_{sc})	2.54A
Open-circuit voltage (V_{oc})	21.8V
Temperature coefficient of I_{sc}	(0.065±0.015)%/ °C
Temperature coefficient of V_{oc}	-(80±10)mV/°C
Temperature coefficient of power	-(0.5±0.05)%/ °C
NOCT (Air 20°C; Sun 0.8kW/m^2; wind 1m/s)	47±2°C
Maximum series fuse rating	20A
Maximum system voltage	600V (U.S. NEC & IEC 61215 rating) 1000V (TÜV Rheinland rating)

Mechanical Characteristics

Dimensions	Length: 655mm (25.8")	Width: 537mm (21.1")	Depth: 50mm (1.97")

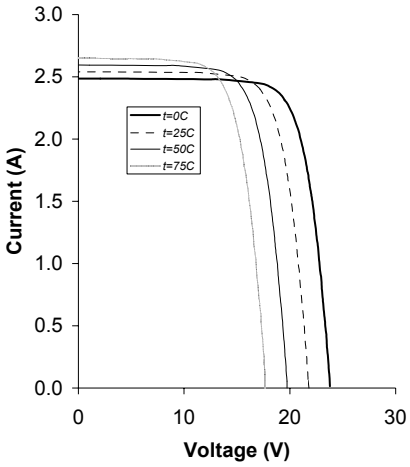
Weight	5.75 kg (12.7 pounds)
Solar Cells	36 cells (63mm x 125mm) in a 4x9 matrix connected in 2 parallel strings of 36 in series
Junction Box	U-Version junction box with 6-terminal connection block; IP 54, accepts PG 13.5, M20, ½ inch conduit, or cable fittings accepting 6-12mm diameter cable. Terminals accept 2.5 to 10mm^2 (8 to 14 AWG) wire.
Diodes	(None)
Construction	Front: High-transmission 3mm^2 (1/8th inch) tempered glass; Back: Tedlar; Encapsulant: EVA
Frame	Clear anodized aluminum alloy type 6063T6 Universal frame; Color: silver

1. Module 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. See your local representative for full terms of these warranties.
2. These data represent the performance of typical BP 340 products, and are based on measurements made in accordance with ASTM E1036 corrected to SRC (STC.)
3. During the stabilization process that occurs during the first few months of deployment, module power may decrease by up to 3% from typical P_{max}.

Quality and Safety

ESTI	Module power measurements calibrated to World Radiometric Reference through ESTI (European Solar Test Installation at Ispra, Italy)
CE	Manufactured in ISO 9001-certified factories; conforms to European Community Directives 89/33/EEC, 73/23/EEC, 93/68/EEC; certified to IEC 61215
TÜV	Framed modules certified by TÜV Rheinland as Safety Class II (IEC 60364) equipment for use in systems up to 1000 VDC
UL	Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)
FM	Approved by Factory Mutual Research in NEC Class 1, Division 2, Groups C & D hazardous locations

BP 340 I-V Curves

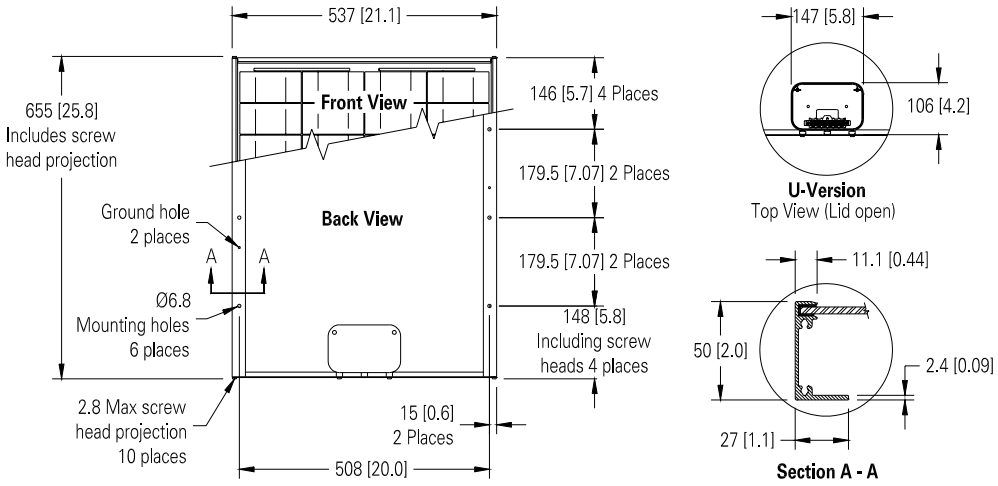


Qualification Test Parameters

Temperature cycling range	-40°C to +85°C (-40°F to 185°F)
Humidity freeze, damp heat	85% RH
Static load front and back (e.g. wind)	50psf (2400 pascals)
Front loading (e.g. snow)	113psf (5400 pascals)
Hailstone impact	25mm (1 inch) at 23 m/s (52mph)

Module Diagram

Dimensions in brackets are in inches. Unbracketed dimensions are in millimeters. Overall tolerances ±3mm (1/8")



Included with each module: self-tapping grounding screw, instruction sheet, and warranty document.

Note: This publication summarizes product warranty and specifications, which are subject to change without notice. Additional information may be found on our web site: **www.bpsolar.com**

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