



Indsecom Solar UPS design is based on the next generation energy efficient C-LiFePO4 Lithium batteries



## Indsecom Solar UPS System

Indsecom has developed a smart solar UPS system for different weather environment with wide operating temperature range from  $-20^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$  which is ideal for any type of video or thermal surveillance activity across the globe.

**IND-USSS-12V3556-OA** and **IND-USSS-12V1224-OA** series online Solar UPS system are powered by latest C-LiFePO4 Lithium batteries. This is the most energy efficient, tiny, long lasting high watt battery providing at least 72 hours of device operational power for continuous 3 cloudy weather days. The continuous power output can be increased to 6-7 days by adding additional batteries.

The Solar UPS system have direct applications in Street Lights, DVR Video host, NVR Video host, Licence Plate Recognition System, Video surveillance systems, Thermal imaging, Infrared cameras and wireless data transmission systems.

It's included with Automatic Input Voltage detection, Built in C-LiFePO4 battery BMS/PCM voltage balance management, Solar cell reverse charge protection, Battery overcharge and discharge protection and protected from temperature variations.

# SPECIFICATIONS

IND-USSS-12V3556-0A Series

Datasheet

MODEL	IND-USSS-1235-10B	IND-USSS-1240-10B	IND-USSS-1247-10B	IND-USSS-1256-10B
POWER CAPACITY	445WH(34.8Ah@12.8V)	515WH (40.2Ah@12.8V)	594WH (46.4Ah@12.8V)	717WH (56Ah@12.8V)
SOLAR CELL INPUT DC CURRENT	DC 12V ~ 28V 24V / 7.5A Max	DC 12V ~ 28V 24V / 7.5A Max	DC 12V ~ 28V 24V / 7.5A Max	DC 12V ~ 28V 24V / 7.5A Max
MAX SOLAR CELL VOLTAGE / OPEN CIRCUIT VOLTAGE	80 ~ 130 W 16 ~ 18.5V / 20 ~ 23V 4 ~ 7.5A	80 ~ 130 W 16 ~ 18.5V / 20 ~ 23V 4 ~ 7.5A	80 ~ 130 W 16 ~ 18.5V / 20 ~ 23V 4 ~ 7.5A	80 ~ 130 W 16 ~ 18.5V / 20 ~ 23V 4 ~ 7.5A
HOUSING	IP67			
DC TO DC FOR DEVICE	DC 11.5 V ~ 14.4 V ±3 % 6A Max			
DC TO DC FOR BATTERY	14.4 V ±3 % 3 ~ 4.8A Max			
BATTERY TYPE	C-LiFePO4 LITHIUM BATTERIES			
BATTERY CAPACITY	34.8Ah @ 12.8 V (445 WH)	40.2Ah @ 12.8 V (515 WH)	46.4Ah @ 12.8 V (594 WH)	56 Ah @ 12.8 V (717 WH)
BATTERY CHARGE MODE	CCP / CVP MCU CONTROL			
BATTERY CHARGE VOLTAGE	14.4 V ±3%			
BATTERY CHARGE FLOAT VOLTAGE	13.6 V ±3%			
BATTERY CUT-OFF DISCHARGE VOLTAGE	11 V ±3%			
BATTERY RECOVERY DISCHARGE VOLTAGE	12.8 V ±3%			
STANDARD CHARGE CURRENT	3.6 A			
MAX. CHARGE CURRENT	7.5 A			
STANDARD DISCHARGE CURRENT	3 A			
MAX. DISCHARGE CURRENT	6 A			
BATTERY CYCLE LIFE (80% CAPACITY) 0.2 C CHARGING 0.5 C DISCHARGING	@25°C 2000 Times @45°C 1600 Times @50°C 1200 Times @65°C 550 Times , @65°C 720 Times 70% CAPACITY			
INDUSTRIAL HOUSING & CONNECTOR	ALUMINIUM RADIATING AIRTIGHT HOUSING IP67 M12 CONNECTOR AND SOLAR PANEL CONNECTOR			
CONNECTOR TYPE	1. Solar DC power supply: Input DC 6 - 28 V M12 Female 2. Output: 12 V M12 Female to DC jack Female 3. Solar Panel Connector Cable Tyco or MC4 Type			
OPERATING TEMPERATURE	-20°C ~ +65°C ; 20 ~ 40 °C :- (100% BATTERY CAPACITY) ; 50 ~ 65 °C :- (90% BATTERY CAPACITY) ; -10°C :- (60% BATTERY CAPACITY) ; -20°C :- (48% BATTERY CAPACITY)			
CHARGING TEMP.	-30°C ~ 65°C			
STORAGE TEMP.	-20°C ~ 40°C			
RELATIVE HUMIDITY	10 ~ 95% RH			
DIMENSION	209 (L) x 139 (W) x 210 (H)			
BOX WEIGHT	5 Kg	5.6 Kg	7 Kg	8.5 Kg
INSTALLATION	Street lamp pole mount, Upright pole mount, Wall mount installations.			
LED INDICATOR	1. Input AC power LED-red full light (Battery capacity more than 95%) 2. Input AC power LED-red flash light (Battery is charging) 3. Insert the 12 V device load while battery is charging, LED-green flash light			
APPLICABLE STANDARDS	EN 50091-1, EN 50091-2, EN 55022 Class A, EN 60950, EN 61000-3-2			
WARRANTY	12 MONTHS			

# SPECIFICATIONS

IND-USSS-12V1224-0A Series

Datasheet

MODEL	IND-USSS-1212-06B	IND-USSS-1216-07B	IND-USSS-1218-08B	IND-USSS-1224-09B
POWER CAPACITY	148WH(11.6Ah@12.8V)	206WH (16.1Ah@12.8V)	235WH (18.4Ah@12.8V)	297WH (23.2Ah@12.8V)
SOLAR CELL INPUT DC CURRENT	DC 12V ~ 28V 24V / 7.5A Max	DC 12V ~ 28V 24V / 7.5A Max	DC 12V ~ 28V 24V / 7.5A Max	DC 12V ~ 28V 24V / 7.5A Max
MAX SOLAR CELL VOLTAGE / OPEN CIRCUIT VOLTAGE	60 ~ 80 W 16 ~ 18V / 21 ~ 23V 4 ~ 6A	70 ~ 90 W 16 ~ 18V / 21 ~ 23V 4 ~ 6A	80 ~ 100 W 16 ~ 18V / 21 ~ 23V 4 ~ 7A	90 ~ 120 W 16 ~ 18V / 21 ~ 23V 4 ~ 7A
HOUSING	IP67			
DC TO DC FOR DEVICE	DC 11.5 V ~ 14.4 V ±3 % 6A Max			
DC TO DC FOR BATTERY	14.4 V ±3 % 3 ~ 4.8A Max			
TRANSFORM EFFICIENCY	90% Electronic MPPT Effectiveness			
BATTERY TYPE	C-LiFePO4 LITHIUM BATTERIES			
BATTERY CAPACITY	11.6Ah @ 12.8 V (148 WH)	16.1 Ah @ 12.8 V (206 WH)	18.4Ah @ 12.8 V (235 WH)	23.2 Ah @ 12.8 V (297 WH)
BATTERY CHARGE MODE	CCP / CVP MCU CONTROL			
BATTERY CHARGE VOLTAGE	14.4 V ±3%			
BATTERY CHARGE FLOAT VOLTAGE	13.6 V ±3%			
BATTERY CUT-OFF DISCHARGE VOLTAGE	11 V ±3%			
BATTERY RECOVERY DISCHARGE VOLTAGE	12.8 V ±3%			
STANDARD CHARGE CURRENT	3.6 A			
MAX. CHARGE CURRENT	7.5 A			
STANDARD DISCHARGE CURRENT	3 A			
MAX. DISCHARGE CURRENT	6 A			
BATTERY CYCLE LIFE (80% CAPACITY) 0.2 C CHARGING 0.5 C DISCHARGING	@25°C 2000 Times @45°C 1600 Times @50°C 1200 Times @65°C 550 Times , @65°C 720 Times 70% CAPACITY			
INDUSTRIAL HOUSING & CONNECTOR	ALUMINIUM RADIATING AIRTIGHT HOUSING IP67 M12 CONNECTOR AND SOLAR PANEL CONNECTOR			
CONNECTOR TYPE	<ol style="list-style-type: none"> <li>Solar DC power supply: Input DC 6 - 28 V M12 Female</li> <li>Output: 12 V M12 Female to DC jack Female</li> <li>Solar Panel Connector Cable Tyco or MC4 Type</li> </ol>			
OPERATING TEMPERATURE	-20°C ~ +65°C ; 20 ~ 40 °C :- (100% BATTERY CAPACITY) ; 50 ~ 65 °C :- (90% BATTERY CAPACITY) ; -10°C :- (60% BATTERY CAPACITY) ; -20°C :- (48% BATTERY CAPACITY)			
CHARGING TEMP.	-30°C ~ 65°C			
STORAGE TEMP.	-20°C ~ 40°C			
RELATIVE HUMIDITY	10 ~ 95% RH			
	209 (L) x 139 (W) x 210 (H)			
BOX WEIGHT	3.1 Kg	3.6 Kg	3.9 Kg	4.4 Kg
	Street lamp pole mount, Upright pole mount, Wall mount installations.			
LED INDICATOR	<ol style="list-style-type: none"> <li>Input AC power LED-red full light (Battery capacity more than 95%)</li> <li>Input AC power LED-red flash light (Battery is charging)</li> <li>Insert the 12 V device load while battery is charging, LED-green flash light</li> </ol>			
APPLICABLE STANDARDS	EN 50091-1, EN 50091-2, EN 55022 Class A, EN 60950, EN 61000-3-2			
WARRANTY	12 MONTHS			





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