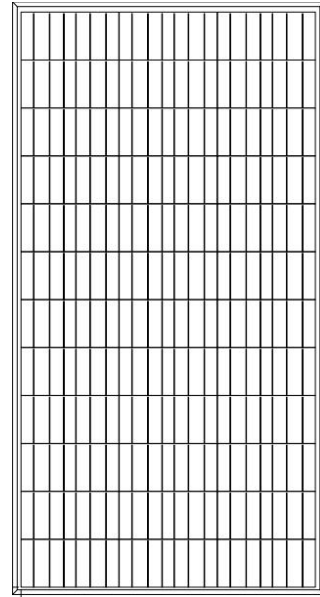


180W

Monocrystalline Shingle Tiled PERC High Efficiency Seamless Soldering

VICTOR uses a new unique Seamless Soldering Technology encapsulation with a solder ribbon to get a "Shingle Tiled" interconnection between the cells. It fully eliminates the standard 2 mm width gap between the cells, increases the efficiency, improves conductivity and shadow resistance and reduces the size of the module.



Features

Higher power per square metre

It uses a solder ribbon to achieve "tiled" interconnection of the cell, The cells do not need to be spaced apart like in conventional solar panels so the solar panel area can produce more energy

Quality more stability

This technology is perfectly compatible with existing module encapsulation processes and equipment, has high mass production maturity and stability.

Low BOM cost

Because of Seamless Soldering technology, it completely eliminating the typical 2mm wide cell gap, thus increasing module efficiency while reducing the BOM cost of the module.

Better mechanical performance

Static and dynamic load tests show that the shingle approach is more resistant to failure due to external forces being applied to the solar panel compared to conventional solar panels.

15 years enhanced product warranty on materials and workmanship*

25 years linear power output warranty*

*According to the applicable Victor Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2015 / Quality management system

ISO 14001:2015 / Standards for environmental management system

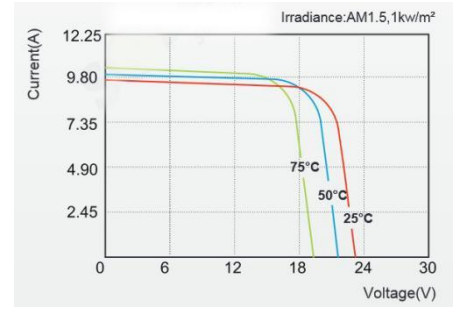
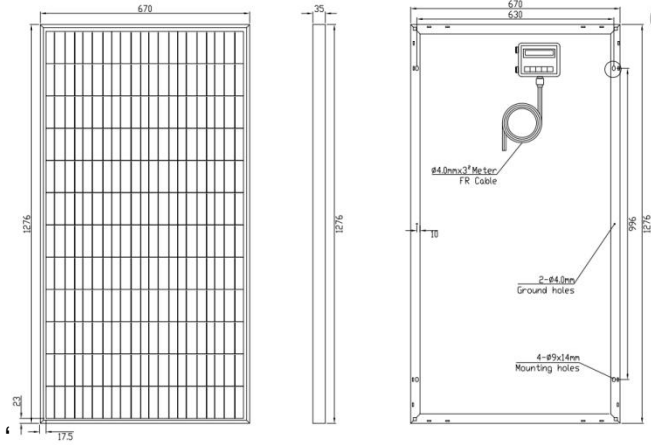
As there are different certification requirements in different markets, please contact your local Victor Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

VICTOR SOLAR is committed to providing high quality solar products, solar system solutions and services to customers around the world. To be your trusted supplier for quality and performance/price ratio.

Ningbo Victor Solar Technology Co.,Ltd.

Add:NO.555,RIXIAN ROAD,Binhai Economic Development Zone,Cixi City,Zhejiang Province

ENGINEERING DRAWING (mm)



IV CURVE

Mechanical Properties

Cells	36pcs 3X12
Cell Type	Monocrystalline PERC cells
Cell Dimensions	210x105 mm
Dimensions (L x W x H)	1276x 670 x 35 mm 50.23 x26.38 x 1.38 in
Front Load	5,400 Pa / 113 psf*
Rear Load	4,300 Pa / 90 psf*
Weight	9.6 kg / 21.12lb
Connector Type	NO Connect
Junction Box	IP68 Single hole with 2 Bypass Diodes
Cables	3.0 Meterx 2 ea 4.0mm ²
Glass	Tempered Glass with AR Coating
Frame	Anodized Aluminium

* Please refer to the installation manual for the details.

Electrical Properties (STC*)

Model	VSMH60-180-M6
Maximum Power (Pmax) [W]	180
MPP Voltage (Vmp) [V]	20.8
MPP Current (Impp) [A]	8.65
Open Circuit Voltage (Voc) [V]	22.68
Short Circuit Current (Isc) [A]	8.98
Module Efficiency [%]	21.05
Operating Temperature [°C]	-40 ~ +90
Maximum System Voltage [V]	1000 (IEC)
Maximum Series Fuse Rating [A]	20
Power Tolerance [%]	0 ~ ±3

* STC (Standard Test Condition): Irradiance 1000 W/m², cell temperature 25 °C, AM 1.5
The nameplate power output is measured and determined by Victor Solar at its sole and absolute discretion.
The Typical change in module efficiency at 200 W/m² in relation to 1000 W/m² is -2.0%.

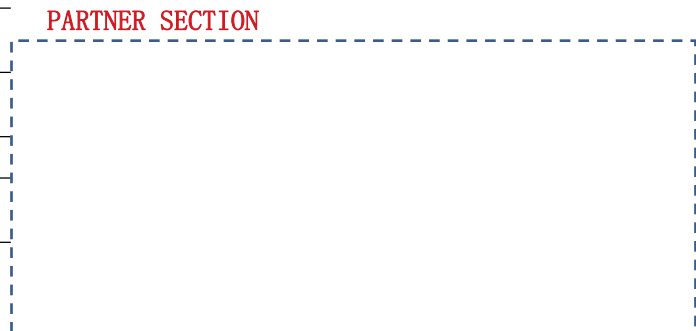
Certifications and Warranty

Certifications	IEC 61215, IEC 61730-1/-2
	UL 1703
	IEC 61701 (Salt mist corrosion test)
	IEC 62716 (Ammonia corrosion test)
	ISO 9001
Module Fire Performance	Type 1 (UL 1703)
Fire Rating	Class C (ULC/ORD C 1703, IEC 61730)
Product Warranty	25 Years
Output Warranty of Pmax	Linear Warranty*

* 1) 1st year : 98%, 2) after 1st year : 0.5%p annual degradation, 3) 86% for 25 years

Temperature Characteristics

NOCT	[°C]	45 ± 3
Pmax	[%/°C]	-0.36
Voc	[%/°C]	-0.26
Isc	[%/°C]	0.02



The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Victor Solar reserves the right to make necessary adjustment to the information described herein at any time without further notice.

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