ITECH

YOUR POWER TESTING SOLUTION

Product

IT8000 Regenerative DC Electronic Load

IT8000 Regenerative DC Electronic Load

APPLICATIONS

- Batteries
- Natural energy
- Large capacity DC power supply test
- Power electronic equipments detection
- Aging test

Your Power Testing Solution

IT8000
REGENERATIVE DC ELECTRONIC LOAD

IT8000 series is a family of high power regenerative electronic loads with compact size. The highly integrated capability enables the e-load to simulate various e-load characteristics, and return the consumed energy back to the grid cleanly, saving costs related to energy consumption and cooling, meanwhile eco-friendly. With modular high power density design, IT8000 provide up to 18kW in 3U space. The power is expandable up to 1152kW by master-slave parallelling and active current sharing. If you move into application of high power UPS, storage battery, PV battery, EV, energy storage system, ITECH can help you with IT8000 series high power regenerative electronic load.

	Model	Current	Power		Model	Current	Power		Model	Current	Power
80V	IT8005-80-150	150A	5kW	300V	IT8006-300-75	75A	6kW	500V	IT8006-500-40	40A	6kW
	IT8010-80-300	300A	10kW		IT8012-300-150	150A	12kW		IT8012-500-80	80A	12kW
	IT8015-80-450	450A	15kW		IT8018-300-225	225A	18kW		IT8018-500-120	120A	18kW
	IT8030-80-900	900A	30kW		IT8036-300-450	450A	36kW		IT8036-500-240	240A	36kW
	IT8045-80-1350	1350A	45kW		IT8054-300-675	675A	54kW		IT8054-500-360	360A	54kW
	IT8060-80-1800	1800A	60kW		IT8072-300-900	900A	72kW		IT8072-500-480	480A	72kW
	IT8075-80-2040	2040A	75kW		IT8090-300-1125	1125A	90kW		IT8090-500-600	600A	90kW
	IT8090-80-2040	2040A	90kW		IT8108-300-1350	1350A	108kW		IT8108-500-720	720A	108kW
	IT8105-80-2040	2040A	105kW		IT8126-300-1575	1575A	126kW		IT8126-500-840	840A	126kW
	IT8120-80-2040	2040A	120kW		IT8144-300-1800	1800A	144kW		IT8144-500-960	960A	144kW

	Model	Current	Power		Model	Current	Power		Model	Current	Power
800V	IT8006-800-25	25A	6kW	1500V	IT8018-1500-40	40A	18kW	2250V	IT8018-2250-25	25A	18kW
	IT8012-800-50	50A	12kW		IT8036-1500-80	80A	36kW		IT8036-2250-50	50A	36kW
	IT8018-800-75	75A	18kW		IT8054-1500-120	120A	54kW		IT8054-2250-75	75A	54kW
	IT8036-800-150	150A	36kW		IT8072-1500-160	160A	72kW		IT8072-2250-100	100A	72kW
	IT8054-800-225	225A	54kW		IT8090-1500-200	200A	90kW		IT8090-2250-125	125A	90kW
	IT8072-800-300	300A	72kW		IT8108-1500-240	240A	108kW		IT8108-2250-150	150A	108kW
	IT8090-800-375	375A	90kW		IT8126-1500-280	280A	126kW		IT8126-2250-175	175A	126kW
	IT8108-800-450	450A	108kW		IT8144-1500-320	320A	144kW		IT8144-2250-200	200A	144kW
	IT8126-800-525	525A	126kW								
	IT8144-800-600	600A	144kW								

* This information is subject to change without notice

Your Power Testing Solution

IT8000 Regenerative DC Electronic Load

Features

- Recover DC energy to local grid with efficiency up to 95%
- Stand-alone power up to 144kW, expandable by master-slave parallelling up to 1152kW
- Stand-alone input voltage up to 2250V
- Stand-alone input current up to 2040A
- High power density design provides 18kW in 3U space
- Built-in waveform generator, support generating arbitrary waveforms
- LIST function, support importing LIST files by front USB
- Power accumulation function
- Battery test function, auto-test function, short circuit test function
- With pre-charging function, prevent DC loading current overshoot
- Full protection: OVP/OCP/OPP/OTP/UVP, Vsense anti-reverse connection protection, and voltage transient drop protection
- Built-in standard USB/CAN/LAN/digital IO interface, and optional GPIB/Analog&RS232 interfaces
- Support SCPI protocol, LabVIEW
- Operating mode:CC/CV/CP/CR/CC+CV/CV+CR/CR+CC/CC+CV+CP+CR

*The regenerated power is for local grid purpose, not for public grid purpose.

Applications

Multiple types of batteries Charge-Discharge Testing

Lead storage battery, Lithium battery, Power battery pack, Energy storage battery

Natural energy virtual load test

Solar arrays, Wind turbine

Safety testing of mechanical systems with large capacity batteries

Unmanned vans, Nursing electric chairs, etc.

Aging test (automotive high voltage motor, fuse, relay) and small motors testing

Aging life testing for AC/DC, DC/DC converters

Tests for large capacity DC power supply such as ground electrical power

Evaluation test for fuel cells and stacks

Detection and aging test for power electronic equipments

Your Power Testing Solution

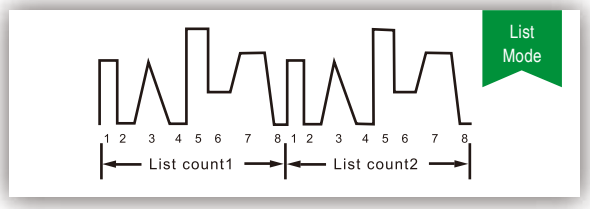
IT8000 Regenerative DC Electronic Load

Power accumulation function

IT8000 series regenerative DC electronic load uses the power electronic transformation technology on the premise of completing test power experiment to make output energy of measured power supply regenerative recycled and reused. Through the inside fast sampling of voltage and current, the regenerative power value can be observed on the front panel of IT8000 series, including voltage, frequency and power of each phase, as well as total power, total current regenerative and total historical regenerative power, which makes the energy saving effect much easier. Re-open after power failure, IT8000 series will continue to accumulate the regenerative power value based on the last power off value.

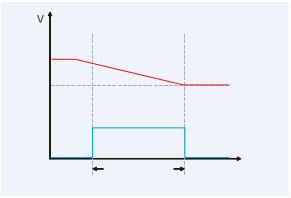
List function

IT8000 series regenerative DC electronic load provides list mode, it can complete the complex arbitrary current change mode accurately and fast, and can synchronize with internal or external signals to complete multi-level loading precision test, which greatly save cost for customers. By editing the step value, pulse width and the slope of each step, IT8000 can generate a variety of complex sequences and help users to complete various loading waveforms test. In the CC mode, IT8000 series can set rising and falling speed.

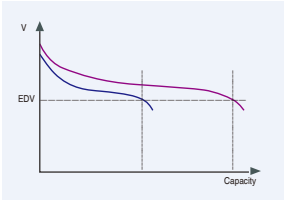


Battery test function

IT8000 series regenerative DC electronic load simulate battery discharge test under CC mode, and support settable discharge cut-off conditions, such as cut-off voltage, cut-off capacity and cut-off time. When any of the three conditions are met, the discharge test will be stopped. Moreover, the battery voltage, discharge time and the discharged capacity can be observed during the test, which reflects the reliability of the battery and its remaining life.



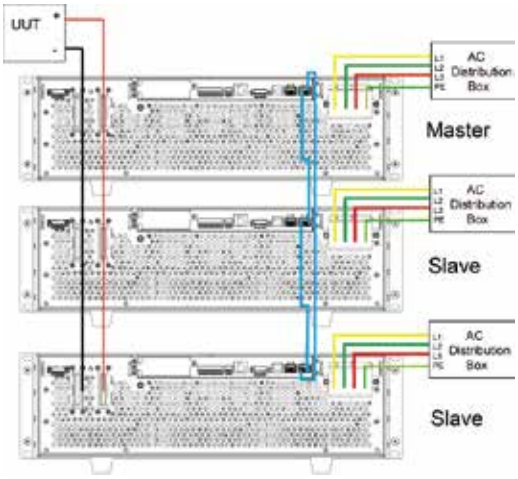
Discharge test



Capacity test

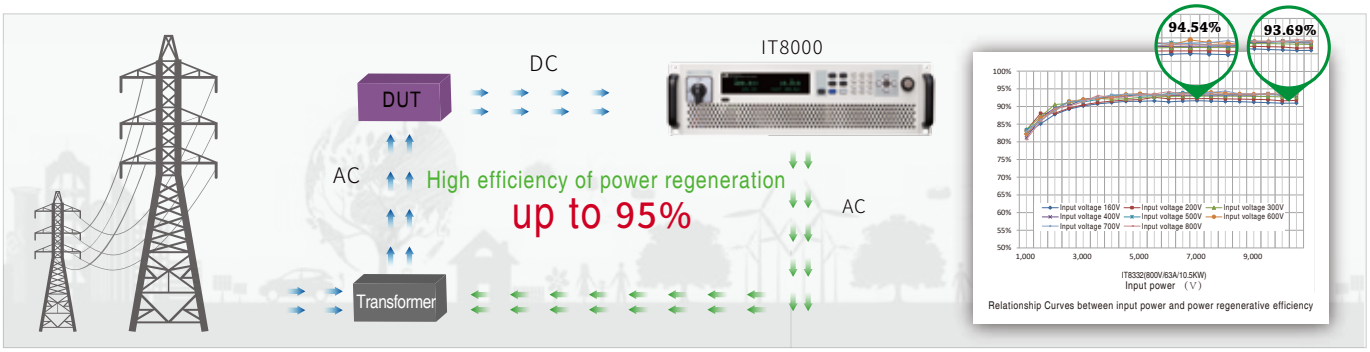
Patented parallel technology

- IT8000 has adopted ITECH parallel technology
- All the function and performance will be the same as standalone unit
- No need to calibrate after paralleling
- Fiber transmission, good for anti-interference
- Digital paralleling, fully insulated, good for protecting DUT



Power regenerative efficiency up to 95%

High energy regenerative efficiency.The IT8000series has a unique energy regenerative function that can regenerate electrical energy and then directly use it in the plant instead of consuming it in the form of heat. Its conversion efficiency can up to 95%, which not only will greatly reduce the user's electricity cost, but also avoid the use of air conditioning or expensive cooling systems.



High power density

Conventional electronic loads are not only with high energy consumption, but also with very large size and weight. Energy consumption electronic load with 30KW load is at least 24U, it is difficult to transport and the cost is higher. IT8000 series regenerative DC electronic load adopts high power density design of 18kW in only 3U high. Compared to conventional electronic loads, the size for IT8000 series is decreased by 80% under the same output power.

Full protection

IT8000 series regenerative DC electronic load supports automatic detection the grid state . When grid connection is suddenly disconnected or power down, IT8000 will be turned off. IT8000 series can achieve reliable on-grid function and anti-islanding protection function. IT8000 supports monitoring on DC input voltage and frequency, and supports OCP, OVP, OTP, OPP function .

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IT8000 Regenerative DC Electronic Load

Specification

		IT8005-80-150	IT8010-80-300	IT8015-80-450
Rated Input Value (0 °C-40 °C)	Voltage	0～80V	0～80V	0～80V
	Current	0～150A	0～300A	0～450A
	Power	0～5000W	0～10000W	0～15000W
	Resistance	0.001～1067Ω	0.01～333Ω	0.001～356Ω
	Min.Operation Voltage	0.45V at 150A	0.45V at 300A	0.45V at 450A
Input Resolution	Voltage	0.001V	0.001V	0.001V
	Current	0.001A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.01Ω	0.001Ω	0.0001Ω
Readback Resolution	Voltage	0.001V	0.001V	0.001V
	Current	0.01A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.001Ω	0.001Ω	0.0001Ω
Set up Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax;≤5%Rmax,10%～Rmax	≤1% + 1%FS	≤1% + 1%FS
Readback Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax;≤5%Rmax,10%～Rmax	≤1% + 1%FS	≤1% + 1%FS
Input Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Dynamic Response Time	Rise Speed Rate	150A/ms	300A/ms	450A/ms
	Fall Speed Rate	150A/ms	300A/ms	450A/ms
	Dynamic Frequency	500Hz	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms	≤1ms
Output Rating	Output Voltage	198V～264V（Decrease 50%） 342V～528V（3P4W）		
	Output Frequency	47Hz～63Hz	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/17A;L3/0A	L1,L2/17A;L3/29A	L1,L2/17A;L3/29A
	Power Factor	≥0.99	≥0.99	≥0.99
	Active Anti-islanding	Active anti-islanding	Active anti-islanding	Active anti-islanding
Set up Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Set up Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Input Impedance Static Current		<10mA at Vmax	<10mA at Vmax	<10mA at Vmax
Efficiency		～90%	～90%	～90%
Remote Sense Compensation Voltage		≤2V	≤2V	≤2V
Command Response Time		2ms	2ms	2ms
Storage Tem.		-10℃～70℃	-10℃～70℃	-10℃～70℃
Protection Function		OVP、OCP、OPP、OTP、Vsense Reverse protection		
Interfaces		Built-in standard USB/CAN/LAN/VCP, optional GPIB, analog (including RS232), optical fiber socket		
Withstand Voltage (input to ground)		500V	500V	500V
Working Tem.		0～50℃	0～50℃	0～50℃
Net. Dimension （mm）		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		20KG	30KG	40KG

*This information is subject to change without notice.

Specification

		IT8006-300-75	IT8012-300-150	IT8018-300-225
Rated Input Value (0 °C-40 °C)	Voltage	0～300V	0～300V	0～300V
	Current	0～75A	0～150A	0～225A
	Power	0～6000W	0～12000W	0～18000W
	Resistance	0.001～7500Ω	0.001～4000Ω	0.001～2667Ω
	Min.Operation Voltage	1.6V at 75A	1.6V at 150A	1.6V at 225A
Input Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.01Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.01Ω	0.001Ω	0.001Ω
Set up Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax;≤5%Rmax,10%～Rmax		
Readback Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax;≤5%Rmax,10%～Rmax		
Input Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Dynamic Response Time	Rise Speed Rate	75A/ms	150A/ms	225A/ms
	Fall Speed Rate	75A/ms	150A/ms	225A/ms
	Dynamic Frequency	500Hz	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms	≤1ms
Output Rating	Output Voltage	198V～264V（Decrease 50%） 342V～528V（3P4W）		
	Output Frequency	47Hz～63Hz	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/20A;L3/0A	L1,L2/20A;L3/34A	28A
	Power Factor	≥0.99	≥0.99	≥0.99
	Active Anti-islanding	Active anti-islanding	Active anti-islanding	Active anti-islanding
Set up Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Set up Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Input Impedance Static Current		<4mA at Vmax	<7mA at Vmax	<10mA at Vmax
Efficiency		～92%	～92%	～92%
Remote Sense Compensation Voltage		≤3V	≤3V	≤3V
Command Response Time		2ms	2ms	2ms
Storage Tem.		-10℃～70℃	-10℃～70℃	-10℃～70℃
Protection Function		OVP、OCP、OPP、OTP、Vsense Reverse protection		
Interfaces		Built-in standard USB/CAN/LAN/VCP, optional GPIB, analog (including RS232), optical fiber socket		
Withstand Voltage (input to ground)		1000V	1000V	1000V
Working Tem.		0～50℃	0～50℃	0～50℃
Net. Dimension （mm）		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		20KG	30KG	40KG

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Your Power Testing Solution

IT8000 Regenerative DC Electronic Load

Specification

		IT8006-500-40	IT8012-500-80
Rated Input Value (0 °C-40 °C)	Voltage	0～500V	0～500V
	Current	0～40A	0～80A
	Power	0～6000W	0～12000W
	Resistance	0.001～7500Ω	0.001～7500Ω
	Min.Operation Voltage	2.4V at 40A	2.4V at 80A
Input Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Set up Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Readback Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Input Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Readback Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Dynamic Response Time	Rise Speed Rate	40A/ms	80A/ms
	Fall Speed Rate	40A/ms	80A/ms
	Dynamic Frequency	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms
Output Rating	Output Voltage	198V～264V（Decrease 50%） 342V～528V（3P4W）	198V～264V（Decrease 50%） 342V～528V（3P4W）
	Output Frequency	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/20A;L3/0A	L1,L2/20A;L3/34A
	Power Factor	≥0.99	≥0.99
	Active Anti-islanding	Active anti-islanding	Active anti-islanding
Set up Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Set up Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Input Impedance Static Current		<10mA at Vmax	<10mA at Vmax
Efficiency		～92%	～92%
Remote Sense Compensation Voltage		≤5V	≤5V
Command Response Time		2ms	2ms
Storage Tem.		-10℃～70℃	-10℃～70℃
Protection Function		OVP、OCP、OPP、OTP、Vsense Reverse protection	
Interfaces		Built-in standard USB/CAN/LAN/VCP, optional GPIB, analog (including RS232), optical fiber socket	
Withstand Voltage (input to ground)		1000V	1000V
Working Tem.		0～50℃	0～50℃
Net. Dimension （mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		20KG	30KG

*This information is subject to change without notice.

Specification

		IT8018-500-120	IT8006-800-25
Rated Input Value (0 °C-40 °C)	Voltage	0～500V	0～800V
	Current	0～120A	0～25A
	Power	0～18000W	0～6000W
	Resistance	0.001～7500Ω	0.001～7500Ω
	Min.Operation Voltage	2.4V at 120A	2.1V at 25A
Input Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.1Ω
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.1Ω
Set up Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Readback Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Input Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Readback Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Dynamic Response Time	Rise Speed Rate	120A/ms	25A/ms
	Fall Speed Rate	120A/ms	25A/ms
	Dynamic Frequency	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms
Output Rating	Output Voltage	198V～264V（Decrease 50%） 342V～528V（3P4W）	198V～264V（Decrease 50%） 342V～528V（3P4W）
	Output Frequency	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	28A	L1,L2/20A;L3/0A
	Power Factor	≥0.99	≥0.99
	Active Anti-islanding	Active anti-islanding	Active anti-islanding
Set up Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Set up Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Input Impedance Static Current		<10mA at Vmax	<10mA at Vmax
Efficiency		～92%	～92%
Remote Sense Compensation Voltage		≤5V	≤8V
Command Response Time		2ms	2ms
Storage Tem.		-10℃～70℃	-10℃～70℃
Protection Function		OVP、OCP、OPP、OTP、Vsense Reverse protection	
Interfaces		Built-in standard USB/CAN/LAN/VCP, optional GPIB, analog (including RS232), optical fiber socket	
Withstand Voltage (input to ground)		1000V	1500V
Working Tem.		0～50℃	0～50℃
Net. Dimension （mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		40KG	20KG

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Your Power Testing Solution

IT8000 Regenerative DC Electronic Load

Specification

		IT8012-800-50	IT8018-800-75
Rated Input Value (0 °C-40 °C)	Voltage	0～800V	0～800V
	Current	0～50A	0～75A
	Power	0～12000W	0～18000W
	Resistance	0.001～7500Ω	0.001～7500Ω
	Min.Operation Voltage	2.1V at 50A	2.1V at 75A
Input Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Set up Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Readback Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Input Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Readback Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Dynamic Response Time	Rise Speed Rate	50A/ms	75A/ms
	Fall Speed Rate	50A/ms	75A/ms
	Dynamic Frequency	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms
Output Rating	Output Voltage	198V～264V（Decrease 50%） 342V～528V（3P4W）	198V～264V（Decrease 50%） 342V～528V（3P4W）
	Output Frequency	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/20A;L3/34A	28A
	Power Factor	≥0.99	≥0.99
	Active Anti-islanding	Active anti-islanding	Active anti-islanding
Set up Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Set up Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Input Impedance Static Current		<10mA at Vmax	<10mA at Vmax
Efficiency		～92%	～92%
Remote Sense Compensation Voltage		≤8V	≤8V
Command Response Time		2ms	2ms
Storage Tem.		-10℃～70℃	-10℃～70℃
Protection Function		OVP、OCP、OPP、OTP、Vsense Reverse protection	
Interfaces		Built-in standard USB/CAN/LAN/VCP, optional GPIB, analog (including RS232), optical fiber socket	
Withstand Voltage (input to ground)		1500V	1500V
Working Tem.		0～50℃	0～50℃
Net. Dimension （mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		30KG	40KG

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Specification

		IT8018-1500-40	IT8018-2250-25
Rated Input Value (0 °C-40 °C)	Voltage	0～1500V	0～2250V
	Current	0～40A	0～25A
	Power	0～18000W	0～18000W
	Resistance	0.001～7500Ω	0.001～7500Ω
	Min.Operation Voltage	7.2V at 40A	6.25V at 25A
Input Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.1Ω	0.1Ω
Readback Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.1Ω	0.1Ω
Set up Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Readback Accuracy within 12 mons 25°±5° ±(%of Output +Offset)	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
	Power	≤0.5% + 0.5%FS	≤0.5% + 0.5%FS
	Resistance	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax	≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax
Input Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Readback Drift Temperature co-efficiency (%of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Dynamic Response Time	Rise Speed Rate	40A/ms	25A/ms
	Fall Speed Rate	40A/ms	25A/ms
	Dynamic Frequency	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms
Output Rating	Output Voltage	198V～264V（Decrease 50%） 342V～528V（3P4W）	198V～264V（Decrease 50%） 342V～528V（3P4W）
	Output Frequency	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	28A	28A
	Power Factor	≥0.99	≥0.99
	Active Anti-islanding	Active anti-islanding	Active anti-islanding
Set up Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Set up Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-30min （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Readback Stability-8h （%of Output +Offset）	Voltage	≤0.02% + 0.02%FS	≤0.02% + 0.02%FS
	Current	≤0.1% + 0.1%FS	≤0.1% + 0.1%FS
Input Impedance Static Current		<10mA at Vmax	<10mA at Vmax
Efficiency		～92%	～92%
Remote Sense Compensation Voltage		≤15V	≤22.5V
Command Response Time		2ms	2ms
Storage Tem.		-10℃～70℃	-10℃～70℃
Protection Function		OVP、OCP、OPP、OTP、Vsense Reverse protection	
Interfaces		Built-in standard USB/CAN/LAN/VCP, optional GPIB, analog (including RS232), optical fiber socket	
Withstand Voltage (input to ground)		1800V	3000V
Working Tem.		0～50℃	0～50℃
Net. Dimension （mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		40KG	40KG

*This information is subject to change without notice.

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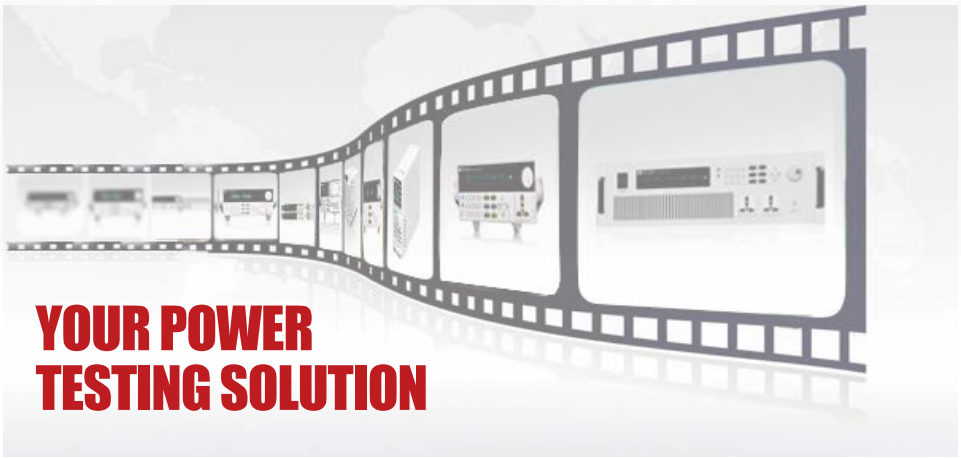

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