

MADE IN INDIA



SUN PRO

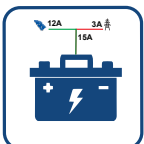
SOLAR HYBRID PCU

1230/12V - 5070/48V

PWM SERIES

Controlled Battery Charging

Load Sharing



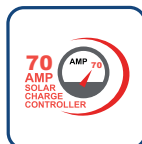
Intelligent Charging Sharing



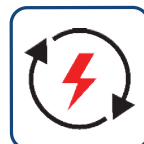
USER SETTABLE GRID/SOLAR PRIORITY



BUILT-IN ISOLATION TRANSFORMER



70AMP SOLAR CHARGING CONTROLLER



INSTANT CHANGEOVER TIME



24X7 MCB PROTECTION



24X7 PROTECTION DC MCB DOUBLE POLE



MANUAL BYPASS SWITCH

TECHNICAL SPECIFICATION

Model	1230	1550	2050	2750	3270	3570	4070	5070
DC BUS	12V		24V				48V	
SCC TYPE	PWM							
MAX PV CONNECTED IN WATT	600W / 28V	1000W / 28V	1500W / 58V	2000W / 58V	2500W / 58V	3000W / 58V	3500/110V	4000W/110V
MAX PV CURRENT in AMP	30 A	50A	50A	50A	70A	70A	70A	70A
Mains Input mode								
Mains AC low cut UPS mode	170VAC ± 10VAC							
Mains AC low cut recovery UPS mode	180VAC ± 10VAC							
Mains AC high cut UPS mode	265VAC ± 10VAC							
Mains AC high cut recovery UPS mode	255VAC ± 10VAC							
Mains AC low cut WUPS mode	90VAC ± 10VAC							
Mains AC low cut recovery WUPS mode	110VAC ± 10VAC							
Mains AC high cut WUPS mode	290VAC ± 10VAC							
Mains AC high cut recovery WUPS mode	280VAC ± 10VAC							
Input Frequency Range	40Hz to 60Hz							
Voltage Output in Mains Mode	Same as input							
Frequency Output in Mains Mode	Same as input							
Battery								
Battery Type	LA / Tubular / SMF							
DC input voltage	12V		24V				48V	
Battery Quantity 12V 100Ah to 220Ah	1		2				4	
Float charging voltage	13.7V±0.2V		27.4V +/- 0.4V				54.8V +/- 0.8V	
Boost charging voltage for Tubular and SMF Battery	14.5V±0.2V		29.0V +/- 0.4V				58.0V +/- 0.8V	
Boost charging voltage for LA Battery	14.0V±0.2V		28.0V +/- 0.4V				56.0V +/- 0.8V	
Battery deep Discharge Recovery	Yes (Independent Charger to Recover Deep Discharge Battery)							
Battery High Cut	15.0±0.2V		30.0 +/- 0.4V				60.0 +/- 0.8V	
Charging Current	Upto 20A ± 2A							
Backup Mode								
Output voltage	220VAC +5% -10% (untill battery low alarm)							
Output frequency	50Hz ± 0.2 Hz							
Output waveform	Pure Sine Wave ≤ 5% THD							
No Load current	≤ 4% of rated capacity							
Low Battery Warning	10.7V±0.2V		21.4V +/- 0.4V				42.8V +/- 0.8V	
Low Battery Cut	10.5V±0.2V		21.0V +/- 0.4V				42.0V +/- 0.8V	
Change over time UPS mode	< 10msec							
Change over time WUPS mode	< 25msec							
Crest Factor	1 : 5							
Peak Efficiency	86%							
Protections								
Overload in backup mode	<100% Load Continuously run >100% to <120% Load, System will shut down in 2min >120% to <140% Load, System will shut down in 1min >140% to <160% Load, System will shut down in 17sec >160% to <180% Load, System will shut down in 6sec >180% to <200% Load, System will shut down in 3sec >200% Load, System will shut down in 850msec							
Short Circuit in Backup Mode	System will shutdown after 3 - retries in case of output short circuit							
Short Circuit in Mains Mode	Mains Fuse Blown				Mains MCB Trip			
Backfeed	System will shutdown in case of backfeed and there is no retry							
Over temperature	Yes provided, if heatsink temperature goes above 100°C System will shut down							
Reverse Battery	DC fuse will belown							
Phase to Phase protection in mains mode	Yes provided by electronic							
Solar Charge Controller								
Solar Charge Controller type	PWM type							
Efficiency	> 96%							
Mains Charging Shairing	If PV power is not sufficient enough to charge the battery, system will start sharing battery charging from PV and grid.							
Load Shairing	Load Shairing is provided, solar will deliver the power as per load and battery requirement. Solar Current = Load Current + Batter Charging Current If load is 0% then it will protect the battery for over charging and increase the battery life deliver <18A current for battery charging.							
Option for Solar Mode & Normal Mode	Yes, provided, user can select Solar Mode or Normal Mode. Hense user can select to Save Maximum Power or Smart Power saving mode. Solar Mode: System will run the 100% load on solar whole days (9:AM to 4:PM) and charge the battery from solar. Normal Mode: System will run the 100% load on solar during peak hours (10:AM to 3:PM) and charge the battery from solar.							
100% Solar Priority & Solar Utilization	System is utilizing 100% solar power available							
Revrse PV protection	Yes provided							
Revrse current flow to PV	Yes provided							
Display and Alarms								
LCD Initial Display	Welcome, Contect Website Address, System Capacity, Charging Till 80VAC and Deep Discharge Battery, System Setting, UPS / WUPS mode, I/P range 90-295VAC / 170-265VAC, Battert Type Selected LA / SMF / Tubular, Battery Capacity Selected 100-135Ah / 150-200Ah,							
LCD Status Display	Mains ON, Input Voltage, Input Frequency, Battery Voltage, Battery Charging, Battery Charged, Charging Current, Backup Mode, UPS ON, UPS OFF, Battery Voltage, Load %, Output Voltage, Output Frequency, Mains Low Cut, Mains High Cut, Mains Not Available, Mains Frequency Cut							
LCD Fault / Protection Status Display	Mains Fuse Belown / MCB Trip, Short Circuit, Overload, Battery Low, High Temperature, Backfeed							
Buzzer	Audible beep for Overload, Short Circuit, Backfeed, Low Battery, Over Temperature, Mains Fuse belown / MCB Trip							
Safety								
HV Test Input to Earth	Leakage current <5mA when 1.5KV applied for 1 min							
HV Test Output to Earth	Leakage current <5mA when 1.5KV applied for 1 min							
IR Test Input to Earth	>5MΩ between @ 500VDC							
IR Test Output to Earth	>5MΩ between @ 500VDC							
Earth Leakage current in Mains mode	< 2.5mA							
Earth Leakage current in Backup mode	< 2.5mA							
Environment								
Operating Temperature	0°C to 40°C							
Storage Temperature	0°C to 50°C							
Operating Relative Humidity	90% Non-Condensing							

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