

400-415Watt 108cells 182 P- Type Mono-facial Module

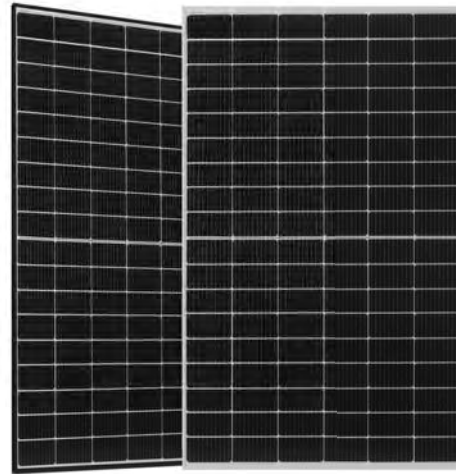
Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018
Occupational Health and Safety Management Systems



Key Features



Multi Busbar Technology

Better light trapping and current collection to improve module power output and reliability.



Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



Reduced Hot Spot Loss

Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.



Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

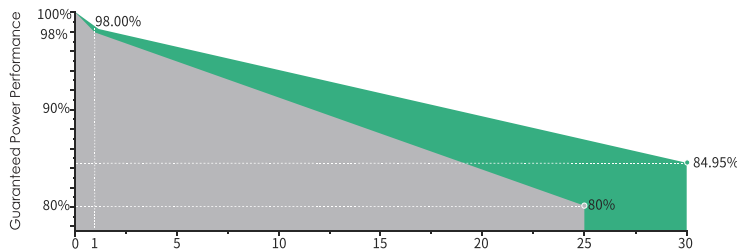


PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



LINEAR PERFORMANCE WARRANTY



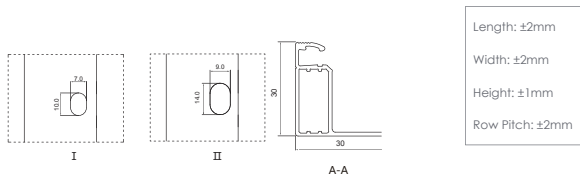
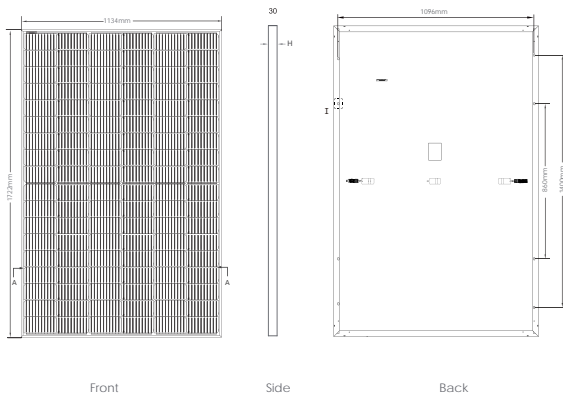
12 Year Product Warranty

30 Year Linear Power Warranty

0.45% Annual Degradation Over 30 years



Engineering Drawings

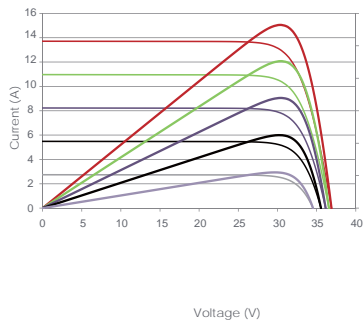


Packaging Configuration

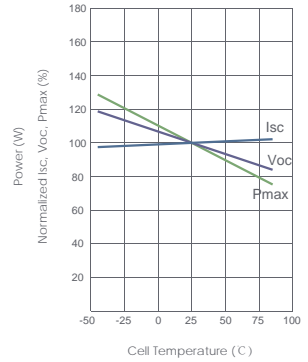
36pcs/pallets, 72pcs/stack, 936pcs/ 40'HQ Container

Electrical Performance & Temperature Dependence

Current - Voltage & Power - Voltage Curves (405W)



Temperature Dependence of I_{sc} , V_{oc} , P_{max}



Mechanical Characteristics

Cell Type	182 P type Mono-crystalline
No. of cells	108 (2x54)
Dimensions	1722x1134x30mm
Weight	20.5kg
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1x4.0mm ² (+): 300mm, (-): 300mm or Customized Length

SPECIFICATIONS

Module Type	GPM-400W(108)		GPM-405W(108)		GPM-410W(108)		GPM-415W(108)	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (P_{max})	400Wp	298Wp	405Wp	301Wp	410Wp	305Wp	415Wp	309Wp
Maximum Power Voltage (V_{mp})	30.42V	28.42V	30.52V	28.56V	30.62V	28.72V	30.79V	28.88V
Maximum Power Current (I_{mp})	13.15A	10.47A	13.27A	10.55A	13.39A	10.62A	13.48A	10.69A
Open-circuit Voltage (V_{oc})	36.98V	34.90V	37.06V	34.98V	37.14V	35.05V	37.31V	35.21V
Short-circuit Current (I_{sc})	13.78A	11.13A	13.85A	11.19A	13.92A	11.24A	14.01A	11.32A
Module Efficiency STC (%)	20.48%		20.74%		21.00%		21.25%	
Operating Temperature(°C)	-40°C~+85°C							
Maximum system voltage	1000/1500VDC (IEC)							
Maximum series fuse rating	25A							
Power tolerance	0~+3%							
Temperature coefficients of P_{max}	-0.35%/°C							
Temperature coefficients of V_{oc}	-0.28%/°C							
Temperature coefficients of I_{sc}	0.048%/°C							
Nominal operating cell temperature (NOCT)	45±2°C							

*STC: Irradiance 1000W/m²

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m²

Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s

Note: Due to continuous technical innovation and R&D, the above mentioned technical parameters may subject to modification accordingly. **G&P SUN ENERGY** reserves the right to make such modification at any time without further notice.