

The energy tank. 20+ years of proven service life.

The ROS2-500 is a 2 V, 500 Ah (10-hour rate) OPzS lead-acid battery from the Rekoser OPzS (Flooded) series. It measures 166 × 206 × 470 mm and weighs 26 kg, with F10 terminals. It stores 1 kWh and delivers up to 2500 A. The energy tank. 20+ years of proven service life. Typical applications: Solar/Wind Energy Systems, Electrical Substations, Telecommunications and Base Stations and Railway Signaling and Infrastructure.

Formerly **RKS2-500**.

Nominal Voltage	2 V
Capacity (25°C)	500 Ah (C10)
Energy	1000 Wh
Weight	26 kg
Terminal	F10
Dimensions	166 × 206 × 470 mm

MAIN ADVANTAGES

- ✓ **Technology:** Vented tubular plates with liquid electrolyte
- ✓ **Maintenance:** Periodic topping up with distilled water required
- ✓ **Durability:** Over 20 years proven design life at 20°C
- ✓ **Control:** Transparent container for easy electrolyte level monitoring

20
YEARS

LONG LIFE DESIGN

* EUROBAT CLASSIFICATION: >12 Years (Very Long Life).

2
YEARS

WARRANTY

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

MAIN APPLICATIONS



SOLAR/WIND ENERGY SYSTEMS



ELECTRICAL SUBSTATIONS



TELECOMMUNICATIONS AND BASE STATIONS



RAILWAY SIGNALING AND INFRASTRUCTURE



MARITIME



UPS AND DATA CENTERS

QUALITY STANDARDS

CE CERTIFIED

ISO 9001 / 14001

IEC 60896-21/22

YD/T1360

BS6290 part 4

DIN40742

GRAPHICS (25°C)

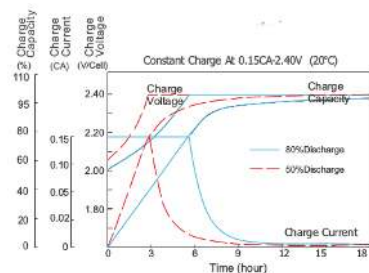
Constant Discharge Ratings (A) at 25°C

F.V / Time	30MIN	1HR	3HR	5HR	10HR	20HR
1.85 V	346A	240A	116A	82.6A	47.6A	25.8A
1.80 V	365A	256A	124A	87.6A	50A	27A
1.75 V	380A	262A	128A	90A	50.4A	27.2A
1.70 V	391A	271A	130A	91A	50.6A	27.4A

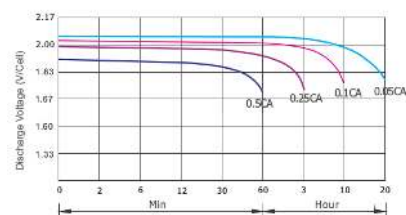
Constant Discharge Ratings (W) at 25°C

F.V / Time	30MIN	1HR	3HR	5HR	10HR	20HR
1.85 V	638W	450W	226W	160W	92.6W	50W
1.80 V	686W	485W	241W	172W	99.4W	54W
1.75 V	710W	500W	250W	177W	99.8W	54.6W
1.70 V	730W	510W	253W	180W	101W	54.7W

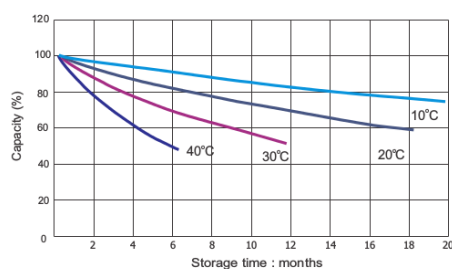
CHARGE CHARACTERISTICS



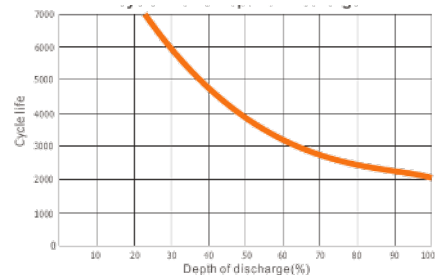
DISCHARGE CHARACTERISTIC 25°C



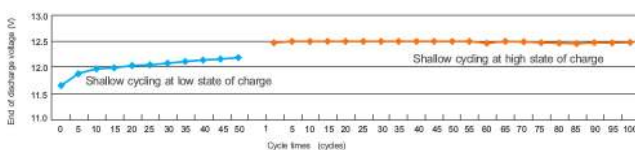
SELF DISCHARGE CHARACTERISTICS



FLOAT VOLTAGE VS FLOAT LIFE



CYCLE DISCHARGE VOLTAGE CURVE (Test standard BS EN 61427:2005)



SPECIFICATIONS

Nominal Voltage	2 V
Capacity (25°C)	500 Ah (C10)
Energy	1000 Wh
Cell number	1
Charge Voltage (25°C)	Cycle use: 2.35-2.40V (-5mV/°C/cell) Float use: 2.21-2.25V (-3mV/°C/cell)
Max. Charge Current	100 A
Max. Discharge Current	2500 A
Internal Resistance	0.35 mΩ
Self Discharge	3 % of capacity per month at 20 °C
Capacity Affected by Temperature	40 °C: 102 %, 25 °C: 100 %, 0 °C: 85 %, -15 °C: 65 %

CONSTRUCTION

Component	Material
Container	SAN
Cover	ABS (Flame Retardant Optional)
Electrolyte	Sulphuric acid
Negative	Lead
Positive	Lead dioxide
Safety Valve	Rubber
Sealant	Epoxy Resin
Separator	Fibre Glass
Terminal	Copper

QUICK INSTALLATION GUIDE

To ensure optimal performance and maximize the lifespan of your **REKOSER ROS2-500** 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:

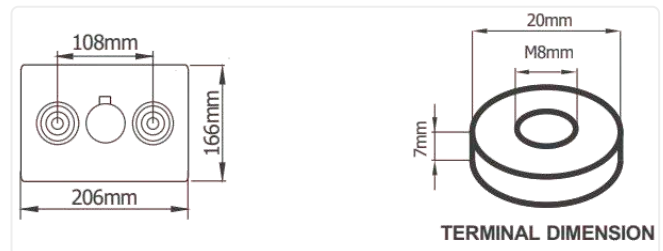
Length: 166 mm

Width: 206 mm

Height: 470 mm

Total Height: 525 mm

Weight: 26 kg



2. TERMINAL CONFIGURATION (F10)

Terminals: Ensure your system's connectors match the F10 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: 2.35-2.40V (-5mV/°C/cell)

Float use: 2.21-2.25V (-3mV/°C/cell)

Maximum Current: Do not exceed 100 A of charge.

4. SAFETY AND STORAGE

Maintenance: Check the electrolyte level and top up only with distilled or demineralised water.

Position: Always upright.

Ventilation: Install in a ventilated room: hydrogen is released during charging.

Storage: Store charged, in a cool and dry place, and recharge periodically.

NEARBY MODELS

ROS2-420 (2 V · 420 Ah) · **ROS2-600** (2 V · 600 Ah) · [See all ROS series models](#)

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