FUTURESOLAR

POWER GREEN LIVING

Mono

182 Wafer size

FSMXXXM-72HC Series

Introduction

Bifacial modules are assembled by high-performance PERCIUM cells and encapsulated by glass-glass panels, are capable of converting energy from incident lights on front and diffuse light, as well as reflected and scattered light on rear sides, which make them better reliability, superior low irradiance performance, and excellent energy generation performance.

144 LAYOUT

MONOCRYSTALLINE MODULE

530-550W

POWER OUTPUT RANGE

21.2%

MAXIMUM EFFICIENCY

0~+5W

POSITIVE POWER T0LERANCE

KEY FEATURES

10BB half-cut cell technology
10 busbar solar cell adopts new technology to improve the efficiency of modules , offers a better aesthetic appearance, making it perfect for rooftop installation.

PID Resistance
Excellent Anti-PID performance guarantee limited power degradation for mass production.

Higher Lifetime Power Yield:
0.55% annual power degradation
30 year linear power warranty

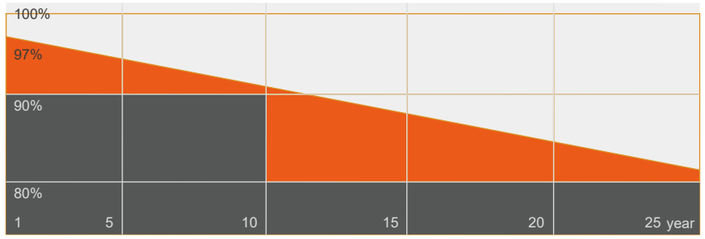
Light-weight design:
Light-weight design using transparent backsheet for easy installation and low BOS cost.

Better low-light performance:
Excellent performance in low-light environments
(e.g. early morning, dusk, and cloud, etc.)

Superior Warranty

12 years Quality assurance

30 years Power output guarantee



MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	182*182mm
Cell Arrangement	144 (6*24)
Weight	29kg (63.9lbs.)
Module Dimensions	2286*1135*40mm (90*44.68*1.57inches)
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm² (0.006inches²)/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration (1)	27pcs/carton, 540pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

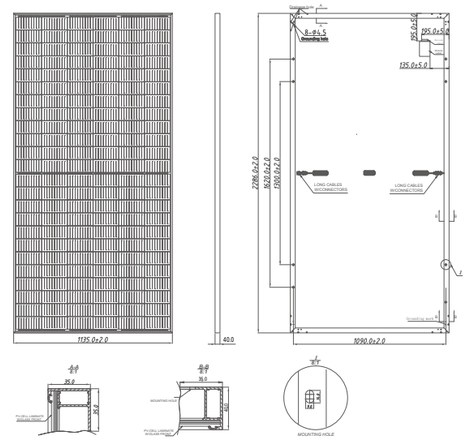
OPERATING CONDITIONS

Maximun System Voltage	1000V/1500V/DC(IEC)
Operating Temperature	-40°C ~ +85°C
Maximun Series Fuse	25A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ
Connector	MC4 Compatible

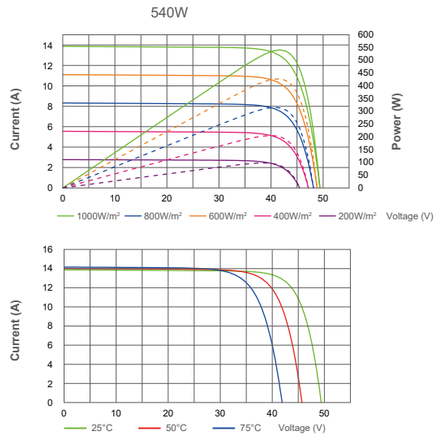
TEMPERATURE COEFFICIENT

Temperature Coefficient Pmax	-0.36%/°C
Temperature Coefficient Voc	-0.26%/°C
Temperature Coefficient Isc	+0.043%/°C
NMOT	43±2°C

TECHNICAL DRAWINGS



I-V CURVE



ELECTRICAL PARAMETERS

Performance at STC (Power Tolerance 0 ~ +3%)					
Maximum Power (Pmax/W)	530	535	540	545	550
Operating Voltage (Vmpp/V)	40.8	41.0	41.2	41.4	41.6
Operating Current (Impp/A)	13.00	13.05	13.11	13.17	13.23
Open-Circuit Voltage (Voc/V)	49.0	49.2	49.4	49.6	49.8
Short-Circuit Current (Isc/A)	13.76	13.81	13.87	13.93	13.99
Module Efficiency ηm(%)	20.4	20.6	20.8	21.0	21.2
Performance at NMOT					
Maximum Power (Pmax/W)	395	398	402	406	410
Operating Voltage (Vmpp/V)	38.0	38.2	38.4	38.6	38.8
Operating Current (Impp/A)	10.40	10.44	10.49	10.54	10.58
Open-Circuit Voltage (Voc/V)	45.9	46.1	46.3	46.4	46.6
Short-Circuit Current (Isc/A)	11.09	11.13	11.18	11.23	11.28

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m², Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s