TAKASAGO
an Anritsu company

Battery Pack Test System

Product Name : RBT-2

High Power Battery Cycler Test System
for secondary batteries

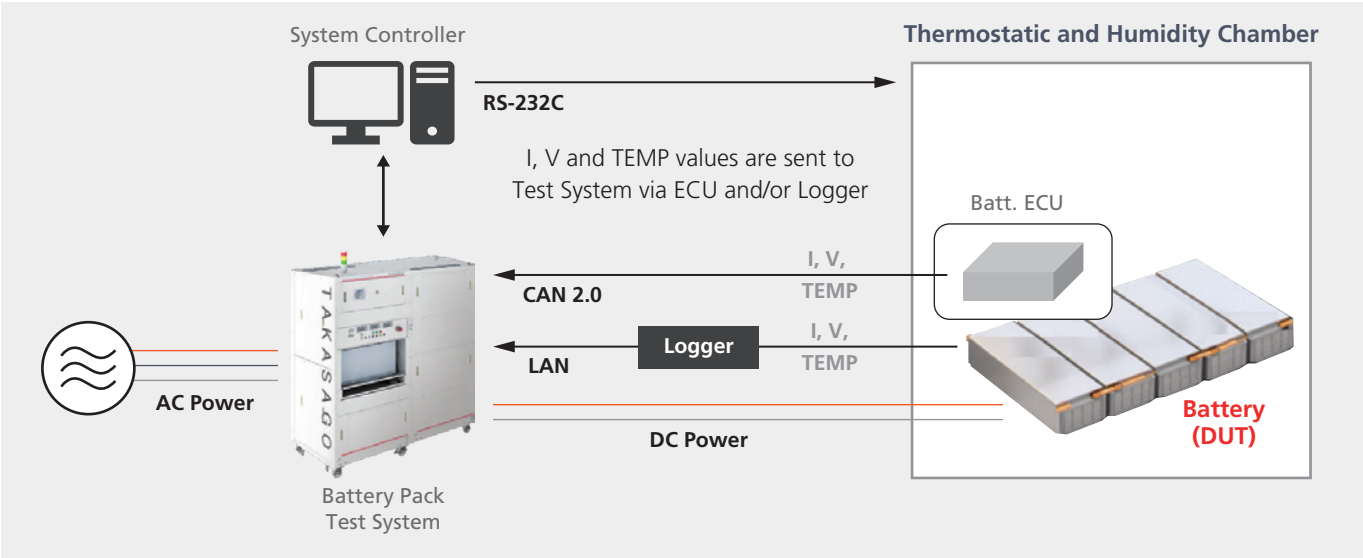
Eight configurations, covering a power range from 100kW to 400kW

Empowering Your eMobility Testing in a Realistic Vehicle Environment

RBT-2 provide high-precision voltage and current control, fast current response, and seamless switching between charging and discharging.

Use Case

Test System supports testing under realistic driving conditions, with its standard software and several control modes such as CC, CV and CP, as well as pulse charge/discharge.



Specifications

Variable voltage and current anywhere within the 400kW power envelope.

650V model
Rated output voltage : Max. ± 650V
Rated output current : Max. ± 1,200A
Rated output power : Max. ± 400kW

1000V model
Rated output voltage : Max. ± 1,000V
Rated output current : Max. ± 600A
Rated output power : Max. ± 400kW

* See datasheet for detail.

Features

Emulates actual battery use scenarios while maintain stability. Fully independent of DUT load functions.

Sample

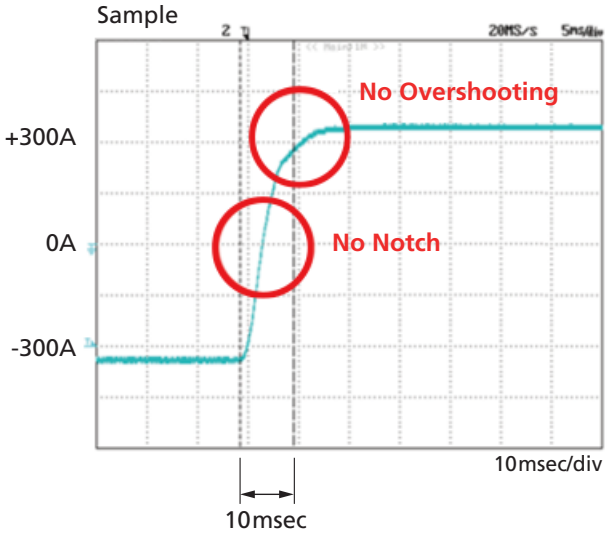
1000:1
10.0V/div
AC1MΩ 20M

100A:1V
100A/div
DC1MΩ 20M

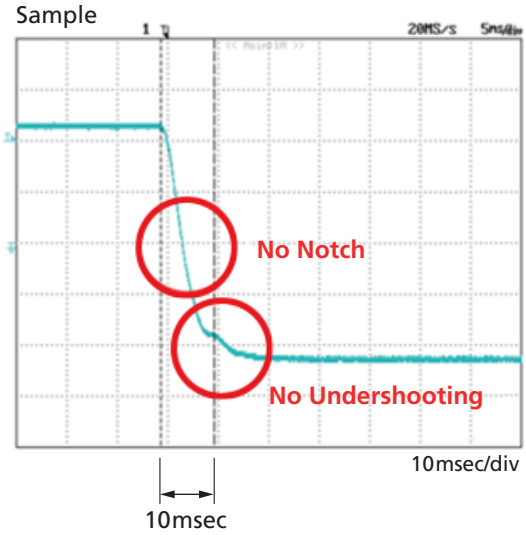
Minimize stress on the DUT by eliminating current overshooting and undershooting.

- Current response ≦ 5m sec.
- Seamless switching between sourcing and loading.
- Minimize stress on the DUT by eliminating current overshooting and undershooting.

Sample



Sample



Safety features

- Overvoltage, overcurrent, and overtemperature detection
- Earth leakage breaker
- Operational status light on the top of machine
- Emergency Stop button

High efficiency and low Noise

Achieves regenerative efficiency exceeding 90%.

High stability

Accurate output characteristic and loss-evaluation independent of DUT load conditions.

Fan noise control

Output power sensing automatically reduces fan RPM for lower output power.

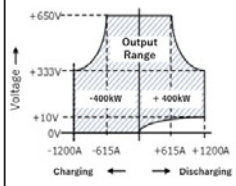
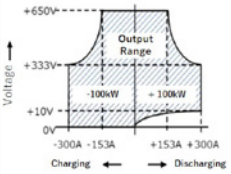
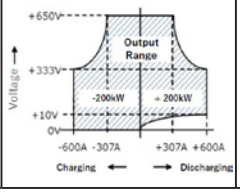
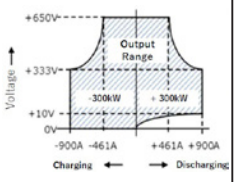
CAN/CAN FD (Option)

Communicate with DUT over both CAN interfaces.

Charging / Discharging Software (Option)

- Thermostatic chamber interlock
- BMU interlock
- Real-time monitoring
- CSV file import
- Simplify the development of complex test programs

Datasheet of RBT-2 Battery Pack Test System

Model				RBT-2-650-300-100K	RBT-2-650-600-200K	RBT-2-650-900-300K	RBT-2-650-1200-400K
Output	Rated Output			650V300A100kW	650V600A200kW	650V900A300kW	650V1200A400kW
	Output Range						
	Operation Mode			CC, CP, CC/CV, CP/CV, CV, CC Pulse, CP Pulse, and Pause			
	Constant Voltage mode (CV)	Setting Range	Voltage H	0.000V to 650.650V			
			Voltage L	0.000V to 150.150V			
		Setting Resolution		Setting Range + 120,000(d)			
		Setting Accuracy		±0.05% of Setting Range			
	Constant Current mode (CC)	Setting Range	Current H	0.000A to ± 303.000A	0.000A to ± 606.000A	0.000A to ± 909.000A	0.000A to ± 1,212.000A
			Current L	0.000A to ± 40.400A	0.000A to ± 80.800A	0.000A to ± 121.200A	0.000A to ± 161.600A
		Setting Resolution		Setting Range + 60,000(d)			
		Setting Accuracy		±0.05% of Setting Range for Current Range H and ±0.1% of Setting Range for Current Range L			
	Constant Power mode (CP)	Setting Range	Voltage H and Current H	0.000kW to ± 101.000kW	0.000kW to ± 202.000kW	0.000kW to ± 303.000kW	0.000kW to ± 404.000kW
			Voltage H and Current L	0.000kW to ± 26.260kW	0.000kW to ± 52.520kW	0.000kW to ± 78.780kW	0.000kW to ± 105.040kW
			Voltage L and Current H	0.000kW to ± 45.450kW	0.000kW to ± 90.900kW	0.000kW to ± 136.350kW	0.000kW to ± 181.800kW
			Voltage L and Current L	0.000kW to ± 6.060kW	0.000kW to ± 12.120kW	0.000kW to ± 18.180kW	0.000kW to ± 24.240kW
		Setting Resolution		Setting Range + 60,000(d)			
		Setting Accuracy		±0.1% of Setting Range for Current Range H and ±0.2% of Setting Range for Current Range L			
Operating Power Supply	Input Voltage			AC380V to AC460V, Three-phase, 50Hz/60Hz			
	Max. Current Consumption	For AC420V (For AC380V)		170A (180A)	320A (350A)	480A (530A)	630A (700A)
		Rated Current of leakage breaker		200A (250A flame)	400A (400A flame)	600A (630A flame)	800A (800A flame)
Operational Environment	Temperature			41°F to 95°F			
	Humidity			20% to 85% without any freezing and condensation			
Other Functions	Color			Munsell N9.5 Semi-gloss			
	Dimension (inch: W x H x D without protruding object)			59″ x 77″ x 33″	89″ x 77″ x 33″	118″ x 77″ x 33″	148″ x 77″ x 33″
	Weight			1,874 lbs	2,977 lbs	4,079 lbs	4,960 lbs

Model				RBT-2-1000-150-100K	RBT-2-1000-300-200K	RBT-2-1000-450-300K	RBT-2-1000-600-400K
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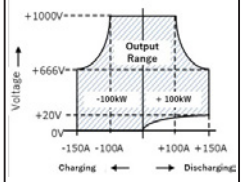
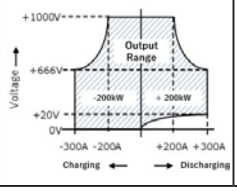
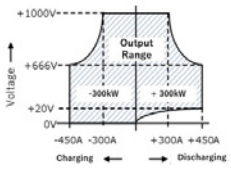
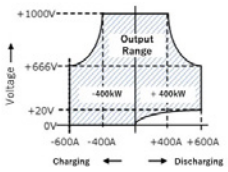
	Output Range						
	Operation Mode			CC, CP, CC/CV, CP/CV, CV, CC Pulse, CP Pulse, and Pause			
	Constant Voltage mode (CV)	Setting Range	Voltage H	0.000V to 1,001.00V			
			Voltage M	0.000V to 650.650V			
			Voltage L	0.000V to 150.150V			
		Setting Resolution		Setting Range + 120,000(d)			
		Setting Accuracy		±0.05% of Setting Range			
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			Voltage M and Current H	0.000kW to ± 98.475kW	0.000kW to ± 196.950kW	0.000kW to ± 295.425kW	0.000kW to ± 393.900kW
			Voltage M and Current L	0.000kW to ± 26.260kW	0.000kW to ± 52.520kW	0.000kW to ± 78.780kW	0.000kW to ± 105.040kW
			Voltage L and Current H	0.000kW to ± 22.725kW	0.000kW to ± 45.450kW	0.000kW to ± 68.175kW	0.000kW to ± 90.900kW
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	Weight			1,874 lbs	2,977 lbs	4,079 lbs	4,960 lbs

Note

TAKASAGO, LTD. reserves the right to modify the features and specifications in this brochure at any time without prior notice or obligation. For the most up-to-date information, please visit our website at www.takasago-ss.co.jp/en/.

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https://www.takasago-ss.co.jp/en/

https://www.anritsu.com/en-us/emobility-and-high-power-test

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