

P-type 60H 440-460 Watt MONO-FACIAL MODULE

P-Type

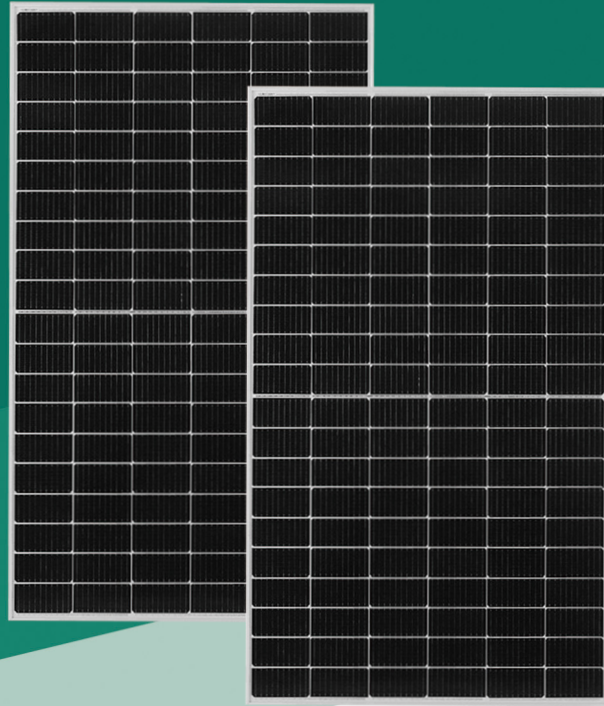
Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

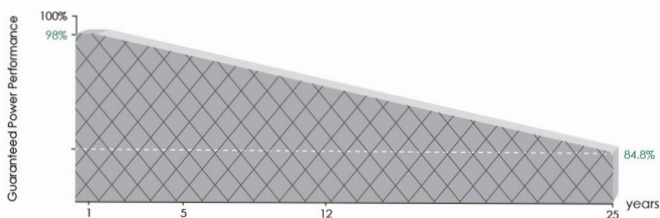
ISO14001:2015: Environment Management System

ISO45001:2018
Occupational health and safety management systems



Key Features

LINEAR PERFORMANCE WARRANTY



12 Year Product Warranty

25 Year Linear Power Warranty

0.55% Annual Degradation Over 25 years



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).

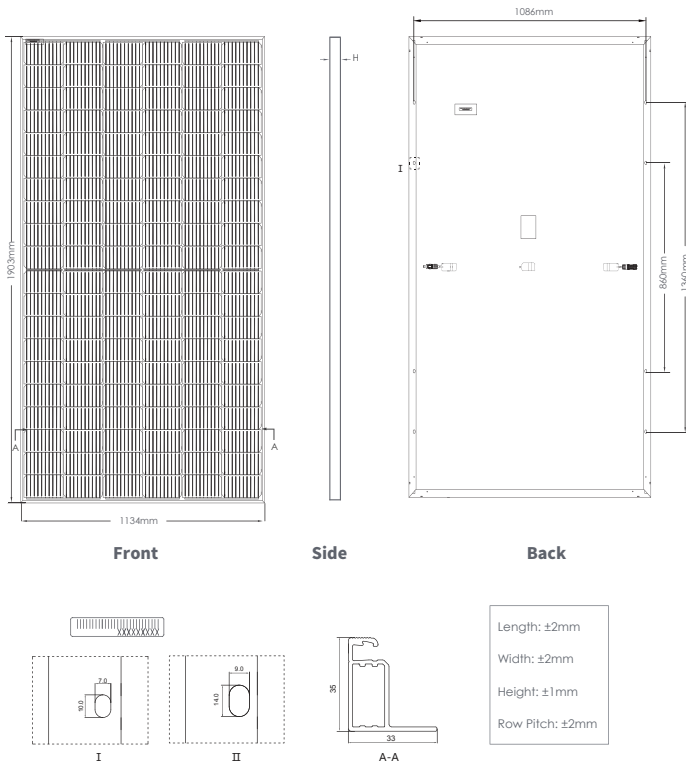


Longer Life-time Power Yield

0.55% annual power degradation and 25 year linear power warranty.

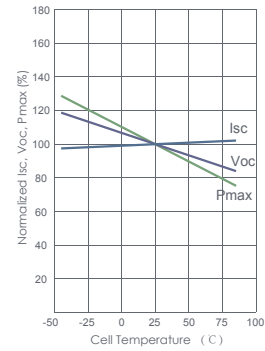


Engineering Drawings



Electrical Performance & Temperature Dependence

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



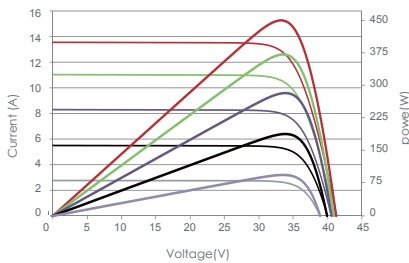
Mechanical Characteristics

Cell Type	P type Mono-crystalline
No. of cells	120 (6×20)
Dimensions	1903×1134×30mm
Weight	24.2 kg
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm ² (+): 400mm, (-): 200mm or Customized Length
Packaging	35pcs/pallets, 840pcs/ 40'HQ Container

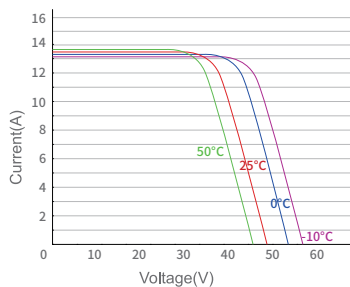
ELECTRICAL DATA (STC)

Module Type	SKM440-460M-60H				
Maximum Power (P_{max})(Wp)	440	445	450	455	460
Maximum Power Voltage (V_{mp})(V)	33.72	33.82	33.91	34.06	34.20
Maximum Power Current (I_{mp})(A)	13.05	13.16	13.27	13.36	13.45
Open-circuit Voltage (V_{oc})(V)	41.02	41.10	41.18	41.33	41.48
Short-circuit Current (I_{sc})(A)	13.73	13.79	13.85	13.93	14.01
Module Efficiency STC (%)	20.39	20.62	20.85	21.08	21.32

Current-Voltage & Power-Voltage Curves (450W)



I-V characteristics at different temperatures
(AM1.5, 1000W/m²)



ELECTRICAL DATA (NMOT)

Module Type	SKM440-460M-60H				
Maximum Power (P_{max})(Wp)	327	331	335	339	342
Maximum Power Voltage (V_{mp})(V)	31.39	31.56	31.73	31.91	32.07
Maximum Power Current (I_{mp})(A)	10.43	10.49	10.55	10.61	10.67
Open-circuit Voltage (V_{oc})(V)	38.72	38.79	38.87	39.01	39.15
Short-circuit Current (I_{sc})(A)	11.09	11.14	11.19	11.25	11.32

TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of V_{oc}	-0.28%/°C
Temperature Coefficient of I_{sc}	0.048%/°C
Temperature Coefficient of P_{max}	-0.35%/°C
Power tolerance	0~+3%
Operational Temperature	-40 °C~+85°C
Maximum System Voltage	1000/1500VDC (IEC)
Max Series Fuse Rating	25A

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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