

# MICRO-POWERGRID 600 – MPG 600



Photovoltaic Module



Micro Inverter



DC Switch Disconnecter



Fuse



DC SPD



Mid Clamp



End Clamp



Structure & Rail



DC Cable



AC Cable

- 6 modules of 100 Watt peak power rating. Professional premium solar modules with superior performance. Applying industry-leading product quality and reliability for residential and commercial rooftops. Over 21% efficiency with 25 years output warranty.
- One grid-tied power processing unit. High performance inverting system, 600W Micro Inverter, highly unique in its ability to control the performance of the PV panels. Over 96.5% efficiency with 10 years output warranty. Tested and approved certifications with IP67.
- One complete set of solar mounting structures that are highly corrosion resistant with 8 end side clamps, 8 mid clamps, 4 set of 2 meter rails.
- DC PV cables from the photovoltaic modules to inverting system 10 meters length.
- AC wiring from the inverters: 10 meters length.
- One set of combiner box inclusive of 1 set 15A fuse, 1 set 32A DC protection switch disconnecter, 1 unit of DC surge protection device.

\*Subjected to manufacturer's changes in design and specification.

<b>600Wp</b> Solar Power Capacity	<b>96.5%</b> Performance Efficiency	<b>5 Years</b> Product Warranty	<b>25 Years</b> Photovoltaic Modules Output Warranty
--------------------------------------	--	------------------------------------	---



Industry leading conversion efficiency



Positive tolerance and high-performance



Certificated to withstand wind load (2400Pa) and weight load (7200Pa)



Passed salt mist corrosion testing and ammonia corrosion testing



Excellent performance under weak sunlight conditions



Good temperature coefficient performance enables better output in the tropical region

UTICA® is a leading Singapore based renewable energy company of small to large-scale power systems, delivering unmatched quality to commercial and residential customers.

As a BizSAFE Star, ISO certified, BCA registered professional solar energy systems provider, we bring together cutting-edge innovation and dedicated customer service.

Our mission is to be a part of the environmental solution while maintaining the highest quality standards of customer service and satisfaction.

UTICA® offers customers more than just one more choice in electricity source. We offer our customers the opportunity to make a difference for the environment by supporting cleaner, renewable sources of energy instead of limited and polluting fossil fuels.



## Photovoltaic Modules

Module type	100Wp
Nominal Power Voltage - $V_{MPP}$ (V)	18V
Nominal Power Current - $I_{MPP}$ (A)	5.56A
Open Circuit Voltage - $V_{OC}$ (V)	22.5V
Short Circuit Current - $I_{SC}$ (A)	6.11A
Panel Efficiency (%)	21
Dimensions	770 x 671 x 25mm
Area	0.52 m <sup>2</sup>
Weight	5.4 kg



Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 1000 W/m<sup>2</sup>, temperature 25°C, All the above parameters are subject to 3% tolerance).

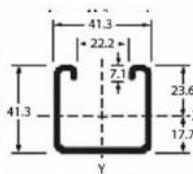


## Intelligent Power Processing Unit

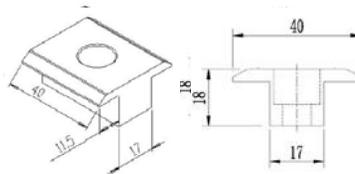
Commonly Used Module Pairings	600W	Max Continuous Output Power	600W
Max Input DC Voltage	60V	Max Continuous Output Current	2.9 A
Power Point Tracking Voltage Range	25-55V	Nominal (L-L) Voltage/Range	230/184-265V
Min/Max Start Voltage	20/60V	Environmental protection rating	IP67
Max DC Short Circuit Current	16A	Size(L x W x H)	212 x 229 x 40mm
Max Input Current	2 x 10.5 A	Weight	3.5kg

## Structures and Accessories

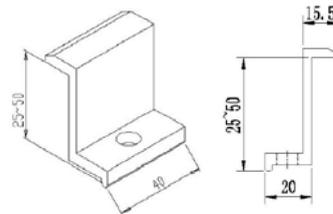
Solar mounting frames are highly corrosion resistant structure system that is made up of zinc, aluminum and magnesium. Tested and approved certifications with TÜV SÜD.



Rail



Mid Clamp



End Clamp

## Outdoor PV Cables

AC Cable		DC Cable	
Cross section (mm <sup>2</sup> )	1 x 4	Cross section (mm <sup>2</sup> )	1 x 4
Diameter (mm <sup>2</sup> )	5.3	Conductor construction (n x mm)	52 x 0.30
Open Air (A)	55	Conductor (mm)	2.55
Inst. on surface (A)	52	Outer (mm)	5.05
Inst adjoining to surface (A)	44	Resistance	5.09
Voltage drop (V/A km)	14.3	Fire load (kWh/m)	0.086
Weight (Kg/km)	57	Weight (kg/km)	56

## Combiner Box



Solar protective fuse, 1000VDC 15A. UTICA® fuse-link is made up of fuse-element with variable cross-section in high strength ceramics.



UTICA® DC switch disconnecter for enclosed and open switch-isolator for voltages up to 1000VDC 32A. Switch enclosure features degree of protection IP66.



UTICA® surge protective device will minimize the potential impact of lightning events provide protection against electrical surges and spikes by lightning.

## Packaging

Item	Dimensions(LxWxH) mm
Photovoltaic Modules	780 x 680 x 180
Power Processing unit	220 x 230 x 45
Structure & Accessories	2000 x 85 x 85
Others	300 x 200 x 200

## System Design

Temperature range	-40°C to +85°C
Hail	maximum diameter of 25mm with impact speed of 23m/s(51.2mph)
Maximum surface load capacity	7200pa