

URECO
United Renewable Energy Co., Ltd.



GLORY TOPCon

FBF_BFG-BB / 108 cells

415 W - 440 W

Mono-Crystalline Bifacial PV Module

United Renewable Energy Co., Ltd. (a company from Taiwan where the sun shines) Glory TOPCon module uses URECO TOPCon monocrystalline bifacial solar cells, and URECO advanced glass(G2G) module manufacturing technology.



UL 61730, CE-compliant
Quality Controlled PV-TÜV SUD
IEC 61215:2016, IEC 61730:2016

Key Features



Multi-Bus bar/ TLS technology
Increase the stability of outdoor power generation



Better bifaciality
High bifacial rate



PID resistance
Excellent PID resistance performance



Enhanced performance warranty
Zero light induced degradation effect/
Excellent low light performance



30-Year
Power output warranty



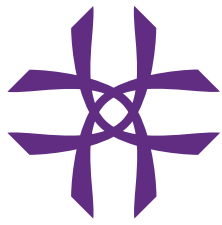
Superior temperature coefficient
Better performance in high temperature



Fire resistance
Class of reaction to Type 29/ Class C

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Electrical Data

Model		Bifacial Gain				Bifacial Gain				Bifacial Gain		
		FBF415BFG-BB	5%	10%		FBF420BFG-BB	5%	10%		FBF425BFG-BB	5%	10%
Maximum Rating Power (Pmax)	[W]	415	436	457	420	441	462	425	446	468		
Module Efficiency	[%]	21.25	22.31	23.10	21.51	22.59	23.66	21.76	22.85	23.94		
Open Circuit Voltage (Voc)	[V]	38.00	38.00	38.00	38.27	38.27	38.27	38.56	38.56	38.03		
Maximum Power Voltage	[V]	32.13	32.13	32.13	32.38	32.38	32.38	32.64	32.64	32.64		
Short Circuit Current (Isc)	[A]	13.60	14.28	14.96	13.65	14.33	15.02	13.70	14.39	15.07		
Maximum Power Current	[A]	12.92	13.57	14.21	12.97	13.62	14.27	13.02	13.67	14.32		
Model		Bifacial Gain				Bifacial Gain				Bifacial Gain		
		FBF430BFG-BB	5%	10%		FBF435BFG-BB	5%	10%		FBF440BFG-BB	5%	10%
Maximum Rating Power (Pmax)	[W]	430	452	473	435	457	479	440	462	484		
Module Efficiency	[%]	22.02	23.12	24.22	22.28	23.39	24.51	22.53	23.66	24.78		
Open Circuit Voltage (Voc)	[V]	38.84	38.84	38.84	39.12	39.12	39.12	39.38	39.38	39.38		
Maximum Power Voltage	[V]	32.88	32.88	32.88	33.13	33.13	33.13	33.37	33.37	33.37		
Short Circuit Current (Isc)	[A]	13.75	14.44	15.13	13.80	14.49	15.18	13.85	14.54	15.24		
Maximum Power Current	[A]	13.08	13.73	14.39	13.13	13.79	14.44	13.18	13.84	14.50		

*Standard Test Condition (STC): Cell Temperature 25 °C, Irradiance 1000 W/m², AM 1.5

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

Mechanical Data

Item	Specification
Dimensions	1722 mm (L) ¹ x 1134 mm (W) ¹ x 30 mm (D) ² / 67.80" (L) ¹ x 44.65" (W) ¹ x 1.18" (D) ²
Weight	24.7kg / 54.45 lbs
Solar Cell	12x9 pieces mono solar cells series strings
Front Glass	AR-Coating Semi-toughened glass, 2.0 mm thickness
Rear Glass	Black Glazed & Semi-toughened glass, 2.0 mm thickness
Frame	Black anodized aluminum profile
Junction Box	IP68, 3 diodes
Cable	Potrait : 500 mm (cable length can be customized), 1 x 4 mm ² or 12AWG
Package Configuration	35 pcs Per Pallet, 735 pcs per 40' HQ container

¹ : With assembly tolerance of ± 2 mm [± 0.08"]

² : With assembly tolerance of ± 0.8 mm [± 0.03"]

Operating Conditions

Item	Specification
Mechanical Load	5400 Pa
Maximum System Voltage	1500 VDC
Series Fuse Rating	30 A
Operating Temperature	-40 to 85 °C

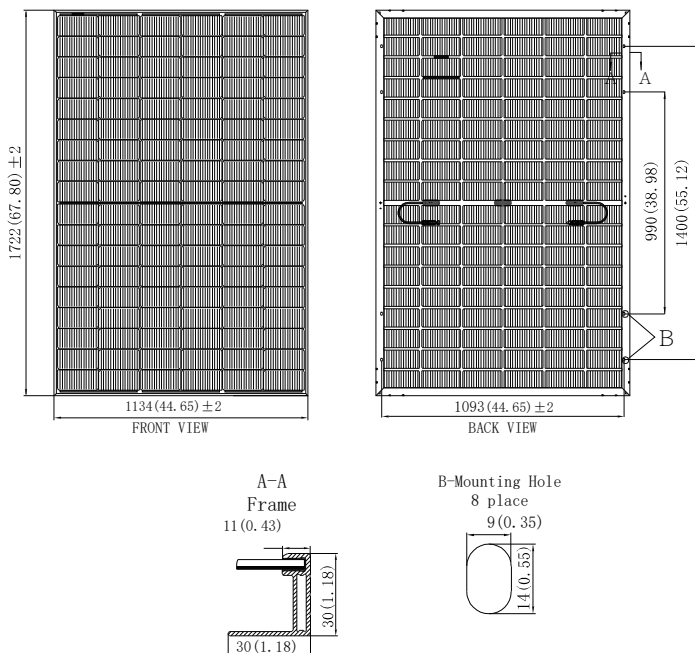
Temperature Characteristics

Item	Specification
Nominal Module Operating Temperature	45°C ± 2°C
Temperature Coefficient of Isc	0.046 % / °C
Temperature Coefficient of Voc	-0.26 % / °C
Temperature Coefficient of Pmax	-0.30 % / °C

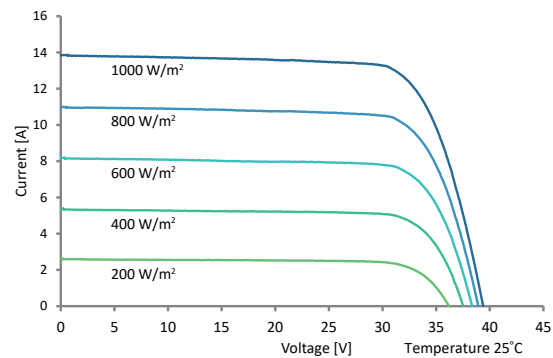
*Nominal module operating temperature (NMOT): Air mass AM 1.5, irradiance 800W/m², temperature 20°C, windspeed 1 m/s.

*Reduction in efficiency from 1000W/m² to 200W/m² at 25°C: 3.5 ± 2%.

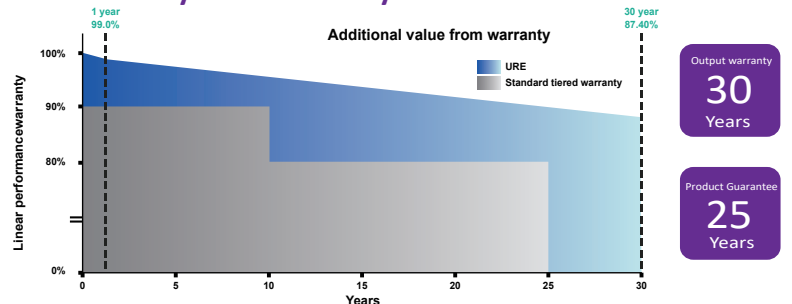
Engineering Drawing (mm)



Dependence on Irradiance



Reliability with Warranty



For more information, please visit us at www.urecorp.com