

MADE IN INDIA

Su-mak[®]
SOLAR
PURE SINE WAVE

 UNNY PLUS
SOLAR HYBRID UPS
POWER CONDITIONING UNIT
3500/24V

MPPT BASED
SOLAR CHARGE CONTROLLER



www.sumaksolar.com

Technical Specifications 3500/24V

Model Name	Solar Hybrid PCU
Capacity	3500/24V
V.A. Rating	2800VA
Type	Single Phase Solar Power Conditioning Unit
Technology	DSP Based MPPT Technology
Power Device	MOSFETs
INVERTER	
INPUT PARAMETERS	
Nominal I/P DC Voltage	24V
Low battery Pre-warning	22.0V±0.4V
Low Battery cut off	21.0V±0.4V
High Battery shutdown	31V±0.4V
OUTPUT PARAMETERS	
Waveform & Regulation throughout battery voltage range at no load	Pure Sine Wave, 220V±5%
Frequency Regulation	50Hz ± 0.1Hz
Efficiency (typical)	≥82%
Overload	Up-to 200% for approx. 8seconds
THD V (Linear Load)	≤3%
Crest Factor	≥3:1
Power usage Priority	From PV Panel Array
Grid power usage	Automatic, if batteries voltage ≤ 24V, get fully charged. After attaining float charge stage mains power usage will discontinue.
Transfer Time	PC should not Reboot (Typical 20msec.)
GRID CHARGER	
Grid I/P Voltage Range	NW = 175V to 265V±10V / WW = 150VAC-275VAC±10V; Recovery V = 10V
Charging Current	Max. 15A±1V

Technical Specifications 3500/24V

SOLAR CHARGE CONTROLLER	
Type	Series Regulator
Maximum I/P PV Voltage	50V Per 36 cell Solar PV module
Solar Array	Single Array
Charging Current Imax.	40A
Bulk Voltage	29.2V
Transition from float to bulk	Below float level for a cumulative period of 1 hour
Float Voltage	27.6
PROTECTION	Over Current, Battery over Charge Protection, Reverse Current Flow, High Temperature
Automatic Charger Restart Time after High Current	3.5 Minutes
High Temperature Charger Cut- OFF/ PWM control	75°C $\pm$ 5°C
High Temperature Charger full duty Reconnect	60°C $\pm$ 5°C
SCC Cooling fan ON	$\geq$ 50°C
SCC Cooling fan OFF	$\leq$ 45°C

Protection Messages:	
MAINS MCB TRIP LIFT MCB	*ATTENTION* OVERLOAD > 100%
ATTENTION BATTERY LOW	OVERLOAD/HIGH TEMP SHUTDOWN
	SRT CKT/BACKFEED SHUTDOWN
	ATTENTION HIGH TEMPERATURE
Dielectric strength	2KV input/output with ground and 1.5KV between input & output
Operating Temp.	0°C to + 55°C
Storage Temp.	0°C to + 55°C
Acoustic Noise	< 60dB from one meter
Relative Humidity	0-95% Non-Condensing
IP RATING	IP-20
MASS OF THE EQUIPMENT	25kg $\pm$ 100g
OVERALL SIZE OF EQUIPMENT (WxDxH) $\pm$ 5MM	300(W)X450(D)X285(H)

*Specification can change without any prior notice.



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