



RETROSOL

SOLARIZE YOUR INVERTER



YOUR FIRST STEP TOWARDS SOLAR

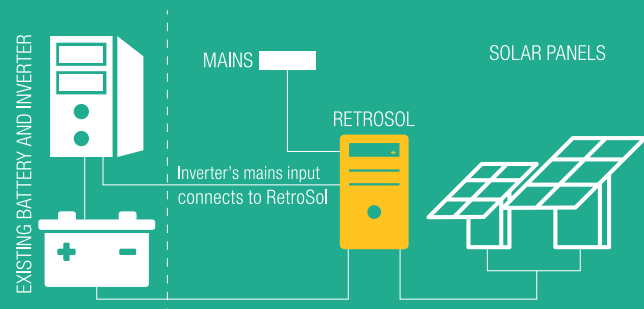
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RETROSOL

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Indigenously designed power controller to fit in with your inverter for most effortless, efficient and affordable upgrade to solar for your existing power back up. Available in wide range of models, RetroSol™ comes with built-in intelligence to maximize solar energy produce of your system to provide uninterrupted, daylong back up and reduced electricity bills. RetroSol comes equipped with our proprietary cloud monitoring solution CloudSol™ for OTA (over-the-air) diagnostics and remote monitoring of your system wirelessly through web and mobile based app from anywhere in the world.



FEATURES



MAXIMUM OUTPUT FOR MINIMUM BILLS

Prioritizes solar usage over mains power for maximum savings on electricity bills. MPPT based solution for enhanced output in case of low solar irradiance (cloudy sky) and in cold temperatures.



COMPATIBILITY

Universally compatible with all battery and inverter makes with scalable design for capacity addition. Available in wide spectrum of choices to suit all of your energy needs.



ADDITIONAL POWER BACK UP

Battery charging using the endless energy of sun depending on availability of solar radiation for uninterrupted power supply at zero maintenance.



SAFETY AND RELIABILITY

Real-time auto error detection and monitoring of system to keep your system health in its finest state, in addition to all other safety and reliability features according to industry standards.



EFFECTIVE SYSTEM MANAGEMENT

Remote monitoring of system performance and control of basic functions like ON/OFF, etc. through LCD display and web or mobile based app.



ENHANCED BATTERY LIFE

Intelligent management of battery charge cycle for enhance battery lifetime resulting in addition savings due to reduced cost of maintenance.

SPECIFICATIONS

PARAMETER	RETROSOL - PWM		RETROSOL - MPPT		
Operating principle	PWM based solar charger with display and inverter control that prioritizes usage of solar for back up		High efficiency MPPT based solar charger. Monitors the net battery current to ensure optimal charging rate and maximizes the usage of solar		
Charge controller voltage	12V	24V	12V	24V	48V
Charge controller current	Available in both 25A and 15A		40A		
Supported battery capacity	60-180 Ah	150-360 Ah	60-180 Ah	150-360 Ah	200-600 Ah
Inverter rating	250-500 VA	500-1500 VA	250-500 VA	500-1500 VA	750-2000 VA
Power conversion efficiency	Not Applicable		95%		
Ambient temperature range	Upto 50°C		Upto 50°C		
Display	Backlit character LCD with battery state, solar state, solar unit generated, mains supply availability, system state - displayed in a scrolling loop				
Dimension (in mm)	143 X 95 X 74 [IP21]		134 X 253 X 106 [IP21]		155 X 270 X 110 [IP21]
Weight	~ 1kg	~ 1kg	~ 2kgs	~ 4kgs	~ 4kgs

PROTECTIONS

Battery reverse polarity	Electronically protected	Electronically protected
PV Reverse	Electronically protected	Electronically protected
Over current protection	Yes	Yes
Over voltage protection	Yes	Yes
Over temperature protection	Yes	Yes
Battery - PV Swap	Electronically protected	Electronically protected
PV short circuit	Electronically protected	System shutdown, recovers with a timeout





RANGE OF SYSTEMS

MODEL	ELECTRICAL LOAD	LOAD	INVERTER RATING	RECOMMENDED BATTERY/SPV MODULE FOR DIFFERENT BACKUP TIME		
Name	Number of items	Watts	VA	5 Hours	3 Hours	2 Hours
RetroSol 12	1F + 2TL + 1CFL	200	250	150AH 380Wp	90AH 225Wp	60AH 150Wp
RetroSol 12	2F + 2TL + 1TV	400	500	300AH 750Wp	180AH 450Wp	120AH 300Wp
RetroSol 24	2F + 2TL + 1TV + 1PC	600	750	220AH 1120Wp	140AH 675Wp	90AH 450Wp
RetroSol 24	2F + 3TL + 1TV + 1PC + 5CFL	800	1000	300AH 1500Wp	180AH 900Wp	120AH 600Wp
RetroSol 24	4F + 3TL + 1TV + 1PC + 5CFL + 1MS	1000	1250	400AH 1870Wp	225AH 1120Wp	150AH 750Wp
RetroSol 48	4F + 3TL + 1TV + 1PC + 6CFL + 1MS + 1LTP	1200	1500	220AH 2240Wp	135AH 1350Wp	90AH 900Wp
RetroSol 48	4F + 3TL + 1TV + 1PC + 6CFL + 1LTP + 1MXE	1400	1800	260AH 2615Wp	156AH 1570Wp	100AH 1050Wp
RetroSol 48	4F + 3TL + 2TV + 1PC + 6CFL + 1LTP + 1MXE	1600	2000	300AH 3000Wp	180AH 1800Wp	120AH 120Wp

Fan [F]	Tubelight [TL]	Television [TV]	Computer [PC]	CFL Lamp [CFL]	MUSIC SYSTEM [MS]	Laptop [LTP]	Mixie [MXE]
							

- Note:
- Based on typical household loads all ON simultaneously and typical ratings as mentioned below. Check specific wattage of the appliance you are using: Fan 70W, Tube Light 40W, TV 150W, Computer 200W, CFL 14W, Music System 150W, Laptop 90W, Tabletop Mixie 400W
 - Depends on grid duty, battery efficiency, inverter efficiency & other losses at site location
 - Battery back-up hours(assumed 70% DOD) based on typical load and sunshine availability(assumed 5 PSH) Additionally, battery back-up depends on battery, inverter and grid duty cycle



RETROSOL



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#2434, KASHI, 15THA CROSS, 26TH MAIN, SECTOR I, HSR LAYOUT, BANGALORE - 560034

DEALER

www.playsolar.in