ITECH

YOUR POWER TESTING SOLUTION

Product

IT8600 AC / DC ELECTRONIC LOAD

Features

IT8600

AC / DC ELECTRONIC LOAD

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AC/DC ELECTRONIC LOAD

IT8600 is ITECH latest series of AC/DC electronic loads with power rating 1800 W, 3600 W, 5400 W and adjustable frequency 45Hz ~ 450 Hz. And it has very compact size. For 420 V/20 A/1800 W input, its height is down to 3 U. The unique oscilloscope waveform display function of IT8600's can display input voltage & current as waveform. IT8600 supports complete DUT performance analysis. It is equipped with measurement modes for different parameters such as inrush current, peak value, effective value, PF(power factor). Voltage harmonics measurement capacity is up to 50th. The built-in RS232,GPIB,LAN and USB communication interfaces are for reliable and fast control. IT8600 is the perfect solution for testing UPS, inverters, AC power supplies and relevant AC electronic components etc.

Features

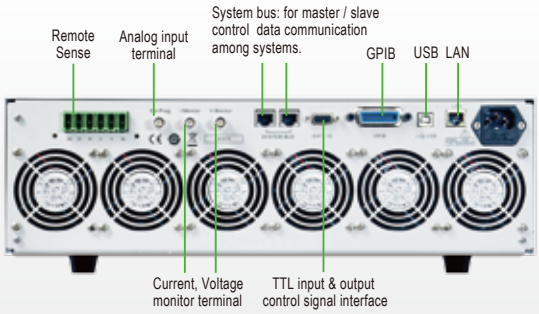
- Power rating: 1800 W,3600 W, 5400 W
- Frequency range: 45 Hz~450 Hz
- Voltage range: 15 V~260 Vrms, 50V~420 Vrms
- Current range: 20 Arms, 40 Arms, 60 Arms
- Parallel connection/ three-phase control *2
- Oscilloscope function supporting display of voltage and current waveform
- Be able to measure Vrms, Vpk, Vdc, Irms, Ipk, Idc, W, VA, VAR, CF, PF and FREQ
- 7“ LCD screen
- Measures THD(V） up to 50th Harmonic
- AC electronic load: CC/CR/CP mode
- DC electronic load: CC/CR/CP/CV mode * 1
- External 0~10V analog control input, voltage and current analog monitoring function
- OTP, OCP, OVP, UVP and OPP protection function
- RS232, GPIB, LAN and USB communication interfaces and external USB flash disk interface

* 1 IT8617 and IT8616 are without CV mode

Harmonic Measuring And Analysis Function

IT8600 provides powerful data measurement function, which can not only support measurement of conventional parameters such as Vrms, Vpk,Vdc, Irms, Ipk, Idc, W, VA, VAR, CF, PF and Freq, but also provides a unique voltage harmonic analysis function to verify the harmonic interference of the object (UPS,generators, etc.) to be measured over the grid. The harmonic measurement function supports analysis up to the 50th voltage harmonic and it can display the percentage of each harmonic analysis results in different forms.

Built-in Interfaces & Terminals

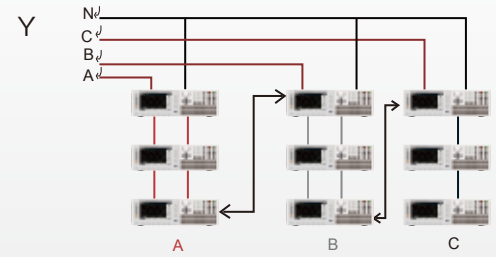


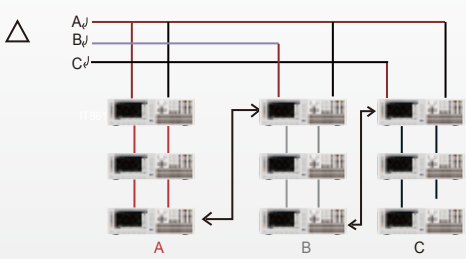
Oscilloscope Function

The most unique highlight of IT8600 lies in the oscilloscope display function, which can display the input voltage and current waveform of the device under test measured. Under the harmonic measurement mode, the analysis result of the percentage of different harmonics can be displayed in the bar diagram. The innovative display mode provides a powerful new user experience.

Parallel/3-Phase Control

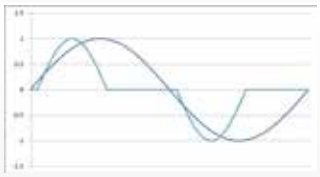
IT8600 provides parallel and 3-phase functions for three-phase and high-power applications. In 3-phase applications, users can make Y or △ connection according to their specific requirements. IT8600 is available for AC 380V input to meet diverse test requirements.



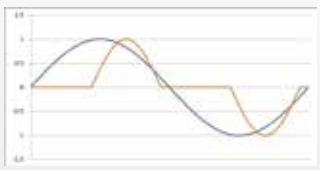


Adjustable CF/PF Value

IT8600 has CC, CR and CP operation modes. In CC and CP operation modes, PF or CF or both are available for programming. Power factor range is 0~1 lead or lag, CF setting range is 1.414~5, besides CF and PF, IT8600 also has various settings modes for choice to realize actual current simulation.



CF=2
PF=0.68



CF=2
PF=−0.68

Display Multiple Parameters Simultaneously

IT8600 provides 7inch LCD display screen, easy user interface. Give full consideration to engineers' requirements in different tests, IT8600 not only can display multiple parameters simultaneously,but also has diversified display modes for choice, such as waveform, histogram and list etc.

Applications

- ☑ Uninterruptible Power Supplies (UPS)
- ☑ Inverters
- ☑ Frequency Transformer
- ☑ Generator
- ☑ AC Power Source
- ☑ Electronic Components

Model		IT8615	IT8615L	IT8616	IT8617
AC Section					
Input rating	Voltage	50~420 Vrms , 600 V peak	15~260 Vrms , 360 V peak	50~420 Vrms , 600 V peak	50~420 Vrms , 600 V peak
	Current	0~20 Arms ,60 Apeak	0~20 Arms ,60 A peak	0~40 Arms ,120 Apeak	0~60Arms ,180 Apeak
	Power	0~1800 VA	0~1800 VA	0-3600 W	0-5400 W
	Frequency	45~450 Hz	45~450 Hz	45~450 Hz	45~450 Hz
CC mode *1	Range	0.1~20 Arms	0.1~20 Arms	0.1~40 Arms	0.1~60 Arms
	Resolution	2 mA	2 mA	2 mA	2 mA
	Accuracy	±(0.1%+0.2%FS)	±(0.1%+0.2%FS)	±(0.1%+0.2%FS)	±(0.1%+0.2%FS)
CR mode *2	Range	3 Ω~2.5 KΩ	3Ω~2.5 KΩ	6 Ω~5 KΩ	9Ω~7.5 KΩ
	Resolution	16 bit	16 bit	16 bit	16 bit
	Accuracy	0.2% +0.01 S	0.2% +0.01 S	0.2% +0.01 S	0.2% +0.01 S
CP mode	Range	1800 W	1800 W	3600 W	5400 W
	Resolution	0.4 W			
	Accuracy	0.5%+0.5% FS			
Crest factor (CP, CC mode)	Range	1.414~5.0			
	Resolution	0.005			
	Accuracy	(0.5% / Irms) + 1% FS		(0.5%*(1+x/9) / Irms) + 1% FS	
Power factor	Range	0~1 phase lead or lag			
	Resolution	0.001			
DC Section					
Input rating	Voltage	10~ 600 V	10~ 360 V	10~ 600 V	10- 600 V
	Current	0.1~20 A	0.1~20 A	0.1~40 A	0.1~60 A
	Power	0~1800 VA	0~1800 VA	0~1800 W	0-5400 W
Operation modes		CC, CV, CR, CP	CC, CV, CR, CP	CC, CR, CP	CC, CR, CP
Short-circuit simulation		Use the CC mode under the maximum power or maximum working current			
Meter					
Current*1	Range	0~60 A	0~60 A	0-120 A	0-180 A
	Resolution	1 mA			
	Accuracy	0.1%+0.2%FS+0.1%*CF^2*KHZ			
Voltage*1	Range	0-600 V	0~360 V	0-600 V	0-600 V
	Resolution	10 mV			
	Accuracy	0.1%+0.1%FS			
Meter (continue)					
Other parameters		S(VA), Q(VAR), P(W), Ip+, Ip-, Freq, THDv, CF, PF, R, FFT			
Other					
Voltage Monitor		±600 V/±10 V(Isolated)	±360 V/±10 V(Isolated)	±600 V/±10 V(Isolated)	±600 V/±10 V(Isolated)
Current Monitor		±60 A/±10 V(Isolated)	±60 A/±10 V(Isolated)	±FSA/±10 V(Isolated)	±FSA/±10 V(Isolated)
Protection		OCP:21 Arms,OVP:430 Vrms, OPP:1900 W,OTP:85 ℃	OCP:21 Arms,OVP:286 Vrms, OPP:1900 W,OTP:85 ℃	OCP:(1.05*FS)Arms,OVP:430 Vrms, OPP:(1.05*FS)W,OTP:85 ℃	OCP:(1.05*FS)Arms,OVP:430 Vrms,OPP:(1.05*FS)W,OTP:85 ℃
Operating temperature		0-40 ℃			
T emperature coefficient		100ppm/℃			
Interfaces		GPIB, USB, LAN			
Power source input	Voltage	100-240 V AC			
	Frequency	47-63 Hz			
	Fuse	3.15 A			
	Power	150 VA			

*1 Typical value at 45 Hz-100 Hz
*2 Resistance accuracy: 1/(1/R+(1/R)*0.2%+0.01), 1/(1/R-(1/R)*0.2%-0.01)
Test conditions: Voltage >10%FS,Current >10%FS
This information is subject to change without notice.

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