VENUS · AIDU ENERGY

N-type Bifacial TOPCon

VE-565~590-72M

565~590W

- High Efficiency
- Lower temperature coefficient increases energy yield in hot climate
- Excellent anti-LeTID & anti-PID performance. Low power degradation, high energy yield
- Up to 85% Power Bifaciality, more power from the back side
- Lower LCOE & system cost
- Minimizes micro-crack impacts
- Heavy snow load up to 5400 Pa, wind load up to 2400 Pa*

WARRANTY

12 YEARS Guarantee on product material and workmanship

30 YEARS Linear power output warranty

CERTIFICATION

- ISO 9001: 2015/quality management system
- ISO 14001: 2015/environment management system
- ISO 45001: 2018/occupation health safety management system

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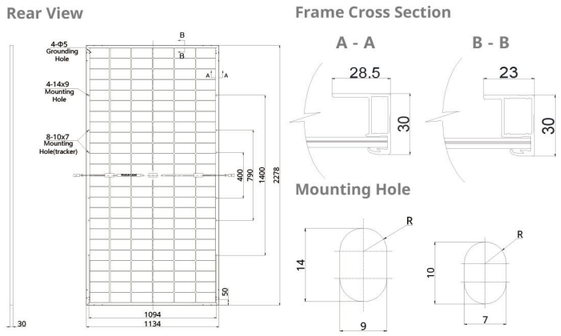
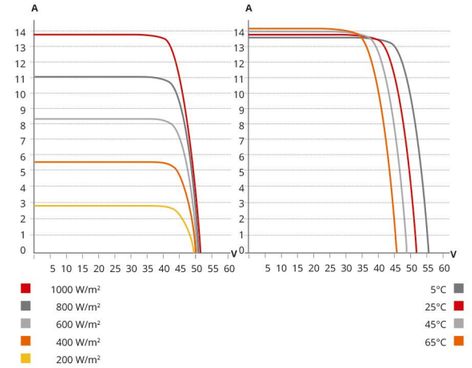
565~590W VE-565~590-72M

ENGINEERING DRAWING (mm)



I-V CURVES



ELECTRICAL DATA | STC*

		Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
VE-565		565 W	42.5 V	13.30 A	51.6 V	13.75 A	21.9%
Bifacial Gain**	5%	593 W	42.5 V	13.97 A	51.6 V	14.44 A	23.0%
	10%	622 W	42.5 V	14.63 A	51.6 V	15.13 A	24.1%
	20%	678 W	42.5 V	15.96 A	51.6 V	16.50 A	26.2%
VE-570		570 W	42.7 V	13.35 A	51.8 V	13.81 A	22.1%
Bifacial Gain**	5%	599 W	42.7 V	14.02 A	51.8 V	14.50 A	23.2%
	10%	627 W	42.7 V	14.69 A	51.8 V	15.19 A	24.3%
	20%	684 W	42.7 V	16.02 A	51.8 V	16.57 A	26.5%
VE-575		575 W	42.9 V	13.41 A	52.0 V	13.88 A	22.3%
Bifacial Gain**	5%	604 W	42.9 V	14.08 A	52.0 V	14.57 A	23.4%
	10%	633 W	42.9 V	14.75 A	52.0 V	15.27 A	24.5%
	20%	690 W	42.9 V	16.09 A	52.0 V	16.66 A	26.7%
VE-580		580 W	43.1 V	13.46 A	52.2 V	13.93 A	22.5%
Bifacial Gain**	5%	609 W	43.1 V	14.13 A	52.2 V	14.63 A	23.6%
	10%	638 W	43.1 V	14.81 A	52.2 V	15.32 A	24.7%
	20%	696 W	43.1 V	16.15 A	52.2 V	16.72 A	26.9%
VE-585		585 W	43.3 V	13.52 A	52.4 V	14.00 A	22.6%
Bifacial Gain**	5%	614 W	43.3 V	14.20 A	52.4 V	14.70 A	23.8%
	10%	644 W	43.3 V	14.87 A	52.4 V	15.40 A	24.9%
	20%	702 W	43.3 V	16.22 A	52.4 V	16.80 A	27.2%
VE-590		590 W	43.5 V	13.57 A	52.6 V	14.06 A	22.8%
Bifacial Gain**	5%	620 W	43.5 V	14.25 A	52.6 V	14.76 A	24.0%
	10%	649 W	43.5 V	14.93 A	52.6 V	15.47 A	25.1%
	20%	708 W	43.5 V	16.28 A	52.6 V	16.87 A	27.4%

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

ELECTRICAL DATA | NMOT*

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
VE-565	427 W	40.2 V	10.64 A	48.9 V	11.09 A
VE-570	431 W	40.4 V	10.68 A	49.0 V	11.14 A
VE-575	435 W	40.6 V	10.72 A	49.2 V	11.19 A
VE-580	439 W	40.7 V	10.77 A	49.4 V	11.23 A
VE-585	443 W	40.9 V	10.81 A	49.6 V	11.29 A
VE-590	446 W	41.1 V	10.85 A	49.8 V	11.34 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

Specification	Data
Cell Type	TOPCon cells
No. of cells	144 [2 x (12 x 6)]
Dimension(mm)	2278 × 1134 × 30 mm (89.7 × 44.6 × 1.18 in)
Weight	32.3 kg (71.2 lbs)
Front Glass	2.0 mm heat strengthened glass with anti-reflective coating
Back Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4.0 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	350 mm (13.8 in) (+) / 250 mm (9.8 in) (-) or customized length*
Connector	T6 or MC4-EVO2 or MC4-EVO2A
Per Pallet	35 pieces
Per Container (40' HQ)	700 pieces or 560 pieces

ELECTRICAL DATA

Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1500 V (IEC/UL) or 1000 V (IEC/UL)
Module Fire Performance	TYPE 29 (UL 61730) or CLASS C (IEC61730)
Max. Series Fuse Rating	30 A
Application Classification	Class A
Power Tolerance	0 ~ + 10 W
Power Bifaciality*	80 %

* Power Bifaciality = $Pmax_{rear}$ / $Pmax_{front}$, both $Pmax_{rear}$ and $Pmax_{front}$ are tested under STC, Bifaciality Tolerance: ± 5 %

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.29 % / °C
Temperature Coefficient (Voc)	-0.25 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	41 ± 3°C

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