

Deep cycling with full recovery from deep discharge.

The RDG12-50 is a 12 V, 50 Ah (10-hour rate) GEL Deep Cycle lead-acid battery from the Rekoser Deep Gel series. It measures 229 × 138 × 208 mm and weighs 15.5 kg, with F11 terminals. It stores 600 Wh and delivers up to 500 A. Deep cycling with full recovery from deep discharge. Typical applications: Solar/Wind Energy Systems, Electrical Substations, Telecommunications and Base Stations and UPS and Data Centers.

Formerly **RKG12-50**.

Nominal Voltage	12 V
Capacity (25°C)	50 Ah (C10)
Energy	600 Wh
Weight	15.5 kg
Terminal	F11
Dimensions	229 × 138 × 208 mm

MAIN ADVANTAGES

- ✓ **Recovery:** Superior performance after deep discharges
- ✓ **Stable:** Low electrolyte stratification
- ✓ **Longevity:** Excellent cycle life in harsh conditions
- ✓ **Gel Tech:** Thixotropic gel electrolyte

12
YEARS

LONG LIFE DESIGN

* EUROBAT CLASSIFICATION: 10-12 Years (High Performance).

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



UPS AND DATA CENTERS

QUALITY STANDARDS

CE CERTIFIED

ISO 9001 / 14001

IEC61427

IEC 60896-21/22

YD/T1360

BS6290 part 4

GRAPHICS (25°C)

Constant Discharge Ratings (A) at 25°C

F.V / Time	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
11.10 V	86.5A	77.5A	70.6A	49.6A	32A	14.2A	9.53A	5.36A	2.82A
10.80 V	101A	86.1A	77.5A	52.6A	33.5A	14.7A	9.76A	5.5A	2.89A
10.50 V	114A	94.7A	83.1A	55A	34.6A	15A	10A	5.61A	2.94A
10.20 V	131A	102A	89.5A	57A	35.4A	15.2A	10.1A	5.69A	3A
10.02 V	147A	112A	94.7A	59.2A	36.2A	15.4A	10.2A	5.76A	3.07A
9.60 V	165A	122A	101A	61.9A	37.2A	15.6A	10.4A	5.83A	3.14A

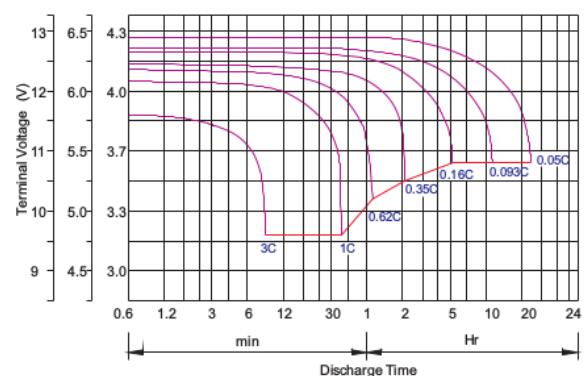
Constant Discharge Ratings (W) at 25°C

F.V / Time	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
11.10 V	163W	147W	135W	95.5W	62.2W	27.9W	18.8W	10.7W	5.67W
10.80 V	187W	162W	147W	100W	64.3W	28.6W	19.2W	10.9W	5.77W
10.50 V	209W	176W	156W	104W	65.9W	28.9W	19.4W	11W	5.83W
10.20 V	237W	187W	166W	107W	66.8W	29.1W	19.5W	11.1W	5.91W
10.02 V	263W	204W	174W	110W	67.9W	29.3W	19.6W	11.2W	6W
9.60 V	291W	219W	183W	114W	69.3W	29.4W	19.7W	11.3W	6.1W

CHARGE CHARACTERISTICS



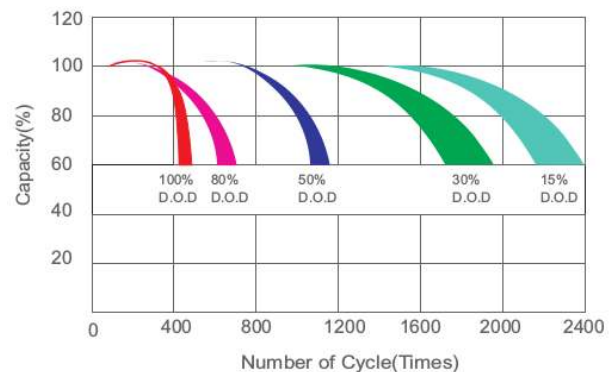
DISCHARGE CHARACTERISTIC 25oC



SELF DISCHARGE CHARACTERISTICS



LIFE CHARACTERISTIC OF CYCLIC USE



SPECIFICATIONS

Nominal Voltage	12 V
Capacity (25°C)	50 Ah (C10)
Energy	600 Wh
Cell number	6
Charge Voltage (25°C)	Cycle use: 14.6-14.8V (-30mV/C), max. Current 2.1A Float use: 13.6-13.8V (-20mV/C)
Max. Charge Current	12.5 A
Max. Discharge Current	500 A
Internal Resistance	25 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	ABS (Flame Retardant Optional)
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 RDG12-50** 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: 229 mm

Width: 138 mm

Height: 208 mm

Total Height: 212 mm

Weight: 15.5 kg

2. TERMINAL CONFIGURATION (F11)

Terminals: Ensure your system's connectors match the F11 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: 14.6-14.8V (-30mV/C), max. Current 2.1A

Float use: 13.6-13.8V (-20mV/C)

Maximum Current: Do not exceed 12.5 A of charge.

4. SAFETY AND STORAGE

Maintenance: Sealed gel battery, maintenance-free and leak-proof.

Charging: Keep to the stated charge voltage: gel is sensitive to overcharging.

Cycling: Recharge fully after every discharge; never leave it discharged.

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

NEARBY MODELS

RDG12-40 (12 V · 40 Ah) · **RDG12-55** (12 V · 55 Ah) · [See all RDG series models](#)

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