

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



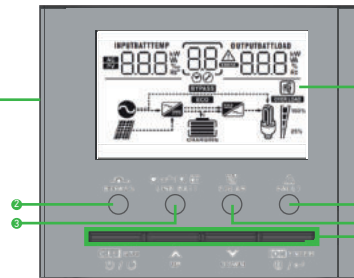
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## Product Overview



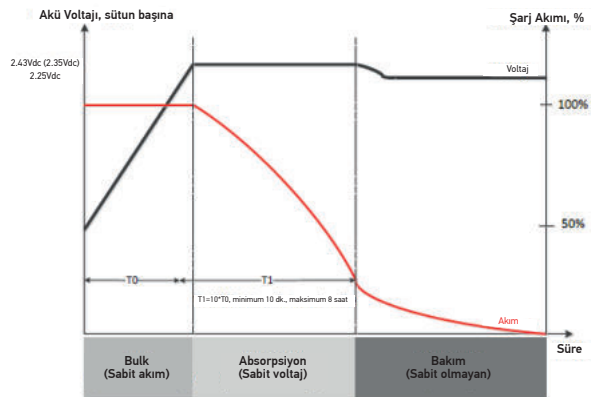
1. LCD Display

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

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.
		Charging by utility.
Battery Mode	The unit will provide output power from battery and PV power.	Power from battery and PV energy.
		Power from battery only.

## Battery Input

## 3 Step Charging Algorithm



Fans

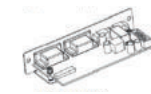
RS-232 &amp; USB communication port

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)



Current sharing cable



Parallel communication port (only for parallel model)



Parallel communication cable



AC Input

AC Output

Circuit Breaker

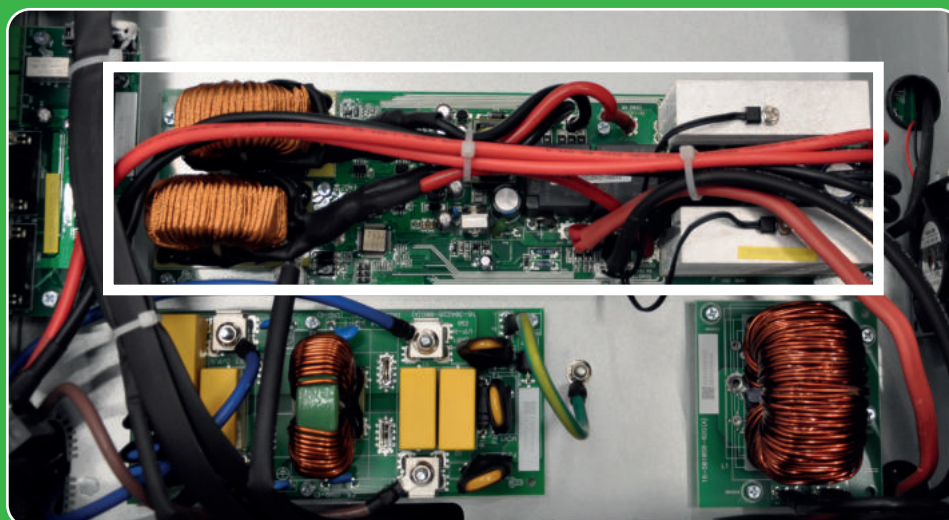
PV Input

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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.



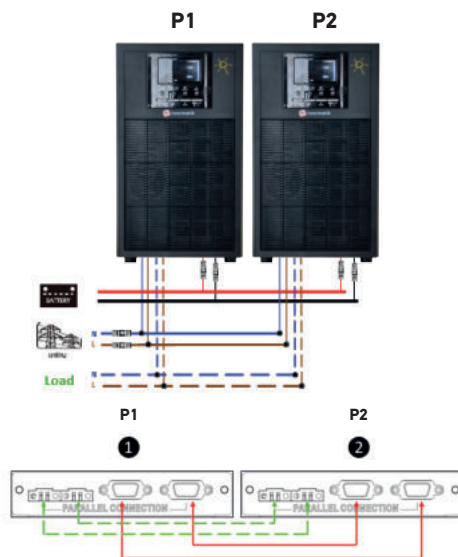
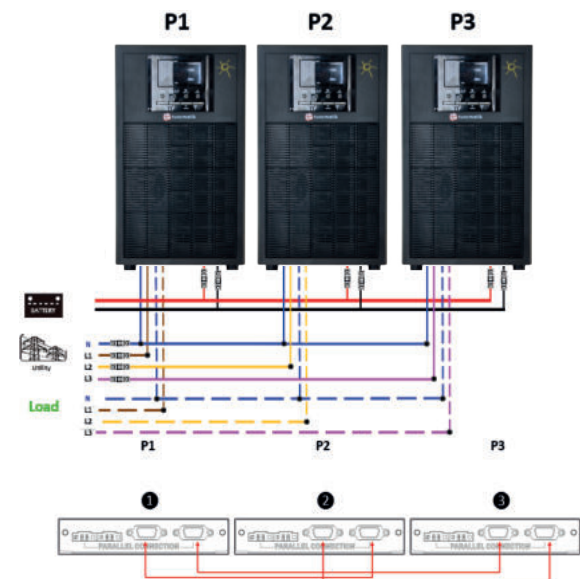




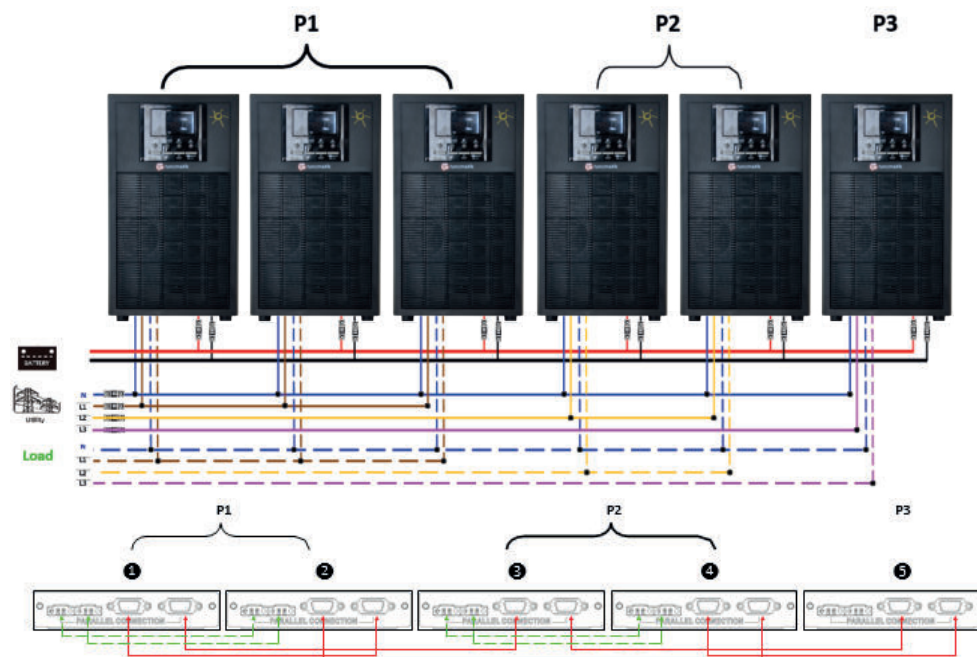
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SOLAR UPS (1/1)

**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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CAPACITY		5000 VA 5000 W
INPUT		
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
OUTPUT		
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
EFFICIENCY		
Line Mode		~ % 94
ECO Mode		~ % 99
Battery Mode		~ % 90
BATTERY		
Battery voltage		48 VDC
Battery charge voltage		54 VDC
Overload protection		66 VDC
Charge current		30A (Default) / 2-60A (Adjustable)
SOLAR CHARGING MODE (MPPT TYPE)		
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
JOINT UTILITY & SOLAR CHARGING		
Max. charging current		140 A
Default charging current		30 A
INDICATORS		
LCD Display		UPS status, Load level, Battery Level, Input/Output voltage, Discharge counter, Error status
Alarm		Line failure, Low battery, Overload, System fault
DIMENSIONS & WEIGHT		
D x W x H (mm)		465x190x336
Weight (kg)		16
ENVIRONMENTAL		
Operation temperature		-10 - 50°C
Humidity		%0-95 relative humidity (non-condensing)
Noise level		<60dBA, From 1 meter
SOFTWARE & MANAGEMENT		
RJ45 compatible RS232 input or USB		Windows® 98/2000/2003/XP/Vista/2008, Windows® 7/8, Linux, MAC