

RLR Series – Lithium Rack

Scalable modular storage for IT.

Rekoser Lithium Iron Phosphate (LiFePO4) battery in a 48V rack format. Modular, scalable storage with a built-in BMS and SMBus/RS485/RS232 communication, designed for server rooms, telecom and energy-storage systems (ESS). Stack capacity without sacrificing density or service life.

MODELS	NOMINAL VOLTAGE	CAPACITY	DESIGN LIFE
1	48 V	620 Ah	10 years
WARRANTY	CYCLE LIFE		
5 years	>2000 cycles @1C 100%DOD		

✓ Key features

- 48V rack:** Rack-mount, stackable format
- Modular:** Scalable capacity without losing density
- Communication:** Built-in BMS with SMBus, RS485 and RS232
- Cycles:** Over 2,000 cycles at 1C and 100% depth of discharge

⚙ Applications

- Telecommunications and Base Stations**
Critical backup for network infrastructures and mobile base stations in remote locations with extreme weather conditions.
- Energy Storage Systems (ESS)**
Modular storage for self-consumption, backup and demand management.
- UPS and Data Centers**

🏆 Standards and certifications

- CE CERTIFIED
- ISO 9001 / 14001
- IEC62133
- RoHS

📊 RLR series models

Each model links to its datasheet with discharge tables, dimensions and charge parameters. Rated capacity at 25 °C; C20 = 20-hour rate.

Model	Nominal Voltage	Capacity	Length (mm)	Width (mm)	Height (mm)	Weight (kgs)
RLR48-620 (formerly RKL48-620)	48 V	620 Ah (C20)	1000	500	700	360

 Construction

Component	Material
Container	ABS (Flame Retardant Optional)
Cover	ABS (Flame Retardant Optional)
Sealant	Epoxy Resin
Terminal	Copper

Scalable modular storage for IT.

The RLR48-620 is a 48 V, 620 Ah (20-hour rate) LiFePO4 lithium battery from the Rekoser Lithium Rack series. It measures 1000 × 500 × 700 mm and weighs 360 kg. It stores 29.76 kWh. Scalable modular storage for IT. Typical applications: Telecommunications and Base Stations, Energy Storage Systems (ESS) and UPS and Data Centers.

Formerly **RKL48-620**.

Nominal Voltage	48 V
Capacity (25°C)	620 Ah (C20)
Energy	29760 Wh
Weight	360 kg
Dimensions	1000 × 500 × 700 mm

MAIN ADVANTAGES

- ✓ **48V rack:** Rack-mount, stackable format
- ✓ **Modular:** Scalable capacity without losing density
- ✓ **Communication:** Built-in BMS with SMBus, RS485 and RS232
- ✓ **Cycles:** Over 2,000 cycles at 1C and 100% depth of discharge

10
YEARS

LONG LIFE DESIGN

5
YEARS

WARRANTY

* Subject to charge and temperature parameters stipulated in this datasheet.

MAIN APPLICATIONS



TELECOMMUNICATIONS
AND BASE STATIONS



ENERGY STORAGE
SYSTEMS (ESS)



UPS AND DATA CENTERS

QUALITY STANDARDS

CE CERTIFIED

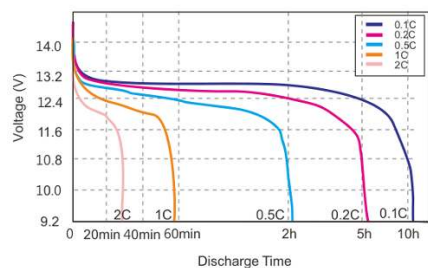
ISO 9001 / 14001

IEC62133

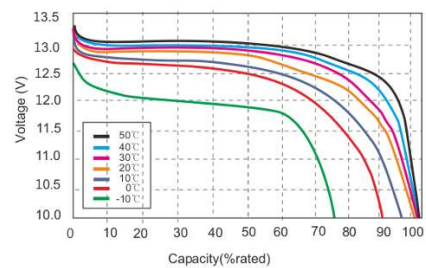
RoHS

GRAPHICS (25°C)

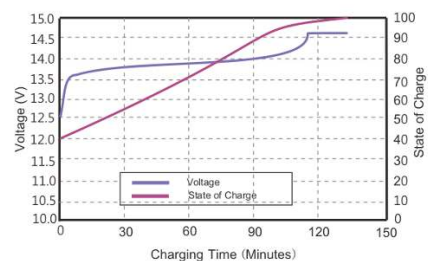
RATE DISCHARGE CHARACTERISTICS 25°C



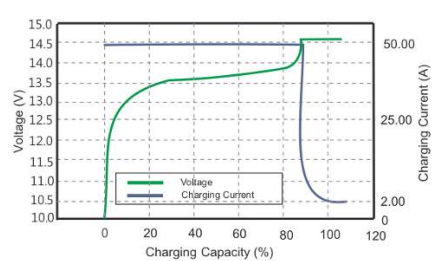
TEMPERATURE DISCHARGE CHARACTERISTICS 25°C



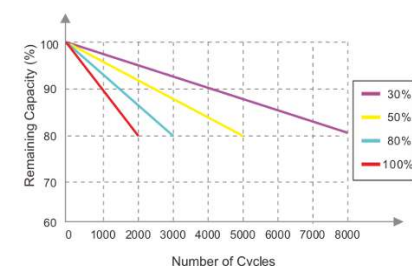
STATE OF CHARGE CURVE



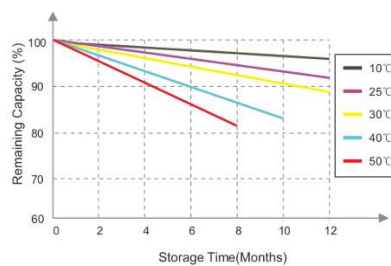
CHARGING CHARACTERISTICS



CYCLE LIFE CURVE



SELF-DISCHARGE CHARACTERISTICS



SPECIFICATIONS

Nominal Voltage	48 V
Capacity (25°C)	620 Ah (C20)
Energy	29760 Wh
Cell (Method)	26650 (4S32P)
Charge Voltage (25°C)	Cycle use: 58.4±0.2V
Charge Mode	0.2C to 58.4V, then 48.4V,charge current to 0.02C (CC/CV)
Charger Current	100A
Max. Charge Current	100 A
Discharge Cut-off Voltage	40.0V±0.2V
Internal Resistance	50 mΩ
Self Discharge	3 % of capacity per month at 25 °C
Efficiency of Charge	100% @0.5C
Efficiency of Discharge	96~99% @1C
Cycle Life	>2000 cycles @1C 100%DOD
Protocol (optional)	SMBus/RS485/RS232
SOC (optional)	LED
Water Dust Resistance	IP56

CONSTRUCTION

Component	Material
Container	ABS (Flame Retardant Optional)
Cover	ABS (Flame Retardant Optional)
Sealant	Epoxy Resin
Terminal	Copper

QUICK INSTALLATION GUIDE

To ensure optimal performance and maximize the lifespan of your **REKOSER RLR48-620** battery, follow these assembly and connection guidelines.

1. SPACE AND DIMENSION VERIFICATION

Before proceeding, ensure the receptacle or cabinet of your equipment complies with the unit's physical measurements:

Length: 1000 mm

Width: 500 mm

Height: 700 mm

Total Height: 700 mm

Weight: 360 kg

2. TERMINALS AND POLARITY

Polarity: Check the positive and negative markings on the battery before connecting, to prevent short circuits.

3. CHARGE PARAMETERS

Cycle use: $58.4 \pm 0.2V$

Maximum Current: Do not exceed 100 A of charge.

4. SAFETY AND STORAGE

Maintenance: Maintenance-free. The built-in BMS protects the battery.

Storage: Store at partial charge, in a cool and dry place.

Charging: Use a LiFePO4 charger at the stated voltage; do not charge below 0 °C.

NEARBY MODELS

See all RLR series models

Specialized Technical Support
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