

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

IT6000C series is a bi-directional programmable DC power supply which adopts the third generation SiC-base technology. It integrates the source and sink function in one unit. 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 max. output voltage up to 2250V, support master-slave paralleling with averaging current distribution, max. output power up to 2MW. 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-80-150	150A	5kW	300V	IT6006C-300-75	75A	6kW	500V	IT6006C-500-40	40A	6kW
	IT6010C-80-300	300A	10kW		IT6012C-300-150	150A	12kW		IT6012C-500-80	80A	12kW
	IT6015C-80-450	450A	15kW		IT6018C-300-225	225A	18kW		IT6018C-500-120	120A	18kW
	IT6030C-80-900	900A	30kW		IT6036C-300-450	450A	36kW		IT6036C-500-240	240A	36kW
	IT6045C-80-1350	1350A	45kW		IT6054C-300-675	675A	54kW		IT6054C-500-360	360A	54kW
	IT6060C-80-1800	1800A	60kW		IT6072C-300-900	900A	72kW		IT6072C-500-480	480A	72kW
	IT6075C-80-2040	2040A	75kW		IT6090C-300-1125	1125A	90kW		IT6090C-500-600	600A	90kW
	IT6090C-80-2040	2040A	90kW		IT6108C-300-1350	1350A	108kW		IT6108C-500-720	720A	108kW
	IT6105C-80-2040	2040A	105kW		IT6126C-300-1575	1575A	126kW		IT6126C-500-840	840A	126kW
	IT6120C-80-2040	2040A	120kW		IT6144C-300-1800	1800A	144kW		IT6144C-500-960	960A	144kW

	Model	Current	Power		Model	Current	Power		Model	Current	Power
800V	IT6006C-800-25	25A	6kW	1500V	IT6018C-1500-40	40A	18kW	2250V	IT6018C-2250-25	25A	18kW
	IT6012C-800-50	50A	12kW		IT6036C-1500-80	80A	36kW		IT6036C-2250-50	50A	36kW
	IT6018C-800-75	75A	18kW		IT6054C-1500-120	120A	54kW		IT6054C-2250-75	75A	54kW
	IT6036C-800-150	150A	36kW		IT6072C-1500-160	160A	72kW		IT6072C-2250-100	100A	72kW
	IT6054C-800-225	225A	54kW		IT6090C-1500-200	200A	90kW		IT6090C-2250-125	125A	90kW
	IT6072C-800-300	300A	72kW		IT6108C-1500-240	240A	108kW		IT6108C-2250-150	150A	108kW
	IT6090C-800-375	375A	90kW		IT6126C-1500-280	280A	126kW		IT6126C-2250-175	175A	126kW
	IT6108C-800-450	450A	108kW		IT6144C-1500-320	320A	144kW		IT6144C-2250-200	200A	144kW
	IT6126C-800-525	525A	126kW								
	IT6144C-800-600	600A	144kW								

*This information is subject to change without notice

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Features

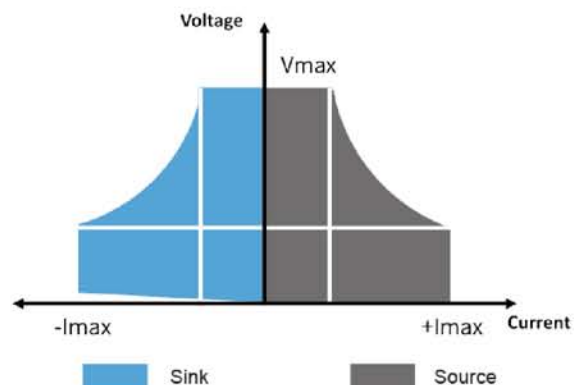
- Adopts SiC-base technology, integrates source and sink function in one unit
- High power density up to 18kW in compact 3U rack space, expandable up to 2 MW by paralleling
- Output voltage up to 2250V
- Output current up to 8000A
- Adopts third-generation SiC technology
- Bi-directional power transfer, seamless switch between sourcing and sinking
- High regenerative efficiency up to 95%
- Standard Built-in USB/CAN/LAN/digital IO interface, optional GPIB/analogue & 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
- Partial pre-compliant with LV123, LV148, DIN40839, ISO-16750-2, SAEJ1113-11, LV124 and ISO21848 testing standards
- Could be used as battery cycler and support various battery charging and discharging modes, such as CC/CV/CP
- Built-in function generator, support arbitrary-waveform generating
- Could be used as PV simulator, simulating the PV curves (with optional SAS1000 software)
- Support multiple working modes, rising and falling time can be adjustable
- Supports external data logging functionality, enabling real-time data storage via USB drive insertion
- Could be used as battery simulator (with optional BSS2000 Software)
- 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

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.



Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

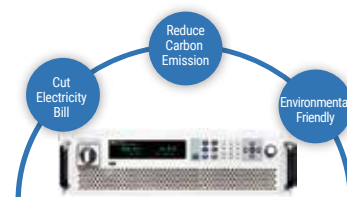
Power regenerative and eco-friendly

With the power regeneration function, IT6000C 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 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	20,914	149
36kW	41,828	298
90kW	104,570	745
108kW	125,484	894
144kW	167,312	1,191

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 :

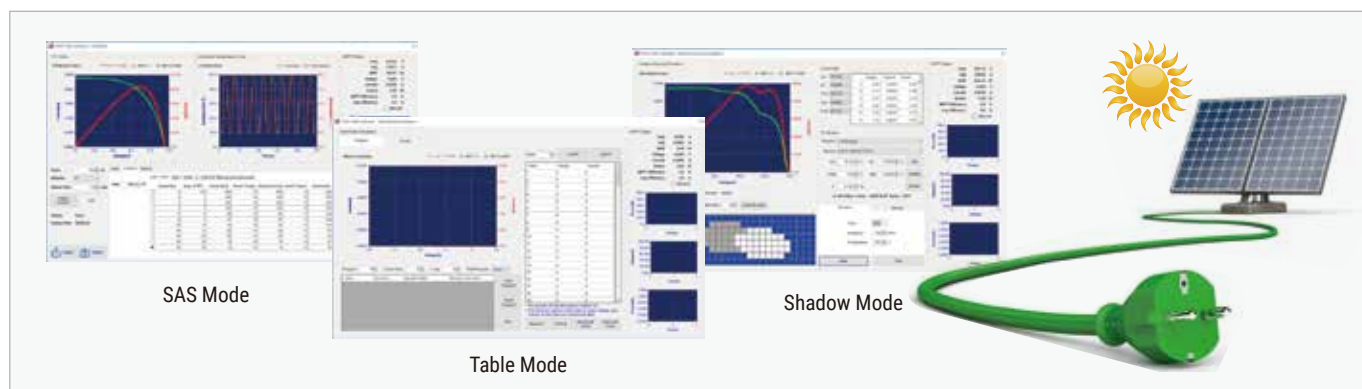
1. approximate electricity price 0.14USD/kWh for industry facility

2. 1kWh power consumption $\approx$ 0.997 CO₂ emission

* The extra cost of air conditioning is not included.

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 has built in partial voltage curves LV123, LV148, DIN40839, ISO-16750-2, SAEJ1113-11, LV124 and ISO21848. 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 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.



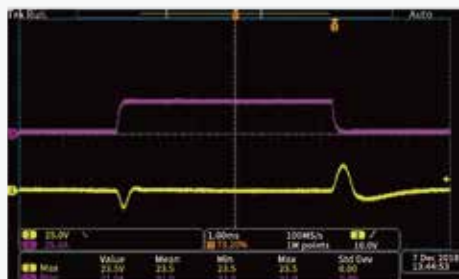
Control loop CC priority mode

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

Parallel connection

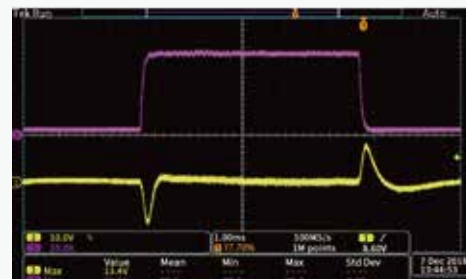
Advantages:

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



Stand-alone unit

Stand-alone unit: IT6006C-500-40 500V 40A 6000W
Input voltage: 100V Input current: 28A Sinking current : 30A



Paralleled units

2 sets IT6006C-500-40 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

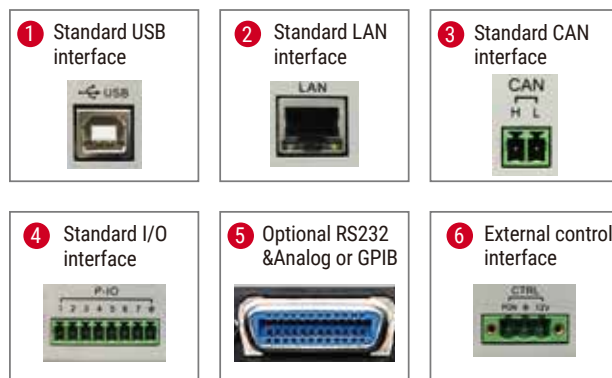
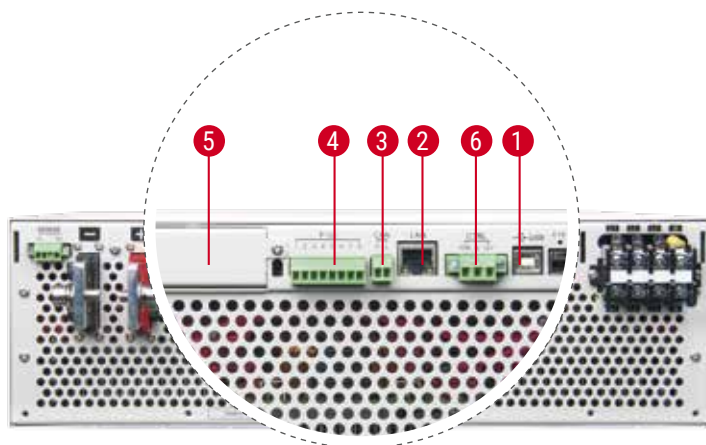
Dynamic response waveform

consistent with single unit waveform after parallel connection

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Multiple interfaces



Category	Model	Specification	Description
Accessories for parallel connection	IT-E510-15U *	15U unit, grey	800mm X 550mm X 907.64mm
	IT-E511-15U *	15U unit, black	800mm X 550mm X 907.64mm
	IT-E510-27U *	27U unit, grey	800mm X 600mm X 1441.41mm
	IT-E511-27U *	27U unit, black	800mm X 600mm X 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

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6005C-80-150	IT6010C-80-300	IT6015C-80-450
Rated Value Range (0℃~50℃)	Voltage	0~80V	0~80V	0~80V
	Current	-150~150A	-300~300A	-450~450A
	Power	-5000~5000W	-10000~10000W	-15000~15000W
	CV Resistance	0~0.533Ω	0~0.267Ω	0~0.178Ω
Power Regulation ±(% of Offset)	Voltage	≤0.01%FS	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of 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	0.001V	0.001V
	Current	0.01A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.001V	0.001V	0.001V
	Current	0.01A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
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	≤0.1%+0.3%FS	≤0.1%+0.3%FS	≤0.1%+0.3%FS
	CV 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	≤0.1%+0.3%FS	≤0.1%+0.3%FS	≤0.1%+0.3%FS
	CV Resistance	≤1%+1%FS	≤1%+1%FS	≤1%+1%FS
Ripple (20Hz~20MHz)	Voltage	≤120mVpp(MAX: ≤300mVpp)	≤120mVpp(MAX: ≤300mVpp)	≤120mVpp(MAX: ≤300mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Offset/℃)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Temperature Coefficient (% of 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
Transient Response Time	Voltage	≤1ms	≤1ms	≤1ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V {3PH + PE (no neutral)}		
	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(under full voltage and full power)		~93.2%	~93.3%	~93.3%
Remote Sense Compensation Voltage		≤5V	≤5V	≤5V
Command Response Time		2mS	2mS	1mS
Power Factor		≥0.99	≥0.99	≥0.99
Maximum Input Current(under 380Vac±10% input)		L1,L2/16A;L3/0A	L1,L2/16A;L3/28A	28.42A(per phase)
Maximum Input Apparent Power		5.5kVA	11.1kVA	16.6kVA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Working Tem.		0~50℃	0~50℃	0~50℃
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		20KG	30KG	40KG

*This information is subject to change without notice.

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6006C-300-75	IT6012C-300-150	IT6018C-300-225
Rated Value Range (0℃~50℃)	Voltage	0~300V	0~300V	0~300V
	Current	-75~75A	-150~150A	-225~225A
	Power	-6000~6000W	-12000~12000W	-18000~18000W
	CV Resistance	0~1Ω	0~1Ω	0~1Ω
Power Regulation ±(% of Offset)	Voltage	≤0.01%FS	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of 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	0.01V
	Current	0.01A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.01A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV 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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV Resistance	≤1% + 1%FS	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz~20MHz)	Voltage	≤120mVpp(MAX:≤600mVpp)	≤120mVpp(MAX:≤600mVpp)	≤120mVpp(MAX:≤300mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Offset/℃)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Temperature Coefficient (% of 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
Transient Response Time	Voltage	≤1ms	≤1ms	≤1ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V {3PH + PE (no neutral)}		
	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(under full voltage and full power)		~94.4%	~94.5%	~94.1%
Remote Sense Compensation Voltage		≤5V	≤5V	≤5V
Command Response Time		2mS	2mS	2mS
Power Factor		≥0.99	≥0.99	≥0.99
Maximum Input Current(under 380Vac ±10% input)		L1,L2/19A;L3/0A	L1,L2/19A;L3/33A	34A(per phase)
Maximum Input Apparent Power		6.6kVA	13.1kVA	19.9kVA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Working Tem.		0~50℃	0~50℃	0~50℃
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		20KG	30KG	40KG

*This information is subject to change without notice.

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

Specification

		IT6006C-500-40	IT6012C-500-80	IT6018C-500-120
Rated Value Range (0℃~50℃)	Voltage	0~500V	0~500V	0~500V
	Current	-40~40A	-80~80A	-120~120A
	Power	-6000~6000W	-12000~12000W	-18000~18000W
	CV Resistance	0~1Ω	0~1Ω	0~1Ω
Power Regulation ±(% of Offset)	Voltage	≤0.01%FS	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of 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	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV 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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV Resistance	≤1% + 1%FS	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz~20MHz)	Voltage	≤200mVpp(MAX:≤500mVpp)	≤200mVpp(MAX:≤500mVpp)	≤200mVpp(MAX:500mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Offset/℃)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Temperature Coefficient (% of 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
Transient Response Time	Voltage	≤1ms	≤1ms	≤1ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V (3PH + PE (no neutral))		
	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(under full voltage and full power)		~94%	~94.3%	~94.5%
Remote Sense Compensation Voltage		≤5V	≤5V	≤5V
Command Response Time		2mS	2mS	2mS
Power Factor		0.99	0.99	0.99
Maximum Input Current(under 380Vac±10% input)		L1,I2/19A;L3/0A	L1,I2/19A;L3/33A	33A(per phase)
Maximum Input Apparent Power		6.6kVA	13.1kVA	19.6kVA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Working Tem.		0~50℃	0~50℃	0~50℃
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		20KG	30KG	40KG

*This information is subject to change without notice.

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

		IT6006C-800-25	IT6012C-800-50	IT6018C-800-75
Rated Value Range (0℃~50℃)	Voltage	0~800V	0~800V	0~800V
	Current	-25~25A	-50~50A	-75~75A
	Power	-6000~6000W	-12000~12000W	-18000~18000W
	CV Resistance	0~1Ω	0~1Ω	0~1Ω
Power Regulation ±(% of Offset)	Voltage	≤0.01%FS	≤0.01%FS	≤0.01%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
Load Regulation ±(% of 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	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.01V	0.01V	0.01V
	Current	0.001A	0.01A	0.01A
	Power	0.001kW	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω	0.001Ω
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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV 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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV Resistance	≤1% + 1%FS	≤1% + 1%FS	≤1% + 1%FS
Ripple (20Hz~20MHz)	Voltage	≤800mVpp(MAX:≤1.2Vpp)	≤800mVpp(MAX:≤1.2Vpp)	≤320mVpp(MAX: ≤800mVpp)
	Current	≤0.1%FS RMS	≤0.1%FS RMS	≤0.1%FS RMS
Setting Temperature Coefficient (% of Offset/℃)	Voltage	≤50PPM/℃	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃	≤200PPM/℃
Readback Temperature Coefficient (% of 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
Transient Response Time	Voltage	≤1ms	≤1ms	≤1ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V (3PH + PE (no neutral))		
	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(under full voltage and full power)		~93.7%	~93.7%	~93.7%
Remote Sense Compensation Voltage		≤8V	≤8V	≤8V
Command Response Time		2mS	2mS	2mS
Power Factor		0.99	0.99	0.99
Maximum Input Current(under 380Vac ±10% input)		L1,L2/19A;L3/0A	L1,L2/19A;L3/33A	33A(per phase)
Maximum Input Apparent Power		6.6kVA	13.1kVA	19.8kVA
Storage Tem.		-10℃~70℃	-10℃~70℃	-10℃~70℃
Working Tem.		0~50℃	0~50℃	0~50℃
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		20KG	30KG	40kg

*This information is subject to change without notice.

Your Power Testing Solution

IT6000C Bidirectional Programmable DC Power Supply

		IT6018C-1500-40	IT6018C-2250-25
Rated Value Range (0℃~50℃)	Voltage	0~1500V	0~2250V
	Current	-40~40A	-25~25A
	Power	-18000~18000W	-18000~18000W
	CV Resistance	0~1Ω	0~1Ω
Power 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
Setup Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω
Readback Resolution	Voltage	0.1V	0.1V
	Current	0.001A	0.001A
	Power	0.001kW	0.001kW
	CV Resistance	0.001Ω	0.001Ω
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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV 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	≤0.1% + 0.3%FS	≤0.1% + 0.3%FS
	CV 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 Offset/℃)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
Readback Temperature Coefficient (% of Offset/℃)	Voltage	≤50PPM/℃	≤50PPM/℃
	Current	≤200PPM/℃	≤200PPM/℃
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
Transient Response Time	Voltage	≤1ms	≤1ms
AC Input	Voltage	198V~264V (Decrease 50%) 342V~528V {3PH + PE (no neutral)}	198V~264V (Decrease 50%) 342V~528V {3PH + PE (no neutral)}
	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(under full voltage and full power)		~94.6%	~93.7%
Remote Sense Compensation Voltage		≤15V	≤22.5V
Command Response Time		2mS	2mS
Power Factor		0.99	0.99
Maximum Input Current(under 380Vac ±10% input)		33A(per phase)	33A(per phase)
Maximum Input Apparent Power		19.6kVA	19.7kVA
Storage Tem.		-10℃~70℃	-10℃~70℃
Working Tem.		0~50℃	0~50℃
Net. Dimension (mm)		483W*801.61D*151.3H	483W*801.61D*151.3H
Net. Weight		40KG	40KG

*This information is subject to change without notice.



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

Taipei

Add: No.918, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan
Web: www.itechate.com
TEL: +886-3-6684333
E-mail: info@itechate.com

Factory I

Add: No.108, XiShanqiao Nanlu, Nanjing city, 210039, China
TEL: +86-25-52415098
Web: www.itechate.com

Factory II

Add: No.150, Yaonanlu, Meishan Cun, Nanjing city, 210039, China
TEL: +86-25-52415099
Web: www.itechate.com



ITECH Web



ITECH Facebook



ITECH LinkedIn