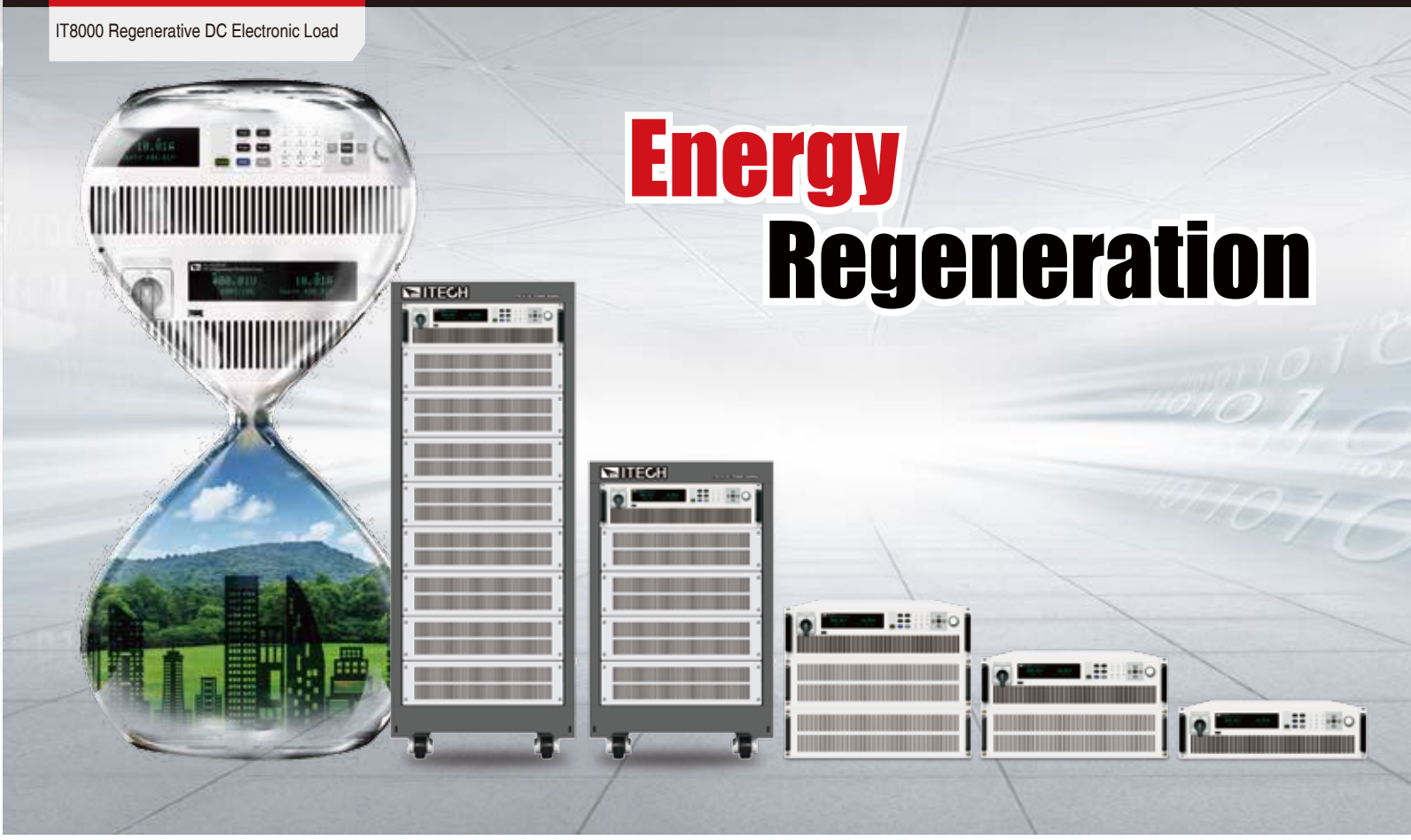
ITECH

YOUR POWER TESTING SOLUTION

**Product**

IT8000 Regenerative DC Electronic Load




# IT8000 Regenerative DC Electronic Load

## APPLICATIONS

- Batteries
- Natural energy
- Large capacity DC power supply test
- Power electronic equipments detection
- Aging test

*Your Power Testing Solution*

# IT8000
# REGENERATIVE DC ELECTRONIC LOAD

IT8000 series is a family of high power regenerative electronic loads with compact size. The highly integrated capability enables the e-load to simulate various e-load characteristics, and return the consumed energy back to the grid cleanly, saving costs related to energy consumption and cooling, meanwhile eco-friendly. With modular high power density design, IT8000 provide up to 18kW in 3U space. The power is expandable up to 1152kW by master-slave parallelling and active current sharing. If you move into application of high power UPS, storage battery, PV battery, EV, energy storage system, ITECH can help you with IT8000 series high power regenerative electronic load.

| | Model | Current | Power |
|---|---|---|---|
| 80V | IT8005-80-120 | 120A | 5kW |
| | IT8010-80-240 | 240A | 10kW |
| | IT8015-80-360 | 360A | 15kW |
| | IT8030-80-720 | 720A | 30kW |
| | IT8045-80-1080 | 1080A | 45kW |
| | IT8060-80-1440 | 1440A | 60kW |
| | IT8075-80-1800 | 1800A | 75kW |

| | Model | Current | Power |
|---|---|---|---|
| 80V | IT8006-80-170 | 170A | 6kW |
| | IT8012-80-340 | 340A | 12kW |
| | IT8018-80-510 | 510A | 18kW |
| | IT8036-80-1020 | 1020A | 36kW |
| | IT8054-80-1530 | 1530A | 54kW |
| | IT8072-80-2040 | 2040A | 72kW |
| | IT8090-80-2040 | 2040A | 90kW |
| | IT8108-80-2040 | 2040A | 108kW |
| | IT8126-80-2040 | 2040A | 126kW |
| | IT8144-80-2040 | 2040A | 144kW |

| | Model | Current | Power |
|---|---|---|---|
| 240V | IT8015-240-120 | 120A | 15kW |
| | IT8030-240-240 | 240A | 30kW |
| | IT8045-240-360 | 360A | 45kW |
| | IT8060-240-480 | 480A | 60kW |
| | IT8075-240-600 | 600A | 75kW |

| | Model | Current | Power |
|---|---|---|---|
| 240V | IT8018-240-170 | 170A | 18kW |
| | IT8036-240-340 | 340A | 36kW |
| | IT8054-240-510 | 510A | 54kW |
| | IT8072-240-680 | 680A | 72kW |
| | IT8090-240-850 | 850A | 90kW |
| | IT8108-240-1020 | 1020A | 108kW |
| | IT8126-240-1190 | 1190A | 126kW |
| | IT8144-240-1360 | 1360A | 144kW |

| | Model | Current | Power |
|---|---|---|---|
| 400V | IT8006-400-40 | 40A | 6kW |
| | IT8012-400-80 | 80A | 12kW |
| | IT8018-400-120 | 120A | 18kW |
| | IT8036-400-240 | 240A | 36kW |
| | IT8054-400-360 | 360A | 54kW |
| | IT8072-400-480 | 480A | 72kW |
| | IT8090-400-600 | 600A | 90kW |
| | IT8108-400-720 | 720A | 108kW |
| | IT8126-400-840 | 840A | 126kW |
| | IT8144-400-960 | 960A | 144kW |

| | Model | Current | Power |
|---|---|---|---|
| 500V | IT8006-500-30 | 30A | 6kW |
| | IT8012-500-60 | 60A | 12kW |
| | IT8018-500-90 | 90A | 18kW |
| | IT8036-500-180 | 180A | 36kW |
| | IT8054-500-270 | 270A | 54kW |
| | IT8072-500-360 | 360A | 72kW |
| | IT8090-500-450 | 450A | 90kW |
| | IT8108-500-540 | 540A | 108kW |
| | IT8126-500-630 | 630A | 126kW |
| | IT8144-500-720 | 720A | 144kW |

| | Model | Current | Power |
|---|---|---|---|
| 800V | IT8006-800-20 | 20A | 6kW |
| | IT8012-800-40 | 40A | 12kW |
| | IT8018-800-60 | 60A | 18kW |
| | IT8036-800-120 | 120A | 36kW |
| | IT8054-800-180 | 180A | 54kW |
| | IT8072-800-240 | 240A | 72kW |
| | IT8090-800-300 | 300A | 90kW |
| | IT8108-800-360 | 360A | 108kW |
| | IT8126-800-420 | 420A | 126kW |
| | IT8144-800-480 | 480A | 144kW |

| | Model | Current | Power |
|---|---|---|---|
| 1500V | IT8018-1500-30 | 30A | 18kW |
| | IT8036-1500-60 | 60A | 36kW |
| | IT8054-1500-90 | 90A | 54kW |
| | IT8072-1500-120 | 120A | 72kW |
| | IT8090-1500-150 | 150A | 90kW |
| | IT8108-1500-180 | 180A | 108kW |
| | IT8126-1500-210 | 210A | 126kW |
| | IT8144-1500-240 | 240A | 144kW |

| | Model | Current | Power |
|---|---|---|---|
| 2250V | IT8018-2250-20 | 20A | 18kW |
| | IT8036-2250-40 | 40A | 36kW |
| | IT8054-2250-60 | 60A | 54kW |
| | IT8072-2250-80 | 80A | 72kW |
| | IT8090-2250-100 | 100A | 90kW |
| | IT8108-2250-120 | 120A | 108kW |
| | IT8126-2250-140 | 140A | 126kW |
| | IT8144-2250-160 | 160A | 144kW |

*Models coming soon-80V/240V/400V
*This information is subject to change without notice.

# Your Power Testing Solution

## IT8000 Regenerative DC Electronic Load

## Features

- Recover DC energy to local grid with efficiency up to 95%
- Stand-alone power up to 144kW, expandable by master-slave parallelling up to 1152kW
- Stand-alone input voltage up to 2250V
- Stand-alone input current up to 2040A
- High power density design provides 18kW in 3U space
- Built-in waveform generator, support generating arbitrary waveforms
- LIST function, support importing LIST files by USB
- Power accumulation function
- Dynamic loading mode
- Battery test function, auto-test function, short circuit test function
- With pre-charging function, prevent DC loading current overshoot
- Full protection: OVP/OCP/OPP/OTP/UVP, Vsense anti-reverse connection protection, and voltage transient drop protection
- Built-in standard USB/CAN/LAN/digital IO interface, and optional GPIB/Analog&RS232 interfaces
- Support SCPI protocol, LabVIEW
- Operating mode:CC/CV/CP/CR/CC+CV/CV+CR/CR+CC/CC+CV+CP+CR

*The regenerated power is for local grid purpose, not for public grid purpose.

## Applications

### Multiple types of batteries Charge-Discharge Testing

Lead storage battery, Lithium battery, Power battery pack, Energy storage battery

### Natural energy virtual load test

Solar arrays, Wind turbine

### Safety testing of mechanical systems with large capacity batteries

Unmanned vans, Nursing electric chairs, etc.

### Aging test (automotive high voltage motor, fuse, relay) and small motors testing

Aging life testing for AC/DC, DC/DC converters

Tests for large capacity DC power supply such as ground electrical power

Evaluation test for fuel cells and stacks

Detection and aging test for power electronic equipments

# Your Power Testing Solution

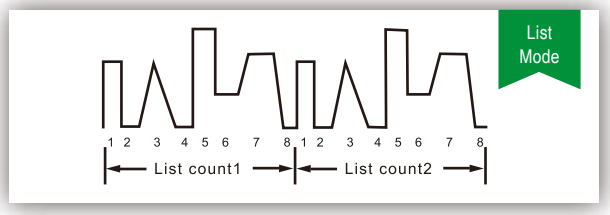
IT8000 Regenerative DC Electronic Load

## Power accumulation function

IT8000 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 IT8000 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, IT8000 series will continue to accumulate the regenerative power value based on the last power off value.

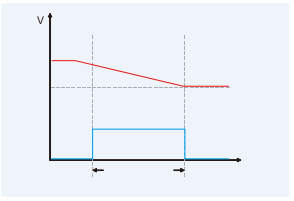

## List function

IT8000 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, IT8000 can generate a variety of complex sequences and help users to complete various loading waveforms test. In the CC mode, IT8000 series can set rising and falling speed.

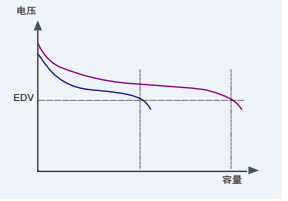



## Battery test function

IT8000 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.



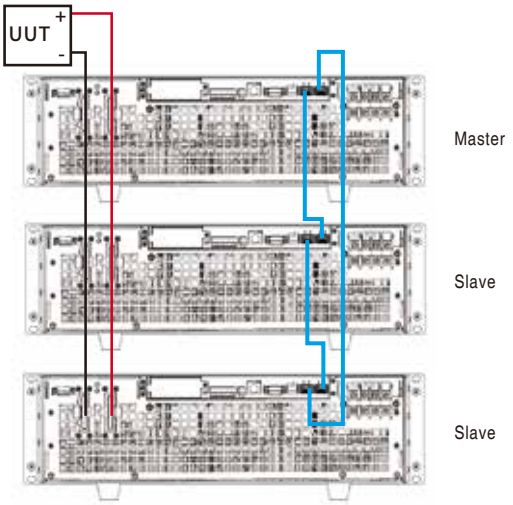

Discharge test




Capacity test

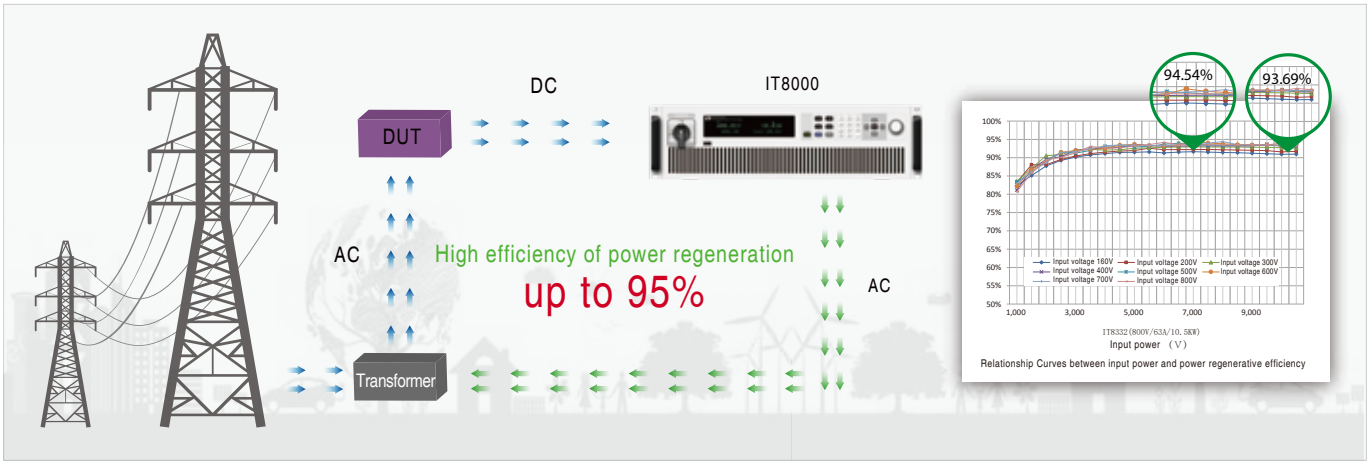
## Patented parallel technology

- IT8000 has adopted ITECH parallel technology
- All the function and performance will be the same as standalone unit
- No need to calibrate after paralleling
- Fiber transmission, good for anti-interference
- Digital paralleling, fully insulated, good for protecting DUT



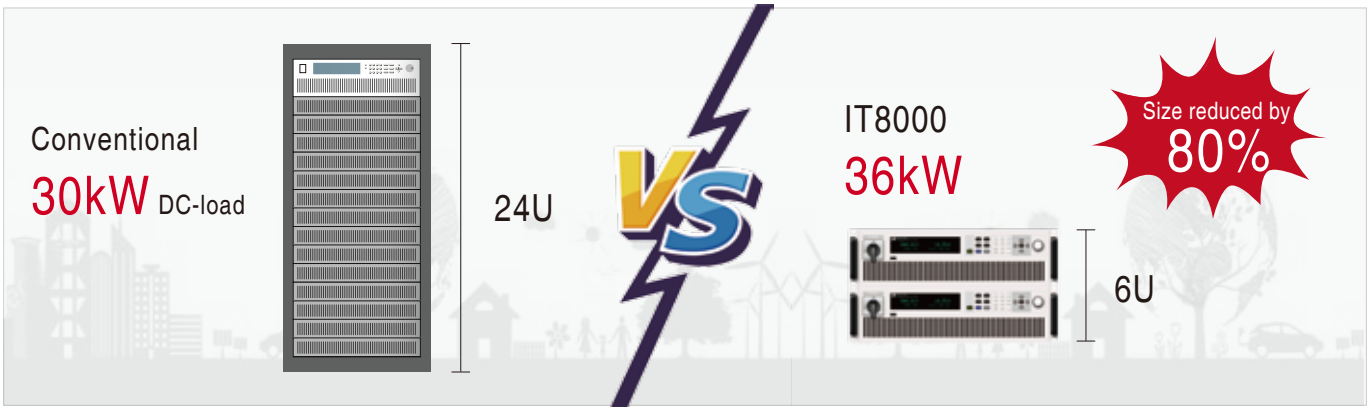
## Power regenerative efficiency up to 95%

High energy regenerative efficiency.The IT8000series has a unique energy regenerative function that can regenerate electrical energy and then directly use it in the plant instead of consuming it in the form of heat. Its conversion efficiency can up to 95%, which not only will greatly reduce the user's electricity cost, but also avoid the use of air conditioning or expensive cooling systems.




## High power density

Conventional electronic loads are not only with high energy consumption, but also with very large size and weight. Energy consumption electronic load with 30KW load is at least 24U, it is difficult to transport and the cost is higher. IT8000 series regenerative DC electronic load adopts high power density design of 18kW in only 3U high. Compared to conventional electronic loads, the size for IT8000 series is decreased by 80% under the same output power.



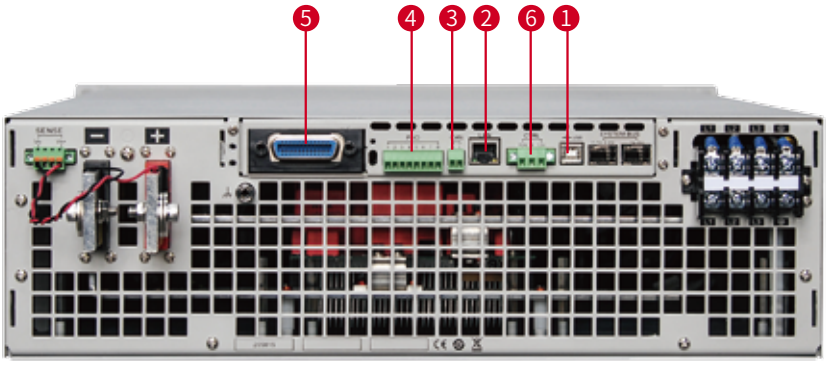

## Full protection

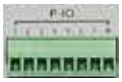
IT8000 series regenerative DC electronic load supports automatic detection the grid state . When grid connection is suddenly disconnected or power down, IT8000 will be turned off. IT8000 series can achieve reliable on-grid function and anti-islanding protection function. IT8000 supports monitoring on DC input voltage and frequency, and supports OCP, OVP, OTP, OPP function .

# Your Power Testing Solution

IT8000 Regenerative DC Electronic Load

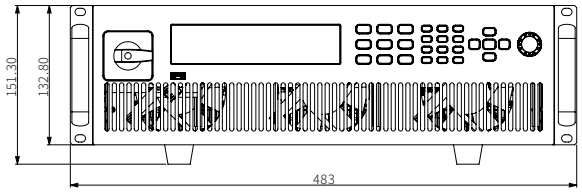
## Multiple interfaces

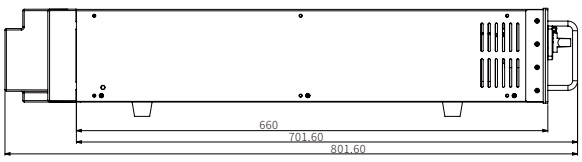


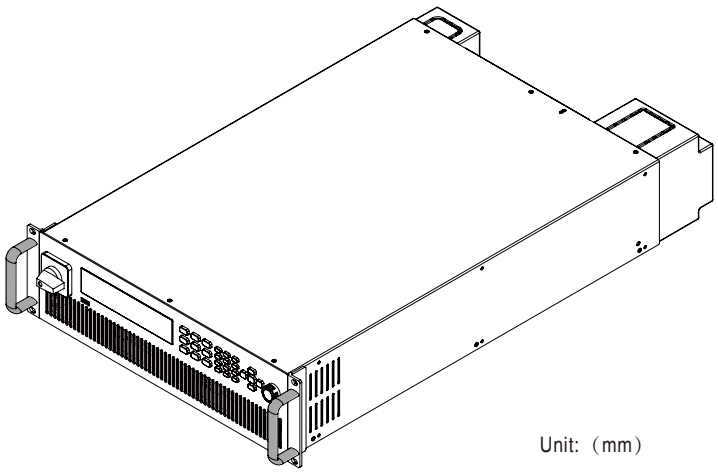

| 1 Standard USB interface | 2 Standard LAN interface | 3 Standard CAN interface | 4 Standard I/O interface | 5 Optional GPIB interface | 6 External control interface |
|---|---|---|---|---|---|
|  |  |  |  |  |  |

* Optional GPIB or Optional RS232 & Analog

## 3U/18kW Standalone unit dimension



Unit: (mm)

## Specification

| | | IT8006-80-170 | IT8006-400-40 | IT8006-500-30 |
|---|---|---|---|---|
| Rated Input Value ( 0 °C-40 °C) | Voltage | 0～80V | 0～400V | 0～500V |
| | Current | 0～170A | 0～40A | 0～30A |
| | Power | 0～6000W | 0～6000W | 0～6000W |
| | Resistance | 0～471Ω | 0～10000Ω | 0～16667Ω |
| | Min.Operation Voltage | 1.19V at 170A | 1.32V at 40A | 0.99V at 30A |
| Input Resolution | Voltage | 0.001V | 0.01V | 0.01V |
| | Current | 0.01A | 0.001A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.01Ω | 0.1Ω | 0.1Ω |
| Readback Resolution | Voltage | 0.001V | 0.01V | 0.01V |
| | Current | 0.01A | 0.001A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.01Ω | 0.1Ω | 0.1Ω |
| Set up Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 80mV | ≤0.1% + 400mV | ≤0.1% + 500mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 40mA | ≤0.1% + 30mA |
| | Power | ≤1%Pmax | ≤1%Pmax | ≤1%Pmax |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Readback Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 80mV | ≤0.1% + 400mV | ≤0.1% + 500mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 40mA | ≤0.1% + 30mA |
| | Power | ≤1%FS | ≤1%FS | ≤1%FS |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Ripple (20Hz -20MHz) | Voltage | ≤80mVpp | ≤400mVpp | ≤500mVpp |
| | Current | ≤170mArms | ≤40mArms | ≤30mArms |
| Input Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 8mV | ≤0.01% + 40mV | ≤0.01% + 50mV |
| | Current | ≤0.02% + 34mA | ≤0.02% + 8mA | ≤0.02% + 6mA |
| Readback Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 8mV | ≤0.01% + 40mV | ≤0.01% + 50mV |
| | Current | ≤0.02% + 34mA | ≤0.02% + 8mA | ≤0.02% + 6mA |
| Dynamic Mode | Rise Slope | 170A/ms | 40A/ms | 30A/ms |
| | Fall Slope | 170A/ms | 40A/ms | 30A/ms |
| | Dynamic Frequency | 500Hz | 500Hz | 500Hz |
| | Min. Rising Time | ≤1ms | ≤1ms | ≤1ms |
| Output Rating | Output Voltage | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） |
| | Output Frequency | 47Hz～63Hz | 47Hz～63Hz | 47Hz～63Hz |
| | Max. Output Current | 14A | 14A | 14A |
| | Power Factor | ≥0.99 | ≥0.99 | ≥0.99 |
| | Harmonic Thdi | ＜3% | ＜3% | ＜3% |
| | Active Anti-islanding | Active anti-islanding | Active anti-islanding | Active anti-islanding |
| Set up Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 40mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 40mA | ≤0.1% + 30mA |
| Set up Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 40mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 40mA | ≤0.1% + 30mA |
| Readback Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 40mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 40mA | ≤0.1% + 30mA |
| Readback Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 40mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 40mA | ≤0.1% + 30mA |
| Efficiency | | ≈90% | ≈92% | ≈92% |
| Remote Sense Compensation Voltage | | ≤4V | ≤4V (2Vmin) | ≤25V |
| Command Response Time | | 2mS | 2mS | 2mS |
| Storage Tem. | | -10°C～70°C | -10°C～70°C | -10°C～70°C |
| Isolation ( output to ground) | | 500V | 500V | 1000V |
| Working Tem. | | 0～40°C | 0～40°C | 0～40°C |
| Net. Dimension （mm） | | 483*132.8*660mm | 483*132.8*660mm | 483*132.8*660mm |
| Net. Weight | | 28kG | 28kG | 28kG |

*Models coming soon-80V/240V/400V
*This information is subject to change without notice.

# Your Power Testing Solution

## IT8000 Regenerative DC Electronic Load

### Specification

| | | IT8006-800-20 | IT8012-80-340 | IT8012-400-80 |
|---|---|---|---|---|
| Rated Input Value ( 0 ℃-40 ℃) | Voltage | 0～800V | 0～80V | 0～400V |
| | Current | 0～20A | 0～340A | 0～80A |
| | Power | 0～6000W | 0～12000W | 0～12000W |
| | Resistance | 0～40000Ω | 0～235Ω | 0～5000Ω |
| | Min.Operation Voltage | 0.66V at 20A | 2.38V at 340A | 2.64V at 80A |
| Input Resolution | Voltage | 0.01V | 0.001V | 0.01V |
| | Current | 0.001A | 0.01A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.01Ω | 0.1Ω |
| Readback Resolution | Voltage | 0.01V | 0.001V | 0.01V |
| | Current | 0.001A | 0.01A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.01Ω | 0.1Ω |
| Set up Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 800mV | ≤0.1% + 80mV | ≤0.1% + 400mV |
| | Current | ≤0.1% + 20mA | ≤0.1% + 340mA | ≤0.1% + 80mA |
| | Power | ≤1%Pmax | ≤1%Pmax | ≤1%Pmax |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Readback Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 800mV | ≤0.1% + 80mV | ≤0.1% + 400mV |
| | Current | ≤0.1% + 20mA | ≤0.1% + 340mA | ≤0.1% + 80mA |
| | Power | ≤1%FS | ≤1%FS | ≤1%FS |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Ripple (20Hz -20MHz) | Voltage | ≤800mVpp | ≤80mVpp | ≤400mVpp |
| | Current | ≤20mArms | ≤340mArms | ≤80mArms |
| Input Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 80mV | ≤0.01% + 8mV | ≤0.01% + 40mV |
| | Current | ≤0.02% + 4mA | ≤0.02% + 68mA | ≤0.02% + 16mA |
| Readback Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 80mV | ≤0.01% + 8mV | ≤0.01% + 40mV |
| | Current | ≤0.02% + 4mA | ≤0.02% + 68mA | ≤0.02% + 16mA |
| Dynamic Mode | Rise Slope | 20A/ms | 340A/ms | 80A/ms |
| | Fall Slope | 20A/ms | 340A/ms | 80A/ms |
| | Dynamic Frequency | 500Hz | 500Hz | 500Hz |
| | Min. Rising Time | ≤1ms | ≤1ms | ≤1ms |
| Output Rating | Output Voltage | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） |
| | Output Frequency | 47Hz～63Hz | 47Hz～63Hz | 47Hz～63Hz |
| | Max. Output Current | 14A | 14A | 19A |
| | Power Factor | ≥0.99 | ≥0.99 | ≥0.99 |
| | Harmonic Thdi | ＜3% | ＜3% | ＜3% |
| | Active Anti-islanding | Active anti-islanding | Active anti-islanding | Active anti-islanding |
| Set up Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 40mV | ≤0.05% + 200mV |
| | Current | ≤0.1% + 20mA | ≤0.1% + 340mA | ≤0.1% + 80mA |
| Set up Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 40mV | ≤0.05% + 200mV |
| | Current | ≤0.1% + 20mA | ≤0.1% + 340mA | ≤0.1% + 80mA |
| Readback Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 40mV | ≤0.05% + 200mV |
| | Current | ≤0.1% + 20mA | ≤0.1% + 340mA | ≤0.1% + 80mA |
| Readback Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 40mV | ≤0.05% + 200mV |
| | Current | ≤0.1% + 20mA | ≤0.1% + 340mA | ≤0.1% + 80mA |
| Efficiency | | ≈92% | ≈90% | ≈92% |
| Remote Sense Compensation Voltage | | ≤40V | ≤4V | ≤4V (2Vmin) |
| Command Response Time | | 2mS | 2mS | 2mS |
| Storage Tem. | | -10°C～70°C | -10°C～70°C | -10°C～70°C |
| Isolation ( output to ground) | | 1500V | 500V | 500V |
| Working Tem. | | 0～40°C | 0～40°C | 0～40°C |
| Net. Dimension （mm） | | 483*132.8*660mm | 483*132.8*660mm | 483*132.8*660mm |
| Net. Weight | | 28kG | 34kG | 34kG |

*Models coming soon-80V/240V/400V

*This information is subject to change without notice.

## Specification

| | | IT8012-500-60 | IT8012-800-40 | IT8018-80-510 |
|---|---|---|---|---|
| Rated Input Value ( 0 ℃-40 ℃) | Voltage | 0～500V | 0～800V | 0～80V |
| | Current | 0～60A | 0～40A | 0～510A |
| | Power | 0～12000W | 0～12000W | 0～18000W |
| | Resistance | 0～8333Ω | 0～20000Ω | 0～157Ω |
| | Min.Operation Voltage | 1.98V at 60A | 1.32V at 40A | 3.57V at 510A |
| Input Resolution | Voltage | 0.01V | 0.01V | 0.001V |
| | Current | 0.001A | 0.001A | 0.01A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.1Ω | 0.01Ω |
| Readback Resolution | Voltage | 0.01V | 0.01V | 0.001V |
| | Current | 0.001A | 0.001A | 0.01A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.1Ω | 0.01Ω |
| Set up Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 500mV | ≤0.1% + 800mV | ≤0.1% + 80mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 40mA | ≤0.1% + 510mA |
| | Power | ≤1%Pmax | ≤1%Pmax | ≤1%Pmax |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Readback Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 500mV | ≤0.1% + 800mV | ≤0.1% + 80mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 40mA | ≤0.1% + 510mA |
| | Power | ≤1%FS | ≤1%FS | ≤1%FS |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Ripple (20Hz -20MHz) | Voltage | ≤500mVpp | ≤800mVpp | ≤80mVpp |
| | Current | ≤60mArms | ≤40mArms | ≤510mArms |
| Input Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 50mV | ≤0.01% + 80mV | ≤0.01% + 8mV |
| | Current | ≤0.02% + 12mA | ≤0.02% + 8mA | ≤0.02% + 102mA |
| Readback Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 50mV | ≤0.01% + 80mV | ≤0.01% + 8mV |
| | Current | ≤0.02% + 12mA | ≤0.02% + 8mA | ≤0.02% + 102mA |
| Dynamic Mode | Rise Slope | 60A/ms | 40A/ms | 510A/ms |
| | Fall Slope | 60A/ms | 40A/ms | 510A/ms |
| | Dynamic Frequency | 500Hz | 500Hz | 500Hz |
| | Min. Rising Time | ≤1ms | ≤1ms | ≤1ms |
| Output Rating | Output Voltage | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） |
| | Output Frequency | 47Hz～63Hz | 47Hz～63Hz | 47Hz～63Hz |
| | Max. Output Current | 14A | 14A | 24A |
| | Power Factor | ≥0.99 | ≥0.99 | ≥0.99 |
| | Harmonic Thdi | ＜3% | ＜3% | ＜3% |
| | Active Anti-islanding | Active anti-islanding | Active anti-islanding | Active anti-islanding |
| Set up Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 250mV | ≤0.05% + 400mV | ≤0.05% + 40mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 40mA | ≤0.1% + 510mA |
| Set up Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 250mV | ≤0.05% + 400mV | ≤0.05% + 40mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 40mA | ≤0.1% + 510mA |
| Readback Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 250mV | ≤0.05% + 400mV | ≤0.05% + 40mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 40mA | ≤0.1% + 510mA |
| Readback Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 250mV | ≤0.05% + 400mV | ≤0.05% + 40mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 40mA | ≤0.1% + 510mA |
| Efficiency | | ≈92% | ≈92% | ≈90% |
| Remote Sense Compensation Voltage | | ≤25V | ≤40V | ≤4V |
| Command Response Time | | 2mS | 2mS | 2mS |
| Storage Tem. | | -10℃～70℃ | -10℃～70℃ | -10℃～70℃ |
| Isolation ( output to ground) | | 1000V | 1500V | 500V |
| Working Tem. | | 0～40℃ | 0～40℃ | 0～40℃ |
| Net. Dimension （mm） | | 483*132.8*660mm | 483*132.8*660mm | 483*132.8*660mm |
| Net. Weight | | 34kG | 34kG | 40kG |

*Models coming soon-80V/240V/400V
*This information is subject to change without notice.

# Your Power Testing Solution

## IT8000 Regenerative DC Electronic Load

### Specification

| | | IT8018-240-170 | IT8018-400-120 | IT8018-500-90 |
|---|---|---|---|---|
| Rated Input Value ( 0 ℃-40 ℃) | Voltage | 0～240V | 0～400V | 0～500V |
| | Current | 0～170A | 0～120A | 0～90A |
| | Power | 0～18000W | 0～18000W | 0～18000W |
| | Resistance | 0～1412Ω | 0～3333Ω | 0～5556Ω |
| | Min.Operation Voltage | 1.19V at 170A | 3.96V at 120A | 2.97V at 90A |
| Input Resolution | Voltage | 0.01V | 0.01V | 0.01V |
| | Current | 0.01A | 0.01A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.1Ω | 0.1Ω |
| Readback Resolution | Voltage | 0.01V | 0.01V | 0.01V |
| | Current | 0.01A | 0.01A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.1Ω | 0.1Ω |
| Set up Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 240mV | ≤0.1% + 400mV | ≤0.1% + 500mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 120mA | ≤0.1% + 90mA |
| | Power | ≤1%Pmax | ≤1%Pmax | ≤1%Pmax |
| | Resistance | ≤2%Rmax,0～10%Rmax;≤5%Rmax,10%～Rmax; | | |
| Readback Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 240mV | ≤0.1% + 400mV | ≤0.1% + 500mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 120mA | ≤0.1% + 90mA |
| | Power | ≤1%FS | ≤1%FS | ≤1%FS |
| | Resistance | ≤2%Rmax,0～10%Rmax;≤5%Rmax,10%～Rmax; | | |
| Ripple (20Hz -20MHz) | Voltage | ≤240mVpp | ≤400mVpp | ≤500mVpp |
| | Current | ≤170mArms | ≤120mArms | ≤90mArms |
| Input Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 24mV | ≤0.01% + 40mV | ≤0.01% + 50mV |
| | Current | ≤0.02% + 34mA | ≤0.02% + 24mA | ≤0.02% + 18mA |
| Readback Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 24mV | ≤0.01% + 40mV | ≤0.01% + 50mV |
| | Current | ≤0.02% + 34mA | ≤0.02% + 24mA | ≤0.02% + 18mA |
| Dynamic Mode | Rise Slope | 170A/ms | 120A/ms | 90A/ms |
| | Fall Slope | 170A/ms | 120A/ms | 90A/ms |
| | Dynamic Frequency | 500Hz | 500Hz | 500Hz |
| | Min. Rising Time | ≤1ms | ≤1ms | ≤1ms |
| Output Rating | Output Voltage | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） |
| | Output Frequency | 47Hz～63Hz | 47Hz～63Hz | 47Hz～63Hz |
| | Max. Output Current | 29A | 29A | 24A |
| | Power Factor | ≥0.99 | ≥0.99 | ≥0.99 |
| | Harmonic Thdi | ＜3% | ＜3% | ＜3% |
| | Active Anti-islanding | Active anti-islanding | Active anti-islanding | Active anti-islanding |
| Set up Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 120mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 120mA | ≤0.1% + 90mA |
| Set up Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 120mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 120mA | ≤0.1% + 90mA |
| Readback Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 120mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 120mA | ≤0.1% + 90mA |
| Readback Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 120mV | ≤0.05% + 200mV | ≤0.05% + 250mV |
| | Current | ≤0.1% + 170mA | ≤0.1% + 120mA | ≤0.1% + 90mA |
| Efficiency | | ≈90% | ≈92% | ≈92% |
| Remote Sense Compensation Voltage | | ≤2.4V (2Vmin) | ≤4V (2Vmin) | ≤25V |
| Command Response Time | | 2mS | 2mS | 2mS |
| Storage Tem. | | -10°C～70°C | -10°C～70°C | -10°C～70°C |
| Isolation ( output to ground) | | 500V | 500V | 1000V |
| Working Tem. | | 0～50°C | 0～40°C | 0～40°C |
| Net. Dimension （mm） | | 483*801.61*151.3mm | 483*132.8*660mm | 483*132.8*660mm |
| Net. Weight | | 40KG | 40kG | 40kG |

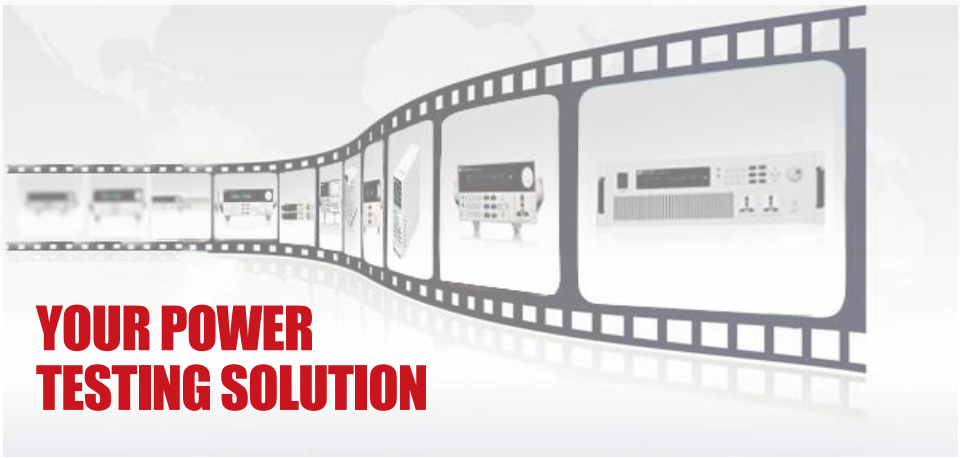
*Models coming soon-80V/240V/400V

*This information is subject to change without notice.

## Specification

| | | IT8018-800-60 | IT8018-1500-30 | IT8018-2250-20 |
|---|---|---|---|---|
| Rated Input Value ( 0 ℃-40 ℃) | Voltage | 0～800V | 0～1500V | 0～2250V |
| | Current | 0～60A | 0～30A | 0～20A |
| | Power | 0～18000W | 0～18000W | 0～18000W |
| | Resistance | 0～13333Ω | 0～50000Ω | 0～112500Ω |
| | Min.Operation Voltage | 1.98V at 60A | 9V at 30A | 6V at 20A |
| Input Resolution | Voltage | 0.01V | 0.1V | 0.1V |
| | Current | 0.001A | 0.001A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.1Ω | 0.1Ω |
| Readback Resolution | Voltage | 0.01V | 0.1V | 0.1V |
| | Current | 0.001A | 0.001A | 0.001A |
| | Power | 0.1W | 0.1W | 0.1W |
| | Resistance | 0.1Ω | 0.1Ω | 0.1Ω |
| Set up Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 800mV | ≤0.1% + 1500mV | ≤0.1% + 2250mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 30mA | ≤0.1% + 20mA |
| | Power | ≤1%Pmax | ≤1%Pmax | ≤1%Pmax |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Readback Accuracy within 12 mons 25°±5° ±( %of Output +Offset ) | Voltage | ≤0.1% + 800mV | ≤0.1% + 1500mV | ≤0.1% + 2250mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 30mA | ≤0.1% + 20mA |
| | Power | ≤1%FS | ≤1%FS | ≤1%FS |
| | Resistance | ≤2%Rmax,0～10%Rmax; ≤5%Rmax,10%～Rmax; | | |
| Ripple (20Hz -20MHz) | Voltage | ≤750mVpp | ≤1500mVpp | ≤2250mVpp |
| | Current | ≤60mArms | ≤30mArms | ≤20mArms |
| Input Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 80mV | ≤0.01% + 150mV | ≤0.01% + 225mV |
| | Current | ≤0.02% + 12mA | ≤0.02% + 6mA | ≤0.02% + 4mA |
| Readback Drift Temperature co-efficiency (%of Output/℃+Offset) | Voltage | ≤0.01% + 80mV | ≤0.01% + 150mV | ≤0.01% + 225mV |
| | Current | ≤0.02% + 12mA | ≤0.02% + 6mA | ≤0.02% + 4mA |
| Dynamic Mode | Rise Slope | 60A/ms | 30A/ms | 20A/ms |
| | Fall Slope | 60A/ms | 30A/ms | 20A/ms |
| | Dynamic Frequency | 500Hz | 500Hz | 500Hz |
| | Min. Rising Time | ≤1ms | ≤1ms | ≤1ms |
| Output Rating | Output Voltage | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） | 198V～264V（Decrease 50%） 342V～528V（3P4W） |
| | Output Frequency | 47Hz～63Hz | 47Hz～63Hz | 47Hz～63Hz |
| | Max. Output Current | 29A | 24A | 24A |
| | Power Factor | ≥0.99 | ≥0.99 | ≥0.99 |
| | Harmonic Thdi | ＜3% | ＜3% | ＜3% |
| | Active Anti-islanding | Active anti-islanding | Active anti-islanding | Active anti-islanding |
| Set up Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 750mV | ≤0.05% + 1125mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 30mA | ≤0.1% + 20mA |
| Set up Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 750mV | ≤0.05% + 1125mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 30mA | ≤0.1% + 20mA |
| Readback Stability-30min （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 750mV | ≤0.05% + 1125mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 30mA | ≤0.1% + 20mA |
| Readback Stability-8h （%of Output +Offset） | Voltage | ≤0.05% + 400mV | ≤0.05% + 750mV | ≤0.05% + 1125mV |
| | Current | ≤0.1% + 60mA | ≤0.1% + 30mA | ≤0.1% + 20mA |
| Efficiency | | ≈92% | ≈92% | ≈92% |
| Remote Sense Compensation Voltage | | ≤40V | ≤75V | ≤112.5V |
| Command Response Time | | 2mS | 2mS | 2mS |
| Storage Tem. | | -10°C～70°C | -10°C～70°C | -10°C～70°C |
| Isolation ( output to ground) | | 1000V | 2000V | 3000V |
| Working Tem. | | 0～40°C | 0～40°C | 0～40°C |
| Net. Dimension （mm） | | 483*132.8*660mm | 483*132.8*660mm | 483*132.8*660mm |
| Net. Weight | | 40kG | 40kG | 40kG |

*Models coming soon-80V/240V/400V
*This information is subject to change without notice.

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