



SMART MODULE™ SERIES

ASP-400GSM



HIGH-EFFICIENCY FRAMELESS GLASS-TO-GLASS SOLAR MODULES

Introducing the next generation of monocrystalline PV modules featuring 400 Watts of power output in a frameless, dual-sided, tempered glass module with a proprietary barrier seal and smart junction box.

- Better Protects Wafer Materials from Impact and Flexing
- More Durable and Weather-Resistant
- Withstands Excessive Heat, Humidity, Wind and Moisture
- Maximizes Sunlight Transmittance
- Generates Up To 30% More Energy Output
- Optimal for Utility Scale Solar Farms
- ARRA Compliant

SMART BOX

- Embedded DC/DC Module Controller
- Optimized Voltage Signal from Inverter
- Tunes-Up Individual Modules
- Module-Level Monitoring
- Detects Defective or Underperforming Modules
- Enhanced Safety Solutions
- System Shut-Off from Fire Suppression System



SMART MODULE™ SERIES - HIGH EFFICIENCY FRAMELESS MONOCRYSTALLINE SOLAR MODULES

ASP-400GSM

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. The 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-400GSM
Rated Power (Pmax)	400 W
Maximum Power Voltage (Vmp)	49.25 V
Maximum Power Current (Imp)	7.92 A
Open Circuit Voltage (Voc)	59.62 V
Short Circuit Current (Isc)	8.42 A
NOCT	47±2°C
Practical Module Efficiency	15.2%
Watts Per Sq.Ft	13.93 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	96 Cells, Monocrystalline
Junction Box	Smart Box
Glass Cover	0.098" (2.5mm)
Module Area	28 sq.ft (2.6m²)
Weight	77 lbs (34.9 kg)
Frame Type	None
Dimensions (LxWxH)	77.84" x 51.77" x 1.34" (1977 x 1315 x 34 mm)"
Cable Length (+Male/-Female)	49.25" (1250 mm)
Cable Size/ Connector Type	No. 12 AWG/MC4™ Locking System
Cell Encapsulation	EVA (Ethylene Vinyl Acetate)

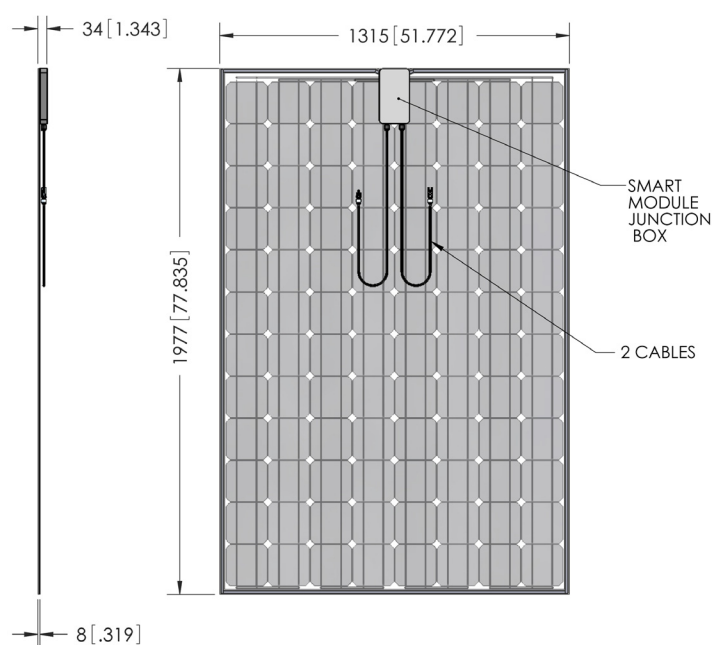
TEMPERATURE COEFFICIENT

PARAMETER	VALUE
Power: Pmax (%/°C)	-0.50
Voltage: Voc (%/°C)	-0.40
Current: Isc (%/°C)	0.05

MODULE DIAGRAM

Side Profile

Back View



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