

## RCL4830

# Battery Discharger & Capacity Tester



- For 48V/24V DC battery groups discharge test
- 5.7 inch LCD touch screen for easy operation and showing various parameters real time
- 4 adjustable stop points and multiple alarm designs to control the discharge process intelligently
- Support RS232 real time monitoring by PC or USB download data after discharge
- PC software for capacity evaluation and report generation
- Optional wireless modules for 1.2V/2V/6V/12V cells voltage real-time measuring

### OVERVIEW

48 Volt is one of most popular voltage level for batteries applications.

#### TELECOMMUNICATION:

The 48V battery groups are most common back-up energy option for telecommunication DC power system. For important telecom devices, the performance of battery groups is crucial. Because when a power outage happens, battery groups are the only power supply for keeping DC power system operating uninterruptedly. Obviously, the periodical discharge test is essential for checking the ability of batteries in use.

#### FORKLIFT & GOLF CART

For electric forklift & golf cart, 48V battery groups are also the common main power source. Although daily continuing working can show the actual battery capacity, the constant current dischargers are still indispensable for battery regenerating process.

#### POWER PLANT & OIL COMPANY

For the efficient communication of remote controlling and monitoring system in energy

companies, 48V battery groups are still play a key role in standby power supply. The regular discharge test is necessary for improve the stability of the communication network.

### FEATURES

#### Adjustable Current

RCL4830 can provide 0-300A (steps: 1A) adjustable current for different test requests. During the test, the current will keep constant

#### RCL4830

Battery Nominal Voltage	Max Discharge Current
48 V	300 A
24 V	150 A

#### Multiple Adjustable Stop Points

RCL4830 offers 4 adjustable points for test stop points to avoid excessive discharge:



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Stop Point	Setting Range
Group Low Voltage	0 - 60.0 V
Discharge Time	0 - 99 Hour 99 Min
Discharge Capacity	0 - 9999 AH
Cell Low Voltage	0 - 15.00 V

### Multiple power supply

RCL4830 can support DC or AC power supply. Even the power outage happens during the test, the discharger still can keep working.

Power supply	Voltage
DC supply from the tested batteries	20 - 60.0 V DC
AC supply from external source	220 V AC (-20% to +30%)

### 5.7 inch Touch LCD Display

Super big size touch LCD can display all real time data and graphs and support the click operations directly, humanized input method and menu designs simplified operating process.



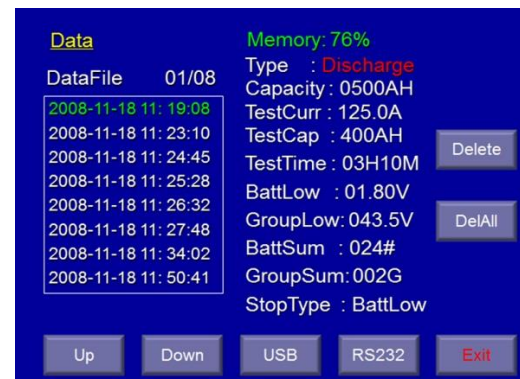
### Presetting Function

The presetting function for discharge parameters provide 8 locations for setting up all discharge parameters in advance, this design can skip the setting procedures for the same discharging, simplified the operation and speed up the test.



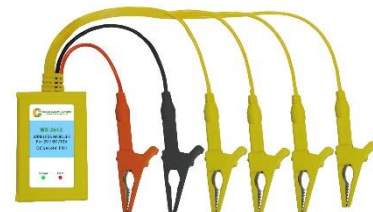
### Internal Memory

- RCL4830 can save several independent discharge records automatically without Laptop monitoring, non-volatile internal memory guarantee the data security even in unexpected shutdown.
- The menu interface provides some management operations like reviewing, deleting, downloading to PC by USB disk or RS232.



### Optional wireless cells voltage monitoring

- Wireless modules for cells voltage measuring are available for 1.2V/2V/6V/12V batteries voltage monitoring during discharge test.

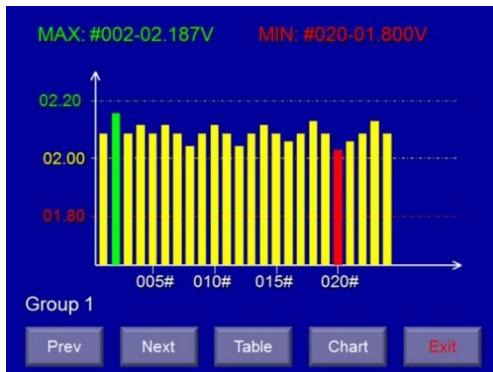


- Each wireless module can monitor 4 batteries simultaneously. Compared with the



traditional cable voltage measuring method that each module only can monitor 1 battery, the new wiring operation is much easier.

- With proper number wireless modules, main tester can real time scan and display the voltage data of each battery during the discharging, and display the histogram of all batteries to follow the battery voltage tracks in whole discharging process.



- Intelligent judge program: RCL4830 can identify the situations that the battery voltages reach the threshold value or the signal missing by manual mistake. Avoiding manual interruption in the discharging, this revolutionary program makes the test stable and smooth.
- RCL4830 also supports cable modules for special requirements.

### Multiple Protections & Alarms

Malfunctions	LCD prompt	beep warning
Input over-voltage	✓	✓
Reverse polarity	✓	✓
Overload	✓	✓
Overheat	✓	✓

RCL4830 provides ample protective measures for various abnormal situations during discharge. Automatic termination, LCD prompt and beep warning would assist users to make proper treatments.

### Extendable & Compatible

Connecting with clamp current, RCL4830 cooperate other types in RCL CT series or any other load units, and clamp current can count external current in.

### PC ANALYSIS SOFTWARE

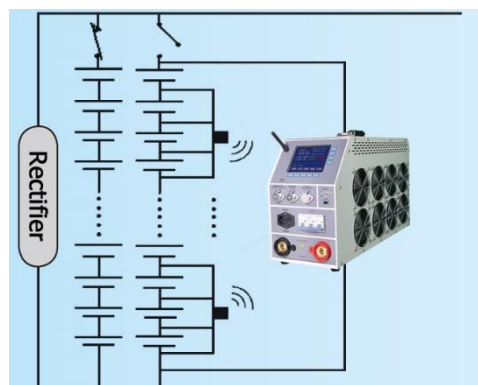
- Support data downloading and analyzing through real time communication or USB memory devices
- The software interface includes: battery voltages curve and bar chart, battery resistances bar chart, group voltage curve, current curve, capacities histogram, data form and so on.



- Powerful capacity estimating function, the software can predict the capacity of each battery in the tested group.
- The software shows the data by various ways like bar charts, curve, and form. And users can magnify or minify any windows to read more details.
- Automatically create EXCEL data report, it's so convenient to send or download the data.

### TYPICAL APPLICATIONS

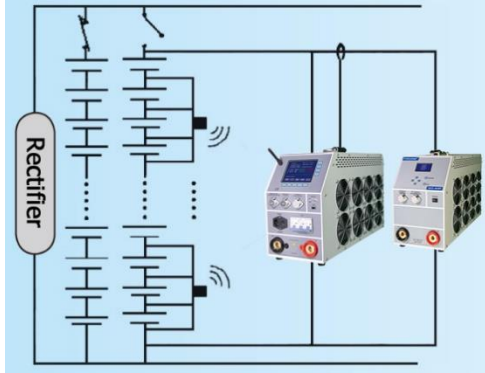
#### Single unit for 1 battery group



#### Parallel co-work for 1 battery group



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## SPECIFICATIONS

### Discharge Ranges

Voltage range	current range
40-60V	0-300 A
20-40V	0-150 A

### Current measurement

Internal current range	0-300 A
Accuracy & resolution	$\leq \pm 0.5\%$ , 0.1 A
External current range	0-600 A (optional current clamp)
Accuracy & resolution	$\leq \pm 1\%$ , 0.1 A

### Voltage measurement

Group voltage range	20-60 V
Accuracy & resolution	$\leq \pm 0.5\%$ , 0.1 V
Cell voltage range	0-15V
Accuracy & resolution	$\leq \pm 0.5\%$ , 0.01 V

### DC Power Supply

Power supply voltage	20-60V
Power consumption	250W(max)

### AC Power Supply

Power supply voltage	220 V AC (-20% to +30%)
Frequency	50/60 Hz
Power consumption	250W(max)

### Communication & Storage

Communicate port	USB/RS232
Internal memory	8Mbit Flash

### CE Certificate

LVD standards	2006/95/EC: EN 61010-1:200
EMC standards	2004/108/EC Annex II: EN 61000-6-1:2007 EN 61000-6-3:2007 EN 61000-3-2:2006+A2:2009 EN 61000-3-3:2008

### Environment

Operation temperature	-5 to 50° C
Storage temperature	-40 to 70° C
Humidity	5% - 95% RH
Altitude	below 4000 m
Working noise	<60 dB

### Dimensions & Weight

Main tester	628 x 223 x 372 mm
Carrying case	700 x 620 x 280 mm
Weight	18 kg (main tester only) 45 kg (included all accessories and carrying case) 0.3 kg (each optional wireless module)

### Accessories

Carry case	1 x 700 x 620 x 280 mm, 15 kg
Power cable	2 x 3 m cables 120 mm <sup>2</sup>
AC power cord	1 x 3 wires x 1 mm <sup>2</sup>
Software	1 x CD-ROM
RS232 wire	1
User manual	1
USB disk	1 x 8GB
Current clamp	1 x 200A or 600A (Optional)

### Ordering Information

Type	Description
RCL4830	Battery discharge & capacity tester
RCL AS	PC analysis software
RCL 200CC	200A current clamp
RCL 600CC	600A current clamp
WX-2612	Wireless module for 2V/6V/12V
WX-12612	Wireless module for 1.2V/2V/6V/12V
YX-12612	cable module for 1.2V/2V/6V/12V