IT8300 Regenerative DC Electronic Load

Applications

UPS, Inverter, Frequency converter, Generator, AC power supply, Electronic component

Feature

- Voltage range: 80V/800V
- Stand-alone input current up to 3570A
- Stand-alone input power up to 73.5KW
- Support master-slave paralleling, current equalized distribution, maximum output power up to 105 kW or more *1
- Energy-regenerative efficiency Max. 95% *2 *3
- 3U size, high power density up to 10.5 kW
- On-grid electricity accumulation function
- Automatic grid-state detection, achieve reliable on-grid function, anti-islanding protection
- 4 testing modes: CC/CV/CR/CP
- Dynamic loading mode
- Battery test function, automatic test function, short circuit test function
- Multiple parameters measurement & display: Vdc、Idc、Pdc、Vac、Pac、Fac、Wac
- With pre-charging function, prevent dc loading current overshoot
- Full protection: OVP/OCP/OPP/OTP and power grid fault protection, fault storage
- Built-in standard LAN/USB/RS232/RS485/CAN communication interface
- Support SCPI protocol, LabVIEW

*1 Please consult with ITECH for higher power requirement
*2 Efficiency up to about 95% for 800V, efficiency up to about 94% for 80V
*3 The regenerative power is for in-plant reuse, not for feeding back to public grid

ITECH newly launched IT8300 Regenerative DC Electronic Load, it not only can simulate various load characteristics, but also can feed power back to grid without pollution. IT8300 series unique regenerative function can convert the absorbed DC power into AC power and feed it back to local grid. This eliminates the usual heat dissipation to a minimum and saves energy costs, adapts requirements of global energy-saving and emission reduction at the same time. IT8300 adopts high power density design, e.g. for 3U size, it can absorb power up to 10.5 kW. IT8300 supports master-slave paralleling and current equalized distribution, which can expand the power up to 105KW or more. Moreover IT8300 has multiple functions such as the automatic grid-state detection, on-grid electricity accumulation, anti-islanding protection, battery-test function, dynamic mode, LIST function, etc. The built-in interfaces include LAN/USB/RS232/RS485/CAN interfaces. The various functions make IT8300 series suitable for high-power power supply, storage battery, photovoltaic battery, electric vehicle, energy storage system, etc.

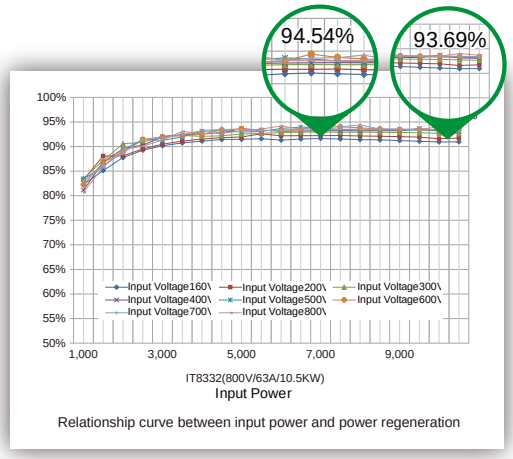
Model	Voltage	Current	Power	Size
IT8311	80V	170A	3.5kW	3U
IT8321	80V	340A	7kW	3U
IT8331	80V	510A	10.5kW	3U
IT8341	80V	1020A	21kW	6U
IT8351	80V	1530A	31.5kW	15U
IT8361	80V	2040A	42kW	24U
IT8371	80V	2550A	52.5kW	24U
IT8381	80V	3060A	63kW	24U
IT8391	80V	3570A	73.5kW	24U
IT8312	800V	20A	3.5kW	3U
IT8322	800V	40A	7kW	3U
IT8332	800V	60A	10.5kW	3U
IT8342	800V	120A	21kW	6U
IT8352	800V	180A	31.5kW	15U
IT8362	800V	240A	42kW	24U
IT8372	800V	300A	52.5kW	24U
IT8382	800V	360A	63kW	24U
IT8392	800V	420A	73.5kW	24U

Power accumulation function

IT8300 series regenerative DC electronic load uses the power electronic transformation technology on the premise of completing test power experiment to make output energy of measured power supply regenerative recycled and reused. Through the inside fast sampling of voltage and current, the regenerative power value can be observed on the front panel of IT8300 series, including voltage, frequency and power of each phase, as well as total power, total current regenerative and total historical regenerative power, which makes the energy saving effect much easier. Re-open after power failure, IT8300 series will continue to accumulate the regenerative power value based on the last power off value.

Ultra high power regeneration efficiency up to about 95%

IT8300 series regenerative DC electronic load is different from other conventional consumed loads, regenerative function is the most important feature of IT8300 series. It can regenerate power to grid and provides low heat dissipation, which will be converted with an efficiency of approximately 95%. This way of energy regeneration helps to lower energy costs and avoids expensive cooling systems, and also reduces the noise.



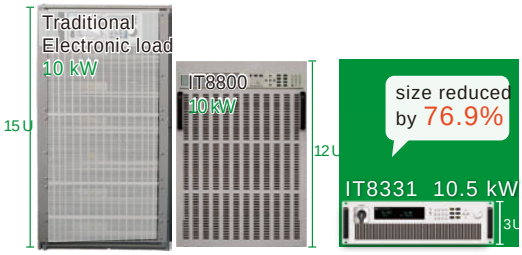
Relationship curve between input power and power regeneration

Energy-saving and emission-reduction

Conventional type electronic load is mostly energy consumption type load. In addition to the high cost of electricity, power generation process will also produce a lot of carbon dioxide, sulfur dioxide, nitrogen oxides and other greenhouse gases or harmful gases, causing harm to the environment. Using IT8300 series can reduce power consumption, not only save money, but also reduce greenhouse gas and harmful gas emissions. According to preliminary estimates, each 10.5KW IT8331 can reduce about 80 tons of CO_2 emissions per year, in line with global environmental protection and emission reduction requirements.

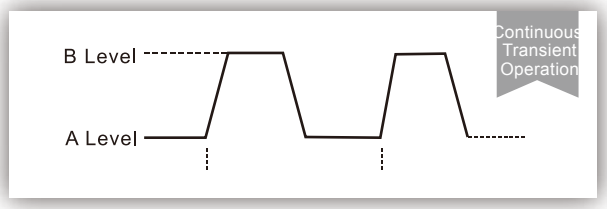
High Power Density Design

Conventional electronic loads are not only with high energy consumption, its own size and weight is also very large. Energy consumption electronic load with 10KW load is at least 12U, not only difficult to transport, the higher the cost. IT8300 series regenerative DC electronic load adopts high power density design, e.g. for 3 U size, it can absorb power up to 10.5 kW. Compared to traditional electronic loads, the size for IT8300 series will be able to decrease by 76.9% under the same output power.



Dynamic test function

IT8300 series regenerative DC electronic load provides dynamic test function under CC mode. Electronic load switches between two settable parameters according to set rule, it is for testing dynamic characteristics of power supply and checking the stability of power supply during step change of loading current. Dynamic testing mode can be divided into continuous mode, pulse mode and reverse mode.



Full protection function

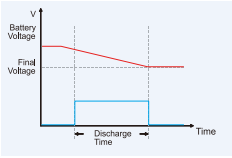
IT8300 series regenerative DC electronic load can detect the grid state automatically. When grid connection is suddenly disconnected or power down, products will be turned off. IT8300 series can achieve reliable on-grid function and anti-islanding protection function. IT8300 also provide monitor on DC input voltage and frequency, and support OCP, OVP, OTP, OPP.

Support master-slave paralleling, current equalized distribution

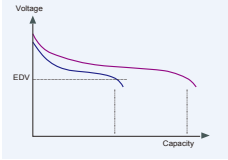
IT8300 series regenerative DC electronic load supports master-slave paralleling and current equalized distribution function. Under the premise of three-phase power balanced, output power can be extended up to 105kW or higher via multiple loads paralleling, so as to meet the customers' higher power test requirements.

Battery test function

IT8300 series regenerative DC electronic load simulate battery discharge test under CC mode, and support settable discharge cut-off conditions, such as cut-off voltage, cut-off capacity and cut-off time. When any of the three conditions are met, the discharge test will be stopped. Moreover, the battery voltage, discharge time and the discharged capacity can be observed during the test, which reflects the reliability of the battery and its remaining life.



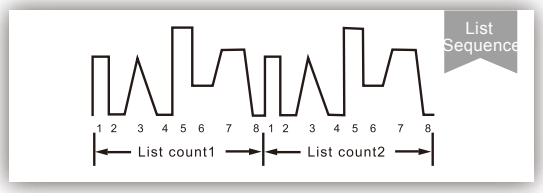
discharge test



Capacity test

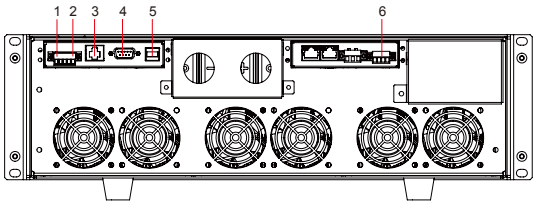
List function

IT8300 series regenerative DC electronic load provides list mode, it can complete the complex arbitrary current change mode accurately and fast, and can synchronize with internal or external signals to complete multi-level loading precision test, which greatly save cost for customers. By editing the step value, pulse width and the slope of each step, IT8300 can generate a variety of complex sequences and help users to complete various loading waveforms test. In the CC mode, IT8300 series can set rising and falling speed.



Built-in multiple interfaces

IT8300 series regenerative DC electronic load provides 5 types built-in interfaces: RS232, USB, LAN, CAN and RS485, supports SCPI protocol, facilitates power extending, computer or PLC remote control and system setting up etc. IT8300 series is also equipped with functions of remote measurement, current monitoring and external analog control, making it easy for users to conduct comprehensive and accurate measurement.



1. RS485 interface
2. CAN interface
3. LAN interface
4. RS232 interface
5. USB interface
6. Analog interface

Specification

Model		IT8311	IT8321	IT8331
Input parameters				
Input rating (0~40 ℃)	Input voltage	0~80V	0~80V	0~80V
	Input current	0~170A	0~340A	0~510A
	Input power	0~3.5kW	0~7kW	0~10.5kW
CC mode	Range	0~170A	0~340A	0~510A
	Resolution	100mA	100mA	100mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
CV mode	Range	0~80V	0~80V	0~80V
	Resolution	10mV	10mV	10mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
CR mode	Range	0.01~1200Ω	0.005~500Ω	0.003~400Ω
	Resolution	0.001Ω	0.001Ω	0.001Ω
	Accuracy	Rmax*2%：（0.01~80Ω）； Rmax*5%：（80~1200Ω）	Rmax *2%：（0.005~60Ω）； Rmax *5%：（60~600Ω）	Rmax *2%：（0.003~40Ω）； Rmax *5%：（40~400Ω）
CP mode	Range	0~3.5kW	0~7kW	0~10.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Input readback				
Current Readback	Range	0~170A	0~340A	0~510A
	Resolution	100mA	100mA	100mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
Voltage Readback	Range	0~80V	0~80V	0~80V
	Resolution	10mV	10mV	10mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
Power Readback	Range	0~3.5kW	0~7kW	0~10.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Output parameters				
Output voltage range		190VAC~260VAC	190VAC~260VAC	190VAC~260VAC
OVP		260VAC	260VAC	260VAC
UVP		190VAC	190VAC	190VAC
Output frequency range		45Hz~65Hz	45Hz~65Hz	45Hz~65Hz
Maximum output current(rms)		17Aac	17Aac	17Aac
Power Factor		>0.99（Leg or lag））	>0.99（Leg or lag）	>0.99（Leg or lag）
DC component		-0.5A~+0.5A	-0.5A~+0.5A	-0.5A~+0.5A
Harmonic THDI		<3%	<3%	<3%
Anti-islanding protection		active anti-islanding protection	active anti-islanding protection	active anti-islanding protection
Efficiency				
Max. input voltage full load efficiency		92.5%	92.5%	92.5%
Other				
Interfaces		RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN
Dimension		766.6mm*483mm*132.8mm	766.6mm*483mm*132.8mm	766.6mm*483mm*132.8mm
Net weight		26kg	33kg	40kg

Note：Resistance readback range

IT8311	IT8321	IT8331
0.01~80Ω	0.005~60Ω	0.003~40Ω
Lower limit value：1/(1/R+(1/R)*0.02+0.002)； Upper limit value：1/(1/R-(1/R)*0.02-0.002)		

IT8311	IT8321	IT8331
80~1200Ω	60~600Ω	40~400Ω
Lower limit value：1/(1/R+(1/R)*0.05+0.002)； Upper limit value：1/(1/R-(1/R)*0.05-0.002)		

Specification

Model		IT8341	IT8351	IT8361
Input parameters				
Input rating (0~40℃)	Input voltage	0~80V	0~80V	0~80V
	Input current	0~1020A	0~1530A	0~2040A
	Input power	0~21kW	0~31.5kW	0~42kW
CC mode	Range	0~1020A	0~1530A	0~2040A
	Resolution	100mA	100mA	100mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
CV mode	Range	0~80V	0~80V	0~80V
	Resolution	10mV	10mV	10mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
CR mode	Range	0.002~200Ω	0.002~133Ω	0.001~0.1kΩ
	Resolution	0.001Ω	0.001Ω	0.001Ω
	Accuracy	Rmax *2%: (0.002~2Ω); Rmax *5%: (2~200Ω)	Rmax *2%: (0.002~2Ω); Rmax *5%: (2~133Ω)	Rmax *2%: (0.001~2Ω); Rmax *5%: (2~100Ω)
CP mode	Range	0~21kW	0~31.5kW	0~42kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Input readback				
Current Readback	Range	0~1020A	0~1530A	0~2040A
	Resolution	100mA	100mA	100mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
Voltage Readback	Range	0~80V	0~80V	0~80V
	Resolution	10mV	10mV	10mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
Power Readback	Range	0~21kW	0~31.5kW	0~42kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Output parameters				
Output voltage range		190VAC~260VAC	190VAC~260VAC	190VAC~260VAC
OVP		260VAC	260VAC	260VAC
UVP		190VAC	190VAC	190VAC
Output frequency range		45Hz~65Hz	45Hz~65Hz	45Hz~65Hz
Maximum output current (rms)		34Aac	51Aac	68Aac
Power Factor		>0.99 (Leg or lag)	>0.99 (Leg or lag)	>0.99 (Leg or lag)
DC component		-0.5A~+0.5A	-0.5A~+0.5A	-0.5A~+0.5A
Harmonic THDI		<3%	<3%	<3%
Anti-islanding protection		active anti-islanding protection	active anti-islanding protection	active anti-islanding protection
Efficiency				
Max. input voltage full load efficiency		92.5%	92.5%	92.5%
Other				
Interfaces		RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN
Dimension		766.6mm*483mm*265.6mm	800mm*550mm*907.64mm	800mm*550mm*1291.24mm
Net weight		80kg	175kg	284kg

Note: Resistance readback range

IT8341	IT8351	IT8361
0.002~2Ω	0.001~2Ω	0.001~2Ω
Lower limit value: 1/(1/R+(1/R)*0.02+0.002); Upper limit value: 1/(1/R-(1/R)*0.02-0.002)		

IT8341	IT8351	IT8361
2~200Ω	2~133Ω	2~100Ω
Lower limit value: 1/(1/R+(1/R)*0.05+0.002); Upper limit value: 1/(1/R-(1/R)*0.05-0.002)		

Specification

Model		IT8371	IT8381	IT8391
Input parameters				
Input rating (0~40 ℃)	Input voltage	0~80V	0~80V	0~80V
	Input current	0~2550A	0~3060A	0~3570A
	Input power	0~52.5kW	0~63kW	0~73.5kW
CC mode	Range	0~2550A	0~3060A	0~3570A
	Resolution	100mA	100mA	100mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
CV mode	Range	0~80V	0~80V	0~80V
	Resolution	10mV	10mV	10mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
CR mode	Range	0.001~80Ω	0.001~50Ω	0.001~50Ω
	Resolution	0.001Ω	0.001Ω	0.001Ω
	Accuracy	Rmax *2%: (0.001~1Ω); Rmax *5%: (1~80Ω)	Rmax *2%: (0.001~1Ω); Rmax *5%: (1~50Ω)	Rmax *2%: (0.001~1Ω); Rmax *5%: (1~50Ω)
CP mode	Range	0~52.5kW	0~63kW	0~73.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Input readback				
Current Readback	Range	0~2550A	0~3060A	0~3570A
	Resolution	100mA	100mA	100mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
Voltage Readback	Range	0~80V	0~80V	0~80V
	Resolution	10mV	10mV	10mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
Power Readback	Range	0~52.5kW	0~63kW	0~73.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Output parameters				
Output voltage range		190VAC~260VAC	190VAC~260VAC	190VAC~260VAC
OVP		260VAC	260VAC	260VAC
UVP		190VAC	190VAC	190VAC
Output frequency range		45Hz~65Hz	45Hz~65Hz	45Hz~65Hz
Maximum output current (rms)		85Aac	102Aac	119Aac
Power Factor		>0.99 (Leg or lag)	>0.99 (Leg or lag)	>0.99 (Leg or lag)
DC component		-0.5A~+0.5A	-0.5A~+0.5A	-0.5A~+0.5A
Harmonic THDI		<3%	<3%	<3%
Anti-islanding protection		active anti-islanding protection	active anti-islanding protection	active anti-islanding protection
Efficiency				
Max. input voltage full load efficiency		92.5%	92.5%	92.5%
Other				
Interfaces		RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN
Dimension		800mm*550mm*1291.24mm	800mm*550mm*1291.24mm	800mm*550mm*1291.24mm
Net weight		324kg	364kg	404kg

Note: Resistance readback range

IT8371	IT8381	IT8391
0.001~1Ω	0.001~1Ω	0.001~1Ω
Lower limit value: 1/(1/R+(1/R)*0.02+0.002); Upper limit value: 1/(1/R-(1/R)*0.02-0.002)		

IT8371	IT8381	IT8391
1~80Ω	1~50Ω	1~50Ω
Lower limit value: 1/(1/R+(1/R)*0.05+0.002); Upper limit value: 1/(1/R-(1/R)*0.05-0.002)		

Specification

		IT8312	IT8322	IT8332
Input parameters				
Input rating	Input voltage	0~800V	0~800V	0~800V
	Input current	0~20A	0~40A	0~60A
	Input power	0~3.5kW	0~7kW	0~10.5kW
CC mode	Range	0~20A	0~40A	0~60A
	Resolution	10mA	10mA	10mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
CV mode	Range	0~800V	0~800V	0~800V
	Resolution	100mV	100mV	100mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
CR mode	Range	0.9~3000Ω	0.6~2000Ω	0.3~1000Ω
	Resolution	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω） 0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω） 0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω） 0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）
	Accuracy	Rmax *2%：（0.9~1000Ω） Rmax *5%：（1000~3000Ω）	Rmax *2%：（0.6~600Ω） Rmax *5%：（600~2000Ω）	Rmax *2%：（0.3~300Ω） Rmax *5%：（300~1000Ω）
CP mode	Range	0~3.5kW	0~7kW	0~10.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Input readback				
Current Readback	Range	0~20A	0~40A	0~60A
	Resolution	10mA	10mA	10mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
Voltage Readback	Range	0~800V	0~800V	0~800V
	Resolution	100mV	100mV	100mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
Power Readback	Range	0~3.5kW	0~7kW	0~10.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Output parameters				
Output voltage range		190VAC~260VAC	190VAC~260VAC	190VAC~260VAC
OVP		260VAC	260VAC	260VAC
UVP		190VAC	190VAC	190VAC
Output frequency range		45Hz~65Hz	45Hz~65Hz	45Hz~65Hz
Maximum output current (rms)		17Aac	17Aac	17Aac
Power Factor		>0.99（Leg or lag）	>0.99（Leg or lag）	>0.99（Leg or lag）
DC component		-0.5A~+0.5A	-0.5A~+0.5A	-0.5A~+0.5A
Harmonic THDI		＜5%	＜5%	＜5%
Anti-islanding protection		active anti-islanding protection	active anti-islanding protection	active anti-islanding protection
Efficiency				
Max. input voltage full load efficiency		94.5%	94.5%	94.5%
Other				
Interfaces		RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN
Dimension		766.6mm*483mm*132.8mm	766.6mm*483mm*132.8mm	766.6mm*483mm*132.8mm
Net weight		26kg	33kg	40kg

Note：Resistance readback range

IT8371	IT8381	IT8391
0.001~1Ω	0.001~1Ω	0.001~1Ω
Lower limit value：1/(1/R+(1/R)*0.02+0.002) Upper limit value：1/(1/R-(1/R)*0.02-0.002)		

IT8371	IT8381	IT8391
1~80Ω	1~50Ω	1~50Ω
Lower limit value：1/(1/R+(1/R)*0.05+0.002) Upper limit value：1/(1/R-(1/R)*0.05-0.002)		

Specification

Model		IT8342	IT8352	IT8362
Input parameters				
Input rating (0~40 °C)	Input voltage	0~800V	0~800V	0~800V
	Input current	0~120A	0~180A	0~240A
	Input power	0~21kW	0~31.5kW	0~42kW
CC mode	Range	0~120A	0~180A	0~252A
	Resolution	10mA	10mA	10mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
CV mode	Range	0~800V	0~800V	0~800V
	Resolution	100mV	100mV	100mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
CR mode	Range	0.15~500Ω	0.1~333Ω	0.08~250Ω
	Resolution	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω） 0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω） 0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω） 0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）
	Accuracy	Rmax *2%：（0.15~100Ω）； Rmax *5%：（100~500Ω）	Rmax *2%：（0.1~80Ω）； Rmax *5%：（80~333Ω）	Rmax *2%：（0.08~60Ω）； Rmax *5%：（60~250Ω）；
CP mode	Range	0~21kW	0~31.5kW	0~42kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Input readback				
Current Readback	Range	0~120A	0~180A	0~240A
	Resolution	10mA	10mA	10mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
Voltage Readback	Range	0~800V	0~800V	0~800V
	Resolution	100mV	100mV	100mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
Power Readback	Range	0~21kW	0~31.5kW	0~42kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
Output parameters				
Output voltage range		190VAC~260VAC	190VAC~260VAC	190VAC~260VAC
OVP		260VAC	260VAC	260VAC
UVP		190VAC	190VAC	190VAC
Output frequency range		45Hz~65Hz	45Hz~65Hz	45Hz~65Hz
Maximum output current (rms)		34Aac	51Aac	68Aac
Power Factor		>0.99（Leg or lag）	>0.99（Leg or lag）	>0.99（Leg or lag）
DC component		-0.5A~+0.5A	-0.5A~+0.5A	-1A~+1A
Harmonic THDI		<5%	<5%	<5%
Anti-islanding protection		active anti-islanding protection	active anti-islanding protection	active anti-islanding protection
Efficiency				
Max. input voltage full load efficiency		94.5%	94.5%	94.5%
Other				
Interfaces		RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN
Dimension		766.6mm*483mm*265.6mm	800mm*550mm*907.64mm	800mm*550mm*1291.24mm
Net weight		80kg	175kg	284kg

Note：Resistance readback range

IT8342	IT8352	IT8362
0.15~100Ω	0.1~80Ω	0.08~60Ω
Lower limit value：1/(1/R+(1/R)*0.02+0.002) Upper limit value：1/(1/R-(1/R)*0.02-0.002)		

IT8342	IT8352	IT8362
100~500Ω	80~333Ω	60~250Ω
Lower limit value：1/(1/R+(1/R)*0.05+0.002) Upper limit value：1/(1/R-(1/R)*0.05-0.002)		

Specification

		IT8372	IT8382	IT8392
			Input parameters	
Input rating	Input voltage	0~800V	0~800V	0~800V
	Input current	0~300A	0~360A	0~420A
	Input power	0~52.5kW	0~63kW	0~73.5kW
CC mode	Range	0~300A	0~360A	0~420A
	Resolution	10mA	10mA	10mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
CV mode	Range	0~800V	0~800V	0~800V
	Resolution	100mV	100mV	100mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
CR mode	Range	0.06~200Ω	0.05~160Ω	0.045~140Ω
	Resolution	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω）；0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω）；0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）	0.001Ω（R〈10Ω）；0.01Ω（10Ω≤R<100Ω）；0.1Ω（100Ω≥R<1000Ω）；1Ω（R≥1000Ω）
	Accuracy	Rmax *2%：（0.06~40Ω）；Rmax *5%：（40~200Ω）	Rmax *2%：（0.05~20Ω）；Rmax *5%：（20~160Ω）	Rmax *2%：（0.045~10Ω）；Rmax *5%：（10~140Ω）
CP mode	Range	0~52.5kW	0~63kW	0~73.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
			Input readback	
Current Readback	Range	0~300A	0~360A	0~420A
	Resolution	10mA	10mA	10mA
	Accuracy	<0.4% Imax	<0.4% Imax	<0.4% Imax
Voltage Readback	Range	0~800V	0~800V	0~800V
	Resolution	100mV	100mV	100mV
	Accuracy	<0.3% Umax	<0.3% Umax	<0.3% Umax
Power Readback	Range	0~52.5kW	0~63kW	0~73.5kW
	Resolution	1W	1W	1W
	Accuracy	<1.3% Pmax	<1.3% Pmax	<1.3% Pmax
			Output parameters	
Output voltage range		190VAC~260VAC	190VAC~260VAC	190VAC~260VAC
OVP		260VAC	260VAC	260VAC
UVP		190VAC	190VAC	190VAC
Output frequency range		45Hz~65Hz	45Hz~65Hz	45Hz~65Hz
Maximum output current (rms)		85Aac	102Aac	119Aac
Power Factor		>0.99（Leg or lag）	>0.99（Leg or lag）	>0.99（Leg or lag）
DC component		-1A~+1A	-1A~+1A	-1A~+1A
Harmonic THDI		<5%	<5%	<5%
Anti-islanding protection		active anti-islanding protection	active anti-islanding protection	active anti-islanding protection
			efficiency	
Max. input voltage full load efficiency		94.5%	94.5%	94.5%
			other	
Interfaces		RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN	RS232/USB/RS485/CAN/LAN
Dimension		800mm*550mm*1291.24mm	800mm*550mm*1291.24mm	800mm*550mm*1291.24mm
Net weight		324kg	364kg	404kg

Note：Resistance readback range

IT8371	IT8381	IT8391
0.001~1Ω	0.001~1Ω	0.001~1Ω
Lower limit value：1/(1/R+(1/R)*0.02+0.002)；Upper limit value：1/(1/R-(1/R)*0.02-0.002)		

IT8371	IT8381	IT8391
1~80Ω	1~50Ω	1~50Ω
Lower limit value：1/(1/R+(1/R)*0.05+0.002)；Upper limit value：1/(1/R-(1/R)*0.05-0.002)		