

Emergency Power Explosion-proof Series

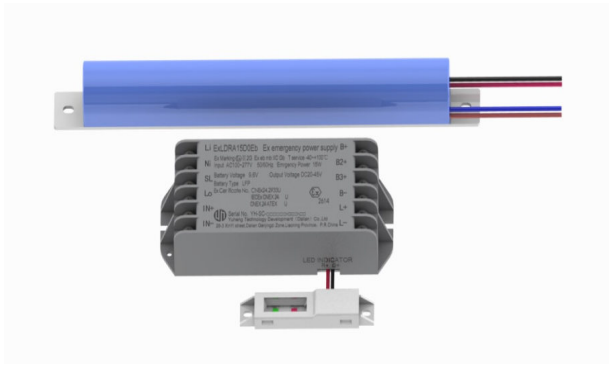
ExLDR*A00Eb series explosion-proof emergency power supply, with cast sealing (type "m") and increased safety (type "e") explosion-proof technology, Ex eb mb IIC Gb explosion mark. Includes battery pack and indicator, designed for hazardous area emergency lighting. Available in 4 power models: 15W, 10W, 7W and 3.5W.

Features

- Cast sealing (type m) + increased safety (type e) explosion-proof technology
- Ex eb mb IIC Gb explosion mark
- Built-in battery pack options: LiFePO4(9.6V, 3.5Ah) or Ni-Cd (3.6V, 3.0Ah), long cycle life
- LED indicator for charging status and fault diagnosis (5 status modes)
- Short-circuit, no-load, over-temperature protection with auto-recovery
- Operating temperature: -40~+100°C (power supply unit)
- MTBF > 385,000 hours at 80% load (MIL-HDBK-217F, 25°C)
- Multiple increased safety terminals, no additional internal wiring terminals required
- Compact design, easy installation, reduces whole lamp cost
- Emergency switching time < 3s

Application

- Emergency lighting in hazardous areas (Zone 1, Zone 2)
- Chemical plant emergency lighting
- Oil & gas facility backup lighting
- Mining emergency lighting
- Tunnel and underground facility lighting
- Industrial facility emergency systems
- Marine and offshore platform emergency lighting



CNEx Certificate: CNEx 24.2933U

IECEX Certificate: IECEX CNEX 24.0032U

EU ATEX Certificate: 2614 CNEX 24 ATEX 0034U

Emergency Power Series Models

No.	Model	Input Voltage	Discharge Power	Output Voltage	Emergency Duration
1	ExLDRA15D0Eb	100~277Vac	15W	20~45VDC	≥90 min
2	ExLDRA10D0Eb	100~277Vac	10W	20~45VDC	≥120 min
3	ExLDRA7D0Eb	100~277Vac	7W	20~45VDC	≥180 min
4	ExLDRA3.5D0Eb	100~277Vac	3.5W	20~45VDC	≥180 min

Technical Specifications

Category	Parameter	Specification
	Input Voltage Range	100~277Vac; 50Hz/60Hz
	Input Method	Terminal (0.5-1.0mm ²)
Input	THD (80%~100% Load)	<15% @200~240Vac
	Inrush Current (Max)	<10A @240Vac (Cold Start)
	Leakage Current	<0.5mA @240Vac
	Output Method	Terminal (0.5-1.0mm ²)
	Output Voltage	20~45VDC
Output	Current Accuracy	±5%
	Emergency Switching Time	<3s
	Conversion Efficiency	85%
	Short-circuit Protection	Self-recovery
Protection	No-load Protection	<50V max, Auto recovery
	Over-temperature Protection	Fuse Disconnected
	Ambient Temperature	-40~+60°C
Environment	Service Temperature	-40~+100°C (power supply)
	Storage Environment	-20~+60°C, 5~80%RH
	Operating Humidity	20~80%RH
	Ex Standards	IEC/EN/GB 60079-0, 60079-7, 60079-18 series
Ex & EMC	EMC	IEC55015; IEC61000-4-3; IEC61000-3-2/3; IEC61547
	Withstand Voltage	I/P--O/P: 1.5KVac@60S
	Isolation Resistance	>10MΩ @500Vdc
Others	MTBF	>385K Hours, 80% Load (MIL-HDBK-217F, 25°C)
	Net Weight & Size	280g, 125 × 52.5 × 30mm

Battery Pack Specifications

Item	LiFePO4 Type	Ni-Cd Type
Cell Type	Lithium Iron Phosphate	Nickel-Cadmium
Nominal Voltage (per cell)	3.2V	1.2V
Pack Configuration	3 cells in series	3 cells in series
Pack Nominal Voltage	9.6V	3.6V
Pack Capacity	3.5Ah	3.0Ah
Max Open-circuit Voltage	3.5V per cell / 10.5V pack	1.25V per cell / 3.75V pack
Service Temperature	-40~+70°C	-20~+70°C
Color	Blue	White
Pack Dimensions (LxWxH)	225 x 25 x 29mm	182 x 20 x 29mm
Model Part Number	YH-BP-IRF-9.6/3.5Ah-A/B	KRH26/51(C)3000TX3

Indicator Function

- **Charging:** Green indicator breathing (gradually brightening/dimming)
- **Fully charged:** Green indicator steady on
- **Battery emergency mode:** Green indicator flashes once per second
- **Battery disconnected or defective:** Red indicator flashes 2 times per second
- **LED load short/open circuit (emergency):** Red indicator flashes 4 times per second

Battery Pack Replacement

- Battery pack replacement is **NOT allowed** in explosive hazardous environment
- When battery pack is damaged, only replace with identical parameters (same voltage, capacity and type)
- Strictly prohibited to replace individual cells — only replace the complete pack
- Disconnect electrodes in order: B+, B2+, B3+, B- before removal
- Tightening torque for terminals: 2~3 N·m

Installation Limitations

- Must be installed in explosion-proof enclosure \geq IP54, complying with IEC/EN 60079-0 (GB/T 3836.1)
- Power supply maximum prospective short-circuit current \leq 1500A
- Clearance and creepage distances per IEC 60079-7 must be observed
- Emergency power supply cannot be repaired — replace whole unit when faulty
- Input/output wires should be crimped with fork-type pre-insulated terminals
- All terminal screws must be securely tightened (torque: 2~3 N·m), including unused terminals

Temperature Rise (ΔT) for Tc Point

Model	Temperature Rise ΔT (K)
ExLDRA15D0Eb	6.4 K
ExLDRA10D0Eb	3.4 K
ExLDRA07D0Eb	2.2 K
ExLDRA3.5D0Eb	2.2 K

Operation Notes

- Ensure ground terminal is reliably grounded for safety and EMI reduction
- Mainly used for LED light source load, used in conjunction with main drive power supply
- Do not exceed rated electrical parameters
- Do not touch the power supply body when energized
- The 4 battery wires (B+, B2+, B3+, B-) must never be shorted — will cause irreversible damage
- Contact after-sales service for any faults, do not repair without permission

Battery Maintenance

- After emergency discharge until LED turns off, recharge within **168 hours** to avoid irreversible battery damage (critical in high-humidity/salt environments)
- If stored without power >168h, charge battery to ~70% (16-20h charging), then disconnect main power and stop emergency mode
- Static storage at 70% charge: recommended **less than 6 months**. Recharge maintenance if exceeding 6 months

Packing, Transportation & Storage

- Product name, model, manufacturer and date marked on outer package
- Protect from sun and rain during transport; handle with care
- Store in original packaging under suitable temperature and humidity conditions
- No corrosive gases, strong vibration, shock or magnetic fields in storage area
- Palletize at least 20cm above ground; keep 50cm from walls, heat sources and air inlets
- Re-inspect before use if stored longer than 6 months

Model Designation

ExLDRA	Series type: ExLDRA series explosion-proof emergency power supply
15 / 10 / 07 / 3.5	Power rating in Watts (15W, 10W, 7W, 3.5W)
D0	Non-Dimmable
Eb	Battery Emergency backup function