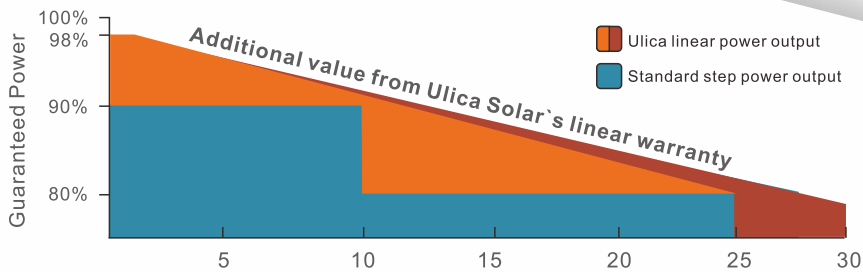
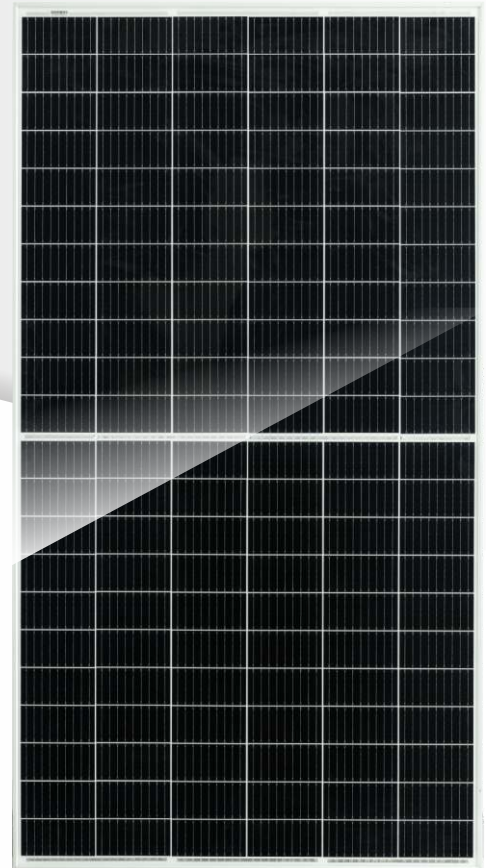


# BIFACIAL MONO PERC MODULE

## UL-655 | 660 | 665 | 670M-132DG

### 655W~670W 1500V



**Global Tier 1 bankable brand**



**Bifacial Mono PERC Module**

Capable of generating power at back side, at least 70% efficiency of the front side



**Improved durability and reliability**

Double tempered glass increases module robustness and minimize micro-cracks



**Outstanding mechanical load resistance**

2400 Pa wind load, 5400 Pa snow load



**High performance under low light**

Works at cloudy, rainy days



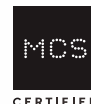
**Anti-PID (potential induced degradation)**

Passed anti-PID test under 85% damp heat, 85% relative humidity for 96 hours



**Great Durability against extreme conditions**

Passed salt mist corrosion test, ammonia corrosion test, dust & sand test, fire test, all certified by TUV



**About Ulica Solar:** As member of Shanshan Group (stock code: 600884) which is TOP500 Enterprise in China, Ulica Solar is the leading manufacturer of solar cells and solar panels in China since 2005, and has been continuously listed as the Tier 1 PV Module Manufacturer from Q1 2020 by Bloomberg NEF, with the annual capacity of 2GW, and own investment projects of 300MW.

**ELECTRICAL PERFORMANCE**

Electrical Parameters Standard Test Conditions

Module Type		UL-655M-132DG	UL-660M-132DG	UL-665M-132DG	UL-670M-132DG
Power Output	P <sub>max</sub> W	655	660	665	670
Power Tolerance	ΔP <sub>max</sub> W	0/+5W			
Module Efficiency	η <sub>m</sub> %	21.09	21.25	21.41	21.57
Voltage at P <sub>max</sub>	V <sub>m</sub> V	38.1	38.2	38.3	38.4
Current at P <sub>max</sub>	I <sub>m</sub> A	17.19	17.28	17.36	17.45
Open-Circuit Voltage	V <sub>oc</sub> V	45.6	45.7	45.8	45.9
Short-Circuit Current	I <sub>sc</sub> A	18.35	18.44	18.53	18.62

STC:1000w/m2 irradiance,25C module temperature,AM1.5

**THERMAL CHARACTERISTICS**

Nominal Operating Cell Temperature	NOCT	°C	43±2
Temperature Coefficient of P <sub>max</sub>	γ	%/°C	-0.360
Temperature Coefficient of Voc	β <sub>voc</sub>	%/°C	-0.290
Temperature Coefficient of I <sub>sc</sub>	α <sub>isc</sub>	%/°C	-0.049

**OPERATING CONDITIONS**

Max.System Voltage	1500V
Max.Series Fuse Rating	30A
Operating Temperature Range	-40°C~85°C
Max static snow load	5400Pa
Max static windload	2400Pa
Application Class	A

**CONSTRUCTION MATERIALS**

Front Cover(material/type/thickness)	Dual glass,2.0+2.0mm low-iron tempered glass
Cell(quantity/material/type/dimension)	132/monocrystalline/210x105mm
Encapsulant(material)	ethylene vinyl acetate(EVA)
Frame(material/anodization color)	anodized aluminum alloy/silver or black
Junction Box(protection degree)	Ip68
Cable(length/cross-sectional area)	400mm(+),300mm(-)/4mm <sup>2</sup> (or Customized Length)
Plug Connector	MC4 compatible

**Electrical characteristics with different rear side power gain(reference to 660W front)**

P <sub>max</sub> /W	V <sub>oc</sub> /V	I <sub>sc</sub> /A	V <sub>mp</sub> /V	I <sub>mp</sub> /A	P <sub>max</sub> gain
660	45.7	18.44	38.2	17.28	0
693	45.7	19.36	38.2	18.14	5%
726	45.7	20.28	38.2	19.01	10%
759	45.7	21.21	38.2	19.87	15%
792	45.7	22.73	38.2	20.73	20%

**GENERAL CHARACTERISTICS**

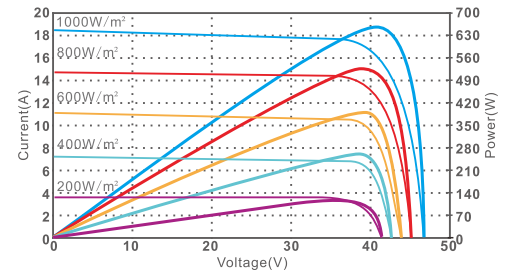
Dimension(L/W/H)	2384/1303/35mm
Weight	38.7kg

**PACKING CONFIGURATION**

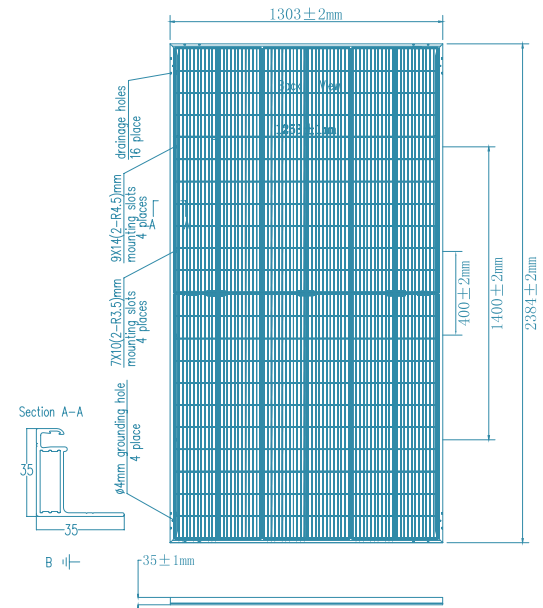
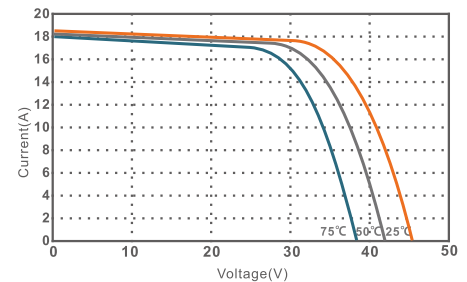
Pallet Size(L/W/H)	1320/1130/2525mm
Pallet Weight	1235mm
Pieces per Pallet	31pcs
Pieces per Container	558pcs

**I-V CURVE**

I-V characteristics at different irradiances



I-V characteristics at different temperature



Please read the instruction entirely before handling, installing and operating Ulica Solar modules. Due to continuous research and development, the specification is subject to change without prior notice.

**INTERNATIONAL CERTIFICATES**

- IEC 61215, IEC 61730
- ISO 9001: 2015(Quality management systems)
- ISO 14001: 2015 (Environmental management systems)
- ISO 45001: 2018 (Occupational health and safety)