

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.



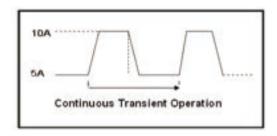
# **Transient Mode**

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.

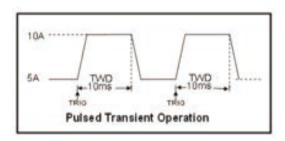
#### Continuous Mode

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.



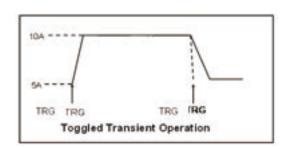
#### Pulse Mode

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

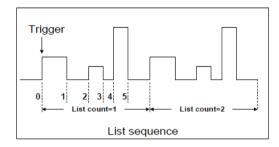
In toggle mode, the electronic load will switch between A level and B level when receiving a trigger signal after the transient operation is enabled. The following picture shows the current waveform in toggle transient operation.





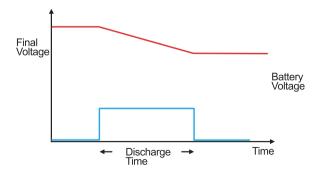
# List Mode

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

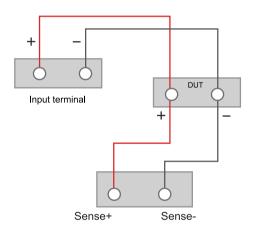
Battery discharge test of IT8500+ series can be achieved under CC mode. There are three cut-off conditions for IT8500+ include cut-off voltage, cut-off capacity and cut-off time, when any of the three conditions are met, discharge test will be stopped, the load will be automatically switched to OFF.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



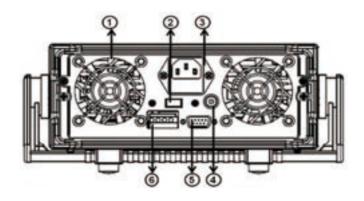


# IT8500+ Specifications

							20.5.1.0.1
	IT8511A+				511B+		8512A+
Rated	Voltage		50V	0~5			-150V
( 0∼40 °C)	Current	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A
	Power	150		150			00W
	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
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	±(0.05%+0.025%FS)	±(0.05%+0.025%FS)	±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(0.05%+0.02%F	, ,
CC mode	Range	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A
	Resolution	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA
	Accuracy		05%+0.05%FS)	±(0.0	5%+0.05%FS)	,	0.05%+0.05%FS)
CR mode	Range	0.1Ω~10Ω	10Ω~7.5KΩ	0.5Ω~10Ω	10Ω~7.5ΚΩ	0.05Ω~10Ω	10Ω~7.5KΩ
	Resolution	16b	it	16b		16	Sbit
	Accuracy	0.01%+0.08S *2	0.01%+0.0008\$	0.01%+0.08S *2	0.01%+0.0008S	0.01%+0.08S *2	0.01%+0.0008S
CP mode	Range	150	W	150	W	30	W00
	Resolution	10mW		10mW		10mW	
	Accuracy	±(0.1%	5+0.1%FS)	±(0.	1%+0.2%FS)	±(	(0.1%+0.1%FS)
Dynamic mode	T1&T2	20uS~360	00S /Res:1 uS	20u	S~3600S /Res:1 uS	20	0uS~3600S /Res:1 uS
Accuracy		2uS±100ppm		2uS±100ppm		2uS±100ppm	
Min response time	Up/down slope	0.0001~0.12AUs≒10uS	0.001~0.6 A/uS≒10uS	0.0001~0.2A/uS≒10uS	0.001~0.8A/uS ≒10uS	0.0001~0.2A/uS	0.001~1.5A/uS
				Measu	ıring 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	0.05%FS)	±(0.	05%+0.05%FS)		0.05%+0.05%FS)
Readback	Range	150	W	150W		300W	
Power Resoluti		10n	nW	10m	nW	10	)mW
	Accuracy	±(0.1%+0.	.1%FS)	±(0.	1%+0.2%FS)	+(	0.1%+0.1%FS)
		,	· ·	Protec	ted range		0117010117010)
Over power protection		≒160W		≒160W		≒320W	
Over current p	orotection	≒3.3A	≒33A	≒3.3A	≒11A	≒3.3A	≒33A
Over voltage protection		≒1	60V	≒50			160V
Over temperatu		<b>≒</b> 8	5°C	<b>≒</b> 85	5°C	<b>=</b>	85°C
Over temperati	are protection			Specif	ication		
Short circuit	CC	≒3.3/3A	≒33/30A	≒3.3/3A	≒11/10A	≒3.3/3A	≒33/30A
JJit oli odit	CV	<b>≒</b> 0		÷0'			0V
	CR		0mΩ		ν 00mΩ	<b>=</b>	:180mΩ
Input terminal			00ΚΩ	÷1I			300ΚΩ
Size(W*H*D)	poddiloc		8.2mm*354.6mm	214.5mm*88.2mr		-	2mm*354.6mm
SILO(VV II D)		_1-1.0111111 0	2.2.7 000	Z 14.JIIIII 00.ZIIII	11 334.011111	Z 14.5IIIII 88.	2111111 334.0111111

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

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



- ① 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+ Specifications

		IT8512B-	1	IT851	2H+	
Rated	Voltage	0~500V		0~800V		
(0~40 °C)	Current	0~3A 0~15A		0~1A	0~5A	
(0 40 0)	Power	300W			V	
	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%FS)	±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(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)	±(0.05%+0.05%FS)	±(0.05%+0.1%FS)	±(0.05%+0.05%FS)	
CR mode	Range	0.3Ω~10Ω	10Ω~7.5ΚΩ	2Ω~10Ω	10Ω~7.5ΚΩ	
	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		300V	V	
	Resolution	10mW		10m\		
	Accuracy	±(0.1%+			+0.2%FS	
Dynamic mode	T1&T2		00S /Res:1 uS		~3600S /Res:1 uS	
	Accuracy	2uS±100			:100ppm	
Min response time	Up/down slope	0.0001~0.2AuS≒10uS 0.001~	0.8A/uS ≒10uS	0.0001~0.04A/uS≒20uS	0.001~0.2A/uS ≒20uS	
	_		Measuring rar			
Readback	Range	0~50V	0~500V	0~80V	0~800V	
Voltage	Resolution	1 mV	10 mV	1 mV	10 mV	
	Accuracy		5+0.025%FS)		25%+0.025%FS)	
Readback	Range	0~3A	0~15A	0~1A	0~5A	
Current	Resolution	0.1mA	1mA	0.1mA	1mA	
Destiliant	Accuracy	,	+0.05%FS)	,	5%+0.05%FS)	
Readback Power	Range	300W 10mW		300V 10m\	V ^/	
FOWEI	Resolution	±(0.1%+0	) 20/ ES)			
	Accuracy	±(0.1%+0	Protected range	±(0.2	%+0.2%FS)	
Over power pro	tection	≒320W	Protected rang	je ≒32	0)//	
Over current pr		÷3.3A	≒16A	32 ≒1.1A		
Over voltage pr		÷530V	- 10A	=1.1A ≒85	≒5.5A	
Over temperatur		÷85°C				
Over temperatur	c protection	-00 C	Specification	<del>-</del> 05	C	
Short circuit	CC	≒3.3/3A	≒16/15A	≒1.1/1A	≒5.5/5A	
Short circuit	CV	-3.5/3A ≒0V	110,107	⇒1.1/1A ≒0V		
	CR	÷180mΩ		÷1.4		
Input terminal impedance		1MQ		2ΜΩ		
Size(W*H*D)		214.5mmW*354.6mn	nD*88 2mmH		5mmW*354.6mmD*88.2mmH	
CILC(VV II D)		211.01111111 004.01111		214.0	JIIIIIVV 004.0IIIIID 00.2IIIIIII	

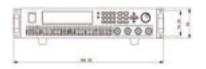
(0~40 °C)         Current Power         400W         0~60A         0~12A         0~120A         600W           MOV         0.25V at 6A         2.5V at 60A         0.2V at 12A         2V at 120A         0.1~18V         0.1~150V         0.1~18V         0.1~120V         0.1~18V         0.1~120V         0.1~120				IT8513A+			IT8513C+		
Power   MOV   0.25V at 6A   2.5V at 60A   0.2V at 12A   2V at 120A	Rated	Voltage		0~150V			0~120V		
MOV	(0~40°C)	Current	0~6A		0~60A	0~12A		0~120A	
CV mode   Range   0.1~18V   0.1~150V   0.1~18V   0.1~120V   10mV   10	,	Power		400W			600W		
Resolution		MOV	0.25V at 6A		2.5V at 60A	0.2V at 12A		2V at 120A	
Accuracy	CV mode	Range	0.1~18V		0.1~150V	0.1~18V		0.1~120V	
CC mode Range 0-6A		Resolution	1mV			1mV			
Resolution   Accuracy   ±(0.05%+0.05%FS)   ±(0.05%+0.008S   ±(0.05%+0.05%FS)   ±(0.05%+0.008S   ±(0.05%+0.05%FS)   ±(0.05%+0.008S   ±(0.05%+0.05%FS)   ±(0.05%+0.0		Accuracy	±(0.05%+0.02%FS)		±(0.05%+0.025%FS)	±(0.05%+0.02%FS		±(0.05%+0.025%FS)	
CR mode   Range   ±(0.05%+0.05%FS)   ±(0.05%+0.05%FS)   ±(0.05%+0.05%FS)   ±(0.05%+0.1%FS)   ±(0.05%-0.008S   ±(0.05%-0.008S   ±(0.05%+0.05%FS)   ±(0.05%+0.008S   ±(0.05%+0.008S   ±(0.05%+0.08S	CC mode	Range	0~6A		0~60A	0~12A		0~120A	
Accuracy   ±(0.05%+0.05%FS)   ±(0.05%+0.05%FS)   ±(0.05%+0.15%FS)   ±(0.05%+0.05%FS)		Resolution	0.1mA			1mA		10mA	
Resolution   Accuracy   Accurac		Accuracy				±(0.05%+0.05%FS	)	±(0.05%+0.1%FS)	
Accuracy	CR mode	Range	0.1Ω~10Ω		10Ω~7.5KΩ	0.05Ω~10Ω		10Ω~7.5KΩ	
CP mode         Range         400W         600W           Resolution         10mW         10mW           Accuracy         ±(0.2%+0.2%FS)         ±(0.2%+0.2%FS)           Dynamic mode         T1&T2         100uS~3600S /Res:1 uS         100uS~3600S /Res:1 uS           Accuracy         10uS±100ppm         0.01~1 AuS         0.001~0.2AuS ≒60uS           Minesporse time         Up/down slope         0.001~0.15AuS         0.01~1 AuS         0.001~0.2AuS ≒60uS           Readback         Range         0~18V         0~150V         0~18V         0~120V           Voltage         Resolution         0.1 mV         1mV         0.1 mV         1mV           Accuracy         4(0.025%+0.025%FS)         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)           Readback         Range         0~6A         0~6A         0~12A         0~12A         0~120A           Current         Resolution         0.1mA         1mA         1mA         10mA         10mA         10mA         10mA         10mA         10mA         10mW         600W         600W </td <td></td> <td>Resolution</td> <td></td> <td>16bit</td> <td></td> <td></td> <td>16bit</td> <td></td>		Resolution		16bit			16bit		
Resolution		Accuracy	0.01%+0.08S		0.01%+0.0008S	0.01%+0.08S *2		0.01%+0.0008S	
Accuracy	CP mode	Range		400W			600W		
Dynamic mode         T1&T2         100uS~3600S /Res:1 uS         100uS~3600S /Res:1 uS           Accuracy         10uS±100ppm         10uS±100ppm           Minresponse 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           Readback         Range         0~18V         0~150V         0~18V         0~120V           Voltage         Resolution         0.1 mV         1mV         1mV           Accuracy         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)           Readback         Range         0~6A         0~60A         0~12A         0~12A         0~120A           Current         Resolution         0.1mA         1mA         1mA         1mA         10mA           Accuracy         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)           Readback         Range         400W         600W         600W           Power         Resolution         10mW         ±(0.2%+0.2%FS)           Protected range         ÷(0.2%+0.2%FS)           Over power protection         ÷6.6A         ÷66A         ÷13A         ÷130A           Over vemperature protection <td></td> <td>Resolution</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Resolution							
Accuracy   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		Accuracy							
Minresponse time         Up/down slope         0.001~0.15A/uS         0.01~1 A/uS Measuring range         0.001~0.2A/uS≒60uS         0.01~1.6A/uS ≒60uS           Readback         Range         0~18V         0~150V         0~18V         0~120V           Voltage         Resolution         0.1 mV         1 mV         0.1 mV         1 mV           Accuracy         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)         0~12A	Dynamic mode	T1&T2		100uS~3600S /F	Res:1 uS			Res:1 uS	
Readback Voltage         Range Resolution         0~18V         0~150V         0~18V         0~120V           Voltage Resolution Accuracy Readback Range Current Resolution Accuracy ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)           Readback Range Current Resolution Accuracy ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)           Readback Range Power Resolution Accuracy Accuracy Accuracy Event Power Resolution Accuracy Accuracy Accuracy Event Power Power Protection Accuracy Event Power Power Protection Event Even		Accuracy		10uS+100ppm			10uS±100ppm		
Readback Voltage         Range Resolution         0~18V 0~150V 1mV         0~18V 0.1 mV         0~120V 1mV           Voltage         Resolution 0.1 mV         1mV         0.1 mV         1mV           Accuracy Accuracy         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)           Readback Range Resolution Accuracy         0.1mA         1mA         1mA         1mA         10mA           Power Resolution Accuracy         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.1%FS)         ±(0.05%+0.1%FS)           Power Resolution Accuracy Accuracy Accuracy         ±(0.25%+0.28FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.1%FS)           Protected range Accuracy Accura	Min response time	Up/down slope	0.001~0.15A/uS		0.01~1 A/uS	0.001~0.2A/uS≒60u	JS	0.01~1.6A/uS ≒60uS	
Voltage         Resolution         0.1 mV         1mV         0.1 mV         1mV           Readback         Range         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)         ±(0.025%+0.025%FS)           Current         Resolution         0.1 mA         1 mA         1 mA         1 0mA           Current         Resolution         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.1%FS)           Readback         Range         400W         600W         600W           Power         Resolution         10mW         10mW         10mW           Accuracy         ±(0.2%+0.2%FS)         ±(0.2%+0.2%FS)         ±(0.2%+0.2%FS)           Over power protection         ⇒420W         ⇒620W           Over current protection         ⇒66A         ⇒13A         ⇒130A           Over voltage protection         ⇒85°C         ⇒95°C           Short circuit         CC         ⇒6.6/6A         ⇒66/60A         ⇒13/12A         ⇒130/120A           Short circuit         CC         ⇒6.6/6A         ⇒66/60A         ⇒13/12A         ⇒130/120A									
Accuracy	Readback	Range							
Readback Current         Range Current         0~6A         0~60A         0~12A         0~120A           Current Resolution         0.1mA         1mA         1mA         10mA           Accuracy Accuracy         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)           Readback Range Power Resolution Resolution Accuracy         10mW         10mW         10mW           Accuracy Power protection Power protection Power Current protection Power Current protection Power	Voltage	Resolution	0.1 mV		1mV	0.1 mV		1mV	
Current         Resolution Accuracy         0.1mA         1mA         1mA         1mA         10mA           Readback Range Power Resolution Accuracy         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.05%FS)         ±(0.05%+0.1%FS)           Power Power Posterion Over power protection Over current protection Over current protection Over voltage protection Over temperature protection Over temperature protection ⇒ 165V         ⇒66A         ⇒13A         ⇒130A           Over temperature protection Over temperature protection Cov         ⇒85°C         Specification         ⇒95°C           Short circuit Cov         ⇒6.6/6A         ⇒66/60A         ⇒13/12A         ⇒130/120A           ⇒0V         ⇒0V         ⇒0V		Accuracy		±(0.025%+0.025			±(0.025%+0.025		
Accuracy ±(0.05%+0.05%FS) ±(0.05%+0.05%FS) ±(0.05%+0.05%FS) ±(0.05%+0.05%FS) ±(0.05%+0.1%FS) (0.05%+0.1%FS) ±(0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.1%FS) (0.05%+0.05%FS) (0.05%+0.		Range							
Readback Power         Range Resolution         400W 10mW 10mW 10mW 10mW 10mW 10mW 10mW 1	Current	Resolution							
Power         Resolution         10mW         10mW           Accuracy         ±(0.2%+0.2%FS)         ±(0.2%+0.2%FS)           Over power protection         ≒420W         ≒620W           Over current protection         ≒66A         ≒13A         ≒130A           Over voltage protection         ≒125V         ⇒95°C           Over temperature protection         ≒85°C         ⇒95°C           Short circuit         CC         ≒6.6/6A         ≒66/60A         ≒13/12A         ≒130/120A           CV         ≒0V         ≒0V		Accuracy	±(0.05%+0.05%FS)		±(0.05%+0.05%FS)	±(0.05%+0.05%FS)		±(0.05%+0.1%FS)	
Accuracy ±(0.2%+0.2%FS)  Protected range	Readback	Range					600W		
Protected range    Protected range   Protected	Power	Resolution		10mW			10mW		
Over power protection         ≒420W         ≒620W           Over current protection         ≒6.6A         ≒66A         ≒13A         ≒130A           Over voltage protection         ≒165V         ≒125V           Over temperature protection         ≒85°C         ≒95°C           Specification           Short circuit         CC         ≒6.6/6A         ≒66/60A         ≒13/12A         ≒130/120A           ⊕0V         ≒0V         ≒0V		Accuracy		±(0.2%+0.2%FS			+(0.2%+0.2%FS	3)	
Over current protection         ≒6.6A         ≒66A         ≒13A         ≒130A           Over voltage protection         ≒165V         ≒125V           Over temperature protection         ≒85°C         ≒95°C           Specification           Short circuit         CC         ≒6.6/6A         ≒66/60A         ≒13/12A         ≒130/120A           CV         ≒0V         ≒0V					Protected range		•	')	
Over voltage protection         ≒165V         ≒125V           Over temperature protection         ≒85°C         ≒95°C           Specification           Short circuit         CC         ≒6.6/6A         ≒66/60A         ≒13/12A         ≒130/120A           CV         ≒0V         ≒0V				≒420W			≒620W		
Over temperature protection         ≒85°C         ≒95°C           Specification           Short circuit         CC         ≒6.6/6A         ≒66/60A         ≒13/12A         ≒130/120A           CV         ≒0V         ≒0V			≒6.6A		≒66A	≒13A		≒130A	
Specification									
Short circuit	Over temperatur	e protection		≒85°C			≒95°C		
CV ≒0V ≒0V									
	Short circuit		≒6.6/6A		≒66/60A	≒13/12A		≒130/120A	
		CR		≒30mΩ			≒15mΩ		
Input terminal impedance ≒280KΩ 150KΩ		mpedance	<b>≒</b> 280KΩ						
Size(W*H*D) 214.5mm*88.2mm*453.5mm 214.5mm*88.2mm*453.5mm	Size(W*H*D)		214.5	mm*88.2mm*453.	.5mm	214	.5mm*88.2mm*453	.5mm	

# IT8500+ Specifications

		IT8514C+		IT8514B+		IT8516C+		
Rated	Voltage	0~120V		0~500V		0~	0~120V	
( 0~40 °C)	Current	0~24A	0~240A	0~6A	0~60A	0~24A	0~240A	
` '	Power	1500W		1500 V		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%FS)	±(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)	±(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~7.5ΚΩ	0.05Ω~10Ω	10Ω~7.5KΩ	
	Resolution	16bit		16bit		16bit		
	Accuracy	0.02%+0.08S	0.01%+0.0008S	0.02%+0.08S*1	0.02%+0.0008S	0.02%+0.08S*1	0.02%+0.0008S	
CP mode	Range	1500W		1500W	1	3000W		
	Resolution	10mW		10mW		10mW		
	Accuracy	±(0.2%+0.2	!%FS)	± (0.2%	%+0.2%FS)	± (0.2%+0.2%FS)		
Dynamic mode	T1&T2	100uS~360	0S /Res:1uS	100uS <sup>-</sup>	~3600S /Res:1 uS	120uS~3600	S /Res:1 uS	
	Accuracy	10uS±100p	pm	10uS±	100ppm	10uS±100pp	m	
Min response time	Up/down slope	0.001~0.3A/uS	0.01~3.2A/uS	0.001~0.15A/uS≒60u\$		0.001~0.25A/uS≒70uS	0.01~2.4A/uS≒70uS	
					uring 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		±(0.025	5%+0.025%FS)	±(0.025%+0	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.		±(0.05°	%+0.05%FS)	±(0.1%+0.	1%FS)	
Readback	Range	1500W	,	1500W		3000W		
Power	Resolution	10mW		10mW		10mW		
	Accuracy	±(0.2%+0.2	%FS)	±(0.2%	+0.2%FS)	±(0.2%+0.2	2%FS)	
		•	,	Protec	cted range	•	<i>'</i>	
Over power pro		≒1550W		≒1550	)W	≒3050W		
Over current pr		≒26.7A	≒267A	≒6.7A	≒67A	≒26A	≒260A	
Over voltage p	rotection	≒125V	,_,,,	≒530\	/	≒125V		
Over temperatur	e protection	≒85°C				≒85°C		
				Specif	ication			
Short circuit	CC	≒26.7/24A	≒267/240A	≒6.7/6A	≒67/60A	≒26/24A	≒260/240A	
	CV	≑0V		≒0V		≑0V		
	CR	≒8mΩ		≒50m	Ω	≒6mΩ		
Input terminal impedance		300KQ		1ΜΩ		300ΚΩ		
Size(W*H*D)		436.5mm*88.2mm	*463.5mm	436.5mm*88.2r	mm*463.5mm	436.5mm*	176mm*463.5mm	

<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









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