

Energy density and ultra-fast charging.

The RLS12-40 is a 12.8 V, 40 Ah (20-hour rate) LiFePO4 lithium battery from the Rekoser Lithium Standard series. It measures 197 × 165 × 170 mm and weighs 5.75 kg, with M6 terminals. It stores 512 Wh and delivers up to 80 A. Energy density and ultra-fast charging. Typical applications: Solar/Wind Energy Systems, Telecommunications and Base Stations, UPS and Data Centers and Light Electric Vehicles.

Formerly **RKL12-40**.

Nominal Voltage	12.8 V
Capacity (25°C)	40 Ah (C20)
Energy	512 Wh
Weight	5.75 kg
Terminal	M6
Dimensions	197 × 165 × 170 mm

MAIN ADVANTAGES

- ✓ **Drop-in replacement:** Takes the place of a lead-acid battery
- ✓ **Cycle life:** Up to 20 times more cycles than lead
- ✓ **Light:** 60% less weight
- ✓ **Built-in BMS:** Protection and ultra-fast charging

10
YEARS

LONG LIFE DESIGN

5
YEARS

WARRANTY

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

MAIN APPLICATIONS



SOLAR/WIND ENERGY
SYSTEMS



TELECOMMUNICATIONS
AND BASE STATIONS



UPS AND DATA CENTERS



LIGHT ELECTRIC VEHICLES

QUALITY STANDARDS

CE CERTIFIED

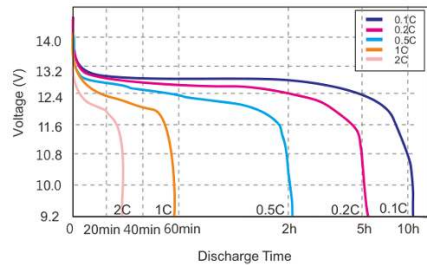
ISO 9001 / 14001

IEC62133

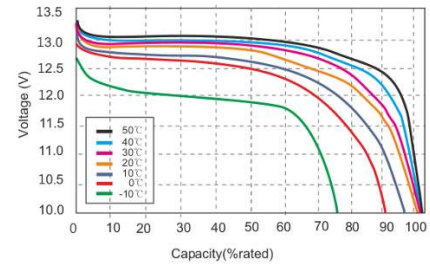
RoHS

GRAPHICS (25°C)

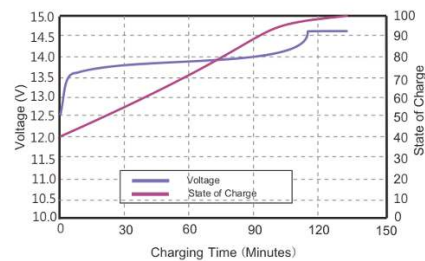
RATE DISCHARGE CHARACTERISTICS 25°C



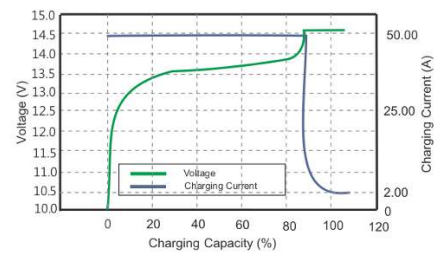
TEMPERATURE DISCHARGE CHARACTERISTICS 25°C



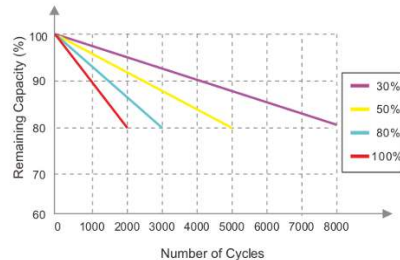
STATE OF CHARGE CURVE



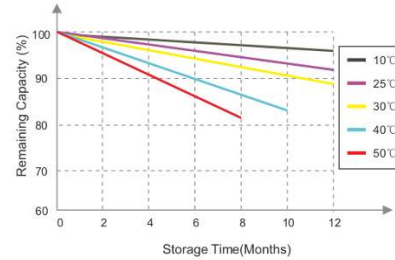
CHARGING CHARACTERISTICS



CYCLE LIFE CURVE



SELFDISCHARGE CHARACTERISTICS



SPECIFICATIONS

Nominal Voltage	12.8 V
Capacity (25°C)	40 Ah (C20)
Energy	512 Wh
Cell (Method)	26650 (4S13P)
Charge Voltage (25°C)	Cycle use: 14.6±0.2V
Charge Mode	0.2C to 14.6V, then 14.6V,charge current to 0.02C (CC/CV)
Charger Current	20A
Charge Cut-off Voltage	15.6V±0.2V
Max. Charge Current	40 A
Continuous Discharge Current	70A
Max. Discharge Current	80 A (<3s)
Discharge Cut-off Voltage	8V
Internal Resistance	30 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 RLS12-40** 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:

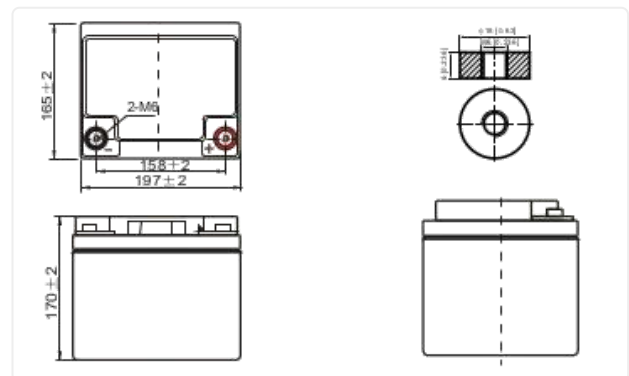
Length: 197 mm

Width: 165 mm

Height: 170 mm

Total Height: 170 mm

Weight: 5.75 kg



2. TERMINAL CONFIGURATION (M6)

Terminals: Ensure your system's connectors match the M6 type to prevent electrical arcing.

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

3. CHARGE PARAMETERS

Cycle use: 14.6±0.2V

Maximum Current: Do not exceed 40 A of charge.

4. SAFETY AND STORAGE

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

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

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

NEARBY MODELS

RLS12-33 (12.8 V · 33 Ah) · **RLS12-55** (12.8 V · 55 Ah) · [See all RLS series models](#)

Specialized Technical Support
<https://rekoser.com> | +34 958 04 29 73