



# IT6300 High Performance Triple Channels DC Power Supply



## Applications

School/educational laboratories, production lines test, maintenance testing

## Feature

- Triple adjustable voltage output, isolated 3 channels
- Serial/ Parallel/ Track mode \*1
- Display voltage and current measurements continuously from all three outputs
- Small size of 2U half-rack
- VFD display
- Panel function keys with backlight display
- Adjust the digital step value via cursor
- Output switch control
- High accuracy, high resolution and high stability
- Remote measurement function, compensation online voltage drop \*2
- Comprehensive protection functions
- Intelligent fan control to reduce noise
- Multi interfaces for choosing, such as USB/RS232/LAN \*3

\*1: Table 1 for details \*2: IT6300A/B/C

\*3: For any GPIB interface option request, check with ITECH for availability.

IT6300 series is high-performance programmable triple channels DC power supply, each output voltage and current can be set from 0 to maximum rated output. This series supports series connection, parallel connection and track mode, which offer multi-purpose solutions for customers test. IT6300 series is with high resolution 1mV / 1mA and remote sense function, which make the test more accurate. With built-in standard USB / RS232 / LAN communication interface, IT6300 series greatly enhance the communication speed, and customers also can adjust the digital step value by using the cursor to facilitate the operation.

## Track mode (Synchronous output)

CH1 and CH2, CH2 and CH3, or all three channels to be set as track mode, if any one channel parameter changed, the corresponding parameters of the other channels will also change in direct proportion. For example, set up voltage and current of CH1 and CH2 to be CH1: 4V, 1A; CH2:8V, 2A. Set CH1 and CH2 in track mode, in output off and Meter state, VFD is shown below:

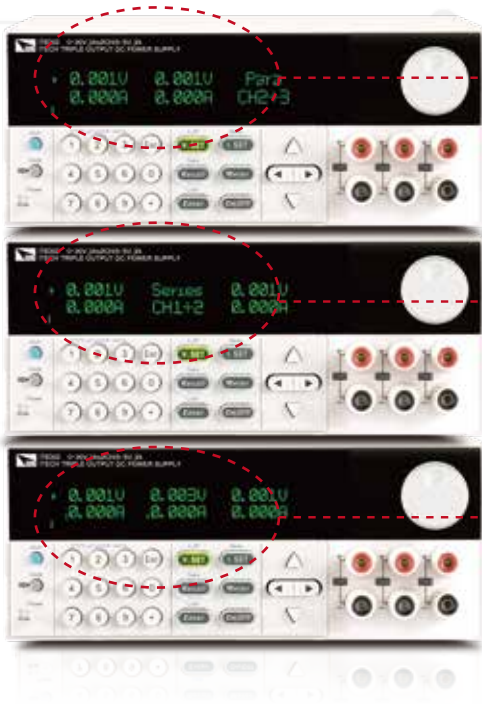


\* In the setting state, if the voltage of CH1 is set to 2V, the voltage of CH2 will be automatic synchronization to 4V (proportional)

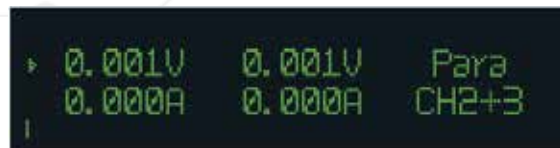
|         | Specification                    | Interface                  | Protection                               | Channel Setting                             |
|---------|----------------------------------|----------------------------|--|---|
| IT6322  | 30V/3A/90W*2CH<br>5V/3A/15W*1CH  | Optional<br>USB/GPIB/RS232 | Limited voltage, limited current and OTP | Support serial or parallel connection       |
| IT6322A | 30V/3A/90W*2CH<br>5V/3A/15W*1CH  | USB/RS232                  | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6322B | 30V/3A/90W*2CH<br>5V/3A/15W*1CH  | USB/GPIB/RS232             | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6322C | 30V/3A/90W*2CH<br>5V/3A/15W*1CH  | USB/LAN                    | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6332A | 30V/6A/180W*2CH<br>5V/3A/15W*1CH | USB/RS232                  | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6332B | 30V/6A/180W*2CH<br>5V/3A/15W*1CH | USB/GPIB/RS232             | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6332C | 30V/6A/180W*2CH<br>5V/3A/15W*1CH | USB/LAN                    | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6333A | 60V/3A/180W*2CH<br>5V/3A/15W*1CH | USB/RS232                  | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6333B | 60V/3A/180W*2CH<br>5V/3A/15W*1CH | USB/GPIB/RS232             | OVP, OTP                                 | Support serial, parallel or synchronization |
| IT6333C | 60V/3A/180W*2CH<br>5V/3A/15W*1CH | USB/LAN                    | OVP, OTP                                 | Support serial, parallel or synchronization |

\*This information is subject to change without notice

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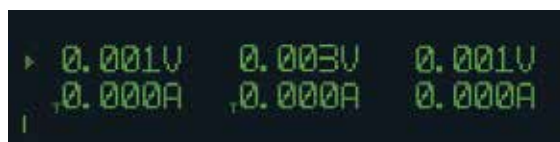
Parallel operation



Serial operation



track mode



Power Supply

## IT6300 Specifications

|                           | IT6322       |                        |       | IT6302 |                        |       | IT6322A / B / C |                        |       | IT6332A / B / C |                        |       | IT6333A / B / C     |                        |       |                |
|---------------------------|--------------|------------------------|-------|--------|------------------------|-------|-----------------|------------------------|-------|-----------------|------------------------|-------|---------------------|------------------------|-------|----------------|
|                           | CH1          | CH2                    | CH3   | CH1    | CH2                    | CH3   | CH1             | CH2                    | CH3   | CH1             | CH2                    | CH3   | CH1                 | CH2                    | CH3   |                |
| Rated output*1            | Voltage      | 0~30V                  | 0~30V | 0~5V   | 0~30V                  | 0~30V | 0~5V            | 0~30V                  | 0~30V | 0~5V            | 0~30V                  | 0~30V | 0~5V                | 0~60V                  | 0~60V | 0~5V           |
|                           | Current      | 0~3A                   | 0~3A  | 0~3A   | 0~3A                   | 0~3A  | 0~3A            | 0~3A                   | 0~3A  | 0~3A            | 0~6A                   | 0~6A  | 0~3A                | 0~3A                   | 0~3A  | 0~3A           |
|                           | Power        | 90W                    | 90W   | 15W    | 90W                    | 90W   | 15W             | 90W                    | 90W   | 15W             | 180W                   | 180W  | 15W                 | 180W                   | 180W  | 15W            |
| Load regulation*2         | Voltage      | ≤0.01%+3mV             |       |        | ≤0.01%+4mV             |       |                 | ≤0.01%+3mV             |       |                 | ≤0.01%+3mV             |       |                     | ≤0.01%+3mV             |       |                |
|                           | Current      | ≤0.01%+3mA             |       |        | ≤0.2%+3mA              |       |                 | ≤0.1%+3mA              |       |                 | ≤0.01%+3mA             |       |                     | ≤0.01%+3mA             |       |                |
| Power regulation*2        | Voltage      | ≤0.01%+3mV             |       |        | ≤0.01%+4mV             |       |                 | ≤0.01%+3mV             |       |                 | ≤0.01%+3mV             |       |                     | ≤0.01%+3mV             |       |                |
|                           | Current      | ≤0.01%+3mA             |       |        | ≤0.2%+3mA              |       |                 | ≤0.1%+3mA              |       |                 | ≤0.01%+3mA             |       |                     | ≤0.01%+3mA             |       |                |
| Setting resolution        | Voltage      | 1mV                    |       |        | 10mV                   |       |                 | 1mV                    |       |                 | 1mV                    |       |                     | 1mV                    |       |                |
|                           | Current      | 1mA                    |       |        | 1mA                    |       |                 | 1mA                    |       |                 | 1mA                    |       |                     | 1mA                    |       |                |
| Readback resolution       | Voltage      | 1mV                    |       |        | 10mV                   |       |                 | 1mV                    |       |                 | 1mV                    |       |                     | 1mV                    |       |                |
|                           | Current      | 1mA                    |       |        | 1mA                    |       |                 | 1mA                    |       |                 | 1mA                    |       |                     | 1mA                    |       |                |
| Setpoint accuracy*3       | Voltage      | ±0.03%+10mV            |       |        | ±0.06%+20mV            |       |                 | ±0.03%+10mV            |       |                 | ±0.03%+10mV            |       |                     | ±0.03%+10mV            |       |                |
|                           | Current      | ±0.1%+5mA              |       |        | ±0.2%+10mA             |       |                 | ±0.1%+5mA              |       |                 | ±0.1%+8mA              |       | ±0.1%+5mA           | ±0.1%+5mA              |       |                |
| Readback value accuracy*3 | Voltage      | ±0.03%+10mV            |       |        | ±0.06%+20mV            |       |                 | ±0.03%+10mV            |       |                 | ±0.03%+10mV            |       |                     | ±0.03%+10mV            |       |                |
|                           | Current      | ±0.1%+5mA              |       |        | ±0.2%+10mA             |       |                 | ±0.1%+5mA              |       |                 | ±0.1%+8mA              |       | ±0.1%+5mA           | ±0.1%+5mA              |       |                |
| Ripple and noise          | Voltage      | ≤1mVrms/3mVp-p         |       |        | ≤5mVp-p/1mVrms         |       |                 | ≤1mVrms/3mVp-p         |       |                 | ≤1mVrms/4mVp-p         |       | ≤1mVrms/3mVp-p      | ≤1mVrms/4mVp-p         |       | ≤1mVrms/3mVp-p |
|                           | Current      | ≤3mA <sub>rms</sub>    |       |        | ≤6mA <sub>rms</sub>    |       |                 | ≤3mA <sub>rms</sub>    |       |                 | ≤5mA <sub>rms</sub>    |       | ≤4mA <sub>rms</sub> | ≤4mA <sub>rms</sub>    |       |                |
| Serial operation          | Serial error | ≤0.05%+10mA            |       |        | ≤0.2%+15mA             |       |                 |                        |       |                 |                        |       |                     |                        |       |                |
| Parallel operation        | Voltage      | ≤0.02%+5mV             |       |        | ≤0.2%+30mV             |       |                 | ≤0.02%+5mV             |       |                 | ≤0.02%+5mV             |       |                     | ≤0.02%+10mV            |       |                |
| Setpoint accuracy         | Current      | ≤0.1%+20mA             |       |        | ≤0.2%+25mA             |       |                 | ≤0.1%+20mA             |       |                 | ≤0.1%+30mA             |       |                     | ≤0.1%+30mA             |       |                |
| Size                      |              | 214.5mm*88.2mm*354.6mm |       |        | 214.5mm*88.2mm*354.6mm |       |                 | 214.5mm*88.2mm*354.6mm |       |                 | 214.5mm*88.2mm*453.1mm |       |                     | 214.5mm*88.2mm*453.1mm |       |                |
| weight                    |              | 7.7Kg                  |       |        | 7.1Kg                  |       |                 | 7.7Kg                  |       |                 | 15Kg                   |       |                     | 15Kg                   |       |                |

\*1: (0°C - 40°C)

\*2: (% of output+offset)

\*3: (12-month validity) (25°C ± 5°C) (% of output+offset)

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