# **EPOCH**

# **MARS**

# GSP7G60M-460W

Bifacial 10BB Half-cut Mono Perc

## SYSTEM & PRODUCT CERTIFICATES

- IEC 61215 / IEC 61730 / UL 61730
- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational Health and Safety Management Systems







## PERFORMANCE WARRANTY







#### 10BB Half-cut Cell Technology

New circuit design, lower internal current, lower Rs loss Ga dopped wafer, attenuation < 2% [1st year] / ≤0.45% [Linear]



#### Industry Leading High Yield

Bifacial PERC cell technology, 5%-25% more yield depends on different conditions



### **Excellent Anti-PID Performance**

2 times of industry standard Anti-PID test



#### Wider Application

No water-permeability and high wear-resistance, can be widely used in high-humid, windy and dusty area



### **IP68 Junction Box**

High waterproof level

# **Electrical Characteristics**

Testing Condition	STC	NMOT								
Maximum Power(Pmax/W)	440	328	445	332	450	336	455	339	460	343
Operating Voltage (Vmpp/V)	34.35	32.1	34.53	32.2	34.70	32.4	34.87	32.6	35.04	32.7
Operating Current (Impp/A)	12.81	10.23	12.89	10.30	12.97	10.36	13.05	10.42	13.13	10.49
Open-Circuit Voltage (Voc/V)	40.99	38.6	41.16	38.7	41.33	38.9	41.50	39.1	41.67	39.2
Short-Circuit Current (Isc/A)	13.69	11.04	13.78	11.11	13.86	11.17	13.94	11.24	14.02	11.30
Module Efficiency(%]	20.	30	20	.50	20	).70	21	1.00	21	1.20

# Mechanical Characteristucs Mechanical Characteristucs

Pmax gain	5%	10%	15%	20%	25%
Pmax/W	467	490	512	534	556
Vmpp/V	34.53	34.53	34.53	34.53	34.53
Impp/A	13.53	14.18	14.82	15.47	16.11
VocV	41.16	41.16	41.16	41.16	41.16
Isc/A	14.47	15.16	15.85	16.54	17.23

**Application Conditions** 

#### Cell Type Monocrystalline No. of Cells 120pcs in series (6\*20) **Module Dimensions** 1909\*1134\*35mm (75.12\*44.65\*1.38inches) Weight 24.3kg(53.61bs.) Glass 3. 2mm AR Coating Tempered Glass Frame Anodized Aluminium Alloy Junction Box IP68, 3 Bypass Diodes

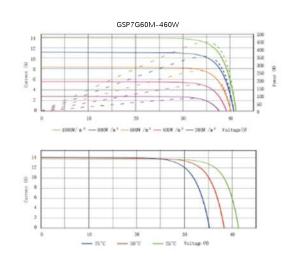
# Output Cables 4mm² (IEC), 12AWG(UL)300mm in Length or Customized Length Connectors

# **Temperature Characteristics**

Maximun System Voltag	ge 1500V/DC
Operating Temperature	-40° C+85°
Maximun Series Fuse	30A
Safety Protection Class	ClassII
Mechanical Load	Front side 5400Pa Back side 2400Pa
Refer. Bifaciality Factor	70%±5%

Temperature Coefficient of Pmax	-0.35%/°	С
Temperature Coefficient of Voc	-0.26%/°	С
Temperature Coefficient of Isc	+0.048%/°	С
Nominal Module OperatingTemperature(NMOT]	43±2°	С

# I-V Curve



# **Technical Drawings**

