

XDC100SA Series Programmable DC Power Supplies

At a Glance

XDC100SA Series is XGY's popular bench DC power supplies that offer great performance at an affordable price.

It features a single channel output that can supply up to 150V or 10A and integrates functions such as DVM and preset hotkeys, saving space and time for additional equipment and configuration.

It is perfect for various applications including R&D, design validation, industrial automation, scientific research and education.



High accuracy

0.1mV, 1uA display resolution
4-wire remote sense

Clean and reliable

Low output ripple and noise
OCP, OVP, and over temperature protection
Thermal-control fan speed for minimal acoustic noise

Easy to use

Numeric keypad and knob to set voltage and current
4.3-inch LCD color display
100 preset storage and memory functions
RS232 Interface or USB/LAN/RS-485 for Option

Advanced characterization

List mode
Data Logging with USB extension
Waveform curve display function
Adjustable voltage slew rate
DVM voltmeter capability
Resistance measurement
Battery charging function
Hotkey recall up to 6 complete power supply setups

Plenty of choice

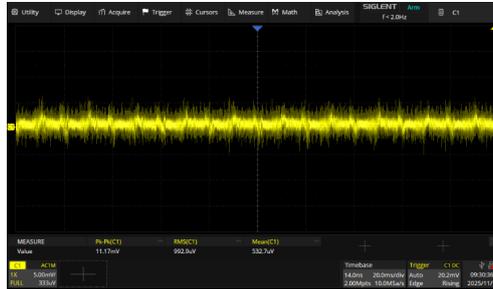
12 models offer up to 10A or 150V
From 60W to 360W



Evolving from “Power Supply” to System

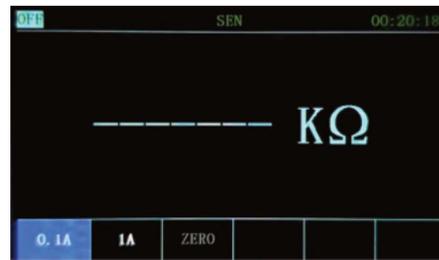
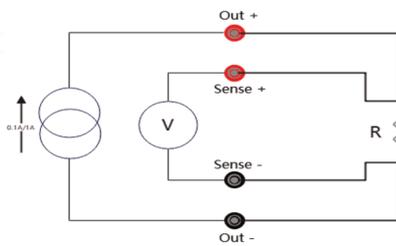
High Accuracy

Utilizing a linear regulation topology, XDC100SA Series can achieve an output ripple of $\leq 3\text{mVrms}$. Combined with a 24-bit Δ - Σ AD converter (100SPS), it can support 0.1mV voltage and 1 μA current resolution, meanwhile providing long-term stability.



Multi-Function

An integrated 80 V-range DVM module enables direct acquisition of external DC signals (e.g., chip output voltages), eliminating the need for a separate multimeter and simplifying the test setup. The wide-range resistance measurement system covers $\leq 1\ \Omega$ to 999.999 k Ω and features a 1 A constant-current low-resistance mode for scenarios such as PCB trace and connector contact resistance.



Build-in Charger Mode supports Trickle-CC-CV charging algorithm, customizable charging termination conditions (configurable current and charging time) for energy storage devices such as lithium batteries and supercapacitors.

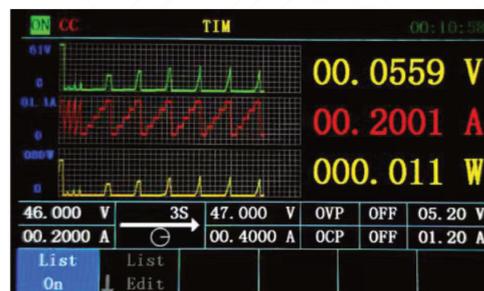
Smart Test

You can simulate various power problems or specific operating conditions with List Mode. MPS-1000 series supports upto 100 groups of programmable test sequences. Each group can be independently configure voltage, current, dwell time and cycle mode. This meets the demands for dynamic scenarios such as power supply aging tests (e.g., 1000 high-low voltage cycles) and periodic load simulations (e.g., automotive ECU pulsed loads), with a sequence execution synchronization error of $\leq 5\text{ms}$.

No	Voltage (V)	Current (A)	Time (S)
00	01.000	00.2000	00002
01	02.000	00.4000	00002
02	03.000	00.6000	00002
03	04.000	00.8000	00002
04	05.000	01.0000	00002

Step: 100 Mode: Auto Cycles: 99999

Param	Step	Mode	Cycles	Done



User friendly Front-Panel



- ① Power switch
- ② Bottom menu function keys
- ③ Function keys
- ④ Banana Connectors for DVM, Power Output, Vsense
- ⑤ Removable handle
- ⑥ Numeric keys & Rotary knob
- ⑦ Product Label
- ⑧ TFT display
- ⑨ USB interface
- ⑩ Function keys

Rear-Panel



- A. Input voltage selection switch (AC 110V or 220V) must be checked before power is applied.
- B. Power socket (AC power input interface)
- C. RS232 communication port
- D. Rear Panel Output terminals
- E. Thermal-control fan

Specifications

Model		XDC100SA-20-3	XDC100SA-20-6	XDC100SA-20-10	XDC100SA-36-1	XDC100SA-36-3	XDC100SA-36-6
Rated output voltage		0~20V	0~20V	0~20V	0~36V	0~36V	0~36V
Rated output current		0~3A	0~6A	0~10A	0~1A	0~3A	0~6A
Rated output power		60W	120W	200W	36W	108W	216W
Load regulation rate	Voltage	0.05%+5mV	0.05%+8mV	0.05%+10mV	0.05%+5mV	0.05%+5mV	0.05%+8mV
	Current	0.1%+2mA	0.1%+2mA	0.1%+5mA	0.1%+2mA	0.1%+2mA	0.1%+2mA
Line regulation rate	Voltage	0.05%+5mV	0.05%+8mV	0.05%+10mV	0.05%+5mV	0.05%+5mV	0.05%+8mV
	Current	0.1%+2mA	0.1%+2mA	0.1%+5mA	0.1%+2mA	0.1%+2mA	0.1%+2mA
Setting resolution	Voltage	0.1mV					
	Current	0.1mA					
Read back resolution	Voltage	0.1mV					
	Current	0.1mA/1uA					
Setting accuracy(25°C±5°C)	Voltage	≤0.1%+5mV					
	Current	≤0.2%+1mA					
Read back accuracy(25°C±5°C)	Voltage	≤0.1%+1mV					
	Current	≤0.2%+1mA/5uA					
Ripple and noise (25°C±5°C)	Voltage	3mVrms	3mVrms	5mVrms	3mVrms	3mVrms	3mVrms
	Current	3mA _{rms}	3mA _{rms}	5mA _{rms}	3mA _{rms}	3mA _{rms}	3mA _{rms}
Temperature coefficient	Voltage	300ppm					
	Current	300ppm					
Machine size(W*H*D)	mm	230*110*395					
Packing size(W*H*D)	mm	300*195*480					
Net weight	kg	6.9	7.2	7.8	5.6	6.9	8
Gross weight	kg	8.4	8.7	9.3	7.1	8.4	9.5
Rise Time		<20ms					

Model		XDC100SA-36-10	XDC100SA-60-1	XDC100SA-60-3	XDC100SA-60-5	XDC100SA-100-1	XDC100SA-150-1
Rated output voltage		0 - 36V	0 - 60V	0 - 60V	0 - 60V	0 - 100V	0 - 150V
Rated output current		0 - 10A	0 - 1A	0 - 3A	0 - 5A	0 - 1A	0 - 1A
Rated output power		360W	60W	180W	300W	100W	150W
Load regulation rate	Voltage	0.05% + 10mV	0.05% + 5mV	0.05% + 5mV	0.05% + 8mV	0.05% + 5mV	0.05% + 5mV
	Current	0.1% + 5mA	0.1% + 2mA				
Line regulation rate	Voltage	0.05% + 10mV	0.05% + 5mV	0.05% + 5mV	0.05% + 8mV	0.05% + 5mV	0.05% + 5mV
	Current	0.1% + 5mA	0.1% + 2mA				
Setting resolution	Voltage	0.1mV					
	Current	0.1mA					
Read back resolution	Voltage	0.1mV					
	Current	0.1mA/1uA					
Setting accuracy(25°C±5°C)	Voltage	≤0.1% + 5mV					
	Current	≤0.2% + 1mA					
Read back accuracy(25°C±5°C)	Voltage	≤0.1% + 1mV					
	Current	≤0.2% + 1mA/5uA					
Ripple and noise (25°C±5°C)	Voltage	5mVrms	3mVrms	3mVrms	3mVrms	3mVrms	3mVrms
	Current	5mA _{rms}	3mA _{rms}				
Temperature coefficient	Voltage	300ppm					
	Current	300ppm					
Machine size(W*H*D)	mm	230*110*395					
Packing size(W*H*D)	mm	300*195*480					
Net weight	kg	9.9	7.8	8.2	9	7.8	7.8
Gross weight	kg	11.4	9.3	9.7	10.5	9.3	9.3
Rise Time		<20ms					