ITECH
YOUR POWER TESTING SOLUTION

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Product

IT6000B Regenerative Power System

IT6000B Regenerative Power System

APPLICATIONS

- High power battery
- High speed testing
- Automotive electronics
- Aerospace
- Green energy
- Industrial manufacturing

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IT6000 B Series

Regenerative Power System

From the perspective of improving customer experience, ITECH launches a new incorporated product--IT6000B series. Adopting advanced SiC technology , IT6000B integrates bidirectional power supply and regenerative electronic load into one 3U unit. It is also a very powerful one. Only a button is needed to switch between the bidirectional power supply and the regenerative electronic load. It can be used not only as a stand-alone powerful bidirectional power supply, as a source to provide power; but also as an independent regenerative electronic load, to absorb the consumed energy and feedback cleanly to the grid. IT6000B offers standard two-quadrants functionality.

IT6000B provides 7 voltage ranges, up to 2250V, supports master-slave parallel with current distribution up to 2MW. Built-in waveform generator supports generating arbitrary waveforms, and imports LIST files for waveforms via USB interface. IT6000B is the combination of reliability, high efficient setting, safe and multiple measurement functions.

IT6000B is a family of bi-directional, regenerative power system with excellent performance, extensively used in aspects of high power battery, automotive electronics, green energy, high speed testing etc.

Features

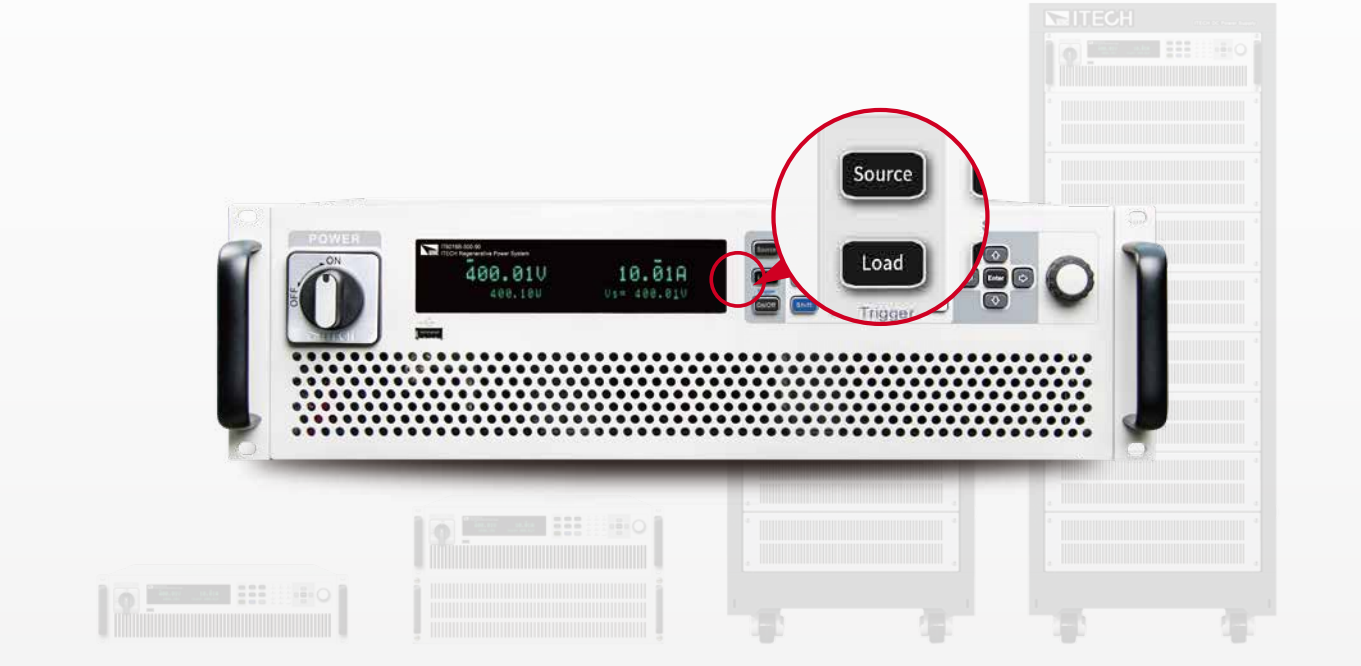
- 2 in 1 device integrating bidirectional DC power supply and electronic load
- Adopts third-generation SiC technology
- One button switch between source and sink on panel
- High power density up to 18kW in compact 3U rack space, expandable up to 2 MW by paralleling
- Voltage output range: 0 to 2250V
- Current output range: 0 to 2040A (single cabinet), 0 to 8000A (parallel between cabinets)
- High power density design provides 18kW in 3U space
- Bi-directional energy transmission, seamless switching across two quadrants
- Support CC/CV loop speed and priority setting
- Partial pre-compliant with LV123, LV148, DIN40839, ISO-16750-2, SAEJ1113-11,LV124 and ISO21848 automotive testing standards
- High efficient energy recovery
- Battey cycle test - support CC/CV/CP
- Built-in waveform generator, support generating arbitrary waveforms
- PV simulator(with SAS1000) - solar array I-V curves simulation
- Complete protection, support OVP, ±OCP, ±OPP, OTP, voltage transient drop protection and anti-islanding protection
- Built-in USB/CAN/LAN/digital IO interface, Optional GPIB/Analog&RS232
- Support data saving and the shortest interval of sampling is 10μs
- Battery simulator(with BSS2000) -Characteristic simulation of various batteries
- Strong dynamic driving profile simulation function, up to 10,000,000 points

Application

01 Renewable Energy		Solar Charger		Micro Inverter	Battery Pack	PV Inverter
02 Automotive	Automotive Motors		Car Charger	Automotive Electronics		Bidirectional DC/DC Converter
03 High-speed testing	Telecom	Power semiconductor components	High speed electronic test		LED products	Civil aviation
04 High-power testing		UPS	Electric motor/ generator	Consumer products	Electro plating/welding	ATE systems

One button switch between source and load

IT6000B innovatively incorporates two devices in one: a bidirectional power supply and a regenerative electronic load. The devices offer the functional button on panel for easy two-quadrants operation, either as a bidirectional programmable DC power supply or as a DC electronic load with recovery function. It reduces the space , cost and efforts on DUT for separate units.



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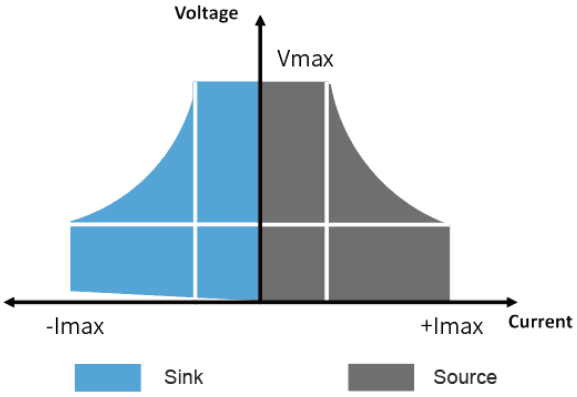
IT6000B Regenerative Power System

Bi-directional energy, seamless switching

The IT6000B Series combines bi-directional power supply and regenerative load function in one. Unlike traditional power supplies and E-loads, for which there will be short transitions and incontinuity in the middle of positive and negative current switching, IT6000B is a standard high-speed bidirectional power supply. It can switch seamlessly between source and sink mode fast and continuously, which avoids voltage or current overshoot effectively. It can be applied to battery test, cell packaging equipment test, battery protection board test, etc.



Power regenerative and eco-friendly

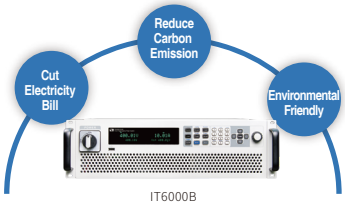
With the power regeneration function, IT6000B can feed back up to 95% power instead of consuming it as heat. It not only save your cost of electricity, HVAC and cooling infrastructure, but also help to reduce carbon emission and impact on the environment.

Production facility : 24Hr/day x 7 work days x 52 weeks

Power	electricity cost saved (appr. USD/year)	CO_2 emission reduced (appr. ton/year)
18kW	20,914	149
36kW	41,828	298
90kW	104,570	745
108kW	125,484	894
144kW	167,312	1,191

R&D lab : 8Hr/day x 5 work days x 52 weeks

Power	electricity cost saved (appr. USD/year)	CO_2 emission reduced (appr. ton/year)
18kW	4,980	35
36kW	9,959	71
90kW	24,898	177
108kW	29,877	213
144kW	39,836	284

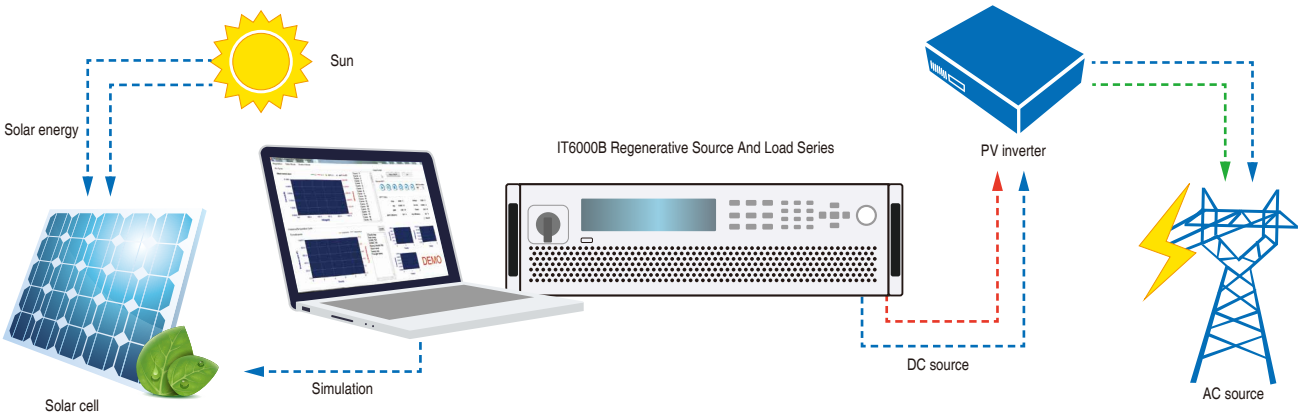


Highly regenerative 95%

* The data is based on :
1. approximate electricity price 0.14USD/kWh for industry facility in California
2. 1kWh power consumption ≈ 0.997 CO_2 emission
* The extra cost of air conditioning is not included.

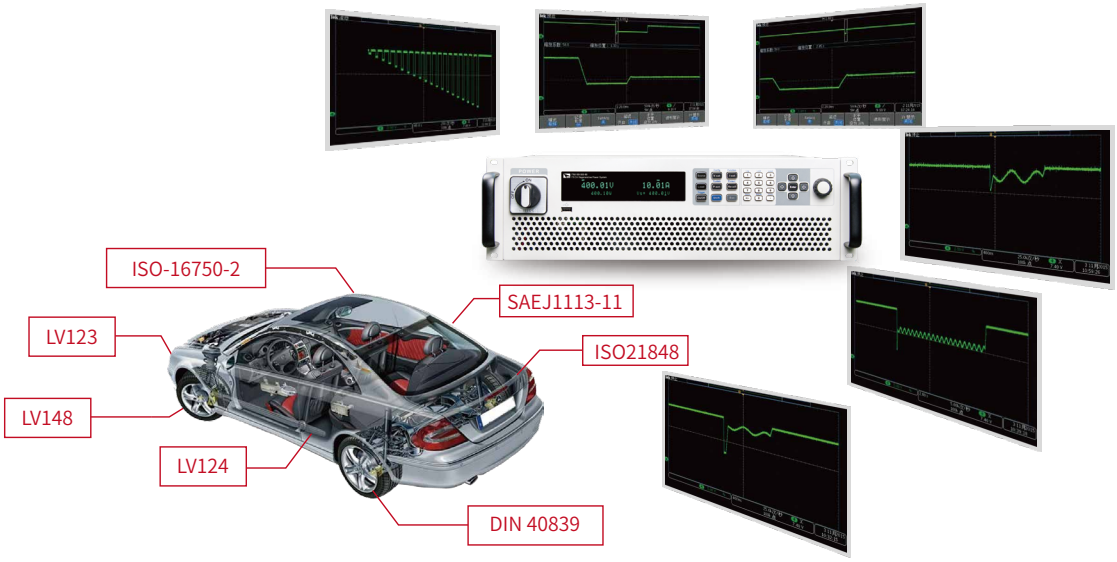
The application for solar array simulation

IT6000B optional SAS1000 solar array simulation software, users can easily use the software to output, measure, display the maximum power and track status of photovoltaic inverter in real time and record value. With the built-in EN50530, Sandia, NB/T32004, CGC/GF004, CGC/GF035 regulatory testing procedures, it is simple for users to simulate I-V curves, test the static and dynamic MPPT performance of PV inverters and generate reports. Solar simulation power supply also provides the shadow and table mode, users can enter up to 4096 points array to edit any shielded IV curve and achieve dynamic shadow effect. Or users can store 100 I-V curves under different irradiation and temperature, set operating time and order to test the long-term MPPT of photovoltaic inverters under different climatic conditions.



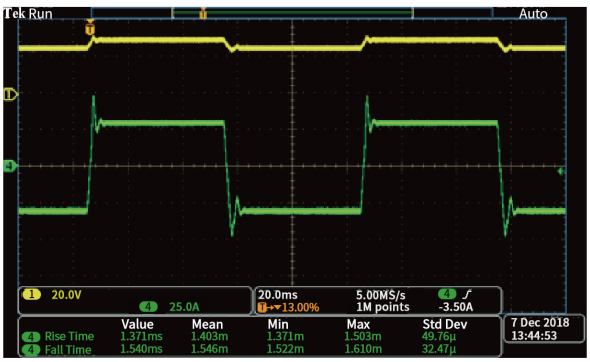
Built-in voltage curves for a variety of standard automotive voltage curves

Automotive electronics may often experience power transients during vehicle start-up and operation. To ensure that the device under test can withstand these actual transients, the tester must simulate worst-case power transient conditions during the test. According to the relevant standards of the industry, the IT6000B has built in partial voltage curves LV123, LV148, DIN40839, ISO-16750-2, SAEJ1113-11,LV124 and ISO21848. Users can easily recall various waveforms directly, such as voltage drop waveform during vehicle starting up, pulse waveform and other related automotive electronics waveforms for performance tests. Available voltage grades in 12V, 24V and 48V.



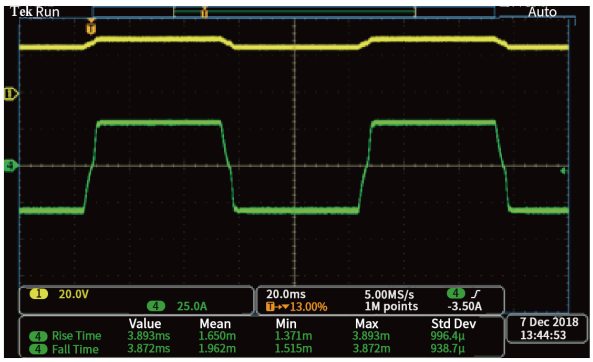
CC&CV Priority

IT6000B has CC/CV priority function which is the newest concept in the industry. It can meet different application requests such as fast speed or no overshoot and make the test more flexible. Users can choose CC/CV loop response time and loop working mode to decide the output to be voltage high speed mode or current no overshoot mode. This unique function makes it suitable for the application of high power integrated circuit test, charging and discharging test, transient simulation test of automotive electronics etc.



CV priority

Starting up: surge current over range, high speed voltage



CC priority

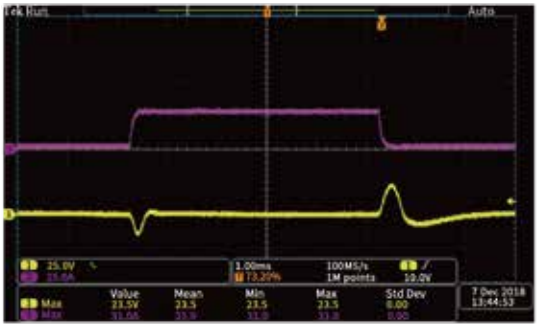
Battery charging and discharging: seamless switching, no overshoot

Your Power Testing Solution

IT6000B Regenerative Power System

Patented parallel technology

- IT6000B has adopted ITECH patented 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



Standalone unit

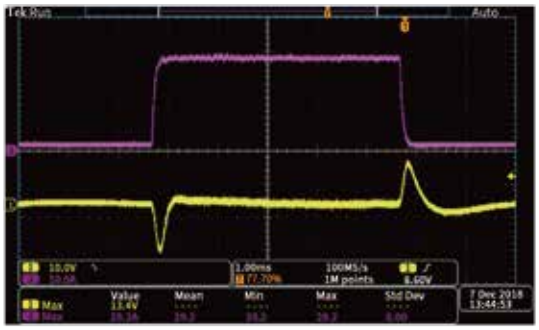
IT6006B-500-40 500V 40A 6000W

Setting: voltage 100V current 28A

Load current: 30A

* Yellow- output voltage

Purple- output current



2 units IT6006B-500-40

Setting: voltage 100V current 56A

Load current: 60A

Specification

	Model	Current	Power		Model	Current	Power		Model	Current	Power
80V	IT6005B-80-150	150A	5kW	300V	IT6006B-300-75	75A	6kW	500V	IT6006B-500-40	40A	6kW
	IT6010B-80-300	300A	10kW		IT6012B-300-150	150A	12kW		IT6012B-500-80	80A	12kW
	IT6015B-80-450	450A	15kW		IT6018B-300-225	225A	18kW		IT6018B-500-120	120A	18kW
	IT6030B-80-900	900A	30kW		IT6036B-300-450	450A	36kW		IT6036B-500-240	240A	36kW
	IT6045B-80-1350	1350A	45kW		IT6054B-300-675	675A	54kW		IT6054B-500-360	360A	54kW
	IT6060B-80-1800	1800A	60kW		IT6072B-300-900	900A	72kW		IT6072B-500-480	480A	72kW
	IT6075B-80-2040	2040A	75kW		IT6090B-300-1125	1125A	90kW		IT6090B-500-600	600A	90kW
	IT6090B-80-2040	2040A	90kW		IT6108B-300-1350	1350A	108kW		IT6108B-500-720	720A	108kW
	IT6105B-80-2040	2040A	105kW		IT6126B-300-1575	1575A	126kW		IT6126B-500-840	840A	126kW
	IT6120B-80-2040	2040A	120kW		IT6144B-300-1800	1800A	144kW		IT6144B-500-960	960A	144kW

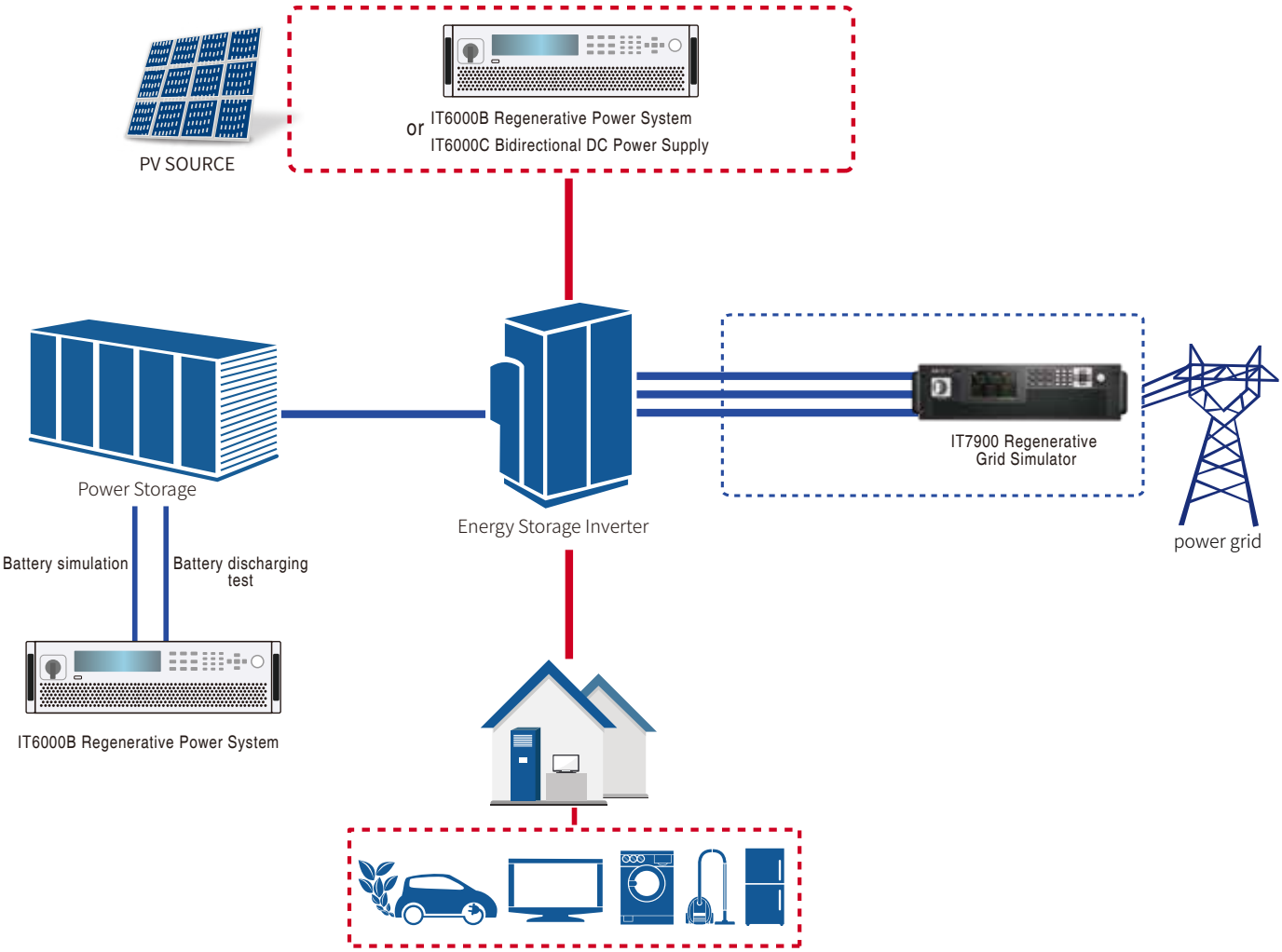
	Model	Current	Power		Model	Current	Power		Model	Current	Power
800V	IT6006B-800-25	25A	6kW	1500V	IT6018B-1500-40	40A	18kW	2250V	IT6018B-2250-25	25A	18kW
	IT6012B-800-50	50A	12kW		IT6036B-1500-80	80A	36kW		IT6036B-2250-50	50A	36kW
	IT6018B-800-75	75A	18kW		IT6054B-1500-120	120A	54kW		IT6054B-2250-75	75A	54kW
	IT6036B-800-150	150A	36kW		IT6072B-1500-160	160A	72kW		IT6072B-2250-100	100A	72kW
	IT6054B-800-225	225A	54kW		IT6090B-1500-200	200A	90kW		IT6090B-2250-125	125A	90kW
	IT6072B-800-300	300A	72kW		IT6108B-1500-240	240A	108kW		IT6108B-2250-150	150A	108kW
	IT6090B-800-375	375A	90kW		IT6126B-1500-280	280A	126kW		IT6126B-2250-175	175A	126kW
	IT6108B-800-450	450A	108kW		IT6144B-1500-320	320A	144kW		IT6144B-2250-200	200A	144kW
	IT6126B-800-525	525A	126kW								
	IT6144B-800-600	600A	144kW								

* This information is subject to change without notice

Application-Photovoltaic energy storage integrated machine

Photovoltaic energy storage integrated machine is a device of DC-AC converter used in combined power generating of photovoltaic and energy storage system. It can coordinate the output of photovoltaic and energy storage batteries, stabilize the power fluctuation of the batteries and output qualified AC power by the technology of energy storage converting.

- IT6000B can precisely simulate I-V curve of solar panel.
- IT6000B can simulate batteries by its battery simulation function.
- IT7900P can simulate the input of power grid.
- Three testing ways can be done by simulation of various power units: Battery input, AC input, PV input to converter.
- The independent load mode of IT6000B can proceed discharging test of batteries.



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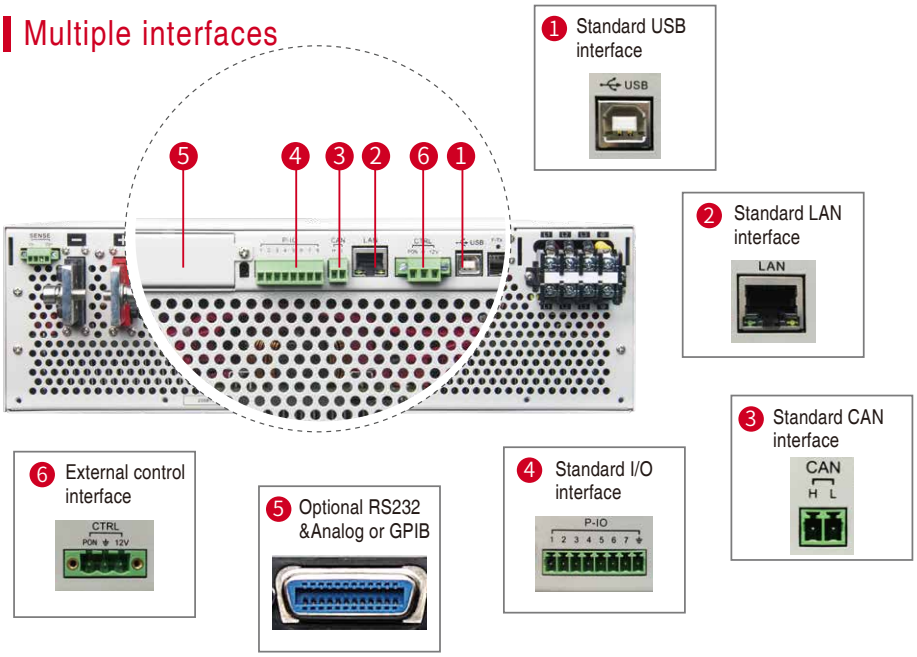
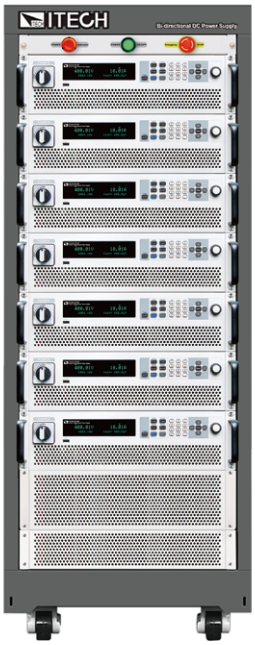
IT6000B Regenerative Power System

Multiple interfaces





Category	Model	Specification	Description
Accessories for parallel connection	IT-E510-15U *	15U unit，grey	800mm X 550mm X907.64mm
	IT-E511-15U *	15U unit，black	800mm X 550mm X907.64mm
	IT-E510-27U *	27U unit，grey	800mm X 600mmX 1441.41mm
	IT-E511-27U *	27U unit，black	800mm X 600mmX 1441.41mm
	IT-E510-37U *	37U unit，grey	800mm X 600mm X 1885.91mm
	IT-E511-37U *	37U unit，black	800mm X 600mm X 1885.91mm
	IT-E168	optical fiber kit for parallel connection	for parallel communication between single units
	IT-E169	Optical fiber kit for parallel connection	for parallel communication between cabinets
Anti-reverse protection unit	IT-E165A-250	750V/250A	Reverse polarity protection
	IT-E165A-400	750V/400A	Reverse polarity protection
	IT-E165A-500	900V/400A	Reverse polarity protection
	IT-E165B	Anti electromotive force protection unit	Avoid current back flow
Other accessories	IT-E258-15U IT-E258E-15U IT-E258U-15U	5m power cord for 15U unit	Applied for Europe（-E）or United States（-U） or other area
	IT-E258-27U IT-E258E-27U IT-E258U-27U	5m power cord for 27U unit	Applied for Europe（-E）or United States（-U） or other area
	IT-E258-37U IT-E258E-37U IT-E258U-37U	5m power cord for 37U unit	Applied for Europe（-E）or United States（-U） or other area
	IT-E166/IT-E176-grey	GPIB communication card	
	IT-E167/IT-E177-grey	RS232 & analog interface card	
Test software	BSS2000	Battery simulation software	Basic BSS2000/ Advanced BSS2000 Pro/Multi-channel BSS2000M
	SAS1000	Solar array simulation software	SAS1000L (<15kW) / SAS1000 / Multi-channel SAS1000M
	FCS3000	Fuel cell simulation software	FCS3000

* Contact us for details

Specification

		IT6005B-80-150	IT6010B-80-300
		Power Supply Parameters	Power Supply Parameters
Rated Value Range (0 ℃-50 ℃)	Output Voltage	0～80V	0～80V
	Output Current	-150～150A	-300～300A
	Output Power	-5000～5000W	-10000～10000W
	Output Resistance	0～0.533Ω	0～0.267Ω
Line Regulation ±(%of Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(%of Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Readback Resolution	Voltage	0.001V	0.001V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.001Ω	0.001Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤120mVpp(MAX: ≤200mVpp)	≤120mVpp(MAX: ≤200mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Rise time (no load)	Voltage	≤15ms	≤15ms
Rise time(full load)	Voltage	≤30ms	≤30ms
Fall time (no load)	Voltage	≤30ms	≤30ms
Fall time (full load)	Voltage	≤15ms	≤15ms
Transient Response Time	Voltage	≤2ms	≤2ms
Efficiency		～90%	～90%
		Load Parameters	Load Parameters
Rated Value Range (0 ℃-50 ℃)	Input Voltage	0～80V	0～80V
	Input Current	0～150A	0～300A
	Input Power	0～5000W	0～10000W
	Input Resistance	0.001～1067Ω	0.01～333Ω
	Min operating voltage	0.45V at 150A	0.45V at 300A
Readback Resolution	Voltage	0.001V	0.001V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.001Ω	0.001Ω
Readback Accuracy (Within 12 months、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;	≤1% + 1%FS
Transient Response Time	Rise Speed Rate	150A/ms	300A/ms
	Fall Speed Rate	150A/ms	300A/ms
	Dynamic Frequency	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms
Output Parameter	Output Voltage Range	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}
	Output Frequency Range	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/17A;L3/0A	L1,L2/17A;L3/29A
	Power Factor	≥0.99	≥0.99
	Island Protection	Active Anti-islanding Protection	Active Anti-islanding Protection
Efficiency		～90%	～90%
Dimension（mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net weight		20KG	30KG

* This information is subject to change without notice

Your Power Testing Solution

IT6000B Regenerative Power System

Specification

		IT6015B-80-450	IT6006B-300-75
		Power Supply Parameters	Power Supply Parameters
Rated Value Range (0 ℃-50 ℃)	Output Voltage	0～80V	0～300V
	Output Current	-450～450A	-75～75A
	Output Power	-15000～15000W	-6000～6000W
	Output Resistance	0～0.178Ω	0～1Ω
Line Regulation ±(%of Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(%of Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Readback Resolution	Voltage	0.001V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.001Ω	0. 01Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤120mVpp(MAX: ≤200mVpp)	≤120mVpp(MAX:≤600mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Rise time (no load)	Voltage	≤15ms	≤15ms
Rise time(full load)	Voltage	≤30ms	≤30ms
Fall time (no load)	Voltage	≤30ms	≤30ms
Fall time (full load)	Voltage	≤15ms	≤15ms
Transient Response Time	Voltage	≤2ms	≤2ms
Efficiency		～90%	～92%
		Load Parameters	Load Parameters
Rated Value Range (0 ℃-50 ℃)	Input Voltage	0～80V	0～300V
	Input Current	0～450A	0～75A
	Input Power	0～15000W	0～6000W
	Input Resistance	0.001～356Ω	0.001～7500Ω
	Min operating voltage	0.45V at 450A	1.6V at 75A
Readback Resolution	Voltage	0.001V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.0001Ω	0.01Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤2%Rmax,0～10%Rmax;≤5%Rmax,10%～Rmax;
Transient Response Time	Rise Speed Rate	450A/ms	75A/ms
	Fall Speed Rate	450A/ms	75A/ms
	Dynamic Frequency	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms
Output Parameter	Output Voltage Range	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}
	Output Frequency Range	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/17A;L3/29A	L1,L2/20A;L3/0A
	Power Factor	≥0.99	≥0.99
	Island Protection	Active Anti-islanding Protection	Active Anti-islanding Protection
Efficiency		～90%	～92%
Dimension（mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net weight		40KG	20KG

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Specification

		IT6012B-300-150	IT6018B-300-225
		Power Supply Parameters	Power Supply Parameters
Rated Value Range (0 ℃-50 ℃)	Output Voltage	0～300V	0～300V
	Output Current	-150～150A	-225～225A
	Output Power	-12000～12000W	-18000～18000W
	Output Resistance	0～1Ω	0～1Ω
Line Regulation ±(%of Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(%of Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0. 001Ω	0.001Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤120mVpp(MAX:≤600mVpp)	≤120mVpp(MAX:≤300mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Rise time (no load)	Voltage	≤15ms	≤15ms
Rise time(full load)	Voltage	≤30ms	≤30ms
Fall time (no load)	Voltage	≤30ms	≤30ms
Fall time (full load)	Voltage	≤15ms	≤15ms
Transient Response Time	Voltage	≤2ms	≤2ms
Efficiency		～92%	～92%
		Load Parameters	Load Parameters
Rated Value Range (0 ℃-50 ℃)	Input Voltage	0～300V	0～300V
	Input Current	0～150A	0～225A
	Input Power	0～12000W	0～18000W
	Input Resistance	0.001～4000Ω	0.001～2667Ω
	Min operating voltage	1.6V at 150A	1.6V at 225A
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.001Ω	0.001Ω
Readback Accuracy (Within 12 months、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;
Transient Response Time	Rise Speed Rate	150A/ms	225A/ms
	Fall Speed Rate	150A/ms	225A/ms
	Dynamic Frequency	500Hz	500Hz
	Minimum Rise Time	≤1ms	≤1ms
Output Parameter	Output Voltage Range	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}
	Output Frequency Range	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/20A;L3/34A	28A
	Power Factor	≥0.99	≥0.99
	Island Protection	Active Anti-islanding Protection	Active Anti-islanding Protection
Efficiency		～92%	～92%
Dimension（mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net weight		30KG	40KG

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Your Power Testing Solution

IT6000B Regenerative Power System

Specification

		IT6006B-500-40	IT6012B-500-80
		Power Supply Parameters	Power Supply Parameters
Rated Value Range (0 ℃-50 ℃)	Output Voltage	0～500V	0～500V
	Output Current	-40～40A	-80～80A
	Output Power	-6000～6000W	-12000～12000W
	Output Resistance	0～1Ω	0～1Ω
Line Regulation ±(%of Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(%of Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤200mVpp(MAX:≤500mVpp)	≤200mVpp(MAX: ≤500mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Rise time (no load)	Voltage	≤15ms	≤15ms
Rise time(full load)	Voltage	≤30ms	≤30ms
Fall time (no load)	Voltage	≤30ms	≤30ms
Fall time (full load)	Voltage	≤15ms	≤15ms
Transient Response Time	Voltage	≤2ms	≤2ms
Efficiency		～92%	～92%
		Load Parameters	Load Parameters
Rated Value Range (0 ℃-50 ℃)	Input Voltage	0～500V	0～500V
	Input Current	0～40A	0～80A
	Input Power	0～6000W	0～12000W
	Input Resistance	0.001～7500Ω	0.001～7500Ω
	Min operating voltage	2.4V at 40A	2.4V at 80A
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Readback Accuracy (Within 12 months、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;
Transient 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 Parameter	Output Voltage Range	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}
	Output Frequency Range	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/20A;L3/0A	L1,L2/20A;L3/34A
	Power Factor	≥0.99	≥0.99
	Island Protection	Active Anti-islanding Protection	Active Anti-islanding Protection
Efficiency		～92%	～92%
Dimension（mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net weight		20KG	30KG

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Specification

		IT6018B-500-120	IT6006B-800-25
		Power Supply Parameters	Power Supply Parameters
Rated Value Range (0 ℃-50 ℃)	Output Voltage	0～500V	0～800V
	Output Current	-120～120A	-25～25A
	Output Power	-18000～18000W	-6000～6000W
	Output Resistance	0～1Ω	0～1Ω
Line Regulation ±(%of Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(%of Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.1Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤200mVpp(MAX: ≤500mVpp)	≤800mVpp(MAX:≤1.2Vpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Rise time (no load)	Voltage	≤15ms	≤15ms
Rise time(full load)	Voltage	≤30ms	≤30ms
Fall time (no load)	Voltage	≤30ms	≤30ms
Fall time (full load)	Voltage	≤15ms	≤15ms
Transient Response Time	Voltage	≤2ms	≤2ms
Efficiency		～92%	～92%
		Load Parameters	Load Parameters
Rated Value Range (0 ℃-50 ℃)	Input Voltage	0～500V	0～800V
	Input Current	0～120A	0～25A
	Input Power	0～18000W	0～6000W
	Input Resistance	0.001～7500Ω	0.001～7500Ω
	Min operating voltage	2.4V at 120A	2.1V at 25A
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.1Ω
Readback Accuracy (Within 12 months、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;
Transient 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 Parameter	Output Voltage Range	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}
	Output Frequency Range	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	28A	L1,L2/20A;L3/0A
	Power Factor	≥0.99	≥0.99
	Island Protection	Active Anti-islanding Protection	Active Anti-islanding Protection
Efficiency		～92%	～92%
Dimension（mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net weight		40KG	20KG

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Your Power Testing Solution

IT6000B Regenerative Power System

Specification

		IT6012B-800-50	IT6018B-800-75
		Power Supply Parameters	Power Supply Parameters
Rated Value Range (0 ℃-50 ℃)	Output Voltage	0～800V	0～800V
	Output Current	-50～50A	-75～75A
	Output Power	-12000～12000W	-18000～18000W
	Output Resistance	0～1Ω	0～1Ω
Line Regulation ±(%of Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(%of Offset)	Voltage	≤0.02%S	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤800mVpp(MAX: ≤1.2Vpp)	≤320mVpp(MAX: ≤800mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Rise time (no load)	Voltage	≤15ms	≤15ms
Rise time(full load)	Voltage	≤30ms	≤30ms
Fall time (no load)	Voltage	≤30ms	≤30ms
Fall time (full load)	Voltage	≤15ms	≤15ms
Transient Response Time	Voltage	≤2ms	≤2ms
Efficiency		～92%	～92%
		Load Parameters	Load Parameters
Rated Value Range (0 ℃-50 ℃)	Input Voltage	0～800V	0～800V
	Input Current	0～50A	0～75A
	Input Power	0～12000W	0～18000W
	Input Resistance	0.001～7500Ω	0.001～7500Ω
	Min operating voltage	2.1V at 50A	2.1V at 75A
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.01Ω	0.01Ω
Readback Accuracy (Within 12 months、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;
Transient 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 Parameter	Output Voltage Range	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}
	Output Frequency Range	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	L1,L2/20A;L3/34A	28A
	Power Factor	≥0.99	≥0.99
	Island Protection	Active Anti-islanding Protection	Active Anti-islanding Protection
Efficiency		～92%	～92%
Dimension（mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net weight		30KG	40KG

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Specification

		IT6018B-1500-40	IT6018B-2250-25
		Power Supply Parameters	Power Supply Parameters
Rated Value Range (0 ℃-50 ℃)	Output Voltage	0～1500V	0～2250V
	Output Current	-40～40A	-25～25A
	Output Power	-18000～18000W	-18000～18000W
	Output Resistance	0～1Ω	0～1Ω
Line Regulation ±(%of Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(%of Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Readback Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.1Ω	0.1Ω
Readback Accuracy (Within 12 months、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	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤600mVpp(MAX: ≤1500mVpp)	≤900mVpp(MAX: ≤2250mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Rise time (no load)	Voltage	≤15ms	≤15ms
Rise time(full load)	Voltage	≤30ms	≤30ms
Fall time (no load)	Voltage	≤30ms	≤30ms
Fall time (full load)	Voltage	≤15ms	≤15ms
Transient Response Time	Voltage	≤2ms	≤2ms
Efficiency		～92%	～92%
		Load Parameters	Load Parameters
Rated Value Range (0 ℃-50 ℃)	Input Voltage	0～1500V	0～2250V
	Input Current	0～40A	0～25A
	Input Power	0～18000W	0～18000W
	Input Resistance	0.001～7500Ω	0.001～7500Ω
	Min operating voltage	7.2V at 40A	6.25V at 25A
Readback Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.1Ω	0.1Ω
Readback Accuracy (Within 12 months、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;
Transient 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 Parameter	Output Voltage Range	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}	198V～264V（Decrease 50%） 342V～528V {3PH + PE (no neutral)}
	Output Frequency Range	47Hz～63Hz	47Hz～63Hz
	Max. Output Current	28A	28A
	Power Factor	≥0.99	≥0.99
	Island Protection	Active Anti-islanding Protection	Active Anti-islanding Protection
Efficiency		～92%	～92%
Dimension（mm）		483W*801.61D*151.3H	483W*801.61D*151.3H
Net weight		40KG	40KG

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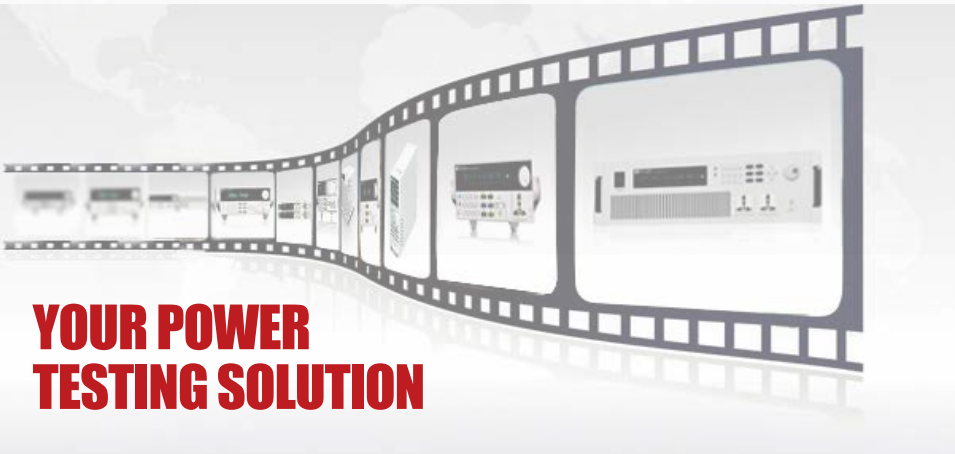

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