

# EPOCH

# MARS

## GSP7G54M-415W

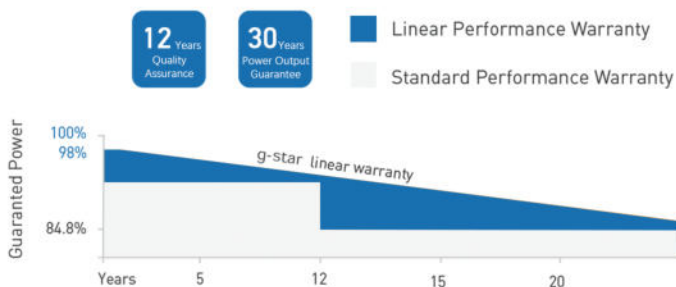
Bifacial  
10BB Half-cut Mono Perc

### 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



### KEY FEATURES



#### 10BB Half-cut Cell Technology

New circuit design, lower internal current, lower  $R_s$  loss  
Ga doped wafer, attenuation  $< 2\%$  (1st year) /  $\leq 0.45\%$  (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	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power(Pmax/W)	395	294	400	298	405	302	410	306	415	310
Operating Voltage (Vmpp/V)	30.85	28.8	31.05	29.0	31.24	29.2	31.43	29.3	31.64	29.6
Operating Current (Impp/A)	12.81	10.23	12.89	10.30	12.97	10.36	13.05	10.42	13.13	10.48
Open-Circuit Voltage (Voc/V)	36.75	34.6	37.00	34.8	37.25	35.1	37.50	35.3	37.75	35.5
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[%]	20.22		20.48		20.73		21.00		21.25	

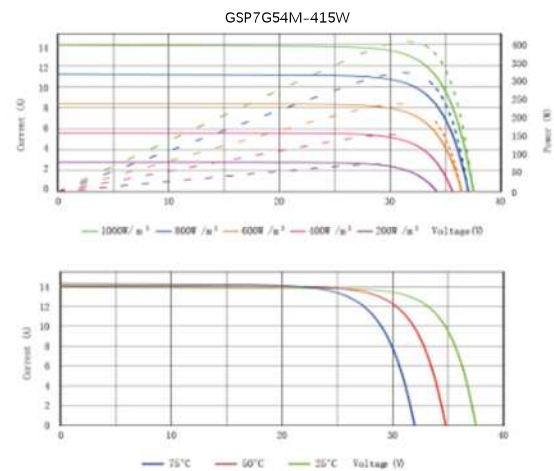
# Mechanical Characteristucs

	5%	10%	15%	20%	25%
Pmax gain	5%	10%	15%	20%	25%
Pmax/W	431	451	472	492	513
Vmpp/V	31.43	31.43	31.43	31.43	31.43
Impp/A	13.70	14.36	15.01	15.66	16.31
VocV	37.50	37.50	37.50	37.50	37.50
Isc/A	14.65	15.35	16.04	16.74	17.44

# Mechanical Characteristucs

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

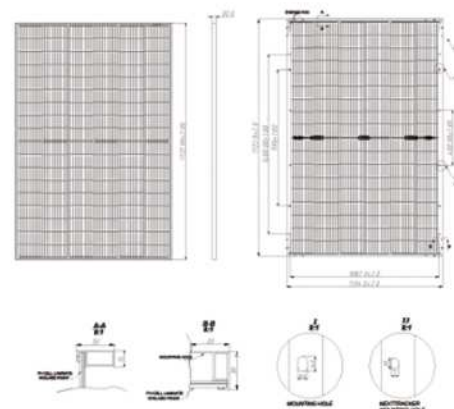
# I-V Curve



# Application Conditions

Cell Type	Monocrystalline
No. of Cells	108pcs in series (6*18)
Module Dimensions	1722*1134*30mm (67.80*44.65*1.18inches)
Weight	21.5kg(47.41lbs.)
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	MC4/MC4-EV02

# Technical Drawings



# Temperature Characteristics

Maximun System Voltage	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%