

Qin series

Double Glass Bifacial N-Type TOPCon Solar Module

650~675W

Model: QIN-UL-***M-132DDGN

Breakthrough: EFF. **25.00%** ↑



Global Patent

Innovative Stacked Finger Technology



Higher Output

The Module conversion efficiency has exceeded 25.00%



Bifacial Mono Module

Bifaciality: 80±5%



Outstanding Mechanical Load Resistance

2mm+2mm front and back sides tempered glass, sturdy and durable, resistant to hail impact, with a snow load of 5400Pa and a wind load of 2400Pa



Anti-PID(Potential induced degradation)

Passed anti-PID test under 85°C damp heat 85% relative humidity for 192 hours



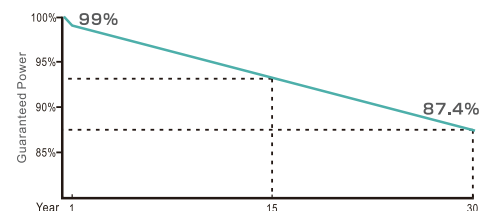
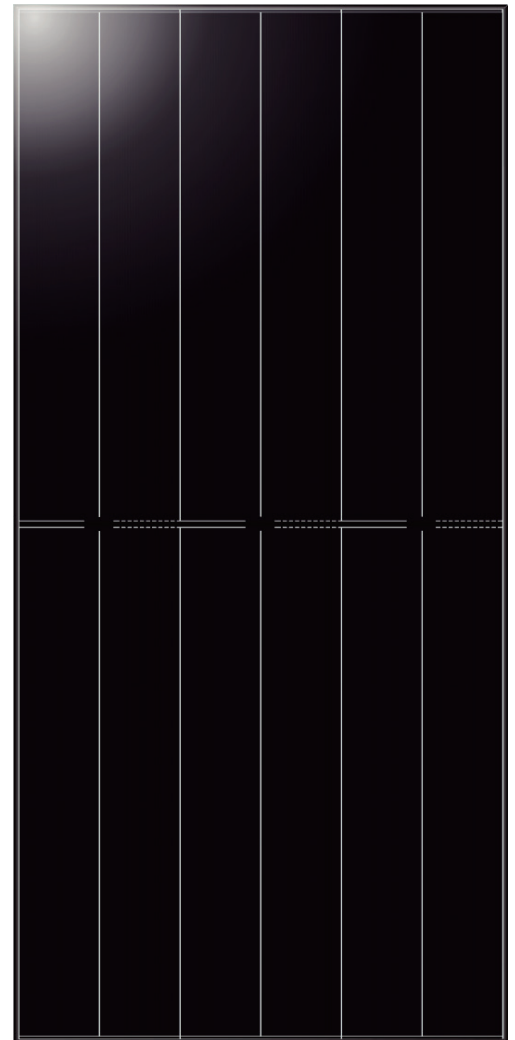
Lower Temperature Coefficient

Temperature coefficient reaches within -0.28%/°C



Full-Scenario Resilience

Proven through rigorous resistance tests for salt mist, ammonia corrosion, sand & dust



15 Year Product Warranty **1%** Power Degradation In the first Year
30 Year Linear Power Warranty **0.4%** Linear Power Degradation

IEC 61215, IEC 61730

ISO 9001: 2015 (Quality management systems)

ISO 14001: 2015 (Environmental management systems)

ISO 45001: 2018 (Occupational health and safety)

EN 13501-1 & EN 13501-5 (Fire Test)



CEC Listed



Ulica Official Website

Add: No. 238, Yunlin Middle Road, Gulin Town Haishu District, Ningbo, China

TEL: +86-0574-28828999

Email: sales@ulsolar.com.cn

DOUBLE GLASS BIFACIAL 650~675W

ELECTRICAL SPECIFICATIONS

Module Type	UL-650M-132DDGN			UL-655M-132DDGN		UL-660M-132DDGN		UL-665M-132DDGN		UL-670M-132DDGN		UL-675M-132DDGN	
		STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*	STC*	NOCT*
Maximum Power(Pmax)	W	650	494	655	498	660	501	665	505	670	509	675	513
Maximum Power Voltage(Vmp)	V	42.20	38.82	42.30	38.92	42.40	39.01	42.50	39.10	42.60	39.19	42.70	39.28
Maximum Power Current(Imp)	A	15.40	12.72	15.48	12.78	15.57	12.85	15.65	12.92	15.73	12.99	15.81	13.05
Open-circuit Voltage(Voc)	V	49.05	44.64	49.15	44.73	49.25	44.82	49.35	44.91	49.45	45.00	49.55	45.09
Short-circuit Current(Isc)	A	16.35	13.19	16.43	13.25	16.52	13.33	16.61	13.40	16.70	13.47	16.79	13.54
Module Efficiency STC	%	24.06		24.25		24.43		24.62		24.80		24.99	

*STC: Cell temperature: 25°C, Irradiance: 1000W/m², Air mass: 1.5G, Power measurement tolerance: ±3%

*NOCT: Air temperature: 20°C, Irradiance: 800W/m², Air mass: 1.5G, Wind speed: 1m/s

OPERATING PARAMETERS

Operating Temperature -40°C~85°C

Maximum system voltage DC 1500V(IEC)

Maximum series fuse rating 30A

Nominal operating cell temperature 43±2°C

Power tolerance 0~+5Watt

TEMPERATURE RATINGS

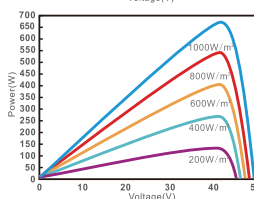
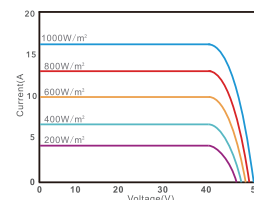
Temperature coefficient of Pmax -0.28%/°C

Temperature coefficient of Voc -0.25%/°C

Temperature coefficient of Isc 0.046%/°C

I-V CURVE

I-V characteristics at different irradiances (reference to 675 W)



REAR SIDE POWER GAIN(REFERENCE TO 675W FRONT SIDE)

Pmax/W	675	709	743	776	810	844	878
Pmax gain	0%	5%	10%	15%	20%	25%	30%
Voc/V	49.55	49.55	49.55	49.55	49.55	49.55	49.55
Isc/A	16.79	17.63	18.47	19.31	20.15	20.99	21.83
Vmp/V	42.70	42.70	42.70	42.70	42.70	42.70	42.70
Imp/A	15.81	16.60	17.39	18.18	18.97	19.76	20.55

SPECIFICATIONS

Cell Type N-type TOPCon Mono Half Cell

No. of cells 132(6×11×2)

Dimensions 2382*1134*30mm

Weight 32.7kg

Front Glass 2.0mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass

Back Glass 2.0mm, High Transmission, Low Iron, Tempered Glass

Frame Anodized Aluminium Alloy

Junction Box IP68, 3 diodes

Connector ☐ MC4 Compatible ☐ Original: MC4-EVO2A
☐ others _____

Cable Length (Including Connector) 4mm²
☐ Short Cable: (+)400/(-)200mm ☐ Long Cable: (+)1400/(-)1400mm
☐ Customized Length _____

PACKAGING INFORMATION



36 Pcs/Pallet



72 Pcs/Stack



Length: 2390mm



Width: 1130mm



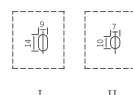
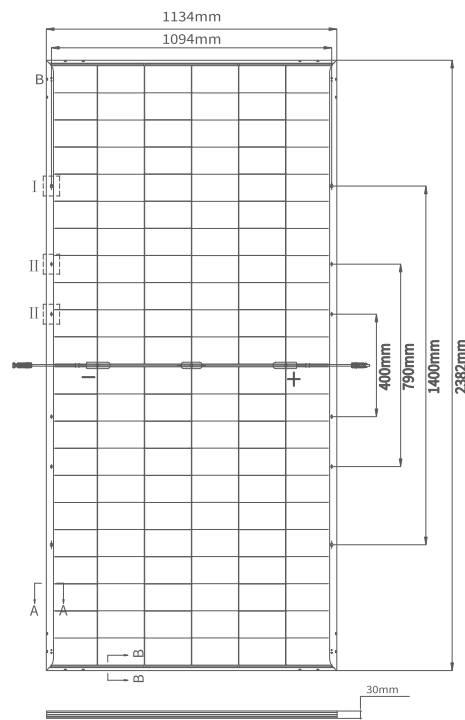
Height: 2540mm



Weight: 2437kg/Stack



10 Stacks/40'HQ
720pcs/40'HQ



Length: ±2mm
Width: ±2mm
Height: ±1mm
Row Pitch: ±2mm



Specifications included in this datasheet are subject to change without notice.

Ulica Solar reserves the right of final interpretation.

Version number: QIN-UL-2382-132DDGNYB-30-EN-V1.0