

IT-N6332A 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-N6332A				
Parameter		CH1	CH2	CH3
Rated Value	Voltage	0~32V	0~32V	0~9V
	Current	0~10A	0~10A	0~5A
	Power	0~200W	0~200W	0~45W

Power Regulation ±(% of Output+Offset)	Voltage	≤0.005%+1.5mV	≤0.005%+1.5mV	≤0.005%+1mV
	Current	≤0.015%+1mA	≤0.015%+1mA	≤0.015%+0.5mA
Load Regulation ±(% of Output+Offset)	Voltage	≤0.005%+2.5mV	≤0.005%+2.5mV	≤0.005%+1.3mV
	Current	≤0.015%+1mA	≤0.015%+1mA	≤0.015%+0.5mA
Setup Resolution	Voltage	10mV	10mV	1mV
	Current	1mA	1mA	1mA
	OVP	10mV	10mV	1mV
Read Back Resolution	Voltage	1mV	1mV	1mV
	Current	1mA	1mA	1mA
	Power	10mW	10mW	10mW
List Minimum Delay Time	Voltage	1ms		
Setup Accuracy (within 12 months,25°C±5°C) ±(% of Output+Offset)	Voltage	≤0.02%+10mV	≤0.02%+10mV	≤0.02%+4mV
	Current	≤0.05%+5mA	≤0.05%+5mA	≤0.05%+2.5mA
	OVP	≤0.2%+0.2V	≤0.2%+0.2V	≤0.2%+0.1V
Read Back Accuracy (within 12 months,25°C±5°C) ±(% of Output+Offset)	Voltage	≤0.02%+10mV	≤0.02%+10mV	≤0.02%+4mV
	Current	≤0.05%+5mA	≤0.05%+5mA	≤0.05%+2.5mA
Ripple (20Hz -20MHz)	Voltage Peak	≤3mVp-p	≤3mVp-p	≤2mVp-p
	Voltage RMS	≤0.5mVrms	≤0.5mVrms	≤0.35mVrms
	Current RMS	≤1mA _{rms}	≤1mA _{rms}	≤1mA _{rms}
Setup Temperature Coefficient ±(% of Output/°C+Offset)	Voltage	≤0.003%+1mV	≤0.003%+1mV	≤ 0.003%+0.25mV
	Current	≤0.006%+0.3mA	≤0.006%+0.3mA	≤ 0.005%+0.15mA
Read Back Temperature Coefficient ±(% of Output/°C+Offset)	Voltage	≤0.003%+2mV	≤0.003%+2mV	≤0.003%+2mV
	Current	≤0.006%+2mA	≤0.006%+2mA	≤0.005%+2mA
Rise Time (no load)	Voltage	≤20ms(10%-90%)	≤20ms(10%-90%)	≤ 10ms(10%-90%)
Rise Time (full load)	Voltage	≤30ms(10%-90%)	≤30ms(10%-90%)	≤ 20ms(10%-90%)
Fall Time (no load)	Voltage	≤100ms(90%-10%)	≤ 100ms(90%-10%)	≤ 60ms(90%-10%)
Fall Time (full load)	Voltage	≤15ms(90%-10%)	≤15ms(90%-10%)	≤ 12ms(90%-10%)

Transient Response Time	Voltage	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%)		
		$\leq 50\mu\text{s}$	$\leq 50\mu\text{s}$	$\leq 50\mu\text{s}$
Setup Stability-30min (%of Output +Offset)	Voltage	$\leq 0.005\%+1\text{mV}$	$\leq 0.005\%+1\text{mV}$	$\leq 0.005\%+0.4\text{mV}$
	Current	$\leq 0.015\%+2\text{mA}$	$\leq 0.015\%+2\text{mA}$	$\leq 0.015\%+1\text{mA}$
Readback Stability-30min (%of Output +Offset)	Voltage	$\leq 0.005\%+2\text{mV}$	$\leq 0.005\%+2\text{mV}$	$\leq 0.005\%+2\text{mV}$
	Current	$\leq 0.015\%+2\text{mA}$	$\leq 0.015\%+2\text{mA}$	$\leq 0.015\%+2\text{mA}$
Parallel Connection	Voltage	$\leq 0.02\%+10\text{mV}$		/
	Current	$\leq 0.05\%+10\text{mA}$		/
Series Connection	Voltage	$\leq 0.02\%+20\text{mV}$		/
	Current	$\leq 0.05\%+5\text{mA}$		/
Efficiency	75% (Typical)			
Remote Sense Compensation Voltage	$\leq 2.5\text{V}$			
Command Response Time	5ms (Typical)			
Power Factor	0.5			
Maximum input current	10A			
Maximum input apparent power	1200VA			
Storage Temperature	$-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$			
Protective Function	OVP/UVP/OCP/UCP/OTP/OPP/FOLDBACK			
OVP Response Time	$\leq 100\mu\text{s}$			
Communication Interface	USB			
Isolation Voltage (output to PE)	240VDC			
Isolation Voltage (input to PE)	2121VDC			
Working Temperature	$0 \sim 40^{\circ}\text{C}$			
AC Input	Voltage	110V/220V $\pm 10\%$		
	Frequency	50/60Hz		
Fuse Specification Wire	10A(110V)/6.3A(220V)			
Number of parallel machines	/			
Number of machines in series	/			

Protection level	IP20
Safety	IEC 61010
Cooling method	Fan Cooling
Dimensions of mounted in rack Handles and feet removed	350mm(D)x 214mm(W)x 88.2mm(H)
Overall size of single unit Includes handles and feet	404.3mm(D)x 255 mm(W)x 108mm(H)
Weight (net weight)	6.7kg

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

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