



India's Most Intelligent Solar Home PCU

4EVER DSP SOLAR HYBRID PCU

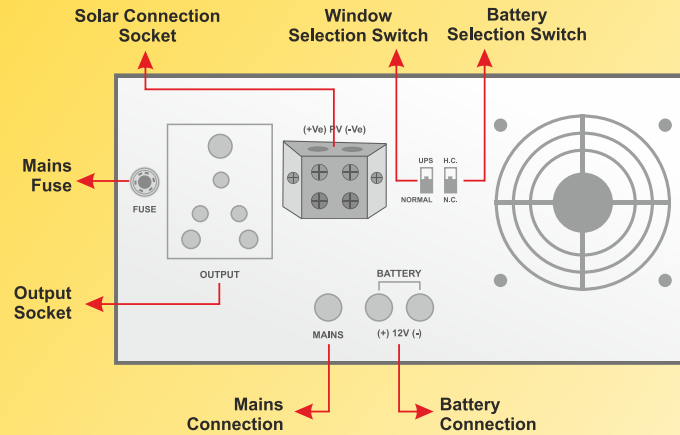
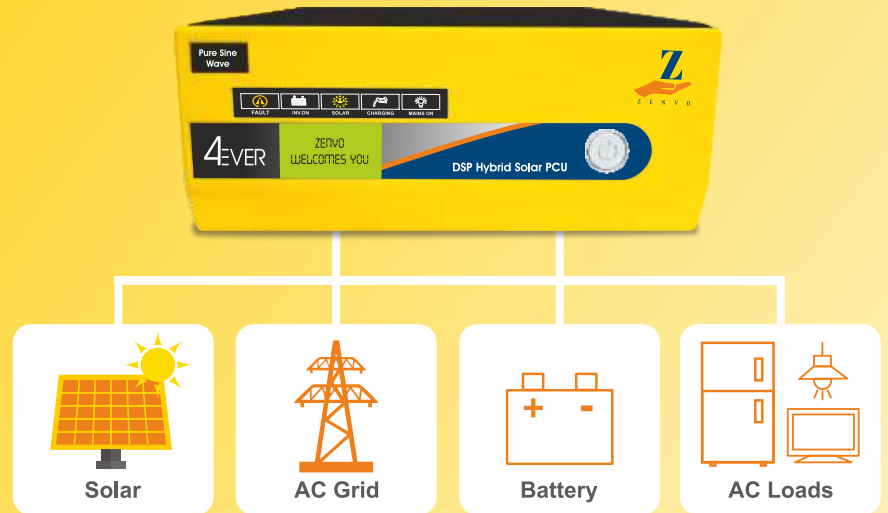


Available Models : 1050/1350-12V & 2000-24V

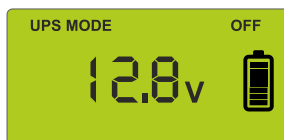
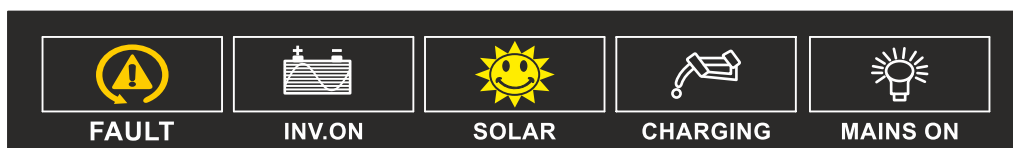
Website: www.zenvo.in | Help Line Number: +91 989-989-8775

Typical Application

Zenro 4Ever is an intelligent DSP based Hybrid Solar PCU that can simultaneously run the load and charge the battery. 4Ever is designed to give priority to the Solar Power and uses Grid/DG Power only when the Solar Power/ Battery Charge is insufficient to meet the load requirements.



Smart LED & LCD Indications



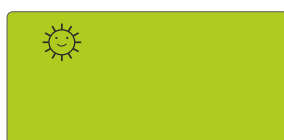
Battery Status



Mains Voltage



Over Load Protection



Solar Charging On



Solar Charging Off



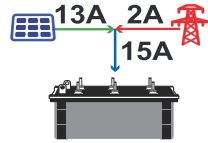
Load Percentage on battery

4EVER Solar PCU Smart Features



SOLAR PRIORITY

Solar Power is of first priority while charging. This means when solar power is available, only batteries will be charged with it irrespective of grid



INTELLIGENT CHARGING SHARING

Uses maximum solar power to charge the batteries along with required grid, if needed. Concludes the reduction in electricity bill



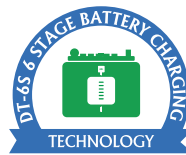
DSP BASED TECHNOLOGY

Works on intelligent UPS management system. Provides dynamic output voltage regulation, optimize system efficiency and communication with other equipments



COMPATIBLE WITH GENERATORS

Wide window of frequency range between 42-65Hz makes 4Ever totally compatible with local generators



DT - 6S STAGE BATTERY CHARGING TECHNOLOGY

6 Stage Battery Charging Technology gives you highest battery charging efficiency in the industry which increases battery life by 30%



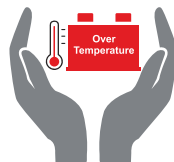
TURBO CHARGING

Turbo charge mode not only charges faster but also provides reliable power backup



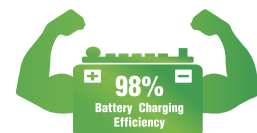
REVERSE CURRENT PROTECTION

Protect your system against the bad reverse current



OVER TEMPERATURE PROTECTION

Ensures healthy charging & longer battery life that provides current and voltage as per the requirement of battery and surrounding temperature



HIGHER BATTERY CHARGING EFFICIENCY

Smoothly charges battery with turbo charging technology without changing the system and load parameters



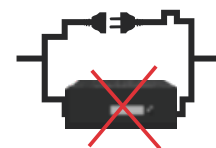
POWERFUL CHARGING IN LOW VOLTAGE

It acts like a reserve power for emergency by choosing the battery reserve higher than 10.5V i.e. 11V. This helps in recharging the battery fully & faster



LED & LCD NOTIFICATIONS

LED & LCD both display icons are provided for better indications and alerts



BYPASS SWITCH**

This switch helps to bypass the electricity to mains whenever there is a failure in the inverter. This makes the system user-friendly and convenient

Technical Specifications

Parameter	Unit	Rating		
		1050/12	1350/12	2000/24
Model name		1050/12	1350/12	2000/24
System rating (Name Plate)	VA	850	1050	1450
Resistive Load	W	680	840	1160
Full Load Input Current ±2A	Amp	53	62	46
Operating DC voltage	V	12		24
Input voltage max Voc	Vdc	25		45
Max PV modules of 250/260Wp	Nos	2		4
Modules in series	Nos	NO		NO
Parallel strings	Nos	2		4
Type of solar charger		PWM		
Max current rating of SCC	Adc	40.0		
Efficiency of SCC	%	>90		
Nominal Output voltage in inverter mode	Vac	220V ± 7V		
Nominal Frequency (in inverter mode)	Hz	50 ± 1		
Frequency (Min - Max during Grid by pass) UPS mode	Hz	47-53		
Frequency (Min - Max during Inverter mode)	Hz	40-60		
Output voltage regulation	V	180-220		
Output THD (v) at linear load	%	<5%		
Crest Factor		3:01		
Overload capacity 125%	Sec	6 (6 Retry)		
Overload capacity 150%	Sec	2 (6 Retry)		
Cooling Fan ON at temp	°C	60 (or 45% of rated Load or Solar >15A)		
Cooling Fan Off at temp	°C	55 (or 40% of rated Load or Solar <15A)		
Peak efficiency of inverter	%	82	81	84
Battery low voltage alarm per battery	Vdc	10.8 ± 0.1V		
Battery low voltage cut per battery	Vdc	10.5 ± 0.1V (With 4 Retry)		
Batter low cut recovery per battery through Solar	Vdc	12.7 ± 0.1V (or Mains or reset switch on front panel)		
Max Battery charging voltage by grid per battery	Vdc	14.4 ± 0.1V 13.8 ± 0.1V		
Max Battery charging current by grid	Adc	16±2A		
Max Battery charging voltage by Solar per battery	Vdc	14.4 ± 0.1V 13.8 ± 0.1V		
Battery High cut with Alarm per battery	Vdc	14.8±0.1V		
Battery High cut Recovery per battery	Vdc	14.3±0.1V		
Max Battery charging current by Solar	Adc	25±2A		
Max Charging current to battery by Solar+Grid	Adc	25±2A		
Selection of Operating Mode		HC-Charging current = 25A ±1A Solar + Mains till battery boost voltage with maximum Solar Sharing. System will not disconnect Grid in any case		
		EC-Charging current = 25A ±1A Solar + Mains till boost voltage, System will cut off the mains when battery voltage reaches boost voltage level and output load is transferred to Solar + Battery and Grid reconnected <=11.8V per Battery		
Output Voltage at No load at rated Battery voltage	Vac	220V		
Input current at no load at Nominal Battery voltage	Adc	2.6A	2.4A	2.5A
Noise @ 1 meter	dB	<50		
Protections		Overload, Battery Deep discharge, Battery Overcharge, Short circuit(1retry), Battery High, PV Reverse, Over Temp, Fuse Trip, Battery Reverse		
LCD Display parameters		PV Current, Battery voltage, Mains voltage, UPS ON/OFF, UPS Mode, Symbol of sun (Smiley) if solar available, (non smiley symbol in absence of solar), Load percentage, Over load, Short ckt, Fault, Battery low, Over temp, PV reverse, Fuse trip, (Customized LCD)		
Indication LEDs		Mains status, Mains Charging, Solar Charging, UPS ON, Fault		
Operating Temperature range	°C	0-50		
Storage Temperature range	°C	0-65		
Max RH	%	95		
Front panel details (MCB, Display, Selection switch etc)		Display with Push button switch		
Rear panel details (MCB, Terminals etc)		O/P socket,fuse,mains & batt. Cable and fan		
Enclosure protection		20		
Changeover time from inverter to mains in UPS mode	ms	<10		
Changeover time from inverter to mains in Normal mode	ms	<10		
Changeover time from mains to inverter in UPS mode	ms	<10		
Changeover time from mains to inverter in Normal mode	ms	<40		
Battery connection		Thru Copper cable 16 sqmm and 1mtr red 0.8mtr black length	Thru Copper cable 10 sqmm and 1.25mtr red 1mtr black length	
Mains connection		3 core copper cable size 0.75sqmm, 1.5mtr length with TOP		
Output		3pin socket 16A		
Fuse in battery path		External Fuse		
MCB in Solar path		NO		
Fuse in Solar Path		Yes		
Input Protection		Yes		

Odin System Pvt. Ltd.

Registered Office: Plot-49, House No 663,
Sec-13, Neelkanth Aptts, Rohini, New Delhi- 110085

Website: www.zenvo.in, E-mail: info@zenvo.in, Help Line Number : 989-989-8775

