

IDCE-840CT

Battery Discharger & Capacity Tester



- Wide voltage range battery discharger: 10 V to 300 V
- 7 inch LCD touch screen for easy operation and showing various parameters real time
- Selectable discharge mode: constant current / power / resistance
- 4 adjustable stop points and multiple alarm designs to control the discharge process intelligently
- Support RS485 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

Although battery resistance testing methods are improving and very popular, battery discharge test still is the most accurate and reliable method for actual capacity evaluation of battery groups. Because only constant current discharge can perfectly simulate the working status under loading for batteries, power supply departments in many companies and utilities keep the periodic discharge testing in their maintenance management.

Because the DC power systems in various industrial utilities are using different voltage level battery groups (24V, 48V, 110V, 120V, 220V, 240V etc.), and most of the professional users hope to find an unattended and automatic instrument to simplify discharge process, the battery discharge tester with intelligent designs and super voltage variability for almost all battery types would be preferable.

FEATURES

Wide Range

IDCE-840CT can support 10-300V battery groups, the application of IDCE-840CT includes:

Battery Nominal Voltage	Max Discharge Current
240 V / 220 V	60 A
120 V / 110 V	120 A
96 V	120 A
48 V	120 A
24 V	120 A
12 V	60 A

Multiple Adjustable Stop Points

IDCE-840CT offers 4 adjustable points for test stop points to avoid excessive discharge:

Stop Point	Setting Range
Group Low Voltage	0 - 250.0 V
Discharge Time	0 - 99 Hour 99 Min
Discharge Capacity	0 - 9999 AH
Cell Low Voltage	0 - 15.00 V

IDCE-840CT also offers selectable quantity of cells which voltages below the stop point, this design could help you to locate more lag batteries in once constant discharging.

Selectable Discharge Modes

IDCE-840CT provides 3 discharge modes for different test requirements:

Discharge Mode	Range
Constant Current	0 - 120 A
Constant Power	0 - 14 Kw
Constant resistance	0.16Ω - ∞

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 multiple 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

- IDCE-840CT 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 RS485.



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: IDCE-840CT 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.
- IDCE-840CT also supports wired modules for special requirements.

Multiple Protections & Alarms

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

IDCE-840CT 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, IDCE-840CT cooperate other types in IDCE-NT 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,

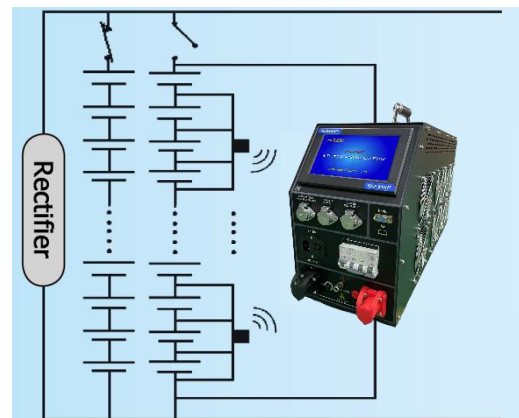
battery resistances bar chart, group voltage curve, current curve, capacities histogram, data form and so on.



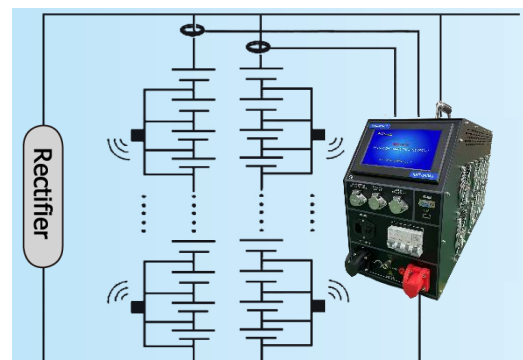
- Powerful capacity estimating function, the software can predict the capacity of each battery in the tested group.
- The software shows the data by various ways like bar charts, curve, and form. And users can magnify or minify any windows to read more details.
- Automatically create EXCEL data report,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

TYPICAL APPLICATIONS

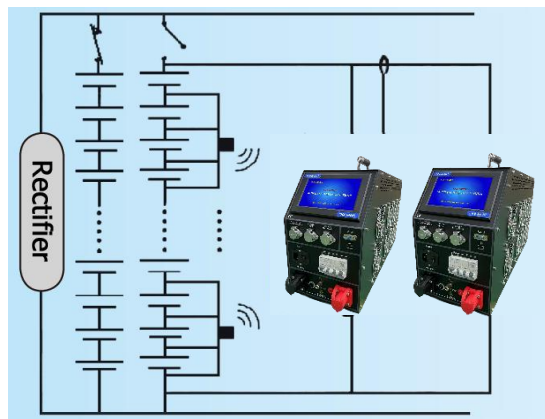
Single unit for 1 battery group



Single unit for 2 battery groups



Parallel co-work for 1 battery group



SPECIFICATIONS

Discharge Ranges

Voltage range	current range
8-15V	0-60 A
18-30V	0-120 A
40-60V	0-120 A
70-140V	0-120 A
140-280V	0-60 A

Current measurement

Internal current range	0-120 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	10-300 V
Accuracy & resolution	$\leq \pm 0.5\%$, 0.1 V
Cell voltage range	0-15V
Accuracy & resolution	$\leq \pm 0.5\%$, 0.01 V

Power Supply

Power supply voltage	110V/220 V AC (-20% to +30%)
Frequency	50/60 Hz
Power consumption	350W(max)

Communication & Storage

Communicate port	USB/RS485
Internal memory	3GB Flash

CE Certificate

LVD standards	2014/35/EU EN 61010-1:2010, EN 61010-2-030:2010
EMC standards	2014/30/EU EN 61326-1:2013 EN 61000-3-2:2014 EN 61000-3-3:2013

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	230 x 370 x 670 mm
Carrying case	370 x 600 x 800 mm
Weight	24 kg (main tester only) 46 kg (included all accessories and carrying case) 0.3 kg (each optional wireless module)

Accessories

Carry case	1 x 370 x 600 x 800 mm, 15kg
Power cable	2 x 3 m cables 50 mm ²
AC power cord	1 x 3 wires x 1 mm ²
Software	1
RS485 wire	1
User manual	1
USB disk	1 x 8GB
Current clamp	1 x 200A or 600A (Optional)

Ordering Information

Type	Description
IDCE-840CT	Battery discharge & capacity tester
IDCE-AS	PC analysis software
IDCE-200CC	200A current clamp
IDCE-600CC	600A current clamp
WX-2612	Wireless module for 2V/6V/12V
WX-12612	Wireless module for 1.2V/2V
YX-12612	cable module for 1.2V/2V/6V/12V