

# Tasol Hybrid Solar - TRIA



## Your all in one solar power solution

- Easy to install(plug and play)
- Grid - tied, hybrid or off grid capability
- Built in MPPT charge controller
- Settings to charge and discharge batteries for optimal power options
- Can be connected to a back up generator for additional power options
- Software allows energy generation reports to be downloaded
- 3 phase inverter

TAKING THE POWER INTO YOUR HANDS



SOLAR ENERGY SOLUTIONS & BACK-UP STORAGE



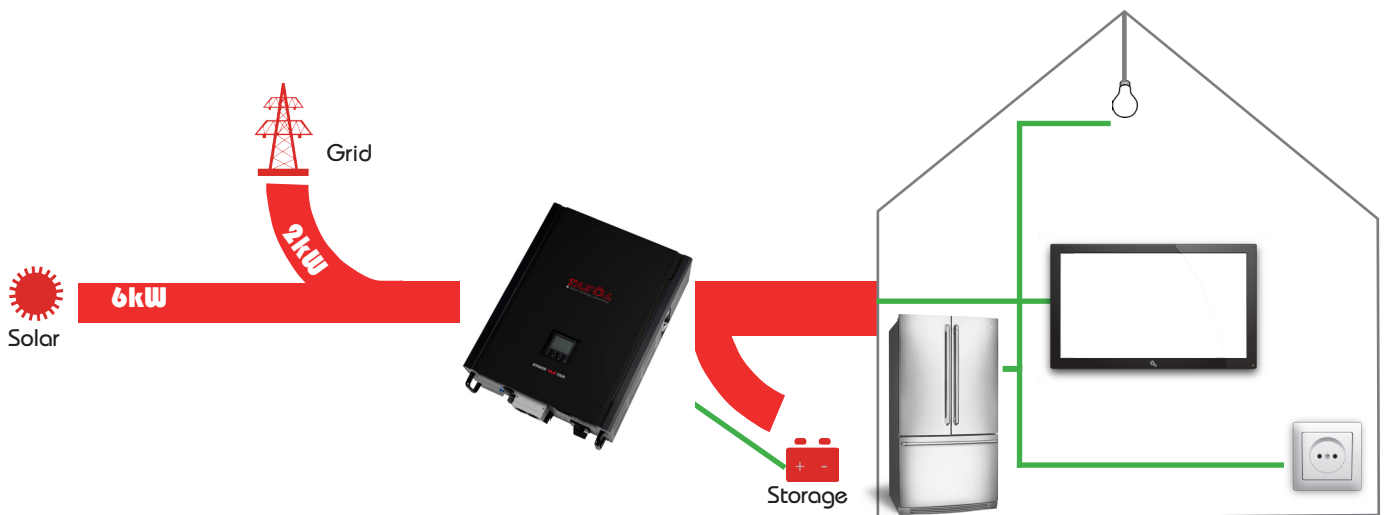
## Tasol Hybrid TRIA PLUS - 10kw Specifications

MODEL	TRIA -10 kw
PHASE	3-phase in / 3-phase out
RATED OUTPUT POWER	10000 w
PV INPUT (DC)	
Maximum DC Power	14850 W
Nominal DC Voltage	720 VDC
Maximum DC Voltage	900 VDC
Working DC Voltage Range	300 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC ~ 350 VDC
MPP Voltage Range	350 VDC ~ 850 VDC
Maximum Input Current	2*18.6 A
Isc PV (absolute maximum)	25 A
Max. inverter backfeed current to the array	0 A
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz
Nominal Output Current	14.5 A per phase
Inrush Current	17 A per phase / 20ms
Maximum Output Fault Current/ Duration	51 A per phase / 1ms
Maximum output Overcurrent Protection	51 A per phase
Power Factor Range	0.9 lead – 0.9 lag
AC INPUT	
AC Start-up Voltage	120 – 140 VAC per phase
Auto Restart Voltage	180 VAC per phase
Acceptable Input Voltage Range	170 – 280 VAC per phase
Nominal Frequency	50 Hz / 60 Hz
AC Input Power	10000 VA / 10000W
Maximum AC Input Current	25 A
Inrush Input Current	25 A / 1ms
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	120-140 VAC per phase
Output Frequency	50 Hz / 60 Hz (auto sensing)
Output Waveform	Pure sine wave
Output Power	10000VA/10000W
Efficiency (DC to AC)	91%
BATTERY & CHARGER	
DC Voltage Range	40 - 60 VDC
Nominal DC Voltage	48 VDC
Maximum Battery Discharging Current	272 A
Maximum Charging Current	200 A

GENERAL	
PHYSICAL	
Dimension, D X W X H (mm)	622 x 500 x 167.2
Net Weight (kgs)	45
INTERFACE	
Communication Port	RS-232/USB
Intelligent Slot	Optional SNMP, Modbus and RS-400 cards available
ENVIRONMENT	
Humidity	0 ~ 90% RH (No condensing)
Operating Temperature	-10 to 55°C (Power derating above 50°C)
Altitude	Max. 2000 m**

\*This figure may vary depending on different AC voltage.

\*\*Power derating 1% every 100 m when altitude is over 1000m.



**A perfect all-in-one power solution, with multiple power source coupling.**

It is a smart inverter, prioritising solar power whilst charging batteries for alternative energy source and only use the grid power for the balance of the energy requirements. Using PV (photovoltaic), battery and grid readings, with a built-in MPPT controller, it optimises the performance of the system according to the required production and consumption needs of the house. During consumption peaks, it complements the solar power source with battery and public grid sources. The Hybrid TRIA is a 10kw Plus inverter, allowing to couple grid-, solar- and battery power for a bigger output (up to 10kW) to the household for peak demand requirements.

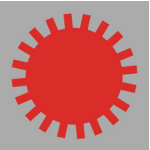
This functionality guarantees constant power supply to the home, without having to switch between sources which often leads to micro-cuts of electricity supply and solves concerns for energy intermittence and fluctuation





Creating a sustainable  
future with solar energy.

### How does the Hybrid Solar system work?



1) During the day : It first uses solar power whilst the sun is shining. Only additional power required is drawn from the grid. At the same time it assures that batteries are charged.



2) During the evening: It will discharge batteries to a certain capacity allowing you to benefit from the power generated during the day first, then switch over to the grid to draw power. This also ensures that battery life is protected.



3) During power outages : The battery bank will immediately supply power until depleted. Depending on the size of your system, you can have a minimum of 9.6kWh Peak back up power and a maximum of 19.2kWh Peak at a 50% discharge .Once the battery back-up is depleted and you have a generator connected it will switch over to that power

### The perfect solution to your TASOL energy efficiency products installed

**Did you know?** When you reduce your household consumption by implementing energy efficiency technologies such as solar geysers , heat pumps , gas stoves, energy saving lights and appliances , roof insulation and others. You can save an average up to 60% of you electricity bill and daily consumption

**Sustainable Energy  
Solutions partner**

T's & C's **Apply**

#### Contact Details

Tel: 086 111 3078  
Email: [sales@tasolsolar.co.za](mailto:sales@tasolsolar.co.za)



[www.tasolsolar.co.za](http://www.tasolsolar.co.za)

Solar Academy of Sub Saharan Africa (PTY) Ltd.

T's & C's **Apply**

