

# IT8700P+

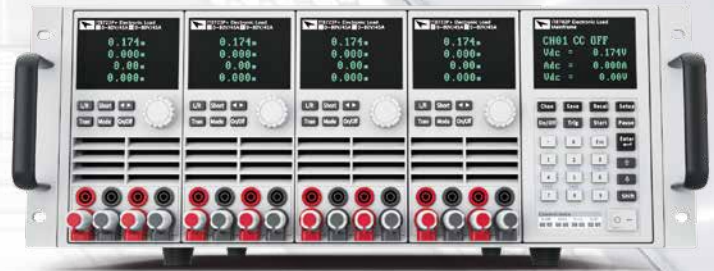
## High Speed Multi-channel DC Electronic Load



*Your Power Testing Solution*



# IT8700P+ High Speed Multi-channel DC Electronic Load



IT8700P+ series high-speed multi-channel DC electronic load is an upgraded version of the original IT8700P series with higher speed and higher precision. Its modules support master-slave paralleling connection for power extension. It's compatible with IT8700P mainframe, the new modules and old modules can work together. The IT8700P+ modules have faster dynamic response and the current rising and falling slope of a single module can reach 12A/μs. In addition, the low internal resistance makes it suitable for low-voltage loading test. Faster loop speed can accurately control current without overshoot which improves test efficiency. Furthermore, it has three current ranges for higher accuracy and lower ripple. The voltage and current measurement speed of this series has been upgraded to 250kHz. It has built-in LAN, USB and RS232 interfaces, and supports SCPI protocol. Therefore, IT8700P+ is good for system integration and is suitable for R&D and production line testing of super capacitors, fuel cells, lithium ion batteries, high-speed AC-DC and DC-DC power supplies such as computer power supplies and communication power supplies.

## FEATURE

- Three-stage current range, higher accuracy and lower ripple
- Supports master-slave parallel connection of 16-channel modules, flexibly extends power
- Faster dynamic response, the current rising and falling slope of a single module can reach 12A/μs
- Stable operation down to zero volts, suitable for low-voltage capacitors, solar cells, fuel cells, and other low-voltage high current power supplies
- Faster loop speed, precise control of current without overshoot
- The voltage and current measurement speed is upgraded to 250kHz, good for system integration
- Comprehensive protection functions: OVP/OCP/OPP/OTP, Sense protection
- Compatible with IT8700P mainframe, old and new modules can be matched
- Short-circuit peak current measurement function
- Available front/rear terminals\*1
- 8 operating modes: CC/ CV/ CR/ CW/ CV+CC/ CR+CC/ CW+CC/ CV+CR (CR-LED)
- Automatic test function to tell whether the test results exceed the set specifications
- Built-in LAN, USB, RS232 interfaces\*2
- CV loop speed is adjustable to match different DUTs
- Multi channel synchronous control

\*1 Current is no more than 15A if connecting with front terminals  
 \*2 Models with (G) includes GPIB, please consult ITECH for details.

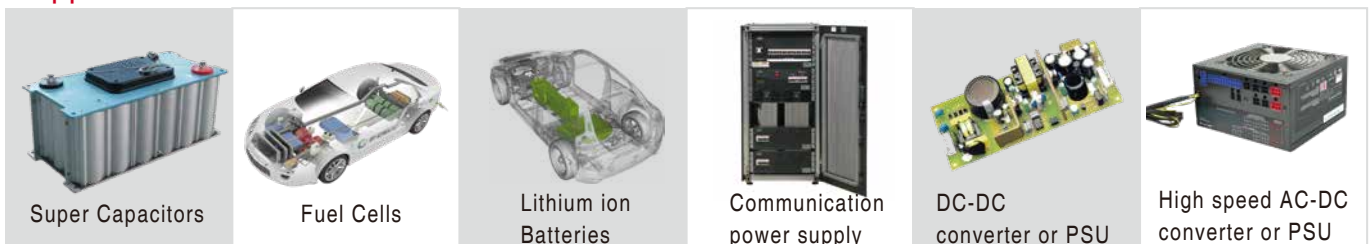
| Model       | Voltage | Current | Power        |
|-------------|---------|---------|--------------|
| IT8721P+*2  | 150 V   | 20 A    | MAX 150W*2CH |
| IT8731P+    | 150 V   | 40 A    | 200 W        |
| IT8722P+*1  | 150 V   | 20 A    | MAX 250W*2CH |
| IT8723P+    | 150 V   | 45 A    | 300W*2CH     |
| IT8732P+    | 150 V   | 60 A    | 400 W        |
| IT8733P+    | 150 V   | 120 A   | 600 W        |
| IT8722BP+*1 | 600 V   | 15 A    | MAX 250W*2CH |
| IT8732BP+   | 600 V   | 20 A    | 300W         |
| IT8733BP+   | 600 V   | 30 A    | 500W         |

| Main Frame |  |
|------------|--|
| IT8701P    | Mainframe for 2 modules (including three interfaces) |
| IT8702P    | Mainframe for 4 modules (including three interfaces) |
| IT8703P    | Expansion mainframe for 4 modules                    |

\*1 It is a dual-channel dynamic power distribution module. The parameters of the two channels are the same. The maximum power of a single channel is 250W. The total power of the two channels is not more than 300W. The average power of a single channel is 150W.

\*2 It is a dual-channel dynamic power distribution module. The parameters of the two channels are the same. The maximum power of a single channel is 150W. The total power of the two channels is not more than 200W. The average power of a single channel is 100W.

## Applications



# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### Flexible modules combination

The IT8700P+ series is designed with removable modules, so that you can choose different modules according to your needs. These modules can work with the original IT8700P series modules too. There are high-performance microprocessor chips in each load module and mainframe. Parallel architecture is adopted to achieve faster testing. The load modules are controlled synchronously by the system, and the power supply with multiple outputs can also be tested synchronously.

### Low voltage loading, stable operation down to zero volts

The IT8700P+ module has ultra-low on-resistance and three ranges. Under the medium and small range, the minimum load voltage is  $<0.1V$ . In the high current range, the minimum load voltage at full current is  $<0.5V$ , and lower input impedance can be obtained after parallel connection. It is suitable for testing fuel cells, supercapacitors, solar cells, DC-DC converters and other low voltage and high current electronic devices.

### Fast dynamic response

Power supplies often have high requirements for instantaneous signals and dynamic response. In order to meet faster and faster testing requirements, IT8700P+ series provides high-speed, programmable dynamic sequence control. The current rising and falling slope of a single module can reach  $12A/\mu s$ , much faster than the last generation. So it can be used for high-speed dynamic test of communication power supply and computer power supply. There are three modes of the dynamic test function, namely continuous mode, pulse mode and toggle mode.



IT8733P+(150V, 120A, 600W) dynamic current curve(1A-120A),  
current slew 12A/us

### Master-slave parallel connection

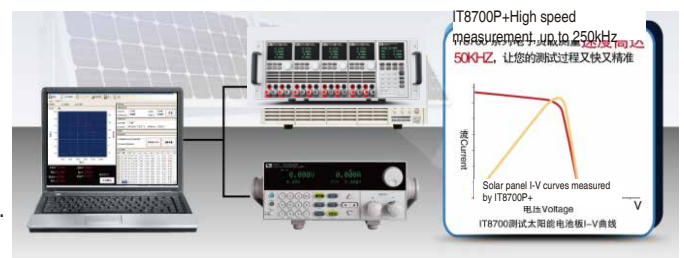
The IT8700P+ series supports master-slave parallel connection, 8 units (16 channels) at most can be connected in parallel, and the power can be extended to 4800W. The synchronization time error is  $4\mu s$  between paralleled units, and current equally assigning accuracy is  $0.1\%+0.1\%F.S.$ . Thanks to the flexible power extension, it can be used to test various DUTs and increase equipment utilization. The current sharing mode makes no sacrifice of the dynamic performance after parallel connection.

### 3 current ranges, well applied to Energy Star standard test for consumer electronics products

IT8700P+ provides 3 current ranges and higher measurement accuracy for DUTs that require high current accuracy like batteries. No need to build a complex test bench, the low current range of the IT8700P+ can be used for Energy Star standard testing in sleep, idle and standby modes of consumer electronics products. Actually it is suitable for almost all consumer electronics products that require precise current setting and measurement at the  $\mu A$  and mA levels.

### Fast measurement of I-V characteristic

The voltage and current measurement of IT8700P+ is fast (up to 250kHz). It can be applied to various testing applications such as charging piles, automotive electronics; renewable energy and so on.

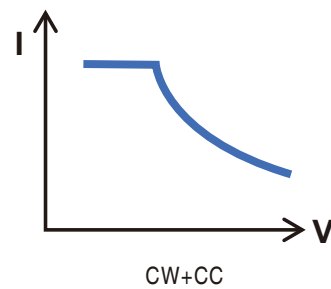
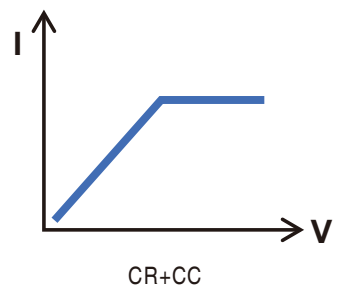
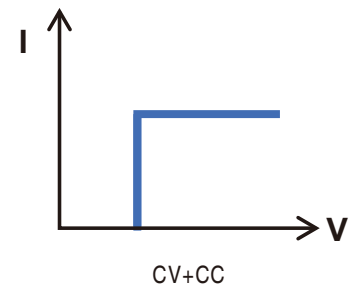
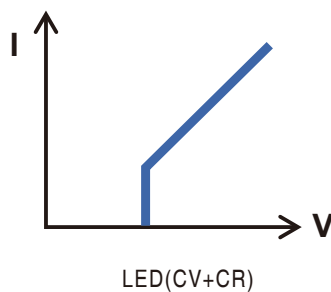
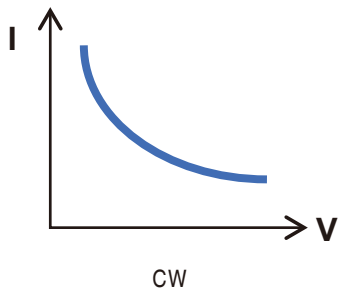
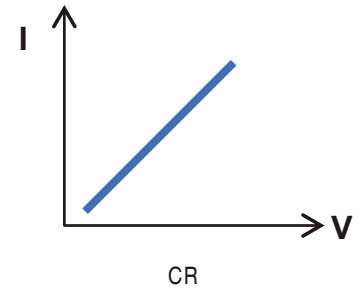
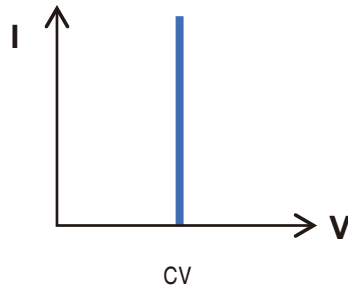
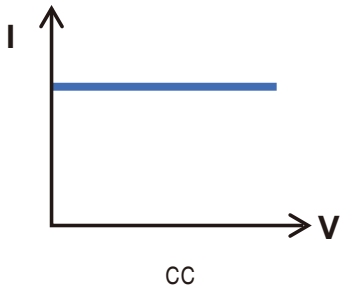


# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

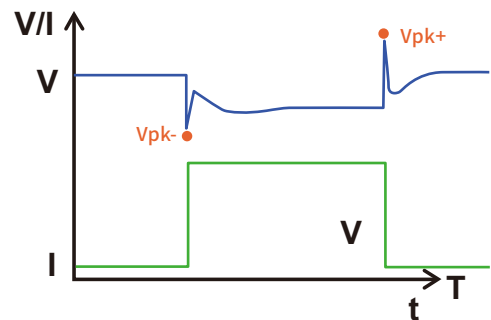
### 8 operation modes

Besides the four basic operation modes of CC/CV/CR/CW, IT8700P+ provides additional 4 compound operation modes : CV/ CC/ CR+CC/CW+CC/CV+CR(CR-LED). Under CV/CR/CW operation mode, the maximum current (I-Limit) is settable. This can effectively solve the problem of instantaneous surge current during testing and avoid triggering DUT's protection, or even burning out or any other injury caused by possible misoperation or environmental factors. So it can be used in various applications.



### Peak voltage measurement(Vpk)

When measuring the dynamic current of a switching power supply, an oscilloscope was usually necessary to capture the instantaneous voltage and current waveforms and obtain Vpk+ and Vpk- accordingly. But with digital data acquisition function, IT8700P can directly obtain the Vpk+ and Vpk- values without an oscilloscope.



# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### IT8700P+ Specification

| Parameter  | IT8721P+                      |                           |                  |                      |
|--|-------------------------------|---------------------------|------------------|----------------------|
| Rated value  | Voltage                       | 0.1~18V                   |                  | 0.1~150V             |
|  | Current                       | 0~0.6A                    | 0~3A             | 0~20A                |
|  | Power                         | 0~30W                     |                  | 0~150W <sup>*7</sup> |
|  | Resistance                    | 0.05Ω~10Ω                 |                  | 10Ω~7500Ω            |
|  | Min. resistance               | ≐100mΩ                    |                  | ≐20mΩ                |
|  | MOV                           | 0.09V at 0.6A             | 0.09V at 3A      | 0.6V at 20A          |
| Set resolution   | Input leak current            | 0.06mA                    |                  | 0.2mA                |
|  | Voltage                       | 1mV                       |                  | 10mV                 |
|  | Current                       | 0.1mA                     | 0.1mA            | 1mA                  |
|  | Power                         | 10mW                      |                  | 1mW                  |
| Readback resolution  | Resistance                    | 16bit                     |                  |                      |
|  | Voltage                       | 0.1mV                     |                  | 1mV                  |
|  | Current                       | 0.1mA                     | 0.1mA            | 1mA                  |
| Set accuracy   | Power                         | 10mW                      |                  |                      |
|  | Voltage                       | ±(0.025%+0.025%FS)        |                  | ±(0.025%+0.025%FS)   |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) | ±(0.05%+0.05%FS)     |
|  | Power <sup>*3</sup>           | 0.2%+0.2%FS               |                  |                      |
| Readback accuracy  | Resistance <sup>*1</sup>      | 0.01%+0.08S <sup>*2</sup> |                  | 0.01%+0.0008S        |
|  | Voltage                       | ±(0.025%+0.025%FS)        |                  |                      |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) | ±(0.05%+0.05%FS)     |
| Set temperature drift coefficient(% of Output/ C +Offset)      | Power                         | ±(0.2%+0.2%FS)            |                  |                      |
|  | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                      |
| Readback Temperature drift coefficient(% of Output/ C +Offset) | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                      |
|  | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                      |
| Dynamic response <sup>*4</sup>                                 | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                      |
|  | Rising                        | 0.0001~0.06A/μs           | 0.0001~0.3A/μs   | 0.001~2A/μs          |
|  | Falling                       | 0.0001~0.06A/μs           | 0.0001~0.3A/μs   | 0.001~2A/μs          |
|  | Min.rising time <sup>*5</sup> | ≐10μs                     | ≐10μs            | ≐10μs                |
| AC parameter   | Dynamic frequency             | 0.001~20kHz               |                  |                      |
|  | Voltage                       | 110V ±10% or 220V ±10%    |                  |                      |
|  | Frequency                     | 50/60Hz                   |                  |                      |
|  | Imax.                         | 0.3A                      |                  |                      |
| Set stability-30min(% of Output/ C +Offset)                    | Power factor                  | /                         |                  |                      |
|  | Voltage                       | ±(0.02%+0.02%FS)          |                  | ±(0.02%+0.02%FS)     |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) | ±(0.03%+0.03%FS)     |
| Set stability-8h(% of Output/ C +Offset)                       | Voltage                       | /                         |                  | /                    |
|  | Current                       | /                         |                  | /                    |
| Readback stability-30min (% of Output/ C +Offset)              | Voltage                       | ±(0.02%+0.02%FS)          |                  |                      |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) | ±(0.03%+0.03%FS)     |
| Readback stability-8h (% of Output/ C +Offset)                 | Voltage                       | /                         |                  | /                    |
|  | Current                       | /                         |                  | /                    |
| Sense voltage  | ≤2V                           |                           |                  |                      |
| Storage temperature  | -20°C~70°C                    |                           |                  |                      |
| Protection   | OPP                           | 33W                       | 165W             | 165W                 |
|  | OCP                           | 0.66A                     | 3.3A             | 22A                  |
|  | OVP                           | 18.5V                     |                  | 155V                 |
|  | OTP                           | 85°C                      |                  |                      |
| Interfaces <sup>*6</sup>                                       | LAN, USB, RS232               |                           |                  |                      |
| Isolation(output to ground)                                    | 500V/DC/1mA                   |                           |                  |                      |
| Isolation(input to ground)                                     | 1.5KV/AC/5mA                  |                           |                  |                      |
| Units parallel connected                                       | ≤16(channel)                  |                           |                  |                      |
| Protection level   | IP20                          |                           |                  |                      |
| Safety regulation  | IEC 61010                     |                           |                  |                      |
| Cooling  | fan                           |                           |                  |                      |
| Working temperature  | 0~40°C                        |                           |                  |                      |
| Dimension(mm)  | 82mm*183mm*573mm              |                           |                  |                      |
| N.W.   | 5kg                           |                           |                  |                      |

\*1 Input voltage/current is not less than 10%FS (FS is full scale)

\*2 Range of resistance readback value: ( 1/(1/R+(1/R)\*0.01%+0.08), 1/(1/R-(1/R)\*0.01%-0.08) )

\*3 Input voltage/current is not less than 10%FS

\*4 The loading current is not less than 2%FS

\*5 Minimum rise time: 10%~90% of current rise time

\*6 Each module does not have a separate communication interface and can be controlled through the host frame interface

\*7 It is a dual-channel dynamic power distribution module. The parameters of the two channels are the same. The maximum output of a single channel is 150W. The total power of the dual channels is not more than 200W. The average power of a single channel is 100W.

# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### IT8700P+ Specification

|  |                               | IT8731P+                  |                      |                    |                  |
|--|-------------------------------|---------------------------|----------------------|--------------------|------------------|
| Rated value  | Voltage                       | 0.1~18V                   |                      | 0.1~150V           |                  |
|  | Current                       | 0~0.8A                    |                      | 0~4A               | 0~40A            |
|  | Power                         | 0~60W                     |                      |                    | 0~300W           |
|  | Resistance                    | 0.05Ω~10Ω                 |                      | 10Ω~7500Ω          |                  |
|  | Min. resistance               | ≅75mΩ                     |                      | ≅20mΩ              |                  |
|  | MOV                           | 0.06V at 0.8A             |                      | 0.08V at 4A        |                  |
|  | Input leak current            | 0.06mA                    |                      | 0.8V at 40A        |                  |
| Set resolution   | Voltage                       | 1mV                       |                      | 0.3mA              |                  |
|  | Current                       | 0.1mA                     |                      | 0.1mA              | 10mV             |
|  | Power                         |                           |                      | 10mW               | 1mA              |
|  | Resistance                    |                           |                      | 16bit              |                  |
| Readback resolution  | Voltage                       | 0.1 mV                    |                      | 1mV                |                  |
|  | Current                       | 0.1mA                     |                      | 0.1mA              | 1mA              |
|  | Power                         |                           |                      | 10mW               |                  |
| Set accuracy   | Voltage                       | ±(0.025%+0.025%FS)        |                      | ±(0.025%+0.025%FS) |                  |
|  | Current                       | ±(0.1%+0.1%FS)            |                      | ±(0.05%+0.05%FS)   | ±(0.05%+0.05%FS) |
|  | Power <sup>*3</sup>           |                           |                      | 0.2%+0.2%FS        |                  |
|  | Resistance <sup>*1</sup>      | 0.01%+0.08S <sup>*2</sup> |                      | 0.01%+0.0008S      |                  |
| Readback accuracy  | Voltage                       | ±(0.025%+0.025%FS)        |                      |                    |                  |
|  | Current                       | ±(0.05%+0.05%FS)          |                      |                    |                  |
|  | Power                         | ±(0.2%+0.2%FS)            |                      |                    |                  |
| Set temperature drift coefficient(% of Output/ C +Offset)      | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                  |
|  | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                  |
| Readback Temperature drift coefficient(% of Output/ C +Offset) | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                  |
|  | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                  |
| Dynamic response   | Rising <sup>*4</sup>          | 0.0001~0.08A/μs           |                      | 0.0001~0.4A/μs     | 0.001~4A/μs      |
|  | Falling <sup>*4</sup>         | 0.0001~0.08A/μs           |                      | 0.0001~0.4A/μs     | 0.001~4A/μs      |
|  | Min.rising time <sup>*5</sup> | ≅10μs                     |                      | ≅10μs              |                  |
|  | Dynamic frequency             |                           |                      | 0.001~20kHz        |                  |
|  | AC parameter                  | Voltage                   | 110V ±10%or220V ±10% |                    |                  |
|  | Frequency                     | 50/60Hz                   |                      |                    |                  |
|  | I <sub>max</sub> .            | 0.3A                      |                      |                    |                  |
|  | Power factor                  | /                         |                      |                    |                  |
| Set stability-30min(% of Output/ C +Offset)                    | Voltage                       | ±(0.02%+0.02%FS)          |                      | ±(0.02%+0.02%FS)   |                  |
|  | Current                       | ±(0.05%+0.08%FS)          |                      | ±(0.03%+0.03%FS)   | ±(0.03%+0.03%FS) |
| Set stability-8h(% of Output/ C +Offset)                       | Voltage                       | /                         | /                    | /                  | /                |
|  | Current                       | /                         | /                    | /                  | /                |
| Readback stability-30min (% of Output/ C +Offset)              | Voltage                       | ±(0.02%+0.02%FS)          |                      |                    |                  |
|  | Current                       | ±(0.05%+0.08%FS)          |                      | ±(0.03%+0.03%FS)   |                  |
| Readback stability-8h (% of Output/ C +Offset)                 | Voltage                       | /                         |                      | /                  |                  |
|  | Current                       | /                         | /                    | /                  | /                |
| Sense voltage  |                               |                           | ≤2V                  |                    |                  |
| Storage temperature  |                               |                           | -20°C~70°C           |                    |                  |
| Protection   | OPP                           | 65W                       |                      | 210W               | 210W             |
|  | OCP                           | 0.88A                     |                      | 4.4A               | 44A              |
|  | OVP                           | 18.5V                     |                      | 155V               |                  |
|  | OTP                           |                           |                      | 85°C               |                  |
| Interfaces <sup>*6</sup>                                       | LAN, USB, RS232               |                           |                      |                    |                  |
| Isolation(output to ground)                                    | 500V/DC/1mA                   |                           |                      |                    |                  |
| Isolation(input to ground)                                     | 1.5KV/AC/5mA                  |                           |                      |                    |                  |
| Units parallel connected                                       | ≤16(channel)                  |                           |                      |                    |                  |
| Protection level   | IP20                          |                           |                      |                    |                  |
| Safety regulation  | IEC 61010                     |                           |                      |                    |                  |
| Cooling  | fan                           |                           |                      |                    |                  |
| Working temperature  | 0~40°C                        |                           |                      |                    |                  |
| Dimension(mm)  | 82mm*183mm*573mm              |                           |                      |                    |                  |
| N.W.   | 5kg                           |                           |                      |                    |                  |

\*1 Input voltage/current is not less than 10%FS (FS is full scale)

\*2 Range of resistance readback value: ( 1/(1/R+(1/R)\*0.01%+0.08), 1/(1/R-(1/R)\*0.01%-0.08) )

\*3 Input voltage/current is not less than 10%FS

\*4 Rise/fall slew rate: 10%-90% of current rising from 0 to Max.current

\*5 Minimum rise time: 10%-90% of current rise time

\*6 Each module does not have a separate communication interface and can be controlled through the host frame interface

# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### IT8700P+ Specification

|  |                               | IT8722P+                  |                      |                    |                      |
|--|-------------------------------|---------------------------|----------------------|--------------------|----------------------|
| Rated value  | Voltage                       | 0.1~18V                   |                      | 0.1~150V           |                      |
|  | Current                       | 0~0.6A                    |                      | 0~3A               | 0~20A                |
|  | Power                         | 0~48W                     |                      |                    | 0~250W <sup>*7</sup> |
|  | Resistance                    | 0.05Ω~10Ω                 |                      | 10Ω~7500Ω          |                      |
|  | Min. resistance               | ≅80mΩ                     |                      | ≅20mΩ              |                      |
|  | MOV                           | 0.05V at 0.6A             |                      | 0.05V at 3A        | 0.4V at 20A          |
|  | Input leak current            | 0.06mA                    |                      | 0.2mA              |                      |
| Set resolution   | Voltage                       | 1mV                       |                      | 10mV               |                      |
|  | Current                       | 0.1mA                     |                      | 0.1mA              | 1mA                  |
|  | Power                         |                           |                      | 10mW               |                      |
|  | Resistance                    |                           |                      | 16bit              |                      |
| Readback resolution  | Voltage                       | 0.1mV                     |                      | 1mV                |                      |
|  | Current                       | 0.1mA                     |                      | 0.1mA              | 1mA                  |
|  | Power                         |                           |                      | 10mW               |                      |
| Set accuracy   | Voltage                       | ±(0.025%+0.025%FS)        |                      | ±(0.025%+0.025%FS) |                      |
|  | Current                       | ±(0.1%+0.1%FS)            |                      | ±(0.05%+0.05%FS)   | ±(0.05%+0.05%FS)     |
|  | Power <sup>*3</sup>           |                           |                      | 0.2%+0.2%FS        |                      |
|  | Resistance <sup>*1</sup>      | 0.01%+0.08S <sup>*2</sup> |                      | 0.01%+0.0008S      |                      |
| Readback accuracy  | Voltage                       |                           |                      | ±(0.025%+0.025%FS) |                      |
|  | Current                       | ±(0.1%+0.1%FS)            |                      | ±(0.05%+0.05%FS)   |                      |
|  | Power                         |                           |                      | ±(0.2%+0.2%FS)     |                      |
| Set temperature drift coefficient(% of Output/ C +Offset)      | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                      |
|  | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                      |
| Readback Temperature drift coefficient(% of Output/ C +Offset) | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                      |
|  | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                      |                    |                      |
| Dynamic response   | Rising <sup>*4</sup>          | 0.0001~0.06A/μs           |                      | 0.0001~0.3A/μs     | 0.001~2A/μs          |
|  | Falling <sup>*4</sup>         | 0.0001~0.06A/μs           |                      | 0.0001~0.3A/μs     | 0.001~2A/μs          |
|  | Min.rising time <sup>*5</sup> | ≅10μs                     |                      | ≅10μs              | ≅10μs                |
|  | Dynamic frequency             |                           |                      | 0.001~20kHz        |                      |
|  | AC parameter                  | Voltage                   | 110V ±10%or220V ±10% |                    |                      |
|  | Frequency                     | 50/60Hz                   |                      |                    |                      |
|  | I <sub>max</sub> .            | 0.3A                      |                      |                    |                      |
|  | Power factor                  | /                         |                      |                    |                      |
| Set stability-30min(% of Output/ C +Offset)                    | Voltage                       | ±(0.02%+0.02%FS)          |                      | ±(0.02%+0.02%FS)   |                      |
|  | Current                       | ±(0.05%+0.08%FS)          |                      | ±(0.03%+0.03%FS)   | ±(0.03%+0.03%FS)     |
| Set stability-8h(% of Output/ C +Offset)                       | Voltage                       | /                         |                      | /                  |                      |
|  | Current                       | /                         |                      | /                  |                      |
| Readback stability-30min (% of Output/ C +Offset)              | Voltage                       | ±(0.02%+0.02%FS)          |                      | ±(0.02%+0.02%FS)   |                      |
|  | Current                       | ±(0.05%+0.08%FS)          |                      | ±(0.03%+0.03%FS)   | ±(0.03%+0.03%FS)     |
| Readback stability-8h (% of Output/ C +Offset)                 | Voltage                       | /                         |                      | /                  |                      |
|  | Current                       | /                         |                      | /                  |                      |
| Sense voltage  |                               |                           | ≤2V                  |                    |                      |
| Storage temperature  |                               |                           | -20°C~70°C           |                    |                      |
| Protection   | OPP                           | 52.8W                     |                      | 275W               | 275W                 |
|  | OCP                           | 0.66A                     |                      | 3.3A               | 22A                  |
|  | OVP                           | 18.5V                     |                      | 155V               |                      |
|  | OTP                           |                           |                      | 90°C               |                      |
| Interfaces <sup>*6</sup>                                       |                               |                           | LAN, USB, RS232      |                    |                      |
| Isolation(output to ground)                                    |                               |                           | 500V/DC/1mA          |                    |                      |
| Isolation(input to ground)                                     |                               |                           | 1.5KV/AC/5mA         |                    |                      |
| Units parallel connected                                       |                               |                           | ≤16(channel)         |                    |                      |
| Protection level   |                               |                           | IP20                 |                    |                      |
| Safety regulation  |                               |                           | IEC 61010            |                    |                      |
| Cooling  |                               |                           | fan                  |                    |                      |
| Working temperature  |                               |                           | 0~40°C               |                    |                      |
| Dimension(mm)  |                               |                           | 82mm*183mm*573mm     |                    |                      |
| N.W.   |                               |                           | 5kg                  |                    |                      |

\*1 Input voltage/current is not less than 10%FS (FS is full scale)

\*2 Range of resistance readback value: ( 1/(1/R+(1/R)\*0.01%+0.08), 1/(1/R-(1/R)\*0.01%-0.08) )

\*3 Input voltage/current is not less than 10%FS

\*4 Rise/fall slew rate: 10%~90% of current rising from 0 to Max.current

\*5 Minimum rise time: 10%~90% of current rise time

\*6 Each module does not have a separate communication interface and can be controlled through the host frame interface

\*7 It is a dual-channel dynamic power distribution module. The parameters of the two channels are the same. The maximum output of a single channel is 250W. The total power of the dual channels is not more than 300W. The average power of a single channel is 150W.

# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### IT8700P+ Specification

| Parameter  | IT8723P+                      |                           |                   | IT8732P+           |                           |                  |
|--|-------------------------------|---------------------------|-------------------|--------------------|---------------------------|------------------|
| Rated value  | Voltage                       | 0.1~18V                   |                   | 0.1~150V           |                           | 0.1~150V         |
|  | Current                       | 0 ~ 0.9A                  | 0~4.5A            | 0~45A              | 0~1.2A                    | 0~6A             |
|  | Power                         | 0 ~ 60W                   |                   | 0~300W             | 0~96W                     | 0~400W           |
|  | Resistance                    | 0.05Ω ~ 10Ω               |                   | 0.05Ω ~ 7500Ω      | 0.05Ω ~ 10Ω               |                  |
|  | Min. resistance               | ≧50mΩ                     | ≧15mΩ             |                    | ≧50mΩ                     | ≧15mΩ            |
|  | MOV                           | 0.06V at 0.9A             | 0.07V at 4.5A     | 0.7V at 45A        | 0.06V at 1.2A             | 0.05V at 6A      |
| Set resolution   | Input leak current            | 0.06mA                    |                   | 0.2mA              | 0.06mA                    |                  |
|  | Voltage                       | 1mV                       |                   | 10mV               | 1mV                       |                  |
|  | Current                       | 0.1mA                     | 0.1mA             | 1mA                | 0.1mA                     | 0.1mA            |
|  | Power                         | 10mW                      |                   |                    | 10mW                      |                  |
| Readback resolution  | Resistance                    | 16bit                     |                   |                    | 16bit                     |                  |
|  | Voltage                       | 0.1mV                     |                   | 1mV                | 0.1mV                     |                  |
|  | Current                       | 0.1mA                     | 0.1mA             | 1mA                | 0.1mA                     | 0.1mA            |
| Set accuracy   | Power                         | 10mW                      |                   |                    | 10mW                      |                  |
|  | Voltage                       | ±(0.025%+0.025%FS)        |                   | ±(0.025%+0.025%FS) | ±(0.025%+0.025%FS)        |                  |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS)  | ±(0.05%+0.05%FS)   | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) |
|  | Power <sup>*3</sup>           | 0.2%+0.2%FS               |                   |                    | 0.2%+0.2%FS               |                  |
| Readback accuracy  | Resistance <sup>*1</sup>      | 0.01%+0.08S <sup>*2</sup> |                   | 0.01%+0.0008S      | 0.01%+0.08S <sup>*2</sup> |                  |
|  | Voltage                       | ±(0.025%+0.025%FS)        |                   |                    | ±(0.025%+0.025%FS)        |                  |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS)  |                    | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) |
| Set temperature drift coefficient(% of Output/ C +Offset)      | Power                         | ±(0.2%+0.2%FS)            |                   |                    | ±(0.2%+0.2%FS)            |                  |
|  | Voltage                       | ≤50ppm/ C + 50ppm/ C *FS  |                   |                    | ≤50ppm/ C + 50ppm/ C *FS  |                  |
| Readback Temperature drift coefficient(% of Output/ C +Offset) | Current                       | ≤50ppm/ C + 50ppm/ C *FS  |                   |                    | ≤50ppm/ C + 50ppm/ C *FS  |                  |
|  | Voltage                       | ≤50ppm/ C + 50ppm/ C *FS  |                   |                    | ≤50ppm/ C + 50ppm/ C *FS  |                  |
| Dynamic response <sup>*4</sup>                                 | Current                       | ≤50ppm/ C + 50ppm/ C *FS  |                   |                    | ≤50ppm/ C + 50ppm/ C *FS  |                  |
|  | Rising                        | 0.0001~0.09A/μs           | 0.0001 ~ 0.45A/μs | 0.001 ~ 4.5A/μs    | 0.0001~0.1A/μs            | 0.0001 ~ 0.5A/μs |
|  | Falling                       | 0.0001~0.09A/μs           | 0.0001 ~ 0.45A/μs | 0.001 ~ 4.5A/μs    | 0.0001~0.1A/μs            | 0.0001 ~ 0.5A/μs |
|  | Min.rising time <sup>*5</sup> | ≧10μs                     | ≧10μs             | ≧10μs              | ≧10μs                     | ≧10μs            |
|  | Dynamic frequency             | 0.001 ~ 20kHz             |                   |                    | 0.001 ~ 20kHz             |                  |
| AC parameter   | Voltage                       | 110V ±10%or220V ±10%      |                   |                    | 110V ±10%or220V ±10%      |                  |
|  | Frequency                     | 50/60Hz                   |                   |                    | 50/60Hz                   |                  |
|  | Imax.                         | 0.3A                      |                   |                    | 0.3A                      |                  |
|  | Power factor                  | ≥0.99                     |                   |                    | ≥0.99                     |                  |
| Set stability-30min(% of Output/ C +Offset)                    | Voltage                       | ±(0.02%+0.02%FS)          |                   | ±(0.02%+0.02%FS)   | ±(0.02%+0.02%FS)          |                  |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS)  | ±(0.03%+0.03%FS)   | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) |
| Set stability-8h(% of Output/ C +Offset)                       | Voltage                       | /                         |                   | /                  | /                         |                  |
|  | Current                       | /                         |                   | /                  | /                         |                  |
| Readback stability-30min (% of Output/ C +Offset)              | Voltage                       | ±(0.02%+0.02%FS)          |                   |                    | ±(0.02%+0.02%FS)          |                  |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS)  |                    | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) |
| Readback stability-8h (% of Output/ C +Offset)                 | Voltage                       | /                         |                   | /                  | /                         |                  |
|  | Current                       | /                         |                   | /                  | /                         |                  |
| Sense voltage  | ≤2V                           |                           |                   | ≤2V                |                           |                  |
| Storage temperature  | -20 C ~ 70 C                  |                           |                   | -20 C ~ 70 C       |                           |                  |
| Protection   | OPP                           | 66W                       | 310W              | 310W               | 100W                      | 410W             |
|  | OCP                           | 0.99A                     | 4.95A             | 49.5A              | 1.32A                     | 6.6A             |
|  | OVP                           | 18.5V                     |                   | 155V               | 18.5V                     |                  |
|  | OTP                           | 105°C                     |                   |                    | 95 C                      |                  |
| Interfaces <sup>*6</sup>                                       | LAN, USB, RS232               |                           |                   | LAN, USB, RS232    |                           |                  |
| Isolation(output to ground)                                    | 500V/DC/1mA                   |                           |                   | 500V/DC/1mA        |                           |                  |
| Isolation(input to ground)                                     | 1.5KV/AC/5mA                  |                           |                   | 1.5KV/AC/5mA       |                           |                  |
| Units parallel connected                                       | ≤16(channel)                  |                           |                   | ≤16(channel)       |                           |                  |
| Protection level   | IP20                          |                           |                   | IP20               |                           |                  |
| Safety regulation  | IEC 61010                     |                           |                   | IEC 61010          |                           |                  |
| Cooling  | fan                           |                           |                   | fan                |                           |                  |
| Working temperature  | 0~40°C                        |                           |                   | 0 ~ 40 C           |                           |                  |
| Dimension(mm)  | 82mm*183mm*573mm              |                           |                   | 82mm*183mm*573mm   |                           |                  |
| N.W.   | 5kg                           |                           |                   | 5kg                |                           |                  |

\*1 Input voltage/current is not less than 10%FS (FS is full scale)

\*2 Range of resistance readback value: ( 1/(1/R+(1/R)\*0.01+0.08),1/(1/R-(1/R)\*0.01-0.08) )

\*3 Input voltage/current is not less than 10%FS

\*4 The loading current is not less than 2%FS

\*5 Minimum rise time: 10%~90% of current rise time

\*6 Each module does not have a separate communication interface and can be controlled through the host frame interface

# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### IT8700P+ Specification

| Parameter  | IT8733P+                      |                           |                  | IT8722BP+          |                           |                      |                    |
|--|-------------------------------|---------------------------|------------------|--------------------|---------------------------|----------------------|--------------------|
| Rated value  | Voltage                       | 0.1~18V                   |                  | 0.1~150V           | 0.1~60V                   |                      | 0.1~600V           |
|  | Current                       | 0~2.4A                    | 0~12A            | 0~120A             | 0~0.3A                    | 0~3A                 | 0~15A              |
|  | Power                         | 0~120W                    |                  | 0~600W             | 0~120W                    | 0~250W <sup>*7</sup> |                    |
|  | Resistance                    | 0.05Ω~10Ω                 |                  | 10Ω~7500Ω          | 0.05Ω~10Ω                 |                      | 0.05Ω~7500Ω        |
|  | Min. resistance               | ≧50mΩ                     |                  | ≧13mΩ              | ≧400mΩ                    |                      | ≧200mΩ             |
|  | MOV                           | 0.12V at 2.4A             | 0.15V at 12A     | 1.5V at 120A       | 0.12V at 0.3A             | 0.6V at 3A           | 3V at 15A          |
| Set resolution   | Input leak current            | 0.06mA                    |                  | 0.3mA              | 0.07mA                    |                      | 0.7mA              |
|  | Voltage                       | 1mV                       |                  | 10mV               | 1mV                       |                      | 10mV               |
|  | Current                       | 0.1mA                     | 1mA              | 10mA               | 0.1mA                     | 0.1mA                | 1mA                |
|  | Power                         | 10mW                      |                  |                    | 10mW                      |                      |                    |
| Readback resolution  | Resistance                    | 16bit                     |                  |                    | 16bit                     |                      |                    |
|  | Voltage                       | 0.1 mV                    |                  | 1mV                | 1mV                       |                      | 10mV               |
|  | Current                       | 0.1mA                     | 0.1mA            | 1mA                | 0.1mA                     | 0.1mA                | 1mA                |
| Set accuracy   | Power                         | 10mW                      |                  |                    | 10mW                      |                      |                    |
|  | Voltage                       | ±(0.025%+0.025%FS)        |                  | ±(0.025%+0.025%FS) | ±(0.025%+0.025%FS)        |                      | ±(0.025%+0.025%FS) |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) | ±(0.05%+0.05%FS)   | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS)     | ±(0.05%+0.05%FS)   |
|  | Power <sup>*3</sup>           | 0.2%+0.2%FS               |                  |                    | 0.2%+0.2%FS               |                      |                    |
| Readback accuracy  | Resistance <sup>*1</sup>      | 0.01%+0.08S <sup>*2</sup> |                  | 0.01%+0.0008S      | 0.01%+0.08S <sup>*2</sup> |                      | 0.01%+0.0008S      |
|  | Voltage                       | ±(0.025%+0.025%FS)        |                  |                    | ±(0.025%+0.025%FS)        |                      |                    |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) |                    | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS)     |                    |
|  | Power                         | ±(0.2%+0.2%FS)            |                  |                    | ±(0.2%+0.2%FS)            |                      |                    |
| Set temperature drift coefficient(% of Output/ C +Offset)      | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                    | ≤30ppm/ C + 50ppm/ C *FS  |                      |                    |
|  | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                    | ≤50ppm/ C + 50ppm/ C *FS  |                      |                    |
| Readback Temperature drift coefficient(% of Output/ C +Offset) | Voltage                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                    | ≤30ppm/ C + 50ppm/ C *FS  |                      |                    |
|  | Current                       | ≤50ppm/°C + 50ppm/°C*FS   |                  |                    | ≤50ppm/ C + 50ppm/ C *FS  |                      |                    |
| Dynamic response   | Rising <sup>*4</sup>          | 0.0001~0.24A/μs           | 0.0001~1.2A/μs   | 0.001~12A/μs       | 0.0001~0.03A/μs           | 0.0001~0.3A/μs       | 0.001~1.5A/μs      |
|  | Falling <sup>*4</sup>         | 0.0001~0.24A/μs           | 0.0001~1.2A/μs   | 0.001~12A/μs       | 0.0001~0.03A/μs           | 0.0001~0.3A/μs       | 0.001~1.5A/μs      |
|  | Min.rising time <sup>*5</sup> | ≧10μs                     |                  | ≧10μs              | ≧10μs                     |                      | ≧10μs              |
|  | Dynamic frequency             | 0.001~20kHz               |                  |                    | 0.001~20kHz               |                      |                    |
| AC parameter   | Voltage                       | 110V ±10% or 220V ±10%    |                  |                    | 110V ±10% or 220V ±10%    |                      |                    |
|  | Frequency                     | 50/60Hz                   |                  |                    | 50/60Hz                   |                      |                    |
|  | I <sub>max</sub> .            | 0.3A                      |                  |                    | 0.3A                      |                      |                    |
|  | Power factor                  | ≥0.99                     |                  |                    | /                         |                      |                    |
| Set stability-30min(% of Output/ C +Offset)                    | Voltage                       | ±(0.02%+0.02%FS)          |                  | ±(0.02%+0.02%FS)   | ±(0.02%+0.02%FS)          |                      |                    |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) | ±(0.03%+0.03%FS)   | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS)     | ±(0.03%+0.03%FS)   |
| Set stability-8h(% of Output/ C +Offset)                       | Voltage                       | /                         |                  | /                  | /                         |                      | /                  |
|  | Current                       | /                         |                  | /                  | /                         |                      | /                  |
| Readback stability-30min (% of Output/ C +Offset)              | Voltage                       | ±(0.02%+0.02%FS)          |                  |                    | ±(0.02%+0.02%FS)          |                      |                    |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) |                    | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS)     |                    |
| Readback stability-8h (% of Output/ C +Offset)                 | Voltage                       | /                         |                  | /                  | /                         |                      | /                  |
|  | Current                       | /                         |                  | /                  | /                         |                      | /                  |
| Sense voltage  | ≤2V                           |                           |                  | ≤2V                |                           |                      |                    |
| Storage temperature  | -20°C~70°C                    |                           |                  | -20°C~70°C         |                           |                      |                    |
| Protection   | OPP                           | 125W                      | 610W             | 610W               | 132W                      | 275W                 | 275W               |
|  | OCP                           | 2.64A                     | 13.2A            | 132A               | 0.33A                     | 3.3A                 | 16.5A              |
|  | OVP                           | 18.5V                     |                  | 155V               | 63V                       |                      | 630V               |
|  | OTP                           | 105°C                     |                  |                    | 90°C                      |                      |                    |
| Interfaces <sup>*6</sup>                                       | LAN, USB, RS232               |                           |                  |                    | LAN, USB, RS232           |                      |                    |
| Isolation(output to ground)                                    | 500V/DC/1mA                   |                           |                  |                    | 500V/DC/1mA               |                      |                    |
| Isolation(input to ground)                                     | 1.5KV/AC/5mA                  |                           |                  |                    | 1.5KV/AC/5mA              |                      |                    |
| Units parallel connected                                       | ≤16(channel)                  |                           |                  |                    | ≤16(channel)              |                      |                    |
| Protection level   | IP20                          |                           |                  |                    | IP20                      |                      |                    |
| Safety regulation  | IEC 61010                     |                           |                  |                    | IEC 61010                 |                      |                    |
| Cooling  | fan                           |                           |                  |                    | fan                       |                      |                    |
| Working temperature  | 0~40°C                        |                           |                  |                    | 0~40°C                    |                      |                    |
| Dimension(mm)  | 82mm*183mm*573mm              |                           |                  |                    | 82mm*183mm*573mm          |                      |                    |
| N.W.   | 5kg                           |                           |                  |                    | 5kg                       |                      |                    |

\*1 Input voltage/current is not less than 10%FS (FS is full scale)

\*2 Range of resistance readback value: ( 1/(1/R+(1/R)\*0.01%+0.08), 1/(1/R-(1/R)\*0.01%-0.08) )

\*3 Input voltage/current is not less than 10%FS

\*4 Rise/fall slew rate: 10%~90% of current rising from 0 to Max.current

\*5 Minimum rise time: 10%~90% of current rise time

\*6 Each module does not have a separate communication interface and can be controlled through the host frame interface

\*7 It is a dual-channel dynamic power distribution module. The parameters of the two channels are the same. The maximum output of a single channel is 250W. The total power of the dual channels is not more than 300W. The average power of a single channel is 150W.

# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### IT8700P+ Specification

| Parameter  | IT8732BP+                     |                           |                  |
|--|-------------------------------|---------------------------|------------------|
| Rated value  | Voltage                       | 0.1~60V                   | 0.1~600V         |
|  | Current                       | 0~0.3A                    | 0~3A             |
|  | Power                         | 0~120W                    | 0~300W           |
|  | Resistance                    | 0.2Ω~10Ω                  | 10Ω~7500Ω        |
|  | Min. resistance               | ≧500mΩ                    | ≧180mΩ           |
| Set resolution   | MOV                           | 0.15V at 0.3A             | 3.6V at 20A      |
|  | Input leak current            | 0.06mA                    | 0.7mA            |
|  | Voltage                       | 1mV                       | 10mV             |
|  | Current                       | 0.1mA                     | 1mA              |
|  | Power                         | 10mW                      | 10mW             |
| Readback resolution  | Resistance                    | 16bit                     |                  |
|  | Voltage                       | 1 mV                      | 10mV             |
|  | Current                       | 0.1mA                     | 1mA              |
| Set accuracy   | Power                         | 10mW                      | 10mW             |
|  | Voltage                       | ±(0.025%+0.025%FS)        |                  |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) |
|  | Resistance <sup>*1</sup>      | 0.01%+0.08S <sup>*2</sup> | 0.01%+0.0008S    |
| Readback accuracy  | Voltage                       | ±(0.025%+0.025%FS)        |                  |
|  | Current                       | ±(0.1%+0.1%FS)            | ±(0.05%+0.05%FS) |
|  | Power                         | ±(0.2%+0.2%FS)            |                  |
| Set temperature drift coefficient(% of Output/ C +Offset)      | Voltage                       | ≤30ppm/°C + 20ppm/°C*FS   |                  |
|  | Current                       | ≤50ppm/°C + 20ppm/°C*FS   |                  |
| Readback Temperature drift coefficient(% of Output/ C +Offset) | Voltage                       | ≤30ppm/°C + 20ppm/°C*FS   |                  |
|  | Current                       | ≤50ppm/°C + 20ppm/°C*FS   |                  |
| Dynamic response   | Rising <sup>*4</sup>          | 0.0001~0.02A/μs           | 0.0001~0.2A/μs   |
|  | Falling <sup>*4</sup>         | 0.0001~0.02A/μs           | 0.0001~0.2A/μs   |
|  | Min.rising time <sup>*5</sup> | ≧10μs                     | ≧10μs            |
|  | Dynamic frequency             |                           | 0.001~20kHz      |
| AC parameter   | Voltage                       | 110V ±10% or 220V ±10%    |                  |
|  | Frequency                     | 50/60Hz                   |                  |
|  | I <sub>max</sub> .            | 0.3A                      |                  |
|  | Power factor                  | /                         |                  |
| Set stability-30min(% of Output/ C +Offset)                    | Voltage                       | ±(0.02%+0.02%FS)          |                  |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) |
| Set stability-8h(% of Output/ C +Offset)                       | Voltage                       | /                         |                  |
|  | Current                       | /                         |                  |
| Readback stability-30min (% of Output/ C +Offset)              | Voltage                       | ±(0.02%+0.02%FS)          |                  |
|  | Current                       | ±(0.05%+0.08%FS)          | ±(0.03%+0.03%FS) |
| Readback stability-8h (% of Output/ C +Offset)                 | Voltage                       | /                         |                  |
|  | Current                       | /                         |                  |
| Sense voltage  | ≤2V                           |                           |                  |
| Storage temperature  | -20°C~70°C                    |                           |                  |
| Protection   | OPP                           | 125W                      | 310W             |
|  | OCP                           | 0.33A                     | 3.3A             |
|  | OVP                           | 63V                       |                  |
|  | OTP                           | 85°C                      |                  |
| Interfaces <sup>*6</sup>                                       | LAN, USB, RS232               |                           |                  |
| Isolation(output to ground)                                    | 500V/DC/1mA                   |                           |                  |
| Isolation(input to ground)                                     | 1.5KV/AC/5mA                  |                           |                  |
| Units parallel connected                                       | ≤16(channel)                  |                           |                  |
| Protection level   | IP20                          |                           |                  |
| Safety regulation  | IEC 61010                     |                           |                  |
| Cooling  | fan                           |                           |                  |
| Working temperature  | 0~40°C                        |                           |                  |
| Dimension(mm)  | 82mm*183mm*573mm              |                           |                  |
| N.W.   | 5kg                           |                           |                  |

\*1 Input voltage/current is not less than 10%FS (FS is full scale)

\*2 Range of resistance readback value: ( 1/(1/R+(1/R)\*0.01%+0.08),1/(1/R-(1/R)\*0.01%-0.08) )

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\*4 Rise/fall slew rate: 10%~90% of current rising from 0 to Max.current

\*5 Minimum rise time: 10%~90% of current rise time

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# Your Power Testing Solution

## IT8700P+ High Speed Multi-channel DC Electronic Load

### IT8700P+ Specification

| IT8733BP+   |  |                           |                |                          |                  |
|---|--|---------------------------|----------------|--------------------------|------------------|
| Rated value                                       | Voltage  | 0.1~60V                   |                | 0.1~600V                 |                  |
|   | Current  | 0~0.3A                    |                | 0~3A                     |                  |
|   | Power  | 0~120W                    |                | 0~30A                    |                  |
|   | Resistance   | 0.2Ω~10Ω                  |                | 10Ω~7500Ω                |                  |
|   | Min. resistance  | ≧500mΩ                    |                |                          |                  |
|   | MOV  | 0.15V at 0.3A             |                | 0.3V at 3A               | 3V at 30A        |
| Set resolution                                    | Input leak current   | 0.06mA                    |                | 0.7mA                    |                  |
|   | Voltage  | 1mV                       |                | 10mV                     |                  |
|   | Current  | 0.1mA                     |                | 0.1mA                    | 10mA             |
|   | Power  |                           |                | 10mW                     |                  |
| Readback resolution                               | Resistance   |                           |                | 16bit                    |                  |
|   | Voltage  | 1 mV                      |                | 10mV                     |                  |
|   | Current  | 0.1mA                     |                | 0.1mA                    | 1mA              |
| Set accuracy                                      | Power  |                           |                | 10mW                     |                  |
|   | Voltage  | ±(0.025%+0.025%FS)        |                | ±(0.025%+0.025%FS)       |                  |
|   | Current  | ±(0.1%+0.1%FS)            |                | ±(0.05%+0.05%FS)         | ±(0.05%+0.05%FS) |
|   | Power <sup>*3</sup>  |                           |                | 0.2%+0.2%FS              |                  |
| Readback accuracy                                 | Resistance <sup>*1</sup>                                       | 0.01%+0.08S <sup>*2</sup> |                | 0.01%+0.0008S            |                  |
|   | Voltage  |                           |                | ±(0.025%+0.025%FS)       |                  |
|   | Current  | ±(0.1%+0.1%FS)            |                |                          |                  |
| Dynamic response                                  | Power  |                           |                | ±(0.2%+0.2%FS)           |                  |
|   | Set temperature drift coefficient(% of Output/ C +Offset)      |                           |                | ≤30ppm/ C + 20ppm/ C *FS |                  |
|   | Readback Temperature drift coefficient(% of Output/ C +Offset) |                           |                | ≤50ppm/ C + 20ppm/ C *FS |                  |
|   | Voltage  |                           |                | ≤30ppm/ C + 20ppm/ C *FS |                  |
|   | Current  |                           |                | ≤50ppm/ C + 20ppm/ C *FS |                  |
|   | Rising <sup>*4</sup>   | 0.0001~0.02A/μs           |                | 0.0001~0.2A/μs           | 0.001~2A/μs      |
| Falling <sup>*4</sup>                             | 0.0001~0.02A/μs  |                           | 0.0001~0.2A/μs | 0.001~2A/μs              |                  |
| AC parameter                                      | Min.rising time <sup>*5</sup>                                  | ≧10μs                     |                | ≧10μs                    |                  |
|   | Dynamic frequency  |                           |                | 0.001~20kHz              |                  |
| Set stability-30min(% of Output/ C +Offset)       | Voltage  |                           |                | 110V ±10% or 220V ±10%   |                  |
|   | Frequency  |                           |                | 50/60Hz                  |                  |
|   | Imax.  |                           |                | 0.3A                     |                  |
|   | Power factor   |                           |                | ≥0.99                    |                  |
| Set stability-8h(% of Output/ C +Offset)          | Voltage  | ±(0.02%+0.02%FS)          |                | ±(0.02%+0.02%FS)         |                  |
|   | Current  | ±(0.05%+0.08%FS)          |                | ±(0.03%+0.03%FS)         | ±(0.03%+0.03%FS) |
| Readback stability-30min (% of Output/ C +Offset) | Voltage  | /                         |                | /                        |                  |
|   | Current  | /                         |                | /                        |                  |
| Readback stability-8h (% of Output/ C +Offset)    | Voltage  | /                         |                | ±(0.02%+0.02%FS)         |                  |
|   | Current  | ±(0.05%+0.08%FS)          |                | /                        | /                |
| Sense voltage                                     |  |                           |                | ≤2V                      |                  |
| Storage temperature                               |  |                           |                | -20 C ~ 70 C             |                  |
| Protection  | OPP  | 125W                      |                | 510W                     | 510W             |
|   | OCP  | 0.33A                     |                | 3.3A                     | 33A              |
|   | OVP  | 63V                       |                |                          | 630V             |
|   | OTP  |                           |                | 85 C                     |                  |
| Interfaces <sup>*6</sup>                          |  |                           |                | LAN, USB, RS232          |                  |
| Isolation(output to ground)                       |  |                           |                | 500V/DC/1mA              |                  |
| Isolation(input to ground)                        |  |                           |                | 1.5KV/AC/5mA             |                  |
| Units parallel connected                          |  |                           |                | ≤16(channel)             |                  |
| Protection level                                  |  |                           |                | IP20                     |                  |
| Safety regulation                                 |  |                           |                | IEC 61010                |                  |
| Cooling   |  |                           |                | fan                      |                  |
| Working temperature                               |  |                           |                | 0~40 C                   |                  |
| Dimension(mm)                                     |  |                           |                | 82mm*183mm*573mm         |                  |
| N.W.  |  |                           |                | 5kg                      |                  |

\*1 Input voltage/current is not less than 10%FS (FS is full scale)

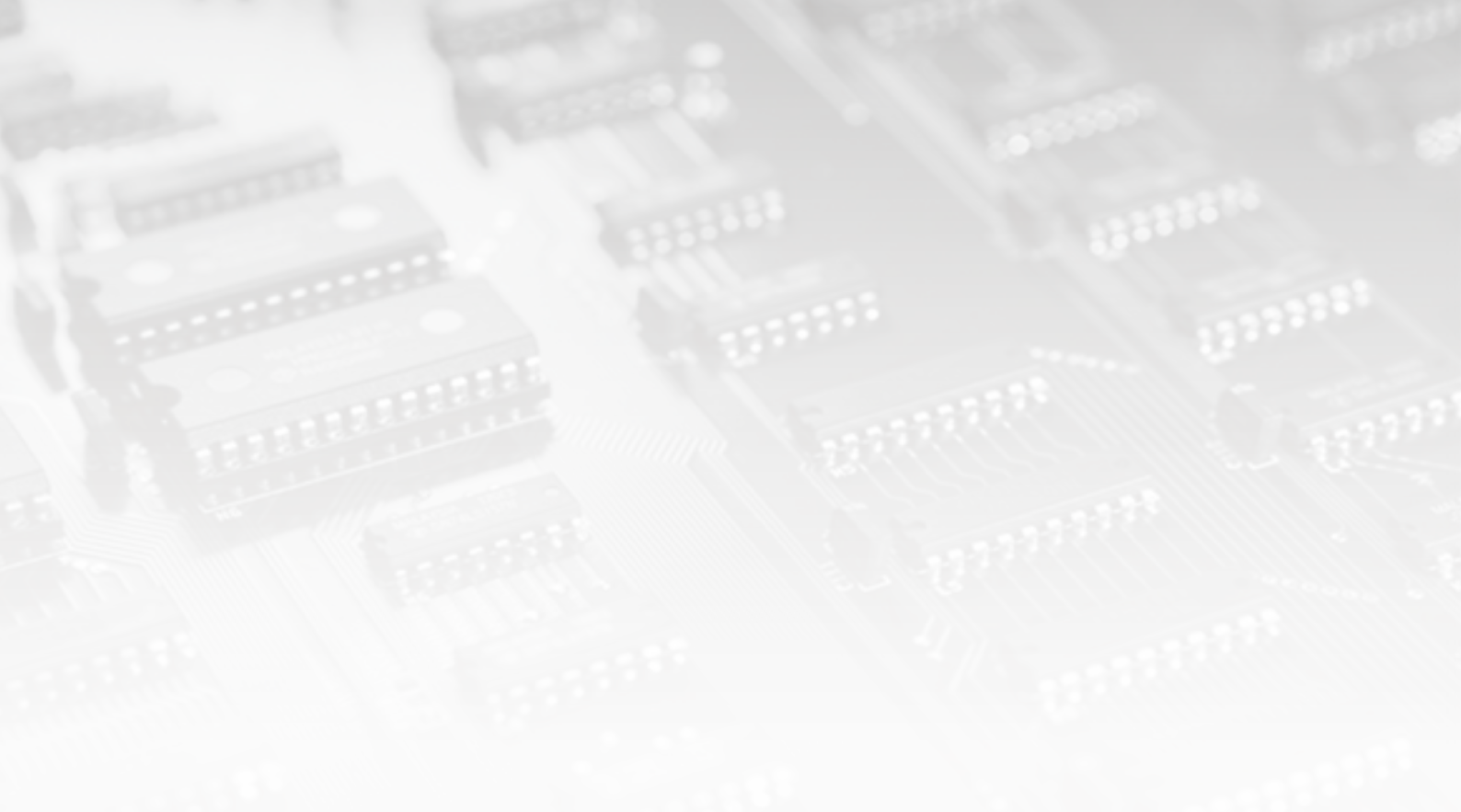
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\*5 Minimum rise time: 10%~90% of current rise time

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

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