SOLAR ENERGY SYSTEM UTC-2


Photovoltaic Module



PV Inverter



DC Breaker



DC junction Box



DC SPD


Mid Clamp


End Clamp


Structure & Rail

DC Cable


AC Cable

- 4 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.
- One grid-tied power processing unit. High performance inverting system, PVI 2kW outdoor string inverter, highly unique in its ability to control the performance of the PV panels. Over 98.7% efficiency with 10 years output warranty. Tested and approved certifications with IP65.
- One complete set of solar mounting structures that are highly corrosion resistant with 6 mid-clamp, 4 end-side clamp, 6 sets of 3 meter rails.
- DC PV cables from the photovoltaic modules to inverting system 7 meters length.
- AC wiring from the inverters: 3 meters length.
- One set of combiner box inclusive of 1 set DC junction Box, 1 set DC Breaker switch and 1 unit of DC surge protection device.

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

2kWp	98.7%	10 Years	25 Years
Solar Power Capacity	Performance Efficiency	Product Warranty	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.

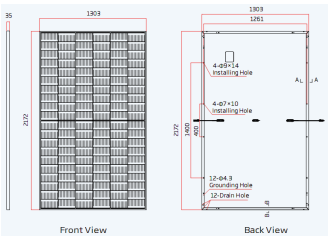
Our mission is to be a part of the environmental solution while maintaining the highest quality standards of customer service and satisfaction.

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.

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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 1303x35 mm
Area	2.83 m^2
Weight	30.6 kg



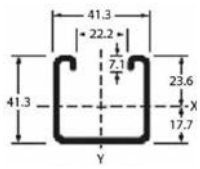
Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m^2 , temperature 20°C, windspeed 1m/s).
Photovoltaic module power tip rated range 320 Watt - 400 Watt (subjected to production availability)

Intelligent Power Processing Unit

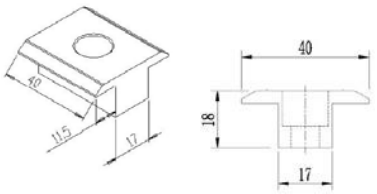
Inverter type	2kW	Number of independent MPPT	1
Absolute maximum DC input voltage (Vmax,abs	600	Number of DC input pairs for each MPPT	1
Start-up DC input voltage (Vstart)	150 V (adj. 100...250 V)	AC grid connection type	Single-phase
Rated DC input voltage (Vdcr)	300V	Maximum efficiency	96.7%
Rated DC input power (Pdcr)	2500 W	Environmental protection rating	IP65
Maximum DC input current (Idcmax) / for each MPPT (IMPPTmax)	10.0 A	Sound pressure level, typical	50 dBA @ 1 m
Maximum DC input power for each MPPT (PMPPTmax)	2500W	Dimension (H x W x D)	553 mm x418 mm x 175mm
DC input voltage range with parallel configuration of MPPT at Pacr	210...530 V	Weight	15.0 kg

Structures and Accessories

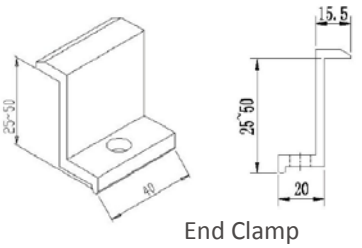
Solar mounting frames are highly corrosion resistant structure system that is made up of zinc, aluminum and magnesium. Tested and approved certifications with TUV SUD.



Rail



Mid Clamp



End Clamp

Outdoor PV Cables

AC Cable		DC Cable	
Cross section (mm^2)	1 x 4	Cross section (mm^2)	1 × 4
Diameter (mm^2)	5.3	Conductor construction (n x mm)	52 × 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(L×W×H) mm
Photovoltaic Modules	2172 x 1303 x 190
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

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