



SMART MODULE™ SERIES - HIGH EFFICIENCY FRAMELESS MONOCRYSTALLINE SOLAR MODULES

ASP-140GSM

The Smart Module™ series is the next generation solar PV module designed for the Smart Grid. ASP's Smart Module™ technology enhances the energy harvest of each module by delivering higher output. The Smart Module™ series features a Smart Box that enables each solar module to produce the maximum available energy, regardless of whether other modules in the array are under performing due to mismatch. Smart Box delivers module-level data through an RF system for operational management and performance monitoring, while providing the ability to deactivate the high voltage DC bus for safer installation, maintenance or fire fighting.



ELECTRICAL SPECIFICATIONS

PARAMETER	VALUE
Model	ASP-140GSM
Rated Power (Pmax)	138 W
Maximum Power Voltage (Vmp)	17 V
Maximum Power Current (Imp)	8.72 A
Open Circuit Voltage (Voc)	21 V
Short Circuit Current (Isc)	8.72 A
NOCT	47±2°C
Practical Module Efficiency	14.50%
Watts Per Sq.Ft	13.76 W
Maximum System Voltage	600 VDC
Series Fuse Rating	15A
Output Tolerance	±3%

Measured at Standard Test Conditions (STC): Irradiance of 1000W/m², air mass of 1.5, cell temperature of 25°C

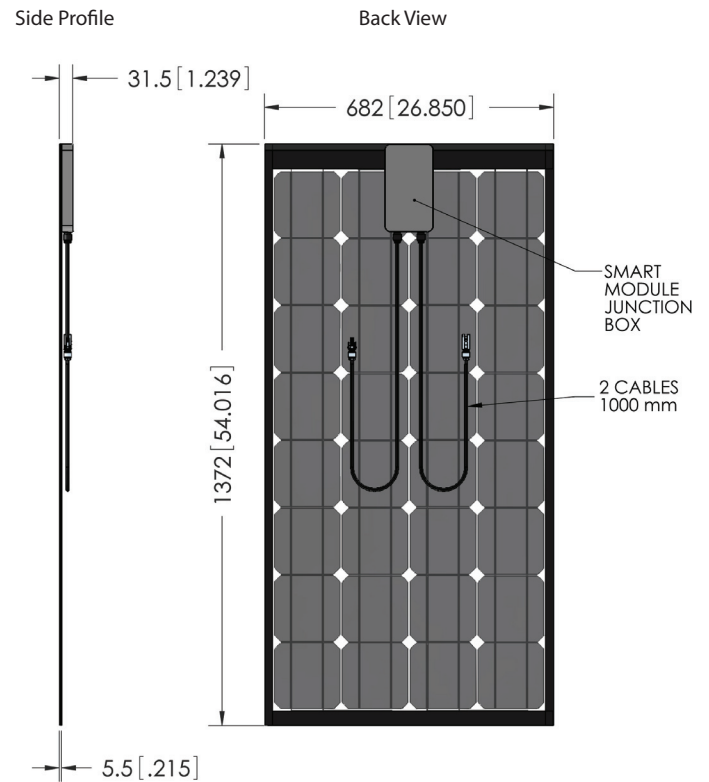
MECHANICAL SPECIFICATIONS

PARAMETER	VALUE
Solar Cell	32 Cells, Monocrystalline
Junction Box	Smart Box
Glass Cover	0.07" (1.8mm)
Module Area	10 sq.ft (0.93m ²)
Weight	18 lbs (8.2 kg)
Frame Type	None
Dimensions (LxWxH)	54.01" x 26.85" x 1.24" (1372 x 682 x 31.5 mm)"
Cable Length (+Male/-Female)	39.4" (1000 mm)
Cable Size/ Connector Type	No. 12 AWG/MC4™ Locking System
Cell Encapsulation	EVA (Ethylene Vinyl Acetate)

TEMPERATURE COEFFICIENT

PARAMETER	VALUE
Power: Pmax (%/°C)	-0.46
Voltage: Voc (%/°C)	-0.35
Current: Isc (%/°C)	0.03

MODULE DIAGRAM



OPERATING CONDITIONS & SAFETY RATINGS

PARAMETER	VALUE
Ambient Operating Temperature	-40 - +150°F (-40 - +65°C)
Fire Safety Classification	Class C Fire Rating
Max. Surface Resistance (Front & Back)	50 PSF (2400 Pa)
Hail Impact Rating	1"Ø(25mm) at 52mph (23m/s)

WARRANTY & CERTIFICATIONS

PARAMETER	VALUE
Warranty	25 year limited power warranty, 10 year limited product warranty
Warranted Tolerance (+/-)	±5%
Certifications (Pending)	UL1703, IEC61215, IEC 61730