



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

* IT8513B+, 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
IT8513B+	500V	30A	600W	2U
IT8513C+	120V	120A	600W	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.

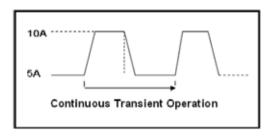


Transient Mode

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.

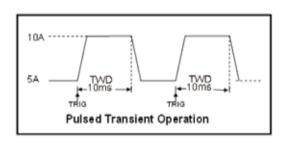
Continuous Mode

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.



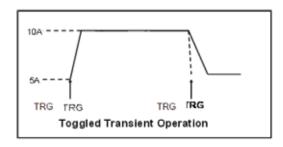
Pulse Mode

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

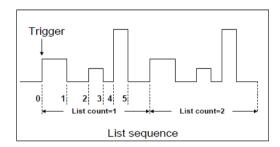
In toggle mode, the electronic load will switch between A level and B level when receiving a trigger signal after the transient operation is enabled. The following picture shows the current waveform in toggle transient operation.





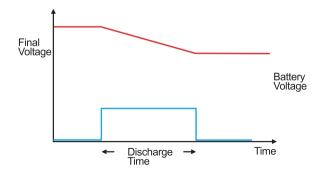
List Mode

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

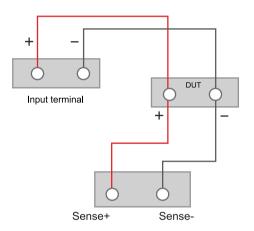
Battery discharge test of IT8500+ series can be achieved under CC mode. There are three cut-off conditions for IT8500+ include cut-off voltage, cut-off capacity and cut-off time, when any of the three conditions are met, discharge test will be stopped, the load will be automatically switched to OFF.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

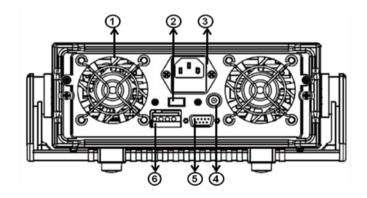


IT8500+ Specifications

		IT8511A+		IT8511B+		IT8512A+		
	Voltage	0~150V		0~5			150V	
Rated	Current	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A	
(0~40°C)	Power	150	WC	150W		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	0.1~18V	0.1~150V	0.1~50V	0.1~500V	0.1~18V	0.1~150V	
	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	
	Range	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A	
CC mode	Resolution	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA	
	Accuracy	±(0.05%+	0.05%FS)	±(0.05%+0	0.05%FS)	±(0.05%	+0.05%FS)	
	Range	0.05Ω~10Ω	10Ω~7.5kΩ	0.5Ω~10Ω	10Ω~7.5kΩ	0.05Ω~10Ω	10Ω~7.5kΩ	
CR mode	Resolution	16	bit	16	bit	1	6bit	
	Accuracy	0.01%+0.08S *2	0.01%+0.0008\$	0.01%+0.08S *2	0.01%+0.0008S	0.01%+0.08\$ *2	0.01%+0.0008S	
	Range	150	OW	150W		30	OOW	
CP mode	Resolution	10mW		10mW		10mW		
	Accuracy	±(0.1%+0	.1%FS)	±(0.1%+0.2%FS)		±(0.1%+0.1%FS)		
Dynamic	T1&T2	20μs~3600s /Res:1μs		20µs~3600s /Res:1µs		20μs~3600s /Res:1μs		
,	Accuracy	2μs±100ppm		2µs±100ppm		2μs±100ppm		
mode	Up/down slope	0.0001~0.12A/µs ≈ 20µs	0.001~0.6 A/µs ≈ 30µs	0.0001~0.2A/μs ≈ 10μs	0.001~0.8A/µs ≈ 10µs	0.0001~0.2A/µs	0.001~1.5A/µs	
				Measurin				
Readback	Range	0~18V	0~150V	0~50V	0~500V	0~18V	0~150V	
	Resolution	0.1mV	1mV	1mV	10mV	0.1mV	1mV	
√oltage	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	
Juneni	Accuracy	±(0.05%+0.05%FS)		±(0.05%+0.05%FS)		±(0.05%+0.05%FS)		
Readback	Range	150	150W		150W		300W	
	Resolution	10mW		10mW		10mW		
Power	Accuracy	±(0.1%+0.1%FS)		±(0.1%+0.2%FS)		±(0.1%+0.1%FS)		
				Protected range				
Over power p	orotection	≈ 10	60W	≈ 16	60W	≈:	320W	
Over current	protection	≈ 3.3A	≈33A	≈3.3A	≈11A	≈ 3.3A	≈ 33A	
Over voltage protection		≈ 160V		≈ 530V		≈ 160V		
Over temperature protection		≈8	5°C	≈ 8	5°C	≈	85°C	
				Speci				
	CC	≈ 3.3/3A	≈ 33/30A	≈ 3.3/3A	≈ 11/10A	≈ 3.3/3A	≈ 33/30A	
Short circuit	CV	≈ OV		≈0V		≈ 0V		
	CR	≈ 80mΩ		≈ 400mΩ		≈ 180mΩ		
Input terminal impedance		150	DkΩ	1ΜΩ		150kΩ		
Size(W*H*D)		214.5mm*88.2mm*354.6mm		214.5mm*88.2mm*354.6mm		214.5mm*88.2mm*354.6mm		

*This information is subject to change without notice

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



- ① Air vents
- ② Voltage switch (110V/220V)
- **4** Current monitoring Terminal
- ⑤ 9-Pin serial port interface connector
- **(6)** Trigger and remote sensing terminal block



IT8500+ Specifications

	Voltage	IT851: 0~50		IT8512 0~12		IT851 0~80	
ated	Current	0~3A	0~15A	0~6A	0~60A	0~1A	0~5A
0~40 °C)	Power	300		300\		300	
) - 40 C)	MOV	0.6V/3A	3V/15A	0.25V/6A	2.5V/60A	1.4V at 1A	7V at 5A
	Range	0~50V	0~500V	0~18V	0~120V	0.1~80V	0.1~800V
/ mode	Resolution	1mV	10mV	1mV	10mV	1mV	10mV
mode							
	Accuracy	±(0.05%+0.02%FS)	±(0.05%+0.025%FS)	±(0.05%+0.02%FS)	±(0.05%+0.025%FS)	±(0.05%+0.05%FS)	±(0.05%+0.05%F
\l .	Range	0~3A	0~15A	0~6A	0~60A	0~1A	0~5A
mode	Resolution	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA
	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%+0.05%FS
	Range	0.3Ω~10Ω	10Ω~7.5kΩ	0.3Ω~10Ω	10Ω~7.5kΩ	2Ω~10Ω	10Ω~7.5kΩ
R mode	Resolution	16b	it	16b	it	166	oit
	Accuracy	0.01%+0.08S	0.01%+0.0008S	0.01%+0.08S	0.01%+0.0008S	0.01%+0.08S*2	0.01%+0.0008S
	Range	300		300\		300	
mode	Resolution	10mW		10mW		10mW	
mode							
	Accuracy	± (0.1%+0		±(0.1%+0.1%FS)		±(0.2%+0.2%FS)	
namic	T1&T2	50μs~3600s		50μs~3600s /Res:1μs		20μs~3600s /Res:1μs	
de	Accuracy	5μs±100ppm		5µs±100ppm		2µs±100ppm	
Jue	Up/down slope	0.0001~0.2A/µs ≈ 10µs	0.001~0.8A/µs ≈ 10µs	0.0001~0.3A/µs	0.001~3A/µs	0.0001~0.04A/µs ≈ 20µs	0.001~0.2A/µs ≈ 20
				Measuring	g range		
adback	Range	0~50V	0~500V	0~18V	0~120V	0~80V	0~800V
adback	Resolution	1mV	10mV	1mV	10mV	1mV	10mV
tage	Accuracy	±(0.025%+0		±(0.025%+0		±(0.025%+0	
	Range	±(0.025%+0 0~3A	0~15A	±(0.025%+0.	0~60A	0~1A	0~5A
adback							
rrent	Resolution	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA
II CIII	Accuracy	±(0.05%+0		±(0.05%+0		±(0.05%+0	
	Range	300	N	300\	N	300	W
adback	Resolution	10m	W	10m ¹	W	10m	nW
wer	Accuracy	±(0.1%+0		±(0.1%+0.		±(0.2%+0	
	лошасу	±(υ.1%+0	. 1 /vl Uj	±(0.1%+0.		I(U.270+U	, /01 Oj
er power pr	rotection		2147				10/1/
		≈ 32		≈320		≈ 32	
ver current p		≈3.3A	≈ 16A	≈ 6.5A	≈65A	≈ 1.1A	≈ 5.5A
ver voltage p		≈ 53		≈ 12		≈ 85	
er tempera	ture protection	≈ 85	°C	≈ 85		≈ 85	5°C
				Specific			
	CC	≈ 3.3/3A	≈ 16/15A	≈ 6.5A	≈65A	≈ 1.1/1A	≈ 5.5/5A
ort circuit	CV	≈ 0.5/5A ≈ 0		≈ 0.5A ≈ 0		~ 1.1/1A ≈(
ort circuit	CR					≈1.	
	-	≈ 180		≈ 40r			
put terminal	impedance	1M:		150k		2M	
ze(W*H*D)		214.5mmW*354.6		214.5mmW*354.6r		214.5mmW*354.6	
		IT851:		IT8510		IT851	
	Voltage	0~15	0V	0~50	0V	0~12	20V
ated	Current	0~6A	0~60A	0~3A	0~30A	0~12A	0~120A
0∼40 °C)	Power	400'	N	600\	N	600	W
	MOV	0.25V at 6A	2.5V at 60A	0.3V at 3A	3V at 30A	0.2V at 12A	2V at 120A
	Range	0.1~18V	0.1~150V	0.1~50V	0.1~500V	0.1~18V	0.1~120V
/ mode	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
	Range	0~6A	0~60A	0~3A	0~30A	0~12A	0~120A
C mode	Resolution	0.1mA	1mA	1mA	10mA	1mA	10mA
	Accuracy	±(0.05%+0.05%FS)	±(0.05%+0.1%FS)	±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(0.05%+0.1%FS)
	Range	0.1Ω~10Ω	10Ω~7.5kΩ	0.05Ω~10Ω	10Ω~7.5kΩ	0.05Ω~10Ω	10Ω~7.5kΩ
) mand-	_			0.0312~1012 16b			
R mode	Resolution	16b				166	
	Accuracy	0.01%+0.08S	0.01%+0.0008S	0.02%+0.08S	0.02%+0.0008\$	0.01%+0.08S *2	0.01%+0.0008S
	Range	400	N	600\	N	600	W
mode	Resolution	10m	W	10m ¹	W	10m	ıW
	Accuracy	±(0.2%+0		±(0.2%+0.2%FS)		± (0.2%+0.2%FS)	
	T1&T2	20μs~3600s	,	100µs~3600s		100µs~3600	
/namic							
ode	Accuracy	2µs+10		10µs±10		10µs±10	
	Up/down slope	0.001~0.15A/μs	0.01~1A/µs	0.001~0.05A/µs	0.01~0.5A/μs	0.001~0.2A/µs ≈ 60µs	0.01~1.6A/µs ≈ 60µ
	Donne	0.4014	0.4504	Measuring		2 (2)(0.4551
	Range	0~18V	0~150V	0~50V	0~500V	0~18V	0~120V
eadback		0.1 mV	1mV	1 mV	10mV	0.1mV	1mV
	Resolution		.025%FS)	±(0.025%+0.	.025%FS)	±(0.025%+0	0.025%FS)
	Accuracy	±(0.025%+0		0~3A	0~30A	0~12A	0~120A
ltage		±(0.025%+0 0~6A	0~60A	U~3A			
ltage eadback	Accuracy Range	0~6A			10mA	1mA	10mA
ltage adback	Accuracy Range Resolution	0~6A 0.1mA	1mA	1 mA	10mA +(0.05%+0.05%ES)	1mA +(0.05%+0.05%ES)	10mA +(0.05%+0.1% ES)
ltage adback	Accuracy Range Resolution Accuracy	0~6A 0.1mA ±(0.05%+0.05%FS)	1mA ±(0.05%+0.05%FS)	1 mA ±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(0.05%+0.1%FS)
ltage adback rrent	Accuracy Range Resolution Accuracy Range	0~6A 0.1mA ±(0.05%+0.05%FS)	1mA ±(0.05%+0.05%FS)	1 mA ±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(0.05%+0.05%FS)	±(0.05%+0.1%FS)
adback rrent adback	Accuracy Range Resolution Accuracy Range Resolution	0~6A 0.1mA ±(0.05%+0.05%FS) 400'	1mA ±(0.05%+0.05%FS) <i>N</i> W	1 mA ±(0.05%+0.05%FS) 600\ 10m	±(0.05%+0.05%FS) W	±(0.05%+0.05%FS) 600	±(0.05%+0.1%FS) W nW
adback rrent adback	Accuracy Range Resolution Accuracy Range	0~6A 0.1mA ±(0.05%+0.05%FS)	1mA ±(0.05%+0.05%FS) <i>N</i> W	1 mA ±(0.05%+0.05%FS)	±(0.05%+0.05%FS) W	±(0.05%+0.05%FS)	±(0.05%+0.1%FS)
ltage eadback errent eadback	Accuracy Range Resolution Accuracy Range Resolution	0~6A 0.1mA ±(0.05%+0.05%FS) 400'	1mA ±(0.05%+0.05%FS) <i>N</i> W	1 mA ±(0.05%+0.05%FS) 600\ 10m\ ±(0.2%+0.	±(0.05%+0.05%FS) N W 2%FS)	±(0.05%+0.05%FS) 600	±(0.05%+0.1%FS) W nW
eadback errent eadback ewer	Accuracy Range Resolution Accuracy Range Resolution Accuracy	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0	1mA ±(0.05%+0.05%FS) N W .2%FS)	1 mA ±(0.05%+0.05%FS) 600\ 10m ±(0.2%+0 Protected	±(0.05%+0.05%FS) W W .2%FS)	±(0.05%+0.05%FS) 600 10m ±(0.2%+0	±(0.05%+0.1%FS) W NW 0.2%FS)
eadback eadback eadback ewer	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection	0-6A 0.1mA ±(0.05%+0.05%FS) 400 10m ±(0.2%+0	1mA ±(0.05%+0.05%FS) W W 2%FS)	1 mA ±(0.05%+0.05%FS) 6000 10mi ±(0.2%+0. Protected ≈ 62t	±(0.05%+0.05%FS) N W 2.2%FS) range 0W	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 62	±(0.05%+0.1%FS) W nW 0.2%FS)
eadback oltage eadback urrent eadback ower ver power prover current p	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection Accuracy	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0 ≈ 42	1mA ±(0.05%+0.05%FS) W W 22%FS)	1 mA ±(0.05%+0.05%FS) 6000 10m1 ±(0.2%+0. Protected ≈ 620 ≈ 3.3A	±(0.05%+0.05%FS) N W 2.2%FS) I range DW ≈ 33A	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 62 ≈ 13A	±(0.05%+0.1%FS) W W 0.2%FS) 00W ≈ 130A
eadback eadback eadback ever power prover current prover voltage p	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection protection protection	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0 ≈ 42 ≈ 6.6A ≈ 16	1mA ±(0.05%+0.05%FS) W 2%FS) DW ≈66A	1 mA ±(0.05%+0.05%FS) 600\\ 10ml ±(0.2%+0. Protected ≈ 62\(\) ≈ 3.3A ≈ 53	±(0.05%+0.05%FS) W W .2%FS) I range DW ≈ 33A	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 13A ≈ 13A ≥ 12	±(0.05%+0.1%FS) W WW 1.2%FS) 00W ≈ 130A
adback rrent adback wer er power pr er current per voltage p	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection Accuracy	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0 ≈ 42	1mA ±(0.05%+0.05%FS) W 2%FS) DW ≈66A	1 mA ±(0.05%+0.05%FS) 6000 10mi ±(0.2%+0 Protected ≈ 620 ≈ 3.3A ≈ 53 ≈ 85	±(0.05%+0.05%FS) W W 2%FS) range DW ≈ 33A	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 62 ≈ 13A	±(0.05%+0.1%FS) W WW 1.2%FS) 00W ≈ 130A
adback rrent adback wer er power pr er current per voltage p	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection protection protection	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0 ≈ 42 ≈ 6.6A ≈ 16	1mA ±(0.05%+0.05%FS) W 2%FS) DW ≈66A	1 mA ±(0.05%+0.05%FS) 600\\ 10ml ±(0.2%+0. Protected ≈ 62\(\) ≈ 3.3A ≈ 53	±(0.05%+0.05%FS) W W 2%FS) range DW ≈ 33A	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 13A ≈ 13A ≥ 12	±(0.05%+0.1%FS) W WW 1.2%FS) 00W ≈ 130A
adback rrent adback wer er power pr er current per voltage p	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection protection protection	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0 ≈ 42 ≈ 6.6A ≈ 16	1mA ±(0.05%+0.05%FS) W 2%FS) DW ≈66A	1 mA ±(0.05%+0.05%FS) 6000 10mi ±(0.2%+0 Protected ≈ 620 ≈ 3.3A ≈ 53 ≈ 85	±(0.05%+0.05%FS) W W 2%FS) range DW ≈ 33A	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 13A ≈ 13A ≥ 12	±(0.05%+0.1%FS) W WW 1.2%FS) 00W ≈ 130A
adback errent eadback wer er power prerer current per voltage per temperat	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection protection protection ture protection	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0 ≈ 42 ≈ 6.6A ≈ 16 ≈ 85	1mA ±(0.05%+0.05%FS) W W 2%FS) DW ≈ 66A 5V ° C ≈ 66/60A	1 mA ±(0.05%+0.05%FS) 6000 10mi ±(0.2%+0 Protected ≈ 620 ≈ 3.3A ≈ 53 ≈ 85 Specific ≈ 3.4/3A	±(0.05%+0.05%FS) W W 2%FS) I range DW ≈ 33A 0V ° C ation ≈ 34/30A	±(0.05%+0.05%FS) 600 10m ±(0.2%+0.05%FS) ≈ 62 ≈ 13A ≈ 12 ≈ 95 ≈ 13/12A	±(0.05%+0.1%FS) W MW 0.2%FS) DOW ≈ 130A 25V ≈ 130/120A
adback rrent adback wer er power pr er current p er voltage p er temperat	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection protection protection ture protection	0-6A 0.1mA ±(0.05%+0.05%FS) 400 10m ±(0.2%+0 ≈ 42 ≈ 6.6A ≈ 16 ≈ 85 ≈ 6.6/6A	1mA ±(0.05%+0.05%FS) W W .2%FS) DW ≈ 66A 5V °C ≈ 66/60A	1 mA ±(0.05%+0.05%FS) 6000 10ml ±(0.2%+0. Protected ≈ 620 ≈ 3.3A ≈ 53 ≈ 85 Specific ≈ 3.4/3A	±(0.05%+0.05%FS) W 22%FS) Irange DW ≈ 33A 0V ° C ation ≈ 34/30A	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 62 ≈ 13A ≈ 12 ≈ 95 ≈ 13/12A ≈ 12	±(0.05%+0.1%FS) W WW 0.2%FS) 20W ≈ 130A 25V ≈ 130/120A
adback rrent adback wer er power pr er current pe er current pe er voltage p er temperat	Accuracy Range Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection protection protection ture protection CC CV CR	0-6A 0.1mA ±(0.05%+0.05%FS) 400' 10m ±(0.2%+0 ≈ 42 ≈ 6.6A ≈ 16 ≈ 85 ≈ 6.6/6A ≈ 0 ≈ 30	1mA ±(0.05%+0.05%FS) W W 2%FS) DW ≈ 66A 5V °C ≈ 66/60A V mΩ	1 mA ±(0.05%+0.05%FS) 6000 10mi ±(0.2%+0 Protected ≈ 620 ≈ 3.3A ≈ 53 ≈ 85 Specific ≈ 3.4/3A ≈ 0 ≈ 100	±(0.05%+0.05%FS) N W 2%FS) range DW ≈ 33A 0V °C attion ≈ 34/30A V ImΩ	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 62 ≈ 13A ≈ 12 ≈ 95 ≈ 13/12A ≈ 0 ≈ 15	±(0.05%+0.1%FS) W W 0.2%FS) OW ≈ 130A %C %C ≈ 130/120A DV ImΩ
adback wernent adback wer er power prer current per current per current per er temperat	Accuracy Range Resolution Accuracy Range Resolution Accuracy rotection protection protection ture protection	0-6A 0.1mA ±(0.05%+0.05%FS) 400 10m ±(0.2%+0 ≈ 42 ≈ 6.6A ≈ 16 ≈ 85 ≈ 6.6/6A	1mA ±(0.05%+0.05%FS) W W 2.2%FS) DW ≈ 66A 5V °C ≈ 66/60A V mΩ DkΩ	1 mA ±(0.05%+0.05%FS) 6000 10ml ±(0.2%+0. Protected ≈ 620 ≈ 3.3A ≈ 53 ≈ 85 Specific ≈ 3.4/3A	±(0.05%+0.05%FS) W W 2%FS) range DW ≈ 33A 0V °C ation ≈ 34/30A V mΩ	±(0.05%+0.05%FS) 600 10m ±(0.2%+0 ≈ 62 ≈ 13A ≈ 12 ≈ 95 ≈ 13/12A ≈ 12	±(0.05%+0.1%FS) W NW 0.2%FS) 00W ≈ 130A 25V °°C ≈ 130/120A V mΩ kΩ

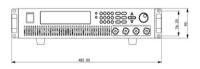
IT8500+ Specifications

	IT8514C+		IT8514B+		IT8516C+			
Voltage		0~120V		0~5	0~500V		0~120V	
Rated (0~40 °C)	Current	0~24A	0~240A	0~6A	0~60A	0~24A	0~240A	
	Power	1500W		150	WOO	3000W		
	MOV	0.25V at 24A	2.5V at 240A	0.25V at 6A	2.5V at 60A	0.15V at 24A	1.5V at 240A	
CV mode	Range	18V	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%+0.02%FS)	±(0.05%+0.025%FS)	±(0.05%+0.02%FS)	±(0.05%+0.025%FS)	
	Range	0~24A	0~240A	0~6A	0~60A	0~24A	0~240A	
CC mode	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)	
	Range	0.05Ω~10Ω	10Ω~7.5kΩ	0.05Ω~10Ω	10Ω~7.5kΩ	0.05Ω~10Ω	10Ω~7.5kΩ	
CR mode	Resolution	16bit		16bit		16bit		
	Accuracy	0.02%+0.08S	0.01%+0.0008S	0.02%+0.08S *2	0.02%+0.0008S	0.02%+0.08S *2	0.02%+0.0008S	
	Range	15	00W	1500W		3000W		
CP mode	Resolution	10mW		10mW		10mW		
	Accuracy	±(0.2%+0.2%FS)		±(0.2%+0.2%FS)		±(0.2%+0.2%FS)		
Dynamic	T1&T2	100µs~360	00s /Res:3µs	100µs~360	100μs~3600s /Res:1μs		120μs~3600s /Res:1μs	
,	Accuracy	10µs±	100ppm	10µs±	100ppm	10µs±	100ppm	
node	Up/down slope	0.001~0.3A/µs	0.01~3.2A/µs	0.001~0.15A/μs ≈ 60μs	0.01~0.8A/µs ≈ 60µs	0.001~0.3A/µs ≈ 70µs	0.01~2.8A/µs ≈ 70µs	
					ng range			
Readback	Range	0~18V	0~120V	0~50V	0~500V	0~18V	0~120V	
/oltage	Resolution	0.1mV	1mV	0.1mV	1mV	0.1mV	1mV	
Vollage	Accuracy	V	+0.025%FS)	±(0.025%+0.025%FS)		±(0.025%+0.025%FS)		
Readback	Range	0~24A	0~240A	0~6A	0~60A	0~24A	0~240A	
	Resolution	1mA	10mA	1mA	10mA	1mA	10mA	
Current	Accuracy	±(0.05%+0.05%FS)		±(0.05%+0.05%FS)		±(0.1%+0.1%FS)		
Readback	Range	150W		1500W		3000W		
	Resolution	Resolution 10mW		10mW		10mW		
Power Accuracy		±(0.2%+0.2%FS)		±(0.2%+0.2%FS)		±(0.2%+0.2%FS)		
					ed range			
Over power p			500W		550W		050W	
Over current		≈26.7A	≈267A	≈ 6.7A	≈67A	≈ 26A	≈260A	
Over voltage protection		≈ 125V		≈ 530V		≈ 125V		
Over tempera	ature protection	≈	35°C		5°C	≈	85°C	
					fication			
	CC	≈ 13/12A	≈ 130/120A	≈ 6.7/6A	≈ 67/60A	≈ 26/24A	≈ 260/240A	
Short circuit	CV	≈ 0V		≈ 0V		≈ OV		
	CR	≈ 15mΩ		≈ 30mΩ		≈5mΩ		
Input termina				150kΩ		150kΩ		
Size(W*H*D)		214.5mmW*354	.6mmD*88.4mmH	436.5mm*88.2mm*463.5mm		436.5mm*176mm*463.5mm		

 $[\]ensuremath{^\star}$ This information is subject to change without notice

*2 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



