IT6900A Wide-range Programmable DC Power Supply



IT6900A series wide range programmable power supply has built-in standard RS232, USB, GPIB, RS485 and analog interface (RS485 and analog interface are just for IT6900B), supports SCPI protocol, facilitate remote control, industrial PLC control and the formation of intelligent test platform. Remote compensation terminals avoid the problem of inaccurate testing caused by voltage drop on the wire. Low ripple, low noise and built-in digital voltmeter make IT6900A easy to do external measurement. IT6900A can be widely used in testing DC-DC power supply module, battery charging and sensors and other test areas.

Applications

DC-DC power module, battery charging and sensors, etc.

Feature

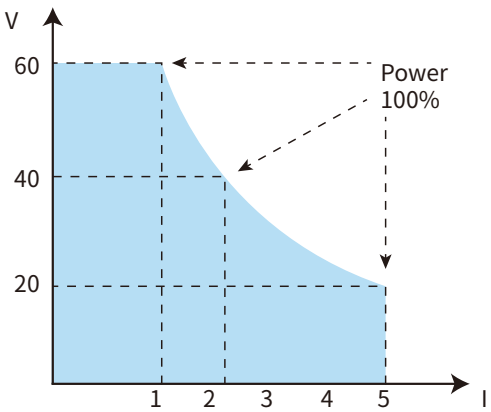
- VFD display
- Adjust voltage and current via knob or numerical key pad
- High accuracy and high resolution
- Adjust digital step value via cursor
- Output voltage and current values accordance with procedure
- Output Timer(0.1 ~ 99999.9S) Function
- Low ripple and low noise
- Remote Sense Function
- Intelligent fan control
- Rich SCPI instructions to facilitate the formation of intelligent
- test platform
- Support front and rear panel output
- Optional external analog function
- Standard communication interface RS232/USB/GPIB

Model	Voltage	Current	Power	Size
IT6922A	60V	5A	100W	1/2 2U
IT6932A	60V	10A	200W	1/2 2U
IT6933A	150V	5A	200W	1/2 2U
IT6942A	60V	15A	360W	1/2 2U
IT6952A	60V	25A	600W	1/2 2U
IT6953A	150V	10A	600W	1/2 2U

*IT6900A is standard model; IT6900B is optional for needing RS485 interface and external analog interface

Auto-range Function

IT6900A series power supply can achieve the combined output of multiple voltage and current at a fixed power. Single power supply can meet different DUT tests with high voltage low current or high current low voltage, at the same time, because the output of voltage and current is controlled by the limit power, it will show the switching of voltage and current auto ranging.



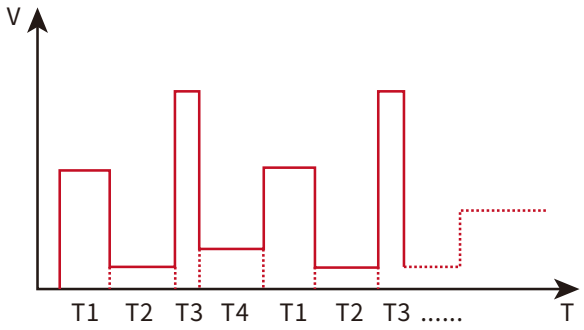
IT6932A I-V Curve Graph

Remote Sense

In order to avoid the voltage drop caused by the length of the wire connecting the load, the remote test allows measurement directly on the terminal of the test object to improve the measurement accuracy. S +, S is the remote measurement terminal, +, - is the output positive and negative terminals. When using the remote measurement function, it is necessary to disconnect the wires connected to the "+, -" terminals and lead S +, S to the test object.

List Mode

List mode allows user to create a sequence of steps, store it into the power supply's non- volatile memory and execute the input parameters for generating a list include the name of the list file, the input steps (no more than 150 steps), the step time (the minimum is 100mS) and the value of each step.



OVP Functions

IT6900A series power supply provides OVP function. The over voltage protection point of the power supply can be set via the keys on the panel. Once power supply is protected (OVP), the output will be off immediately and "OVP" indicator light will be lit, the VFD display "OVER VOLT".



Separate Local key can quickly switch to panel operation mode from PC operation mode

Built-in DVM

IT6900A provides a built-in digital meter which can measure DC volts in a range from 0.001V to 61.000V. The voltage value is displayed on the left bottom field of the display.

Timer Function

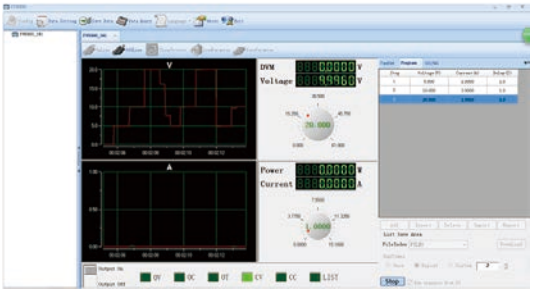
IT6900A series supports output timer function, in ON mode, the indicator light "Timer" will be lit on the VFD screen. When output of power supply is opened, timer will begin to work, after reaching the definite time, output will be off automatically. Timing output time range is 0.1s~99999.9s.

Optional external analog interface

The rear panel DB9 analog interface is connected via cable and external DB9 socket board. The corresponding pin on the DB9 socket board is added 0~10V voltage to simulate the voltage or current output from 0 to full-scale.

IT9000 PC software

IT6900A series has built-in RS232, USB, GPIB and other communication interfaces, and provides free IT9000 series software. Using PC software, IT6900A can easily remote control, set voltage and current, record storage data, programming, and test automatically.



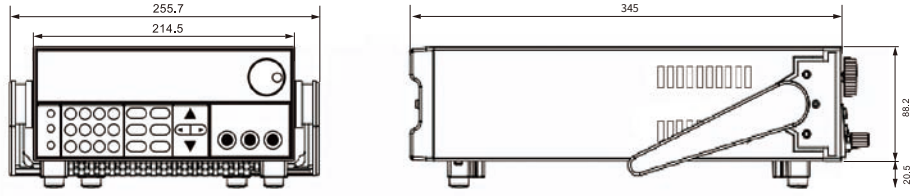
IT6900A Specifications

		IT6922A	IT6932A	IT6933A
Rating	Voltage	0~60V	0~60V	0~150V
(0°C~40°C)	Current	0~5A	0~10A	0~5A
	Power	100W	200W	200W
Load regulation	Voltage	≤0.01%+3mV	≤0.01%+10mV	≤0.01%+20mV
±(%of output+offset)	Current	≤0.05%+2mA	≤0.05%+4mA	≤0.01%+6mA
Power regulation	Voltage	≤0.01%+3mV	≤0.01%+10mV	≤0.01%+20mV
±(%of output+offset)	Current	≤0.05%+2mA	≤0.05%+4mA	≤0.01%+6mA
Programmong resolution	Voltage	1mV	1mV	1mV(<100V),10mV(≥100V)
	Current	0.1mA	1mA	0.1mA
Readback value resolution	Voltage	1mV	1mV	1mV(<100V),10mV(≥100V)
	Current	0.1mA	1mA	0.1mA
Programmong accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≤0.04%+30mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+10mA	≤0.1%+10mA
Readback accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≤0.04%+30mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+5mA	≤0.1%+10mA	≤0.1%+10mA
Ripple	Voltage	≤5mVp-p	≤8mVp-p	≤30mVp-p
(20Hz ~20MHz)	Current	≤5mArms	≤6mArms	≤6mArms
Rise Time	Voltage	≤150mS(10%-90%)	≤150mS(10%-90%)	≤200ms
Fall time	Voltage	≤2S(10%-90%)	≤2S(10%-90%)	≤150ms
Size (mm)		214.5mmW×88.2mmH×354.6mmD		
Weight		7.7Kg	7.7Kg	7.7Kg

		IT6942A	IT6952A	IT6953A
Rating	Voltage	0~60V	0~60V	0-150V
(0°C~40°C)	Current	0~15A	0~25A	0-10A
	Power	360W	600W	600W
Load regulation	Voltage	≤0.01%+30mV	≤0.01%+30mV	≦0.01%+25mV
±(%of output+offset)	Current	≤0.05%+6mA	≤0.1%+10mA	≦0.5%+10mA
Power regulation	Voltage	≤0.01%+30mV	≤0.01%+30mV	≦0.01%+25mV
±(%of output+offset)	Current	≤0.05%+6mA	≤0.1%+10mA	≦0.5%+10mA
Programmong resolution	Voltage	1mV	1mV	1mV(< 100V) 10mV (> 100V)
	Current	1mA	1mA	1mA
Readback value resolution	Voltage	1mV	1mV	1mV(< 100V) 10mV (> 100V)
	Current	1mA	1mA	1mA
Programmong accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≦0.03%+20mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+15mA	≤0.1%+25mA	≦0.1%+25mA
Readback accuracy	Voltage	≤0.03%+5mV	≤0.03%+5mV	≦0.03%+20mV
(Within 12 months) (25°C±5°C) ±(%of output+offset)	Current	≤0.1%+15mA	≤0.1%+25mA	≦0.1%+25mA
Ripple	Voltage	≤15mVp-p	≤20mVp-p	≦50mVp-p
(20Hz ~20MHz)	Current	≤8mArms	≤15mArms	≦15mArms
Rise Time	Voltage	≤200ms(10%-90%)	≤150mS(10%-90%)	≦150ms
Fall time	Voltage	≤2.5s(10%-90%)	≤2S(10%-90%)	≦7s
Size (mm)		214.5mm*88.2mm*445mm		
Weight		7.7Kg	15Kg	15Kg

*This information is subject to change without notice

IT6900A Dimension (Unit: mm)



- **IT6922A/IT6932A/IT6933A/IT6942A:**
  214.5mmW x 88.2mmH x 345mmD
- **IT6952A/IT6953A:**
  214.5mmW x 88.2mmH x 446mmD

IT6860A & IT6870A Dual-range Programmable DC Power Supply



IT6860A series (72~180W) programming DC power supply offers dual-range voltage switch for your choice, which can replace two ordinary ones, greatly saving your cost and operation space. At the same time, IT6860A supports panel List programming and software operation via computer to meet more communication demands. IT6860A series is suited for laboratory testing, online production test, maintenance testing, etc.

Applications

Laboratory testing, production line production testing, maintenance testing, etc.

Feature

- Dual range output
- Convenient data entry via knob or numerical key pad
- High accuracy and high resolution
- Remote sense
- Output voltage and current values accordance with procedure
- Adjust voltage and current via Knob
- Low ripple and low noise
- OVP, OTP
- Built-in RS232/USB/GPIB interface *1
- Monitor software via PC
- Support SCPI command, compatible IT6800 frame format protocol

*1 Only IT6800B dual range series have built-in GPIB communication interface

Model	Voltage	Current	Power	Interface
IT6861A	20V/8V	5A/9A	100W/72W	RS232/USB
IT6862A	32V/12V	3A/6A	96W/72W	RS232/USB
IT6863A	72V/32V	1.5A/3A	108W/96W	RS232/USB
IT6872A	35V/15V	4A/7A	140W/105W	RS232/USB
IT6873A	75V/32V	2A/4A	150W/128W	RS232/USB
IT6874A	150V/60V	1.2A/2A	180W/120W	RS232/USB

*The IT6800A dual range series is without GPIB interface. The remaining parameters are the same as the IT6800B series.
If needing GPIB interface, the IT6800B dual range series can be selected.

Dual-range Output

IT6860A series DC power supply offers high and low voltage range for your choice. When needing high voltage output, high voltage is optional, when needing high current, low voltage is optional.

Output timer Function

This series supports output timer function, in ON mode, the indicator light “Timer” will be lit on the VFD screen. When output of power supply is opened, timer will begin to work, after reaching the definite time, output will be off automatically. Timing output time range is 0.1s~9999.9s or 0.1m~9999.9m.

Options & Accessories



IT-E9005(Optional)

ITECH Warranty up to 5 years



IT-E9003(Optional)

ITECH Warranty up to 3 years



CD (accessory)

With user manual and communica...



USB

For USB port communication



AC power cord (accessory)

AC power cord (accessory)



IT-E151A (Optional)

19" Rack mount kit



IT-E30110-AB (Optional)

10A/1m/Alligator clip - Banana...



IT-E30110-BB (Optional)

10A/1m/Banana plug - Banana pl...



IT-E30110-BY (Optional)

10A/1m/Banana plug - Y termina...



IT-E30312-YY (Optional)

30A/1.2m/Y terminal, a pair of...



IT-E30320-YY (Optional)

30A/2m/Y terminal, a pair of r...

Database

Catalogue | User Manual | Communication Protocol | Application-Driver Softwa

* Pls. visit www.ni.com and search'VISA' a
'IVI'(offline versions) to download and install
driver for the software above.