

UPS (Uninterruptible Power Supply)

Power backup for AC obstruction lighting system

Standby UPS



Online UPS



UPS Extended Battery Box



OVERVIEW

Unlit obstruction lights due to power loss imposes significant risks on aircrafts and tall structures. A UPS (Uninterruptible Power Supply) unit is a vital device in obstruction lighting system to backup obstruction lights for continuous operation in the event of power loss.

The UPS unit is compatible for a wide primary AC input from 165VAC to 265VAC. Built-in inverter circuitry, battery charger, and high-quality VRLA battery packs for some sub-models or external battery box connected to UPS, provide continuous AC power when primary input AC power is interrupted.

Incorporated surge protector, the UPS is capable of protecting obstruction lighting system from voltage fluctuation and lightning strikes.

REDDOT provides both Standby UPS and Online UPS solutions. UPS capacity is customizable to suit various backup time for obstruction lighting systems.

For obstruction lighting system with high power consumption, or longer backup time required, an extended battery box with high quality SLA UPS battery packs combines with UPS main engine. The combination of UPS engine and extended battery box provide sufficient backup power to obstruction lighting system after blackout.

FEATURES

- Input voltage range: 165-265VAC, 50-60Hz
- Over-voltage cut-off function to provide best input protection
- Pure sinewave adaptable to harsh environment
- Built-in high quality VRLA battery or external battery connection port to suit various backup time
- Intelligent battery management to protect UPS from overcharge, overload and deep discharge
- Built-in surge protector against voltage fluctuation or lightning strikes
- UPS compatible SLA batteries, high discharge rate performance and long floating charging lifetime



SPECIFICATIONS

Item		UPS Specifications
INPUT	Input voltage	165-265VAC, 50-60Hz
	Power Factor	>0.6 for Standby UPS; >0.9 for online UPS
	Input Wiring	Single phase with grounding
OUTPUT	Rated Power	500-3000VA
	Max. loading power	300-2700W
	Rated output voltage	220VAC±10%
	Waveform type	Approximate to a sine wave
	Topology	Standby or Online
	Transfer Time	<10ms for standby UPS, 0ms for online UPS
BATTERIES & BACKUP TIME	Battery Type	Maintenance-free VRLA
	Built-in battery voltage & capacity (Note1)	12V/7Ah, 24V/7Ah
	External battery voltage (Note2)	24VDC / 36VDC / 48VDC / 72VDC / 96VDC
	Recharge time	≤ 10 hours
	Backup hours	Depends on requirements
ENVIRONMENTAL	Operating Temperature	0 - 40 °C
	Operating Relative Humidity	20-95% RH non-condensing
PHYSICAL	Net Weight	5KG – 15KG
	Dimension (L*W*H)	Min.: 317*198*79mm; Max.: 393*328*190mm
	Enclosure	ABS (Indoor, IP20) SS304 (Outdoor, IP65)

Notes: 1) Not all UPS models come with built-in batteries. 12V/7Ah and 24V/7Ah are two typical built-in battery size.

2) For UPS with external battery voltage port, there is no built-in battery in UPS master machine, but with a battery voltage port to connect external battery box.

Item		Extended Battery Specifications
BATTERY VOLTAGE & CAPACITY	Battery Voltage	Granularity: 12VDC In series and/or parallel: 24VDC / 36VDC / 48VDC / 72VDC / 96VDC
	Battery Capacity	9Ah / 18Ah / 26Ah / 38Ah / 65Ah
PHYSICAL	Dimension (L*W*H)	470mmx450mmx310mm / 585mmx450mmx310mm
	Weight	10KG – 35KG
	Enclosure	Deep drawing steel sheet (Indoor, IP40) SS304 (Outdoor, IP65)
BATTERY CHARACTERISTICS	Operating Temperature	Charge: 0°C ~40°C Discharging: -20°C ~55°C Storage: -15°C ~50°C
	Capacity Affected by Temperature	103% C20 @40°C 100% C20 @25°C 86% C20 @0 °C

ORDERING CODE

Ordering code of UPS						
Series	UPS Type	Rated Power (VA-W)	Battery internal/External	Internal battery capacity (V-Ah)	External battery voltage	Indoor/Outdoor
UPS	ST (Standby)	Variable	INB (Built-in battery)	Variable	Variable	ID (Indoor)
	ON (Online)		EXB (external battery)			OD (Outdoor)

E.g.: UPS-ST-500300-INB-127-ID = UPS, standby type, rated power 500VA/300W, with built-in battery pack 12V/7Ah, indoor box

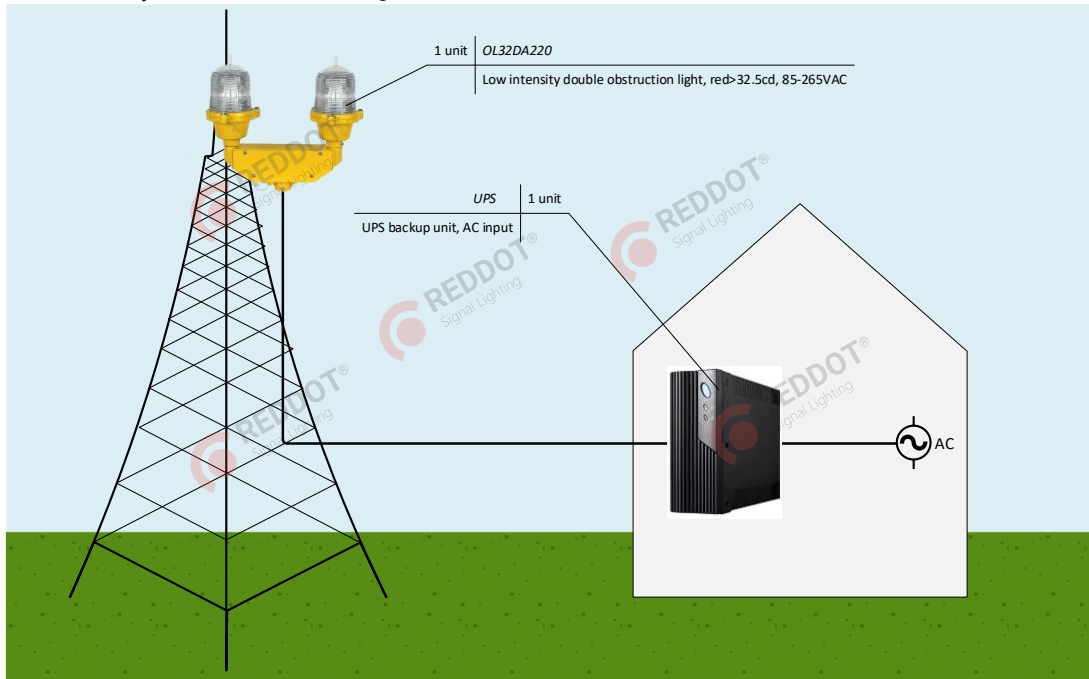
Ordering code of extended battery box		
Series	Battery capacity (V-Ah)	Indoor/Outdoor
BATU	Variable	ID (Indoor) OD (Outdoor)

E.g.: BATU-2418-ID = UPS extended battery box, with 24V/18Ah SLA battery, indoor type



APPLICATION EXAMPLES

- One OL32 low intensity double obstruction light + UPS



- Three F864 medium intensity obstruction lights + UPS + extended battery box

