Kewell

EBD/EBDH Series

Battery Pack Charge-discharge Test Power Supply

- Support customized test conditions by editable work steps
- Support work condition simulation test based on data import
- Support DBC file import & communication with all sorts of BMS
- DC internal resistance test
- Data processing & analytics
- Support extended device integration, control, & display

Summary

Based on the field of power electronics, EBD/EBDH Series Battery Pack Charge-discharge Test Power Supply is a bidirectional DC source integrating software simulation algorithm, measurement, and control technologies. High voltage and current control precision. Low ripple output. Fast current response. Can be used to test battery pack on charge-discharge performance, providing a versatile evaluation result including capacity, DC internal resistance, cycle life test, and battery temperature etc. Vastly applied by battery companies, OEMs, and labs of research institutes etc.

Advantages

Wide voltage & current output

High precision & resolution

High dynamic response in 2-4ms

Multi-filter solution. Current ripple≤0.2%·FS

Available with ripple overlaying function (optional)

Support energy recovery to the grid at full power range. Power factor≥0.99

Standard communication interfaces including RS485, CAN, & LAN

HEFEI KEWELL POWER SYSTEM CO., Ltd.

China Headquarter Taiwan Branch Korea Branch Germany Branch sales2@kewell.com.cn

We are constantly searching for international business partners! Visit our web: www.kewelltest.com

Specifications & Parameters

Model*	Rated Power[kW]	Rated Current[A]	Rated Voltage[V]	Voltage Range[V]*
EBD-80-1000-300	80	300	266	24-1000
EBD-100-1000-350	100	350	285	24-1000
EBD-150-1000-500	150	500	300	24-1000
EBD-200-1000-600	200	600	333	24-1000
EBD-250-1000-600	250	600	416	24-1000
EBD-300-1000-750	300	750	400	24-1000
EBD-400-1000-1000	400	1000	400	24-1000
EBD-500-1000-1200	500	1200	416	24-1000

NOTE: *Each power level is available with standard machines at 800V and 1200V. In addition, standard machines of dual-channel and high voltage platform at 1500V and 2000V are available as well.;
*Specifications of EBDH Series including voltage, current, and power levels are identical with EBD.

Input Requirements		
Phase	3φ3W+PE	
Voltage	380V±15%	
Frequency	50Hz±5Hz	
Output Characteristics		
Voltage Precision	±(0.1%·FS+5dgt) (EBD Series)	±(0.05%·FS+5dgt) (EBDH Series)
Current Precision	±(0.1%·FS+5dgt) (EBD Series)	±(0.05%·FS+5dgt) (EBDH Series)
Response Time	≤10ms (0%-90%) (EBD Series)	≤2ms (0%-90%) (EBDH Series)
Switching Time	≤20ms (-90%-90%) (EBD Series)	≤4ms (-90%-90%) (EBDH Series)
Sampling Frequency	10ms	
Current Ripple (rms)	≤0.2%·FS	
Load Regulation	0.1%·FS	
Voltage Resolution	0.001V	
Current Resolution	0.001A	
Power Resolution	0.001kW	
Protection		
Protection	OVP/OCP/OTP/Phase Loss/ Emergency Stop etc.	

*1 For those of rated power lower than 40kW, the iTHD: ≤5%
*2 Remote control and operation over the equipment is possible with upper computer software; Integration of water-cooling system and environmental chamber is possible as well.
*3 The withstand voltage listed above applies to 800V/1000V/1200V products only;
For those of 1500V, the withstand voltage is designed according to 3200Vdc;
For those of 2000V, the withstand voltage is designed according to 3700Vdc.
*4. The protection level and ambient temperature listed above can be customized.

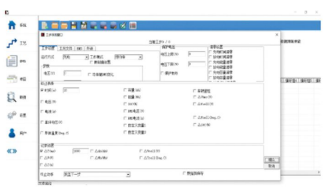
Feedback Characteristics	
Energy Recovery	Support energy recovery in full power range
iTHD*1	≤3%
Power Factor	≥0.99
Communication Interfaces & Control Program	
Local Interface	LCD
Remote Comms*2	RS485/LAN/CAN
Others	External Emergency Stop/Fault Signal/ Voltage Compensation
Work Steps	≤9999
Cycle Index	≤9999
Loop Nesting	≤10 layers

NOTE: *Remote control and operation over the equipment is possible with upper computer software.
*Integration of water-cooling system and environmental chamber is possible.

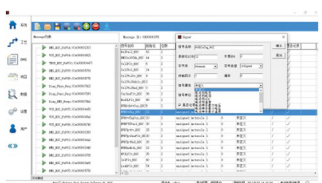
Safety & Ambient Conditions	
Insulation Resistance	≥20MΩ (500Vdc)
Voltage Withstand*3	3000Vdc (60s/no arcing/break down)
Ground Resistance	≤0.1Ω
Protection Level*4	IP21 (Indoor)
Cooling	Fan Cooling
Ambient Temperature*4	-10 ~ 40℃
Relative Humidity	0-90%RH (Non-condensing at 25℃)
Altitude	≤2000m

Software Interfaces

Support work step edition, DBC file import, data recording, processing, and analytics.



Work Step Configuration



DBC File Import