## Phono Solar

# **TWINPLUS** MODULE SERIES

**HIGH EFFICIENCY MONO-PERC** 

395-415W

#### **OUTSTANDING PRODUCT PERFORMANCE**

- Competitive high-temperature performance with ameliorated temperature coefficient
- Minimized power loss in cell connection
- Better performance under shading effect
- Decreased nominal operating cell temperature to 43 ± 2°C

#### TRUSTWORTHY QUALITY AND RELIABILITY

- Guaranteed 0~+5W positive tolerance secures reliable power output
- 5400Pa maximum snow load, 2400Pa maximum wind load
- Optimized electrical design lowers hot spot risk and operating current

#### **PID RESISTANT**

• Industry-leading cell processing technology and electrical design ensure solid PID resistance

### **MANAGEMENT SYSTEM CERTIFICATES**

IEC 61215, IEC 61730

ISO 9001:2015 / Quality management system

ISO 14001:2015 / Standards for environmental management system OHSAS 18001:2007 / International standards for occupational health & safety

IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules-guidelines for

increased confidence in PV module design qualification and type approval























12-year Product Warranty 25-year Linear Performance Warranty







ELECTRICAL TYPICAL VALUES										
Model	PS395M1-24/TH PS395M1H-24/TH		PS400M1-24/TH PS400M1H-24/TH		PS405M1-24/TH PS405M1H-24/TH		PS410M1-24/TH PS410M1H-24/TH		PS415M1-24/TH PS415M1H-24/TH	
Testing Condition	STC	NOCT								
Rated Power (Pmpp)	395	294	400	298	405	302	410	306	415	309
Rated Current (Impp)	9.67	7.78	9.72	7.82	9.77	7.86	9.82	7.91	9.87	7.95
Rated Voltage (Vmpp)	40.85	37.80	41.16	38.09	41.46	38.36	41.76	38.64	42.05	38.91
Short Circuit Current (Isc)	10.29	8.28	10.37	8.35	10.45	8.41	10.53	8.48	10.61	8.54
Open Circuit Voltage (Voc)	49.41	46.74	49.69	47.01	49.97	47.27	50.25	47.54	50.53	47.80
Module Efficency (%)	19.65		19.90		20.15		20.40		20.65	

 $STC(Standard\ Testing\ Conditions): Irradiance\ 1000W/m^2,\ AM\ 1.5,\ Cell\ Temperature\ 25°C,\ AM\ 1.5,\ AM\ 1.5,$ 

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/S

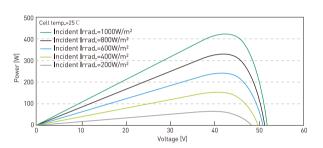
#### **MECHANICAL CHARACTERISTICS** Cell Type Monocrystalline 158.75mm x 79.38mm Length: 2010mm (79.13 inch) Dimension (L×W×H) Width: 1000mm (39.37 inch) Height: 35mm (1.38 inch) Weight 22.5kg (49.60 lbs) Front Glass 3.2mm Toughened Glass Frame Anodized Aluminium Alloy Cable 4mm<sup>2</sup> (IEC), (Including Connector) (+):450mm,(-):250mm or Customized Length IP 68 Rated Junction Box

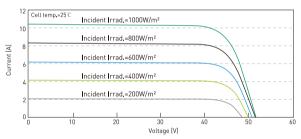
TEMPERATURE RATINGS		
Voltage Temperature Coefficient	-0.30%/'C	
Current Temperature Coefficient	+0.05%/'C	
Power Temperature Coefficient	-0.38%/'C	
Tolerance	0~+5w	
NOCT	43±2'C	

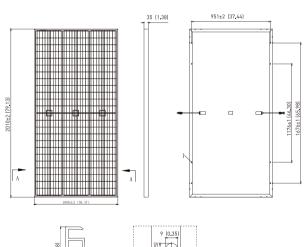
ABSOLUTE MAXIMUM RATING	
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	20A
PV Module Classification	II
Fire Rating (IEC 61730)	С
Maximum System Voltage	DC 1000V/1500V

PACKING CONFIGURATION		
Container	20' GP	40' HQ
Pieces/Container	255	726

#### **ELECTRICAL CHARACTERISTICS**







Note:mm (inch)



PHONO SOLAR TECHNOLOGY CO.,LTD reserves the right to make necessary adjustments to the information described herein at any time without further notice. The specifications and certificates contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Please be sure to use the most recent version of data.