Constant Current Battery Discharger

- Wide voltage range: 0 ~ 1020 VDC
- Discharge Power: Up to 200 kW
- Wide range discharge current at input voltages
- SOC and SOH estimation
- Real-time monitoring on LCD
- Data Logging and Data monitoring on PC
- Enables testing batteries while in service
- USB, RS232 or Ethernet communication with PC

Product overview

Discharge testing is the only verifiable method to determine the capacity and remained age of industrial batteries.
PAARSUN's CCBD series Constant Current DC Load Banks are designed for discharge testing, battery capacity testing, battery maintenance, battery state of charge (SOC) and state of health (SOH) estimation and other testing of DC systems. The portable constant current CCBD series load banks are, economic, reliable and user-friendly. CCBD series includes over (30) standard models with operating range of 0 – 1020 V and 1 – 2000 A. The intelligent closed loop-controlled technology allows a constant current discharging without the need for any adjustments during the test.

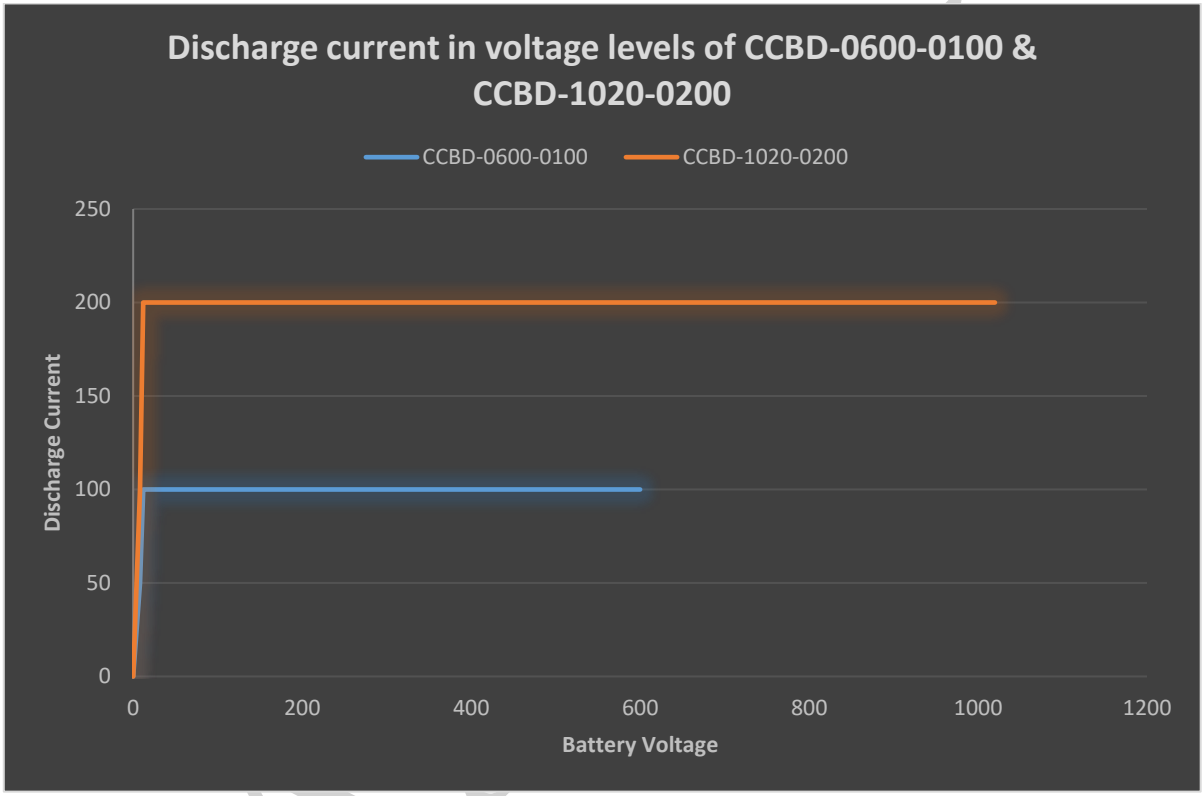
The CCBD Series are essential in a variety of industries including power utilities, telecommunications, UPS, electrical forklifts and vehicles, transportation and more.

This universal equipment is applicable to any battery string (lead-acid, lithium-ion, nickel-cadmium and others) with voltages up to 1020V DC. CCBD Series simplifies battery testing in multiple ways.

This equipment provides monitoring of discharge parameters (graphical and numerical) on LCD display. Parameters such as battery voltage, capacity, test current / power / resistance and elapsed time can be monitored in real time. In addition, the equipment enables measurement and monitoring of cell parameters (voltage, intercell voltage and temperature) with optional data logging system, which makes it a complete stand-alone discharge test system. Besides the capacity test, CCBD Series can be used to completely and efficiently discharge a battery down to approximately zero Voltage. Such total discharge is applied to Li cells at the end of their lifetime, as the initial step of the recycling process.

This full range constant current battery discharger & analyzer is designed to discharge batteries with the precisely adjustable closed-loop controlled current.

Tests can be conducted at constant current, constant power, constant resistance or in accordance with a pre-selected load profile. The test results can be presented and plotted on a PC using the optional PC software “CCBD-Mon”.



Constant discharge current profiles of CCBD-0600-0100 & CCBD-1020-0200 in voltage full range

Model Selection Guide:

No.	Code	Maximum Bat. Voltage (V)	Maximum Discharge Current (A)
1	CCBD-0024-0100	24	100
2	CCBD-0024-0200	24	200
3	CCBD-0024-0300	24	300
4	CCBD-0024-0400	24	400
5	CCBD-0024-0600	24	600
6	CCBD-0048-0100	48	100
7	CCBD-0048-0200	48	200
8	CCBD-0048-0300	48	300
9	CCBD-0048-0400	48	400
10	CCBD-0048-0600	48	600
11	CCBD-0048-0800	48	800
12	CCBD-0048-1000	48	1000
13	CCBD-0048-2000	48	2000
14	CCBD-0125-0100	125	100
15	CCBD-0125-0200	125	200
16	CCBD-0125-0300	125	300
17	CCBD-0125-0400	125	400
18	CCBD-0125-0600	125	600
19	CCBD-0240-0100	240	100
20	CCBD-0240-0300	240	300
21	CCBD-0240-0400	240	400
22	CCBD-0240-0500	240	500
23	CCBD-0600-0050	600	50
24	CCBD-0600-0100	600	100
25	CCBD-0600-0150	600	150
26	CCBD-0600-0200	600	200
27	CCBD-1020-0050	1020	50
28	CCBD-1020-0100	1020	100
29	CCBD-1020-0150	1020	150
30	CCBD-1020-0200	1020	200

Technical Specifications

• Wide Input Voltage Range: 0 ~ 1020 DC Volts

• Wide Discharge Current Range: 1~2000 A

• Current Ripple: ±0.5 A

• Maximum Discharge Power: 200 kW

• Maximum Discharge Capacity: 100000 Ah

• Axillary Power: AC 180~240 Volts, 50~60 Hz

•AutoTermination Conditions (Selectable): Discharge Time, Discharge capacity, Cutoff Voltage (See figure)

• Display: Alphanumeric or Graphic LCD (Optional)

• Communication Port(Optional): USB, RS232, Ethernet

• GUI and Logger Software (Optional): Visual Windows Based Software "CCBD-Mon".

• Full Input Disconnection By 2 Pole MCB

• Emergency Stop Button

• Sensors: Current Sensor, Voltage Sensor, Over Temperature Sensor, Fan Fault Sensor

• Operating Temperature: 0~40 °C (32°F ~ +104°F)

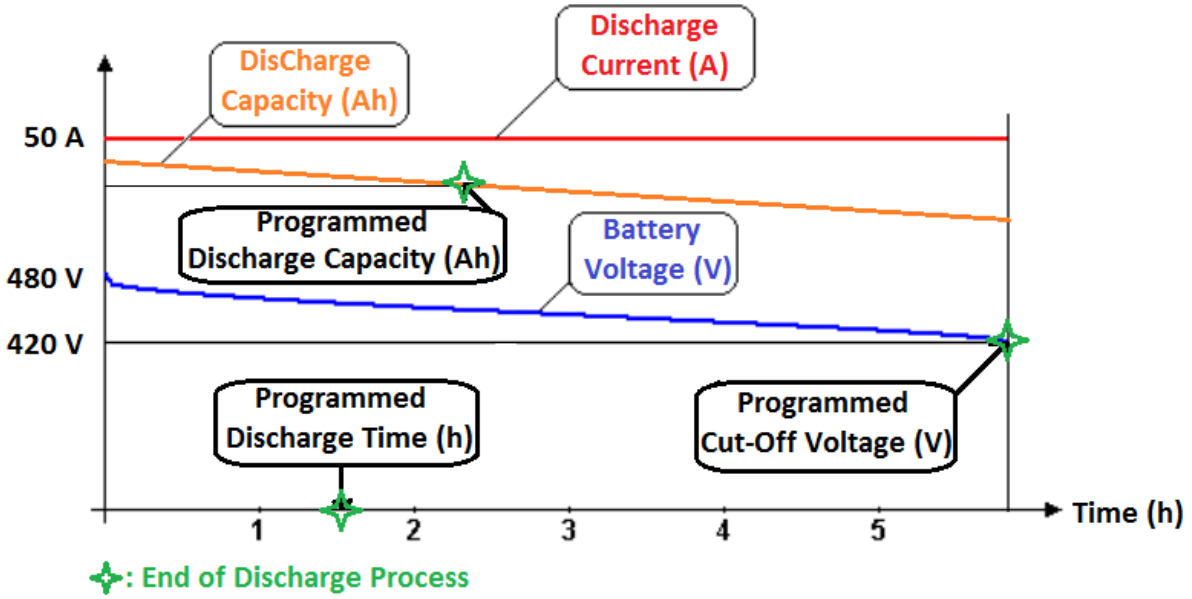
• Storage Temperature: -40~70 °C (-40°F ~ +158°F)

• Humidity: 5% – 95% RH, non-Condensing

• Case: Galvanized Steel with Electrostatic Powder Coating

• Ingress Protection: IP20

• Cooling: Forced, Air Cooled



Termination Conditions (Discharge Time, Discharge capacity, Cutoff Voltage)

Accessories:

Battery Connection Cables	User Manual
	
CCBD/CCBC-Mon Software (Optional)	**Remote Panel(Up t0 10m Optional)**
	
CCBD/CCBC-DataLog and Wires (Optional)	**Graphic LCD & Touch (7” Optional)**
	

Optional Data Logger

Each CCBD/CCBC Data Logger (CCBD/CCBC-DataLog) is recording voltages of up to 12 cells. Multi CCBD/CCBC-DataLog instruments can be networked in daisy-chain manner and wired to PC for monitoring purposes. It is capable to measure all type of batteries (1.2V, 2V, 6V & 12V). PAARSUN also offers customized Data logger for other battery types. Probe numbers are easily expandable to cover more battery volumes.

With CCBD/CCBC-DataLog and CCBD-Mon PC software one will be able to monitor and record voltage of each cell together with other parameters like string voltage, current, discharge capacity and so on.

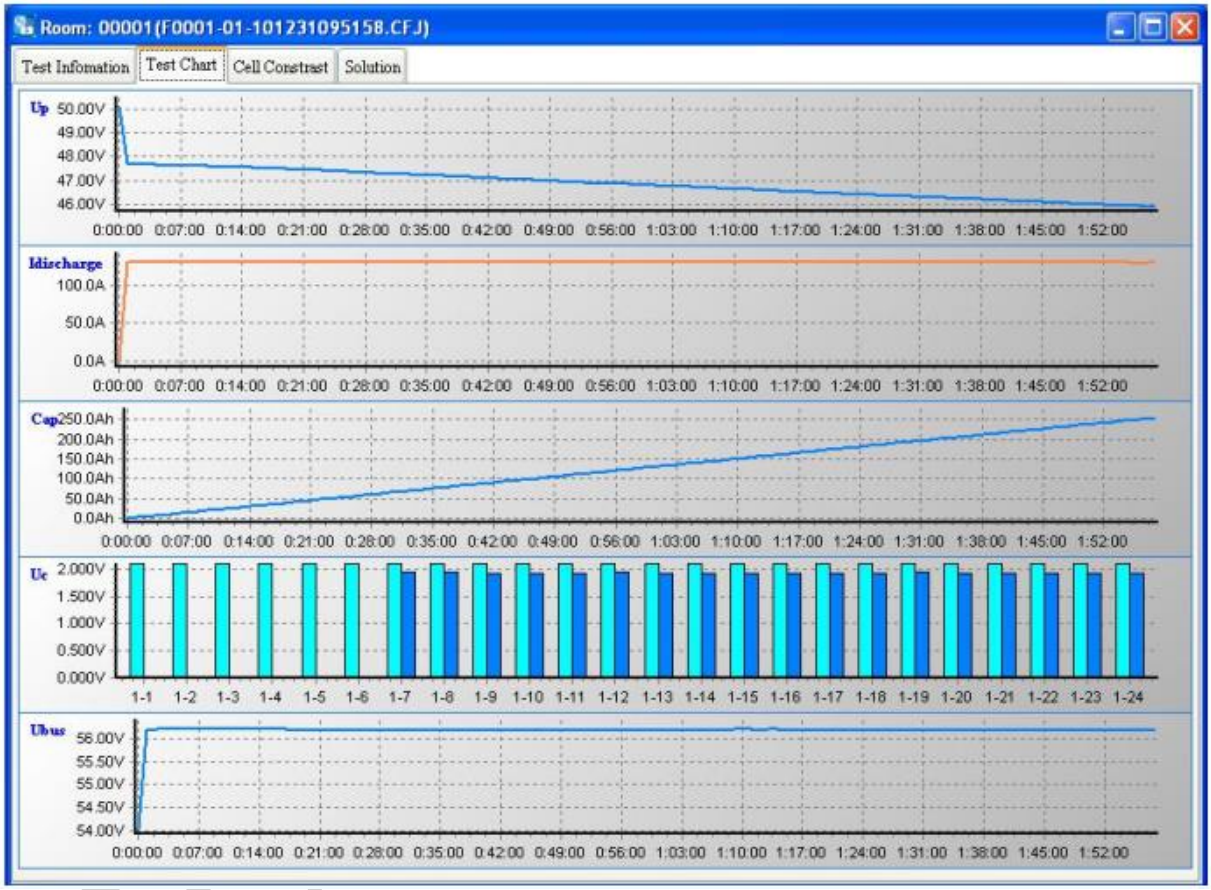
Cells connections wires

CCBD/CCBC-DataLog

Discharging test & Monitoring on PC

Optional CCBD/CCBC Monitoring Software

PAARSUN CCBD and CCBC equipment can be monitored efficiently by a graphic user interface (GUI) Windows based software, called CCBD-Mon or CCBC-Mon. These instruments can be used for online monitoring of discharging and charging parameters and logging them in a personal computer. PAARSUN CCBD and CCBC equipment could be connect by these softwares through standard communication Ports such as USB, RS232, and Ethernet.



software results of monitoring on PC