

# **Basic Product Catalog**

**ITECH - YOUR POWER TESTING SOLUTION** 



# **About ITECH**



As a professional global power electronic instruments manufacturer, "Customer oriented" is the principle of all ITECH's activities. We have been devoted into research and development on "Power Electronics" for decades. By continuously understanding the testing needs of various industries, ITECH continues to provide users with competitive testing solutions. ITECH has become a fairly large scale "power electronics" test solution and equipment supplier with a wide range of product lines. ITECH is committed to product innovation, is the hope that innovative products not only meet the user's general test needs, but also allow users to have new experience through unique test technology and convenient software applications.

ITECH always focus on innovation and R&D since established, ITECH has always held the leading position in some cutting-edge testing technologies, and we do our best to launch comprehensive test solutions and high performance products. At present, ITECH owns independent R & D institutes in both China and Taiwan and maintains close technical exchanges and cooperation with internationally renowned companies for a long time. While creating high quality products and services, we are devoted into updating and expanding test solutions for new industries and products.

## Product Support

ITECH has professional technical support engineer's team and complete technical service system to support product repair, maintenance, calibration, hardware and software upgrade, and other product support services to global customers.

# ■ Technical Training

ITECH customized technology training courses according to customers' actual requirements to help customers easily grasp the instrument features and operating skills.

#### Service

ITECH provides customers with professional multi-lingual technical consulting services, wherever you are, as long as a phone call or an email, technical support engineers will quickly and accurately answer your questions, and can be customized professional service solutions for you according to your demands.

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# **ITECH**

# YOUR POWER TESTING SOLUTION

ITECH has excellent agents and service locations around the world, if you need local services, please go to <a href="https://www.itechate.com">www.itechate.com</a> or contact us directly.

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# Electronic Load

Significantly upgrade the efficiency of researching, designing and production-testing.

# IT8500+ Programmable DC Electronic Load

P05~10

IT8500+ series has wide operating ranges of up to 500V and 240A, it is well suited for testing and evaluating a variety of DC power supplies, DC to DC converters, batteries, solar cells etc.

# IT8211 Digital Control DC Electronic Load

P11

IT8211 supports CC/CV/CR mode, which can be applied in production-line, burn-in testing, maintaining and so on.



# IT8500+ Programmable DC Electronic Load



IT8500+ series single channel programmable electronic load with high density, high resolution and high accuracy supports dynamic test function, automatic test function, etc., which is suited for applications in areas such as LED driver testing, switching power testing, battery performance testing, etc. IT8500+ also provides standard SCPI protocol to build intelligent test platform that is ideal for multiple industries.

#### **Applications**

Battery test, lithium protection board test, power supply test, charger test, ATE, component test, etc.

# Feature

- Four operating modes: CV, CC, CR, CP
- Battery test function, automatic test function, OPP test, OCP test function and CR-LED function
- Dynamic mode up to 10kHz
- Voltage measurement resolution up to 0.1mV / 0.1mA
- Remote sense
- Short circuit function
- Current monitoring function
- Power-off memory function
- 100 groups memory capacity
- Optional USB / RS232 / RS485 interface

\*IT8514B+, IT8514C+, and IT8516C+ are built-in RS232 and USB interface.

Model	Voltage	Current	Power	Size
IT8511A+	150V	30A	150W	1/2 2U
IT8511B+	500V	10A	150W	1/2 2U
IT8512A+	150V	30A	300W	1/2 2U
IT8512B+	500V	15A	300W	1/2 2U
IT8512C+	120V	60A	300W	1/2 2U
IT8512H+	800V	5A	300W	1/2 2U
IT8513A+	150V	60A	400W	1/2 2U
IT8513C+	120V	120A	600W	1/2 2U
IT8514B+	500V	60A	1500W	2U
IT8514C+	120V	240A	1500W	2U
IT8516C+	120V	240A	3000W	4U

#### Optional interface

IT-E121	RS232 communication cable
IT-E122	USB communication cable

# Automatic Test Function

IT8500+ supports two automatic test editing modes. One is special automatic test editing mode that can save up to 10 groups of test files, and the other is compatible with the IT8500 automatic test editing mode that can save up to 50 groups of test files, both of which can be called and tested at any time. Test operation is simple, the button can be completely locked to prevent accidental touch on the keyboard from affecting normal testing.



# Constant Current (CC)

In CC mode, the electronic load will sink a constant current regardless of the changes of input voltage.



# Constant Voltage (CV)

In CV mode, the electronic load will attempt to sink enough current to control the source voltage to the programmed value.



# Constant Resistance (CR)

In CR mode, the module will sink a current linearly proportional to the input voltage in accordance with the programmed resistance.



# Constant Power (CW)

In CP mode, the electronic load will dissipate power in accordance with the programmed value.

If input voltage increase, input current will decrease.



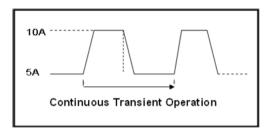
# Transient Mode

Transient operation enables the module to periodically switch between two load levels, as might be required for testing power supplies.

Transient operation can be turned on and off from the front panel (shift + numeric key"2"). Before you turn on the operation, you should set the parameters associated with the transient operation. The parameters include: A level, B level, frequency, duty cycle and transient testing modes. There are three different transient testing modes: continuous, pulse, and toggle.

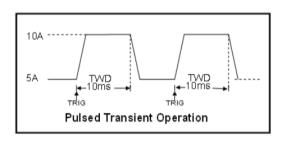
#### Continuous Mode

In continuous mode, the electronic load generates a repetitive pulse stream that toggles between two load levels. Load could switch the state between two value settings, A/B.



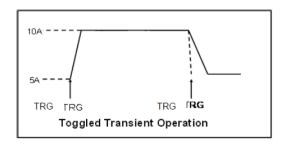
#### Pulse Mode

In pulse mode, the electronic load generates a transient pulse of programmable width when pulse transient operation is in effect. The load will automatically switch to A level after maintaining A width time. Then it will switch to B level. The load will not switch to A level again until the instrument receives the pulse signal.



### Toggle Mode

In toggle mode, the electronic load will switch between A level and B level when receiving a trigger signal after the transient operation is enabled. The following picture shows the current waveform in toggle transient operation.

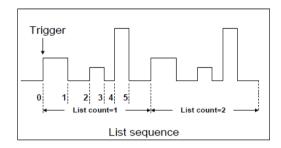


# IT8500+ Programmable DC Electronic Load



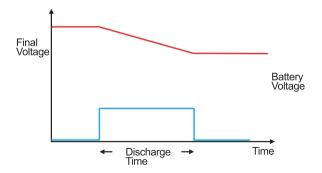
# List Mode

List mode allows you to generate a complex current sequence. Moreover, the mode change can be synchronized with an internal or external signal, to accomplish dynamic and precise test which can save cost for users. Users can edit step value, pulse width and slope sequence and meet a complex test request. A list file includes following parameters: file name step counts (range 2-84), time width of single step (0.00005s-3600s), step value and slope. The edited list file can be recalled easily. The DC load provides 7 nonvolatile registers to save list files setting for recall later. In the list mode, the load starts to run the list file once receiving a trigger signal, continue to run until end of the operation or receiving another trigger.



# Battery Mode

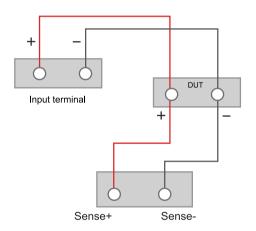
Battery discharge test of IT8500+ series can be achieved under CC mode. There are three cut-off conditions for IT8500+ include cut-off voltage, cut-off capacity and cut-off time, when any of the three conditions are met, discharge test will be stopped, the load will be automatically switched to OFF. Moreover, the battery voltage, discharge time and discharged capacity can be observed during the test.



Battery discharge function

# Remote Sense

When working in CC, CV, CP and CR mode, if the electronic load consumes a very large current, it will cause a voltage drop in the leads between the connected device and terminals of the electronic load. In order to ensure testing accuracy, the electronic load provides a pair of remote sensing terminals in the rear panel where users can sense the output terminal voltage of the connected device. Users should set the electronic load in REMOTE SENSE mode before using this function. By eliminating the effect of the voltage drop in the load leads, remote sensing provides greater accuracy by allowing the electronic load to regulate directly at the source's output terminals.



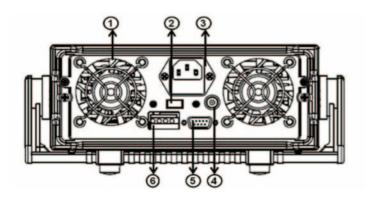


# IT8500+ Specifications

		ITS	511A+	, IT:	8511B+		IT8512A+	
Rated	Voltage		150V		-500V		0~150V	
( 0~40 °C)	Current	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A	
(0 40 0)	Power	150			50W		300W	
	MOV	0.25V at 3A	3V at 30A	1.2V at 3A	4V at 10A	0.14V at 3A	1.4V at 30A	
CV mode	Range	0~18V	0~150V	0.1~50V	0.1~500V	0.1~18V	0.1~150V	
O v mode	Resolution		10mV	1mV	10mV	1mV	10mV	
	Accuracy	±(0.05%+0.025%FS)	±(0.05%+0.025%FS)	±(0.05%+0.05%F\$	-	±(0.05%+0.02%		
CC mode	Range	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A	
OO Mode	Resolution		1mA	0.1mA	1mA	0.1mA	1mA	
	Accuracy		05%+0.05%FS)	+(0	.05%+0.05%FS)		±(0.05%+0.05%FS)	
CR mode	Range	0.1Ω~10Ω	10Ω~7.5ΚΩ	0.5Ω~10Ω	10Ω~7.5ΚΩ	0.05Ω~10Ω	10Ω~7.5ΚΩ	
OT THOUS	Resolution	166			Sbit		16bit	
	Accuracy	0.01%+0.08S *2	0.01%+0.0008S	0.01%+0.08S *2	0.01%+0.0008S	0.01%+0.08S	*2 0.01%+0.0008S	
CP mode	Range	150	)W		60W		300W	
	Resolution	10r	nW		)mW		10mW	
	Accuracy		%+0.1%FS)	±((	0.1%+0.2%FS)		±(0.1%+0.1%FS)	
Dynamic mode	,		00S /Res:1 uS	,	0uS~3600S /Res:1 uS		20uS~3600S /Res:1 uS	
	Accuracy	2uS±100p	pm	2u	S±100ppm		2uS±100ppm	
Min response time	Up/down slope		0.001~0.6 A/uS≒10uS	0.0001~0.2A/uS≒10uS	0.001~0.8A/uS ≒10uS	0.0001~0.2A/		
				Mea	suring range			
Readback	Range	0~18V	0~150V	0~50V	0~500V	0~18V	0~150V	
/oltage	Resolution	0.1 mV	1mV	1 mV	10 mV	0.1 mV	1 mV	
	Accuracy	±(0.025%	+0.025%FS)	±(	0.025%+0.025%FS)		±(0.025%+0.025%FS)	
Readback	Range	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A	
Current	Resolution	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA	
	Accuracy	±(0.05%+	0.05%FS)	±(1	0.05%+0.05%FS)		±(0.05%+0.05%FS)	
Readback	Range	150	)W	15	60W		300W	
Power	Resolution	10r	nW	10	)mW		10mW	
	Accuracy	±(0.1%+0	.1%FS)	±(	0.1%+0.2%FS)		±(0.1%+0.1%FS)	
				Prote	ected range		,	
Over power p	rotection	≒1	60W	≒	160W		≒320W	
Over current p	orotection	≒3.3A	≒33A	≒3.3A	≒11A	≒3.3A	≒33A	
Over voltage	protection	≒1	60V	≒	530V		≒160V	
Over temperatu	ure protection	≒8	5°C		85°C		≒85°C	
				Spec	cification			
Short circuit	CC	≒3.3/3A	≒33/30A	≒3.3/3A	≒11/10A	≒3.3/3A	≒33/30A	
	CV	<b>≒</b> 0	V	≒	0V		≒0V	
	CR	≒8	l0mΩ	≒	400mΩ		≒180mΩ	
Input terminal	impedance		800KΩ	≒	1ΜΩ		<b>≒</b> 300KΩ	
Size(W*H*D)		214.5mm*8	8.2mm*354.6mm	214.5mm*88.2r	nm*354.6mm	214.5mm*8	88.2mm*354.6mm	

<sup>\*</sup>This information is subject to change without notice

# IT8511A+ / IT8512A+ / IT8511B+ / IT8512B+ / IT8512C+ / IT8512H+ / IT8513A+ / IT8513C+



- ${\color{red} \textcircled{1}} \, \text{Air vents}$
- ② Voltage switch (110V/220V)
- ③ AC line input
- **4** Current monitoring Terminal
- ⑤ 9-Pin serial port interface connector
- ⑥ Trigger and remote sensing terminal block

# IT8500+ Programmable DC Electronic Load



# IT8500+ Specifications

1100001 0	poomoanon	0						
			IT8512B+				IT8512H+	
Rated	Voltage		0~500V				0~800V	
(0~40°C)	Current	0~3A		0~15A		0~1A		0~5A
` '	Power		300W				300W	
	MOV	0.6V/3A		3V/15A		1.4V at 1A		7V at 5A
CV mode	Range	0.1~50V		0.1~500V		0.1~80V		0.1~800V
	Resolution	1mV		10mV		1mV		10mV
	Accuracy	±(0.05%+0.05%F5	S)	±(0.05%+0.05%	FS)	±(0.05%+0.05%F	S)	±(0.05%+0.05%FS)
CC mode	Range	0~3A		0~15A		0~1A		0~5A
	Resolution	0.1mA		1mA		0.1mA		1mA
	Accuracy	±(0.05%+0.05%FS	S)	±(0.05%+0.05%FS	6)	±(0.05%+0.1%FS)		±(0.05%+0.05%FS)
CR mode	Range	0.3Ω~10Ω		10Ω~7.5KΩ		2Ω~10Ω		10Ω~7.5KΩ
	Resolution		16bit				16bit	
	Accuracy	0.01%+0.08S		0.01%+0.0008S		0.01%+0.08S*2		0.01%+0.0008S
CP mode	Range		300W				300W	
	Resolution		10mW				10mW	
	Accuracy		±(0.1%+0.	2%FS)			0.2%+0.2%	FS
Dynamic mode	T1&T2		20uS~3600	OS /Res:1 uS			20uS~3600	S /Res:1 uS
•	Accuracy		2uS±100pp	om			2uS±100ppr	m
Min response time	Up/down slope	0.0001~0.2A/uS≒10u	S 0.001~0.8	3A/uS ≒10uS		0.0001~0.04A/uS≒20	)uS	0.001~0.2A/uS ≒20uS
					Measuring range	)		
Readback	Range	0~50V		0~500V		0~80V		0~800V
Voltage	Resolution	1 mV		10 mV		1 mV		10 mV
	Accuracy		±(0.025%+	0.025%FS)			±(0.025%+0	
Readback	Range	0~3A	`	0~15A		0~1A	`	0~5A
Current	Resolution	0.1mA		1mA		0.1mA		1mA
	Accuracy		±(0.05%+0	.05%FS)		********	±(0.05%+0.0	05%FS)
Readback	Range		300W				300W	
Power	Resolution		10mW				10mW	
	Accuracy		±(0.1%+0.2	2%FS)			±(0.2%+0.29	%FS)
	· ·				Protected range		,	,
Over power pro	otection		≒320W				≒320W	
Over current pi	otection	≒3.3A		≒16A		≒1.1A		≒5.5A
Over voltage p			≒530V			, ,,,,,	≒850V	7 0.07 1
Over temperatur	e protection		≒85°C				≒85°C	
					Specification			
Short circuit	CC	≒3.3/3A		≒16/15A		≒1.1/1A		≒5.5/5A
	CV		≒o∨				≒o∨	
	CR		≒180mΩ				≒1.4Ω	
Input terminal i			1ΜΩ				2ΜΩ	
Size(W*H*D)		214.5mmV	V*354.6mm[	)*88.2mmH				354.6mmD*88.2mmH
(								
			ITOE4	2.4.			ITOE	1100

			IT8513A+			IT8513C+	
Rated	Voltage		0~150V			0~120V	
( 0~40 °C)	Current	0~6A		0~60A	0~12A		0~120A
,	Power		400W			600W	
	MOV	0.25V at 6A		2.5V at 60A	0.2V at 12A		2V at 120A
CV mode	Range	0.1~18V		0.1~150V	0.1~18V		0.1~120V
	Resolution	1mV		10mV	1mV		10mV
	Accuracy	±(0.05%+0.02%FS)		±(0.05%+0.025%FS)	±(0.05%+0.02%FS		±(0.05%+0.025%FS)
CC mode	Range	0~6A		0~60A	0~12A		0~120A
	Resolution	0.1mA		1mA	1mA		10mA
	Accuracy	±(0.05%+0.05%FS)		±(0.05%+0.05%FS)	±(0.05%+0.05%FS)		±(0.05%+0.1%FS)
CR mode	Range	0.1Ω~10Ω		10Ω~7.5ΚΩ	0.05Ω~10Ω		10Ω~7.5KΩ
	Resolution		16bit			16bit	
	Accuracy	0.01%+0.08S		0.01%+0.0008S	0.01%+0.08S *2		0.01%+0.0008S
CP mode	Range		400W			600W	
	Resolution		10mW			10mW	
	Accuracy		±(0.2%+0.2%FS			±(0.2%+0.2%F3	
Dynamic mode	T1&T2		100uS~3600S /	Res:1 uS		100uS~3600S /I	Res:1 uS
	Accuracy		10uS+100ppm			10uS±100ppm	
Min response time	Up/down slope	0.001~0.15A/uS		0.01~1 A/uS	0.001~0.2A/uS≒60uS		0.01~1.6A/uS ≒60uS
				Measuring range			
Readback	Range	0~18V		0~150V	0~18V		0~120V
Voltage	Resolution	0.1 mV		1mV	0.1 mV		1mV
	Accuracy		±(0.025%+0.025	5%FS)		±(0.025%+0.025	5%FS)
Readback	Range	0~6A		0~60A	0~12A		0~120A
Current	Resolution	0.1mA		1mA	1mA		10mA
	Accuracy	±(0.05%+0.05%FS)		±(0.05%+0.05%FS)	±(0.05%+0.05%FS)		±(0.05%+0.1%FS)
Readback	Range		400W			600W	
Power	Resolution		10mW			10mW	
	Accuracy		±(0.2%+0.2%FS			±(0.2%+0.2%FS	3)
	•			Protected range		±(0.27010.2701C	' <i>)</i>
Over power pro			≒420W			≒620W	
Over current pr	rotection	≒6.6A		≒66A	≒13A		≒130A
Over voltage p	rotection		≒165V			≒125V	
Over temperatur	e protection		≒85°C			≒95°C	
				Specification			
Short circuit	CC	≒6.6/6A		≒66/60A	≒13/12A		≒130/120A
	CV		≒0V			≒0V	
	CR		≒30mΩ			≒15mΩ	
Input terminal i	mpedance		≒280KΩ			150ΚΩ	
Size(W*H*D)		214.5	mm*88.2mm*453	3.5mm	214.5	mm*88.2mm*453	.5mm

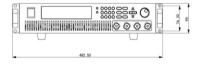
# IT8500+ Programmable DC Electronic Load

# IT8500+ Specifications

		IT8514C+		IT851	4B+	IT	<sup>-</sup> 8516C+
Rated	Voltage	0~120V		0~50		0-	~120V
( 0~40 °C)	Current	0~24A	0~240A	0~6A	0~60A	0~24A	0~240A
	Power	1500W		1500		3000W	
	MOV	0.25V at 24A	2.5V at 240A	0.5V at 6A	3V at 60A	0.15V at 24A	1.5V at 240A
CV mode	Range	0~18V	0.1~120V	0.1~50V	0.1~500V	0.1~18V	0.1~120V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	±(0.05%+0.02%FS	±(0.05%+0.025%FS)	±(0.05%+0.05%F	s) ±(0.05%+0.05%FS)	±(0.05%+0.02%FS)	±(0.05%+0.025%FS)
CC mode	Range	0~24A	0~240A	0~6A	0~60A	0~24A	0~240A
	Resolution	1mA	10mA	1mA	10mA	1mA	10mA
	Accuracy	±(0.1%+0.1%FS)	±(0.1%+0.1%FS)	±(0.05%+0.05%FS	b) ±(0.05%+0.05%FS)	±(0.1%+0.1%FS)	±(0.1%+0.1%FS)
CR mode	Range	0.05Ω~10Ω	10Ω~7.5KΩ	0.05Ω~10Ω	10Ω~7.5KΩ	0.05Ω~10Ω	10Ω~7.5ΚΩ
	Resolution	16bit		16bit		16bit	
	Accuracy	0.02%+0.08S	0.01%+0.0008S	0.02%+0.08S*1	0.02%+0.0008\$	0.02%+0.08S*1	0.02%+0.0008S
CP mode	Range	1500W		1500	W	3000W	
	Resolution	10mW		10m\	V	10mW	
	Accuracy	±(0.2%+0.2	2%FS)	±(0.2	2%+0.2%FS)	±(0.2%+0.2	!%FS)
Dynamic mode	T1&T2	100uS~360	00S /Res:1uS	100u	S~3600S /Res:1 uS	120uS~360	0S /Res:1 uS
·	Accuracy	10uS±100p	nm	10uS	±100ppm	10uS±100p	pm
Min response time	Up/down slope	0.001~0.3A/uS	0.01~3.2A/uS	0.001~0.15A/uS≒60		0.001~0.25A/uS≒70uS	
				Mea	suring range		
Readback	Range	0~18V	0~120V	0~50V	0~500V	0~18V	0~120V
Voltage	Resolution	0.1 mV	1mV	0.1 mV	1mV	0.1 mV	1mV
	Accuracy	±(0.025%+		±(0.0	25%+0.025%FS)	±(0.025%+	·0.025%FS)
Readback	Range	0~24A	0~240A	0~6A	0~60A	0~24A	0~240Á
Current	Resolution	1mA	10mA	1mA	10mA	1mA	10mA
	Accuracy	±(0.05%+0.		±(0.0	5%+0.05%FS)	±(0.1%+0	.1%FS)
Readback	Range	1500W	,	1500	W	3000W	·
Power	Resolution	10mW		10m\	V	10mW	
	Accuracy	±(0.2%+0.2	%FS)	±(0.2	%+0.2%FS)	±(0.2%+0	.2%FS)
	,	_(*,*	,,,,	Prot	ected range	_(=,=,=,=	
Over power pro	otection	≒1550W		≒15	50W	≒3050W	
Over current pr	otection	≒26.7A	≒267A	≒6.7A	≑67A	≒26A	≒260A
Over voltage pr	rotection	⇒20.7A ≒125V	-201A	=53		⇒125V	Z00A
Over temperatur	e protection	≒85°C				≒85°C	
		.00 €		Spe	cification		
Short circuit	CC	≒26.7/24A	≒267/240A	≒6.7/6A	≒67/60A	≒26/24A	≒260/240A
	CV	÷0V		÷0V		÷0V	- 20/2 10/1
				≒50	mO	≒6mΩ	
	CR						
Input terminal ir	CR mpedance	≒8mΩ 300KΩ		<del>-</del> 50 1MΩ	11122	300ΚΩ	

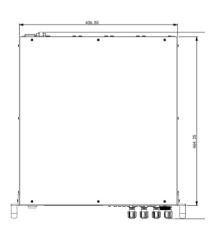
<sup>\*1</sup> Resistance readback range: (  $1/(1/R+(1/R)^*0.01\%+0.08), 1/(1/R-(1/R)^*0.01\%-0.08)$ ) | IT8514B+/14C+/16C+: (  $1/(1/R+(1/R)^*0.02\%+0.08), 1/(1/R-(1/R)^*0.02\%-0.08)$ )

# IT8514B+/IT8514C+ Dimension figure



unit: mm





<sup>\*</sup>This information is subject to change without notice



# IT8200 Digital Control DC Electronic Load



### **Applications**

Laboratory, aging, education, production line inspection, etc.

## **IT8211 Specifications**

			IT8211
Input Rating	Power		150W
	Voltage		60V
	Current		1mA-30A
CC Mode	Range	0-3A	0-30A
	Resolution	1mA	10mA
	Accuracy*1	0.1%+0.1%FS	0.1%+0.15%FS
CV Mode	Range	-	0.1-60V
	Resolution	-	10mV
	Accuracy	-	0.05%+0.1%FS
CR Mode	Range	<100Ω	<4ΚΩ
	Resolution	0.01Ω	1Ω
	Accuracy	1%+0.8%FS	1%+0.8%FS
V Measurement	Voltage	0-10V	0-60V
	Resolution	1mV	10mV
	Accuracy	0.05%+0.1%FS	0.05%+0.1%FS
I Measurement	Current	0-3A	0-30A
	Resolution	1mA	10mA
	Accuracy	0.1%+0.1%FS	0.1%+0.15%FS
V Measurement	Watt	0-100W	100-150W
	Resolution	10mW	100mW
	Accuracy	1%+0.1%FS	1%+0.1%FS
Short Circuit	Current		≒30A
	Voltage		0V
	Resistance		≒80mΩ
Temperature	Operating		0-40°C
	Storage		-10°C-60°C
Dimention	W*H*D		88mm*175mm*282mm
Weight	Kg		2.6

<sup>\*</sup>This information is subject to change without notice

IT8200 series economical programmable electronic loads, with the highest cost/performance ratio and small size, they are widely used in production testing lines and maintenance lines etc. Resolution 1mV/1mA ensures the accurate measurement result. IT8200 series has programmable performance, and can quickly recall 4 \* 40 group memory data, panel function keys and display interface are clear, provide customers with simple operation program, easy and fast to complete a variety of complex tests. The series has CV, CC and CR mode, and short circuit test function, it is the cost-effective electronic load products.

# Feature

- Digital controlling electronic load
- LED display
- With fast rotary encoder input
- 19-inch standard cabinet can be installed
- Three operating modes: CV / CC / CR
- 4 \* 40 group memory capacity can be quickly recalled
- Switch high and low current
- The smallest size among similar products
- Switch between high and low current 3A/30A





# AC/DC Power Supply

Provide you with the most reliable and accurate power supply.

# IT6700 DC Power Supply

P13~14

With widest voltage and current range, IT6700 digital DC power supplies are applied in many fields, reduce your repeat investment.

# IT6300 & IT6300A Triple Output Programmable DC Power Supply

P15~17

The programmable 3 channel power supply is provided with 1mV, 1mA high resolution and high accuracy. High-definition VFD display can display and set the voltage of 3 channels at one time without switching. It greatly simplifies the complex operation of the traditional 3 channel power supply.

# IT6500 Auto-range Programmable DC Power Supply

P18~20

IT6500 series programmable power supply with 1mV, 1mA high resolution and accuracy. IT6500 series products can function in CV or CC mode, it's the best solution for your laboratory tests, production tests and other applications with small size of 1U.

# IT6900A Wide-range Programmable DC Power Supply

P21~23

IT6900A series wide range programmable power supply have built-in standard RS232, USB, GPIB and analog interface, support SCPI protocol, facilitate remote control, industrial PLC control and the formation of intelligent test platform.

# IT6860A & IT6870A Dual-range DC Power Supply

P24~26

The power supply is a dual-range output power supply with high resolution of 1mV, 0.1mA, which can test the products with different power range. You can adjust the voltage/current stepping by pressing the left and right keys to move the cursor. It supports output timer function and programs by the front panel, which will bring great convenience. It is built-in RS232 and USB communication interfaces, which can make the communication much faster.

# IT6100B High Speed and high-accuracy Programmable DC Power Supply

P27~28

IT6120B (86W-150W) series has fast voltage rising speed and high accuracy. Voltage range is 20V-72V, current range is 1.2A-5A, voltage rising speed (<20ms), high accuracy and resolution is 0.1mV/0.01mA. Also configure with standard RS232/USB/GPIB interface to realize fast communication speed. List configure can be operated on front panel. This series offer flexible solution to general laboratory and workshop requirement.

# IT7321 Programmable AC Power Supply

P29~33

The power supply is single phase programmable AC power supply. This series power supply output kinds of normal and abnormal AC input to measure essential parameters of products. Built-in LAN, USB, RS232 communication interface makes your test efficient.



# IT6700 DC Power Supply



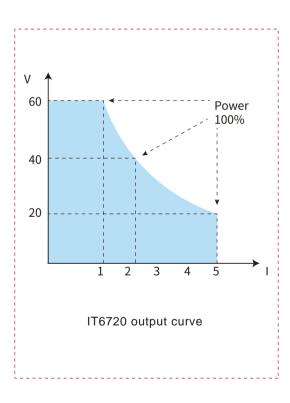
## **Applications**

Laboratory, aging, school, production line inspection, etc.

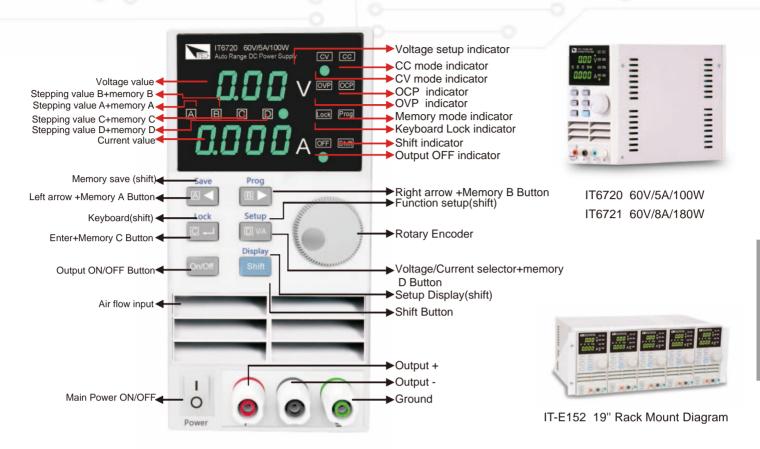
With widest voltage and current range, IT6700 digital DC power supplies are applied in many fields. Take IT6720 for example, with max power 100W and output adjustable in 60V/5A, auto control voltage/current slew rate, power rate up to three times rapid than other similar products, a unit can replace three models (60V\*1.6A/ 32V\*3A/20V\*5A), reduce duplication of investment.

# Feature

- Completely digital-control
- 10mV/1mA high accuracy and resolution
- Lower noise and ripple
- CV/CC modes
- Minimum size to save space
- Bright and easy to read display (VFD)
- OCP/OVP/OTP protection
- The most economical high performance digital-control power supply
- Full scale 60V/5A,resolution 10mV/1mA, no need to switch
- Switch control for output







# **IT6700 Specifications**

		IT6720	IT6721
	Voltage	0-60V	0-60V
Output Rating	Current	0-5A	0-8A
	Power	100W	180W
Lead Benedation	Voltage	<0.01%+3mV	<0.01%+5mV
Load Regulation	Current	<0.01%+3mA	<0.01%+5mA
	Voltage	<0.01%+3mV	<0.01%+5mV
Line Regulation	Current	<0.1%+3mA	<0.1%+5mA
Programming Accuragy	Voltage	<0.05%+10mV	<0.05%+10mV
Togramming Accuragy	Current	<0.2%+2mA	<0.3%+5mA
D II I A	Voltage	<0.05%+10mV	<0.05%+10mV
Readback Accuracy	Current	<0.2%+2mA	<0.3%+5mA
Ripple	Voltage	2mVrms	5mVrms
кірріе	Current	5mArms	8mArms
Dimension	W*H*D	88*175*282	88*175*282
Weight	Net	2.5kg	2.5kg

<sup>\*</sup>This information is subject to change without notice.



# IT6300A Triple Channels DC Power Supply



### **Applications**

School laboratory, production test, maintenance inspection, etc.

# **Feature**

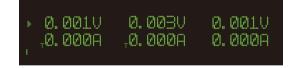
- Triple output voltage, all are adjustable
- Optional serial/ parallel/ track mode
- Displays voltage and current settings for all three channels simultaneously
- Small size of 1/2 2U
- VFD display
- Function keys with LED light
- Adjust the digital step value via cursor
- Output switch control
- High accuracy, high resolution and high stability
- Remote measurement function, compensation online pressure drop
- Comprehensive protection function
- Intelligent fan control, reduce noise
- Built-in RS232/USB communication interface

IT6300A series is high-performance programmable triple channels DC power supply, each output voltage and current can be set from 0 to maximum rated output, supports series connection, parallel connection and track functions of channel, which offer multi-purpose solutions for customers test. IT6300A series is with high resolution 1mV / 1mA and remote sense function, which make the test more accurate. With built-in standard USB / RS232 communication interface, IT6300A series greatly enhance the communication speed, and customers also can adjust the digital step value by using the cursor to facilitate the operation.

# Track mode

CH1 and CH2, CH2 and CH3, or all three channels to be set as track mode, if any one channel parameter changed, the corresponding parameters of the other channels will also change in direct proportion.

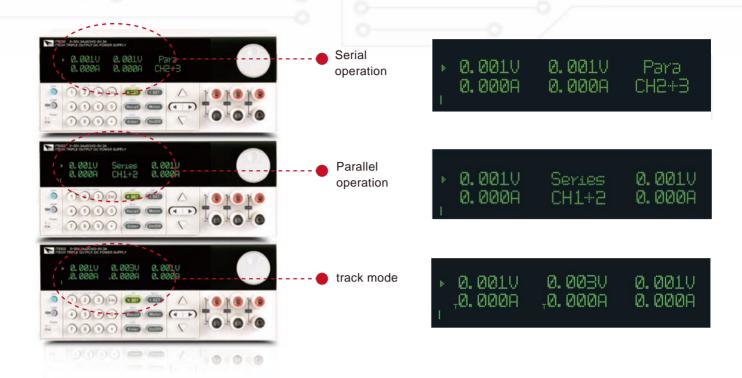
For example, set up voltage and current of CH1 and CH2 to be CH1:4V, 1A; CH2:8V, 2A. Set CH1 and CH2 in track mode, in output off and Meter state, VFD is shown below:



\*In the setting state, if voltage of CH1 set to be 2V, the voltages of CH2 will automatically synchronize to be 4V (proportionally).

Model	Specification
IT6322A	30V/3A/90W*2CH
110322A	5V/3A/15W*1CH
ITC222A	30V/6A/180W*2CH
IT6332A	5V/3A/15W*1CH
	60V/3A/180W*2CH
IT6333A	5V/3A/15W*1CH





## IT6300A Specifications

	IT6322A			IT6332A			IT6333A			
		CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	Voltage	0~30V	0~30V	0~5V	0~30V	0~30V	0~5V	0-60V	0~60V	0~5V
Rated output*1	Current	0~3A	0~3A	0~3A	0~6A	0~6A	0~3A	0~3A	0~3A	0~3A
	Power	90W	90W	15W	180W	180W	15W	180W	180W	15W
Load regulation*2	Voltage		≤0.01%+3mV		≤0.01%+3m\	<b>V</b>		≤0.01%+3mV		
Load regulation 2	Current		≤0.1%+3mA		≤0.01%+3mA	4		≤0.01%+3mA		
Power regulation*2	Voltage		≤0.01%+3mV		≤0.01%+3m\	<b>V</b>		≤0.01%+3mV		
1 owor regulation 2	Current		≤0.1%+3mA		≤0.01%+3m/	4		≤0.01%+3mA		
Setting resolution	Voltage		1mV		1mV			1mV		
Setting resolution	Current		1mA		1mA			1mA		
Readback resolution	Voltage		1mV		1mV			1mV		
Troduzion rocordion	Current		1mA		1mA		1mA			
Setpoint accuracy*3	Voltage		≤0.03%+10mV	′	≤0.03%+10mV			≤0.03%+10mV		
Corpoint accuracy o	Current		≤0.1%+5mA		≤0.1%+5mA ≤0.1%+5mA			≤0.1%+5mA		
Readback value	Voltage		≤0.03%+10mV	′	≤0.03%+10mV			≤0.03%+10mV		
accuracy*3	Current		≤0.1%+5mA		≤0.1%+8m/	≤0.1%+8mA ≤0.1%+5mA		≤0.1%+5mA		
Ripple and noise	Voltage		≤1mVrms/3mV	′p-p	≤1mVrms/4	lmVp-p	≤1mVrms/3mVp-p	≤1mVrms/4mVp	р-р	≤1mVrms/3mVp-p
Ripple and noise	Current		≤3mArms		≤5mArms		≤4mArms	≤4mArms		
Serial operation	Serial error									
Parallel operation	Voltage		≤0.02%+5mV		≤0.02%+5m\	<b>V</b>		≤0.02%+10mV		
Setpoint accuracy	Current		≤0.1%+20mA		≤0.1%+30m/	A		≤0.1%+30mA		
Size			214.5mm*88.2m	nm*354.6mm	214.5mm*88.2	2mm*453.1mn	n	214.5mm*88.2mm	*453.1mm	
weight			7.7Kg		15Kg			15Kg		

<sup>\*1:( 0°</sup>C - 40°C)

<sup>\*2:(%</sup>of output+offset)

<sup>\*3: (12-</sup>month validity) (25 °C ± 5 °C) (%of output+offset)

<sup>\*</sup>This information is subject to change without notice



# IT6302 Triple Channels DC Power Supply



#### Optional Accessories

IT-E121	RS232 communication cable
IT-E122	USB communication cable

# Feature

- Independent, fully programmable and electrically isolated outputs
- Display & adjust voltage and current settings for all 3 channels
- Flexible output configuration: connect CH1 or CH2 channels in parallel
- Excellent stability and regulation
- LVP (low voltage protection) and OTP (over temperature protection)
- Output on/off control
- 27 memory locations for instrument state storage & recall
- Closed case calibration

# IT6302 Specifications

			IT6302	
		CH1	CH2	CH3
	Voltage	0~30V	0~30V	0~5V
Rated output*1	Current	0~3A	0~3A	0~3A
	Power	90W	90W	15W
Load regulation*2	Voltage	≤0.01%+4mV	≤0.01%+4mV	≤0.01%+4mV
Load regulation 2	Current	≤0.2%+3mA	≤0.2%+3mA	≤0.2%+3mA
Power regulation*2	Voltage	≤0.01%+4mV	≤0.01%+4mV	≤0.01%+4mV
1 Ower regulation 2	Current	≤0.2%+3mA	≤0.2%+3mA	≤0.2%+3mA
Setting resolution	Voltage	10mV	10mV	10mV
Setting resolution	Current	1mA	1mA	1mA
Readback resolution	Voltage	10mV	10mV	10mV
Trodubaok robolulion	Current	1mA	1mA	1mA
Setpoint accuracy*3	Voltage	≤0.06%+20mV	≤0.06%+20mV	≤0.06%+20mV
Octpoint accuracy 5	Current	≤0.2%+10mA	≤0.2%+10mA	≤0.2%+10mA
Readback value	Voltage	≤0.06%+20mV	≤0.06%+20mV	≤0.06%+20mV
accuracy*3	Current	≤0.2%+10mA	≤0.2%+10mA	≤0.2%+10mA
Dinale and asias	Voltage	≤5mVp-p/1mVrms	≤5mVp-p/1mVrms	≤5mVp-p/1mVrms
Ripple and noise	Current	≤6mArms	≤6mArms	≤6mArms
Serial operation	Serial error	≤0.2%+15mA	≤0.2%+15mA	≤0.2%+15mA
Parallel operation	Voltage	≤0.2%+30mV	≤0.2%+30mV	≤0.2%+30mV
Setpoint accuracy	Current	≤0.2%+25mA	≤0.2%+25mA	≤0.2%+25mA
Size		214.5mm*88.2mm*354.6mm	214.5mm*88.2mm*354.6mm	214.5mm*88.2mm*354.6mm
weight		7.1Kg	7.1Kg	7.1Kg

<sup>\*1:( 0°</sup>C - 40°C)

\*2:(%of output+offset)

\*3: (12-month validity) (25 °C  $\pm$  5 °C) (%of output+offset)

\*This information is subject to change without notice



# IT6500 Wide-range High-power DC Power Supply



### **Applications**

Automotive Electronics, Aerospace and Aviation, DC Motor Test, Battery R&D Tests High Power Applications Lithium Battery Module Tests Electronic **Components Production** 

IT6500 series power supply is single output high-powered and programmable DC power supply which supports CC mode and CV mode. The 800W model has 1U ultrathin body with 1mV/1mA resolution. IT6500 provide you with multiple proposals to meet your test demands.

# Feature

- VFD display
- Achieve max. voltage/current within rated power
- High resolution of 1mV, 1mA
- Low noise and ripple
- Compact, high density, rack mount size
- Built-in USB/ RS232/ RS485/ GPIB communication interface
- Master-Slave mode for parallel and series operation
- With standard SCPI communication protocol
- Remote sensing function
- Intelligent cooling fan to save energy and reduce noise

Model	Voltage	Current	Power
IT6502D	80V	60A	800W

# Adjustable Rising and Falling Time Setting

The rising and falling time of IT6500 series power supplies is adjustable. Users can set the transient time of which from one voltage to another voltage. The fastest adjustable time for IT6500 series power supplies can up to 1ms, which can meet most testing requirements.

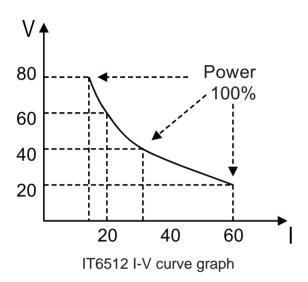
Models	List Function	Automotive electronics waveform simulation	Master-Slave	External Analog Interfaces	Communication Interfaces
IT6502D	X	X	<b></b>	$\checkmark$	RS232/RS485/USB/GPIB
IT6512A	X	X			RS232/RS485/USB/GPIB
IT6513A		$\checkmark$			RS232/RS485/USB/GPIB

# IT6500 Wide-range High-power DC Power Supply



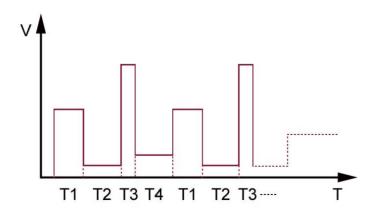
# **Auto Range Function**

IT6500 series power supply has applied Auto-range technology. It allows any combination of the rated voltage and current up to the maximum output power of 1200W. For example, the max current output at 20V is 60A.

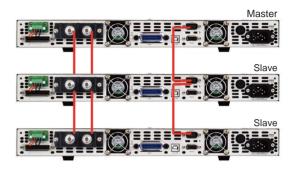


# \_ist Mode

Part of IT6500 series models support list function. In list mode, users can program and modify any testing procedure with multiple steps and different duration according to their different testing requirements. After the operation list programming, the power supply will start to work and operate in order once it receives trigger signal until it finished the entire list or receiving trigger signal again.



# Master-Slave Operatio



Above is the graph for Master-Slave operation

IT6500 series power supplies support Master-Slave parallel connection to enlarge the current and power range. Here is a schematic illustration of Master-Slave connection mode. Output terminals connect in parallel, the RS485 interfaces of master and slave connect through directly line. When connecting several units in parallel, user could specify one unit as a Master and the others as slaves. Also they can connect with a computer through any built-in interface, such as GPIB, USB, RS232 or RS485. All setting operations can be directly finished through Master. And master can distribute the current and voltage automatically. Master and Slave connection simplifies the connection and easier to use.

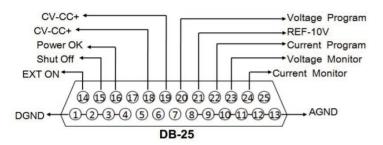
# **Jser-friendly Operation** Panel Design

IT6500 series power supplies provide multiple programming and controlling methods, users can adjust the specifications by the knob or numeric keys easily. The setting parameters will be displayed on the VFD screen simultaneously.



# Analog Interfaces

On the rear panel of some IT6500 series models, there is a DB25 analog interface. Users can control 0~100% of full scale output voltage and current on the front panel through 0~10V or 0~5V analog, 0~10K  $\Omega$  or 0~5K $\Omega$  is also OK. Analog interface meets the control requirement in industry production. If it is no need to control through PC, then you can control the analog output voltage by PLC.



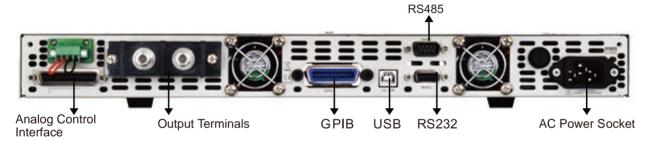
# Remote Sense Function

IT6500 series power supplies have remote sense function. The function can compensate the loss of large voltage-drop on connection lines due to long connection wires.

# **Protection Functions**

IT6500 series power supplies provide OVP, OCP, OPP, OTP protection functions. Once the circuit value (current, voltage, power or temperature) above the setting value (current, voltage, power or temperature), the protection function will start. For instance, in OCP mode, the power supply will stop to output and display "OCP". OVP is the same theory. Over temperature protection (OTP) starts to work when the internal temperature of the instrument is over 75 °C. Once the OTP starts, the power supply will stop to output and display "OTP".

# IT6502D Rear Panel



IT6500 Specifica	ations	Basic Products		High Performance Products		
Parameters		IT6502D IT6512A		IT6513	IT6513A	
Output Rating	voltage	0-80V	0~80V	0~150V	0~150V	
	current	0-60A	0~60A	0~30A	0~30A	
	power	0-800W	0~1200W	0~1200W	0~1200W	
Load Regulation	voltage	≤0.019	%+8mV	≤0.05%	5+30mV	
	current	≤0.1%	+10mA	≤0.1%	+30mA	
Line Regulation	voltage	≤0.029	%+2mV	≤0.02%	5+20mV	
	current	≤0.029	%+2mA	≤0.02%	5+10mA	
Setup Resolution	voltage	1r	mV	3r	mV	
	current	1mA		1mA		
Readback Resolution	voltage	1r	1mV		3mV	
	current	1mA 1		mA		
Setup Accuracy	voltage	≤0.02%+30mV ≤0.05%		5+30mV		
	current	≤0.1%+	≤0.1%+0.1%FS ≤0.2%+0.1%FS		0.1%FS	
Readback Accuracy	voltage	≤0.02%+30mV		≤0.05%	5+30mV	
	current	≤0.1%+	·0.1%FS	≤0.2%+	0.1%FS	
Ripple	Vpp	≤30n	nVp-p	≤60n	nVp-p	
	Irms	≤20n	nArms	≤40m	Arms	
Temp.coefficient	voltage	≤0.02%	≤0.02%+30mV		6+30mV	
	current	≤0.05%	6+10mA	≤0.05%	5+10mA	
Dimension	W*H*D	415mmW*44mmH*500mmD		415mmW*44mmH*500mmD		
Weight	Kg	8.5	Kg	8.5h	(g	

For higher power test, please contact ITECH.



# IT6900A Wide-range Programmable DC Power Supply



#### **Applications**

DC-DC power module, battery charging and sensors, etc.

# Feature

- VFD display
- Adjust voltage and current via knob or numerical key pad
- High accuracy and high resolution
- Adjust digital step value via cursor
- Output voltage and current values accordance with procedure
- Output Timer(0.1 ~ 99999.9S) Function
- Low ripple and low noise
- Remote Sense Function
- Intelligent fan control
- Rich SCPI instructions to facilitate the formation of intelligent
- test platform
- Support front and rear panel output
- Optional external analog function
- Standard communication interface RS232/USB/GPIB

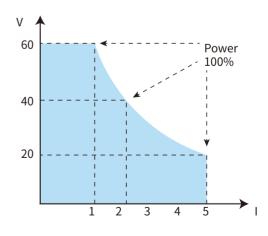
Model	Voltage	Current	Power	Size
IT6922A	60V	5A	100W	1/2 2U
IT6932A	60V	10A	200W	1/2 2U
IT6933A	150V	5A	200W	1/2 2U
IT6942A	60V	15A	360W	1/2 2U
IT6952A	60V	25A	600W	1/2 2U
IT6953A	150V	10A	600W	1/2 2U

\*IT6900A is standard model; IT6900B is optional for needing RS485 interface and external analog interface

IT6900A series wide range programmable power supply has built-in standard RS232, USB, GPIB, RS485 and analog interface (RS485 and analog interface are just for IT6900B), supports SCPI protocol, facilitate remote control, industrial PLC control and the formation of intelligent test platform. Remote compensation terminals avoid the problem of inaccurate testing caused by voltage drop on the wire. Low ripple, low noise and built-in digital voltmeter make IT6900A easy to do external measurement. IT6900A can be widely used in testing DC-DC power supply module, battery charging and sensors and other test areas.

# **Auto-range Function**

IT6900A series power supply can achieve the combined output of multiple voltage and current at a fixed power. Single power supply can meet different DUT tests with high voltage low current or high current low voltage, at the same time, because the output of voltage and current is controlled by the limit power, it will show the switching of voltage and current auto ranging.



IT6932A I-V Curve Graph

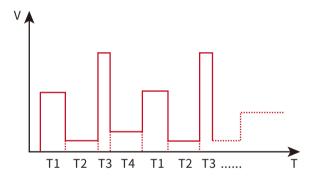


# Remote Sense

In order to avoid the voltage drop caused by the length of the wire connecting the load, the remote test allows measurement directly on the terminal of the test object to improve the measurement accuracy. S +, S is the remote measurement terminal, +, - is the output positive and negative terminals. When using the remote measurement function, it is necessary to disconnect the wires connected to the "+, -" terminals and lead S +, S to the test object.

# List Mode

List mode allows user to create a sequence of steps, store it into the power supply's non- volatile memory and execute the input parameters for generating a list include the name of the list file, the input steps (no more than 150 steps), the step time (the minimum is 100mS) and the value of each step.



# **OVP Functions**

IT6900A series power supply provides OVP function. The over voltage protection point of the power supply can be set via the keys on the panel. Once power supply is protected (OVP), the output will be off immediately and "OVP" indicator light will be lit, the VFD display "OVER VOLT".



Separate Local key can quickly switch to panel operation mode from PC operation mode

# Built-in DVM

IT6900A provides a built-in digital meter which can measure DC volts in a range from 0.001V to 61.000V. The voltage value is displayed on the left bottom field of the display.

# **Timer Function**

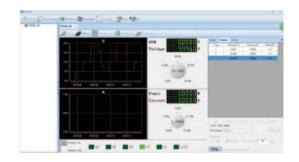
IT6900A series supports output timer function, in ON mode, the indicator light "Timer" will be lit on the VFD screen. When output of power supply is opened, timer will begin to work, after reaching the definite time, output will be off automatically. Timing output time range is 0.1s~99999.9s.

# Optional external analoginterface

The rear panel DB9 analog interface is connected via cable and external DB9 socket board. The corresponding pin on the DB9 socket board is added 0~10V voltage to simulate the voltage or current output from 0 to full-scale.

# IT9000 PC software

IT6900A series has built-in RS232, USB, GPIB and other communication interfaces, and provides free IT9000 series software. Using PC software, IT6900A can easily remote control, set voltage and current, record storage data, programming, and test automatically.



# IT6900A Wide-range Programmable DC Power Supply



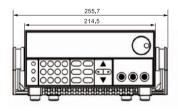
# **IT6900A Specifications**

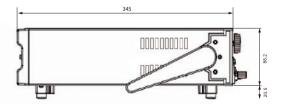
		IT6922A	IT6932A	IT6933A
Rating	Voltage	0~60V	0~60V	0~150V
( 0°C~40°C)	Current	0~5A	0~10A	0~5A
	Power	100W	200W	200W
Load regulation	Voltage	≤0.01%+3mV	≤0.01%+10mV	≤0.01%+20mV
±(%of output+offset)	Current	≤0.05%+2mA	≤0.05%+4mA	≤0.01%+6mA
Power regulation	Voltage	≤0.01%+3mV	≤0.01%+10mV	≤0.01%+20mV
±(%of output+offset)	Current	≤0.05%+2mA	≤0.05%+4mA	≤0.01%+6mA
Programmong resolution	Voltage	1mV	1mV	1mV(<100V),10mV(≥100V)
	Current	0.1mA	1mA	0.1mA
Readback value resolution	Voltage	1mV	1mV	1mV(<100V),10mV(≥100V)
	Current	0.1mA	1mA	0.1mA
Programmong accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≤0.04%+30mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+10mA	≤0.1%+10mA
Readback accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≤0.04%+30mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+10mA	≤0.1%+10mA
Ripple	Voltage	≤5mVp-p	≤8mVp-p	≤30mVp-p
(20Hz ~20MHz)	Current	≤5mArms	≤6mArms	≤6mArms
Rise Time	Voltage	≤150mS(10%-90%)	≤150mS(10%-90%)	≤200ms
Fall time	Voltage	≤2S(10%-90%)	≤2S(10%-90%)	≤150ms
Size (mm)		214.5mmW×88.2	mmH×354.6mmD	
Weight		7.7Kg	7.7Kg	7.7Kg

		IT6942A	IT6952A	IT6953A
Rating	Voltage	0~60V	0~60V	0-150V
( 0°C~40°C)	Current	0~15A	0~25A	0-10A
	Power	360W	600W	600W
Load regulation	Voltage	≤0.01%+30mV	≤0.01%+30mV	≦0.01%+25mV
±(%of output+offset)	Current	≤0.05%+6mA	≤0.1%+10mA	≦0.5%+10mA
Power regulation	Voltage	≤0.01%+30mV	≤0.01%+30mV	≦0.01%+25mV
±(%of output+offset)	Current	≤0.05%+6mA	≤0.1%+10mA	≦0.5%+10mA
Programmong resolution	Voltage	1mV	1mV	1mV( < 100V) 10mV ( > 100V)
	Current	1mA	1mA	1mA
Readback value resolution	Voltage	1mV	1mV	1mV( < 100V) 10mV ( > 100V)
	Current	1mA	1mA	1mA
Programmong accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≦0.03%+20mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+15mA	≤0.1%+25mA	≦0.1%+25mA
Readback accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≦0.03%+20mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+15mA	≤0.1%+25mA	≦0.1%+25mA
Ripple	Voltage	≤15mVp-p	≤20mVp-p	≦50mVp-p
(20Hz ~20MHz)	Current	≤8mArms	≤15mArms	≦15mArms
Rise Time	Voltage	≤200ms(10%-90%)	≤150mS(10%-90%)	≦150ms
Fall time	Voltage	≤2.5s(10%-90%)	≤2S(10%-90%)	≦7s
Size (mm)		214.5mi	m*88.2mm*445mm	
Weight		7.7Kg	15Kg	15Kg

<sup>\*</sup>This information is subject to change without notice

### IT6900A Dimension (Unit: mm)





- IT6922A/IT6932A/IT6933A/IT6942A: 214.5mmW x 88.2mmH x 345mmD
- IT6952A/IT6953A: 214.5mmW x 88.2mmH x 446mmD



# IT6860A & IT6870A Dual-range Programmable DC Power Supply



### **Applications**

Laboratory testing, production line production testing, maintenance testing, etc.

# Feature

- Dual range output
- Convenient data entry via knob or numerical key pad
- High accuracy and high resolution
- Remote sense
- Output voltage and current values accordance with procedure
- Adjust voltage and current via Knob
- Low ripple and low noise
- OVP, OTP
- Built-in RS232/USB/GPIB interface \*1
- Monitor software via PC
- Support SCPI command, compatible IT6800 frame format protocol

<sup>\*1</sup> Only IT6800B dual range series have built-in GPIB communication interface

Model	Voltage	Current	Power	Interface
IT6861A	20V/8V	5A/9A	100W/72W	RS232/USB
IT6862A	32V/12V	3A/6A	96W/72W	RS232/USB
IT6863A	72V/32V	1.5A/3A	108W/96W	RS232/USB
IT6872A	35V/15V	4A/7A	140W/105W	RS232/USB
IT6873A	75V/32V	2A/4A	150W/128W	RS232/USB
IT6874A	150V/60V	1.2A/2A	180W/120W	RS232/USB

<sup>\*</sup>The IT6800A dual range series is without GPIB interface. The remaining parameters are the same as the IT6800B series.

If needing GPIB interface, the IT6800B dual range series can be selected.

IT6860A series (72~180W) programming DC power supply offers dual-range voltage switch for your choice, which can replace two ordinary ones, greatly saving your cost and operation space. At the same time, IT6860A supports panel List programming and software operation via computer to meet more communication demands. IT6860A series is suited for laboratory testing, online production test, maintenance testing, etc.

# **Dual-range Output**

IT6860A series DC power supply offers high and low voltage range for your choice. When needing high voltage output, high voltage is optional, when needing high current, low voltage is optional.

# Output timer Function

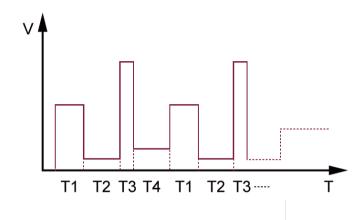
This series supports output timer function, in ON mode, the indicator light "Timer" will be lit on the VFD screen. When output of power supply is opened, timer will begin to work, after reaching the definite time, output will be off automatically. Timing output time range is 0.1s~9999.9s or 0.1m~9999.9m.

# IT6860A & IT6870A Dual-range Programmable DC Power Supply

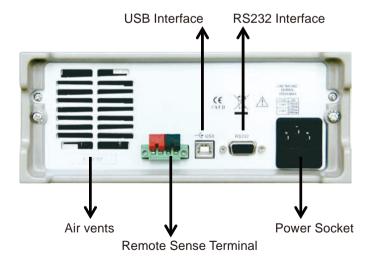


# List Mode

List mode allows user to create a sequence of steps, store it into the power supply's nonvolatile memory and execute it. The input parameters for generating a list include the name of the list file, the input steps (no more than 150 steps), the step time (the minimum is 100mS) and the value of each step.



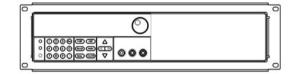
# Rear Panel of IT6860A



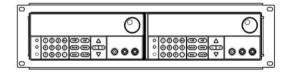
\*Compared with IT6860A series power supplies, IT6860B series has add GPIB interface besides built-in RS232 and USB interface.

# Remote Sense

In order to avoid the voltage drop caused by the length of the wire connecting the load, the remote test allows measurement directly on the terminal of the test object to improve the measurement accuracy. S +, S is the remote measurement terminal, +, - is the output positive and negative terminals. When using the remote measurement function, it is necessary to disconnect the wires connected to the "+, -" terminals and lead S +, S to the test object.



19" installation (One unit)



19" installation (Two units)

# Standard Accessories:

Power Cord	
Test Report	
User Manual	

## Optional Accessories:

#### IT-E151A Mounting Kit

# IT6860A & IT6870A Dual-range Programmable DC Power Supply

# **IT6800A Specifications**

		IT6861A	IT6862A	IT6863A
Rating	H file	0~20V,5A	0-32V,3A	0~72V,1.5A
( 0°C~40°C)	L file	0~8V,9A	0-12V,6A	0~32V,3A
	Power	H:100W L:72W	H:96W L:72W	H:108W L:96W
Load regulation	Voltage	≤0.01%+4mV	≤0.01%+3mV	≤0.01%+3mV
±(%of output+offset)	Current	≤0.01%+2mA	≤0.01%+2mA	≤0.01%+2mA
Power regulation	Voltage	≤0.01%+4mV	≤0.01%+3mV	≤0.01%+3mV
±(%of output+offset)	Current	≤0.01%+2mA	≤0.01%+2mA	≤0.01%+2mA
Programmong resolution	Voltage	1mV	1mV	1mV
	Current	0.1mA	0.1mA	0.1mA
Readback value resolution	Voltage	1mV	1mV	1mV
	Current	0.1mA	0.1mA	0.1mA
Programmong accuracy	Voltage	≤0.04%+8mV	≤0.04%+8mV	≤0.04%+8mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+5mA	≤0.1%+5mA
Readback accuracy	Voltage	≤0.04%+8mV	≤0.04%+8mV	≤0.04%+8mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+5mA	≤0.1%+5mA
Ripple	Voltage	≤3mVp-p	≤4mVp-p	≤3mVp-p
(20Hz ~20MHz)	Current	≤9mArms	≤7mArms	≤6mArms
Rise Time	Voltage	≤90mS(10%-90%)	≤90mS(10%-90%)	≤90mS(10%-90%)
Fall time	Voltage	≤150m(90%-10%)	≤200m(90%-10%)	≤250m(90%-10%)
Dynamic recovery time	Voltage	50us (50%-100% load Recover to 75mV)	50us (50%-100% load Recover to 75mV)	50us (50%-100% load Recover to 75mV)
Size (mm)	-	214.5mm×88.2mm×354.6mm	214.5mm×88.2mm×354.6mm	214.5mm×88.2mm×354.6mm
Weight		8.5Kg	8.5Kg	8.5Kg

		IT6872A	IT6873A	IT6874A
Rating	H file	0-35V,4A	0-75V,2A	0-150V,1.2A
( 0°C~40°C)	L file	0-15V,7A	0-32V,4A	0-60V,2A
	Power	H:140W L:105W	H:150W L:128W	H:180W L:120W
Load regulation	Voltage	≦0.01%+5mV	≦0.01%+4mV	≦0.01%+4mV
±(%of output+offset)	Current	≦0.01%+3mA	≦0.01%+2mA	≦0.01%+2mA
Power regulation	Voltage	≦0.01%+5mV	≦0.01%+4mV	≦0.01%+4mV
±(%of output+offset)	Current	≦0.01%+3mA	≦0.01%+2mA	≦0.01%+2mA
Programmong resolution	Voltage	1mV	1mV	1mV(<100V) 10mV(≧100V)
	Current	0.1mA	0.1mA	0.1mA
Readback value resolution	Voltage	1mV	1mV	1mV(<100V) 10mV(≧100V)
	Current	0.1mA	0.1mA	0.1mA
Programmong accuracy	Voltage	≤0.04%+8mV	≤0.04%+8mV	≦0.05%+20mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+5mA	≤0.1%+5mA
Readback accuracy	Voltage	≤0.04%+8mV	≤0.04%+8mV	≦0.05%+20mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+5mA	≤0.1%+5mA
Ripple	Voltage	≦3mVp-p/1mVrms	≦3mVp-p/1mVrms	≦5mVp-p and 1.5mVrms
(20Hz ~20MHz)	Current	<6mArms	<6mArms	<6mArms
Rise Time	Voltage	≤90ms(10%-90%)	≤90ms10%-90%)	≤150ms(10%-90%)
Fall time	Voltage	<350ms	<450ms	≤2.5s(90%-10%)
Dynamic recovery time	Voltage	50us (50%-100% load Recover to 75mV)	50us (50%-100% load Recoverto 75mV)	100us
Size (mm)		214.5mm×88.2mm×354.6mm	214.5mm×88.2mm×354.6mm	214.5mm×88.2mm×354.6mm
Weight		8.5Kg	8.5Kg	7.5kg

<sup>\*</sup>This information is subject to change without notice



# IT6100B High Accuracy Programmable DC Power Supply



#### **Applications**

Aerospace power module testing, circuit board testing, medical equipment testing, electronic rectifier testing, etc.

# Feature

- Output linear adjustment, high speed, reliable, low noise
- High accuracy and resolution
- High voltage rising edge
- Built-in 5½ digital voltmeter and Ohmmeter
- Memory capacity: 100 groups
- List mode
- Timer function (0.01~60000S)
- Remote sense interface to compensate line voltage
- Built-in RS232/USB/GPIB interface and support SCPI protocol

Model	Voltage	Current	Power	Size
IT6121B	20V	5A	100W	1/2 2U
IT6122B	32V	3A	96W	1/2 2U
IT6123B	72V	1.2A	86W	1/2 2U
IT6132B	30V	5A	150W	1/2 2U
IT6133B	60V	2.5A	150W	1/2 2U

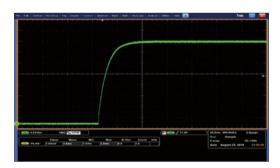
#### Optional Accessories

IT-E121 RS232	Communication Cable
IT-E122 USB	Communication Cable
IT-E135 GPIB	Communication Cable
IT-F151A (For I	Inder 1200W) 19-inch Rack Mount Kit

IT6100B series (86 ~ 1200W) high speed high resolution programmable DC power supply is with ultra-high voltage rising speed, resolution up to 0.1mV / 0.01mA, the latest output waveform priority mode allows rising waveform of voltage or current with high-speed and no overshoot, which is widely used in aerospace power modules and other high-precision test occasions. IT6100B has built-in USB / RS232 / GPIB communication interface and the panel supports List programming, which can provide multi-purpose solutions according to customer design and testing demands, easy to use.

# High voltage rise speed

Comparing with general high speed power supplies, IT6100B series power supplies reduce their ripple and noise to the lowest level. Their high voltage rise speed suits for all high speed and precise testing occasions.



# Digital voltage milliohmeter

IT6100B series has built-in precision digital voltage ohmmeter

Digital ohmmeter: Provide four-wire method to measure resistance, measurement range:  $0 \sim 1\Omega$  Digital voltmeter: A 5½ voltmeter is provided to measure the external voltage, measurement range:  $0 \sim 40V$ 



# IT6100B Specifications

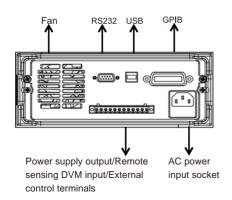
		IT6121B	IT6122B	IT6123B	IT6132B	IT6133B
	Voltage	0~20V	0~32V	0~72V	0~30V	0~60V
DC output range	ge Current	0~5A	0~3A	0~1.2A	0~5A	0~2.5A
	Power	100W	96W	86.4W	150W	150W
Line on outstan	Voltage	<0.01%+1mV	<0.01%+1mV	<0.01%+1mV	<0.01%+1mV	<0.01%+2mV
Line regulatio	Current	<0.05%+1mA	<0.05%+1mA	<0.05%+1mA	<0.05%+1mA	<0.05%+0.05mA
Load regulation	Voltage	<0.01%+2mV	<0.01%+2mV	<0.01%+2mV	<0.01%+2mV	<0.01%+2mV
Load regulation	Current	<0.05%+0.1mA	<0.05%+0.1mA	<0.05%+0.1mA	<0.05%+1.5mA	<0.05%+0.5mA
Ripple and no	ise Voltage	<1mv Vrms/<3mv Vpp	<1mv Vrms/<3mv Vpp	<1mv Vrms/<4mv Vpp	<1mv Vrms/<4mv Vpp	<1mv Vrms/<5mv Vpp
(20HZ-7MHZ)	Current	<3mA rms	<3mA rms	<3mA rms	<4mA rms	<3mA rms
Programming	Voltage	1mV	1mV	1mV	1mV	1mV
resolution	Current	0.1mA	0.1mA	0.1mA	0.1mA	0.1mA
Programming	Voltage	±0.03%+3mV	±0.03%+3mV	±0.03%+6mV	±0.03%+3mV	±0.03%+6mV
accuracy	Current	±0.05%+2mA	±0.05%+2mA	±0.05%+1mA	±0.05%+2.5mA	±0.05%+1.5mA
Display value	Voltage	0.1mV	0.1mV	0.1mV	0.1mV	0.1mV
resolution	Current	0.01mA	0.01mA	0.01mA	0.01mA	0.01mA
Read back	Voltage	±0.02%+3mV	±0.02%+3mV	±0.02%+5mV	±0.02%+3mV	±0.02%+5mV
accuracy	Current	±0.05%+2mA	±0.05%+2mA	±0.05%+1mA	±0.05%+2.5mA	±0.05%+1.5mA
			Trar	nsient response (typical)		
Load changes	3	<200us	<200us	<200us	<200us	<200us
50% -100% Load b	ack to less than 75mV					
	e voltage to rise	<20ms	<20ms	<20ms	<20ms	<20ms
Set the voltage from 0% to voltage change from 10%	100%, to 90% of the time					
	e voltage to drop	<200ms	<150ms	<150ms	<250ms	<200ms
Set the voltage from 0% to voltage change from 10%	100%, to 90% of the time					
Overvoltage	Range (typical)	1~19V	1~31V	1~71V	1~29V	1~59V
protection	Accuracy (typical)		± (s	etting value * 0.5% + 0.5V)		
	Response time (typical)		<10	ms		
			DVI	M(DC)		
Display value	accuracy		±0.0	)2%+10mV		
Display resolu			0.1r	nV when less than 10V; 1m	V when more than 10V	
Enter the different	ial mode voltage range		0~4	0Vpk		
Enter the comm	on mode voltage range		0~3	0~30Vpk		
Common mod	le rejection ratio		<0.1	1%		
Weight			7Kg			

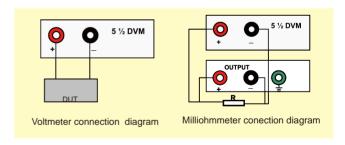
<sup>\*</sup>This information is subject to change without notice

# Digital Voltmeter

The digital milliohmmeter: IT6120B provide 4-wires resistance measurement method, measuring range: 0~1K; The digital voltmeter: IT6100B provide 5 ½ voltage meter to measure external voltage, measuring range:0~40V.

#### Rear Panel





**Optional Accessories** 

IT-E121 RS232 Communication Cable

IT-E122 USB Communication Cable

IT-E135 GPIB Communication Cable

IT-E151 (For Under 1200W) 19-inch Rack Mount Kit

Standard Accessories

**Power Cord** 

User Manual

Calibration Report



# IT7300 Programmable AC Power Supply



#### **Applications**

Motor industry, Illumination, Aviation, Military, Lab testing, Production line test, etc.

powerful features such as power line disturbance (PLD) simulation, Dimmer and comprehensive measurement functions. IT7321 has built-in RS232 / USB / LAN communication interface. They can be applied to commercial, power electronics and military test applications from bench-top testing to mass production.

performance AC power source. It equips with all

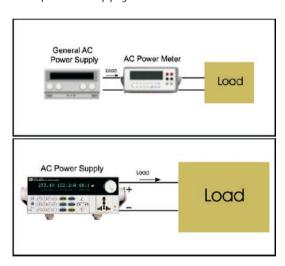
IT7321 sets up the new standard for high

# Feature

- Precision Linear amplification technology, low noise, high stability
- High power density design, 300VA for ½ 2U, save installation space
- Adjustable frequency:45HZ-500HZ
- Adjustable phase angle: 0-360°
- Set the output slew rate of voltage and frequency
- High current crest factor for inrush current testing
- TRIAC Dimmer dimming / governor simulation function
- Output the changed synchronous TTL signal
- LIST mode for testing power perturbation (PLD) simulation
- Simulate the surge, trap waveform
- Voltage dip, short interruption and voltage change simulation
- Measure various electrical parameters, including RMS voltage / current, actual power, power factor, VA (apparent power), peak current and other parameters
- Measurement resolution can reach 0.01W / 0.1mA, meet
   Energy Star standard requirement
- Built-in RS-232, USB and LAN (support SCPI protocol)
- OCP,OVP,OTP,OPP

Model	Specification
IT7321	300V/3A/300VA

"AC power supply" + "Power meter"



Normally, when test AC products, a power meter is needed to connect between AC power supply and DUT in series. Since power meter is built-in in IT7321, users don't need to connect an extra power meter. It is not only easy for test, but also save cost.



# Linear Amplifier Technology

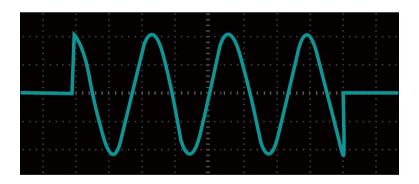
IT7321 AC source adopts latest linear technology which greatly reduces the output noise and ensures high working stability. Because of the lower ripple index, this AC source can assist user to get a more precision measuring result.

# Multi-function & High Precision Measurement

IT7321 AC source uses advanced DSP circuit to get higher precision and high-speed measurement for true RMS voltage, true RMS current, true power, frequency, power factor and peak value. In addition, its high resolution 0.01W/0.1mA extends the application for Energy Star testing standard. IT7321 is not only an AC source, but also a powerful meter.

# Adjustable Phase Angle

User can set the start and stop phase angle within range of 0~360°. This function is widely used for startup and shutdown current impact test or various rectifier performance tests.

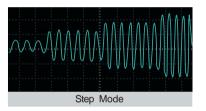


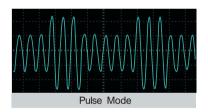
# **Built-in Communication Interface**

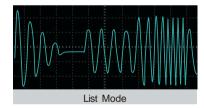
An easy-to use rotary knob and self-guiding keypads allow you to set the output at your desired value without any effort. In addition, IT7321 AC source has built-in RS232/USB/LAN interface, providing customer high speed and stable communication quality.

# Power Line Disturbance Simulation Function

IT7321 provides powerful functions to simulate all kinds of power line disturbance conditions. The STEP and PULSE modes offer a method to execute a single step or continuous output changes. The LIST Mode, up to 100 sequences, extends this function for more complex waveform generator needs. In this way, IT7321 is capable of simulating all sorts of voltage dips, surge or trapped wave. The IT7321 enables users to perform the pre - compliance tests against IEC 61000-4-11 and compliance test against IEC 61000-4-14/-4-28 immunity test regulations.

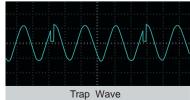








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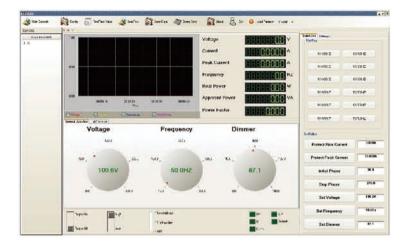


# IT7300 Programmable AC Power Supply



# IT9000 software

IT9000 software offers sweep test, list test, quick setting, phase dimmer test, report and save the data.



# High Stability

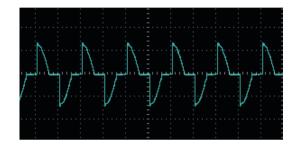
Based on professional high anti-environment disturbance technology, self-diagnosis design and OCP/OPP/OTP protections, this series power supply could work well even in bad environment. IT7321 AC power supply assists engineer to ensure quality for products.

# SWEEP Function

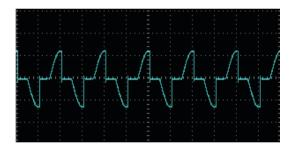
This function tests efficiency of switch power supply and gets voltage and frequency value at max power. It could change voltage and frequency by setting start voltage value, end voltage value, stepping voltage value, start frequency, end frequency, stepping frequency and time of each step. Time unit of each step could be S, M, H. And it can save 10 files. The voltage, frequency and current value etc. of max. power point will be displayed after finishing test.

# TRIAC Dimmer Simulation Function

ITECH is the pioneer of TRIAC Dimmer function. This function is used to do dimming and speed regulating test for lamp or electric motor to ensure the products work well when controller of dimming and speed regulating is needed.



Front Phase Dimmer



Back Phase Dimmer

Standard Accessories

**User Manual** 

Power Cord

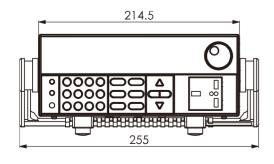
Calibration Report

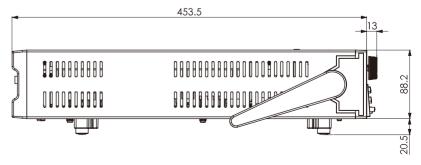


# IT7300 Specifications

Model		IT7321	IT7322	IT7322H	IT7324H
INPUT					
Phase		1	1	1	1
/oltage		220Vac±10% or 110Vac±10%	220Vac±10% or 110Vac±10%	220Vac±10% or 110Vac±10%	220Vac±10% or 110Vac±10%
requency		47~63Hz	47~63Hz	47~63Hz	47~63Hz
Max current		6.3A(220Vac) or 10A(110Vac)	15A(220Vac) or 30A(110Vac)	15A(220Vac) or 30A(110Vac)	30A(220Vac) or 60A(110Vac)
Power factor		0.5(typical)	0.7(typical)	0.7(typical)	0.7(typical)
AC OUTPUT					
Max power		300VA	750VA	750VA	1500VA
Max current	0~150V	3A	6A	0~250V 3A	6A
(rms)	0~300V	1.5A	3A	0~500V 1.5A	3A
Max current	0~150V	9A	18A	0~250V 9A	18A
peak)	0~300V	4.5A	9A	0~500V 4.5A	9A
Phase		1Ф/2W	1Φ/2W	1Ф/3W	1Ф/2W
otal harmonic d	listortion(THD)		≤0.5% at 45-500Hz (Resistive Load)	≤1% at 45-500Hz (Resistive Load)	≤1% at 45-500Hz (Resistive Load)
Crest factor	13.01.1011(1.11.1.0)	3	3	3	3
ower regulation		0.1% max for a ±10% line change	0.1% max for a ±10% line change	0.1% max for a ±10% line change	0.1% max for a ±10% line change
ower regulation oad regulation		≤0.5%FS(Resistive Load)	≤0.5%FS(Resistive Load)	<ul><li>50.5%FS(Resistive Load)</li></ul>	≤0.5%FS(Resistive Load)
esponse time		<100us	<100us	<0.5%FS(Resistive Load)	<100us
SETTING		C10005	Clous	<100dS	Cious
DETTING	Dongs	0~300V High, 150/300V Auto	0~300V High, 150/300V Auto	0-500V High, 250/500V Auto	0~500V High, 250/500V Auto
	Range	0 /			0 -
/oltage	Resolution	0.1V	0.1V	0.1V	0.1V
	Accuracy	±(0.2%+0.6V)	±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+1.2V)
	TC*1	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)
	Range	45~500Hz	45~500Hz	45~500Hz	45~500Hz
Frequency	Resolution	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz	0.1Hz at 45-99.9Hz 1Hz at 100-500Hz	0.1Hz at 45-99.9Hz 1Hz at 100-500H
	Accuracy	0.1Hz	0.1Hz	0.1Hz	0.1Hz
	Range	0~360°	0~360°	0~360°	0~360°
Phase angle	Resolution	0.1°	0.1°	0.1°	0.1°
	Accuracy	±1°(45-65Hz)	±1°(45-65Hz)	±1°(45-65Hz)	±1°(45-65Hz)
MEASUREMEN	П				
	Range	0~300V	0~300V	0~500V	0~500V
Voltage(rms)	Resolution	0.1V	0.1V	0.1V	0.1V
	Accuracy	±(0.2%+0.6V)	±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+1.2V)
	TC*1	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)
	Range	L:120.0mA * M:1.200A *H:3.00A *	L:120.0mA * M:1.200A * H:6.00A *	L:120.0mA * M:1.200A * H:3.00A *	L:120.0mA * M:1.200A * H:6.00A
	Resolution	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA
Current(rms)	Accuracy	L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)
	71000100)	H:±(0.2%+40mA)	H:±(0.2%+60mA)	H:±(0.2%+60mA)	H:±(0.2%+60mA)
	TC*1	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)
	Range	0~12A	0~18A	0~9A	0~24A
Current(peak)	Resolution	0.01A	0.01A		
Surrein(peak)				0.01A	0.01A
	Accuracy	±(1%+0.36A)	±(1%+0.36A)	±(1%+0.36A)	±(1%+0.36A)
	TC*1	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)
Power	Resolution	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W
-		L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)
	Accuracy	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)
		H:±(0.2%+4W) (47HZ-65HZ)	H:±(0.2%+6W) (47HZ-65HZ)	H:±(0.2%+10W) (47HZ-65HZ)	H:±(0.2%+10W) (47HZ-65HZ)
	TC*1	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)
ENERAL					
lemory storage		10 memories	10 memories	10 memories	10 memories
ynchronous ou	tput signal	Output Signal 5V,BNC type	Output Signal 5V,BNC type	Output Signal 5V,BNC type	Output Signal 5V,BNC type
terface (option	al)	LAN,USB,RS232	LAN,USB,RS232,GPIB	LAN,USB,RS232,GPIB	LAN,USB,RS232,GPIB
perating enviro	onment	0~40°C/20-80%RH	0~40°C/20-80%RH	0-40°C/20-80%RH	0~40°C/20-80%RH
Size		1/2 19" 2U	19" 3U	19" 3U	19" 3U
olze					

# IT7321 Dimension figure





Unit: mm

<sup>\*1</sup> Temperature Coefficient
\* This information is subject to change without notice

# IT7300 Programmable AC Power Supply

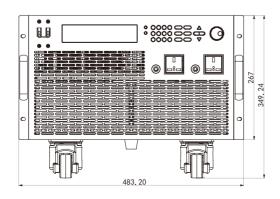


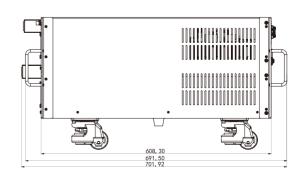
# IT7300 Specifications

		IT7224	IT7226H	IT7226
Model		IT7324	IT7326H	IT7326
INPUT		1	1	1
Phase			1	
Voltage		220Vac±10% or 110Vac±10%	220Vac±10%	220Vac±10%
Frequency		47~63Hz	47~63Hz	47~63Hz
Max current		30A(220Vac) or 60A(110Vac)	60A	60A
Power factor		0.7(typical)	0.7(typical)	0.7(typical)
AC OUTPUT				
Max power		1500VA	3000VA	3000VA
Max current	0~150V	12A	12A	24A
(rms)	0~300V	6A	6A	12A
Max current	0~150V	36A	36A	72A
(peak)	0~300V	18A	18A	36A
Phase		1Φ/2W	1Φ/2W	1Φ/2W
Total harmonic dist	ortion(T.H.D)	≤0.5% at 45-500Hz (Resistive Load)	≤1% at 45-500Hz (Resistive Load)	≤0.5% at 45-500Hz (Resistive Load)
Crest factor	,	3	3	3
Power regulation		0.1% max for a ±10% line change	0.1% max for a ±10% line change	0.1% max for a ±10% line change
ower regulation		≤0.5%FS(Resistive Load)	≤0.5%FS(Resistive Load)	≤0.5%FS(Resistive Load)
Response time		<100us	<100us	<100us
SETTING		10000	10003	<100u3
JE I IING	Panga	0~300V High, 150/300V Auto	0~500V High, 250/500V Auto	0~300V High, 150/300V Auto
	Range Resolution	0~300V Fligh, 150/300V Auto	0~500V Figh, 250/500V Auto	0.1V
Voltage		±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+0.6V)
3	Accuracy	,	,	,
	Temperature Coefficient	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)
	Range	45-500Hz	45-500Hz	45-500Hz
Frequency	Resolution	0.1Hzat45-99.9Hz 1Hzat100-500Hz	0.1Hzat45-99.9Hz 1Hzat100-500Hz	0.1Hzat45-99.9Hz 1Hzat100-500Hz
	Accuracy	0.1Hz	0.1Hz	0.1Hz
	Range	0~360°	0~360°	0~360°
Phase angle	Resolution	0.1°	0.1°	0.1°
	Accuracy	±1°(45-65Hz)	±1°(45-65Hz)	±1°(45-65Hz)
MEASUREMEN	Т			
	Range	0~300V	0~500V	0~300V
Voltage(rms)	Resolution	0.1V	0.1V	0.1V
. ,	Accuracy	±(0.2%+0.6V)	±(0.2%+1.2V)	±(0.2%+0.6V)
	Temperature Coefficient	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)
	Range	L:120.0mA * M:1.200A * H:12.00A *	L:120.0mA * M:1.200A * H:12.00A *	L:120.0mA * L:120.0mA * H:24.00A *
	Resolution	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA	L:0.1mA M:1mA H:10mA
Current(rms)		L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)	L:±(0.2%+0.6mA) M:±(0.2%+6mA)
. ,	Accuracy	, , , , ,	H:±(0.2%+60mA)	H:±(0.2%+0.1A)
	Temperature	H:±(0.2%+80mA)	,	,
	Temperature Coefficient	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)	±(0.04% per degree from 25°C)
	Range	0~48A	0~48A	0~96A
Current(peak)	Resolution	0.01A	0.01A	0.01A
	Accuracy Temperature	±(1%+0.36A)	±(1%+0.36A)	±(1%+0.36A)
	Coefficient	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)
Power	Resolution	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W	L:0.01W M:0.1W H:1W
rowei		L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)	L:±(0.2%+0.2W) (47HZ-65HZ)
	Accuracy	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)	M:±(0.2%+2W) (47HZ-65HZ)
	,	H:±(0.2%+10W) (47HZ-65HZ)	H:±(0.2%+10W) (47HZ-65HZ)	H:±(0.2%+15W) (47HZ-65HZ)
	Temperature Coefficient	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)	±(0.05% per degree from 25°C)
GENERAL	COCINCION IL	, , ,	, ,	
Memory storage		10 memories	10 memories	10 memories
Synchronous ou		Output Signal 5V,BNC type	Output Signal 5V,BNC type	Output Signal 5V,BNC type
nterface (option		Output Signal 5V,BNC type	LAN.USB.RS232.GPIB	LAN.USB.RS232.GPIB
\ I	,	0~40°C/20-80%RH	0~40°C/20-80%RH	0~40°C/20-80%RH
Operating enviro	rirrient			
Size		1/2 19" 3U	19"6U	19" 6U
Weight		37Kg	103Kg	103Kg

<sup>\*</sup> This information is subject to change without notice

# IT7324 Dimension figure





Unit: mm



# IT9121E Power Meter



#### **Applications**

Motors, household appliances, UPS, etc.

# Feature

- 4.3-inch color LCD (TFT)
- The row number of matrix displayed on the screen can be set freely and common measurement parameters can be displayed
- Input range: 600Vrms / 20Arms
- The voltage, current, power, harmonics and other parameters can be measured at the same time
- The accuracy of voltage and current measurement is up to 0.1%
- The interfaces for USB-based peripheral devices are provided, and the user can save data into the external storage medium
- The power analyzer has rich and powerful integrating functions, and can be used for measuring electric energy which is bought or sold
- The power meter also has a function of frequency measurement
- Standard built-in USB, GPIB, RS232 and Ethernet communication interfaces

Model	Voltage	Current	Size
IT9121E	600V	20A	1/2 2U

The IT9121E power meter can provide the maximum input of 600Vrms and 20Arms and measurement bandwidth of 100kHZ, and can be easily used for measuring the voltage, current, power, frequency, harmonics and other parameters. The standard configuration includes USB, GPIB, RS232 and LAN communication interfaces and also interfaces for USB-based peripheral devices. The user can save the measured parameters into the external storage medium. The basic voltage and current accuracy is 0.1%. Moreover, the power meter has rich integrating functions, such as the active power. It is widely applied in test of motors, household appliances, UPS, etc.

# Communication Interfact

The standard configuration of the IT9121E power analyzer includes, the USB, GPIB, RS232 and Ethernet communication interfaces. Remote control of the power meter can be realized via these interfaces. In addition, IT9121E is also equipped with a USB-Host interface for connection of U discs and other devices, and the user can save screenshots into the U disc.

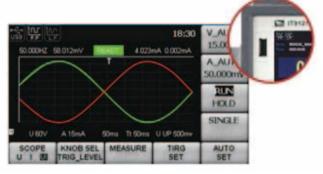
# Rich Measurement Function

The IT9121E power meter can measure all AC and DC parameters, including the active power, reactive power, apparent power, power factor, voltage, current, frequency, phase difference, etc. It also has the function of integral measurement, and can be widely applied in tests of motors, household PCB, UPS, etc.



# **Integral Measurement Function**

Due to the power integral function, the sold/bought electric energy in the interconnected power grids can be measured. The IT9121E power analyzer can provide the current integral and active power integral (Wh). Automatic range switching and accurate integral measurement can be carried out in the Buy and Sell mode, according to the input level.



# Self-define Interface Display Style

IT9100 power meter provides a 4.3-inch color high-resolution TFT LCD for the user, and real-time values can be displayed with high brightness and remarkable colors even in a dark test environment. In addition, the IT9100 power meter provides multiple interface display styles (View1, View4 and View12). The user can customize the screen display parameter type and display sequence. The humanized design meets engineers' measurement demands in different tests.



# Abundant measurement function

IT9100 power meter can measure all AC and DC parameters, including active power, reactive power, apparent power, power factor, voltage, current, frequency, phase difference, etc.. IT9100 provides integrated measurement and up to 50 times of the harmonic measurement function. It is widely used in electronic motors, home appliances PCB board, UPS power supply and other test areas.

# Current Sensor Input

The IT9121E power analyzer can be used for measuring the voltage of 0-600V and current of 0-20A. For measurement of the current above 20A, the voltage input type current clamp or current transducer can be applied. When IT9121 is used, the user can select the 50mV-2V (EX1) or 2.5V-10V (EXT2).



# IT-E185 Power meter fixtu

IT-E185 is an optional accessory, it can facilitate wiring test of IT9100 power meter for users.





## Specification

General Specifica	ation
Model	IT9121E
AC input voltage	100 VAC — 240 VAC 47-63 Hz
Warm-up time	Above 30 minutes
Operating environment	Temperature : $5^{\circ}$ C — $40^{\circ}$ C Humidity : 30% RH— 75% RH (No condensation) Altitude : 2000 m or less 2000 m
Storage environment	Temperature : -20 °C — 50 °C Humidity : 30% RH— 75% RH (No condensation) Altitude : 2000 m or less 2000 m
Installation	Indoors
Safety	IEC 61010-1, EN 61010-1, Measurement CAT II
Maximum power consumption	50 VA

Screen Display	
	Detailed Information
Display type	Dimension: 4.3-inch color TFT display Full screen pixel: 480 (horizontal) *272 (vertical) points Waveform display pixel: 384 (horizontal) *194 (vertical) points Operating temperature: -20 C - 70 C Storage temperature: -30 C - 80 C Value display: matrix display

Input		
Item		Specifications
Input te	rminal type	voltage: plug-in terminal (safety terminal)
Input ty	/pe	Current Direct input: large binding post External current sensor input DB9 connector
Input ty	/ре	Voltage: Floating input through resistive voltage divider Current: Floating input through shunt
Voltage	Crest factor 3	IT9121E: 15V/30V/60V/150V/300V/600V
	Crest factor 6	IT9121E: 7.5V/15V/30V/75V/150V/300V
Direct Current	Crest factor 3	IT9121E: 5mA/10mA /20mA /50mA /100mA / 200mA /0.5A/1A/2A/5A/10A/20A
input	Crest factor 6	T9121E: 2.5 mA /5mA/10mA/25mA/50mA/100mA/ 250mA/0.5A/1A/2.5A/5A/10A.
External Current	Crest factor 3	IT9121E: 2.5V/5V/10 V
sensor input (/EX1)	Crest factor 6	IT9121E: 1.25V/2.5V/5V
External Current	Crest factor 3	IT9121E: 50mV/100mV/200mV/500mV/1V/2V
sensor input (/EX2)	Crest factor 6	IT9121E: 25mV/50mV/100mV/250mV/500mV/1V

Input impedance

Voltage: Input resistance: Approx. 2  $M\Omega,$  input capacitace: Approx.13 pF (in parallel with the resistance)

current:

• Direct input range 5 mA ~ 200 mA:

Input resistance: Appro x 505 m $\Omega$  Input inductance: Appro x 0.1  $\mu H$ 

• Direct input range 0.5A ~ 20 A:

Input resistance: Appro x 5 m $\Omega$  Input inductance: Appro x 0.1  $\mu$ H

• Sensor input:

Input resistance:Appro x 100 k $\Omega$  (2.5 V ~ 10 V) Input resistance:Appro x 20 k $\Omega$  (50 mV ~ 2 V)

Input bandwidth	DC, 0.5 Hz ~ 100kHz
Line filter	select OFF, cut off frequency of 500 Hz
Frequency filter	select OFF, cut off frequency of 500 Hz
Range	range of each unit can be set separately
A/D converter	Simultaneous conversion voltage an current inputs
	Resolution: 18-bit
	Maximum conversion rate: 10 µs

Voltage and Cur	rent Accuracy
Item	Specifications
Requirements	temperature: 23 ± 5 °C humidity: 30~75% RH Input waveform: Sine wave crest factor: 3, common-mode voltage: 0 °V Number of displayed digits: 5 digits (6 digits when including the decimal point) Frequency filter: Turn on to measure voltage or current of 200 Hz or 30 minutes after warm-up time has passed After zero-level compensation or measurement range is changed
Accuracy	DC: $\pm$ (0.1% of reading + 0.2% of range) 10 Hz $\leq$ f $<$ 45 Hz: $\pm$ (0.1% of reading + 0.2% of range) 45 Hz $\leq$ f $\leq$ 66 Hz: $\pm$ (0.1% of reading + 0.1% of range) 66 Hz $<$ f $\leq$ 1kHz: $\pm$ (0.1% of reading + 0.2% of range) 1 kHz $<$ f $\leq$ 10 kHz: $\pm$ (0.07 *f)% of reading + 0.3% of range) 10 kHz $<$ f $\leq$ 100 kHz: $\pm$ (0.5% of reading + 0.5% of range) $\pm$ (0.5% of reading + 0.5% of range) $\pm$ (0.04x(f-10))% of reading

Item	Specifications	
Requirements	same as the conditions for voltage and current. Power factor:1	
Accuracy	DC: (0.1 % of reading + 0.2 % of range) 10Hz $\leq$ f < 45 Hz: $\pm$ (0.3 % of reading + 0.2 % of range) 45 Hz $\leq$ f $\leq$ 66 Hz: $\pm$ (0.1 % of reading + 0.1 % of range) 66 Hz < f $\leq$ 1kHz: $\pm$ (0.2 % of reading + 0.2 % of range) 1 kHz < f $\leq$ 10 kHz: $\pm$ (0.1 % of reading + 0.3 % of range) $\pm$ [(0.067x(f-1)]% of reading + 0.5 % of range) $\pm$ [(0.09x(f-10)]% of reading]	
Influence of power factor	when power factor ( $\lambda$ )=0 (S:apparent power)  • $\pm$ 0.2 % of S for 45 Hz $\leq$ f $\leq$ 66 Hz  • $\pm$ {(0.2 + 0.2 × f) % of S} for up to 100 kHz as reference of is frequency of input signal in kHz  when 0 < $\lambda$ < 1 ( $\Phi$ : phase angle of the Voltage and current) (power reading) $\times$ {(power reading error%)+(power range %): (power range/indicated apparent power value)+{tan $\Phi$ × (influence when $\lambda$ =0)%}]	
When the line filter is turned ON	45 ~ 66 Hz: Add 0.3 % of reading < 45 Hz: Add 1 % of reading	
Temperature coefficient	same as the temperature coefficient for voltage and current	
Accuracy when the crest factor is set to 6	accuracy obtained by doubling the measurement range error for the accuracy when the crest factor is set to 3	
Accuracy of apparent power S	voltage accuracy +current accuracy	
Accuracy of reactive power Q	accuracy of apparent power + [ $(\sqrt{1.0004} - \lambda 2) - (\sqrt{1 - \lambda 2})$ ] ×100 %	

# IT9121E Power Meter



Accuracy of power factor λ	$\pm$ [( $\lambda$ - $\lambda$ 1.0002)+   cosø-cos(ø+sin-1 (influence from the power factor when $\lambda$ = 0%/100)}   ] $\pm$ 1digit when voltage and current are at the measurement range rated input	
Accuracy of phase difference Φ	$\pm$ [   ø-cos-1( $N$ 1.0002)   +sin-1(influence from the power factor when $\lambda$ = 0 %/100)] $\pm$ 1digit when voltage and current are at the measurement range rated input	

Item Specifications Measurement method Digital sampling method Crest factor

(one element model): single-phase , two-wire(1 P2 W) Wiring system

Range select select manual or auto ranging Auto range auto-range increase auto-range decline

	Name	Symbols And Meanings	
	Voltage current	Select RMS (the effective RMS value of voltage andcurrent) . MEAN:(the rectified mean value calibrated to the RMS value of the voltage and the true RMS value of the current) . RMN (rectified mean value of voltage and current DC:(simple average of voltage and current) AC: alternating current. PP: (peak value of voltage and peak value of current)	
	Active power [W]	P	
Measurement	Reactive power [var]	Q	
parameters	Apparent power [VA]	S	
	Power factor	λ	
	Phase di fference (°)	φ	
	Frequency (Hz)	fU(FreqU) : voltage frequency fl(FreqI) : current frequency	
	Max/min of voltage (V)	Upk+: voltage positive peak Upk-: voltage negative peak	
	Max/min of current (A)	lpk+: current positive peak lpk-: current negative peak	
	Crest factor	CfU: crest factor of voltage Cfl: crest factor of current	
	Integration	TM: integration time, WP: sum of positive and negătive watt hour, WP+: positive power sum, WP-: negative power sum, q: sum of positive and negative ampere-hour, q+: positive ampere -hour sum, q-: negative ampere ampere -hour sum.	
Measurement synchronization	Select voltage, current, or the entire period of the data updata interval for the		
signal used to achieve synchronization during measurer		hronization during measurement.	
Line filter	Select OFF or ON (cut off frequency at 500 Hz)		
Peak	Measures the peak (max, min) value of voltage, current or power from the		
measurement	instantaneous current or instantaneous power that is sampled.		

Item	Specifications		
Measurement item	Voltage or current frequencies applied to one selected input element can be measured		
	Vaties depending on the data update interval (see description given later) as follows		
	Data update interval	Measurement range	
	0.1 s	25 Hz ≤ f ≤ 100 kHz	
Frequency test range	0.25 s	10 Hz ≤ f ≤ 100 kHz	
	0.5 s	5 Hz ≤ f ≤ 100 kHz	
	1 s	2.5 Hz ≤ f ≤ 100 kHz	
	2 s	1.5 Hz ≤ f ≤ 50 kHz	
	5 s	0.5 Hz ≤ f ≤ 20 kHz	
Frequency filter	Select OFF or ON (cut off frequency of 500 Hz)		
Accuracy	Requirements: When the input signal level is 20 % or more the measurement range and the crest factor is set to 3 (40 % more if the crest factor is set to 6).		

Measured item	All installed elements
Method	PLL synchronization method
Frequency range	Fundamental frequency of the PLL source is in the range of 10 Hz to 1.2 kHz
PLL source	Select voltage of current of each input element
FFT data length	1024

	Name	Symbols and Mear	nings	
	Voltage (V)	U(k) : voltage effective value of Kth harmonic	U(Total) voltage effective value	
	Current (A)	I(k): curent effective value of Kth harmonic	I(Total) : curent effective value	
	Active power (W)	P(k): active power of Kth harmonic	P(Total) : Active power	
	Apparent power (VA)	S(k): apparent power of Kth harmonic	S(Total): total apparent power	
	Reactive power (var)	Q(k): reactive power of Kth harmonic	Q(Total) :total reactive power	
æ	Power factor	λ(k): power factor of Kth harmonic	$\lambda(Total)$ : Total power factor	
asureme		φ(k): phase difference between voltage and current of Kth harmonic φU(k) voltage phase difference	-	
measurement parameter	Phase difference	between Kth harmonic(UK) and fundamental wave(U1)  pl(k): current phase difference between Kth harmonic(IK) and fundamental wave(I1)	φ:total phase difference	
7	Harmonic distortion factor(%)	Uhdf(k): Voltage ratio of Kth harmonic(Uk) and fundmental wave(Indf(k): ratio of Kth harmonic (Ik) and fundmental wave(It) a ratio of Kth harmonic(Pk)and fundmental wave (P1)or tol Phdf(k): wave(Ptotal) or Total distotrion wave(Itotal) or total distored wave(Utotal)		
	(THD) total harmonic distortion	Uthd: voltage ratio of total harmonic and fu or total distortion wave(Utotal). Ithd: current ratio of total harmonic and fu or total distortion wave(Itotal). Pthd: active power ratio of total harmonic a or total distortion wave(Ptotal)	ndmental wave(I1)	
Window function	Rectangle			

- This function is only available for IT9121, optional function for IT9121E.

  K is a integer from 0 to upper limit of harmonic analyse times. 0th means DC parameter.

  User can configure the maximum number of harmonic times manually or auto-decided by equipment, taking the minmum value between the two methods.

Fundamental frequency	Sample rate	Window width	Upper limit of* analysis orders
10 Hz ~ 75 Hz	f * 1024	1	50
75 Hz ~ 150 Hz	f * 512	2	32
150 Hz ~ 300 Hz	f * 256	4	16
300 Hz ~ 600 Hz	f * 128	8	8
600 Hz ~ 1200 Hz	f * 64	16	4

<sup>\*</sup> the upper limit of analysis orders can be decreased

#### Accuracy

\* When line filter is off, the accuracy shown below is the sum of reading and

Frequency	Voltage	Current	Power
10 Hz ≤ f < 45 kHz	0.15%of reading	0.15%of reading	0.15%of reading
	+0.35%of range	+0.35%of range	+0.50%of range
45 Hz ≤ f ≤ 440 kHz	0.15%of reading	0.15%of reading	0.20% of reading
	+0.35%of range	+0.35%of range	+0.50% of range
440 Hz < f ≤ 1 kHz	0.20% of reading	0.20% of reading	0.40% of reading
	+0.35% of range	+0.35% of range	+0.50% of range
1 kHz < f ≤ 2.5 kHz	0.80%of reading	0.80%of reading	1.56%of reading
	+0.45%of range	+0.45%of range	+0.60%of range
2.5 kHz< f≤ 5 kHz	3.05%of reading	3.05%of reading	5.77%of reading
	+0.45%of range	+0.45%of range	+0.60%of range

#### Interface

- USB GPIB
- Ethernet • RS232



# Simulation interface monitoring cal



#### IT-E161

0-10V input/output, simulation interface cable for monitoring and setting, used to control and read back power status Applicable model: IT6100 series

# Digital interface monitoring cable



#### IT-E162

Digital interface cable for monitoring and setting, it can use digital port to control power output state, especially suitable for industrial application. Applicable model: IT6100 series



#### IT-E163

0-10V input/output, simulation interface cable for monitoring and setting, used to control and read back load status Applicable model: IT8500 series

# Test line



IT-E301/10A



IT-E301/240A IT-E301/120A

IT-E30110-AB	10A / 1m/ Alligator clips - Banana plugs A pair of red and black test line
IT-E30110-BB	10A/1m / Banana plugs - Banana plugs A pair of red and black test line
IT-E30110-BY	$10 \mbox{A}/\mbox{1m}$ / Banana plugs - Y-type terminals $\mbox{A}\mbox{pair}$ of red and black test line
IT-E30312-YY	30A / 1.2m / Y-type terminals - A pair of red and black test line
IT-E30320-YY	30A / 2m / Y-type terminals - A pair of red and black test line
IT-E30615-OO	60A/ 1.5m / Ring terminals - A pair of red and black test line
IT-E31220-OO	120A / 2m / Ring terminals - A pair of red and black test line
IT-E32410-OO	240A / 1m / Ring terminals - A pair of red and black test line
IT-E32420-OO	240A / 2m / Ring terminals - A pair of red and black test line
IT-E33620-OO	360A / 2m / Ring terminals - A pair of red and black test line

# Quick Charger Controller



IT-E255A

Application models: IT8500+ series

IT-E255M

Application models: IT8500+, IT8800, IT8700

# **GPIB** communication cable



IT-E133

GPIB communication cable, support SCPI protocol Applicable model: IT6800 series

IT-E134

GPIB communication cable, support SCPI protocol Applicable model:

IT8500 series



IT-E135

GPIB communication cable, support SCPI protocol Applicable model: IT6100 series, IT6322

# **Optional Accessories**



# Optional keyboard



IT-253 Keyboard Help IT8500 series electronic load to complete Auto-test function Applicable model: IT8500 series



IT-254 Kevboard Coordinating IT8500+ series electronic load to realize automatic testing function Applicable model: IT8500+ series

1/2 2UDouble units installation picture

# Rack shelves kit



IT-E152 Rack mount kit Applicable models: IT8200 and IT6700 series

IT-E153B Rack mount kit Applicable models: IT8700 series



IT-E151A 19 Rack mount kit Applicable models: IT6302, IT6932A, IT6900A, IT7321

# Communication interface



IT-E121 RS232 Communication interface, with RS232 standard communication cable

IT-E122 USB Communication interface, with USB standard communication cable

Applicable models: IT6100, IT6800, IT6322, IT6302, IT8500+, IT8500



IT-E123 RS485 Communication interface, with RS485 interface Applicable models: IT8500+, IT8500, IT6800, IT6100, IT6322







IT-E601 Pin type lead Rubber straight plug – Probe crown round head Applicable models: IT5100



IT-E602 Large clip type lead Rubber straight plug – Alligator clips Applicable models: IT5100



IT-E603 Pin type lead Rubber straight plug – Probe double pin plugs Applicable models: IT5100



IT-E604 Black straight plug - Universal pen + Alligator clip Applicable models: IT5100



IT-E605 Zero adjustment board (suitable for different probe) Applicable models: IT5100



IT-E181 system fixture Applicable models: IT9500

# Current sensor



IT - E185 (option) Measuring fixture box (250 V / 15 A), easy wiring test Applicable models: IT9100



IT-E190-6A (option) Current sensor Applicable models: IT9100, IT9500



IT-E190-15A (option) Current sensor Applicable models: IT9100, IT9500



IT-E190-25A (option) Current sensor Applicable models: IT9100, IT9500



IT-E190-40A (option) Current sensor Applicable models: IT9100, IT9500



IT-E190-60A (option) Current sensor Applicable models: IT9100, IT9500

# **Product Selection Guide**



# ITECH is selling model list

DC alastrania land			
DC electronic load			
IT8500+ Programmable DC Electronic Load P05			
Model	Specification		
IT8511A+	150V/30A/150W		
IT8511B+	500V/10A/150W		
IT8512A+	150V/30A/300W		
IT8512B+	500V/15A/300W		
IT8512C+	120V/60A/300W		
IT8512H+	800V/5A/300W		
IT8513A+	150V/60A/400W		
IT8513C+	120V/120A/600W		
IT8514B+	500V/60A/1500W		
IT8514C+	120V/240A/1500W		
IT8516C+	120V/240A/3000W		

	IT8200 Digital	Control DC Electronic Load	P11
ĺ	Model	Specification	
	IT8211	60V/30A/150W	

IT6700 DC Pow	er Supply	P13
Model	Specification	
IT6720	60V/5A/100W	
IT6721	60V/8A/180W	

IT6300A Triple	Channels DC Power Supply	P15
Model	Specification	
IT6322A	30V/3A/90W*2CH	
	5V/3A/15W*1CH	
IT6332A	30V/6A/180W*2CH	
	5V/3A/15W*1CH	
IT6333A	60V/3A/180W*2CH	
	5V/3A/15W*1CH	

IT6302 Triple Channels DC Power Supply		P17
Model	Specification	
IT6302	30V/3A/90W*2CH	
	5V/3A/15W*1CH	

DC Power Supply		
IT6500 Wide-range High-power DC Power Supply		
Model	Specification	
IT6502D	80V/60A/800W	

IT6900A Wide-range Programmable DC Power Supply		
Model	Specification	
IT6922A	60V/5A/100W	
IT6932A	60V/10A/200W	
IT6933A	150V/5A/200W	
IT6942A	60V/15A/360W	
IT6952A	60V/25A/600W	
IT6953A	150V/10A/600W	

IT6860A Dual-range Programmable DC Power Supply			P24
Model	Specification		
IT6861A	20V/5A/100W	8V/9A/72W	
IT6862A	32V/3A/96W	12V/6A/72W	
IT6863A	72V/1.5A/108W	32V/3A/96W	
IT6872A	35V/4A/140W	15V/7A/105W	
IT6873A	75V/2A/150W	32V/4A/128W	
IT6874A	150V/1.2A/180W	60V/2A/120W	

IT6100B High Accuracy Programmable DC Power Supply		
Model	Specification	
IT6121B	20V/5A/100W	
IT6122B	32V/3A/96W	
IT6123B	72V/1.2A/86W	
IT6132B	30V/5A/150W	
IT6133B	60V/2.5A/150W	

AC Power Analyzer		
IT7300 Programmable AC Power Supply P29		
Model	Specification	
IT7321	300V/3A/300VA	

Power Analyzer		
IT9100 Power A	Analyzer	P34
Model	Specification	
IT9121E	600V/20A	



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