



GPS-3303X and GPS-3303DPX

Programmable DC Power Supply



One Instrument, Two Resolutions.

Two programmable triple-output supplies sharing a case, a display and a command set, and differing in one thing: how finely they set and read back. Both deliver 220 W across three isolated channels.

The GPS-3303X resolves to 1 mV and 1 mA and holds $\pm(0.03\%$ of reading + 10 mV) on voltage. The GPS-3303DPX resolves to 10 mV and 10 mA at $\pm(0.5\%$ of reading + 2 digits). Everything else is common.

A 4.3 inch colour display carries more than numbers: output can be plotted as it runs, and a panel timing function steps through a stored profile without a PC attached.

Both carry USB and LAN, answer SCPI, and hold five setups internally with room for more on external storage. The fan is temperature-controlled, so a lightly loaded supply is a quiet one.

KEY FEATURES

- 220 W across three isolated channels
- 1 mV and 1 mA on the GPS-3303X
- Series to 60 V, parallel to 6.4 A
- 4.3 inch colour display with live plotting
- Panel timing output, no PC needed
- USB and LAN, with SCPI

IDEAL FOR

- Embedded and mixed-signal development
- Teaching and training laboratories
- Switched-mode power supply work
- Automated test racks
- Service and repair benches

THE TWO MODELS COMPARED

Item	GPS-3303X	GPS-3303DPX	Notes
Two models · 220 W · three isolated outputs · independent, series and parallel			
CH1 and CH2	0 to 32 V, 0 to 3.2 A	0 to 32 V, 0 to 3.2 A	Independently controlled and isolated
CH3	2.5, 3.3 or 5 V at 3.2 A	2.5, 3.3 or 5 V at 3.2 A	Panel selected · tolerance $\pm 8\%$
Series mode	0 to 60 V	0 to 60 V	The maximum is 60 V, not twice 32
Parallel mode	0 to 6.4 A	0 to 6.4 A	At up to 32 V
Resolution	1 mV and 1 mA	10 mV and 10 mA	
Programming accuracy, voltage	$\pm(0.03\% \text{ of reading} + 10 \text{ mV})$	$\pm(0.5\% \text{ of reading} + 2 \text{ digits})$	
Programming accuracy, current	$\pm(0.3\% \text{ of reading} + 10 \text{ mA})$	$\pm(0.5\% \text{ of reading} + 2 \text{ digits})$	
Readback accuracy	As programming	As programming	Voltage and current alike
Display	5 digits voltage, 4 digits current	4 digits voltage, 3 digits current	4.3 inch colour TFT on both
Constant voltage	Line and load $\leq 0.01\% + 3 \text{ mV}$	Line and load $\leq 0.01\% + 3 \text{ mV}$	Ripple $\leq 1 \text{ mV rms}$, 5 Hz to 1 MHz
Constant current	Line and load $\leq 0.2\% + 3 \text{ mA}$	Line and load $\leq 0.2\% + 3 \text{ mA}$	Ripple $\leq 3 \text{ mA rms}$
Recovery time	$< 50 \mu\text{s}$	$< 50 \mu\text{s}$	Fifty per cent load change

Series mode links CH1 and CH2 internally and is limited to 60 V, which is less than twice the 32 V of a single channel. Parallel mode links them for current at up to 32 V. In both, the pair is set and read from CH1. Series regulation is line $\leq 0.01\% + 5 \text{ mV}$ and load $\leq 300 \text{ mV}$; parallel regulation is as constant voltage.



WHAT'S IN THE BOX

- GPS-3303X or GPS-3303DPX power supply
- Output test leads, two sets
- Mains lead
- USB cable
- Quick start guide and calibration certificate

AVAILABLE SEPARATELY · A LAN cable, rack mounting and recalibration are available from GPS. Control software and a LabVIEW driver are free downloads. The declaration of conformity is supplied with any quotation on request.

GENERAL SPECIFICATIONS

Code	Item	Part Number
GPS-3303X	Programmable triple output DC power supply, $2 \times 0\text{--}32 \text{ V}$ at $0\text{--}3.2 \text{ A}$ plus 2.5, 3.3 or 5 V at 3.2 A, 220 W, 1 mV and 1 mA resolution, USB and LAN	590389
GPS-3303DPX	Programmable triple output DC power supply, $2 \times 0\text{--}32 \text{ V}$ at $0\text{--}3.2 \text{ A}$ plus 2.5, 3.3 or 5 V at 3.2 A, 220 W, 10 mV and 10 mA resolution, USB and LAN	590330

OUTPUTS

Three isolated channels · two adjustable 0 to 32 V at 0 to 3.2 A · one selectable 2.5, 3.3 or 5 V at 3.2 A · 220 W in total

DISPLAY

4.3 inch true colour TFT, 480×272 · five-digit voltage and four-digit current on the GPS-3303X, four and three on the GPS-3303DPX

PANEL TIMING

Five stored timing profiles, stepped through from the front panel · a simple programmed sequence with no PC attached

INTERFACES

USB device and LAN, both fitted · SCPI command set · control software and a LabVIEW driver available

COOLING

Temperature-controlled fan, so the instrument is quiet when lightly loaded

MAINS INPUT

100 V, 120 V, 220 V or 230 V $\pm 10\%$, 50/60 Hz

SIZE AND MASS

$225 \times 143 \times 278 \text{ mm}$ (w $\times$ h $\times$ d) · 8.0 kg

OUTPUT MODES

Independent, series or parallel · each channel switches on and off separately, or all together

LIVE PLOTTING

Output plotted against time on the display as it runs, so a droop or a step is seen rather than inferred

MEMORY

Five setups held internally, with external storage for more

PROTECTION

Output short circuit and overload protection · key lock against accidental adjustment

INSULATION

Case to terminal $\geq 20 \text{ M}\Omega$ · case to mains $\geq 30 \text{ M}\Omega$, both at 500 V DC

ENVIRONMENT

Operating 0°C to 40°C below 80% RH · storage -10°C to 70°C below 70% RH · altitude to 2000 m · installation category II, pollution degree 2

WARRANTY

1 year, subject to product registration with GPS