

tuncmatik

# SOLARTECH ONE

## 5 kVA

### ONLINE UPS (1/1)



#### True double conversion online technology

Online UPS is the most suitable choice, especially for computers and other sensitive devices. This type of UPS completely isolates your sensitive devices from the mains and feeds your sensitive devices connected with the help of filters in the mains. As a result, all unwanted situations that may occur in the network are filtered by the online UPS and your sensitive devices are fed with pure power.

#### High output power factor (PF=1)

The UPS provides 43% extra power at the output compared to the standard UPS which are 0.7 power factor. That's why, it supports more electrical/electronics devices.

#### Pure sinewave output

Full compatibility with all kinds of electrical devices, the ideal solution for your medical and similar critical applications.

#### Wide input voltage range (110-280 VAC)

Ability to work online even at very low and very high voltages without switching to the battery.

#### Input power factor correction (PF=0.99)

It does not impose an additional compensation load on your line. It saves on your electricity bills.

#### Intelligent charging technology for optimal battery performance

Since it charges the battery with a special charging technique, it extends the life of the battery, reduces your operating costs and provides savings.

#### High performance microprocessor

Thanks to the digital structure and high speed of the CPU-controlled control board it provides full protection by performing the protection functions of the UPS such as overload, short circuit, low-high voltage and over-temperature in a timely manner, thus ensuring that the UPS has a stable and reliable structure.

#### Parallel function (optional)

Parallel operation in single phase with up to 9 units. The maximum supported output power is 45kW/45kVA.

#### Generator Function

Capability to generator power.

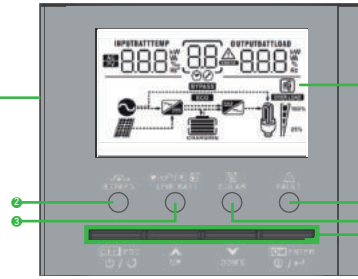
Ability to use solar power and directly connectable with solar panels. Built-in 80A MPPT solar charger, easy and fast charging ability by 60 A strong battery charge capacity



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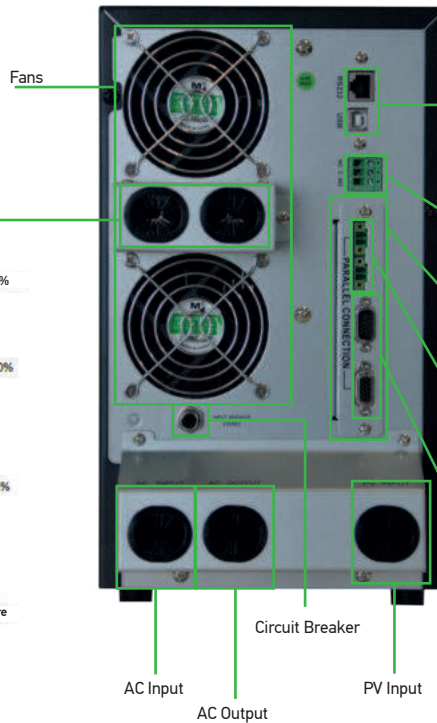
Product Overview



1. LCD Display

Line Mode	The unit will provide output power from the mains. It will also charge the battery at line mode.	 Charging by utility and PV energy.
Battery Mode	The unit will provide output power from battery and PV power.	 Charging by utility.
		 Power from battery and PV energy.
		 Power from battery only.

- 2. Bypass indicator
- 3. Status indicator
- 4. Fault indicator
- 5. Solar indicator
- 6. Function keys (Please refer to operation)



Fans

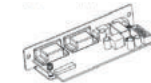
RS-232 & USB communication port

To allow for unattended UPS shutdown/start-up and status monitoring, connect the communication cable one end to the USB/RS-232 port and the other to the communication port of your PC. With the monitoring software installed, you can schedule UPS shutdown/start-up and monitor UPS status through.

Dry contact

The dry contact alarms can adjust from the front panel. It could be used to deliver signal to external device as scada when battery voltage reaches warning level.

Parallel board



Current sharing port (only for parallel model)



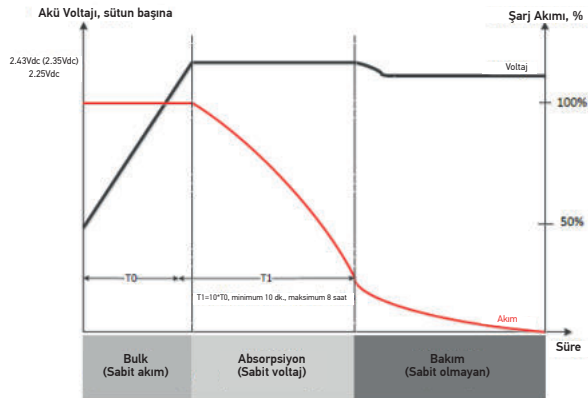
Parallel communication cable

AC Input  
 AC Output  
 PV Input

Circuit Breaker

Battery Input

3 Step Charging Algorithm



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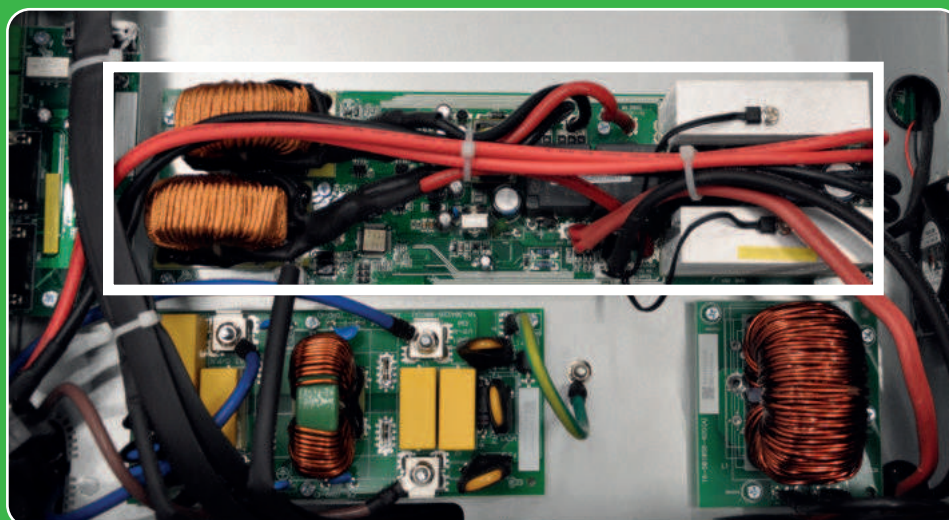


Source



**MPPT Card**

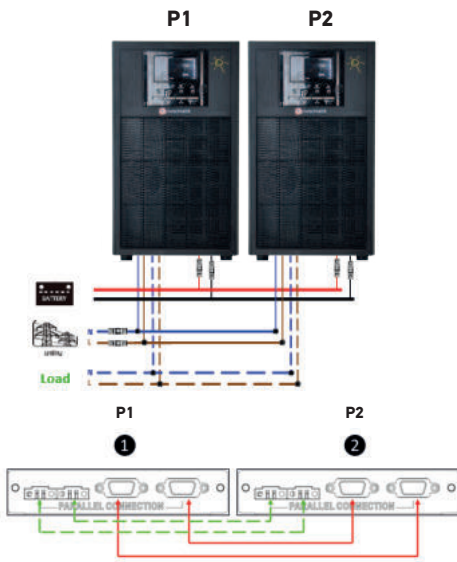
Solartech One 5kVA solar UPS can be supplied with Solar Panels thanks to its 4000W 80A MPPT charger. In places where there is no mains, you can supply your load with batteries and solar panels. Thanks to our advanced software, the supply source can be selected by specifying the Mains-Solar Panel-Battery (Standard). With its high MPPT efficiency, Solartech One has been ensured that the energy loss is minimal. Our 3-step special battery charging algorithm, which we apply as standard in our Solartech One product, for mains and battery supplying situations, is also available on MPPT. UPS batteries supplied by solar panels are charged with a 3-step algorithm thanks to the MPPT card.



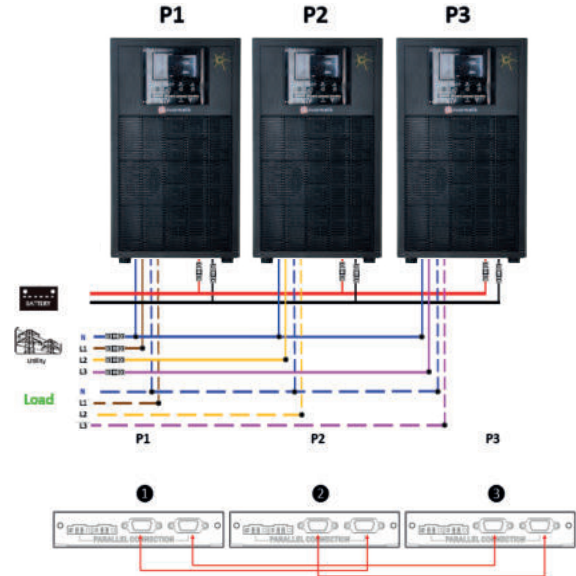


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Paralel Operation

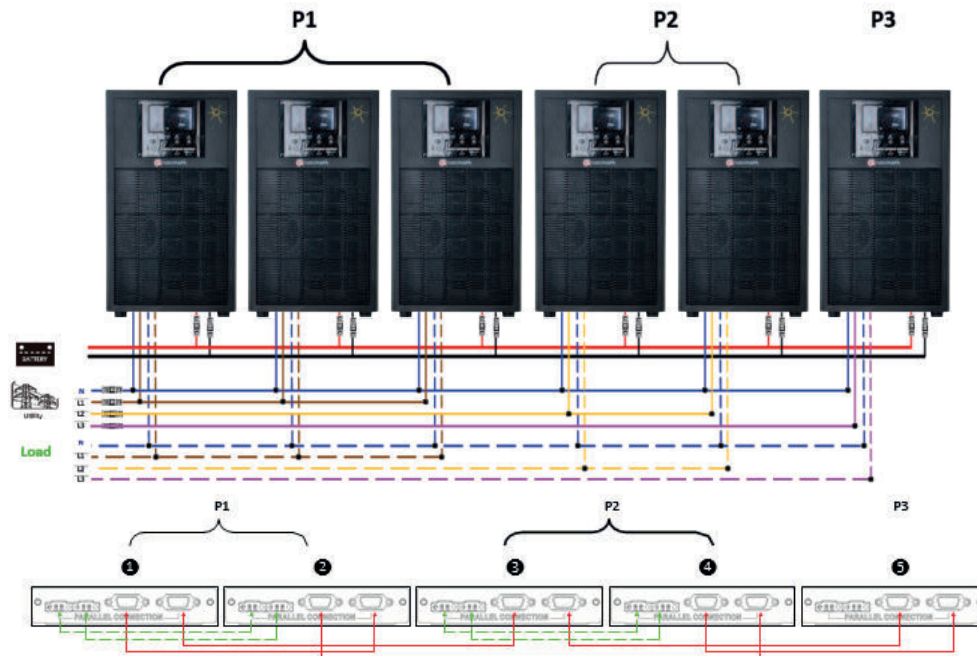


1 Phase Parallel



3 Phase Parallel (Balanced)

**WARNING:** Do not connect the current sharing cable between the UPS which are in different phases. Otherwise, it may damage the UPS.



3 Phase Parallel (Unbalanced)

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<b>CAPACITY</b>	<b>5000 VA 5000 W</b>	
<b>INPUT</b>		
Voltage range	110-280 VAC	
Frequency range	For 50Hz system 46 Hz~54 Hz, For 60 Hz system 56 Hz~64 Hz	
Phase	Single phase + Neutral + Earth	
Power factor	≥ 0.9 , %100 load	
<b>OUTPUT</b>		
Output Voltage	230 VAC	
Output power factor (PF)	1	
AC voltage regulation (Battery mode)	±%5	
Frequency Range (Synchronous mode)	For 50Hz system 46 Hz~54 Hz, For 60 Hz system 56 Hz~64 Hz	
Frequency Range (Battery mode)	50 Hz or 60 Hz ±0.1 Hz	
Crest Factor	3:1 maks	
Harmonic distortion	≤ %3 THD (linear load) ≤ %6 THD (non-linear load)	
Transfer time	Line ↔ Battery Mode	0 msn
	Inverter ↔ By-pass	4 msn (typical)
Waveform (Battery mode)	Pure Sinewave	
<b>EFFICIENCY</b>		
Line Mode	~ % 94	
ECO Mode	~ % 99	
Battery Mode	~ % 90	
<b>BATTERY</b>		
Battery voltage	48 VDC	
Battery charge voltage	54 VDC	
Overload protection	66 VDC	
Charge current	30A (Default) / 2-60A (Adjustable)	
<b>SOLAR CHARGING MODE (MPPT TYPE)</b>		
Rated power	4000 W	
Max. charging current	80 A	
Efficiency	98% max.	
Max. PV array open circuit voltage	145 Vdc	
PV array MPPT voltage range	60~115 Vdc	
Battery voltage accuracy	±0.3%	
PV voltage accuracy	±2V	
Charging algorithm	3-Step	
<b>JOINT UTILITY &amp; SOLAR CHARGING</b>		
Max. charging current	140 A	
Default charging current	30 A	
<b>INDICATORS</b>		
LCD Display	UPS status, Load level, Battery Level, Input/Output voltage, Discharge counter, Error status	
Alarm	Line failure, Low battery, Overload, System fault	
<b>DIMENSIONS &amp; WEIGHT</b>		
D x W x H (mm)	465x190x336	
Weight (kg)	16	
<b>ENVIRONMENTAL</b>		
Operation temperature	-10 - 50°C	
Humidity	%0-95 relative humidity (non-condensing)	
Noise level	<60dBA, From 1 meter	
<b>SOFTWARE &amp; MANAGEMENT</b>		
RJ45 compatible RS232 input or USB	Windows® 98/2000/2003/XP/Vista/2008, Windows® 7/8, Linux, MAC	