

Product

IT6000C Bidirectional Programmable DC Power Supply

**Bi-directional
Energy
Transfer
Everything Is
Possible**



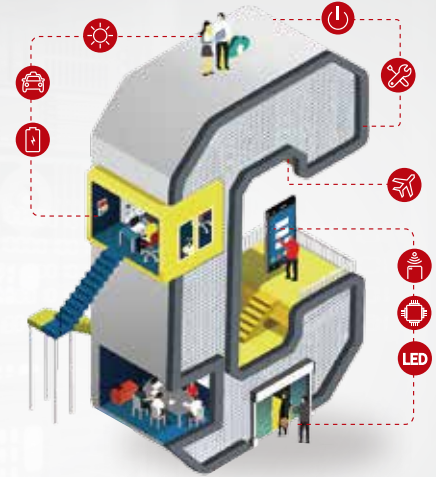
IT6000C Series Bidirectional Programmable DC Power Supply

APPLICATIONS

- Solar Battery Charger
- Solar Inverter
- Auto Motor
- DC/DC Converter
- Battery Module/Pack
- OBC

Your Power Testing Solution

IT6000C Series Bidirectional Programmable DC Power Supply



The bi-directional programmable DC power supply of IT6000C series combines two functions in one: source and sink with energy regeneration. Based on these two functions, IT6000C offers the functionality of two-quadrant operation. The regenerative capability enables the energy consumed to be put back onto the grid cleanly, saving costs from energy consumption and cooling, while not interfering with the grid. IT6000C series provide 7 voltage grades, max. output voltage up to 2250V, support master-slave paralleling with averaging current distribution, max. output power up to 1.152MW. Built-in waveform generator supports generating arbitrary waveforms, and import LIST files for waveforms via front panel USB port. IT6000C is the combination of high reliability, high efficient setting, safe and multiple measurement functions.

	Model	Current	Power		Model	Current	Power		Model	Current	Power
80V	IT6005C-80-120	120A	5kW	80V	IT6006C-80-170	170A	6kW	240V	IT6015C-240-120	120A	15kW
	IT6010C-80-240	240A	10kW		IT6012C-80-340	340A	12kW		IT6030C-240-240	240A	30kW
	IT6015C-80-360	360A	15kW		IT6018C-80-510	510A	18kW		IT6045C-240-360	360A	45kW
	IT6030C-80-720	720A	30kW		IT6036C-80-1020	1020A	36kW		IT6060C-240-480	480A	60kW
	IT6045C-80-1080	1080A	45kW		IT6054C-80-1530	1530A	54kW		IT6075C-240-600	600A	75kW
	IT6060C-80-1440	1440A	60kW		IT6072C-80-2040	2040A	72kW				
	IT6075C-80-1800	1800A	75kW		IT6090C-80-2040	2040A	90kW				
240V	IT6018C-240-170	170A	18kW	400V	IT6006C-400-40	40A	6kW	500V	IT6006C-500-30	30A	6kW
	IT6036C-240-340	340A	36kW		IT6012C-400-80	80A	12kW		IT6012C-500-60	60A	12kW
	IT6054C-240-510	510A	54kW		IT6018C-400-120	120A	18kW		IT6018C-500-90	90A	18kW
	IT6072C-240-680	680A	72kW		IT6036C-400-240	240A	36kW		IT6036C-500-180	180A	36kW
	IT6090C-240-850	850A	90kW		IT6054C-400-360	360A	54kW		IT6054C-500-270	270A	54kW
	IT6108C-240-1020	1020A	108kW		IT6072C-400-480	480A	72kW		IT6072C-500-360	360A	72kW
	IT6126C-240-1190	1190A	126kW		IT6090C-400-600	600A	90kW		IT6090C-500-450	450A	90kW
	IT6144C-240-1360	1360A	144kW		IT6108C-400-720	720A	108kW		IT6108C-500-540	540A	108kW
					IT6126C-400-840	840A	126kW		IT6126C-500-630	630A	126kW
					IT6144C-400-960	960A	144kW		IT6144C-500-720	720A	144kW
	Model	Current	Power		Model	Current	Power		Model	Current	Power
800V	IT6006C-800-20	20A	6kW	1500V	IT6018C-1500-30	30A	18kW	2250V	IT6018C-2250-20	20A	18kW
	IT6012C-800-40	40A	12kW		IT6036C-1500-60	60A	36kW		IT6036C-2250-40	40A	36kW
	IT6018C-800-60	60A	18kW		IT6054C-1500-90	90A	54kW		IT6054C-2250-60	60A	54kW
	IT6036C-800-120	120A	36kW		IT6072C-1500-120	120A	72kW		IT6072C-2250-80	80A	72kW
	IT6054C-800-180	180A	54kW		IT6090C-1500-150	150A	90kW		IT6090C-2250-100	100A	90kW
	IT6072C-800-240	240A	72kW		IT6108C-1500-180	180A	108kW		IT6108C-2250-120	120A	108kW
	IT6090C-800-300	300A	90kW		IT6126C-1500-210	210A	126kW		IT6126C-2250-140	140A	126kW
	IT6108C-800-360	360A	108kW		IT6144C-1500-240	240A	144kW		IT6144C-2250-160	160A	144kW
	IT6126C-800-420	420A	126kW								
	IT6144C-800-480	480A	144kW								

*Models coming soon-80V/240V/400V

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Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Features

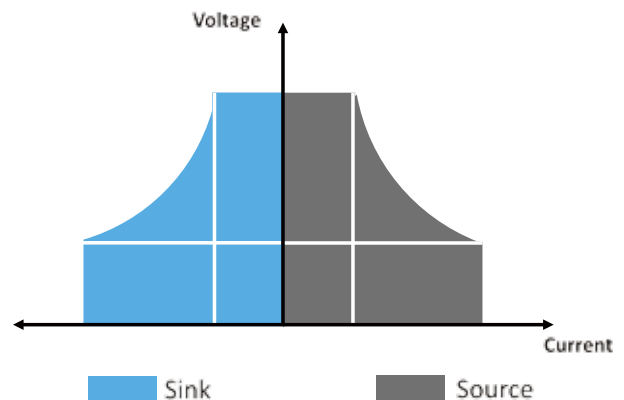
- Bi-directional source and regenerative sink
- Stand-alone max. output power 144kW, expandable up to 1.152 MW by paralleling
- Voltage range: 0 to 2250V
- Current range: 0 to 2040A
- High power density up to 18kW in compact 3U rack space
- Bi-directional power transfer, seamless switch between sourcing and sinking
- High regenerative efficiency up to 95%
- Standard Built-in USB/CAN/LAN/digital IO communication interface, optional GPIB/analog & RS232
- Full protections: support OVP, $\pm$ OCP, $\pm$ OPP, OTP, power down protection, anti-islanding protection
- Support control loop priority mode setting , different loop speed can be set
- Built-in voltage curves comply with DIN 40839, ISO-16750-2/ISO21848 automotive standards
- Support photovoltaic I-V curves simulation function
- Built-in function generator, support arbitrary-waveform generating
- Adjustable output impedance
- Support multiple working modes, rising and falling time can be adjustable.
- Support data saving and the shortest interval of sampling is 10 μ s

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	Military electronics		LED products	Avionics
04 High-power testing		UPS	Electric motor/generator	Consumer products	Electro plating/welding	ATE systems

Bi-directional energy, seamless transfer

The IT6000C Series combines source and sink functions in one. Unlike traditional power supplies and E-loads, for which there will be short transitions and inconsistencies in the middle of positive and negative current switching, IT6000C is a standard high-speed bidirectional power supply, enables high-speed source and sink current fast and continuous seamless switching, effectively avoiding voltage or current overshoot, and can be widely used in Energy storage device test, like batteries, cell packaging equipment and battery protection board testing .

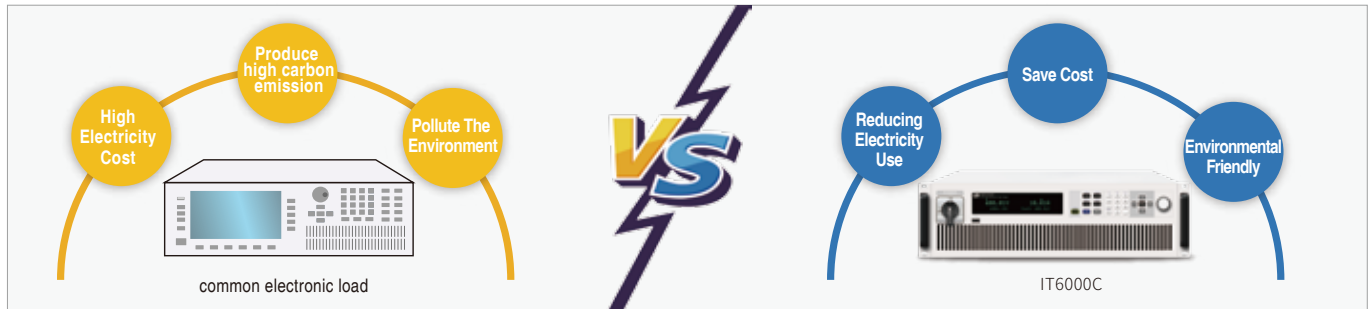


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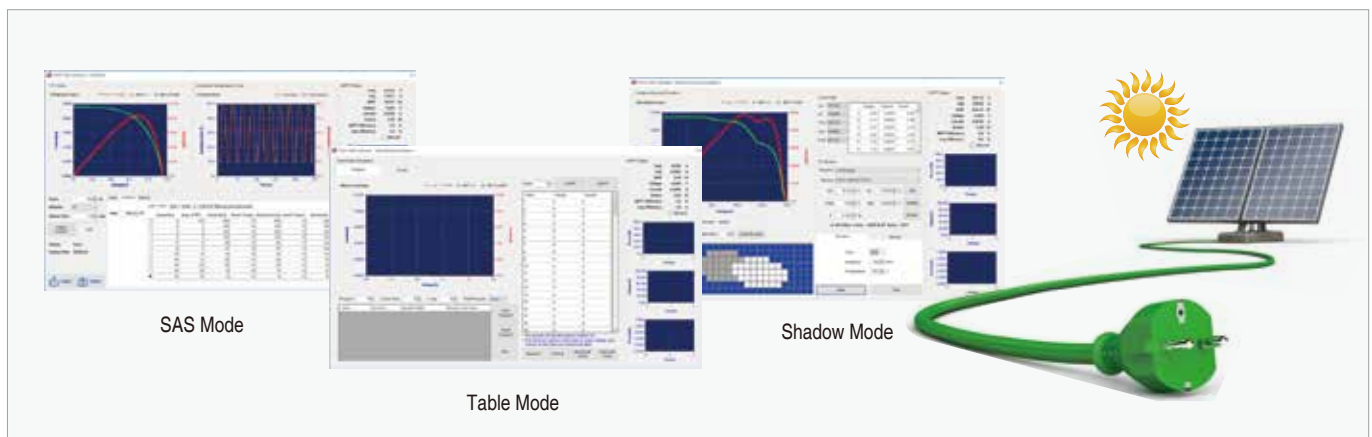
High energy regenerative efficiency

The IT6000C series 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. The regenerative efficiency can reach up to 95%, which not only will greatly reduce the user's electricity cost, but also avoid the using of air conditioning or expensive cooling systems.



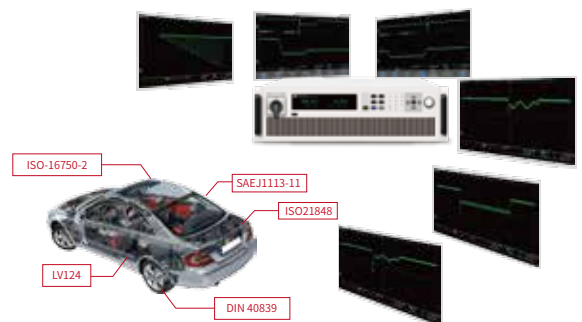
Application for solar array simulation

IT6000C configured with optional ITECH SAS1000 Solar Array Simulation Software, users can easily use the software to output, measure, display the MPP tracking status of photovoltaic inverter in real time simulation and record value. Built-in EN50530、Sandia、NB/T32004、CGC/GF004、CGC/GF035 standard testing procedures, it is convenient for users to test the static and dynamic MPPT performance of PV inverters and generate reports. Solar simulation power supply also provides the shadow and table mode operation, the user can enter up to 4096 points array to edit any shielded IV curve to achieve dynamic shadow effect simulation and also can store 100 I-V curves under different irradiation and temperature to test the long-term maximum power tracking performance of photovoltaic inverters under different climatic conditions.



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

Automotive electronics may often encounter 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 IT6000C series has built-in voltage curves for DIN40839, ISO-16750-2, SAEJ1113-11, LV124 and ISO21848 standard automotive voltage curves. The User can directly recall the vehicle's starting voltage drop, various automotive electronic tests, pulse waveforms and other related automotive electronics for performance tests. Available voltage grades in 12V, 24V and 48V voltage levels.



Your Power Testing Solution

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Control loop CC/CV priority mode

IT6000 C series continues to adopt ITECH-developed innovative CV & CC priority concept, which will help customers effectively and flexibly solve their various tough problems in test applications request for high speed and no over-shoot power supplies. Customers can select CV or CC priority to adjust the speed of the loop circuit, to decide output with the high-speed voltage or current with no overshoot. It is applicable for high-power integrated circuit test, charging/ discharging test, military, and the transient simulation/ characteristic test of automotive electronics.



Control loop CV priority mode

After setting the high-speed voltage mode, the voltage output faster and bring with an inrush current which is higher than the current range.



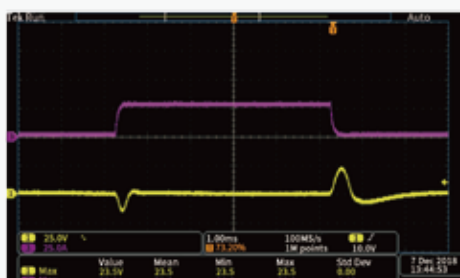
Control loop CC priority mode

battery charging and discharging, high speed seamless switch, effectively suppress the current overshoot.

Patented parallel connection technology

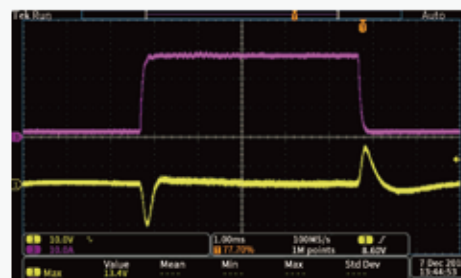
Advantages:

- IT6000 BCD series adopts ITECH patented parallel connection technology
- The parameters will not change after parallel connection
- Calibration is not requested after parallel connection
- Optical fiber transfer between master and slave, guarantee perfect performance of anti-interference
- Adopt Optical fiber isolation technology, effective protection of the device and DUT



Stand-alone unit

Stand-alone unit: IT6006C-500-30 500V 30A 6000W
Input voltage:100V Input current:28A Sinking current :30A



Paralleled units

2 sets IT6006C-500-30 paralleled
Input voltage:100V Input current:56A Sinking current :60A

* Yellow waveform: output voltage Violet waveform: output current



From the above waveforms comparison:

we can see the paralleled IT6000C can output the same dynamic response waveform as the original single unit does, and show no-delay fast synchronized response.

Falling speed

No substantial changes comparing with single unit after parallel connection

Rising speed

Even faster rising speed, comparing with single unit after parallel connection

Dynamic response waveform

consistent with single unit waveform after parallel connection

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IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6006C-80-170	IT6006C-400-40	IT6006C-500-30
Rated Input Value (0℃~40℃)	Voltage	0~80V	0~400V	0~500V
	Current	-170~170A	-40~40A	-30~30A
	Power	-6000~6000W	-6000~6000W	-6000~6000W
	Resistance	0~1Ω	0~1Ω	0~1Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01%FS	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02%FS	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Setup Resolution	Voltage	0.001V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.001mΩ	0.01mΩ	0.01mΩ
Readback Resolution	Voltage	0.001V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.001mΩ	0.01mΩ	0.01mΩ
Setting 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	≤1% + 1%FS	≤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	≤1% + 1%FS	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz ~20MHz)	Voltage	≤32mVpp(MAX: ≤80mVpp)	≤160mVpp(MAX: ≤400mVpp)	≤200mVpp(MAX: ≤500mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Output/℃ +Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Temperature Coefficient (% of Output/℃ +Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Rising Time (no load)	Voltage	≤15ms	≤15ms	≤15ms
Rising Time (full load)	Voltage	≤30ms	≤30ms	≤30ms
Falling Time (no load)	Voltage	≤30ms	≤30ms	≤30ms
Falling Time (full load)	Voltage	≤15ms	≤15ms	≤15ms
Dynamic Mode	Voltage	≤2ms	≤2ms	≤2ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup 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
Setup 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
Efficiency		~90%	~92%	~92%
Remote Sense Compensation Voltage		2V	≤4V (2Vmin)	≤5V (2Vmin)
Command Response Time		2mS	2mS	2mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		19.27A	19.27A	19.27A
Maximum Input Apparent Power		6.6kVA	6.6kVA	6.6kVA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Isolation (output to ground)		500V	500V	1000V
Working Tem.		0~50℃	0~40℃	0~50℃
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		28KG	28KG	28KG

*Models coming soon-80V/240V/400V

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Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6006C-800-20	IT6012C-80-340	IT6012C-400-80
Rated Input Value (0 °C~40 °C)	Voltage	0~800V	0~80V	0~400V
	Current	-20~20A	-340~340A	-80~80A
	Power	-6000~6000W	-12000~12000W	-12000~12000W
	Resistance	0~1Ω	0~1Ω	0~1Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01%FS	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02%FS	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Setup Resolution	Voltage	0.01V	0.001V	0.01V
	Current	0.001A	0.01A	0.001A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.1mΩ	0.0001mΩ	0.01mΩ
Readback Resolution	Voltage	0.01V	0.001V	0.01V
	Current	0.001A	0.01A	0.001A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.1mΩ	0.0001mΩ	0.01mΩ
Setting 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	≤1% + 1%FS	≤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	≤1% + 1%FS	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz -20MHz)	Voltage	≤320mVpp(MAX: ≤800mVpp)	≤32mVpp(MAX: ≤80mVpp)	≤160mVpp(MAX: ≤400mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C	≤200PPM/°C
Readback Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C	≤200PPM/°C
Rising Time (no load)	Voltage	≤15ms	≤15ms	≤15ms
Rising Time (full load)	Voltage	≤30ms	≤30ms	≤30ms
Falling Time (no load)	Voltage	≤30ms	≤30ms	≤30ms
Falling Time (full load)	Voltage	≤15ms	≤15ms	≤15ms
Dynamic Mode	Voltage	≤2ms	≤2ms	≤2ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup 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
Setup 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
Efficiency		~92%	~90%	~92%
Remote Sense Compensation Voltage		≤8V (2Vmin)	2V	≤4V (2Vmin)
Command Response Time		2mS	2mS	2mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		19.27A	22.25A	22.25A
Maximum Input Apparent Power		6.6kVA	13.2kVA	13.2kVA
Storage Tem.		-10°C~70°C	-10°C~70°C	-10°C~70°C
Isolation (output to ground)		1000V	500V	500V
Working Tem.		0~50°C	0~50°C	0~50°C
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		28KG	34KG	34KG

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IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6012C-500-60	IT6012C-800-40	IT6018C-80-510
Rated Input Value (0℃~40℃)	Voltage	0~500V	0~800V	0~80V
	Current	-60~60A	-40~40A	-510~510A
	Power	-12000~12000W	-12000~12000W	-18000~18000W
	Resistance	0~1Ω	0~1Ω	0~1Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01%FS	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02%FS	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Setup Resolution	Voltage	0.01V	0.01V	0.001V
	Current	0.001A	0.001A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.01mΩ	0.01mΩ	0.0001mΩ
Readback Resolution	Voltage	0.01V	0.01V	0.001V
	Current	0.001A	0.001A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	Resistance	0.01mΩ	0.01mΩ	0.0001mΩ
Setting 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	≤1% + 1%FS	≤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	≤1% + 1%FS	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz ~20MHz)	Voltage	≤200mVpp(MAX: ≤500mVpp)	≤200mVpp(MAX: ≤500mVpp)	≤32mVpp(MAX: ≤80mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Temperature Coefficient (% of Output/℃+Offset)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Rising Time (no load)	Voltage	≤15ms	≤15ms	≤15ms
Rising Time (full load)	Voltage	≤30ms	≤30ms	≤30ms
Falling Time (no load)	Voltage	≤30ms	≤30ms	≤30ms
Falling Time (full load)	Voltage	≤15ms	≤15ms	≤15ms
Dynamic Mode	Voltage	≤2ms	≤2ms	≤2ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup 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
Setup 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
Efficiency		~92%	~92%	~90%
Remote Sense Compensation Voltage		≤5V (2Vmin)	≤8V (2Vmin)	2V
Command Response Time		2mS	2mS	2mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		22.25A	22.25A	33.37A
Maximum Input Apparent Power		13.2kVA	13.2kVA	19.8kVA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Isolation (output to ground)		1000V	1500V	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		34KG	34KG	40KG

*Models coming soon-80V/240V/400V

*This information is subject to change without notice.

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6018C-240-170	IT6018C-400-120
Rated Input Value (0 °C~40 °C)	Voltage	0~240V	0~400V
	Current	-170~170A	-120~120A
	Power	-18000~18000W	-18000~18000W
	Resistance	0~1Ω	0~1Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Setup Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.001mΩ	0.001mΩ
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.01A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.001mΩ	0.001mΩ
Setting 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	≤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
	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	≤96mVpp(MAX: ≤240mVpp)	≤160mVpp(MAX: ≤400mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C
Readback Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C
Rising Time (no load)	Voltage	≤15ms	≤15ms
Rising Time (full load)	Voltage	≤30ms	≤30ms
Falling Time (no load)	Voltage	≤30ms	≤30ms
Falling Time (full load)	Voltage	≤15ms	≤15ms
Dynamic Mode	Voltage	≤2ms	≤2ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz
Setup 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
Setup 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
Efficiency		~90%	~92%
Remote Sense Compensation Voltage		≤2.4V (2Vmin)	≤4V (2Vmin)
Command Response Time		2mS	2mS
Power Factor		0.99	0.99
Maximum Input Current		33.37A	33.37A
Maximum Input Apparent Power		19.8kVA	19.8kVA
Storage Tem.		-10 °C ~ 70 °C	-10 °C ~ 70 °C
Isolation (output to ground)		500V	500V
Working Tem.		0 ~ 50 °C	0 ~ 50 °C
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		40KG	40KG

*Models coming soon-80V/240V/400V

*This information is subject to change without notice.

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6018C-500-90	IT6018C-800-60
Rated Input Value (0 °C ~ 40 °C)	Voltage	0~500V	0~800V
	Current	-90~90A	-60~60A
	Power	-18000~18000W	-18000~18000W
	Resistance	0~1Ω	0~1Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Setup Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01mΩ	0.01mΩ
Readback Resolution	Voltage	0.01V	0.01V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	Resistance	0.01mΩ	0.01mΩ
Setting 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	≤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
	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)	≤320mVpp(MAX: ≤800mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C
Readback Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C
Rising Time (no load)	Voltage	≤15ms	≤15ms
Rising Time (full load)	Voltage	≤30ms	≤30ms
Falling Time (no load)	Voltage	≤30ms	≤30ms
Falling Time (full load)	Voltage	≤15ms	≤15ms
Dynamic Mode	Voltage	≤2ms	≤2ms
AC Input	Voltage	198V ~ 264V (Decrease 50%) 342V ~ 528V (3P4W)	198V ~ 264V (Decrease 50%) 342V ~ 528V (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz
Setup 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
Setup 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
Efficiency		~92%	~92%
Remote Sense Compensation Voltage		≤5V (2Vmin)	≤8V(2Vmin)
Command Response Time		2mS	2mS
Power Factor		0.99	0.99
Maximum Input Current		33.37A	33.37A
Maximum Input Apparent Power		19.8kVA	19.8kVA
Storage Tem.		-10°C~70°C	-10°C~70°C
Isolation (output to ground)		1000V	1500V
Working Tem.		0~50°C	0~50°C
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		40KG	40kg

*Models coming soon-80V/240V/400V

*This information is subject to change without notice.

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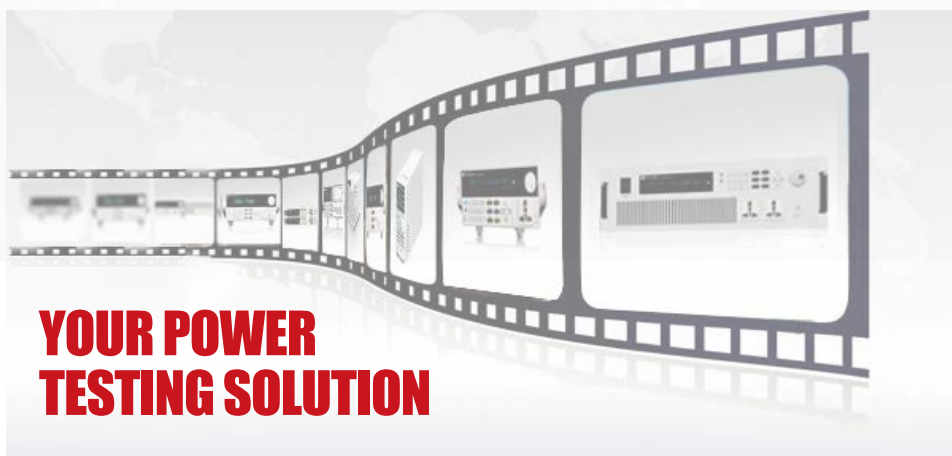
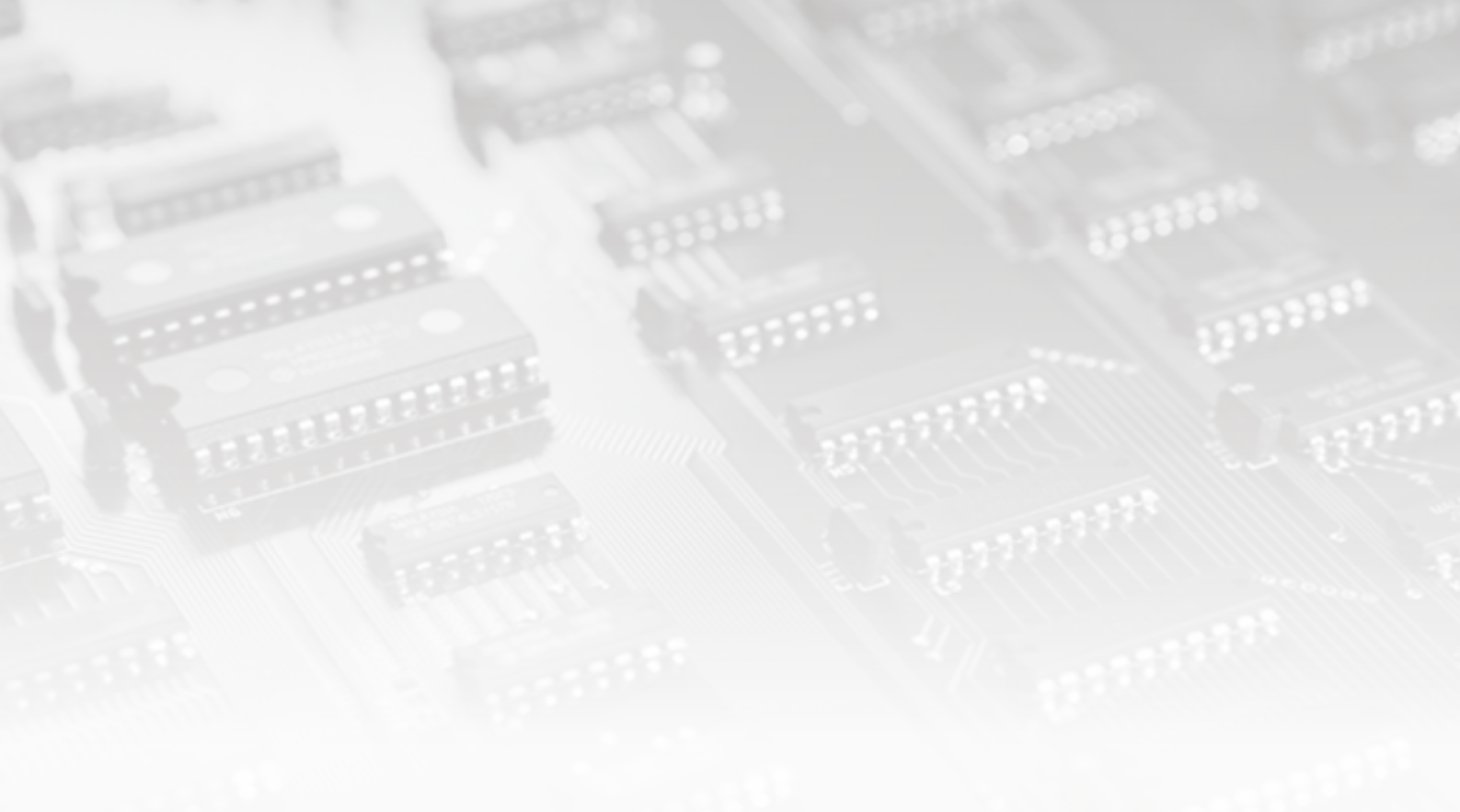
IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6018C-1500-30	IT6018C-2250-20
Rated Input Value (0 °C~40 °C)	Voltage	0~1500V	0~2250V
	Current	-30~30A	-20~20A
	Power	-18000~18000W	-18000~18000W
	Resistance	0~1Ω	0~1Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS
Setup Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.1mΩ	0.1mΩ
Readback Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.01A
	Power	0.001kW	0.001kW
	Resistance	0.1mΩ	0.1mΩ
Setting 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	≤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
	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
Setting Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C
Readback Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤50PPM/°C	≤50PPM/°C
	Current	≤200PPM/°C	≤200PPM/°C
Rising Time (no load)	Voltage	≤15ms	≤15ms
Rising Time (full load)	Voltage	≤30ms	≤30ms
Falling Time (no load)	Voltage	≤30ms	≤30ms
Falling Time (full load)	Voltage	≤15ms	≤15ms
Dynamic Mode	Voltage	≤2ms	≤2ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V (3P4W)	198V~264V (Decrease 50%) 342V~528V (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz
Setup 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
Setup 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
Efficiency		~92%	~92%
Remote Sense Compensation Voltage		≤15V (2Vmin)	≤22.5V (2Vmin)
Command Response Time		2mS	2mS
Power Factor		0.99	0.99
Maximum Input Current		33.37A	33.37A
Maximum Input Apparent Power		19.8kVA	19.8kVA
Storage Tem.		-10°C~70°C	-10°C~70°C
Isolation (output to ground)		1800V	3000V
Working Tem.		0~50°C	0~50°C
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		40KG	40KG

*Models coming soon-80V/240V/400V

*This information is subject to change without notice.



This information is subject to change without notice. For more information, please contact ITECH.

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