

Product

IT6000C Bidirectional Programmable DC Power Supply

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



IT6000C Series Bidirectional Programmable DC Power Supply

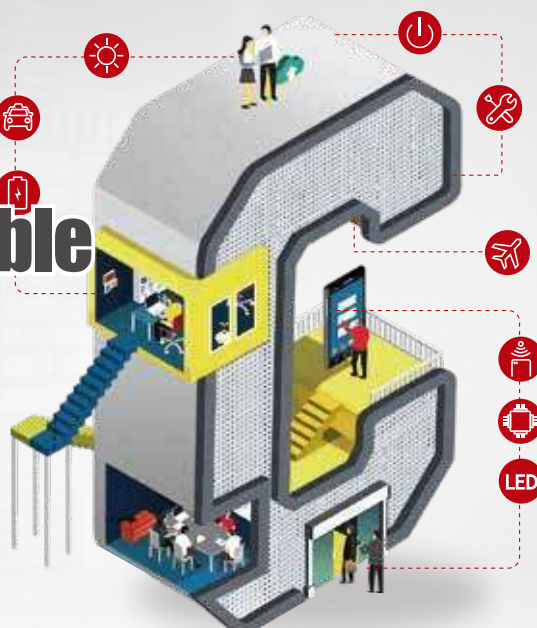
APPLICATIONS

- 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	IT6006C-80-170	170A	6kW	200V	IT6006C-200-70	70A	6kW	360V	IT6006C-360-40	40A	6kW
	IT6012C-80-340	340A	12kW		IT6012C-200-140	140A	12kW		IT6012C-360-80	80A	12kW
	IT6018C-80-510	510A	18kW		IT6018C-200-210	210A	18kW		IT6018C-360-120	120A	18kW
	IT6036C-80-1020	1020A	36kW		IT6036C-200-420	420A	36kW		IT6036C-360-240	240A	36kW
	IT6054C-80-1530	1530A	54kW		IT6054C-200-630	630A	54kW		IT6054C-360-360	360A	54kW
	IT6072C-80-2040	2040A	72kW		IT6072C-200-840	840A	72kW		IT6072C-360-480	480A	72kW
	IT6090C-80-2040	2040A	90kW		IT6090C-200-1050	1050A	90kW		IT6090C-360-600	600A	90kW
	IT6108C-80-2040	2040A	108kW		IT6108C-200-1260	1260A	108kW		IT6108C-360-720	720A	108kW
	IT6126C-80-2040	2040A	126kW		IT6126C-200-1470	1470A	126kW		IT6126C-360-840	840A	126kW
	IT6144C-80-2040	2040A	144kW		IT6144C-200-1680	1680A	144kW		IT6144C-360-960	960A	144kW

	Model	Current	Power		Model	Current	Power		Model	Current	Power
500V	IT6006C-500-30	30A	6kW	800V	IT6006C-800-20	20A	6kW	1500V	IT6018C-1500-30	30A	18kW
	IT6012C-500-60	60A	12kW		IT6012C-800-40	40A	12kW		IT6036C-1500-60	60A	36kW
	IT6018C-500-90	90A	18kW		IT6018C-800-60	60A	18kW		IT6054C-1500-90	90A	54kW
	IT6036C-500-180	180A	36kW		IT6036C-800-120	120A	36kW		IT6072C-1500-120	120A	72kW
	IT6054C-500-270	270A	54kW		IT6054C-800-180	180A	54kW		IT6090C-1500-150	150A	90kW
	IT6072C-500-360	360A	72kW		IT6072C-800-240	240A	72kW		IT6108C-1500-180	180A	108kW
	IT6090C-500-450	450A	90kW		IT6090C-800-300	300A	90kW		IT6126C-1500-210	210A	126kW
	IT6108C-500-540	540A	108kW		IT6108C-800-360	360A	108kW		IT6144C-1500-240	240A	144kW
	IT6126C-500-630	630A	126kW		IT6126C-800-420	420A	126kW				
	IT6144C-500-720	720A	144kW		IT6144C-800-480	480A	144kW				

	Model	Current	Power		Model	Current	Power		Model	Current	Power
2250V	IT6018C-2250-20	20A	18kW	2250V	IT6072C-2250-120	80A	72kW	2250V	IT6126C-2250-210	140A	126kW
	IT6036C-2250-60	40A	36kW		IT6090C-2250-150	100A	90kW		IT6144C-2250-240	160A	144kW
	IT6054C-2250-90	60A	54kW		IT6108C-2250-180	120A	108kW				

*Models coming soon-80V/200V/360V

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Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Features

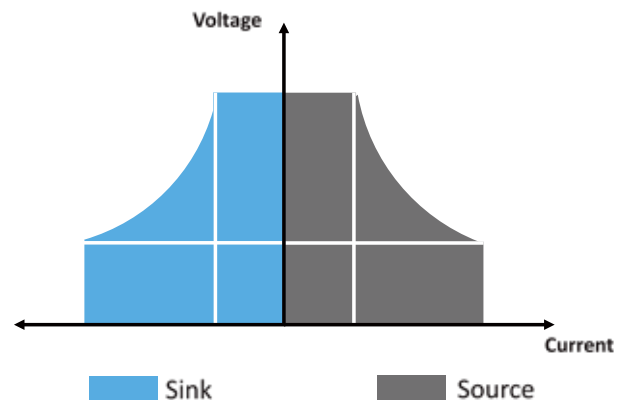
- Bi-directional source and regenerative sink
- Stand-alone max. output power 144kW, expandable up to 1.152 MW by paralleling
- Voltage range: 0 to 2250V
- Current range: 0 to 2040A
- High power density up to 18kW in compact 3U rack space
- Bi-directional power transfer, seamless switch between sourcing 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 .

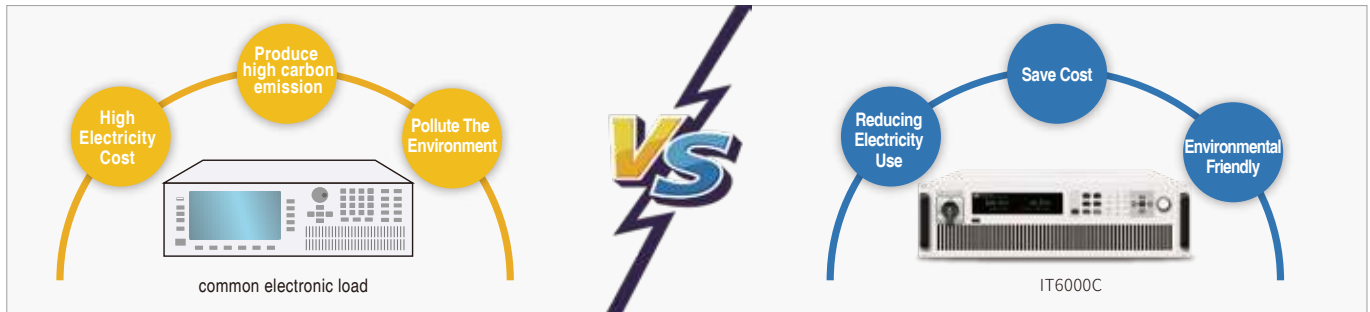


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IT6000C Bidirectional Programmable DC Power Supply

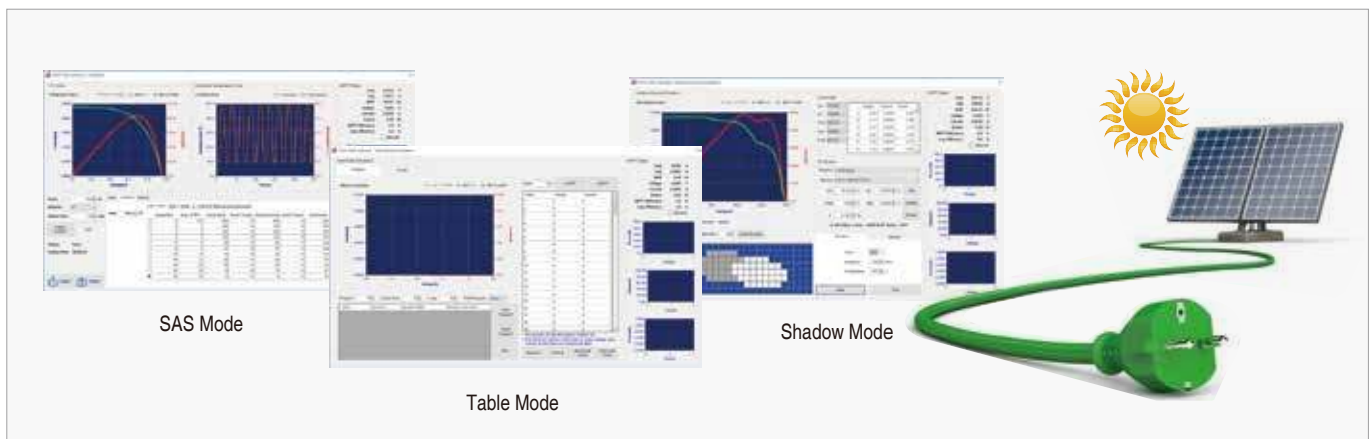
High energy regenerative efficiency

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.



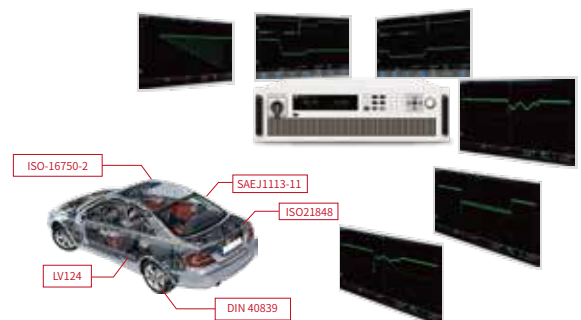
Application for solar array simulation

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 /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

IT6000C Bidirectional Programmable DC Power Supply

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.



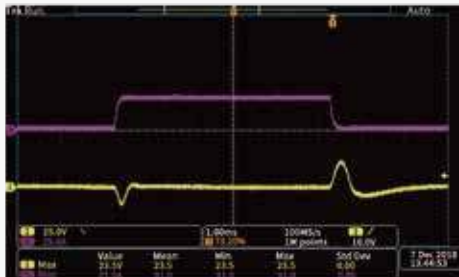
Control loop CC priority mode

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

Patented parallel connection technology

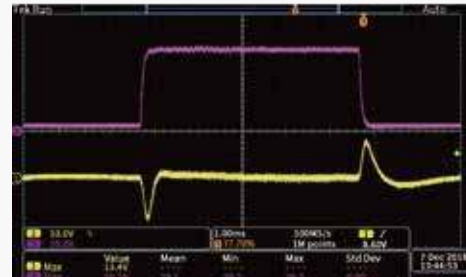
Advantages:

- 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.



No substantial changes comparing with single unit after parallel connection



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



consistent with single unit waveform after parallel connection

Your Power Testing Solution

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Specification

		IT6006C-80-170	IT6006C-200-70	IT6006C-360-40
Rated Input Value (0°C~40°C)	Voltage	0~80V	0~200V	0~360V
	Current	-170~170A	-70~70A	-40~40A
	Power	-6000~6000W	-6000~6000W	-6000~6000W
	Resistance	0~1.067Ω	0~6.667Ω	0~21.6Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01% + 8mV	≤0.01% + 20mV	≤0.01% + 36mV
	Current	≤0.05% + 85mA	≤0.05% + 35mA	≤0.05% + 20mA
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02% + 24mV	≤0.02% + 60mV	≤0.02% + 108mV
	Current	≤0.05% + 85mA	≤0.05% + 35mA	≤0.05% + 20mA
Setup Resolution	Voltage	0.001V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Resistance	0.0001Ω	0.0001Ω	0.001Ω
Readback Resolution	Voltage	0.001V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Resistance	0.0001Ω	0.0001Ω	0.001Ω
Setting Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 40mV	≤0.05% + 100mV	≤0.05% + 180mV
	Current	≤0.1% + 170mA	≤0.1% + 70mA	≤0.1% + 40mA
	Power	≤0.5% + 30W	≤0.5% + 30W	≤0.5% + 30W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Readback Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 40mV	≤0.05% + 100mV	≤0.05% + 180mV
	Current	≤0.1% + 170mA	≤0.1% + 70mA	≤0.1% + 40mA
	Power	≤0.5% + 30W	≤0.5% + 30W	≤0.5% + 30W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Ripple (20Hz ~20MHz)	Voltage	≤80mVpp	≤200mVpp	≤360mVpp
	Current	≤0.05% + 85mArms	≤0.05% + 35mArms	≤0.05% + 20mArms
Setting Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 8mV	≤0.01% + 20mV	≤0.01% + 36mV
	Current	≤0.02% + 34mA	≤0.02% + 14mA	≤0.02% + 8mA
Readback Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 8mV	≤0.01% + 20mV	≤0.01% + 36mV
	Current	≤0.02% + 34mA	≤0.02% + 14mA	≤0.02% + 8mA
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	380V±10% (3P4W)	380V±10% (3P4W)	380V±10% (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 40mV	≤0.05% + 100mV	≤0.05% + 180mV
	Current	≤0.1% + 170mA	≤0.1% + 70mA	≤0.1% + 40mA
Setup Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 40mV	≤0.05% + 100mV	≤0.05% + 180mV
	Current	≤0.1% + 170mA	≤0.1% + 70mA	≤0.1% + 40mA
Readback Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 40mV	≤0.05% + 100mV	≤0.05% + 180mV
	Current	≤0.1% + 170mA	≤0.1% + 70mA	≤0.1% + 40mA
Readback Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 40mV	≤0.05% + 100mV	≤0.05% + 180mV
	Current	≤0.1% + 170mA	≤0.1% + 70mA	≤0.1% + 40mA
Efficiency		~95%	~95%	~95%
Remote Sense Compensation Voltage		≤4V	≤10V	≤18V
Command Response Time		20mS	20mS	20mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		16A	16A	16A
Maximum Input Apparent Power		6.4kVA	6.4kVA	6.4kVA
Storage Tem.		-10°C~70°C	-10°C~70°C	-10°C~70°C
Isolation (output to ground)		500V	500V	500V
Working Tem.		0~40°C	0~40°C	0~40°C
Net. Dimension (mm)		483*132.8*660mm	483*132.8*660mm	483*132.8*660mm
Net. Weight		25kG	25kG	25kG

*Models coming soon-80V/200V/360V

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Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6006C-500-30	IT6006C-800-20	IT6012C-80-340
Rated Input Value (0°C~40°C)	Voltage	0~500V	0~800V	0~80V
	Current	-30~30A	-20~20A	-340~340A
	Power	-6000~6000W	-6000~6000W	-12000~12000W
	Resistance	0~41.667Ω	0~106.667Ω	0~0.533Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01% + 50mV	≤0.01% + 80mV	≤0.01% + 8mV
	Current	≤0.05% + 15mA	≤0.05% + 10mA	≤0.05% + 170mA
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02% + 150mV	≤0.02% + 240mV	≤0.02% + 24mV
	Current	≤0.05% + 15mA	≤0.05% + 10mA	≤0.05% + 170mA
Setup Resolution	Voltage	0.01V	0.01V	0.001V
	Current	0.001A	0.001A	0.01A
	Power	0.1W	0.1W	0.1W
	Resistance	0.001Ω	0.01Ω	0.00001Ω
Readback Resolution	Voltage	0.01V	0.01V	0.001V
	Current	0.001A	0.001A	0.01A
	Power	0.1W	0.1W	0.1W
	Resistance	0.001Ω	0.01Ω	0.00001Ω
Setting Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 250mV	≤0.05% + 400mV	≤0.05% + 40mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA	≤0.1% + 340mA
	Power	≤0.5% + 30W	≤0.5% + 30W	≤0.5% + 60W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Readback Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 250mV	≤0.05% + 400mV	≤0.05% + 40mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA	≤0.1% + 340mA
	Power	≤0.5% + 30W	≤0.5% + 30W	≤0.5% + 60W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Ripple (20Hz -20MHz)	Voltage	≤500mVpp	≤800mVpp	≤80mVpp
	Current	≤0.05% + 15mArms	≤0.05% + 10mArms	≤0.05% + 170mArms
Setting Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 50mV	≤0.01% + 80mV	≤0.01% + 8mV
	Current	≤0.02% + 6mA	≤0.02% + 4mA	≤0.02% + 68mA
Readback Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 50mV	≤0.01% + 80mV	≤0.01% + 8mV
	Current	≤0.02% + 6mA	≤0.02% + 4mA	≤0.02% + 68mA
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	380V±10% (3P4W)	380V±10% (3P4W)	380V±10% (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 250mV	≤0.05% + 400mV	≤0.05% + 40mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA	≤0.1% + 340mA
Setup Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 250mV	≤0.05% + 400mV	≤0.05% + 40mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA	≤0.1% + 340mA
Readback Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 250mV	≤0.05% + 400mV	≤0.05% + 40mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA	≤0.1% + 340mA
Readback Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 250mV	≤0.05% + 400mV	≤0.05% + 40mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA	≤0.1% + 340mA
Efficiency		~95%	~95%	~95%
Remote Sense Compensation Voltage		≤25V	≤40V	≤4V
Command Response Time		20mS	20mS	20mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		16A	16A	22A
Maximum Input Apparent Power		6.4kVA	6.4kVA	12.8kVA
Storage Tem.		-10°C~70°C	-10°C~70°C	-10°C~70°C
Isolation (output to ground)		1000V	1500V	500V
Working Tem.		0~40°C	0~40°C	0~40°C
Net. Dimension (mm)		483*132.8*660mm	483*132.8*660mm	483*132.8*660mm
Net. Weight		25kG	25kG	35kG

*Models coming soon-80V/200V/360V

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IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6012C-200-140	IT6012C-360-80	IT6012C-500-60
Rated Input Value (0°C~40°C)	Voltage	0~200V	0~360V	0~500V
	Current	-140~140A	-80~80A	-60~60A
	Power	-12000~12000W	-12000~12000W	-12000~12000W
	Resistance	0~3.333Ω	0~10.800Ω	0~20.833Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01% + 20mV	≤0.01% + 36mV	≤0.01% + 50mV
	Current	≤0.05% + 70mA	≤0.05% + 40mA	≤0.05% + 30mA
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02% + 60mV	≤0.02% + 108mV	≤0.02% + 150mV
	Current	≤0.05% + 70mA	≤0.05% + 40mA	≤0.05% + 30mA
Setup Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Resistance	0.0001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Resistance	0.0001Ω	0.001Ω	0.001Ω
Setting Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 100mV	≤0.05% + 180mV	≤0.05% + 250mV
	Current	≤0.1% + 140mA	≤0.1% + 80mA	≤0.1% + 60mA
	Power	≤0.5% + 60W	≤0.5% + 60W	≤0.5% + 60W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Readback Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 100mV	≤0.05% + 180mV	≤0.05% + 250mV
	Current	≤0.1% + 140mA	≤0.1% + 80mA	≤0.1% + 60mA
	Power	≤0.5% + 60W	≤0.5% + 60W	≤0.5% + 60W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Ripple (20Hz ~20MHz)	Voltage	≤200mVpp	≤360mVpp	≤500mVpp
	Current	≤0.05% + 70mArms	≤0.05% + 40mArms	≤0.05% + 30mArms
Setting Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 20mV	≤0.01% + 36mV	≤0.01% + 50mV
	Current	≤0.02% + 28mA	≤0.02% + 16mA	≤0.02% + 12mA
Readback Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 20mV	≤0.01% + 36mV	≤0.01% + 50mV
	Current	≤0.02% + 28mA	≤0.02% + 16mA	≤0.02% + 12mA
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	380V±10% (3P4W)	380V±10% (3P4W)	380V±10% (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 100mV	≤0.05% + 180mV	≤0.05% + 250mV
	Current	≤0.1% + 140mA	≤0.1% + 80mA	≤0.1% + 60mA
Setup Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 100mV	≤0.05% + 180mV	≤0.05% + 250mV
	Current	≤0.1% + 140mA	≤0.1% + 80mA	≤0.1% + 60mA
Readback Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 100mV	≤0.05% + 180mV	≤0.05% + 250mV
	Current	≤0.1% + 140mA	≤0.1% + 80mA	≤0.1% + 60mA
Readback Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 100mV	≤0.05% + 180mV	≤0.05% + 250mV
	Current	≤0.1% + 140mA	≤0.1% + 80mA	≤0.1% + 60mA
Efficiency		~95%	~95%	~95%
Remote Sense Compensation Voltage		≤10V	≤18V	≤25V
Command Response Time		20mS	20mS	20mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		22A	22A	22A
Maximum Input Apparent Power		12.8kVA	12.8kVA	12.8kVA
Storage Tem.		-10°C~70°C	-10°C~70°C	-10°C~70°C
Isolation (output to ground)		500V	500V	1000V
Working Tem.		0~40°C	0~40°C	0~40°C
Net. Dimension (mm)		483*132.8*660mm	483*132.8*660mm	483*132.8*660mm
Net. Weight		35kG	35kG	35kG

*Models coming soon-80V/200V/360V

*This information is subject to change without notice.

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6012C-800-40	IT6018C-80-510	IT6018C-200-210
Rated Input Value (0°C~40°C)	Voltage	0~800V	0~80V	0~200V
	Current	-40~40A	-510~510A	-210~210A
	Power	-12000~12000W	-18000~18000W	-18000~18000W
	Resistance	0~53.333Ω	0~0.356Ω	0~2.222Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01% + 80mV	≤0.01% + 8mV	≤0.01% + 20mV
	Current	≤0.05% + 20mA	≤0.05% + 255mA	≤0.05% + 105mA
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02% + 240mV	≤0.02% + 24mV	≤0.02% + 60mV
	Current	≤0.05% + 20mA	≤0.05% + 255mA	≤0.05% + 105mA
Setup Resolution	Voltage	0.01V	0.001V	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.1W	0.1W	0.1W
	Resistance	0.001Ω	0.00001Ω	0.0001Ω
Readback Resolution	Voltage	0.01V	0.001V	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.1W	0.1W	0.1W
	Resistance	0.001Ω	0.00001Ω	0.0001Ω
Setting Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 400mV	≤0.05% + 40mV	≤0.05% + 100mV
	Current	≤0.1% + 40mA	≤0.1% + 510mA	≤0.1% + 210mA
	Power	≤0.5% + 60W	≤0.5% + 90W	≤0.5% + 90W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Readback Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 400mV	≤0.05% + 40mV	≤0.05% + 100mV
	Current	≤0.1% + 40mA	≤0.1% + 510mA	≤0.1% + 210mA
	Power	≤0.5% + 60W	≤0.5% + 90W	≤0.5% + 90W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Ripple (20Hz -20MHz)	Voltage	≤800mVpp	≤80mVpp	≤200mVpp
	Current	≤0.05% + 20mArms	≤0.05% + 255mArms	≤0.05% + 105mArms
Setting Temperature Coefficient (% of Output/°C +Offset)	Voltage	≤0.01% + 80mV	≤0.01% + 8mV	≤0.01% + 20mV
	Current	≤0.02% + 8mA	≤0.02% + 102mA	≤0.02% + 42mA
Readback Temperature Coefficient (% of Output/°C +Offset)	Voltage	≤0.01% + 80mV	≤0.01% + 8mV	≤0.01% + 20mV
	Current	≤0.02% + 8mA	≤0.02% + 102mA	≤0.02% + 42mA
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	380V±10% (3P4W)	380V±10% (3P4W)	380V±10% (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 400mV	≤0.05% + 40mV	≤0.05% + 100mV
	Current	≤0.1% + 40mA	≤0.1% + 510mA	≤0.1% + 210mA
Setup Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 400mV	≤0.05% + 40mV	≤0.05% + 100mV
	Current	≤0.1% + 40mA	≤0.1% + 510mA	≤0.1% + 210mA
Readback Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 400mV	≤0.05% + 40mV	≤0.05% + 100mV
	Current	≤0.1% + 40mA	≤0.1% + 510mA	≤0.1% + 210mA
Readback Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 400mV	≤0.05% + 40mV	≤0.05% + 100mV
	Current	≤0.1% + 40mA	≤0.1% + 510mA	≤0.1% + 210mA
Efficiency		~95%	~95%	~95%
Remote Sense Compensation Voltage		≤40V	≤4V	≤10V
Command Response Time		20mS	20mS	20mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		22A	33A	33A
Maximum Input Apparent Power		12.8kVA	19.1kVA	19.1kVA
Storage Tem.		-10°C~70°C	-10°C~70°C	-10°C~70°C
Isolation (output to ground)		1500V	500V	500V
Working Tem.		0~40°C	0~40°C	0~40°C
Net. Dimension (mm)		483*132.8*660mm	483*132.8*660mm	483*132.8*660mm
Net. Weight		35kG	45kG	45kG

*Models coming soon-80V/200V/360V

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Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6018C-360-120	IT6018C-500-90	IT6018C-800-60
Rated Input Value (0°C-40°C)	Voltage	0~360V	0~500V	0~800V
	Current	-120~120A	-90~90A	-60~60A
	Power	-18000~18000W	-18000~18000W	-18000~18000W
	Resistance	0~7.200Ω	0~13.889Ω	0~35.556Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01% + 36mV	≤0.01% + 50mV	≤0.01% + 80mV
	Current	≤0.05% + 60mA	≤0.05% + 45mA	≤0.05% + 30mA
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02% + 108mV	≤0.02% + 150mV	≤0.02% + 240mV
	Current	≤0.05% + 60mA	≤0.05% + 45mA	≤0.05% + 30mA
Setup Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Resistance	0.0001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.01A	0.001A	0.001A
	Power	0.1W	0.1W	0.1W
	Resistance	0.0001Ω	0.001Ω	0.001Ω
Setting Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 180mV	≤0.05% + 250mV	≤0.05% + 400mV
	Current	≤0.1% + 120mA	≤0.1% + 90mA	≤0.1% + 60mA
	Power	≤0.5% + 90W	≤0.5% + 90W	≤0.5% + 90W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Readback Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 180mV	≤0.05% + 250mV	≤0.05% + 400mV
	Current	≤0.1% + 120mA	≤0.1% + 90mA	≤0.1% + 60mA
	Power	≤0.5% + 90W	≤0.5% + 90W	≤0.5% + 90W
	Resistance	≤1%FS	≤1%FS	≤1%FS
Ripple (20Hz -20MHz)	Voltage	≤360mVpp	≤500mVpp	≤800mVpp
	Current	≤0.05% + 60mArms	≤0.05% + 45mArms	≤0.05% + 30mArms
Setting Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 36mV	≤0.01% + 50mV	≤0.01% + 80mV
	Current	≤0.02% + 24mA	≤0.02% + 18mA	≤0.02% + 12mA
Readback Temperature Coefficient (% of Output/ C +Offset)	Voltage	≤0.01% + 36mV	≤0.01% + 50mV	≤0.01% + 80mV
	Current	≤0.02% + 24mA	≤0.02% + 18mA	≤0.02% + 12mA
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	380V±10% (3P4W)	380V±10% (3P4W)	380V±10% (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 180mV	≤0.05% + 250mV	≤0.05% + 400mV
	Current	≤0.1% + 120mA	≤0.1% + 90mA	≤0.1% + 60mA
Setup Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 180mV	≤0.05% + 250mV	≤0.05% + 400mV
	Current	≤0.1% + 120mA	≤0.1% + 90mA	≤0.1% + 60mA
Readback Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 180mV	≤0.05% + 250mV	≤0.05% + 400mV
	Current	≤0.1% + 120mA	≤0.1% + 90mA	≤0.1% + 60mA
Readback Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 180mV	≤0.05% + 250mV	≤0.05% + 400mV
	Current	≤0.1% + 120mA	≤0.1% + 90mA	≤0.1% + 60mA
Efficiency		~95%	~95%	~95%
Remote Sense Compensation Voltage		≤18V	≤25V	≤40V
Command Response Time		20mS	20mS	20mS
Power Factor		0.99	0.99	0.99
Maximum Input Current		33A	33A	33A
Maximum Input Apparent Power		19.1kVA	19.1kVA	19.1kVA
Storage Tem.		-10°C~70°C	-10°C~70°C	-10°C~70°C
Isolation (output to ground)		500V	1000V	1500V
Working Tem.		0~40°C	0~40°C	0~40°C
Net. Dimension (mm)		483*132.8*660mm	483*132.8*660mm	483*132.8*660mm
Net. Weight		45kg	45kg	45kg

*Models coming soon-80V/200V/360V

*This information is subject to change without notice.

Your Power Testing Solution

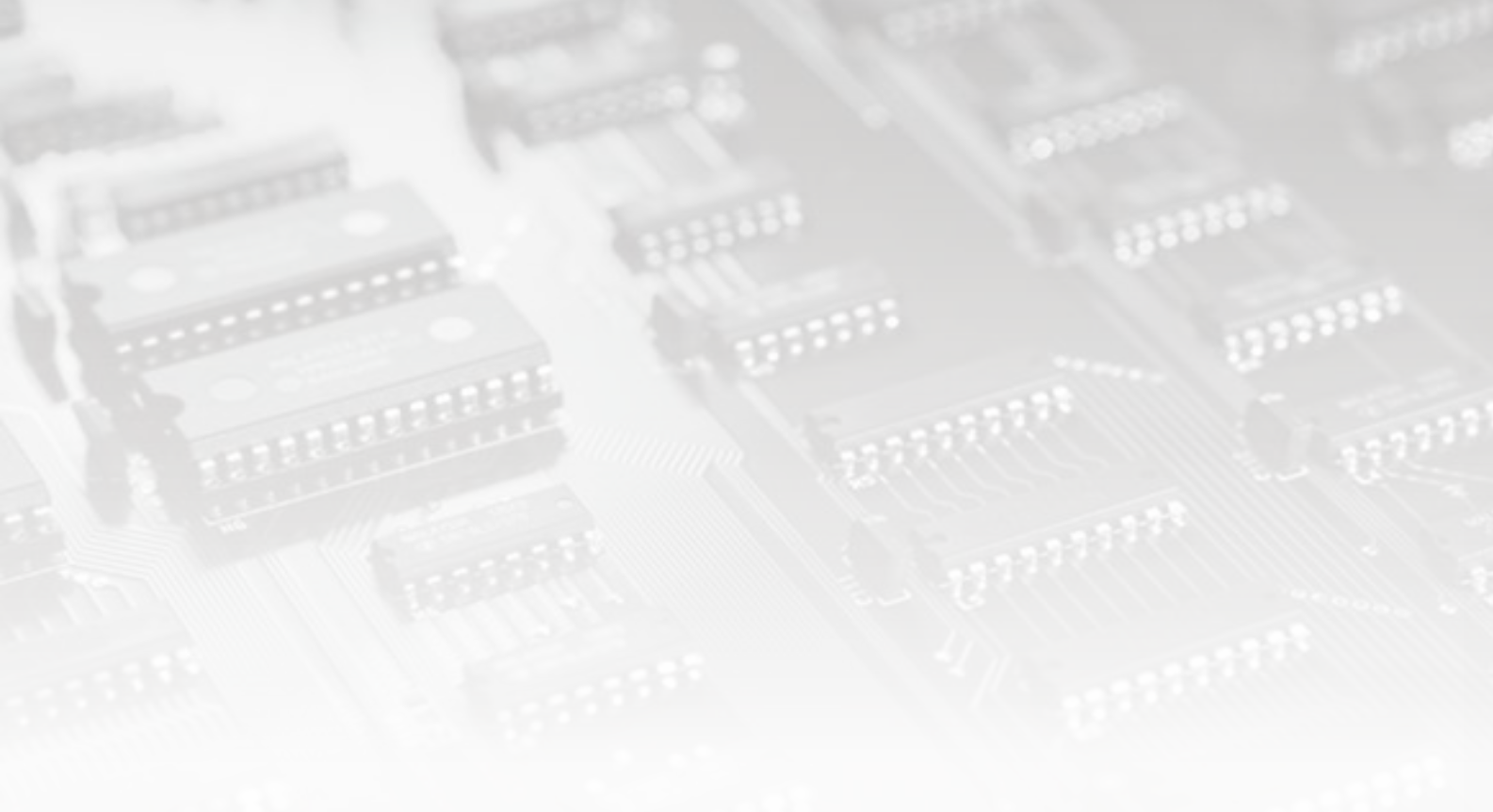
IT6000C Bidirectional Programmable DC Power Supply

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	0~125.00Ω	0~281.25Ω
Power Regulation ±(% of Output+Offset)	Voltage	≤0.01% + 150mV	≤0.01% + 225mV
	Current	≤0.05% + 15mA	≤0.05% + 10mA
Load Regulation ±(% of Output+Offset)	Voltage	≤0.02% + 450mV	≤0.02% + 675mV
	Current	≤0.05% + 15mA	≤0.05% + 10mA
Setup Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Resistance	0.01Ω	0.01Ω
Readback Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.1W	0.1W
	Resistance	0.01Ω	0.01Ω
Setting Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 750mV	≤0.05% + 1125mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA
	Power	≤0.5% + 90W	≤0.5% + 90W
	Resistance	≤1%FS	≤1%FS
Readback Accuracy within 12 mons 25°±5° ±(% of Output +Offset)	Voltage	≤0.05% + 750mV	≤0.05% + 1125mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA
	Power	≤0.5% + 90W	≤0.5% + 90W
	Resistance	≤1%FS	≤1%FS
Ripple (20Hz -20MHz)	Voltage	≤1500mVpp	≤2250mVpp
	Current	≤0.05% + 15mArms	≤0.05% + 10mArms
Setting Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤0.01% + 150mV	≤0.01% + 225mV
	Current	≤0.02% + 6mA	≤0.02% + 4mA
Readback Temperature Coefficient (% of Output/ °C +Offset)	Voltage	≤0.01% + 150mV	≤0.01% + 225mV
	Current	≤0.02% + 6mA	≤0.02% + 4mA
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	380V±10% (3P4W)	380V±10% (3P4W)
	Frequency	47Hz~63Hz	47Hz~63Hz
Setup Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 750mV	≤0.05% + 1125mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA
Setup Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 750mV	≤0.05% + 1125mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA
Readback Stability-30min (% of Output +Offset)	Voltage	≤0.05% + 750mV	≤0.05% + 1125mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA
Readback Stability-8h (% of Output +Offset)	Voltage	≤0.05% + 750mV	≤0.05% + 1125mV
	Current	≤0.1% + 30mA	≤0.1% + 20mA
Efficiency		~95%	~95%
Remote Sense Compensation Voltage		≤75V	≤112.5V
Command Response Time		20mS	20mS
Power Factor		0.99	0.99
Maximum Input Current		33A	33A
Maximum Input Apparent Power		19.1kVA	19.1kVA
Storage Tem.		-10°C~70°C	-10°C~70°C
Isolation (output to ground)		2000V	2500V
Working Tem.		0~40°C	0~40°C
Net. Dimension (mm)		483*132.8*660mm	483*132.8*660mm
Net. Weight		45kG	45kG

*Models coming soon-80V/200V/360V

*This information is subject to change without notice.



YOUR POWER TESTING SOLUTION

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