## IT-EC7800 Series Programmable AC/DC Power Supply







Power Electronics



Home Appliances



Medical Equipment



Scientific Research & Education







## IT-EC7800 Series Programmable AC/DC Power Supply

The IT-EC7800 Series is a programmable AC/DC power supply that integrates advanced Silicon Carbide (SiC) technology and a high power density design, delivering up to 6kVA in a 2U chassis and up to 15kVA in a 3U chassis, combining compact size with powerful performance.

This series includes a built-in high-precision power meter and arbitrary waveform generator, supporting harmonic simulation, complex waveform output, and comprehensive data analysis functions, along with an intuitive LCD touchscreen for easy operation. It is widely used in R\&D validation, production testing, and quality control across industries such as new energy, power electronics, and scientific research institutions.

## **FEATURE**

- Adopts Silicon Carbide (SiC) technology
- High power density design: up to 15kVA in 3U, up to 6kVA in 2U
- Voltage rating: 350V L-N
- Harmonic simulation and analysis up to the 50th order
- Output frequency: 16-1000Hz; adjustable voltage and frequency slew rate
- Built-in single-phase or three-phase AC power meter
- Supports four output modes: AC, DC, AC+DC, DC+AC
- Selectable single-phase or three-phase output modes
- Programmable output impedance
- Touchscreen interface with a clean UI design
- Arbitrary waveform simulation, supports CSV waveform import

- Built-in rich waveform database
- List mode simulates power grid restoration and momentary power interruption
- Configurable output start/stop phase angle from 0-360°
- Built-in Surge & Sag simulation
- Built-in Relay Ctrl output for DUT and source electrical isolation
- Built-in USB/CAN/LAN/Digital I/O; optional GPIB/Analog/RS232 interfaces
- Supports CANopen, Modbus, LXI, SCPI, and other communication protocols

## **Application Fields**



## **New Energy**

Onboard chargers, AC/DC charging piles



## **Power Electronics**

Inverters, UPS systems, AC motors



## Home Appliances

Air conditioners, microwave ovens, refrigerators, washing machines



## Civil Aviation

Avionics, airport ground support equipment



Research, Universities, Laboratories, Testing Organizations

AC-DC power adapter testing, EMC compliance testing

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## Medical Equipment

CT scanners, MRI systems, life science analyzers, etc.

Model	Output voltage Vac		Output Amps/Phs		Output power	Dhooo	l loight
Model	V L-N	V L-L	Arms(1Φ)	Arms(3Φ)	Pac	Phase	Height
IT-EC7802-350-10U	350V	606V	10A	_	2kVA	1Ф	2U
IT-EC7804-350-20U	350V	606V	20A	_	4kVA	1Ф	2U
IT-EC7806-350-30	350V	606V	30A	10A	6kVA	1Ф or 3Ф	2U
IT-EC7806-350-90	350V	606V	90A	30A	6kVA	1Φ or 3Φ	3U
IT-EC7809-350-90	350V	606V	90A	30A	9kVA	1Ф or 3Ф	3U
IT-EC7812-350-90	350V	606V	90A	30A	12kVA	1Φ or 3Φ	3U
IT-EC7815-350-90	350V	606V	90A	30A	15kVA	1Φ or 3Φ	3U

<sup>\*</sup>Specifications subject to change without notice

## **ITECH High Power AC Power Supply Selection Guide**

## voltage

## **IT7800**

2k~960kVA Flagship full-featured model

## **IT7800 HV**

700V/1050V High-voltage high-power model

power

## IT-EC7800

2k~15kVA High cost-performance model

## **IT7800E**

21k~2M+VA High-power high-performance model

## **User-Friendly Touchscreen Design**

The IT-EC7800 series features a brand-new touchscreen design. Its simple and intuitive UI, combined with a keypad and rotary knob, allows users to make selections directly and quickly. Users can choose different display styles, customize parameter types and their screen positions. The user-friendly settings accommodate a wide range of measurement needs during testing.

The screen can display real-time voltage and current waveforms, with up to 6 oscilloscope traces. Users can perform instant analysis and save data without the need for an external oscilloscope.





### Application: testing inductive, capacitive or resistive products

- ·When testing inductive, capacitive or resistive products, there are certain leading or lagging characteristics of voltage and current.
- · Using IT-EC7800 series can not only display real-time data, but also select the desired waveform on the screen for visual observation. And through short-cut keys, save the picture to the storage disk of the peripheral device. It is convenient to perform secondary analysis on data and waveforms, making it easier and more effective to use.

### Application: UPS test

- · Test standard: YD-T 1095-2018
- · Test equipment: IT-EC7800 series high-power programmable AC/ DC power supply, IT8600 series AC and DC electronic load
- ·Test content: Adjust the AC input voltage and change it within the range specified by the standard to see if the UPS meets the indicators related to the input voltage change.

## IT-EC7800 series programmable AC/DC power supply UPS IT8600 series AC and DC electronic load

## **High Power Density Design**

The IT-EC7800 series adopts a compact standalone architecture, offering both 2U and 3U configurations to cover a power range from 2kVA to 15kVA, flexibly accommodating a wide variety of test requirements from low to high power.Particularly for the 3U/15kVA model, its volume is reduced to approximately 1/12 of conventional AC power supplies, significantly reducing space requirements.Users can achieve high power density test setups without the need for additional power racks or laboratory expansion,which helps enterprises reduce the cost of building and operating test environments, while improving space utilization and overall testing efficiency.

3U 15kVA

2U 6kVA ATE set up bench test

## Size 92% U | Size 17-EC7800 15kVA

Traditional power supply 15kVA

## Surge & Sag Function

The IT-EC7800 series provides surge and sag simulation functions, allowing users to superimpose surges or sags on a sine wave to simulate abnormal voltage fluctuations in electrical systems, to verify the performance of the device under test (DUT) under such conditions.



## List Mode

The IT-EC7800 series provides a simple and efficient way to achieve step-by-step or continuous changes in output parameters through LIST, SWEEP, and SURGE & SAG modes.Output parameters such as voltage amplitude, frequency, phase, and waveform can be triggered via internal or external signals of the instrument, enabling simulation of power phenomena such as momentary outages, surges, and ramp-up conditions.

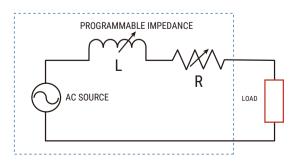


# Application- Mains reproduction simulation Users can use the panel or program control of IT-EC7800 series to edit and simulate various power interference conditions Surge&Sag LIST SWEEP

# Application- Momentary power interruption simulation IT-EC7800 series can also effectively simulate various power interruption situations. Momentary voltage interruption

## Programmable Output Impedance

The IT-EC7800 series provides programmable output impedance functionality, allowing users to set R and L parameters, to simulate the line impedance of power systems, in compliance with IEC61000-3-3 and IEC61000-3-2 standards.



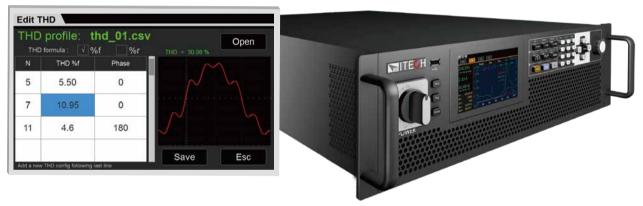
## Harmonic Analysis and Simulation Function

The harmonic analysis function of the IT-EC7800 series includes voltage and current harmonic measurements. In harmonic mode, it supports measurement of voltage/current Total Harmonic Distortion (THD) and phase deviation of harmonics relative to the fundamental wave. It also allows multi-order harmonic measurements with results displayed as lists, bar charts, or vector diagrams, making the analysis of test results more intuitive.



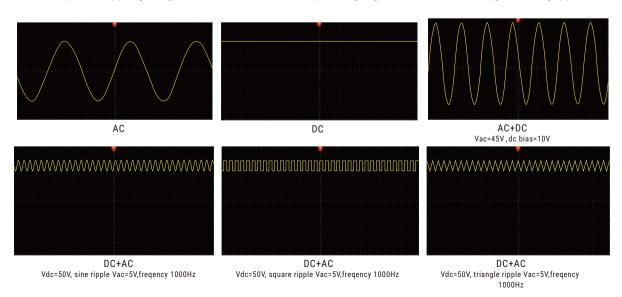
The IT-EC7800 series supports harmonic simulation (single-phase / three-phase / unbalanced three-phase) of up to the 50th voltage harmonic.

## **50**th harmonic simulation



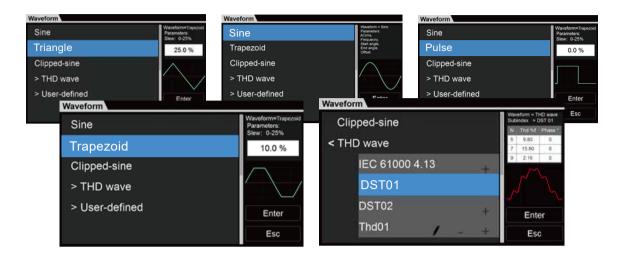
## Supports AC, DC, AC+DC, and DC+AC Output Modes

The IT-EC7800 series supports four output modes: AC, DC, AC+DC, and DC+AC, offering both pure AC and DC outputs, and enabling AC output with DC offset or DC output with ripple by using AC+DC or DC+AC modes, thus providing engineers with a broader range of testing applications.



## **Built-in Rich Waveform Library**

The IT-EC7800 series includes 30 built-in harmonic distortion waveforms. The series also includes a variety of built-in waveforms such as triangle wave, sine wave, square wave, and sawtooth wave, which can be selected and displayed via the menu on the LCD screen.

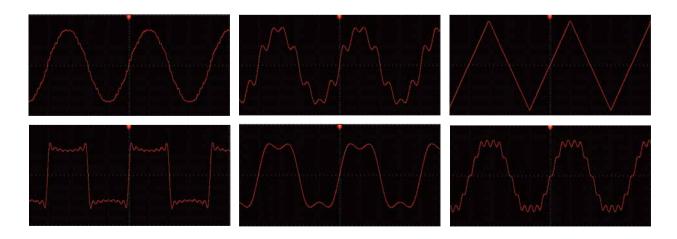


Users can also customize and edit waveforms through the interface, to replicate and simulate real-world power waveforms from actual fault events.





The IT-EC7800 series has 30 built-in harmonic distortion waveforms.



		IT-FC786	02-350-10U					
			parameter					
	Wiring connection	•	re + ground(PE)					
	Line voltage	RMS	(200~220)±10% V / (380~480)±10% V					
	Line current	RMS	<8.1A					
C input	Apparent Power		2.4kVA					
	Frequency range	45~65Hz						
	PF PF	typ 0.98						
		Output parameter						
	Output voltage	VLN	0~350V					
	1 3	RMS (1phase)	10A					
	Output current	Crest Factor *1	6					
		Peak (1phase)	40A					
	Output power	Max. Power (1phase)	2kVA					
	Output power							
	Range	Voltage setting 0∼350V (1phase)						
	Resolution		.01V					
	Accuracy		.01v <0.1%+(0.2%*kHz)F.S(500.01Hz~1kHz)					
	Accuracy	· ,	ent setting					
C output	Dongo	RMS	10A (1phase)					
	Range Resolution		1					
			.01A					
	Accuracy	<0.1% + 0.2% F.S.(16Hz~150Hz) / <0.2% + 0.3% F.S.(150.0						
	-	Frequency setting						
	Range	16~500Hz (Low*2) / 16~1kHz (High*2)						
	Resolution	0.01Hz						
	Accuracy	0.01% (16Hz~500Hz) / 0.1% (500.01Hz~1kHz)						
	harmonic waveform	50/60Hz	up to 50 orders					
		Phase setting						
	Range	0~360°						
	Resolution		1.01°					
	Dongo		ge setting					
	Range	-499~499Vdc (1phase)						
	Resolution	0.01V						
	Accuracy		+0.1% F.S.					
	-		ent setting					
C output	Range		Adc (1phase)					
	Resolution		.01A					
	Accuracy		+ 0.2% F.S.					
			ver(max.)					
	Total Power	Max. Power (1phase)	2kW					
	Line regulation		D5% F.S.					
	Load regulation*3	$<$ 0.05% + 0.05% F.S. (DC,16Hz $\sim$ 500Hz) / $<$ 0.05% + (0.1%*kHz) F.S(500.01Hz $\sim$ 1kHz)						
oltage stability		, , ,	500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz)					
maye stability	Voltage ripple	RMS	< 0.4V					
ntage stability		typ	220us					
itage stability	Dynamic response*5							
		Measure	ement parameter					
oltage RMS	Accuracy	Measure <0.1%+0.1% F.S. (DC,16Hz∼500Hz) / <0.	.1%+(0.2%*kHz) F.S(500.01Hz~1kHz)					
oltage RMS urrent RMS	Accuracy Accuracy	Measure <0.1%+0.1% F.S. (DC,16Hz∼500Hz) / <0. <0.1% + 0.2% F.S.(DC,16Hz∼150Hz)/<0.2% + 0.3%	.1%+(0.2%*kHz) F.S(500.01Hz~1kHz) 6 F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz)					
oltage RMS Current RMS Peak current	Accuracy Accuracy Accuracy	Measure <0.1%+0.1% F.S. (DC,16Hz∼500Hz) / <0. <0.1% + 0.2% F.S.(DC,16Hz∼150Hz)/<0.2% + 0.3% <0.4% + 0.6% F.S.(16Hz∼500Hz)/<	.1%+(0.2%*kHz) F.S(500.01Hz~1kHz) 6 F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz) <0.4% + (1.2%*kHz) F.S(500.01Hz~1kHz)					
oltage RMS current RMS leak current lutput power	Accuracy Accuracy Accuracy Accuracy	Measure  <0.1%+0.1% F.S. (DC,16Hz~500Hz) / <0.  <0.1% + 0.2% F.S.(DC,16Hz~150Hz)/<0.2% + 0.3%  <0.4% + 0.6% F.S.(16Hz~500Hz) / <  <0.4% + 0.4% F.S. (DC,16Hz~500Hz) / <	.1%+(0.2%*kHz) F.S(500.01Hz~1kHz) 6 F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz) <0.4% + (1.2%*kHz) F.S(500.01Hz~1kHz) <0.4% + <(0.8%*kHz) F.S(500.01Hz~1kHz)					
oltage RMS current RMS	Accuracy Accuracy Accuracy Accuracy Max.	Measure  <0.1%+0.1% F.S. (DC,16Hz~500Hz) / <0.  <0.1% + 0.2% F.S.(DC,16Hz~150Hz)/<0.2% + 0.3%  <0.4% + 0.6% F.S.(16Hz~500Hz) / <  <0.4% + 0.4% F.S. (DC,16Hz~500Hz) / <  50/60Hz	.1%+(0.2%*kHz) F.S(500.01Hz~1kHz)  & F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz)  <0.4% + (1.2%*kHz) F.S(500.01Hz~1kHz)  <0.4% + <(0.8%*kHz) F.S(500.01Hz~1kHz)  up to 50 orders					
Toltage RMS Eurrent RMS Teak current Flutput power Flutput power	Accuracy Accuracy Accuracy Accuracy	Measure  <0.1%+0.1% F.S. (DC,16Hz~500Hz) / <0.  <0.1% + 0.2% F.S.(DC,16Hz~150Hz)/<0.2% + 0.3%  <0.4% + 0.6% F.S.(16Hz~500Hz) / <  <0.4% + 0.4% F.S. (DC,16Hz~500Hz) / <  50/60Hz	.1%+(0.2%*kHz) F.S(500.01Hz~1kHz) 6 F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz) <0.4% + (1.2%*kHz) F.S(500.01Hz~1kHz) <0.4% + <(0.8%*kHz) F.S(500.01Hz~1kHz)					

<sup>\*1</sup> When the output frequency is 50Hz/60Hz and the peak current is not exceeded, the maximum Crest Factor (CF) is 6; under full current and full power conditions, the CF is up to 4.

<sup>\*2</sup> When LoopSpeed is set to Low, the system has better load adaptability, when set to High, it provides faster dynamic response.

<sup>\*3</sup> For parallel models, Sense remote measurement mode must be used during testing.

<sup>\*4</sup> Test conditions: Pure resistive load under full power output.

<sup>\*5</sup> Dynamic response time test conditions: DC mode, High speed setting, DUT capacitance < 10 $\mu$ F.

<sup>\*</sup> Specifications are subject to change without prior notice.

			IT-EC7804-350-20U				
			Input parameter				
	Wiring connection	3	B phase 3wire + ground(PE)				
AC input	Line voltage	RMS	(200~220) ±10% V *1 / (380~480) ±10% V				
	Line current	RMS	<9.4A				
5 IIIput	Apparent Power		<4.6kVA				
	Frequency range	45~65Hz					
	PF	typ 0.98					
		91	Output parameter				
	Output voltage	VLN	0~350V				
	1 3	RMS (1phase)	20A				
	Output current	Crest Factor *2	6				
		Peak (1phase)	80A				
	Output power	Max. Power (1phase)	4kVA				
	Output power	maxi ene. (ipilace)	Voltage setting				
	Range	Voltage setting 0~350V (1phase)					
	Resolution		0.01V				
	Accuracy	< 0.10%+0.10% E.S. (16Hzov	.500Hz) /<0.1%+(0.2%*kHz)F.S(500.01Hz~1kHz)				
	Accuracy	V0.17010.1701.3. (10Hz -	Current setting				
C output	Dango	RMS	20A (1phase)				
	Range Resolution	RMS	, ,				
		< 0.10; . 0.00; F.0.(1611;	0.01A				
	Accuracy	<0.1% + 0.2% F.S.(16Hz~150Hz) / < 0.2% + 0.3	% F.S.(150.01Hz∼500Hz) / <0.3%+(0.6%*kHz) F.S(500.01Hz∼1kHz)				
	-	Frequency setting					
	Range	16∼500Hz (Low*3) / 16∼1kHz (High*3)					
	Resolution	0.01Hz					
	Accuracy	0.01% (16Hz~500Hz) / 0.1% (500.01Hz~1kHz)					
	harmonic waveform	50/60Hz	up to 50 orders				
			Phase setting				
	Range		0~360°				
	Resolution		0.01°				
		Voltage setting					
			3 3				
	Range		-499~499Vdc (1phase)				
	Range Resolution		-499~499Vdc (1phase) 0.01V				
			-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S.				
	Resolution		-499~499Vdc (1phase) 0.01V				
C output	Resolution Accuracy Range		-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase)				
C output	Resolution Accuracy		-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A				
C output	Resolution Accuracy Range		-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase)				
C output	Resolution Accuracy Range Resolution		-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A				
C output	Resolution Accuracy  Range Resolution Accuracy  Total Power	Max. Power(1phase)	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S.				
C output	Resolution Accuracy  Range Resolution Accuracy	Max. Power(1phase)	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S. Power(max.)				
C output	Resolution Accuracy  Range Resolution Accuracy  Total Power	·	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S.  Power(max.) 4kW				
· 	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4	<0.05% + 0.05% F.S. (DC,16Hz	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S. Power(max.) 4kW <0.05% F.S.				
· 	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4	<0.05% + 0.05% F.S. (DC,16Hz	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S. Power(max.) 4kW <0.05% F.S. 2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz)				
· 	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1%	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S.  Power(max.)  4kW <0.05% F.S. 2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz) %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz) <0.4V 220us				
· 	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5 Voltage ripple	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1%	-499~499Vdc (1phase)  0.01V  <0.1%+0.1% F.S.  Current setting  -20~20Adc (1phase)  0.01A  <0.1% + 0.2% F.S.  Power(max.)  4kW  <0.05% F.S.  2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz)  %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz)  <0.4V				
ltage stabilit	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5 Voltage ripple	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1% RMS typ	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S.  Power(max.)  4kW <0.05% F.S. 2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz) %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz) <0.4V 220us				
oltage stability oltage RMS	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5 Voltage ripple Dynamic response*6	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1% RMS typ <0.1%+0.1% F.S. (DC,16Hz~	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S.  Power(max.)  4kW <0.05% F.S. 2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz) %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz) < 0.4V 220us  Measurement parameter				
oltage stability oltage RMS urrent RMS	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5 Voltage ripple Dynamic response*6	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1% RMS typ <0.1%+0.1% F.S. (DC,16Hz~ <0.1% + 0.2% F.S.(DC,16Hz~150Hz)/<	-499~499Vdc (1phase)  0.01V  <0.1%+0.1% F.S.  Current setting  -20~20Adc (1phase)  0.01A  <0.1% + 0.2% F.S.  Power(max.)  4kW  <0.05% F.S.  2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz)  %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz)  <0.4V  220us  Measurement parameter  ~500Hz) / <0.1%*(0.2%*kHz) F.S(500.01Hz~1kHz)				
oltage stability oltage RMS urrent RMS eak current utput power	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5 Voltage ripple Dynamic response*6  Accuracy Accuracy	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1% RMS typ <0.1%+0.1% F.S. (DC,16Hz~ <0.1% + 0.2% F.S.(DC,16Hz~150Hz)/< <0.4% + 0.6% F.S.(16Hz~	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S.  Power(max.)  4kW <0.05% F.S. 2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz) %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz) <0.4V 220us  Measurement parameter ~500Hz) / <0.1%+(0.2%*kHz) F.S(500.01Hz~1kHz) 0.2% + 0.3% F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz)				
oltage stability oltage RMS urrent RMS eak current utput power armonic	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5 Voltage ripple Dynamic response*6  Accuracy Accuracy Accuracy	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1% RMS typ <0.1%+0.1% F.S. (DC,16Hz~ <0.1% + 0.2% F.S.(DC,16Hz~150Hz)/< <0.4% + 0.6% F.S.(16Hz~	-499~499Vdc (1phase)  0.01V  <0.1%+0.1% F.S.  Current setting  -20~20Adc (1phase)  0.01A  <0.1% + 0.2% F.S.  Power(max.)  4kW  <0.05% F.S.  2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz)  %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz)  <0.4V  220us  Measurement parameter  ~500Hz) / <0.1%*kHz) F.S(500.01Hz~1kHz)  0.2% + 0.3% F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz)  ~500Hz) / <0.4% + (1.2%*kHz) F.S(500.01Hz~1kHz)				
C output  oltage stability  oltage RMS  urrent RMS eak current  utput power armonic ueasurement  fficiency	Resolution Accuracy  Range Resolution Accuracy  Total Power Line regulation Load regulation*4 y THD*5 Voltage ripple Dynamic response*6  Accuracy Accuracy Accuracy Accuracy Accuracy Accuracy	<0.05% + 0.05% F.S. (DC,16Hz <0.5%(16Hz~100Hz) / <1% RMS typ <0.1%+0.1% F.S. (DC,16Hz~ <0.1% + 0.2% F.S.(DC,16Hz~150Hz)/ <0.4% + 0.6% F.S.(16Hz~ <0.4% + 0.4% F.S. (DC,16Hz~	-499~499Vdc (1phase) 0.01V <0.1%+0.1% F.S. Current setting -20~20Adc (1phase) 0.01A <0.1% + 0.2% F.S.  Power(max.)  4kW <0.05% F.S. 2~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz) %(100Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz) <0.4V 220us  Measurement parameter -500Hz) / <0.1%*(0.2%*kHz) F.S(500.01Hz~1kHz) (0.2% + 0.3% F.S.(150.01Hz~500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz) ~500Hz) / <0.4% + (1.2%*kHz) F.S(500.01Hz~1kHz) ~500Hz) / <0.4% + (0.8%*kHz) F.S(500.01Hz~1kHz) ~500Hz) / <0.4% + <(0.8%*kHz) F.S(500.01Hz~1kHz)				

<sup>\*1</sup> When the input voltage is (200–220)V  $\pm 10\%$ , the output rated power is limited to 3kW.

<sup>\*2</sup> When the output frequency is 50Hz/60Hz and peak current is not exceeded, the maximum Crest Factor (CF) is 6; under full current and full power conditions, the CF is up to 4.

<sup>\*3</sup> When LoopSpeed is set to Low, the system has better load adaptability; when set to High, it provides faster dynamic response.

<sup>\*4</sup> For parallel models, Sense remote measurement mode must be used during testing.

<sup>\*5</sup> Test conditions: Pure resistive load under full power output.

 $<sup>\</sup>star 6$  Dynamic response time test conditions: DC mode, High speed setting, DUT capacitance  $< 10 \mu F.$ 

<sup>\*</sup> Specifications are subject to change without prior notice.

			IT-EC7806-350-30				
			Input parameter				
	Wiring connection	3 [	ohase 3wire + ground(PE)				
	Line voltage	RMS		(200~220)±10% V*1 / (380~480)±10% V			
AC input	Line current	RMS		<13.8A			
	Apparent Power		<7kVA	(10.0/1			
	Frequency range						
	PF Prequency range	typ	45∼65Hz	0.98			
_	PF	ιуρ	Output parameter	0.90			
		VLN	Output parameter	0∼350V			
	Output voltage	VLL (3phase)		0 ~530V 0∼606V			
		·					
		RMS (1phase)		30A			
	Output aureant	Crest Factor *2		6			
	Output current	Peak (1phase)		120A			
		RMS(3phase)		10A			
		Peak(3phase)		40A			
	Output power	Per Phase		2kVA			
	output power	Max. Power (1phase/3phase)		6kVA			
			Voltage setting				
	Range	(	~350V (1phase/3phase)				
	Resolution		0.01V				
	Accuracy	< 0.1%+0.1% F.S. (16Hz~	500Hz) /<0.1%+(0.2%*kHz)	F S(500 01Hz~1kHz)			
	7.cou.uoy	20.17010.170110. (10112	Current setting	1.5(666.61112 11112)			
C output	Range	RMS	ourient octung	20A (1nhoos)/10A (2nhoos)			
	Resolution	KINI2	0.014	30A (1phase)/10A (3phase)			
		0.01A					
	Accuracy <0.1% + 0.2% F.S.(16Hz~150Hz) / <0.2% + 0.3% F.S.(150.01Hz~500Hz) / <0.3%+(0.6%*kHz) F.S(500.01Hz~1kHz)						
		Frequency setting					
	Range	16∼500Hz (Low*3) / 16∼1kHz (High*3)					
	Resolution	0.01Hz					
	Accuracy	0.01% (16Hz~500Hz) / 0.1% (500.01Hz~1kHz)					
	harmonic waveform	50/60Hz		up to 50 orders			
			Phase setting				
	Range		0∼360°				
	Resolution		0.01°				
			Voltage setting				
	Range	-499~499Vdc (1phase)					
	Resolution	0.01V					
	Accuracy	<0.1%+0.1% F.S.					
		Current setting					
C output	Range		-30~30Adc (1phase)				
σοιμαί	Resolution		0.01A				
	Accuracy	<0.1% + 0.2% F.S.					
	Total Days	Max. Power (1phase)	Power(max.)	Class			
	Total Power	ivida. rowei (Tpffdse )	/	6kW			
	Line regulation		<0.05% F.S.				
oltage	Load regulation*4	<0.05% + 0.05% F.S. (DC,16Hz^	, .	, ,			
ability	THD*5	<0.5%(16Hz~100Hz) / <1%(1	00.01Hz~500Hz) / <1%+(1	, ,			
	Voltage ripple	RMS		< 0.4V			
	Dynamic response*6	typ		200us			
			Measurement parameter				
Itage RMS	Accuracy	<0.1%+0.1% F.S. (DC,16Hz~500	Hz) / <0.1%+(0.2%*kHz) F.	S(500.01Hz~1kHz)			
rrent RMS	Accuracy	$<$ 0.1% + 0.2% F.S.(DC,16Hz $\sim$ 150Hz)/ $<$ 0.	.2% + 0.3% F.S.(150.01Hz~5	500Hz)/<0.3% + (0.6%*kHz) F.S(500.01Hz~1kHz)			
eak current	Accuracy	<0.4% + 0.6% F.S.(16Hz~	500Hz) / <0.4% + (1.2%*kH	z) F.S(500.01Hz~1kHz)			
ıtput power	Accuracy	<0.4% +0.4% F.S. (DC,16Hz~	500Hz) / <0.4% +<(0.8%*	kHz) F.S(500.01Hz~1kHz)			
rmonic	Max.	50/60Hz		up to 50 orders			
leasurement fficiency	typ		88%				

 $<sup>\</sup>pm 1$  When the input voltage is (200–220)V  $\pm 10\%$  , the output rated power is limited to 50%.

<sup>\*2</sup> When the output frequency is 50Hz/60Hz and the peak current is not exceeded, the maximum Crest Factor (CF) is 6; under full current and full power conditions, the CF is up to 4.

<sup>\*3</sup> When LoopSpeed is set to Low, the system has better load adaptability, when set to High, it provides faster dynamic response.

<sup>\*4</sup> For parallel operation, Sense remote measurement mode must be used during testing.

<sup>\*5</sup> Test conditions: Pure resistive load under full power output.

<sup>\*6</sup> Dynamic response time test condition: DC mode, High speed setting, DUT capacitance <  $10\mu F$ .

<sup>\*</sup> Specifications are subject to change without prior notice.

			IT-EC7815-350-90				
			Input parameter				
	Wiring connection	:	3 phase 3wire + ground(PE)				
AC input	Line voltage	RMS	(200~220)±10% V*1 / (380~480)±10% V				
	Line current	RMS	<34A				
		CIVIO					
	Apparent Power	<17.4kVA					
	Frequency range		45~65Hz				
	PF	typ	0.98				
		N/I N/I	Output parameter				
	Output voltage	VLN	0~350V				
		VLL (3phase)	0~606V				
		RMS (1phase)	90A				
		Crest Factor *2	6				
	Output current	Peak (1phase)	270A				
		RMS(3phase)	30A				
		Peak(3phase)	90A				
	Output namer	Per Phase	5kVA				
	Output power	Max. Power (1phase/3phase)	15kVA				
		Voltage setting					
	Range		0~350V (1phase/3phase)				
	Resolution		0.01V				
	Accuracy	<0.1%+0.1% F.S. (16Hz~	~500Hz) /<0.1%+(0.2%*kHz)F.S(500.01Hz~1kHz)				
	Hoodrady	V0.170*0.1701.5. (10112	Current setting				
AC output	Range	RMS	90A (1phase)/30A (3phase)				
	Resolution	CIVIO					
		< 0.10	0.01A				
	Accuracy	<0.1% + 0.2% F.S.(16Hz~150Hz) / <0.2% + 0.3% F.S.(150.01Hz~500Hz) / <0.3%+(0.6%*kHz) F.S(500.01Hz~1kHz)					
	_	Frequency setting					
	Range	16~500Hz (Low*3) / 16~1kHz (High*3)					
	Resolution	0.01Hz					
	Accuracy	0.01% (16Hz~500Hz) / 0.1% (500.01Hz~1kHz)					
	harmonic waveform	50/60Hz up to 50 orders					
			Phase setting				
	Range		0~360°				
	Resolution		0.01°				
			Voltage setting				
	Range	-499~499Vdc (1phase)					
	Resolution	0.01V					
	Accuracy	<0.1%+0.1% F.S.					
		Current setting					
DC output	Range		-90~90Adc (1phase)				
	Resolution		0.01A				
	Accuracy	<0.1% + 0.2% F.S.					
		Power(max.)					
	Total Power	Max. Power (1phase)	15kW				
	Line regulation	•	<0.05% F.S.				
	Load regulation*4	< 0.05% + 0.05% F.S. (DC 16H-	z~500Hz) / <0.05% + (0.1%*kHz) F.S(500.01Hz~1kHz)				
Voltage	THD*5	,	(100.01Hz~500Hz) / <1%+(1%*kHz) (500.01Hz~1kHz)				
stability	Voltage ripple	RMS	(100.01n2. 9300n2) / \ 1%+(1%-kn2) (300.01n2. 91kn2)				
	Dynamic response*6	typ	200us				
	bynamic response 0		Measurement parameter				
oltage RMS	Accuracy	0 1%+0 1% F Q (DC 16Uz ~ 5)	00Hz) / <0.1%+(0.2%*kHz) F.S(500.01Hz~1kHz)				
Current RMS	-	VULTATULTATION (DUC, 10HZ* 3)	00112/1 \0.1101(0.210 KHZ/1.0(000.01112 * TKHZ/				
	Accuracy	/ 0.40/ + 0.60/ F.0./1611=	~500Hz) / <0.4% + (1.2%*kHz) F.S(500.01Hz~1kHz)				
Peak current	Accuracy	`	~500Hz) / <0.4% + <(1.2%^kHz) F.S(500.01Hz~1kHz) :~500Hz) / <0.4% +<(0.8%*kHz) F.S(500.01Hz~1kHz)				
Output power Harmonic	Accuracy						
measurement_	Max.	50/60Hz	up to 50 orders				
Efficiency	typ*7		91%				
Weight			42kg				

<sup>\*1</sup> When the input voltage is (200–220)V ±10%, models rated above 12kW are limited to 60% of their rated output power.

<sup>\*2</sup> When the output frequency is 50Hz/60Hz and peak current is not exceeded, the maximum Crest Factor (CF) is 6; under full current and full power conditions, the CF is up to 3.

<sup>\*3</sup> When LoopSpeed is set to Low, the system has better load adaptability, when set to High, it provides faster dynamic response.

<sup>\*4</sup> For parallel models, Sense remote measurement mode must be used during testing.

<sup>\*5</sup> Test conditions: Pure resistive load under full power output.

<sup>\*6</sup> Dynamic response time test conditions: DC mode, High speed setting, DUT capacitance <  $10\mu F$ .

 $<sup>{\</sup>rm \star 7\,Test\,conditions:\,lnput\,380VLL/50Hz,\,output\,3-phase\,350Vrms/50Hz\,at\,full\,power.}$ 

<sup>\*</sup> Specifications are subject to change without prior notice.



This information is subject to change without notice. For more information, please contact ITECH.

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