




Truepower

Solar Hybrid Inverter
& Home Inverter

POWERING
YOUR
WORLD,
ANYWHERE,
ANYTIME



www.truepower.in

Tru-Solar by Truepower

DESCRIPTION OF LCD DISPLAY

Green colour
show's
mains is available



Orange colour
show's
Backup Mode on

Blue colour show's
system in PCU
(Solar)Mode



Pink colour show's
fault or any problem
in system

SALIENT FEATURES

- ★ Range - 300VA to 10KVA
- ★ Next-GEN Tru-Solar Hybrid Pure Sine Wave PCU incorporates DSP (Digital Signal Processor used from MICROCHIP) based technology
- ★ 50 Amp built-in PWM solar charge controller
- ★ Maximum utilization of solar energy through smart solar PCU functionality
- ★ Double (DSP & MICRO) controller design for better reliability & less wiring
- ★ Multicolor user friendly interactive LCD display system
- ★ Solar PV reverse connection protection
- ★ Smart battery charging with priority to solar
- ★ Multiple, Multi level inbuilt over current & over voltage protection with AC back feed protection
- ★ PTH pcb for easy service ability
- ★ Solar panel 100 W to 800 W (12V) & 200 W to 1600 W (24V)

12 Volt Solar PCU and Home Inverters



Model	TPS 700	TPS 900	TPS 1100	TPS 1350	TPS 1500
I/P Range (Normal Mode)	100V-285V \pm 10V				
I/P Range (UPS Mode)	180V-265V \pm 5V				
O/P Voltage Battery Mode	220V \pm 10V				
O/P Frequency Battery Mode	50Hz \pm 0.5Hz				
O/P Waveform Battery Mode	Pure Sine Wave				
Low Battery Alarm	10.8V \pm 0.2V				
Low Battery Shutdown	10.5V \pm 0.2V				
Running Load	44A \pm 2A	50A \pm 2A	60A \pm 2A	85A \pm 2A	90A \pm 2A
Overload	47A \pm 2A	53A \pm 2A	63A \pm 2A	90A \pm 2A	95A \pm 2A
DC Voltage	12V				
Charging Current	15A \pm 1A		20A \pm 1A		
Charging Cut off	14.6V/14.0V \pm 0.2V				
No Load Current	<2.5A				
Efficiency	>85%				
Battery Recommended	135AH-300AH				
Solar Charge Controller	40/50 Amps PWM Based				
Solar Low Cut off Voltage	11V to 11.6V (Depends on load current)				
PV Reverse polarity protection	Available				
Reverse Current flow to PV protection	Available				

24 Volt Solar PCU and Home Inverters



Model	TPS 1600	TPS 2000	TPS 2500	TPS 3000	TPS 4000
I/P Range (Normal Mode)	100V-285V \pm 10V				
I/P Range (UPS Mode)	180V-265V \pm 5V				
O/P Voltage Battery Mode	220V \pm 10V				
O/P Frequency Battery Mode	50HZ \pm 0.5HZ				
O/P Waveform Battery Mode	Pure Sine Wave				
Low Battery Alarm	21.6V \pm 0.2V				
Low Battery Shutdown	21V \pm 0.2V				
Running Load	47A \pm 2A	60A \pm 2A	78A \pm 2A	90A \pm 2A	129A \pm 2A
Overload	50A \pm 2A	63A \pm 2A	80A \pm 2A	94A \pm 2A	132A \pm 2A
DC Voltage	24V				
Charging Current	20A \pm 1A				
Charging Cut off	29.2V/28.0V \pm 0.2V				
No Load Current	<2.5A		<3A		
Efficiency	>85%				
Battery Recommended	135AH-300AH				
Solar Charge Controller	40/50 Amps PWM Based				
Solar Low Cut off Voltage	22V to 23.2V (Depends on load current)				
PV Reverse polarity protection	Available				
Reverse Current flow to PV protection	Available				

48 Volt & 96 Volt Solar PCU and Home Inverters



Model	TPS 3500/48V	TPS 5000/48V	TPS 6000/48V	TPS 5000/96V	TPS 6000/96V
I/P Range (Normal Mode)	100V-285V \pm 10V				
I/P Range (UPS Mode)	180V-265V \pm 5V				
O/P Voltage Battery Mode	220V \pm 10V				
O/P Frequency Battery Mode	50HZ \pm 0.5HZ				
O/P Waveform Battery Mode	Pure Sine Wave				
Low Battery Alarm	43.2V \pm 0.2V			86.4V \pm 0.2V	
Low Battery Shutdown	42V \pm 0.2V			84V \pm 0.2V	
Running Load	58A \pm 2A	75A \pm 2A	102A \pm 2A	44A \pm 2A	50A \pm 2A
Overload	62A \pm 2A	78A \pm 2A	105A \pm 2A	47A \pm 2A	53A \pm 2A
DC Voltage	48V			96V	
Charging Current	20A \pm 1A				
Charging Cut off	58.4V/56.0V \pm 0.2V			116V/112V \pm 0.2V	
No Load Current	<2.5A				
Efficiency	>85%				
Battery Recommended	135AH-300AH				
Solar Charge Controller	40/50 Amps PWM Based				
Solar Low Cut off Voltage	44V to 46.4V (Depends on load current)			88V to 92.8V (Depends on load current)	
PV Reverse polarity protection	Available				
Reverse Current flow to PV protection	Available				

120 Volt & 180 Volt Solar PCU and Home Inverters



Model	TPS 7.5 KVA - 120V	TPS 10 KVA - 120V	TPS 10 KVA - 180V
I/P Range (Normal Mode)	100V-285V \pm 10V		
I/P Range (UPS Mode)	180V-265V \pm 5V		
O/P Voltage Battery Mode	220V \pm 10V		
O/P Frequency Battery Mode	50HZ \pm 0.5HZ		
O/P Waveform Battery Mode	Pure Sine Wave		
Low Battery Alarm	108V \pm 0.2V	162V \pm 0.2V	
Low Battery Shutdown	105V \pm 0.2V	157.5V \pm 0.2V	
Running Load	48A \pm 2A	62A \pm 2A	45A \pm 2A
Overload	50A \pm 2A	65A \pm 2A	48A \pm 2A
DC Voltage	120V		180V
Charging Current	20A \pm 1A		
Charging Cut off	145V/140V \pm 0.2V		217.5V/210V \pm 0.2V
No Load Current	<2.5A		
Efficiency	>85%		
Battery Recommended	135AH-300AH		
Solar Charge Controller	40/50 Amps PWM Based		
Solar Low Cut off Voltage	110V to 116V <small>(Depends on load current)</small>		165V to 174V <small>(Depends on load current)</small>
PV Reverse polarity protection	Available		
Reverse Current flow to PV protection	Available		

Demo Table for Solar Panel Installation

PCU Rating	Bttery Voltage	Series Combination of Panel	Parellel Combination of Panel	VOC
900-1400	12V	1 (100-150W)	5	24V
1600-3000	24V	1 (300W)	5	45V
3000-5000	48V	2 (300)	5	90V
5000-6000	96V	4 (300)	5	180V
7500	120V	5 (300)	5	225V
10000	180V	7 (300)	6	338V

Solar Panel Selection

S.No	PCU Rating	Battery	Charge Controller	Maximum Panel Voltage VOC	Min/Max. WP for 40/50A Charge Controller
1	900-1400	12V	40/50A	17-22V	300-800W
2	1600-3000	24V	40/50A	34-45V	600-1600W
3	3000-5000	48V	40/50A	68-90V	1200-3200W
4	5000	96V	40/50A	136-180V	2400-6400W
5	7500	120V	40/50A	170-225V	3000-8000W
6	10000	180V	40/50A	255-338V	4500-12000W



