UTL SOLAR

TRUST
SINCE - 1996

WIDEST RANGE OF
SOLAR PRODUCTS
For your home & business

Inverters | Batteries | Solar PCUs | Online UPSs | EV Chargers |
Lithium Batteries | Solar Inverters | Solar Panels

REV-06

www.UTLSOLAR.com

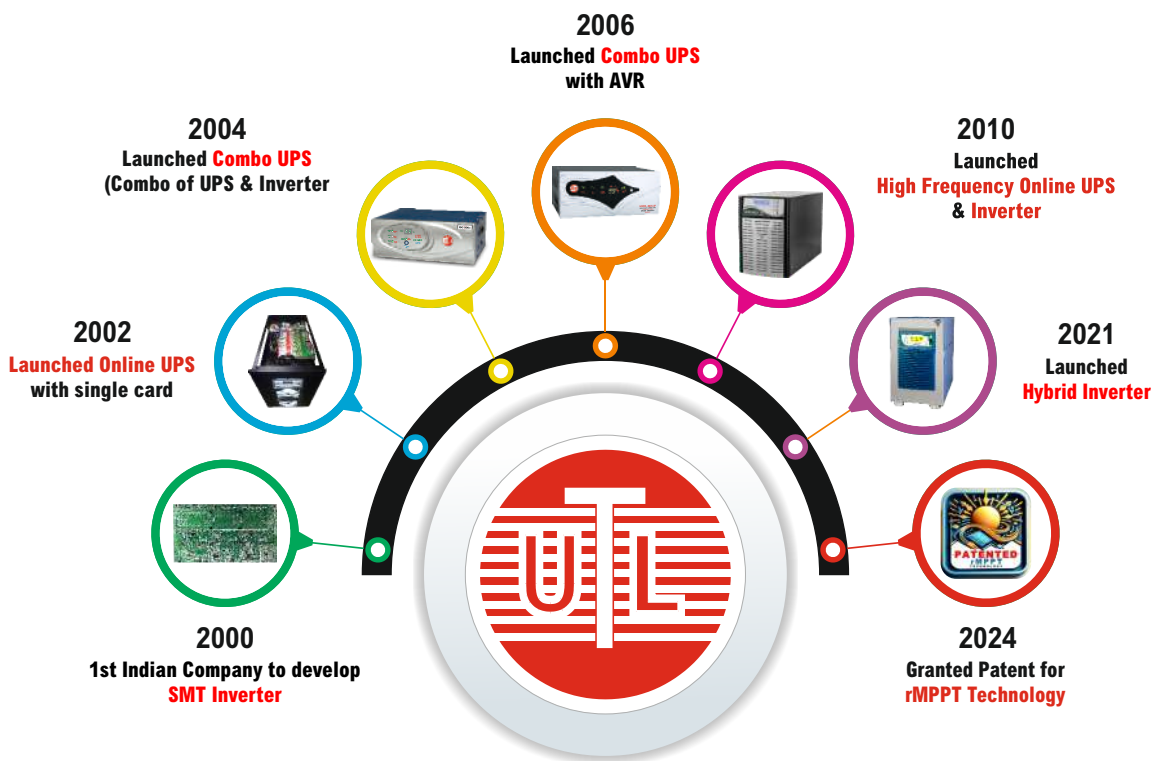
CE ISO 9001 : 2015 ISO 14001 : 2015

PATENTED rMPPT TECHNOLOGY

ABOUT UTL

UTL was founded in the year 1996 by 2 proficient engineers **Mr Yogesh Dua** and **Mr Pawan Garg**. UTL is one of the leading brand in power back-up and power generation in India. UTL offers wide range of quality products, has 4 manufacturing units, strong network of distributors and dealers across the globe and highly motivated workforce. We are offering excellent R&D services through the team of more than 65+ R&D professionals and exporting R&D services & UL Certified products to various countries including USA. As the company values long term relationship, our stakeholders and even customers have very long association with UTL.

Some remarkable milestones covered by UTL are...



UTL in 2024-2025

4 Manufacturing Units

29 Years Old Brand

65+ Strong R&D Team

602+ India Wide Service Engineer

1100+ “Shoppes” Franchisee in INDIA

725+ Distributor in INDIA

5546+ Dealers in INDIA

5000000+ Satisfied UTL Consumers

15.4 Bn UTL Turnover

* As on 30 June 2025

Manufacturing Energetic Excellence

SOLAR PANEL PLANT, NOIDA, UP

Scan and
View Plant Video

BATTERY PLANT, BAWAL, HARYANA

Scan and
View Plant Video

INVERTER PLANT, PARWANOO, HP

Scan and
View Plant Video

UTL SOLAR

HELIAC (Solar Home PCU)

"Cost Effective PCU Compatible with Tubular Batteries."

Model Available
HL1050 to HL4000

FEATURES

- Inbuilt PWM Solar Charge Controller.
- Multi-Colour LCD Display.
- Freq.-Available 50 & 60Hz.
- Multi Charging Stage (Bulk, Absorption & Float) Auto Equalize in a month.
- Solar Priority for Load & Battery Charging.
- Preference to Solar Power over Grid Power.
- Pure Sine Wave Output.
- Protections : RBP, RSPV, OVL, BL, BH, S.Ckt, I/P HV& LV, OHT.
- Compatible with DG as an Input Source.
- Compatible with IT Load.
- Compatible with LITHIUM, Gel & Tubular Batteries.
- Priority Selection - PCU, Smart & Hybrid for Saving Energy and Money.

Inbuilt Solar Charge Controller

Multicolor LCD Display

Preference to Solar Power over Grid Power

UTL SOLAR

TECHNICAL SPECIFICATION

HELIAC (Solar Home PCU)

Parameters								
Model No.		HI1050	HL1500	HL1800	HL2000	HI3000	HL3550	HL4000
System Rating (VA)		850	1050	1400	1500	2200	3000	3500
Bulb Load Max. (Linear load : resistive + inductive)		680W	840W	1120W	1200W	1760W	2400W	2800W
Operating DC Voltage		12V			24V			48V
Switching Element		MOSFET						
Charger Topology		Boost Mosfet						
Max. Battery Capacity		200AH MAX.						
Operating Mode	SMART/PCU/HYBRID	Smart mode (Default)						
Optional DG mode	Enable/Disable	Disable (Default)						
Solar Power Maximum		650W	800W	1000W	1200W	2000W		3000W
Input Voltage Range (Min - Max) Voc		17V-25V			31V-55V			60V-105V
Solar Panel Recommended (Watt)		**165W x 4P***	**165W x 5P***	**165W x 6P***	**335W x 4P*/400W x 3P* 540W x 2P***	**335W x 6P*/400W x 5P* 540W x 4P***		**335Wx2S*& 5P*/400Wx2S* & 4P*/540Wx2S*&3P***

Parameters (Grid)		Default Value	Variable Settable Range (Each Batt.)
Nominal Grid Voltage		230V 1Φ	
Nominal frequency		50Hz	
Frequency Range		47-53Hz ± 1Hz	
Battery Charging Method 4 Stages		BULK/ABSORPTION/FLOAT/EQUALIZE	
Grid Charging Voltage (Equalize)		After 30 Days	
Default charging mode	TUB/LITHIUM	Tubular	
Grid - Battery Charging Voltage (TUB)	Boost	14.5V ± 0.2V (Each Battery)	13.5-15V
	Float	13.8V ± 0.2V (Each Battery)	13-14.2V
Grid - Battery Charging Voltage (LITHIUM)	Boost	13.8V ± 0.2V (Each Battery)	13.6V-14.2V
	Float	13.6V ± 0.2V (Each Battery)	13.5V-14.1V
Grid Charging Current	Normal/Boost	12A/15A ± 2A	1A-20A
Optional Grid charging	Enable/Disable	Enable	
Grid Reconnect @ Battery Voltage (TUB)		11.8V ± 0.2V (Each Battery)	11-12V
Grid Reconnect @ Battery Voltage (LITHIUM)		12.4V ± 0.2V (Each Battery)	12-13V
Grid Low Cut Voltage	IT Mode Enable	170V ± 10V	
Grid Low Cut Recovery		180V ± 10V	
Grid High Cut Voltage		265V ± 10V	
Grid High Cut Recovery		255V ± 10V	
Grid Low Cut Voltage	IT Mode Disable	100V ± 10V	
Grid Low Cut Recovery		110V ± 10V	
Grid High Cut Voltage		290V ± 10V	
Grid High Cut Recovery		280V ± 10V	
Change Over (Battery to Mains)	IT Mode Enable/Disable	<5ms	
Change Over (Mains to Battery)	IT Mode Enable	<12ms	
	IT Mode Disable	<30ms	

Parameters (Inverter)					
Output Phase		1Φ			
Nominal Output Voltage		230V ± 8%			
Nominal Frequency		50 Hz ± 1%			50Hz/60Hz
Battery Low Buzzer (TUB)		10.8V ± 0.2V (Each Battery)			Battery Low Cut+0.3V
Battery Low Cut (TUB)		10.5V ± 0.2V (Each Battery)			10-11.5V
Battery Low Buzzer (LITHIUM)		11.9V ± 0.2V (Each Battery)			Battery Low Cut+0.3V
Battery Low Cut (LITHIUM)		11.6V ± 0.2V (Each Battery)			11V-12V
Battery High Cut (TUB)		16.5 ± 0.2V (Each Battery)			16.5-17.5V
Battery High Cut (LITHIUM)		14.5 ± 0.2V (Each Battery)			14.5-15V
Output Waveform		Sinewave			
Typical Efficiency		≥80%		≥85%	
Voltage Harmonic		<3% (Linear Load)			
Over Load Capacity	IT Mode Disable	>100% After 30 sec delay (with Alarm) 3Time Auto Reset, 4th Time Shut Down Note : 1HP Motor Load Run for 15min with alarm (1 sec ON 5sec OFF) in 3000 Model.			
	IT Mode Enable	>100% After 30 sec delay 1st Time Shut Down			
		>115% Output Goes Down			
Motor 1 HP		NA	Yes (<7.5A)	Yes	
Protection		Overload, Battery Low, Battery High, Output Short Ckt, Battery Reverse (Fuse Blown), Over Heat @90°C ± 10°C, Over/Under frequency, I/P Hi, I/P Low, SPV High			
LED Indication		System ON, (IT mode, TUB/LITHIUM, Boost Chg, DG mode, Grid Chg.) Enable/Disable			
Switches (Micro)		System ON/OFF, UP, Down, Back, Enter(For LCD Calibration)			
Display (Multi Color)		Batt. Voltage, Chg. Current, Grid Voltage, Grid Freq., O/P Voltage, O/P Freq. Load%, Batt. Graph, Overheat, BLK/ABS/FLT , SPV Current, Operating Mode (HYB/PCU/SMT).			

Parameters (Solar)			
Switching Element		Mosfet	
Type of Charger		PWM	
SPV Chgarging Voltage (Boost)	TUBULAR	14.7V ± 0.2V (Each Battery)	14-15.5V
SPV Chgarging Voltage (Recoonect)		14.2V ± 0.2V (Each Battery)	13.1-14.5V
SPV Chgarging Voltage (Boost)	LITHIUM	13.9V ± 0.2V (Each Battery)	13.7-14.4V
SPV Chgarging Voltage (Recoonect)		13.7V ± 0.2V (Each Battery)	13.6-14.3V
Solar Current (Min)		>3A (Below 3A system will act like solar absent)	
Efficiency		≥95%	

Parameters (Environment)								
Operating Temperature		0-50°C						
Cooling		Fan						
Max. Relative Humidity @ 25°C (non Condensing)		95%						
Noise @ 1 meter		50dB						
Standard Compliance		IP21						
BIS Approved		No			Yes			No
System Weight (KG)		10	11	15.5	15	17	25	
Dimension (LXWXH)mm		275x306x128		300x306x167		333x306x275	333x306x315	

Note. * Specification are subject to change without prior notice due to constant improvement in design & technology.*
Above mention battery parameter is according to single battery.

UTL SOLAR

SUN PLUS (Solar Home PCU)

"Affordable Yet, Very Reliable"

Model Available
SP 960 to SP 1860

FEATURES

- Maintain battery health for longer life.
- Modified Sine wave output.
- Built-in IT mode.
- Easy Installation & low maintenance.
- Best Regulated output.
- Battery Charging with Multi stage (Bulk, Absorption & Float)
  Auto Equalize in a month.
- Protections : RBP, RSPV, OVL, BL, BH, S.Ckt, I/P HV& LV, OHT.
- Inbuilt PWM Solar Charge Controller.
- Priority Mode Selection
  1) PCU 2) Hybrid 3) Smart
  For Saving Energy & Money.
- Can Operated without Solar.
- LED Display for Operation & Fault.

Inbuilt Solar
Charge Controller

Priority Mode Selection
as Solar PCU

Preference to
Solar Power
over Grid Power

UTL SOLAR

TECHNICAL SPECIFICATION

SUN PLUS (Solar Home PCU)

Parameters		Rating			
Model No		SUN PLUS 960	SUN PLUS 1060	SUN PLUS 1460	SUN PLUS 1860
System Rating		675VA	875VA	1075VA	1475VA
Operating DC Voltage		12V			24V
Switching Element		Mosfet			
Charger Topology		Triac Based			
Max. Battery Capacity		200AH			
Operating Mode (SMART/PCU/HYBRID)		HYBRID			
Parameters (Grid)		**Default Value**			
Nominal Grid Voltage		230V 1Φ			
Nominal frequency		50Hz			
Battery Charging Method 4 Stages		Bulk/Absorption/Float/Equalize			
Grid - Battery Charging Voltage (TUB) Default mode	Boost	14.5V ± 0.2V (Each battery)			
	Float	13.8V ± 0.2V (Each battery)			
Grid - Battery Charging Voltage (SMF)	Boost	13.5V ± 0.2V (Each battery)			
	Float	13.5V ± 0.2V (Each battery)			
Grid - Battery Charging Voltage (Equalize)		After 30 days			
Grid Charging Current	Default	Boost Mode			
	Normal/Boost	12A/15A ± 2A			
	Enable/Disable	Enable			
Grid Reconnect @ Battery Voltage		11.8V ± 0.2V (Each battery)			
Grid Low Cut Voltage	IT Mode Enable	170V ± 10V			
Grid Low Cut Recovery		180V ± 10V			
Grid High Cut Voltage		265V ± 10V			
Grid High Cut Recovery		255V ± 10V			
Grid Low Cut Voltage	IT Mode Disable	100V ± 10V			
Grid Low Cut Recovery		110V ± 10V			
Grid High Cut Voltage		290V ± 10V			
Grid High Cut Recovery		280V ± 10V			
Change Over (Battery to Mains)	IT Mode Enable/disable	<5ms			
Change Over (Mains to Battery)		<15ms			
Parameters (Inverter)					
Output Phase		1Φ			
Nominal output voltage		240V ± 10% RMS			
Nominal Frequency		50Hz ± 1%			
Max. Output Current		2.1A	2.5A	2.9A	4.3A
Output Waveform		Modified Sinewave			
Battery Low Buzzer		10.8V ± 0.2V (Each battery)			
Battery Low Cut		10.5V ± 0.2V (Each battery)			
Battery High Cut		17V ± 0.2V (Each battery)			
Typical Efficiency		>82%	>80%		>88%
Over Load Capacity	IT Mode Disable	>100% After 30 sec delay (with Alarm) 3Time Auto Reset , 4th Time Shut Down			
	IT Mode Enable	>100% After 30 sec delay (with alarm) 1st Time Shut Down >150% Output Goes Down			
Protection		Overload, Battery Low, Battery High, Output Short Ckt, Battery Reverse (Fuse Blown), Over Heat @90*C ± 10*C , SPV High , I/P HV, I/P LV			
LED Indication		System ON, (IT mode, SMF/TUB, Boost Chg, Grid Chg.)Enable/Disable, Mains Status, Overload, Grid chg., Inverter ON, Battery Status, SPV Chg., Fault			
Switches		System ON, (IT Mode, SMF/TUB, Boost Chg, Grid Chg.) Enable/Disable			
Parameters (Inverter)					
Switching Element		MOSFET			
Type of Charger		PWM			
SPV Charging Voltage (TUB)	Boost	15V ± 0.2V (Each Battery)			
	Float	14.2V ± 0.2V (Each Battery)			
SPV Charging Voltage (SMF)	Boost	13.7V ± 0.2V (Each Battery)			
	Float	13.7V ± 0.2V (Each Battery)			
Max. SPV Current		25A	50A	50A	50A
Efficiency		>95%			
Input Voltage Range (Min- Max) Voc		17V-25V			31V-49.5V
Maximum PV Power Recommended		(150W/160W)X2 (Parallel)	(150W/160W)X4 (Parallel)	(150W/160W)X5 (Parallel)	(315W/320W/325W)X4 (Parallel)
Parameters (Environment)					
Operating Temperature		0-50°C			
Cooling		Fan			
Max. Relative Humidity @ 25°C (non Condensing)		95%			
Noise @ 1 meter		50dB			
Standard Compliance		IP20			
Weight (kg)		7.75	8.8	11	14.2
Dimension (LXWXH)		275X276X131mm		306*274*166 mm	

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

SUN PLUS PRO (Solar Home PCU)

"Affordable Yet, Very Reliable"

Model Available
SPP 920 to SPP 1420

FEATURES

- Inbuilt rMPPT Solar Charge Controller
- Support 12V & 24V Solar Panel with 12V System
- Battery Charging at Low Voltage (90V) Mains Input
- Compatible with IT Load
- Maintain battery health for longer life
- Modified Sine wave output
- Easy Installation & low maintenance
- Battery Charging with Multi stage (Bulk, Absorption & Float)
  Auto Equalize in a month
- Protections : RBP, RSPV, OVL, BL, BH, S.Ckt, I/P HV& LV, OHT
- Priority Mode Selection- 1) Hybrid 2) Smart
  For Saving Energy & Money
- Can Operated without Solar
- LED Display for Operation & Fault

Inbuilt Solar Charge Controller

Affordable & Easy to Install

Preference to Solar Power over Grid Power

UTL SOLAR

TECHNICAL SPECIFICATION

SUN PLUS PRO (Solar Home PCU)

Parameters		Rating		
Product		**SUN PLUS PRO SOLAR PCU**		
Model No.		SUN PLUS PRO 920	SUN PLUS PRO 1020	SUN PLUS PRO 1420
System Rating		700VA	900VA	1100VA
Operating DC Voltage		12V		
Switching Element		MOSFET		
Charger Topology		BOOST MOSFET		
Max. Battery Capacity		200AH		
Operating Mode (SMART/HYBRID)		HYBRID		
Parameters (Solar)				
Switching Element		MOSFET		
Type of Charger		MPPT		
SPV Charging Voltage (**TUB**)	Boost	14.7V ± 0.2V (Each Battery)		
	Float	14.2V ± 0.2V (Each Battery)		
Solar Charging Current		22A ±2A		
Maximum PV Power Recommended		540Wx1		
Solar PV Maximum Voltage		25 -50 VOC		
Efficiency		>95%		
Parameters (Grid)		**Default Value**		
Nominal Grid Voltage		230V 1Φ		
Nominal frequency		50Hz		
Battery Charging Method 4 Stages		Bulk/Absorption/Float/Equalize		
Grid - Battery Charging Voltage	Boost	14.5V ± 0.2V (Each battery)		
	Float	13.8V ± 0.2V (Each battery)		
Grid - Battery Charging Voltage (Equalize)		After 30 days		
Grid Charging Current	Normal/Boost	15A /18A/12A ±2A		
Grid Reconnect @ Battery Voltage		11.8V ± 0.2V (Each battery)		
Grid Low Cut Voltage	IT MODE ENABLE	170V ± 10V		
Grid Low Cut Recovery		180V ± 10V		
Grid High Cut Voltage		265V ± 10V		
Grid High Cut Recovery		255V ± 10V		
Grid Low Cut Voltage	IT MODE DISABLE	80V ± 10V		
Grid Low Cut Recovery		90V ± 10V		
Grid High Cut Voltage		280V ± 10V		
Grid High Cut Recovery		275V ± 10V		
Change Over (Battery to Mains)	IT MODE ENABLE	<8ms		
Change Over (Mains to Battery)		<15ms		
Parameters (Inverter)				
Output Phase		1Φ		
Nominal output voltage		230V±10% RMS		
Nominal Frequency		50 Hz±1%		
Max. Output Current		2.1A	2.9A	3.5A
Output Waveform		Modified Sinewave		
Battery Low Buzzer		10.8V ± 0.2V (Each battery)		
Battery Low Cut		10.5V ± 0.2V (Each battery)		
Battery High Cut		16.5V ± 0.2V (Each battery)		
Typical Efficiency		≥80%		
Over Load Capacity	IT Mode Disable	**>100% After 30 sec delay (with Alarm) 3Time Auto Reset , 4th Time Shut Down**		
	IT Mode Enable	**>100% After 30 sec delay (with alarm) 1st Time Shut Down**		
Protection		Overload, Battery Low, Battery High, Output Short Ckt, Battery Reverse (Fuse Blown) , Over Heat @90*C ± 10*C , SPV High, SPV Reverse , I/P HV, I/P LV		
LED Indication		System ON, Grid Status, Over load/Heat , Grid chg., Batt. ON, SPV Chg. Batt. Status .		
Switches		System ON, (IT Mode, Hybrid , Boost Charging)		
Parameters (Environment)				
Operating Temperature		0-45°C		
Cooling		Fan		
Max. Relative Humidity @ 25°C (non Condensing)		95%		
Noise @ 1 meter		50dB		
Standard Compliance		IP20		
Weight (kg)		7.6	8.4	13.3
Dimension (LXWXH)		275X305X131mm		302*306*165 mm

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

SUN LION

Wall Mountable rMPPT Solar PCU with Built-in LiFePO4 Battery.

Model Available
SUNLION 1000 & SUNLION 1200

FEATURES

- Inbuilt rMPPT Solar Charge Controller
- Support 12V & 24V Solar Panel with 12V System
- Battery Charging at Low Voltage (90V) Mains Input
- Inbuilt Lithium LiFePo4 Battery
- Compatible with IT Load
- Zero Battery Maintenance & Long Battery Life
- Modified Sine wave output
- Battery Charging with Multi stage (Bulk, Absorption & Float)
- Protections : RBP, RSPV, OVL, BL, BH, S.Ckt, I/P HV& LV, OHT
- Easy Installation & low maintenance
- Can Operated without Solar
- Multi Color LCD Display for Operation & Fault
- Priority Mode Selection- 1) Hybrid 2) Smart For Saving Energy & Money

Inbuilt Solar Charge Controller

Charging in Low Voltage 90V

Support 12V & 24V Panels in a 12V System

UTL SOLAR

TECHNICAL SPECIFICATION

SUNLION 1000 & SUNLION 1200 (Wall Mounted rMPPT Solar PCU)

Parameters		Rating		
Product		**SUN LION SOLAR PCU**		
Model No.		SUN LION 1000	SUN LION 1200	
System Rating		800 VA	1000 VA	
Operating DC Voltage		12.8V		
Switching Element		MOSFET		
Charger Topology		BOOST MOSFET		
Max. Battery Capacity (Inbuilt LiFePo4)		50AH , 640Wh	100AH , 1280Wh	
Operating Mode (SMART/HYBRID)		HYBRID		
Parameters (Solar)				**Variable Settable Range**
Switching Element		MOSFET		
Type of Charger		rMPPT		
SPV Charging Voltage	Boost / Float	13.9V ± 0.2V		13.6V - 14.2V
Solar Charging Current		22A + 2A		
Maximum PV Power Recommended		540Wx1		
Solar PV Maximum Voltage		25V -50V (VOC)		
Efficiency		>95%		
Parameters (Grid)		**Default Value**		
Nominal Grid Voltage		230V 1Φ		
Nominal frequency		50Hz		
Battery Charging Method 3 Stages		Bulk/Absorption/Float/Equalize		
Grid - Battery Charging Voltage	Boost/Float	13.8V ± 0.2V		13.5V-14.1V
Grid Charging Current	Normal/Boost	15A /18A ± 2A		1A-18A
Grid Reconnect @ Battery Voltage		12.4V ± 0.2V		12V - 13V
Grid Low Cut Voltage	IT MODE ENABLE	170V ± 10V		
Grid Low Cut Recovery	IT MODE ENABLE	180V ± 10V		
Grid High Cut Voltage	IT MODE ENABLE	265V ± 10V		
Grid High Cut Recovery	IT MODE ENABLE	255V ± 10V		
Grid Low Cut Voltage	IT MODE DISABLE	80V ± 10V		
Grid Low Cut Recovery	IT MODE DISABLE	90V ± 10V		
Grid High Cut Voltage	IT MODE DISABLE	280V ± 10V		
Grid High Cut Recovery	IT MODE DISABLE	275V ± 10V		
Change Over (Battery to Mains)	IT MODE ENABLE	<8ms		
Change Over (Mains to Battery)	IT MODE ENABLE	<15ms		
Parameters (Inverter)				
Output Phase		1Φ		
Nominal output voltage		230V+10% RMS		
Nominal Frequency		50 Hz±1%		
Max. Output Current		2.5A	3.1A	
Output Waveform		Modified Sinewave		
Battery Low Buzzer		11.9V + 0.2V		Battery Low Cut +0.3V
Battery Low Cut		11.6V + 0.2V		11V-12V
Battery High Cut		14.5V + 0.2V		14.5V - 15.0V
Typical Efficiency		>80%		
Over Load Capacity	IT Mode Disable	>100% After 30 sec delay (with Alarm) 3 Time Auto Reset , 4th Time ShutDown		
	IT Mode Enable	>100% After 30 sec delay (with alarm) 1st Time Shut Down		
Protection		Overload, Battery Low, Battery High, Output Short Ckt, Battery Reverse (DC Fuse Blown) , Over Heat @90*C ± 10*C , SPV High, SPV Reverse , I/P HV, I/P LV		
LED Indication		SYSTEM ON, (IT MODE, HYB/SMT , BOOST CHG.) ENABLE/DISABLE		
Switches (Micro)		System ON/OFF, UP, Down, Back, Enter(For LCD Calibration)		
Display (Multi color)		Battery Voltage, Charging Current, Grid Voltage, Grid Frequency, Output Voltage, Output Frequency, Load%, Battery Graph , BLK/ABS/FLT, SPV Current, Operating Mode (HYB/SMT) .		
Parameters (Environment)				
Operating Temperature		0-45°C		
Cooling		Fan		
Max. Relative Humidity @ 25°C (non Condensing)		95%		
Noise @ 1 meter		50dB		
Standard Compliance		IP21		
Weight (kg)		17	24.5	
Dimension (LXWXH)		180X320X370mm	180X282X538mm	

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

GAMMA+ LiON

Wall Mountable rMPPT Solar PCU with Built-in LiFePO4 Battery.

Model Available
GAMMA+ 1200

FEATURES

- Inbuilt LiFePO4 Battery with Zero battery maintenance & Long battery life.
- Controller-based design Pure Sine Wave.
- Built-in rMPPT charge controller that supports 1kW panels.
- Compact design with Multi-colour LCD Display.
- Preference to Solar Power over Grid Power.
- Multi-functional smart Options Priority Selection - PCU, Smart & Hybrid for Saving Energy & Money
- 5 years warranty on both Inverter and battery

FAST CHARGING

2X LONGER LIFE

ZERO MAINTENANCE

5 YEARS WARRANTY

UTL SOLAR

TECHNICAL SPECIFICATION

GAMMA+ LiON (Wall Mounted rMPPT Solar PCU)

Parameters			
Product		Solar PCU	
Model No.		Gamma+ LiON 1200	
System Rating		1000VA	
Operating DC Voltage		25.6V	
Switching Element		MOSFET	
Max. Battery Capacity		48AH , 1.2Kw LiFePo4 (Inbuilt)	
Grid Charger Topology		Boost Charging Topology	
Operating Mode	SMART/PCU/HYBRID	Smart mode (Default)	
Optional DG mode	Enable/Disable	Disable (Default)	
Solar Power Maximum		1000W	
Input Voltage Range (Min, - Max) Voc		30V-106V	
Parameters (Grid)		**Default Value**	**Variable settable Range (Each Batt.)**
Nominal Grid Voltage		230V 1Φ	
Nominal frequency		50Hz	
Frequency Range		47-53Hz + 1Hz	
Battery Charging Method 3 Stages		Bulk/Absorption/Float	
Grid - Battery Charging Voltage	Boost/Float	13.8V+0.2V (Each Battery)	13.5V-14.2V
Grid Charging Current	Normal/Boost	15A/18A +2A	1A -20A
Optional Grid charging	Enable/Disable	Enable	
Grid Reconnect @ Battery Voltage		12.4V +0.2V (Each Battery)	12-13V
Grid Low Cut Voltage	IT mode Enable	170V ± 10V	
Grid Low Cut Recovery		180V ± 10V	
Grid High Cut Voltage		265V ± 10V	
Grid High Cut Recovery		255V ± 10V	
Grid Low Cut Voltage	IT mode Disable	100V ± 10V	
Grid Low Cut Recovery		110V ± 10V	
Grid High Cut Voltage		290V ± 10V	
Grid High Cut Recovery		280V ± 10V	
Change Over (Battery to Mains)	IT mode Enable/Disable	<8ms	
Change Over (Mains to Battery)	IT mode Enable	<12ms	
	IT mode Disable	<30ms	
Parameters (Inverter)			
Output Phase		1Φ	
Nominal Output Voltage		220V	
Output voltage range		220V±8%	
Nominal Frequency		50 Hz±1%	
Max. Output Current		3.0A	
Battery Low Buzzer		11.9V+0.2V (Each Battery)	NA
Battery Low Cut		11.6V+0.2V (Each Battery)	11-12V
Battery High Cut		14.5+0.2V (Each Battery)	NA
Output Waveform		Sinewave	
Typical Efficiency		>82%	
Voltage Harmonic		<3% (Linear Load)	
Over Load Capacity	IT Mode Disable	>100% After 30 sec delay (with alarm) 3Time Auto Reset , 4th Time Shut Down	
	IT Mode Enable	>100% After 30 sec delay (with Alarm) 1st Time Shut Down	
Protection		Overload, Battery Low, Battery High, Output Short Ckt, Battery Reverse (Through MCB) , Over Heat @90*C ± 10*C, Over/Under frequency, I/P High, I/P Low, SPV High, SPV Low	
LED Indication		System ON, (IT mode , Boost Chg , DG mode , Grid Chg.) Enable/Disable	
Switches (Micro)		System ON/OFF, UP, Down, Back, Enter (For LCD Calibration)	
Display (Multi color)		Battery Voltage, Charging Current, Grid Voltage, Grid Frequency, Output Voltage, Output Frequency, Load %, Battery Graph, Overheat, SPV Current, Operating Mode (HYB/PCU/SMT)	
Parameters (Solar)			
Switching Element		Mosfet	
SPV Charging Voltage	Boost/Float	13.9V+0.2V (Each Battery)	13.6-14.4V
Solar Charging Current (Battery)		20A+2A (Default)	11-22A
Battery Charging Method 3 Stages		Bulk/Absorption/Float	
Efficiency		>94%	
Parameters (Environment)			
Operating Temperature		0-50°C	
Cooling		Fan	
Max. Relative Humidity @ 25*C (Non Condensing)		95%	
Noise @ 1 meter		50dB	
Standard Compliance		IP20	
System Weight (KG)		23.5	
Dimension (LXWXH)mm		305.5 X 116 X 327.8	

Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

GAMMA+ (Solar Home PCU)

"Get Two Battery Back -up in Single Battery"

Model Available
GPP1012-GPP3400

FEATURES

- Controller based design, Pure Sine Wave, Built in rMPPT Charge Controller.
- Multi-colour LCD Display.
- Freq.:- Available - 50Hz & 60Hz.
- Charging Multi Stage (Bulk, Absorption & Float)
- Solar Priority of load & Battery Charging.
- Preference to Solar Power over Grid Power.
- Pure sine wave output.
- Protections : RBP, RSPV, OVL, BL, BH, S.Ckt, I/P HV & LV, OHT.
- Compatible with DG as an input Source.
- Compatible with IT Load.
- Compatible with Tubular Batteries (Lithium) .
- Priority Selection - PCU, Smart & Hybrid for Saving Energy and Money.
- Support 1HP Motor in Model No 2600 and 3350.

Pure Sine Wave Output

upto 30% More Efficient

Priority 3 Saving Mode Selection

UTL SOLAR

TECHNICAL SPECIFICATION

GAMMA+ (Solar Home PCU)

Parameters							
Model Name		Gamma+ PCU					
Model No.		GPP1012	GPP1650	GPP2000	GPP2600	GPP3400	
System Rating		1000VA	1400VA	1500VA	2000VA	3000VA	
Operating DC Voltage		12V		24V			
Switching Element		MOSFET					
Charger Topology		Boost Mosfet					
Max. Battery Capacity		200AH					
Operating Mode	SMART/PCU/HYBRID	Smart mode (Default)					
Optional DG mode	Enable/Disable	Disable (Default)					
Input Voltage Range (Min - Max) Voc		15V-53V	30V-53V	30V-106V		60V-106V	
Solar Power Maximum		1000W	1650W	1500W	2000W	3000W	
Solar Panel Recommended (Watt)		165x6P, 200X5P (335x3P*) (400/440/540X2P*)	(335x4P*) (400x4P*) (440/540/550x3P*) (590x2P*)	335 (2S* & 2P*) 400 (2S* & 2P*), (540X3P*) Parallel	335 (2S* & 3P*) (400/440 (2S* & 2P*), (540X3P*) Parallel	590 (2S* & 2P*) 440/540 (2S* & 3P*) 400 (2S* & 4P*)	

Parameters (Grid)		Default Value					Variable Settable Range (Each Batt.)
Nominal Grid Voltage		230V 1Φ					
Nominal frequency		50Hz					
Frequency Range		47-53Hz ± 1Hz					
Battery Charging Method 3 Stages		Bulk/Absorption/Float					
Default charging mode	TUB (LITHIUM)	Tubular					
Grid - Battery Charging Voltage (TUB)	Boost	14.5V ± 0.2V					13.5-15V
	Float	13.8V ± 0.2V					13-14.2V
Grid - Battery Charging Voltage (LITHIUM)	Boost / Float	13.8V ± 0.2V					13.5V-14.2V
Grid Charging Current	Normal/Boost	10A/15A ± 2A	15A/20A ± 2A	10A/15A ± 2A			1A-20A
Optional Grid charging	Enable/Disable	Enable					
Grid Reconnect @ Battery Voltage (TUB)		11.8V ± 0.2V					11-12V
Grid Reconnect @ Battery Voltage (LITHIUM)		12.4V ± 0.2V					12-13V
Grid Low Cut Voltage	IT Mode Enable	170V ± 10V					
Grid Low Cut Recovery		180V ± 10V					
Grid High Cut Voltage		265V ± 10V					
Grid High Cut Recovery		255V ± 10V					
Grid Low Cut Voltage	IT Mode Disable	100V ± 10V					
Grid Low Cut Recovery		110V ± 10V					
Grid High Cut Voltage		290V ± 10V					
Grid High Cut Recovery		280V ± 10V					
Change Over (Battery to Mains)	IT Mode Enable/Disable	<8ms					
Change Over (Mains to Battery)	IT Mode Enable	<12ms					
	IT Mode Disable	<30ms					

Parameters (Inverter)							
Output Phase		1Φ					
Nominal Output Voltage		230V					
Output voltage range		230V ± 10%					
Nominal Frequency		50 Hz ± 1%					50Hz/60Hz
Max. Output Current		2.9A	4.3A	4.3A	5.6A	9.0A	
Battery Low Buzzer (TUB)		10.8V ± 0.2V (Each Battery)					Battery Low Cut-0.3V
Battery Low Cut (TUB)		10.5V ± 0.2V (Each Battery)					10-11.5V
Battery Low Buzzer (LITHIUM)		11.9V ± 0.2V (Each Battery)					Battery Low Cut-0.3V
Battery Low Cut (LITHIUM)		11.6V ± 0.2V (Each Battery)					11-12V
Battery High Cut (TUB)		16.5 ± 0.2V (Each Battery)					16.5-17.5V
Battery High Cut (LITHIUM)		14.5 ± 0.2V (Each Battery)					14.5-15V
Output Waveform		Sinewave					
Typical Efficiency		>80%		>82%			
Voltage Harmonic		<3% (Linear Load)					
Over Load Capacity	IT Mode Disable	>100% After 30 sec delay (with alarm) 3Time Auto Reset , 4th Time Shut Down Note : 1HP Motor Load Run for 15min with alarm (1 Sec ON, 5 Sec OFF) in 2600 Model .					
	IT Mode Enable	>100% After 30 sec delay (with Alarm) 1st Time Shut Down					
		>150% Output Goes Down					
Motor 1 HP		NA			Yes (<6.5A)	Yes	
Protection		Overload, Battery Low, Battery High, Output Short Ckt, Battery Reverse (Fuse Blown) , Over Heat @90°C ± 10°C, Over/Under frequency, I/P High, I/P Low, SPV High, SPV Low					
LED Indication		System ON, (IT mode, TUB/LITHIUM, Boost Chg, DG mode, Grid Chg.) Enable/Disable					
Switches (Micro)		System ON/OFF, UP, Down, Back, Enter (For LCD Calibration)					
Display (Multi Color)		Battery Voltage, Charging Current, Grid Voltage, Grid Frequency, Output Voltage, Output Frequency, Load %, Battery Graph, Overheat, SPV Current, Operating Mode (HYB/PCU/SMT) , Solar energy (KWH) .					

Parameters (Solar)							
Switching Element		Mosfet					
Type of Charger		MPPT					
SPV Chgarging Voltage (TUB)	Boost	14.7V ± 0.2V (Each Battery)					14-15.5V
	Float	14.2V ± 0.2V (Each Battery)					13.1-14.5V
SPV Charging Voltage(LITHIUM)	Boost / Float	13.9V ± 0.2V (Each Battery)					13.6-14.4V
SPV Charging Current (Battery)		18A ± 2A (Def.)	25A ± 2A (Def.)	18A ± 2A (Def.)			11-40A
Battery Charging Method 3 Stages		Bulk/Absorption/Float					
Efficiency		>94%					

Parameters (Environment)						
Operating Temperature	0-45°C					
Cooling	Fan					
Max. Relative Humidity @ 25°C (non Condensing)	95%					
Noise @ 1 meter	50dB					
Standard Compliance	IP21					
System Weight (KG)	12.4	19	16	17.6	25	
Dimension (LXWXH)mm	327.8x305.5x116	350x305x315	333.8x305.5x158.6		360x350x305	

Note. * Specification are subject to change without prior notice due to constant improvement in design & technology.
*** Above mention battery parameter is according to single battery.**
*** Solar Panel Max. (*S- Series, *P- Parallel)**

UTL SOLAR

ALFA PRO+ SOLAR PCU

"Most Featureful Solar PCU"

rMPPT™ Offgrid Solar PCU
(1Ph in 1Ph out)

Model Available
1kVA-20kVA

FEATURES

- DSPic based Pure Sine Wave Design.
- Inbuilt in rMPPT charge controller (upto 30% more efficient).
- Maximum preference to Solar Power.
- Wi-Fi based remote monitoring & Wifi freq. Bands 2.4GHz Support & (GSM Optional).
- Wi-Fi range : 3 - 5 meters in open air without obstacles.
- Comply with IEC 61683 and IEC 60068-2-(1,2,14,30) standards.
- Reverse AC Voltage Protection.
- User friendly & Easily accessible LCD Display with all AC & DC Parameter Configurable by Display Switchs & Digital LCD (20X4).
- User Friendly Control :- Output Voltage, Chg. Voltage - SPV/Grid, Chg. Current - SPV/Grid, Grid Reconnect, Batt. Low.
- Priority based working modes - Smart/PCU/Hybrid (for saving energy & money).
- Grid Charging, IT Load - Enable/Disable by LCD.

PCU Mode Priority

Solar/Battery/Grid

Hybrid Mode Priority

For Load - Grid/Solar/Battery
For Charging - Solar/Grid

Smart Mode Priority

For Day Time - Solar/Battery/Grid
For Night Time - Grid/Battery

Application

Hospital

School

Industries

Home

Petrol Pump

Bank

UTL SOLAR

TECHNICAL SPECIFICATION

ALFA PRO+ SOLAR PCU (1Ph in 1Ph out)

Parameters	Units	Rating											
Model No (APP)		1024	2048	3748	5048	5096	7596	8120	10120	10180	15180	15240	20240
System Rating	KVA	1	2	3.75	5	5	7.5	7.5	10	10	15	15	20
Operating DC Voltage	V	24	48			96		120		180		240	
Photovoltaic Input													
Input Voltage Range (Min-Max)	VDC	45-90	80-160			160-360		200-400		300-590		400-650	
Maximum PV Power Recom.	KW	1.0	2.0	3.75	5.0		7.5		10		15		20
Solar Charge Controller Rating	A	40	40	72	100	50	75	60	80	50	80	60	80
MPPT Based Charging Controller													
Switching Element		Mosfet	IGBT										
Controller		DSP											
Type of Charger		MPPT											
Efficiency	%	95											

Parameter		Configurable	Default Value
Battery Low Buzzer	V	Batt. Low Cut +0.2	11.2
Battery Low Cut**	V	10-11.7	11.0
Battery High Cut (INV.)	V	SPV Present-SPV CHG. REF +1V for 15Sec, SPV CHG. REF +1.5V for 2Sec	16
		SPV Absent-SPV CHG. REF for 15Sec, SPV CHG. REF +0.2V for 2Sec	14.7
Battery Charging Voltage by SPV	V	12.8-16	14.5
Battery Charging Current by SPV	A	12-60	18
Battery Charging Voltage by Grid	V	12.5-15.5	14
Battery Charging Current by Grid	A	6-15	10
Grid Low Cut Voltage (IT Mode/ Normal)	V	NA/120-200	175/120
Grid High Cut Voltage (IT Mode/ Normal)	V	NA/245-280	260/280
Grid Charging		Enable/Disable	Enable
IT Load		Enable/Disable	Disable
Operating Mode		Smart/PCU/Hybrid	Smart
Output Voltage Low	V	170-190	185
Output Voltage High	V	250-260	255
No Load Shut Down		Enable/Disable	Disable
Input Source		Grid/Genset	Grid

Li Ion Parameter		100AH						
No. of Cells		8	16	15	30	38	56	75
Battery Low Buzzer	V	24.4	48.8	45.75	91.5	115.9	170.8	228.75
Battery Low Cut**	V	23.6	47.2	44.25	88.5	112.1	165.2	221.25
Battery Charging Voltage by SPV	V	28	50	53.25	106.5	134.9	198.8	266.25
Battery Charging Current by SPV	A	20	20	20	20	20	20	20
Battery Charging Voltage by Grid	V	27.6	55.2	52.5	105	133	196	262.5
Battery Charging Current by Grid	A	10	10	10	10	10	10	10

Battery			
Grid Disc. (Solar Available) PCU/SMART		Either Battery chg voltage ref meet. Or battery chg current ref meet for the 2 minutes	
Grid Rec. (PCU Mode/ Smart Mode)	V	11-12	11.5

Inverter												
Switching Element		Mosfet				IGBT						
Control		PWM										
Nominal Output Voltage	VAC	220, 1Phase, 3Wire Pure Sine Wave										
Nominal Frequency	Hz	50.0										
Load Current	A	4.5	9	13.5	18	18	27	27	36	36	54	72
Voltage Regulation	%	1										
Output Voltage Distortion with 100% Linear Load	%	<3										
Overload Capacity (IT LOAD DISB)		100-120(2time auto reset) : 60sec | 120-150(2time auto reset) : 30sec | 150-200 : 2sec | 200-300 : 1sec | 300-400 : 250ms | >400 : 20ms										
Overload Capacity (IT LOAD ENB)	%	100-110 : 10 Min | 110-120 : 2 Min | 150-200 : 2Sec | 200-300 : 1Sec | 300-400 : 250ms | >400 : 20ms										
Peak Efficiency	%	>82	>88									
Noise @ 1meter	dB	50										
Cooling		Temp Controlled, Fan										
Protections		Overload, Battery Low, Battery High, Output Low, Output High, Output Short Ckt., Overheat, Under Frequency, Over Frequency, Solar Panel Reverse										
Display Parameters		Battery Voltage, Charging Current, Discharging Current, Charging KWH, Discharging KWH, Solar Voltage, Solar Current, Instantaneous Power, Cumulative Power, Grid Voltage, Grid Current, Grid Frequency, Output Voltage, Output Current, Output Frequency IT Load En/Dn Grid Charger En/Dn, Operating Mode PCU/SMT/HYD										
Switches		Reset for System ON/OFF, UP, DOWN, BACK, ENTER (for LCD Configuration)										
Indications		System ON, Inverter ON, SPV Charging, Grid Charging, Battery Low/High, Overload, Overheat, Mains Low, Mains High, Under Frequency, Over Frequency, Fault										

Environment												
Operating Temperature	C	0-50										
Max Relative Humidity @25*C(non condensing)	%	95										
Degree of Protection		IP21										
Data Loggin	Inch	30 Day Data Storage										
Dimension (LxWxH)	Kg.	18 X 10 X 18				24 X 13 X 23			24 X 13 X 26			32 X 16 X 25
Weight (Approx)		32	40	44	50	71	65	80	103	120	165	

*Specification are subject to change without prior notice due to constant improvement in design & technology.

**Once Battery Get Full Charged then Batt Low cut as per specification otherwise battery low buzzer 11.3V Per Batt. & Batt low cut 11.2V Per Batt.

UTL SOLAR

SIGMA PRO Grid Export Solar PCU

rMPPT Hybrid Solar PCU
(1Ph in 1Ph out)

A SMART PCU
Which Stores as well as Exports Electricity

Model Available
1kVA-15KVA

FEATURES

- DSPIC based Pure Sine Wave Design.
- Inbuilt in rMPPT charge controller (upto 30% more efficient).
- Grid Interactive.
- Maximum Preference to Solar Power.
- Wi-Fi based remote monitoring & Wifi freq. Bands 2.4GHz Support & (GSM Optional).
- Wi-Fi range : 3 - 5 meters in open air without obstacles.
- Certified" as per IS 16169: 2014/IEC 62116: 2008, IS 16221 (Part 2): 2015/IEC 62109-2: 2011,IS 16169: 2014/IEC 62116: 2008, IS 16221 (Part 2): 2015/IEC 62109-2: 2011 upto 1KVA-5KVA.
- Certified by IEC 61683, 61727, 60529, 60068-2 (1,2,14,30) & 62116 standards*.
- Robust Design-20 years product life, 5 yrs of warranty.
- User Friendly & Easily accessible LCD Display with all AC and DC Parameter Configurable by Display Switches & Digital LCD (20X4).
- User Friendly Control :- Output Voltage, Chg. Voltage - SPV/Grid, Chg. Current - SPV/Grid, Grid Reconnect, Batt. Low.
- Reverse AC Voltage Protection.
- Priority based working modes - Smart/PCU/llybrid (for saving energy & money).
- Grid Export Mode, Grid Charging & IT Load - Enable/Disable by Display Switch.

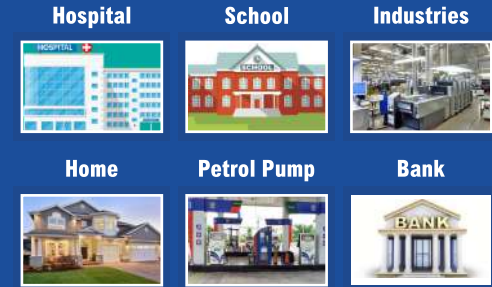
PCU Mode Priority
Solar/Battery/Grid

Hybrid Mode Priority
For Load - Grid/Solar/Battery
For Charging - Solar/Grid

Smart Mode Priority
For Day Time - Solar/Battery/Grid
For Night Time - Grid/Battery

Grid Export Mode
Solar/Grid/Battery

Application



*Certifications is applicable in some of the system

UTL SOLAR

TECHNICAL SPECIFICATION

SIGMA PRO Grid Export SOLAR PCU (1Ph in 1Ph out)

Parameters		Units	Rating				
Model (UGE)			1024	1524	2024	2524	3024
System Rating		KVA	1	1.5	2	2.5	3
Operating DC Voltage		V	24				
Photovoltaic Input							
Input Voltage range(Min.-Max.)		V_{OC}	40-90				
Maximum PV power recommended		kW	1	1.5	2	2.5	3
Solar Charge Controller Rating		A	30	45	60	75	90
MPPT Based Charge Controller							
Switching Element			MOSFET				
Controller			DSP				
Type of Charger			MPPT				
Peak Efficiency		%	95				

Parameters		Units	Configurable	Default Value (Li-Ion)	Default Value (LED ACID)
Battery Low Buzzer		V	Batt. Low Cut +0.2	23.8	22.4
Battery Low cut		V	20-23.4	23.4	22
Battery High cut (INV.)		V	SPV Present-SPV CHG. REF +1.3V for 15Sec, SPV CHG. REF +1.8V for 2Sec	29.6	31
			SPV Absent-SPV CHG. REF +0.5V for 15Sec, SPV CHG. REF +1.2V for 2Sec	29	30
Battery Charging Voltage with SPV		V	25.6-32	28.4	29
Battery Charging Current with SPV		A	12-60	18	
Battery Charging Voltage with Grid		V	25-31	28	
Battery Charging Current with Grid		A	6-15	10	
Grid low cut volt. (IT Mode Enb/Dis)	GRID EXPORT	V	NA/120-200	175/120	
Grid high cut volt. (IT Mode Enb/Dis)	MODE DISABLE	V	NA/245-280	260/280	
Grid Charging		V	Enable/Disable	Enable	
IT Mode			Enable/Disable	Disable	
Operating mode			Smart/PCU/Hybrid/Grid Export	Smart Mode	
Input Source			Grid/Genset(for Genset, Grid Export Mode must be Disable)	Grid	
Output voltage low		V	170-190	185	
Output voltage high		V	250-260	255	

Grid Export Mode Enable				
Grid Low/recover		V	185/195	
Grid High/recover		V	280/275	
Synchronization voltage range		V	185-280V	
Synchronization frequency range		HZ	47 to 53	
Maximum Charging Current from Grid (Import)		A	6-15	10
Battery				
Grid Disconnect (Solar Available) PCU/SMART			Either Battery chg voltage ref meet. Or battery chg current ref meet for the 2 minutes	
Grid Reconnect (PCU Mode / Smart Mode), Import ON (Grid Export mode)		V	11-12.8	11.5

Inverter							
Switching Element			MOSFET				
Control			PWM				
Nominal Output voltage			230V ±10%. , 1Phase, 3 Wire, Pure Sine Wave				
Nominal frequency		Hz	50				
Load Current		A	3.6	5.4	7.2	8	10.45
Voltage regulation		%	1				
Output voltage distortion with 100% linear load		%	<3				
Overload capacity		%	Fold back logic working And maintain 100% load By reducing the output voltage			**Grid Tie ON**	Over Load Indication @>200% >200 - 300% : 10min >300 - 400% : 1min >400% : 250ms
Peak efficiency		%	>85				
Noise @ 1 meter		dB	50				
Cooling			Either Load Based (On ≥ 60, Off ≤ 50) or Temperature Based (On ≥ 55°C ±3°C, Off ≤ 42°C ±3°C)				
Protections			Overload, Battery Low, Battery High, Output Low, Output High, Input Low, Input High, SPV Low, SPV High, Output Short Ckt., Input Short Ckt., Over Temp., Under Frequency, Over Frequency, Solar Panel Reverse, Anti-islanding, Surge Protection, Grid/Solar Charger Open Circuit, NTC Open.				
Display Parameters			Battery Voltage, Charging Current, Discharging Current, charging KWH and discharging KWH				
			Solar Voltage, Solar Current, Instantaneous Power, Cummulative Energy				
			Grid Voltage, Grid Current, Frequency, Import Power, Import Energy ,				
			Export Power , Export Energy				
			Output Voltage, Output Current, Frequency, Instantaneous Power & Commutative Energy				
			Grid, Inverter & SPV Charger Status				
			System Info : Grid CHG-EN, IT Load-EN, Input Source-Grid, Operation Mode-Smart				
Switches			Reset for System ON/OFF, UP , DOWN, BACK, ENTER (for LCD Configuration)				
Indications			System ON, Inv. ON, SPV Charging, Grid Charging, Grid Tie ON, Battery Low/High, Overload / Overheat, Mains Low / Mains High, Under frequency/Over frequency, Operating modes (smart, Hybrid, PCU and Gridexport), Fault, HOE				
Environment							
Operating temperature		ºC	0-45				
Max. Relative Humidity @ 25 C (non condensing)		%	95				
Degree of Protection			IP-21				
Data Logging			30 Days Data Storage				
Dimension (LxWxH)		Inch	11.7 x 11.2 x 23.2				

*Specification are subject to change without prior notice due to constant improvement in design & technology.

*If battery is not fully charged, battery low cut voltage is 11.5V/batt. If battery is fully charged, battery low cut voltage is equal to set Voltage.

UTL SOLAR

TECHNICAL SPECIFICATION

SIGMA PRO Grid Export SOLAR PCU (1Ph in 1Ph out)

Parameters	Units	Rating											
Model (UGE)		1048	2048	3048	4048	5048	5096	7596	8120	10120	10180	15180	15240
System Rating	KVA	1	2	3	4	5		7.5		10		15	
Operating DC Voltage	V	48					96		120		180		240
Photovoltaic Input													
Input Voltage range(Min.-Max.)	V_{OC}	80-160	80-195				180-360		200-400	220-400	300-540		400-650
Maximum PV power recommended	kW	1	2	3	4	5		7.5		10		15	
Solar Charge Controller Rating	A	20	40	60	80	100	50	75		60	80	55	60
MPPT Based Charge Controller													
Switching Element		IGBT											
Controller		DSP											
Type of Charger		MPPT											
Peak Efficiency	%	95											

Parameters		Units	Configurable	Default Value
Battery Low Buzzer		V	Batt. Low Cut +0.2	11.2
Battery Low cut		V	10-11.7	11
Battery High cut (INV.)		V	SPV Present-SPV CHG. REF +1.3V for 15Sec, SPV CHG. REF +1.8V for 2Sec	15.5
			SPV Absent-SPV CHG. REF +0.5V for 15Sec, SPV CHG. REF +1.2V for 2Sec	15
Battery Charging Voltage with SPV		V	12.8-16	14.5
Battery Charging Current with SPV		A	12-60	18
Battery Charging Voltage with Grid		V	12.5-15.5	14
Battery Charging Current with Grid		A	6-15	10
Grid low cut volt. (IT Mode Enb/Dis)	GRID EXPORT	V	NA/120-200	175/120
Grid high cut volt. (IT Mode Enb/Dis)	MODE DISABLE	V	NA/245-280	260/280
Grid Charging		V	Enable/Disable	Enable
IT Mode			Enable/Disable	Disable
Operating mode			Smart/PCU/Hybrid/Grid Export	Smart Mode
Input Source			Grid/Genset(for Genset, Grid Export Mode must be Disable)	Grid
Output voltage low		V	170-190	185
Output voltage high		V	250-260	255

Li Ion Parameter	Units	100AH				
No. of Cells		15/16	30	38	56	75
Battery Low Buzzer	V	45.75/48.8	91.5	115.9	170.8	228.75
Battery Low Cut**	V	44.25/47.2	88.5	112.1	165.2	221.25
Battery Charging Voltage by SPV	V	53.25/56	106.5	134.9	198.8	266.25
Battery Charging Current by SPV	A	20/20	20	20	20	20
Battery Charging Voltage by Grid	V	52.5/55.2	105	133	196	262.5
Battery Charging Current by Grid	A	10/10	10	10	10	10

Grid Export Mode Enable			
Grid Low/recover	V	185/195	
Grid High/recover	V	280/275	
Synchronization voltage range	V	185-280V	
Synchronization frequency range	HZ	47 to 53	
Maximum Charging Current from Grid (Import)	A	6-15	10
Battery			
Grid Disconnect (Solar Available) PCU/SMART		Either Battery chg voltage ref meet. Or battery chg current ref meet for the 2 minutes	
Grid Reconnect (PCU Mode / Smart Mode), Import ON (Grid Export mode)	V	11-12.8	11.5

Inverter										
Switching Element		MOSFET					IGBT			
Control		PWM								
Nominal Output voltage		220, 1Phase, 3 Wire, Pure Sine Wave								
Nominal frequency	Hz	50								
Load Current	A	4.5	9	13.5	14.2	18	27	36	54	
Voltage regulation	%	1								
Output voltage distortion with 100% linear load	%	<3								
Overload capacity	%	**IT Load Disable** 100-120(2Time auto Reset) : 60sec; 120-150(2Time auto Reset) : 30sec				**IT Load Enable** 100 - 110%:10min; 110 - 120%: 2min;		**Grid Tie ON** Over Load Indication @>200% >200 - 300% : 10min >300 - 400% : 1min >400% : 250ms		
Peak efficiency	%	>85								
Noise @ 1 meter	dB	50								
Cooling		Either Load Based (On ≥ 60, Off ≤ 50) or Temperature Based (On ≥ 55°C ±3°C, Off ≤ 42°C ±3°C)								
Protections		Overload, Battery Low, Battery High, Output Low, Output High, Input Low, Input High, SPV Low, SPV High, Output Short Ckt., Input Short Ckt., Over Temp., Under Frequency, Over Frequency, Solar Panel Reverse, Anti-islanding, Surge Protection, Grid/Solar Charger Open Circuit, NTC Open.								
Display Parameters		Battery Voltage, Charging Current, Discharging Current, charging KWH and discharging KWH								
		Solar Voltage, Solar Current, Instantaneous Power, Cummulative Energy								
		Grid Voltage, Grid Current, Frequency, Import Power, Import Energy ,								
		Export Power , Export Energy								
		Output Voltage, Output Current, Frequency, Instantaneous Power & Commutative Energy								
		Grid, Inverter & SPV Charger Status								
		System Info : Grid CHG-EN, IT Load-EN, Input Source-Grid, Operation Mode-Smart								
Switches		Reset for System ON/OFF, UP , DOWN, BACK, ENTER (for LCD Configuration)								
Indications		System ON, Inv. ON, SPV Charging, Grid Charging, Grid Tie ON, Battery Low/High, Overload / Overheat, Mains Low / Mains High, Under frequency/Over frequency, Operating modes (smart, Hybrid, PCU and Gridexport), Fault, HOE								
Environment										
Operating temperature	°C	0-45								
Max. Relative Humidity @ 25 C (non condensing)	%	95								
Degree of Protection		IP-21							IP-20	IP-21
BIS Certification		Yes					No			
Data Logging		30 Days Data Storage								
Dimension (LxWxH)	Inch	18 x 10 x 20				23 x 13 x 26			26 x 13 x 26	30 x 16 x 27	26 x 13 x 26	
Weight (Approx)	kg	35	43	50	52	60	70	78	103	160	120	

*Specification are subject to change without prior notice due to constant improvement in design & technology.

*If battery is not fully charged, battery low cut voltage is 11.5V/batt. If battery is fully charged, battery low cut voltage is equal to set Voltage.

UTL SOLAR

ZETA PRO SOLAR PCU

"A Smart PCU - Which Stores as well as Exports Electricity"

Model Available in 7.5kVA-50KVA

rMPPT™ Hybrid Solar PCU (3Ph in 3Ph out)

FEATURES

- DSPIC based Pure Sine Wave Design.
- Inbuilt in rMPPT charge controller (upto 30% more efficient*).
- Grid Interactive.
- Maximum Preference to Solar Power.
- 31 days data logs inbuilt and AC & DC energy meter inbuilt.
- Wi-Fi Based Monitoring & RS485 Communication
- Robust Design-20 years product life, 5 yrs of warranty.
- User Friendly & Easily accessible LCD Display with all AC and DC Parameter Configurable by Display Switches & Digital LCD (20X4).
- User Friendly Control :- Output Voltage, Chg. Voltage - SPV/Grid, Chg. Current - SPV/Grid, Grid Reconnect, Batt. Low.
- Reverse AC Voltage Protection.
- Priority based working modes - Smart/PCU/Hybrid (for saving energy & money).
- Grid Export Mode, Grid Charging & IT Load - Enable/ Disable by Display Switch.
- Phase Sequence Protection.

PCU Mode Priority

Solar/Battery/Grid

Hybrid Mode Priority

For Load - Grid/Solar/Battery
For Charging - Solar/Grid

Smart Mode Priority

For Day Time - Solar/Battery/Grid
For Night Time - Grid/Battery

Grid Export Mode

Solar/Grid/Battery

Application

Hospital | School | Industries

Home | Petrol Pump | Bank

* As Compare with PWM

UTL SOLAR

TECHNICAL SPECIFICATION

ZETA PRO SOLAR PCU (3Ph in 3Ph out)

Parameters		Units	Rating			
System Rating		KVA	7.5	10	15	
Operating DC Voltage		VDC	96	120	180	
Photovoltaic Input						
Input open circuit voltage range(Min-Max)		Voc	160-288	200-360	300- 540	
Maximum PV Power Recommended / No. of Charge Controller			7.5KW / 1	10KW / 1	15KW / 1	
Switching Element / Type of Charger / Solar Charge Controller Rating			IGBT / MPPT / 80A			
Peak Efficiency (DC to DC)		%	95			
PANEL CONFIGURATION (S-SERIES, P-PARALLEL)			540W-7S x 2P 590W-6S X 2P	540W-5S x 4P 590W-6S X 3P	540W-7S x 4P 590W-9S X 3P	
Grid parameter			**Configurable**			**Default**
Input Voltage (R,Y,B w.r.t.. N) Nominal		VAC	220V/ Phase			
Frequency Range (R,Y,B w.r.t.. N)		Hz	50 ±3			
Supply Phase & Connection			3Phase / 4Wire			
Switching Element / Bypass Element / Grid charger Efficiency (AC-DC)			IGBT/ SCR / >85%			
Grid Low Cut Voltage R-Y-B w.r.t N (IT Mode-Enable/Disable)	Grid Export Mode Disable	VAC	NA/120-200			175/120
Grid High Cut Voltage R-Y-B w.r.t N (IT Mode-Enable/Disable)	Grid Export Mode Disable	VAC	NA/245-280			260/280
Grid Charger			Enable/Disable			Enable
Grid Export			Enable/Disable			Disable
IT Load			Enable/Disable			Disable
Input Source			Grid/Genset(for Genset, Grid Export Mode must be Disable)			Grid
Grid Export Mode Enable Parameter			**Configurable**			**Default**
Grid Low Cut/Recover Voltage R-Y-B w.r.t N		AC	185/195			
Grid High Cut/Recover Voltage R-Y-B w.r.t N		VAC	280/275			
Synchronization voltage range		VAC	185-280			
Synchronization frequency range		Hz	50±3			
Battery Parameter			**Configurable**			**Default**
Battery Low Buzzer		VDC	Batt.Low Cut+0.2			11.2
Battery Low Cut		VDC	10-11.7			11
Battery High Cut(Inverter)		VDC	SPV Present- SPV Chg. Ref.+ 1.0V for 15Sec., SPV Chg. Ref.+1.5V for 2Sec			16
			SPV Absent- SPV Chg. Ref for 15Sec, SPV Chg. Ref + 0.2V for 2Sec			14.7
Battery Charging Voltage with SPV		VDC	12.8-16			14.5
Battery Charging Current with SPV		A	12-60			18
Battery Charging Voltage with Grid		VDC	12.5-15.5			14.2
Battery Charging Current with Grid		A	6-15			10
Operation Mode			Smart/Hybrid/PCU			Smart
Grid Disconnect (Solar Available) PCU/SMART		VDC	@14.5V/Battery for 2 minutes or 13.5V/Battery with 100% Charging Current			
Grid Reconnect (PCU Mode/SMART Mode)		VDC	11-12			11.5
Temperature Compensation			@3mV/cell/°C			
Inverter Parameter			**Configurable**			**Default**
Switching Element / Control		VAC	IGBT/ PWM			
Nominal Output Voltage (R,Y,B w.r.t.. N)		VAC	220V,230V,240V/ Phase			230V
Output Voltage Low Cut (R,Y,B w.r.t.. N) (Inv. Mode)		VAC	170-190			185
Output Voltage High Cut (R,Y,B w.r.t.. N)(Inv. Mode)			250-260			255
Output Supply Phase / Output Waveform		Hz	3Phase / 4Wire / Pure Sine Wave			
Frequency		A	50± 0.05			
Output Current Per Phase (R,Y,B)		%	8.6	11.6	17.4	
Voltage Regulation		%	±1			
THDv		%	Less than 3% Linear load			
Overload Capacity (IT LOAD DISABLE)		%	100 - 120 % @ 60 Sec (2 Times Retry), 120 - 150 % @ 30 Sec(2 Times Retry),150 - 200 % @ 2 Sec			
Overload Capacity (IT LOAD ENABLE)		%	100 - 110 % @ 10 Min,110 - 120 % @ 2Min, 120 - 150 % @ 30 Sec			
Overload Capacity (Grid Tie ON)		%	200 - 300 % @ 10 Min,300 - 400 % @ 1Min,>400% @250ms			
Peak Efficiency			>85			
Manual Bypass			Rotary Switch			
Cooling			Temperature Controlled Fan			
Protections			Overload, Battery Low, Battery High, Output AC Low, Output AC High, Input AC Low, Input AC High, SPV High, SPV Low, Output AC Short Circuit, Input AC Short Circuit, Over temperature, Under Frequency, Over Frequency, Grid/Solar Charger Open Circuit, NTC Open, Solar Panel Reverse, Anti-islanding, Surge Protection			
Display Parameters			Input R Y B Voltage/Current/Frequency/Import Power/Export Power/Import Energy/Export Energy, Output R Y B Voltage/Current/Frequency/Power/Energy, Solar Voltage/Current/Power/Energy, Battery Voltage/Charg. Current/ Discharging Current/Charging KWh/Discharging Kwh, Inverter Status , Grid Charger Status, Solar Charger Status			
Switches			Reset Switch for System ON/OFF, UP, DOWN, BACK, ENTER(for LCD Configuration)			
LED Indications			System ON, Inverter ON, Grid Charger ON, Grid Tie ON, SPV Charger ON, Grid High/Low R Y B, Grid Frequency under and over R Y B, Output High/Low R Y B, Battery Low/High ,SPV Low/ High, Inverter/Grid charger Overheat, MPPT Overheat, Fault, Overload R Y B, HOE R Y B			
Environment						
Operating Temperature		°C	0 - 50			
Max. Relative Humidity @25°C (non condensing)		%	95			
Noise at 1 Meter / Degree of Protection			60 dBA / IP20			
REMOTE MONITORING SYSTEM (RMS)			Wi Fi			
Data Log			31 Days			
Dimension (L X W X H)		Inch	33 X 16.3 X 27.5			
Weight		Kg	90	105	125	

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

TECHNICAL SPECIFICATION

ZETA PRO SOLAR PCU (3Ph in 3Ph out)

Parameters		Units	Rating			
System Rating		KVA	20	30	40	50
Operating DC Voltage		VDC	240			
Photovoltaic Input						
Input open circuit voltage range(Min-Max)		Voc	400-720			
Maximum PV Power Recommended / No. of Charge Controller			20KW / 1	30KW / 1	40KW / 1	50KW / 1
Switching Element / Type of Charger / Solar Charge Controller Rating			IGBT / MPPT / 80A	IGBT / MPPT / 125A	IGBT / MPPT / 160A	IGBT / MPPT / 200A
Peak Efficiency (DC to DC)		%	95			
Panel configuration			335W-12 Panel in Series X 5 String, 440W-11 Panel in series x 4 string 540W-12 Panel in series x 3 string	335W-13 Panel in Series X 7 String, 440W-10 Panel in series x 7 string 540W-11 Panel in series x 5 string	335W-12 Panel in Series x 10 String, 440W-10 Panel in series x 9 string 540W-11 Panel in series x 7 string	335W-12 Panel in Series X 12 String, 440W-10 Panel in series x 11 string 540W-10 Panel in series x 9 string
Grid parameter						**Default**
Input Voltage (R,Y,B w.r.t.. N) Nominal		VAC	220V/ Phase			
Frequency Range (R,Y,B w.r.t.. N)		Hz	50 ±3			
Supply Phase & Connection			3Phase / 4Wire			
Switching Element / Bypass Element / Grid charger Efficiency (AC-DC)			IGBT/ SCR / >85%			
Grid Low Cut Volt. Range R-Y-B w.r.t N (IT Mode-Enable/Disable)	Grid Export Mode Disable	VAC	NA/120-200			175/120
GridHigh Cut Volt. Range R-Y-B w.r.t N (IT Mode-Enable/Disable)		VAC	NA/245-280			260/280
Grid Charger			Enable/Disable			Enable
Grid Export Mode			Enable/Disable			Disable
IT Load			Enable/Disable			Disable
Input Source			Grid/Genset(for Genset, Grid Export Mode must be Disable)			Grid
Grid Export Mode Enable Parameter						
Grid Low Cut/Recover Voltage R-Y-B w.r.t N		AC	185/195			
Grid High Cut/Recover Voltage R-Y-B w.r.t N		VAC	280/275			
Synchronization voltage range		VAC	185-280			
Synchronization frequency range		Hz	50±3			
Battery Parameter						**Default**
Battery Low Buzzer		VDC	Batt.Low Cut+0.2			11.2
Battery Low Cut		VDC	10-11.7			11
Battery High Cut(Inverter)		VDC	SPV Present- SPV Chg. Ref.+ 1.0V for 15Sec., SPV Chg. Ref.+1.5V for 2Sec			16
			SPV Absent- SPV Chg. Ref for 15Sec, SPV Chg. Ref + 0.2V for 2Sec			14.7
Battery Charging Voltage Range with SPV		VDC	12.8-16			14.5
Battery Charging Current Range with SPV		A	12-60			18
Battery Charging Voltage Range with Grid		VDC	12.5-15.5			14.2
Battery Charging Current Range with Grid		A	6-15			10
Operation Mode			Smart/Hybrid/PCU			Smart
Grid Disconnect (Solar Available) PCU/SMART		VDC	@14.5V/Battery for 2 minutes or 13.5V/Battery with 100% Charging Current			
Grid Reconnect Range (PCU Mode | Smart Mode)		VDC	11-12			11.5
Temperature Compensation			@3mV/cell/°C			
Inverter Parameter						**Default**
Switching Element / Control			IGBT/ PWM			
Nominal Output Voltage (R,Y,B w.r.t.. N)		VAC	230V/ Phase			
Output Volt. Range Low Cut R-Y-B w.r.t N (Inv. Mode)		VAC	170-190			185
Output Volt. Range High Cut R-Y-B w.r.t N (Inv. Mode)		VAC	250-260			255
Output Supply Phase / Output Waveform			3Phase / 4Wire / Pure Sine Wave			
Frequency		Hz	50± 0.05			
Output Current Per Phase (R,Y,B)		A	23	34.7	46.3	57.9
Voltage Regulation		%	±1			
THDv		%	Less than 3% Linear load			
Overload Capacity (IT LOAD DISABLE)		%	100 - 120 % @ 60 Sec (2 Times Retry), 120 - 150 % @ 30 Sec(2 Times Retry),150 - 200 % @ 2 Sec			
Overload Capacity (IT LOAD ENABLE)		%	100 - 110 % @ 10 Min,110 - 120 % @ 2Min, 120 - 150 % @ 30 Sec			
Overload Capacity (Grid Tie ON)		%	200 - 300 % @ 10 Min,300 - 400 % @ 1Min,>400% @250ms			
Peak Efficiency		%	>85			
Manual Bypass			Rotary Switch			
Cooling			Temperature Controlled Fan			
Protections			Overload, Battery Low, Battery High, Output AC Low, Output AC High, Input AC Low, Input AC High, SPV High, SPV Low, Output AC Short Circuit, Input AC Short Circuit, Over temperature, Under Frequency, Over Frequency, Grid/Solar Charger Open Circuit, NTC Open, Solar Panel Reverse, Anti-islanding, Surge Protection			
Display Parameters			Input R Y B Voltage/Current/Frequency/Import Power/Export Power/Import Energy/Export Energy, Output R Y B Voltage/Current/Frequency/Power/Energy, Solar Voltage/Current/Power/Energy, Battery Voltage/Charg. Current/ Discharging Current/Charging KWh/Discharging Kwh, Inverter Status , Grid Charger Status, Solar Charger Status			
Switches			Reset Switch for System ON/OFF, UP, DOWN, BACK, ENTER(for LCD Configuration)			
LED Indications			System ON, Inverter ON, Grid Charger ON, Grid Tie ON, SPV Charger ON, Grid High/Low R Y B, Grid Frequency under and over R Y B, Output High/Low R Y B, Battery Low/High ,SPV Low/ High, Inverter/Grid charger Overheat, MPPT Overheat, Fault, Overload R Y B, HOE R Y B			
Environment						
Operating Temperature		°C	0 - 50			
Max. Relative Humidity @25°C (non condensing)		%	95			
Noise at 1 Meter / Degree of Protection			60 dBA / IP20			
Dimension (L X W X H)		Inch	33 X 16.5 X 27.5	27.5 X 27.5 X 67.5		
Weight		Kg	145	300	350	400

*Specification are subject to change without prior notice due to constant improvement in design & technology.

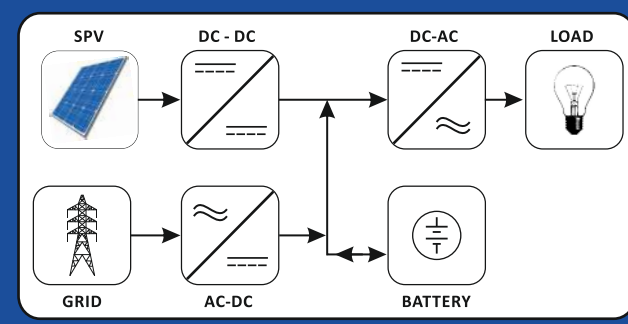
UTL SOLAR

MARS Online Solar PCU

"3 Phase with Zero Changeover Time"

Available in
5-20KVA (3 in - 1 Out)

rMPPT™ Online Solar PCU



FEATURES

- DSPIC based design Pure Sine wave, inbuilt rMPPT charge controller.
- Thermal Protection.
- Maximum Preference to Solar Power.
- Noiseless in Operation.
- Robust Design - 20 years Product life.
- Configurable Priority.
  a) Solar/Battery/Grid
  b) Solar/Grid/Battery
- AC and DC Parameter Configurable from LCD.
- AC-Output Voltage.
- DC- Charging Voltage Battery Charging Current, Battery Low Cut/High Cut.
- High Surg Capability (up to 300%) for starting heavy load.
- High Efficiency & High Reliability.

Working Mode

Solar/Grid/Battery
or
Solar/Battery/Grid

Application

Hospital | School | Industries

Home | Petrol Pump | Bank

UTL SOLAR

TECHNICAL SPECIFICATION

MARS ONLINE SOLAR PCU (3Ph in 1Ph out)

Input	Power Rating		5kVA/240V	7.5kVA/240V	10kVA/240V	15kVA/240V	20kVA/360V
	Voltage Range		400V±20% Three phase four wire				
	Frequency		50Hz ±3%				
	Power Factor		>0.92				
	Charger Topology		Buck				
	Connection Type		Terminal Block				
Solar	K Watt		5KW	7.5KW	10KW	15KW	20KW
	Voc (min-max)		400V - 720V				
	Vmp		288V - 650V				
	Panel Configuration (S-SERIES, P-PARALLEL)	**540W**	9S X 1P	14S X 1P	10S X 2P	10S X 3P	13S X 3P
		590W	9S X 1P	12S X 1P	9S X 2P	9S X 3P	12SX3P OR13SX3P
	Switching Devices		IGBT				
	Switching Freq.		16KHz				
	No. of Charger Controller		One				
	Charger Topology		Buck				
	Type of Charger		PWM with MPPT				
	Peak Efficiency (DC - DC)		96%				
	Parameter		Configurable			Default	
	Battery Low Buzzer		Batt Low Cut + 0.2			10.7V	
	Battery Low Cut		10-11.7V			10.5V	
	Battery High Cut (Charger)		Batt Volt By SPV + 0.7			14.5	
	Batt. CHG. Volt. by Grid		13-14.5V			13.3V	
	Batt. CHG. Current. by Grid		3-12A			10A	
	Batt. CHG. Volt. by SPV		13.5-15V			13.8V	
	Batt. CHG. Current. by SPV		5-24V			18V	
	Grid Charger Reconnect		Enable /Disable			Disable	
	Output Voltage Low Cut		170-190V			180V	
	Output Voltage High Cut		250-260V			255V	
Output	Voltage		220V/230V/240V±1% (1phase 2 wire)				
	Load Current		17.4A	26.08A	34.78A	52.17A	69.6A
	Efficiency (AC - AC)		>90%@Full Load				
	Frequency		50Hz				
	Waveform		Pure Sine Wave				
	Transient Response		<8 (10%~90% Linear Load)				
	Voltage Harmonics		<3% Linear Load				
	Overload Capacity		100 to 110%-10 Min., 110 to 120%-2 Min.; 120 to 150%-30 Sec; 150 to 200%-2 Sec; 200 to 300%-1sec.; 300 to 400%-250msec., >400%-20-30msec				
	Crest Factor		3:1				
	Voltage Harmonics		±1%				
	Frequency Regulation		±0.05Hz				
	Connection Type		Terminal Block				
	Alarm		Battery Low, battery High, Overload				
	LED Indication		#UPS ON #Mains CHG. #Overload #Output High/Low #Battery High/Low, #Bypass #SPVCG. ON #SPV High/Low #CHG. OVERHEAT #AC Input High/Low R,Y,B #fault				
	LCD (20*4) Display		#Input Voltage & Freq. R,Y,B #Output Voltage, Freq. & Load% # Battery Voltage #Charging Current #Solar Voltage, Solar Current, Solar Watt, #Working Status				
	Protections		#Output Overvoltage/Undervoltage, #Overload, #Output Shortcircuit, #Battery Overvoltage/ undervoltage #SPV Under Voltage/ Over Voltage #Input Under Voltage/Over Voltage				
Miscella-neous	Transfer Time		0 msec				
	Extended Battery Charging		Optional				
	Caster Wheels		Yes				
Environ-mental	Operating Environment		0-50° C				
	Operating Relative Humidity		(5%-95%) Non-condensed				
	Storage Environment		0-75°C				
	Operational Logic		SOLAR | BATTERY | GRID | SOLAR GRID BATTERY				
	Storage Relative Humidity		0-95%				
	Degree of Protection		IP20				
	Remote Monitoring		Ethernet (Optional)				
	Dimension (LXWXH) Inch		30x16x27				

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

TECHNICAL SPECIFICATION

MARS ONLINE SOLAR PCU (3Ph in 3Ph out)

Input	Power Rating		5kVA240V	7.5kVA/240V	10kVA/240V	15kVA/240V
	Voltage Range		400V±20% Three phase four wire			
	Frequency		50Hz ±3%			
	Power Factor		>0.92			
	Charger Topology		Buck			
	Connection Type		Terminal Block			
Solar	K Watt		5KW	7.5KW	10KW	15KW
	Voc (min-max)		400V - 720V			
	Vmp		288V - 650V			
	Panel Configuration (S-SERIES, P-PARALLEL)	**540W**	9S X 1P	14S X 1P	10S X 2P	10S X 3P
		590W	9S X 1P	12S X 1P	9S X 2P	9S X 3P
	Switching Devices		IGBT			
	Switching Freq.		16KHz			
	No. of Charger Controller		One			
	Charger Topology		Buck			
	Type of Charger		PWM with MPPT			
	Peak Efficiency (DC - DC)		96%			
	Parameter		Configurable			Default
	Battery Low Buzzer		Batt Low Cut + 0.2			10.7V
	Battery Low Cut		10-11.7V			10.5V
	Battery High Cut (Charger)		Batt Volt By SPV + 0.7			14.5
	Batt. CHG. Volt. by Grid		13-14.5V			13.3V
	Batt. CHG. Current. by Grid		3-12A			10A
	Batt. CHG. Volt. by SPV		13.5-15V			13.8V
	Batt. CHG. Current. by SPV		5-24V			18V
	Grid Charger Reconnect		Enable /Disable			Disable
	Output Voltage Low Cut		170-190V			180V
	Output Voltage High Cut		250-260V			255V
Output	Voltage		380V/400V/415V ±1% (3phase 4 wire)			
	Load Current		5.8A	8.7A	11.6A	17.4A
	Efficiency (AC - AC)		>90%@Full Load			
	Frequency		50Hz			
	Waveform		Pure Sine Wave			
	Transient Response		<8 (10%~90% Linear Load)			
	Voltage Harmonics		<3% Linear Load			
	Overload Capacity		100 to 110%-10 Min., 110 to 120%-2 Min.; 120 to 150%-30 Sec; 150 to 200%-2 Sec; 200 to 300%-1sec.; 300 to 400%-250msec., >400%-20-30msec.			
	Crest Factor		3:1			
	Voltage Harmonics		±1%			
	Frequency Regulation		±0.05Hz			
	Connection Type		Terminal Block			
	Alarm		Battery Low, battery High, Overload			
Indication	LED		#UPS ON #Mains CHG. #Overload R,Y,B #Output High/Low R,Y,B #Battery High/Low #SPVCHG. ON #SPV High/Low #CHG. OVERHEAT #AC Input High/Low R,Y,B #FAULT.			
	LCD (20*4)		#Input Voltage & Freq. R,Y,B #Output Voltage, Freq. & Load% R,Y,B # Battery Voltage #Charging Current #Solar voltage, Solar Current, Solar Watt, #Working & Fault Status.			
Protections	Parameters		#Output Overvoltage/Undervoltage, #Overload, #Output Shortcircuit, #Battery Overvoltage/undervoltage #SPV Under Voltage/ Over Voltage #Input Under Voltage/Over Voltage.			
Miscellaneous	Transfer Time		0 msec			
	Extended Battery Charging		Yes			
	Caster Wheels		Yes			
Environmental	Operating Environment		0-50° C			
	Operating Relative Humidity		(5%-95%) Non-condensed			
	Storage Environment		0-75°C			
	Storage Relative Humidity		0-95%			
	Degree of Protection		IP20			
	Remote Monitoring		Ethernet (Optional)			
	Dimension (LXWXH) Inch		23x13x26			30x16x27

*Specification are subject to change without prior notice due to constant improvement in design & technology.

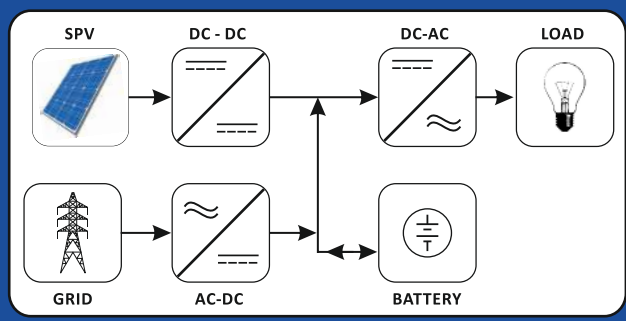
UTL SOLAR

STAR Online Solar PCU

"3 Phase with Zero Changeover Time for Heavy Loads"

Available in 20-120kVA

Online Solar PCU



FEATURES

- Upto 30% more Efficient because of rMPPT Charge Controller.
- Short Circuit, Input Under/Over Voltage Protection.
- Advanced DSPic based Design Pure Sine Wave
- User Configurable Parameters.
- Lightening, Surge Protection by SPD.
- Ethernet based Monitoring with Solar Data logs.
- Intelligent Charge Sharing.
- Inbuilt Solar Energy Meter with 31 days data logs. with Configurable (Optional)

Working Mode

Solar/Grid/Battery
or
Solar/Battery/Grid

Application

Hospital

School

Industries

Home

Petrol Pump

Bank

UTL SOLAR

TECHNICAL SPECIFICATION

STAR ONLINE PCU 20-40KVA (3Ph in 1Ph out)

Power Rating		20kVA/360V	25kVA/240V	25kVA/360V	30kVA/360V	40kVA/360V
Input						
Voltage Range		400V± 20% Three phase four wire				
Frequency		50 Hz ±3Hz				
Power Factor		0.94				
Charger Topology		Buck				
Connection Type		Terminal Block				
Solar						
K watt		20	25		30	40
Voc (min-max)		360-720	360-720	540-810		
Vmp		320-680	430-730			
Panel Configuration (S-SERIES, P-PARALLEL)	335W	12SX5P	15SX5P	15SX5P	15SX6P	15SX8P
	440W	12SX4P	11SX5P	14SX4P	14SX5P	15SX6P
	540W	12SX3P	12SX4P	12SX4P	14SX4P	15SX5P
	590W	12SX3P	14SX3P	12SX4P	13SX4P	14SX5P
switching devics		IGBT				
switching freq.		16KHZ				
charge controller		One				
Charger Topology		Buck				
Type of Charger		rMPPT				
Output						
Voltage		220V/230V/240V Default 230V± 1%				
Load Current		69.6A	86.9A		104.3A	139A
Efficiency(AC to AC)		>90% @ Full Load				
Frequency		50 Hz				
Waveform		Pure Sine Wave				
Transient Response		<8 (10%~90% Linear Load)				
Voltage Harmonics		< 3 % (Linear load)				
Overload Capacity		100- 110%@10 Min, 110 -120%@2 Min; 120-150%@30s; 150- 200%@ 2s; 200- 300% @1s; 300-400%@250ms; >400%@20ms				
Crest Factor		3:1				
Voltage Regulation		± 1%				
Frequency Regulation		± 0.05 Hz				
Connection Type		Terminal Block				
Audible warning						
Alarm		Battery Low, Battery High, Overload				
Indications						
LED		UPS ON # CHG ON # Input R,Y,B High / low # Output Low-High # Overload # Fault # Batt. Low/High # SPV Low/High # SPV CHG ON #				
LCD (20*4)		Output Voltage, Load & Freq. # Battery Voltage # Charging Current # Input Voltage, Freq R,Y,B # Solar Voltage # Solar Current # Solar Watt # Working Status				
Protections						
Parameters		# Output Overvoltage/Undervoltage # Overload # Output Short Circuit # Battery Overvoltage/Undervoltage #Input Overvoltage/Undervoltage				
Miscellaneous						
Transfer Time		0 msec				
Extended Battery Charging		Optional				
Caster wheels		Yes				
Environmental						
Operating Environment		0-50 ºC				
Operating Relative Humidity		5 - 95 % (Non-condensed)				
Storage Environment		0-75 ºC				
Storage Relative Humidity		0-95%				
Degree of Protection		IP 20				
Remote Monitoring		Ethernet (Optional)				
Dimension (LXWXH) Inch		39X26X35				34X34X43

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

TECHNICAL SPECIFICATION

STAR ONLINE PCU 20-120KVA (3Ph in 3Ph out)

Power Rating		20kVA/240V	20kVA/360V	25kVA/240V	30kVA/360V	40kVA/360V	50kVA/360V	60kVA/360V	80kVA/360V	100kVA/360V	120kVA/360V
Input											
Voltage Range		400V±20% Three phase four wire									
Frequency		50 Hz ± 3Hz									
Power Factor		0.95									
Charger Topology		Buck									
Connection Type		Terminal Block									
Solar											
K watt		20		25	30	40	50	60	80	100	120
Voc (min-max)		400-720	540-810	400-720	540-810						
Panel Configuration (S-SERIES, P-PARALLEL)	**335W**	12SX5P	15SX4P	15SX5P	15SX6P	15SX8P	15SX10P	15SX12P	15SX16P	15SX20P	15SX24P
	440W	12SX4P	15SX3P	11SX5P	14SX5P	15SX6P	14SX8P	14SX10P	15SX12P	14SX16P	15SX18P
	540W	12SX3P	13SX3P	12SX4P	14SX4P	15SX5P	13SX8P	14SX8P	15SX10P	12SX16P	13SX18P
	590W	9SX4P	12SX3P	14SX3P	13SX4P	14SX5P	12SX7P	13SX8P	14SX10P	14SX12P	14SX15P
Switching devics		IGBT									
Switching freq.		16KHZ									
No. of Charge Controller		One									
Charger Topology		Buck									
Type of Charger		MPPT									
Peak Efficiency(DC to DC)		96%									
Output											
Voltage (Ph-Ph)		380/ 400V/415V ± 1% Configurable by LCD Display									
Load Current Per Phase		23A		29A	34.8A	46.3A	57.9A	69.5A	92.75A	115.9A	139A
Efficiency(AC to AC)		>88% @ Full Load						>90% @ Full Load			
Frequency		50 Hz									
Waveform		Pure Sine Wave									
Transient Response		<8 (10%~90% Linear Load)									
Voltage Harmonics		< 3 % (Linear load)									
Overload Capacity		100- 110%@10 Min, 110 -120%@2 Min; 120-150%@30s; 150- 200%@ 2s; 200- 300% @1s; 300-400%@250ms; >400%@20ms									
Crest Factor		3:1									
Voltage Regulation		± 1%									
Frequency Regulation		± 0.05 Hz									
Connection Type		Terminal Block									
Audible warning											
Alarm		Battery Low, Battery High, Overload									
Indications											
LED		UPS On #Mains Chg. # Battery High / Low # Overload R,Y,B # Output High/Low R,Y,B # AC Input High / Low R,Y,B # SPV Charging ON # CHG. Overheat # SPV High/ Low									
LCD (20*4)		#Input Voltage & Freq. R,Y,B # Output Voltage, Freq. & Load % R,Y,B # Battery Voltage # Charging Current # Solar Voltage, Solar Current, Solar Watt # Working Status									
Protections											
Parameters		#Input Overvoltage/Undervoltage # Overload # Output Short Circuit # Battery Overvoltage #Input Overvoltage/Undervoltage.									
Miscellaneous											
Transfer Time		0 msec									
Extended Battery Charging		Optional									
Caster wheels		Yes									
Environmental											
Operating Environment		0-50 ºC									
Operating Relative Humidity		5 - 95 % (Non-condensed)									
Storage Environment		0-75 ºC									
Storage Relative Humidity		0-95%									
Degree of Protection		IP 20									
Remote Monitoring		Ethernet (Optional)									
Dimension (LXWXH) Inch		39X26X35						34X34X43			

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

PWM (Solar Charge Controller)

Available in
10A & 20A

FEATURES

- Controller Based PWM Technology.
- Works Efficiently.
- LED/LCD Indication.
- Over Charging Current Protection.
- Over Charging Voltage Protection.
- Battery Reverse Protection.
- Overload Protection.
- SPV Reverse Polarity Protection.
- Reverse current flow from Battery Solar Array Protection.

UTL SOLAR

TECHNICAL SPECIFICATION

PWM (Solar Charge Controller)

General				
Model	PWM1224/10A LED		PWM1224/20A LCD	
DC Voltage	12V	24V	12V	24V
Precise Control	Micro controller			
Operating Temperature	0-50°C			
Storage Temperature	-20° to 70°C			
Battery Type	Tubular			
Battery Capacity	200 AH Max.			
Battery Charging Regulation Mode	PWM			
Operating Solar Input Voltage (Voc) Max	25V	49.5V	25V	49.5V
Solar Module Size(Max)	165W*1	390W*1	165W*2 (Parallel)	390W*2 (Parallel)
Electrical				
Nominal Battery voltage	12/24V DC (Auto Sensing)			
SPV Chg. Voltage Boost	14.5V	29V	15.5V	31V
Solar Current (max)	10A		20A	
Load Current Max.	10A		20A	
Charge Controller Efficiency	>95%			
Idle Consumption	<30mA			
Min. Solar Input Voltage(Voc) @ Startup	17V±2V	30V±2V	17V±2V	30V±2V
Load Condition				
USB Port	5V / 2A			
Battery Low Voltage Load Disconnect	10.8V±0.2V	21.6V±0.4V	10.8V±0.2V	21.6V±0.4V
Battery Low Voltage Load Recovery	12.6V±0.2V	25.2V±0.4V	12.6V±0.2V	25.2V±0.4V
Battery High Voltage Load Disconnect	15.0V±0.2V	30.0V±0.4V	16.0V±0.2V	32.0V±0.4V
Battery High Voltage Load Recovery	14.0V±0.2V	28.0V±0.4V	15.5V±0.2V	31.0V±0.4V
LED Indication				
Solar ON	Green		NA	
Solar Over Load	Red		NA	
Batt. High	Green		NA	
Batt. Low	Red		NA	
Load ON	Green		NA	
Over Load	Red		NA	
Display Parameter				
Batt. Voltage, Batt. Current	NA		Yes	
Solar Status: Absent, Charging OFF, Overload	NA		Yes	
Load Current	NA		Yes	
Charger ON	NA		Yes	
Overload				
100%	Continues			
101%-120%	10 Min ON/1 Min OFF		30 Sec. ON/1 Min OFF	
121%-150%	30 Sec. ON/1 Min. OFF		1 Sec. ON/1 Min. OFF	
150%-200%	2 Sec. ON/1Min. OFF		250mSec. ON/1Min. OFF	
>200%	250mSec. ON 1 Min. OFF			
Protections				
Battery Voltage (High/Low)	Available			
Battery Reverse	Available			
SPV Reverse	Available			
SPV Current (High/Low)	Available			
Reverse Current Flow from Battery to Solar Panel Array	Available			
Load short Circuit through DC Fuce	Available			
Physical				
Weight	130gm		300gm	
Dimension (LXWXH) MM	75x132x36 mm		100x161x50 mm	

Protect Solar Charge Controller from direct Sunlight & Water.
Panel open circuit voltage should not to do be more than specified voltage.
*Specification are subject to change without prior notice due to constant improvement in design & technology.

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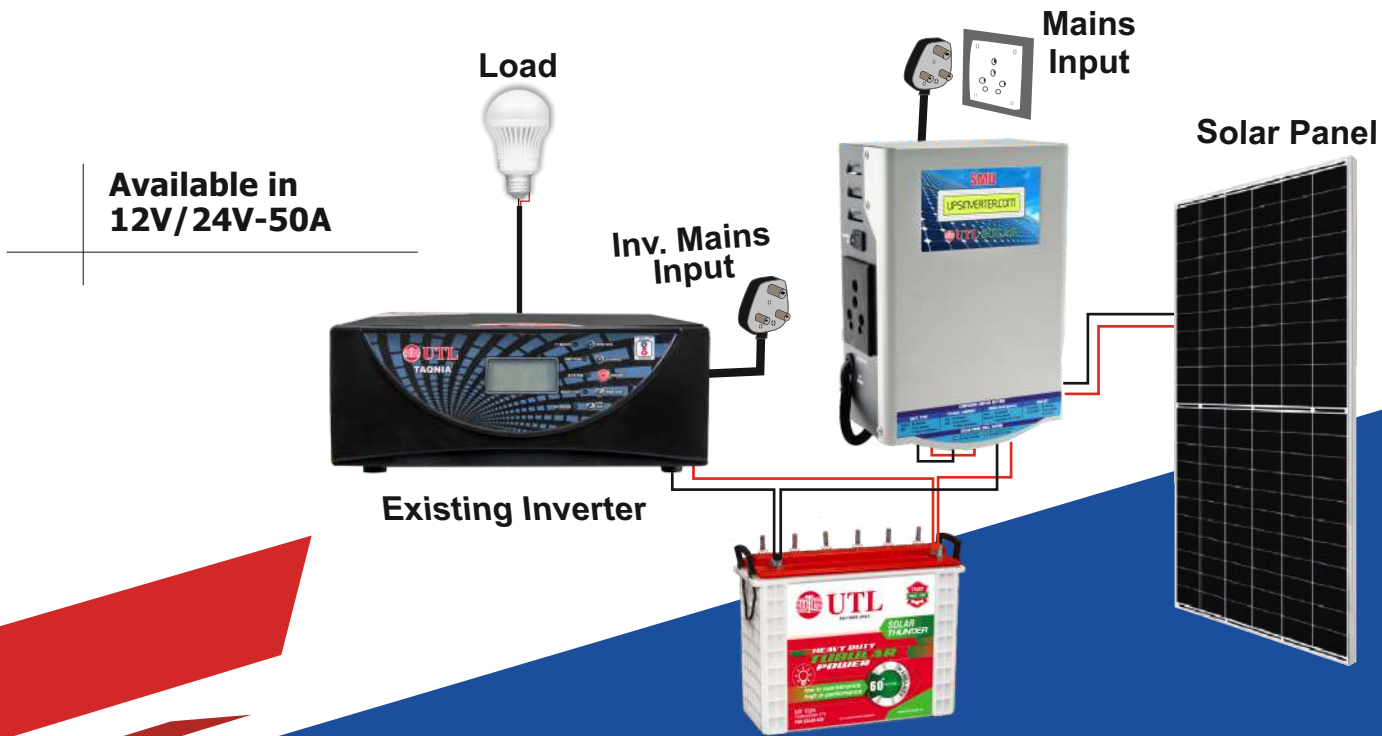
SMU (PWM) Solar Management Unit

"Convert your Home Inverter into Solar Inverter"



FEATURES

- High speed and high performance micro-controller.
- High reliability with longer operational life.
- Inbuilt protection to avoid battery undercharge and over-charge.
- Inbuilt PWM Technology Charge Controller.
- Automatic voltage selection for 12V or 24V.
- Solar Prioritization.
- Compact design with wall mounting.
- Eco friendly.

UTL SOLAR

TECHNICAL SPECIFICATION

SOLAR MANAGEMENT UNIT

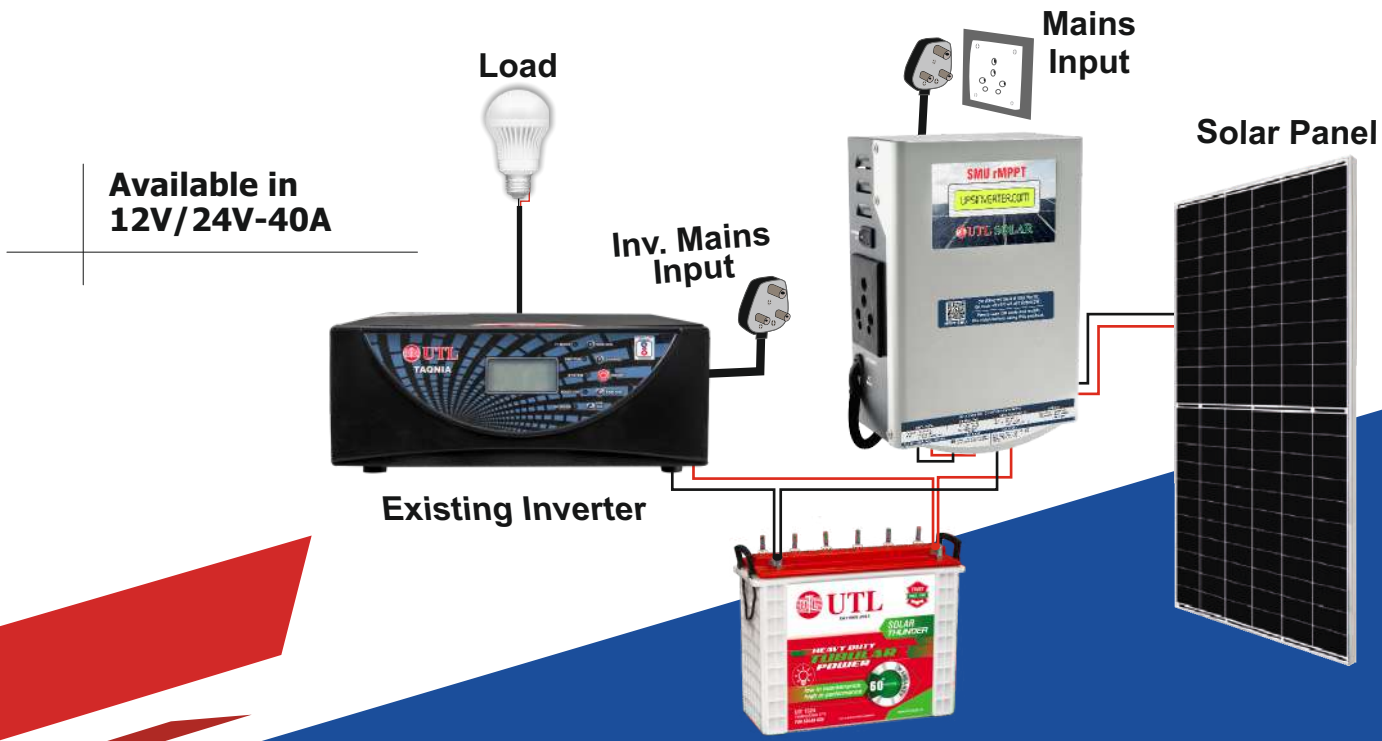
General	
Model	SMU122450
Operating Temperature	0°C to 50°C
Storage Temperature	-10°C to 60°C
System Operating Voltage	12V/24V DC
Battery Type	Tubular/SMF
Battery Capacity Max.	200AH
Battery Charging Regulation Method	4 Stage PWM (Bulk/Absorption/Float/Equalize)
Maximum Solar Power	12V : 800W, 24V : 1700W
Max. Solar Panels Recommended	12V, 25A:150W/165W *3 (Parallel)
	12V, 50A:150W/165W *5 (Parallel)
	24V, 25A:250W/315W/325W*3 (Parallel
	24V, 50A : 250W*6 , 315W/325W*5, 390W/400W/425W*4 (Parallel)
Electrical	
Nominal Grid Voltage	230V AC 1Φ
Grid Low Cut	90V ± 10V
Grid High Cut	290V ± 10V
Charging Current (Solar)	50A/25A
Charge Controller Efficiency	>95%
Idle Consumption	<20mA
Max. Solar input Voltage (Voc)	17V-25V (12V Batt.)
	31V-49.5V (24V Batt.)
Min. Solar input voltage (Voc) @ Start-up	15V/30V ± 2%
Solar Panel Recovery Voltage	17V/34V ± 2%
Max. Solar Current	50A By Default
Efficiency	>95%
Battery Set Points @ 25°C	
Bulk Voltage Tubular Battery	14.6V/29.2V ± 2%
Absorption Voltage Tubular Battery	14.2V/28.4V ± 2%
Float Voltage Tubular Battery	14V/28V ± 2%
Bulk Voltage SMF Battery	13.7V/27.4V ± 2%
Float Voltage SMF Battery	13.5V/27.0V ± 2%
Absorption Duration	3Hr
Equalize Voltage	14.9V/29.8V ± 2%
Equalize Duration	3Hr
Equalize calender	28 days
Mains reconnect when Solar not present	At any Batt. Voltage
Mains reconnect when insufficient Solar Power	<11.8V/ 23.6V ± 2%
Mains disconnect when sufficient Solar Power For Tubular	>13.8V/27.6V ± 2%
Mains disconnect when sufficient Solar Power For SMF	13.7V/27.4V ± 2%
Display Parameters	**Protections**
1. Batt. Voltage, Batt. Current, Batt. Type	1. Battery Reverse Polarity
2. Solar Voltage, Solar Current	2. Batt. Reverse Current
3. Mode Selection	3. Over Current of SPV : >56A/28A
4. Solar Status: High, Low, Overload, Overheat	4. Solar High Voltage
5. Saving- KWh	5. SPV Reverse Polarity
6. Mains Present, Low, High, Absent	6. Load Short Circuit through AC Fuse
7. Max. PV Current	7. Solar Low Voltage
	8. Over Temperature
Physical	
Ingress Protection	IP-20
Fixing	Wall Mounted
Weight (Kg)	2.33
Dimension (LxWxH) Inch	9.6 X 6.9 X 4.9

*Specification are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

SMU (rMPPT) Solar Management Unit

"Convert your Home Inverter into Solar Inverter"



FEATURES

- High speed and high performance micro-controller.
- High reliability with longer operational life.
- Inbuilt protection to avoid battery undercharge & over-charge.
- Inbuilt rMPPT Technology Charge Controller.
- 3 Stage Charging BLK, ABS, FLT.
- Automatic Voltage selection for 12V or 24V.
- Solar Prioritization.
- Compact design with Wall Mounting.
- Eco friendly.
- Transient and Surge Protection.
- Over Temperature Protection.

PATENTED rMPPT TECHNOLOGY

UTL SOLAR

TECHNICAL SPECIFICATION

SOLAR MANAGEMENT UNIT

General		
Model	SMUMPPT122440	
Nominal System Voltage	12V DC	24V DC
Battery Capacity Max.	200AH	
Battery Type	Tubular/SMF	
Battery Charging Regulation Method	3 Stage (Bulk/Absorption/Float)	
Solar Charger Type	MPPT	
Solar Power (Max.)	600W	1200W
Max. Solar Panel (Recommended)	150W/165W X2 (Series) X 2 (Parallel) 315W/325W/330W/335W X 2 (Parallel) 390WX1	315W/325W/330W/335WX4 (Parallel) 390W/425WX3. 540WX2 (Parallel) 315W/325W/330W/335WX 2 (Series) X 2 (Parallel)
Max. Solar input Voltage(Voc)	15V-49.5V	30V-99V
Idle Consumption	<20mA	
Efficiency	>95%	
Battery set points		
Tubular	Boost Voltage :- 14.5V ± 0.2V	Boost Voltage :- 29.0V ± 0.2V
	Float voltage :- 14V ± 0.2V	Float voltage :- 28V ± 0.2V
	Bulk Absorption :14.8V ± 0.2V	Bulk Absorption :29.6V ± 0.2V
SMF	Boost/Float Voltage : 13.8V ± 0.2V	Boost/Float Voltage : 27.6V ± 0.2V
	Bulk Absorption : 14.1V ± 0.2V	Bulk Absorption : 28.2V ± 0.2V
Battery Current Max.	40A	
Grid		
Mains Low cut /Recovery	90V/100V ± 10V	
Mains high cut /Recovery	290V/280V ± 10V	
Mains reconnect when Solar not present	At any Batt. Voltage	
Mains Disconnect	If Battery reaches boost level then after <5 min. Mains will be disconnected.	
Mains Reconnect	Battery volt. : 11.8V	Battery volt. : 23.6V
Display Parameters		
Display Type	LCD	
Display Parameters	Batt. Voltage, Batt. Current, Batt. Type(TUB/SMF), Solar Voltage, Solar Current, Solar Saving- KWh, Mode Selection (Auto/Manual), Mains Present, Absent	
Protections		
Protections	Battery Reverse Polarity (Fuse blown), Batt. Reverse Current, SPV Over Current, Solar High Voltage, SPV Reverse Polarity, Over Temperature, Mains High Cut, Mains Low Cut	
Operating Temperature	0°C to 50°C	
Storage Temperature	0°C to 60°C	
Ingress Protection	IP-20	
Fixing	Wall Mounted	
Weight (Kg)	2.6	
Dimension (LXWXH) Inch	9.25 x 9 x 4.15	

* Specifications are subject to change without prior notice due to constant improvement in design & technology.

UTL SOLAR

low in maintenance high in performance

TUBULAR POWER

HEAVY DUTY BATTERY

Range Available - 40Ah to 325Ah

Model - UIT — SOLAR BATTERY RANGE

Model	Nominal Voltage	Capacity @ C20 at 27°C	Warranty#	Dimensions L x W x H ±3 mm	Container	Plate Combination	Filled Weight ## ± 3%	Gross Weight ## ± 3%
	V	AH	Months				Kg	Kg
UIST 1430	12	120	30 + 30*	503X190X365	IT 400	2+3	47.00	48.5
UIT 1530	12	150	30 + 30*	503x190x410	IT 500	2+3	54.70	56.50
UIT 1536	12	150	36 + 24*	503x190x410	IT 500	2+3	55.40	57.20
UIT 2036	12	200	36 + 24*	503x190x410	IT 500	3+4	62.70	64.40
UIT 2536	12	250	36 + 24*	503x190x410	IT 500	3+4	68.30	70.20
UIT 3036	12	300	36 + 24*	503x205x410	IT 700	4+5	81.20	82.70
UIT 3542	12	325	42 + 42*	512x196x460	IT 800	4+5	82.70	85.0

Specification are subject to change without prior notice due to constant improvements in design & technology.
* Pro-Rata Warranty.

Model - UST — SOLAR BATTERY RANGE

Model	Nominal Voltage	Capacity @ C10 at 27°C	Warranty#	Dimensions L x W x H ±3 mm	Container	Plate Combination	Filled Weight ## ± 3%	Gross Weight ## ± 3%
	V	AH	Months				Kg	Kg
UST 4036	12	40	36	410x172x235	N-100	2+3	22.80	24.10
UST 16536	12	165	36	503x190x410	IT 500	3+4	62.90	64.70
UST 1560	12	150	60	503x190x410	IT 500	3+4	63.40	65.20
UST 2036	12	200	36	503x190x410	IT 500	3+4	67.70	69.50
UST 2060	12	200	60	503x190x410	IT 500	3+4	70.40	72.20

Specification are subject to change without prior notice due to constant improvements in design & technology.
Warranty will be applicable in India.

Model - UTT — INVERTER BATTERY RANGE

Model	Nominal Voltage	Capacity @ C20 at 27°C	Warranty#	Dimensions L x W x H ±3 mm	Container	Plate Combination	Filled Weight ## ± 3%	Gross Weight ## ± 3%
	V	AH	Months				Kg	Kg
UTT 1530	12	150	30+30*	503x190x410	IT 500	2+3	55.00	56.80
UTT 1572	12	150	36+36*	503x190x410	IT 500	2+3	55.70	57.50
UTT 2072	12	200	36+36*	503x190x410	IT 500	3+4	62.90	64.70

 # Specification Are Subject To Change Without Prior Notice Due To Constant Improvements In Design & Technology.
** Pro-rata Warranty.*

UTL SOLAR

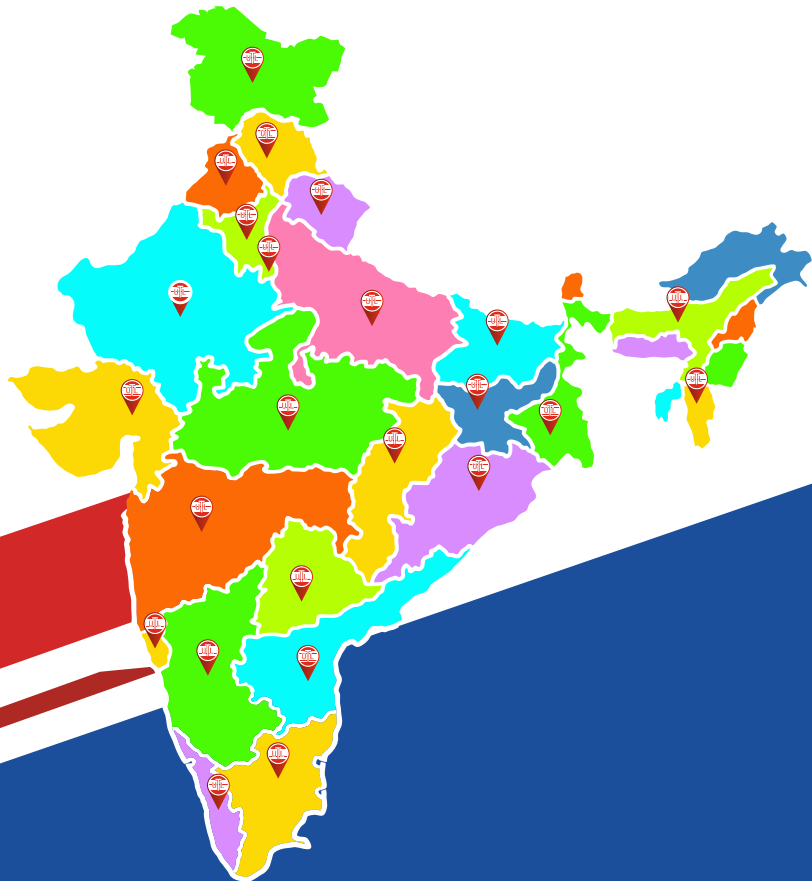
PRESTIGIOUS CUSTOMERS

Cutting Edge Solar Solution Trusted by Leading Institutions

and many more...

UTL SOLAR

UTL Presence



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UTL SOLAR GLOBAL PRESENCE

The Power.....

As and when you need it.

Inverters | Batteries | Solar PCUs | Online UPSs | EV Chargers | Lithium Batteries | Solar Inverters | Solar Panels

FUJIYAMA POWER SYSTEMS LTD.

Corporate Office: Plot No. 51,52 Sector, Ecotech-1, Ecotech Extn-1, Greater Noida, Gautam Buddha Nagar, Uttar Pradesh - 201310

Registered Office: 53A/6, Rama Road Ind. Area, Near Sat Guru Ram Singh Marg Metro Station, Near NDPL Grid Office, Delhi – 110015

Sales Office: 2/8A, Plot No-63, 2nd Floor Rama Road Industrial Area Opp. Kirti Nagar Metro Station New Delhi-110015

Manufacturing Unit 1 : Khasra No. 182, Vill-Naryal, Parwanoo, Himachal Pradesh-173220, India

Manufacturing Unit 2 : Plot No 51-52, Sector - Ecotech 1 Extension 1, Greater Noida, Distt Gautam Budh Nagar, U.P. - 201310, India

Manufacturing Unit 3 : Plot No. 5 & 14, Sector 6, HSIIDC, IMT BAWAL, Rewari, Bawal, , HR- 123501, India

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