

## IT-N6333A Triple-Channel DC Power Supply

The IT-N6300 series is the latest high-performance three-channel programmable DC power supply developed by ITECH. It is integrated in a standard 2U half-rack chassis. Each channel is independently configured with a switch, supports automatic series and parallel connection and synchronization functions, and combines a wide range output design to provide users with multi-purpose test solutions. Equipped with a 4.3-inch high-definition LCD display, it supports clear and intuitive channel parameter settings, test program editing and curve observation, and uses high-resolution display to meet users' stringent requirements for high-precision voltage and current output.



IT-N6300 has low output ripple and noise, supports multiple protection functions such as CC/CV priority mode and FOLDBACK, which can effectively avoid current overshoot and ensure the stability and safety of the test. Its various programming control methods, including panel operation, remote control and automatic test system integration, greatly improve the flexibility and convenience of operation. It is widely used in scientific research laboratories, electronic manufacturing, communication equipment and other fields, and can meet the application scenario requirements of high-speed response, precise output and multiple protection, helping users to achieve efficient and accurate power management and testing.

- 4.3-inch Color LCD Display
- Fully Isolated Triple Channels with Independent Control
- Multiple Output Modes: Series, Parallel, and Synchronous
- Auto Range Mode for Versatile Testing Needs
- Low Output Ripple and Noise
- CC/CV Priority Modes
- Comprehensive Protection Features: OVP, UVP, OCP, UCP, OPP, OTP, and FOLDBACK
- Supports Local and Remote Sensing Modes

IT-N6333A				
Parameter		CH1	CH2	CH3
Rated Value	Voltage	0~60V	0~60V	0~9V
	Current	0~5A	0~5A	0~5A
	Power	0~200W	0~200W	0~45W
Power Regulation	Voltage	≤0.005%+2mV	≤0.005%+2mV	≤0.005%+1mV

<b>±(%of Output+Offset)</b>	<b>Current</b>	≤0.015%+0.5mA	≤0.015%+0.5mA	≤0.015%+0.5mA
<b>Load Regulation</b> <b>±(%of Output+Offset)</b>	<b>Voltage</b>	≤0.005%+1.3mV	≤0.005%+1.3mV	≤0.005%+1.3mV
	<b>Current</b>	≤0.015%+0.5mA	≤0.015%+0.5mA	≤0.015%+0.5mA
<b>Setup Resolution</b>	<b>Voltage</b>	10mV	10mV	1mV
	<b>Current</b>	1mA	1mA	1mA
	<b>OVP</b>	10mV	10mV	1mV
<b>Read Back Resolution</b>	<b>Voltage</b>	1mV	1mV	1mV
	<b>Current</b>	1mA	1mA	1mA
	<b>Power</b>	10mW	10mW	10mW
<b>List Minimum Delay Time</b>	<b>Voltage</b>	1ms		
<b>Setup Accuracy</b> <b>(within 12 months,25°C±5°C)</b> <b>±(%of Output+Offset)</b>	<b>Voltage</b>	≤0.02%+18mV	≤0.02%+18mV	≤0.02%+4mV
	<b>Current</b>	≤0.05%+2.5mA	≤0.05%+2.5mA	≤0.05%+2.5mA
	<b>OVP</b>	≤0.2%+0.4V	≤0.2%+0.4V	≤0.2%+0.1V
<b>Read Back Accuracy</b> <b>(within 12 months,25°C±5°C)</b> <b>±(%of Output+Offset)</b>	<b>Voltage</b>	≤0.02%+18mV	≤0.02%+18mV	≤0.02%+4mV
	<b>Current</b>	≤0.05%+2.5mA	≤0.05%+2.5mA	≤0.05%+2.5mA
<b>Ripple</b> <b>(20Hz -20MHz)</b>	<b>Voltage Peak</b>	≤3mVp-p	≤3mVp-p	≤2mVp-p
	<b>Voltage RMS</b>	≤0.5mVrms	≤0.5mVrms	≤0.35mVrms
	<b>Current RMS</b>	≤1mArms	≤1mArms	≤1mArms
<b>Setup Temperature Coefficient</b> <b>±(%of Output/°C+Offset)</b>	<b>Voltage</b>	≤0.003%+1.3mV	≤0.003%+1.3mV	≤0.003%+0.25mV
	<b>Current</b>	≤0.005%+0.15mA	≤0.005%+0.15mA	≤0.005%+0.15mA
<b>Read Back Temperature Coefficient</b> <b>±(%of Output/°C+Offset)</b>	<b>Voltage</b>	≤0.003%+2mV	≤0.003%+2mV	≤0.003%+2mV
	<b>Current</b>	≤0.005%+2mA	≤0.005%+2mA	≤0.005%+2mA
<b>Rise Time (no load)</b>	<b>Voltage</b>	≤30ms(10%-90%)	≤30ms(10%-90%)	≤10ms(10%-90%)
<b>Rise Time (full load)</b>	<b>Voltage</b>	≤40ms(10%-90%)	≤40ms(10%-90%)	≤20ms(10%-90%)

<b>Fall Time (no load)</b>	<b>Voltage</b>	$\leq 200\text{ms}(90\%-10\%)$	$\leq 200\text{ms}(90\%-10\%)$	$\leq 60\text{ms}(90\%-10\%)$
<b>Fall Time (full load)</b>	<b>Voltage</b>	$\leq 30\text{ms}(90\%-10\%)$	$\leq 30\text{ms}(90\%-10\%)$	$\leq 12\text{ms}(90\%-10\%)$
<b>Transient Response Time</b>	<b>Voltage</b>	Load transient recovery time (the time required for the output voltage to recover to within $\pm 50\text{mV}$ of the steady-state output value when the output Current changes from 50% to 100% or from 100% to 50%)		
		$\leq 50\mu\text{s}$	$\leq 50\mu\text{s}$	$\leq 50\mu\text{s}$
<b>Setup Stability-30min (%of Output +Offset)</b>	<b>Voltage</b>	$\leq 0.005\%+2\text{mV}$	$\leq 0.005\%+2\text{mV}$	$\leq 0.005\%+0.4\text{mV}$
	<b>Current</b>	$\leq 0.015\%+1\text{mA}$	$\leq 0.015\%+1\text{mA}$	$\leq 0.015\%+1\text{mA}$
<b>Readback Stability-30min (%of Output +Offset)</b>	<b>Voltage</b>	$\leq 0.005\%+3\text{mV}$	$\leq 0.005\%+3\text{mV}$	$\leq 0.005\%+2\text{mV}$
	<b>Current</b>	$\leq 0.015\%+2\text{mA}$	$\leq 0.015\%+2\text{mA}$	$\leq 0.015\%+2\text{mA}$
<b>Parallel Connection</b>	<b>Voltage</b>	$\leq 0.02\%+18\text{mV}$		/
	<b>Current</b>	$\leq 0.05\%+5\text{mA}$		/
<b>Series Connection</b>	<b>Voltage</b>	$\leq 0.02\%+36\text{mV}$		/
	<b>Current</b>	$\leq 0.05\%+2.5\text{mA}$		/
<b>Efficiency</b>		75% (Typical)		
<b>Remote Sense Compensation Voltage</b>		$\leq 2.5\text{V}$		
<b>Command Response Time</b>		5ms (Typical)		
<b>Power Factor</b>		0.5		
<b>Maximum input current</b>		10A		
<b>Maximum input apparent power</b>		1200VA		
<b>Storage Temperature</b>		$-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$		
<b>Protective Function</b>		OVP/UVP/OC/UCP/OTP/OPP/FOLDBACK		
<b>OVP Response Time</b>		$\leq 100\mu\text{s}$		
<b>Communication Interface</b>		USB		
<b>Isolation Voltage (output to PE)</b>		240VDC		
<b>Isolation Voltage (input to PE)</b>		2121VDC		
<b>Working Temperature</b>		$0 \sim 40^{\circ}\text{C}$		
<b>AC Input</b>	<b>Voltage</b>	110V/220V $\pm 10\%$		
	<b>Frequency</b>	50/60Hz		

<b>Fuse Specification Wire</b>	10A(110V)/6.3A(220V)
<b>Number of parallel machines</b>	/
<b>Number of machines in series</b>	/
<b>Protection level</b>	IP20
<b>Safety</b>	IEC 61010
<b>Cooling method</b>	Fan Cooling
<b>Dimensions of mounted in rack Handles and feet removed</b>	350mm(D)x 214mm(W)x 88.2mm(H)
<b>Overall size of single unit Includes handles and feet</b>	404.3mm(D)x 255mm(W)x 108mm(H)
<b>Weight (net weight)</b>	6.7kg

This specification is for reference only and is subject to change without notice.

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