ITECH ELECTRONICS Your Power Testing Solution

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

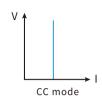
IT8500+ supports two automatic test editing modes. One is special automatic test editing mode that can save up to 10 groups of test files, and the other is compatible with the IT8500 automatic test editing mode that can save up to 50 groups of test files, both of which can be called and tested at any 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

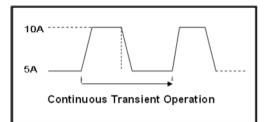
resistance.



V

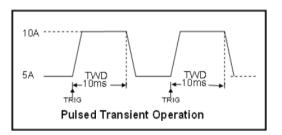
Continuous Mode

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.



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.



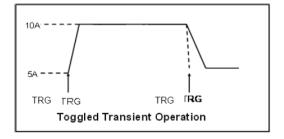
CR mode

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.

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.

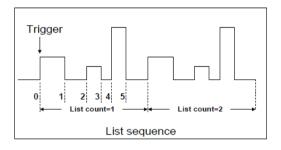


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Electronic Load

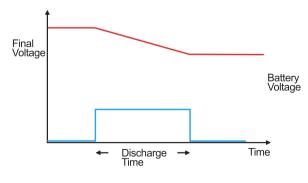
List Mode

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

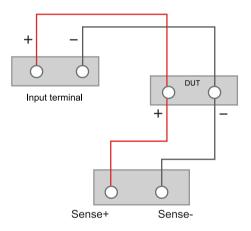
Battery discharge test of IT8500+ series can be achieved under CC mode. There are three cut-off conditions for IT8500+ include cut-off voltage, cut-off capacity and cut-off time, when any of the three conditions are met, discharge test will be stopped, the load will be automatically switched to OFF.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



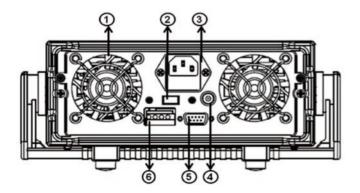


IT8500+ Specifications

	F								
		IT8	511A+	IT85	511B+	IT8512A+			
Rated	Voltage	0~1	150V	0~50	V0C		0~150V		
(0∼40 °C)	Current	0~3A	0~30A	0~3A	0~10A	0~3A	0~30A		
	Power	150	W	150	N		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		
	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%	%FS) ±(0.05%+0.025%FS)		
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	±(0.05%+0.05%FS)		±(0.05%+0.05%FS)			±(0.05%+0.05%FS)		
CR mode	Range	0.1Ω~10Ω	10Ω~7.5KΩ	0.5Ω~10Ω	10Ω~7.5KΩ	0.05Ω~10Ω	10Ω~7.5ΚΩ		
	Resolution	16b	bit	16bi	t		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	150	N		300W		
	Resolution			10m	W	10mW			
	Accuracy	±(0.1%+0.1%FS)		±(0.1%+0.2%FS)		±(0.1%+0.1%FS)			
Dynamic mode	T1&T2	20uS~3600S /Res:1 uS		20uS~3600S /Res:1 uS		20uS~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/			
					ring range				
Readback	Range	0~18V	0~150V	0~50V	0~500V	0~18V	0~150V		
Voltage	Resolution	0.1 mV	1mV	1 mV	10 mV	0.1 mV	1 mV		
	Accuracy	±(0.025%	+0.025%FS)	±(0.0	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)		±(0.05%+0.05%FS)			±(0.05%+0.05%FS)		
Readback	Range	150W		150W			300W		
Power	Resolution	10r	nW	10m	W		10mW		
	Accuracy	±(0.1%+0	.1%FS)	±(0.	1%+0.2%FS)		±(0.1%+0.1%FS)		
			,	Protec	ted range		_(011)01011/010)		
Over power protection		≒1	60W	≒160W			≒320W		
Over current p	protection	≒3.3A	≒33A	≒3.3A	≒11A	≒3.3A	≒33A		
Over voltage protection		≑160V		≒530V		10.071	≒160V		
Over temperature protection		≒8	5°C	≒85	5°C		≒85°C		
				Specifi	cation				
Short circuit	CC	≒3.3/3A	≒33/30A	≒3.3/3A	≒11/10A	≒3.3/3A	≒33/30A		
	CV	≑0	V	÷0\	/		≑0V		
	CR	≒8	0mΩ		0mΩ		≒180mΩ		
Input terminal		⇒3	00KΩ	≒11			≑300KΩ		
Size(W*H*D)			8.2mm*354.6mm	214.5mm*88.2mm			8.2mm*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)
- 3 AC line input
- (4) Current monitoring Terminal
- (5) 9-Pin serial port interface connector
- 6 Trigger and remote sensing terminal block

IT8500+ Specifications

	pecification		TOFADD				ITOFACU		
Deted	Voltago		T8512B+ 0~500V				IT8512H+		
Rated	Voltage Current		5-500V	0~15A		0~1A	0~800V	0~5A	
0∼40 °C)	Power	0~3A	300W	0~15A		0-1A	20014/	0-5A	
	MOV		500 v v	0)//4 5 4		1 41/ at 1 4	300W	7V at 5	۸
CV mode	Range	0.6V/3A 0.1~50V		3V/15A		1.4V at 1A			
sv mode	•	1mV		0.1~500V 10mV		0.1~80V		0.1~80	0 V
	Resolution Accuracy	±(0.05%+0.05%FS)		±(0.05%+	0.05% ES)	1mV	2)	10mV	(+0.0E9/EQ)
C mode					J.05%F3)	±(0.05%+0.05%F	5)		6+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.		±(0.05%+0.1%FS)			6+0.05%FS)
CR mode	Range	0.3Ω~10Ω	101.11	10Ω~7.5K	Ω	2Ω~10Ω		10Ω~7	.5ΚΩ
	Resolution		16bit				16bit		
	Accuracy	0.01%+0.08S		0.01%+0.0	00085	0.01%+0.08S*2		0.01%-	+0.0008S
CP mode	Range		300W				300W		
	Resolution		10mW				10mW		
	Accuracy		±(0.1%+0.2				0.2%+0.2		
Dynamic mode	T1&T2		20uS~3600		5		20uS~36	00S /Res:1 u	S
	Accuracy		2uS±100pp				2uS±100		
Vin response time	Up/down slope	0.0001~0.2A/uS≒10uS	0.001~0.8	A/uS ≒10uS		0.0001~0.04A/uS≒20	luS	0.001~0	2A/uS ≒20uS
					Measuring range				
Readback	Range	0~50V		0~500V		0~80V		0~800\	/
/oltage	Resolution	1 mV		10 mV		1 mV		10 mV	
	Accuracy		±(0.025%+0).025%FS)			±(0.025%	6+0.025%FS	
Readback	Range	0~3A		0~15A		0~1A		0~5A	
Current	Resolution	0.1mA		1mA		0.1mA		1mA	
	Accuracy		±(0.05%+0.				±(0.05%+	+0.05%FS)	
Readback	Range		300W				300W		
Power	Resolution		10mW				10mW		
	Accuracy	-	±(0.1%+0.2	%FS)			±(0.2%+0	0.2%FS)	
					Protected range		(0.270.0		
Over power pro	otection		≒320W				≒320W		
Over current pr		≒3.3A		≒16A		≒1.1A		≒5.5A	
Over voltage p			≒530V			• 1.1/	≒850V	. 0.0/1	
Over temperatur			≒85°C				≒85°C		
					Specification		.00 0		
Short circuit	CC	≒3.3/3A		≒16/15A		≒1.1/1A		≒5.5/5	Α
	CV		≑0V				≒0V	10.0/0	
	CR		÷180mΩ				÷0√ ≒1.4Ω		
nput terminal i			1MΩ				2MΩ		
Size(W*H*D)		214.5mmW*		*88.2mmH				1W*354.6mm	D*88 2mmH
0120(11112)		21.1.01.111	0011011112	00.2			214.000	100-4.011111	00.2111111
			IT8513	A+			17	T8513C+	
Rated	Voltage		0~150					~120V	
(0~40 °C)	Current	0~6A	0 10		0~60A	0~12A	0	1201	0~120A
0 -40 C)	Power	0 0/1	400W	,	0 00/1	0 12/(60	00W	0 120/1
	MOV	0.25V at 6A	40000		2.5V at 60A	0.2V at 12A		00 * *	2V at 120A
CV mode	-	0.1~18V			0.1~150V	0.1~18V			0.1~120X
ov mode	Range	1mV			10mV	1mV			10mV
	Resolution	±(0.05%+0.02%F	(C)		±(0.05%+0.025%FS)	±(0.05%+0.02	00/ES		±(0.05%+0.025%FS)
CC mode	Accuracy	10.05%+0.02%F	3)		1(0.05/%+0.025/%F3)	±(0.05%+0.02 0~12A	27053		0~120A
CC mode	Range								
	Resolution	0.1mA			1mA	1mA			10mA
	Accuracy	±(0.05%+0.05%	FS)		±(0.05%+0.05%FS)	±(0.05%+0.0	15%F5)		±(0.05%+0.1%FS)
CR mode	Range	0.1Ω~10Ω	4.01.11		10Ω~7.5ΚΩ	0.05Ω~10Ω		01-14	10Ω~7.5ΚΩ
	Resolution	0.040/ 0.005	16bit		0.040/ +0.000000	0.0101 0.55		6bit	0.040/
	Accuracy	0.01%+0.08S			0.01%+0.0008S	0.01%+0.08		0014/	0.01%+0.0008S
CP mode	Range		400W					W00	
	Resolution		10mV					0mW	
	Accuracy			%+0.2%FS				(0.2%+0.2%F	
			1000	5~3600S /F	kes:1u5			00uS~3600S	
Dynamic mode	T1&T2			+100ppm				0uS±100ppm	
Dynamic mode	Accuracy		10uS ⁻				~		0.01~1.6A/uS ≒60uS
Dynamic mode Min response time		0.001~0.15A/uS	10uS		0.01~1 A/uS	0.001~0.2A/u	S≒60uS		
Min response time	Accuracy		10uS [.]		Measuring range		S≒60uS		
Min response time Readback	Accuracy	0~18V	10uS		Measuring range 0~150V	0~18V	S≒60uS		0~120V
Min response time Readback	Accuracy Up/down slope				Measuring range 0~150V 1mV				1mV
Min response time Readback	Accuracy Up/down slope Range	0~18V		25%+0.025	Measuring range 0~150V 1mV	0~18V 0.1 mV		(0.025%+0.02	1mV 25%FS)
Min response time Readback Voltage Readback	Accuracy Up/down slope Range Resolution	0~18V 0.1 mV 0~6A			Measuring range 0~150V 1mV	0~18V		(0.025%+0.02	1mV
Min response time Readback Voltage Readback	Accuracy Up/down slope Range Resolution Accuracy	0~18V 0.1 mV			Measuring range 0~150V 1mV %FS)	0~18V 0.1 mV		(0.025%+0.02	1mV 25%FS)
Vin response time Readback Voltage Readback	Accuracy Up/down slope Range Resolution Accuracy Range	0~18V 0.1 mV 0~6A	±(0.02		Measuring range 0~150V 1mV %FS) 0~60A	0~18V 0.1 mV 0~12A	±((0.025%+0.02	1mV 25%FS) 0~120A 10mA
Vin response time Readback /oltage Readback Current	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy	0~18V 0.1 mV 0~6A 0.1mA	±(0.02	25%+0.025	Measuring range 0~150V 1mV %FS) 0~60A 1mA	0~18V 0.1 mV 0~12A 1mA	±(5%FS)	(0.025%+0.02 00W	1mV 25%FS) 0~120A 10mA
Vin response time Readback /oltage Readback Current Readback	Accuracy Up/down slope Range Resolution Accuracy Range Resolution Accuracy Range	0~18V 0.1 mV 0~6A 0.1mA	±(0.02	25%+0.025	Measuring range 0~150V 1mV %FS) 0~60A 1mA	0~18V 0.1 mV 0~12A 1mA	±(5%FS) 6(00W	1mV 25%FS) 0~120A 10mA
Vin response time Readback /oltage Readback Current Readback	Accuracy Up/down slope Range Resolution Accuracy Range Resolution Accuracy Range Resolution	0~18V 0.1 mV 0~6A 0.1mA	±(0.02 S) 400W 10mV	25%+0.025	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)	0~18V 0.1 mV 0~12A 1mA	±(5%FS) 6(1(00W 0mW	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Vin response time Readback /oltage Readback Current Readback	Accuracy Up/down slope Range Resolution Accuracy Range Resolution Accuracy Range	0~18V 0.1 mV 0~6A 0.1mA	±(0.02 S) 400W 10mV	25%+0.025	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)	0~18V 0.1 mV 0~12A 1mA	±(5%FS) 6(1(00W	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Viin response time Readback Voltage Readback Current Readback Power	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy	0~18V 0.1 mV 0~6A 0.1mA	±(0.02 S) 400W 10mV ±(0.24	25%+0.025 V %+0.2%FS	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)	0~18V 0.1 mV 0~12A 1mA	±(5%FS) 60 10 ±(00W 0mW (0.2%+0.2%F	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Vin response time Readback Voltage Readback Current Readback Power	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy Stepsolution Accuracy	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F	±(0.02 S) 400W 10mV	25%+0.025 V %+0.2%FS	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 60 10 ±(00W 0mW	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Vin response time Readback Voltage Readback Current Readback Power Dver power pro Dver power pro	Accuracy Up/down slope Range Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy chection	0~18V 0.1 mV 0~6A 0.1mA	±(0.02 S) 400W ±(0.2' ≒420	25%+0.025 , v %+0.2%FS	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)	0~18V 0.1 mV 0~12A 1mA	±(5%FS) 10 ±(≑	00W 0mW (0.2%+0.2%F ∉620W	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Viin response time Readback Voltage Readback Current Readback Power Dver power pro Dver current pr Dver voltage pi	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy Detection rotection	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F	±(0.0) S) 400W 10mV ±(0.2' ≒420 ≒165	25%+0.025 , v %+0.2%FS)W	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 60 10 ±(÷	00W 0mW (0.2%+0.2%F ∉620W ∉125V	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Vin response time Readback Voltage Readback Current Readback Power Dver power pro Dver current pr Dver voltage pi	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy Detection rotection	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F	±(0.02 S) 400W ±(0.2' ≒420	25%+0.025 , v %+0.2%FS)W	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)) Protected range ≒66A	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 60 10 ±(÷	00W 0mW (0.2%+0.2%F ∉620W	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Min response time Readback Voltage Readback Current Readback Power Over power pro Over power pro Over current pro Over voltage pi Over temperatur	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy State Construction rotection rotection rotection reprotection	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F	±(0.0) S) 400W 10mV ±(0.2' ≒420 ≒165	25%+0.025 , v %+0.2%FS)W	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)) Protected range ≑66A Specification	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 60 10 ±(÷	00W 0mW (0.2%+0.2%F ∉620W ∉125V	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS) S) ≑130A
Viin response time Readback Voltage Readback Current Readback Power Dver power pro Dver current pr Dver voltage pi Dver voltage pi Dver temperatur	Accuracy Up/down slope Range Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy Detection rotection rotection rotection cotection cotection	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F	±(0.0) S) 400W ±(0.2' ≒420 ≒165 ≒85°	25%+0.025 , v %+0.2%FS)W	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)) Protected range ≒66A	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 60 10 ±(÷ ;	00W 0mW (0.2%+0.2%F €620W €125V €95°C	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS)
Viin response time Readback Voltage Readback Current Readback Power Dver power pro Dver current pr Dver voltage pi Dver voltage pi Dver temperatur	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy Detection rotection rotection cotection cotection	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F	±(0.02 S) 400W 10mV ±(0.2' ≒420 ≒165 ≒85° ≒0V	25%+0.025 v %+0.2%FS W SV C	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)) Protected range ≑66A Specification	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 60 11 ±(÷ ÷ ÷	00W 0mW (0.2%+0.2%F 620W #125V #95°C	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS) SS) ≒130A
Min response time Readback Voltage Readback Current Readback Power Dver power pro Dver voltage pi Dver voltage pi Dver temperatur Short circuit	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy Cotection rotection rotection CC CV CR	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F	±(0.0; S) 400W 10mV ±(0.2' ≒420 ≒165 ≒85° ≒0V ≒30r	25%+0.025 v %+0.2%FS w SV C	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)) Protected range ≑66A Specification	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 60 10 ±(÷ ÷ ÷ ÷ ÷	00W 0mW (0.2%+0.2%F 620W 125V 95°C ε0V ε15mΩ	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS) SS) ≒130A
Min response time	Accuracy Up/down slope Resolution Accuracy Range Resolution Accuracy Range Resolution Accuracy Cotection rotection rotection CC CV CR	0~18V 0.1 mV 0~6A 0.1mA ±(0.05%+0.05%F ≑6.6A ≑6.6/6A	±(0.02 S) 400W 10mV ±(0.2' ≒420 ≒165 ≒85° ≒0V	25%+0.025 v %+0.2%FS WW SV C nΩ DKΩ	Measuring range 0~150V 1mV %FS) 0~60A 1mA ±(0.05%+0.05%FS)) Protected range ≑66A Specification ≑66/60A	0~18V 0.1 mV 0~12A 1mA ±(0.05%+0.09	±(5%FS) 6(1(±(÷ ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	00W 0mW (0.2%+0.2%F 620W #125V #95°C	1mV 25%FS) 0~120A 10mA ±(0.05%+0.1%FS) S) ≒130A

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ITECH ELECTRONICS Your Power Testing Solution

IT8500+ Programmable DC Electronic Load

IT8500+ Specifications

	peemealern	•						
IT8514C+				IT8514B	F	IT8516C+		
Rated				0~500V		0~120V		
0~40 °C)	Current	0~24A	0~240A	0~6A	0~60A	0~24A	0~240A	
,	Power	1500W		1500 W		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~7.5ΚΩ	0.05Ω~10Ω	10Ω~7.5ΚΩ	0.05Ω~10Ω	10Ω~7.5KΩ	
	Resolution	16bit		16bit		16bit	1012 1.0101	
	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		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~3600S /Res:1uS		100uS~3600S /Res:1 uS		120uS~3600S /Res:1 uS		
,	Accuracy	10uS±100ppm		10uS±100ppm		10uS±100ppm		
Min response time	Up/down slope	0.001~0.3A/uS	0.01~3.2A/uS	0.001~0.15A/uS≒60uS		0.001~0.25A/uS≒70uS		
·				Measur	ing range		0.01 2.0100 1100	
Readback	Range	0~18V	0~120V	0~50V	0~500V	0~18V	0~120V	
/oltage	Resolution	0.1 mV	1mV	0.1 mV	1mV	0.1 mV	1mV	
0	Accuracy	±(0.025%+		±(0.025	%+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			+0.05%FS)	±(0.1%+0.		
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%FS)	
		_(0 /0 0	.,		ed range	_(0 /0 0	= /0. 0)	
Over power protection		≒1550W		≒1550\		≒3050W		
Over current protection		≒26.7A	≒267A	≒6.7A	≒67A	≒26A	≒260A	
Over voltage pr	otection	= 125V	-201A	÷530V		÷125V	.2007	
Over temperatur		≒85°C				≒85°C		
•				Specific	ation			
Short circuit	CC	≒26.7/24A	≒267/240A	≒6.7/6A	≒67/60A	≒26/24A	≒260/240A	
	CV	÷20.7724A	. 20172-011	÷0V		-,20/24A ≒0V	1200/270/	
	CR	÷8mΩ		≒50mΩ		≑6mΩ		
Input terminal impedance		300KΩ		1MΩ		300KΩ		
Size(W*H*D)		436.5mm*88.2mn	*463 5mm	436.5mm*88.2m	m*163 5mm		176mm*463.5mm	
D = C(W + T D)		430.30000 00.2000	403.500	430.3000 00.20	111 403.511111	430.511111	17 0mm 4 05.5mm	

*1 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))

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IT8514B+/IT8514C+ Dimension figure

