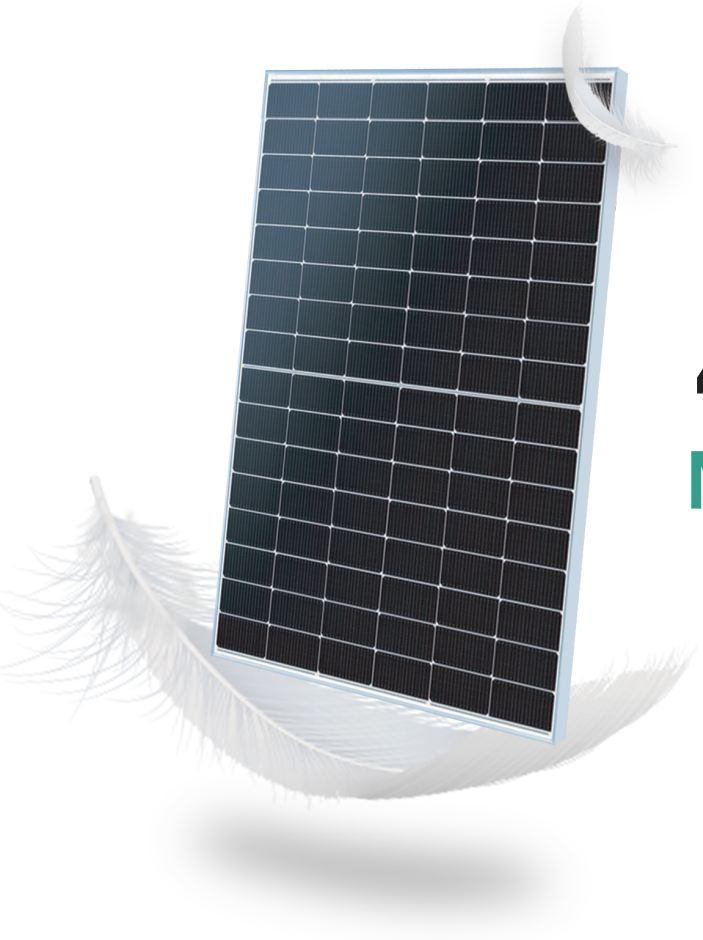
PHONO



440-460W

Meteor Module Series

N-Type HIGH EFFICIENCY 96-16BB-W-W

Bloomberg NEW ENERGY FINANCE Tier 1 TOP PERFORMER 2026 kiwa PV MODULE RELIABILITY SCORECARD

Ultra-light
35% weight reduction

Microcracks Resistance
Minimized risk of microcrack and snail trail

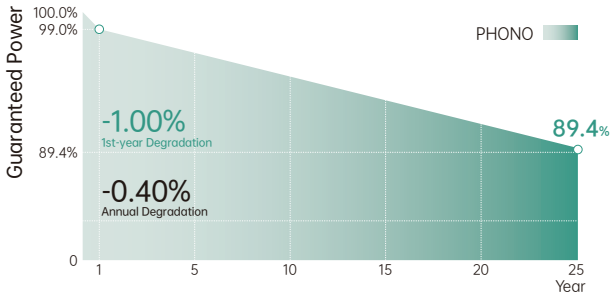
Anti-aging
Without attenuation of module color and light transmittance, ensuring system reliability

Stable Investment Returns
Reliable design and excellent performance ensure stable investment returns

Easy to Clean
Flat surface design, less dust accumulation

Trustworthy Quality and Reliability

- Optimized electrical design lowers hot spot risk and operating current
- The rigidity of the module makes it safer to transport



15-year Product Warranty

25-year Linear Performance Warranty

MANAGEMENT SYSTEM CERTIFICATES

IEC 61215, IEC 61730

ISO 9001
2015 / Quality management system

ISO 14001
2015 / Standards for environmental management system

ISO 45001
2018 / International standards for occupational health & safety

GL-EN-VERSION 2026.06.17 © PHONO SOLAR CO., LTD. ALL RIGHTS RESERVED

www.phonosolar.com / info@phonosolar.com

Electrical Typical Values

Model	1000V	PS440L8-16/QMH		PS445L8-16/QMH		PS450L8-16/QMH		PS455L8-16/QMH		PS460L8-16/QMH	
	1500V	PS440L8H-16/QMH		PS445L8H-16/QMH		PS450L8H-16/QMH		PS455L8H-16/QMH		PS460L8H-16/QMH	
Testing Condition		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated Power (Pmpp)		440	337	445	341	450	345	455	348	460	352
Rated Current (Impp)		14.89	12.00	14.92	12.02	14.95	12.04	14.98	12.07	15.01	12.09
Rated Voltage (Vmpp)		29.55	28.08	29.83	28.37	30.10	28.65	30.37	28.83	30.65	29.11
Short Circuit Current (Isc)		15.56	12.54	15.60	12.57	15.64	12.60	15.68	12.63	15.72	12.66
Open Circuit Voltage (Voc)		35.13	33.63	35.44	33.95	35.74	34.27	36.05	34.48	36.35	34.80
Module Efficiency (%)		22.02		22.27		22.52		22.77		23.02	

STC (Standard Testing Conditions): Irradiance 1000W/m², AM 1.5, Cell Temperature 25°C

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

Mechanical Characteristics

Cell Type	N Type Monocrystalline
Dimension (L × W × H)	Length: 1762mm (69.37 inch) Width: 1134mm (44.65 inch) Height: 26mm (1.02 inch)
Weight	13.8±0.5kg (30.42±1.10 lbs)
Frame	Anodized Aluminium Alloy
Cable (Including Connector)	4mm² (IEC), (+): 350mm,(-): 250mm or Customized Length
Junction Box	IP 68 Rated

Temperature Ratings

Voltage Temperature Coefficient	-0.25%/°C
Current Temperature Coefficient	+0.04%/°C
Power Temperature Coefficient	-0.29%/°C
Power Tolerance	0~+3%
NOCT	42±2°C

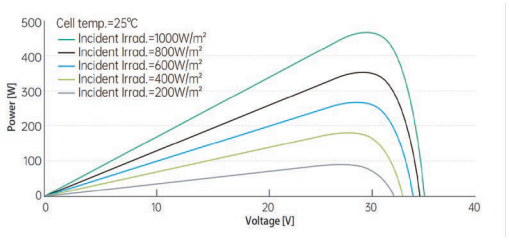
Absolute Maximum Rating

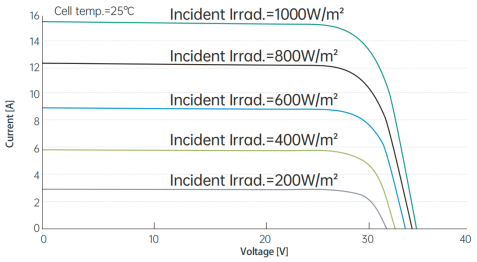
Operating Temperature	From -40 to + 85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	30A
PV Module Classification	II
Fire Rating (IEC61730)	C
Maximum System Voltage	DC 1000V/1500V

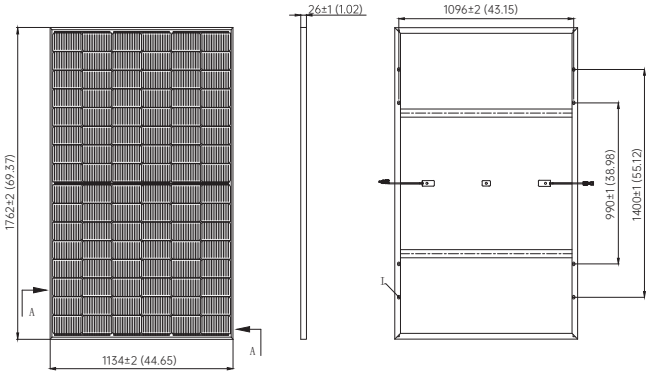
Packing Configuration

Container	40'HQ
Pcs/Container	1092
Pcs/Pallet	42
Pallets/Container	26

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.