

# Solar Energy System

## UTM-H5



Photovoltaic Module



Hybrid Inverter



DC Breaker



DC junction Box



DC SPD



Mid/End-Clamp



Structure & Rail



Battery



DC Cable



AC Cable

- 8 modules of 600 Watt peak power rating. Professional premium solar modules with superior performance. Applying industry-leading product quality and reliability for residential and commercial rooftops. Over 20% efficiency with 25 years output warranty. Tested and approved certifications with IEC 62804.
- Hybrid power processing unit. High performance inverting system, PVI 5kW outdoor string inverter, highly unique in its ability to control the performance of the PV panels. Over 97.6% efficiency with 10 years output warranty.
- One complete set of solar mounting structures that are highly corrosion resistant with 12 mid-clamps, 8 end-side clamp, 12 sets of 3 meter rails
- DC PV cables from the photovoltaic modules to inverting system 10 meters length.
- AC wiring from the inverters: 5 meters length
- One set of DC junction box inclusive of 2 set DC Breaker switch and 2 unit of DC surge protection device.
- 2.4kwh lithium battery.

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

5kWp

Solar Power Capacity

97.6%

Performance Efficiency

10 Years

Product Warranty

25 Years

Photovoltaic Modules Output Warranty



Industry leading conversion efficiency



Positive tolerance and high-performance



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



Tested for salt mist 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.

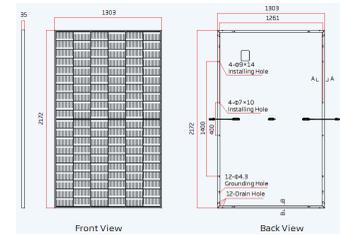
As a BizSAFE Star, ISO certified, BCA registered professional solar energy systems provider, we bring together cutting-edge innovation and dedicated customer service.

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 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	600Wp
Nominal Power Voltage - $V_{MPP}$ (V)	34.4V
Nominal Power Current - $I_{MPP}$ (A)	17.44A
Open Circuit Voltage - $V_{OC}$ (V)	41.5V
Short Circuit Current - $I_{SC}$ (A)	18.52A
Panel Efficiency (%)	21.2
Dimensions	2172 x 1303 x 35 mm
Area	2.83 m <sup>2</sup>
Weight	30.6 kg



Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m<sup>2</sup>, temperature 20°C, windspeed 1 m/s).

Where xxx indicates the nominal power class (PMPP) at STC indicated above, and can be followed by the suffix xv for 1500V rated modules.

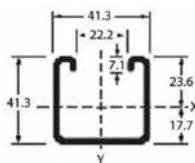


## Intelligent Power Processing Unit

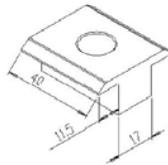
Technical Data	5kW	Rated grid voltage(V)	230V/180Vac-280Vac
DC Input(PV)		Frequency(Hz)	50/60
Max. DC input power(W)	7000W	Rated output current(A)	21.7 A
Max. DC input power(V)	550V	AC output 2(Load)	
MPPT range(V)	125-550V/360V	Rated output power(VA)	5000VA/5000W
Max. input current(A)	14A/14A	Off-network switching time (ms)	≤0
AC output 1(Grid)		Dimension (H x W x D)	550x200x515mm
Rated power(W)	5000W	Weight	25 kg

## Structures and Accessories

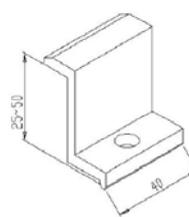
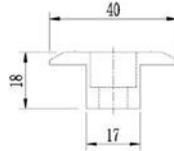
Solar mounting frames are highly corrosion resistant structure system that is made up of zinc, aluminum and magnesium. Tested and approved certifications with TÜV SÜD.



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



UTICA® DC Breaker it a safety switch that automatically cuts off power supply to prevent damage to appliances and equipment by excessive current flow.



UTICA® DC junction Box is a device designed to protect electrical switches and circuits from water damage.



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	2172 x 1303 x 330
Power Processing unit	650 x 600 x 350
Structure & Accessories	3000 x 500 x 500
Others	1000 x 500 x 500

## System Design

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