

AES-AL-X-X-X

Omni-directional Low Intensity Solar Portable Airfield Lights



Contact details:



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Compliance

- ICAO Annex.14, VOL I.
- EASA CS-ADR-DSN
- IEC TS 61827
- FAA: AC 150/5345-46F
- Part 139 (Aerodromes) Manual of Standards.

Uses

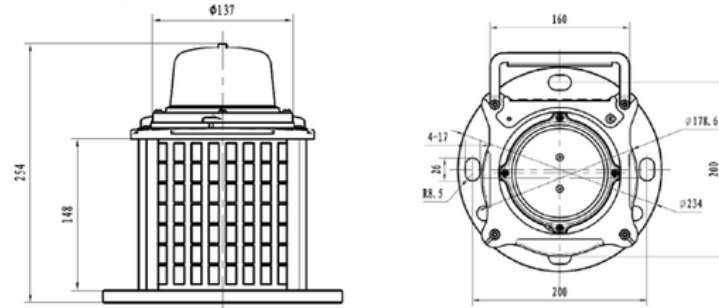
- The AES-AL-X-X-X provides versatile, high-performance low intensity airfield lighting. Designed for both civil and military applications, it is ideal for taxiways, aprons, and to delineate unserviceable areas in the airfield. Its solar-powered, off-grid operation allows rapid deployment without relying on external infrastructure, while wireless control and monitoring ensure safe, efficient, and flexible management of lighting across any airfield environment.

Features

- **Professional Design:** Sleek, visually appealing shape for a modern and professional appearance.
- **Compact & Safe:** Integrated solar panels within the light body reduce the risk of FOD in operational areas while maintaining a compact footprint.
- **Low height:** Low height to preserve clearance for propellers and for engine pods of jet aircraft.
- **High-Efficiency LED:** Low light decay, long lifespan, energy-efficient, and cost-effective.
- **Advanced Optical System:** Special optical structure and manufacturing technology for excellent light distribution and intensity.
- **Durable Construction:** Lightweight aluminium alloy body with excellent heat dissipation.
- **Reliable Electronics:** Efficient drive circuit and thermal management scheme enhance durability & performance.
- **Easy Installation & Maintenance-Free:** Designed for quick, hassle-free setup with minimal maintenance requirements.
- **Stable & Resistant:** Strong anti-interference ability, vibration-resistant, and suitable for harsh operational environments.
- **Protection Features:** Built-in anti-surge device and sealed power supply with high waterproofing and interference resistance.
- **Portable & Flexible:** Solar-powered with portable design; easy to deploy and transport in diverse scenarios. The integrated handle and lightweight construction make it ideal for construction works and temporary applications within movement areas.

- **Long-Lasting Battery:** Built-in lithium battery provides over 80 hours of operation.
- **Remote Control Option:** Optional 5 km remote control; a single controller can manage multiple lights.
- **Customizable Light Settings:** Remote controller enables steady or flashing lights, plus 3-level dimming in working state.
- **Optional NVG Mode:** Night Vision Goggle compatible operation for military or specialized applications.

Dimensions



Order Code

AES-AL-X-X-X

AES-AL: Type of light.

X: Charging configuration (S: Solar, C: Charger, S/C: both)

X: Application (RE: Taxiway Edge; UA: Unserviceable area).

X: Color (B: Blue; R: Red)



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Specifications

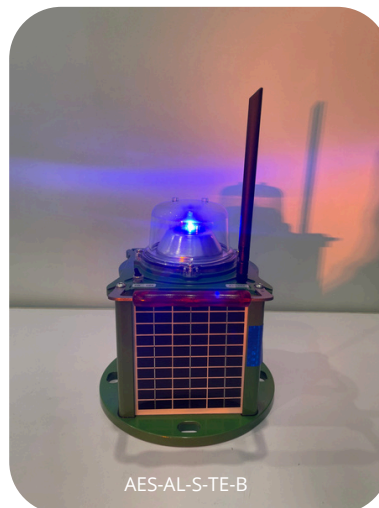
Name	Solar Airport Ground Light
Model	AES-AL-X-X-X
Battery	3.6V / 13AH
Solar Panel	12V / 2.5W (Single Side)
Power Consumption	**See the table on the next page
Light Source Type	LED
Light Intensity	**See the table on the next page
Working Mode	Steady burning / Flash
LED Colors	Blue / Red
Light Source Lifespan	≥100,000 h
Power Indicator	Built-in LEDs to display remaining battery in real time.
Dimensions	Ø234 × 254 mm
Reserved Bolt Mounting	Ø200 × M14 (4 mounting holes)
Wind Resistance	240 km/h
Ambient Temperature	-40°C to +55°C
Ambient Humidity	≤95% (non-condensing)
Ingress Protection	IP66
Material	Housing: Aluminium Alloy; Lens: PC
Optional	Remote control function AC/DC charging port Frangible mounting support



AES-AL-SC-UA-R



AES-AL-SC-UA-R



AES-AL-S-TE-B



AES-AL-C-TE-B



Charger Storage Box (AES-CSB)

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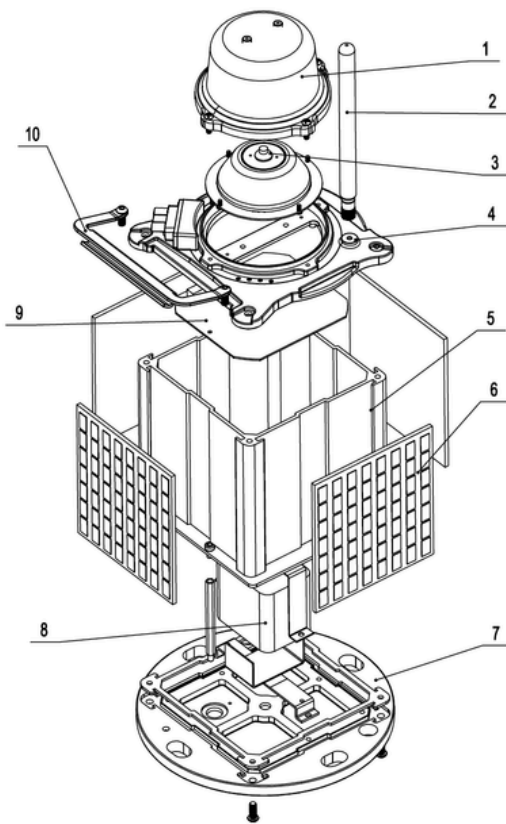


Photometric and Technical

AES-AL-X-TE-B Taxiway Edge (Blue)				
Level	Requirement (ICAO Sec. 5.3.18.7-8)	Measured Intensity (cd)	Total Consumption (W)	Autonomy (H)
1	0,2	0,9	0,3	480
2	0,6	2,8	0,8	180
3	2	9,4	2,5	57,6

AES-AL-X-UA-R Unserviceable area (Red)				
Level	Requirement (ICAO Sec. 5.3.18.7-8)	Measured Intensity (cd)	Total Consumption (W)	Autonomy (H)
1	1	2	0,3	480
2	3	6,2	0,8	180
3	10	20,6	2,5	57,6

Structure



1. Lampshade
2. Antenna
3. LED light source assembly
4. Upper cover with charging port
5. Light body
6. Solar panel
7. Flange plate
8. 12V/12AH li-battery
9. PCB with/without remote control
10. Handle

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Options

REMOTE CONTROL (AES-RC)

- Remote control range up to 5 km; one controller can operate multiple lights.
- Up to five groups of lights can be controlled independently.
- Three-level dimming functionality under normal operating conditions.
- Steady-on and flashing modes (30 fpm) with switch control.
- Infrared (IR) lighting mode can be enabled when the light is equipped with an IR function, suitable for military airport applications.

TECHNICAL SPEC. - LIGHTING REMOTE CONTROLLER:

General

- Product Name: Lighting Remote Controller
- Model: ST-RC
- Material: Powder-coated steel

Electrical & Battery

- Battery: 3.6 V / 13 Ah
- Operating Time: ≥ 100 hours
- Power Consumption: ≤ 3 W
- Charging Input: AC 220 V
- Charging Time: Approximately 4 hours

Performance

- Control Distance: Up to 5 km
- Dimming Range: 10% – 100%
- Dimming Levels: 3 levels

Functions

- On/Off control
- Multi-level dimming
- Lighting group control

Operating Modes

- DT (Daytime Mode)
- IR (Infrared Mode)
- Flash Mode

Lighting Grouping

- Supports up to 5 independent groups

Mechanical

- Dimensions: $\varnothing 234 \times 254$ mm
- Weight: Net 1.05 kg / Gross 2.35 kg

Environmental

- Operating Temperature: -40°C to $+55^{\circ}\text{C}$
- Humidity: $\leq 95\%$ (non-condensing)



CHARGER STORAGE BOX (AES-CSB)

- Integrated charging box can charge multiple lights simultaneously in a centralized manner.
- Supports AC charging (220 V / 50 Hz).
- Supports DC charging (DC 15–24 V).
- Equipped with wheels and handles for easy transportation.
- Upper cover features a groove for convenient stacking of multiple boxes, reducing space requirements.

TECHNICAL SPEC. - CHARGER STORAGE BOX:

General

- Product Name: Rechargeable Storage Box
- Model: ST-S-SB(C)
- Material: Planks, sponge, stainless steel.

Electrical

- AC Input Voltage: 220 V / 50 Hz
- DC Input Voltage: 15 – 24 V
- Power Consumption: ≤ 60 W

Charging

- Charging Time: Approximately 5 hours
- Maximum Charging Capacity: 6 units (customizable)

Mechanical

- Dimensions: $790 \times 810 \times 450$ mm
- Weight (without lights): 28 kg
- Weight (fully loaded): 60 kg

FRANGIBLE SUPPORT (AES-AL-P-CP)

- Remote control range up to 5 km; one controller can operate multiple lights.
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