

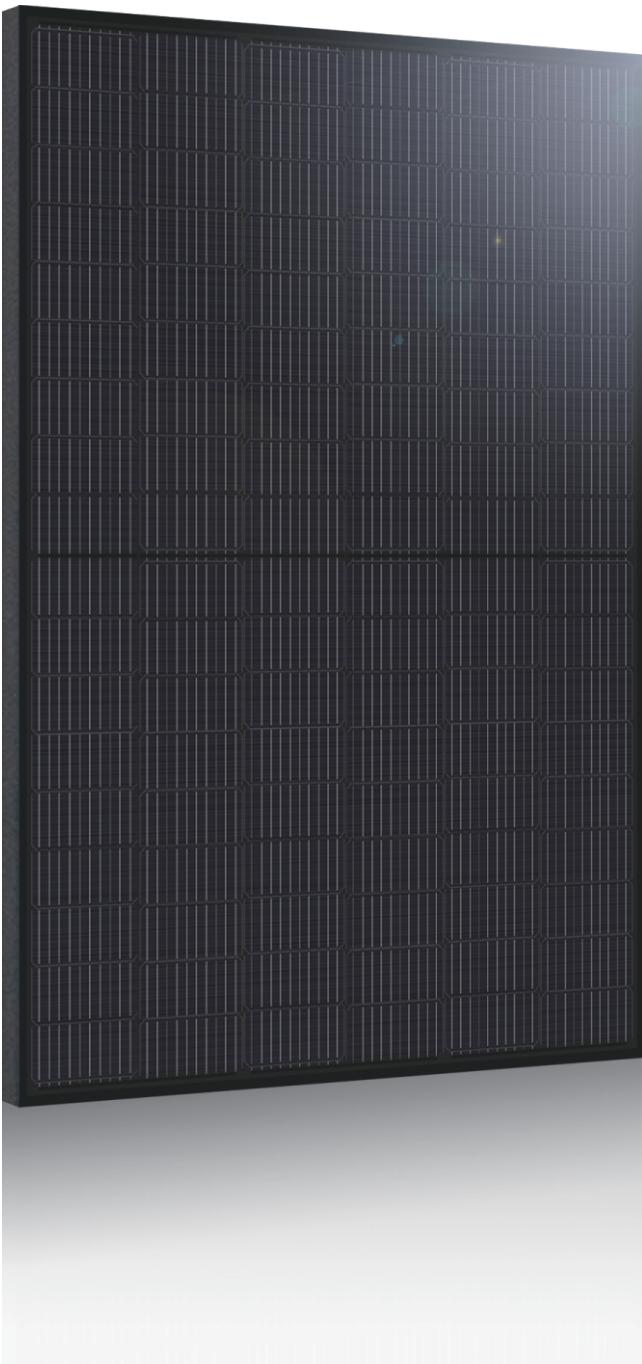


## FBM445M7G-BB / 120 cells 445 Watt Mono-Crystalline PV Module

URE modules use state-of-the-art cell cutting technology, and advanced module manufacturing experience to provide leading power density and long term reliability.



UL 61730, CE-compliant  
Quality Controlled PV-TÜV  
SUD IEC 61215:2016,  
IEC 61730:2016  
Type 1/Class C Fire Rating



### Key Features

- At 445 Watts and 20.57% Efficiency URE Solar Panels are Industry Leaders in Output and Efficiency
- 25 Year Output Warranty and 25 Year Product Guarantee
- Super All Black Design with more Uniform Appearance for High Profile Residential Installations
- High Quality Solar Cell Technology allows URE to be a major international exporter to Solar Module manufacturers in the United States and Europe
- Excellent Performance in Low Light and Poor Weather Conditions to Maximize Energy Harvest
- Winner of Taiwan Excellence Award 7 Consecutive Years for Highest Efficiency Module

### THE IDEAL SOLUTION FOR:

Rooftop arrays on residential buildings

Residential ground mount arrays



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## Electrical Data

Model - STC		FBM440M7G-BB	FBM445M7G-BB	FBM450M7G-BB	FBM455M7G-BB
Maximum Rating Power (Pmax)	[W]	440	445	450	455
Module Efficiency	[%]	20.34	20.57	20.80	21.03
Open Circuit Voltage (Voc)	[V]	41.70	41.90	42.10	42.30
Maximum Power Voltage	[V]	34.60	34.80	35.00	35.20
Short Circuit Current (Isc)	[A]	13.41	13.48	13.56	13.63
Maximum Power Current	[A]	12.72	12.79	12.86	12.93

\*Standard Test Condition (STC): Cell Temperature 25 °C, Irradiance 1000 W/m<sup>2</sup>, AM 1.5

\*Values without tolerance are typical numbers. Measurement tolerance: ± 3%

## Mechanical Data

Item	Specification
Dimensions	1908 mm (L) <sup>1</sup> x 1134 mm (W) <sup>1</sup> x 35 mm (D) <sup>2</sup> / 75.12 " (L) <sup>1</sup> x 44.65 " (W) <sup>1</sup> x 1.38 " (D) <sup>2</sup>
Weight	24.2 kg / 53.35 lbs
Solar Cell	12x10 pieces monocrystalline solar cells series strings
Front Glass	White toughened safety glass, 3.2mm thickness
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Back Cover	Black composite film
Frame	Black anodized aluminum profile
Junction Box	IP 68, 3 diodes
Connectors Type	Staubli MC4
Cable	1200mm (cable length can be customized), 4mm <sup>2</sup>
Package Configuration	31 pcs Per Pallet, 744 pcs per 40' HQ container

<sup>1</sup> : With assembly tolerance of ± 2 mm [ ± 0.08 " ]

<sup>2</sup> : With assembly tolerance of ± 0.8 mm [ ± 0.03 " ]

## Operating Conditions

Item	Specification
Mechanical Load	5400 Pa
Maximum System Voltage	1000V
Series Fuse Rating	30 A
Operating Temperature	-40 to 85 °C

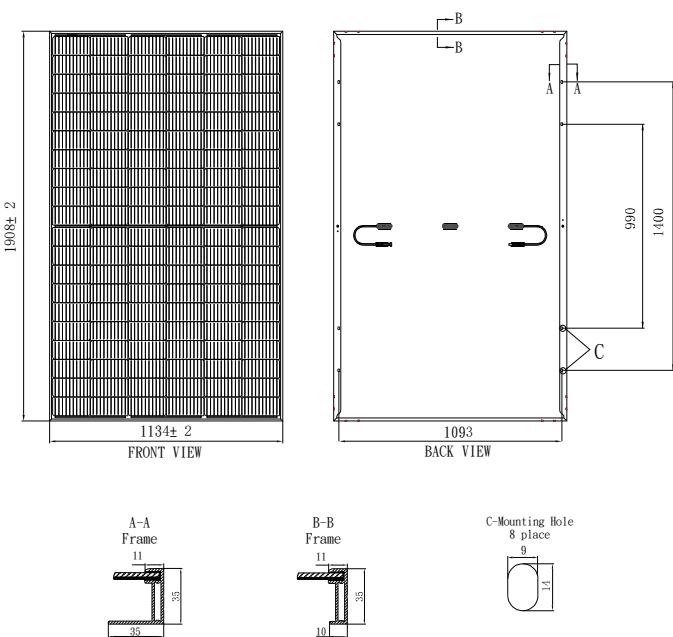
## Temperature Characteristics

Item	Specification
Nominal Module Operating Temperature	45°C ± 2°C
Temperature Coefficient of Isc	0.048 % / °C
Temperature Coefficient of Voc	-0.27 % / °C
Temperature Coefficient of Pmax	-0.33 % / °C

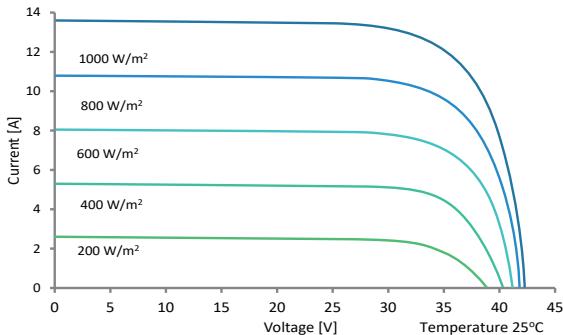
\*Nominal module operating temperature (NMOT): Air mass AM 1.5, irradiance 800W/m<sup>2</sup>, temperature 20°C, windspeed 1 m/s.

\*Reduction in efficiency from 1000W/m<sup>2</sup> to 200W/m<sup>2</sup> at 25°C: 3.5 ± 2%.

## Engineering Drawing (mm)



## Dependence on Irradiance



## Reliability with Warranty

