

1403/1405

100W TRIPLE OUTPUT SWITCHING DC POWER SUPPLIES

Applications

These power supplies are ideal for trouble shooting circuit boards or devices which require two or three different input voltages such as 3, 5, 12 and 1-36 V. Ideal for:

- Educational labs
- Technical schools
- Internal training facilities
- Hobbyists



Overview

The 1403 and 1405 can provide a continual 100 W of power through their three output terminals. They feature constant current or constant voltage modes with automatic crossover.

Their small size, light weight, and economical price make them ideal for classroom and lab settings where space and dollars are a premium.

Features

- Main Output: 1-20 VDC, 5 A (1403) and 1-36 VDC, 3 A (1405)
- Aux Output 1: 3.3 or 5 VDC (selectable), 2.0 A
- Aux Output 2: 12 VDC, 1.0 A
- Coarse & fine voltage/current controls
- CV/CC mode with automatic crossover
- Illuminated LCD indicators for A, V, Output On/Off, CC & CV.
- 4-digit display for main output
- 2-digit display for auxiliary current output
- Compact slim tower housing
- Output power on/off switch at front panel
- Over voltage, short circuit, overload, and over temperature protections.



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Specialties

1403/1405

All specifications apply to the unit after a temperature stabilization time of 15 minutes over an ambient temperature range of 25 °C ± 5 °C.

| | 1403 | 1405 |
|------------------------------------|---|---|
| Input Voltage (Universal input) | 100–240 VAC, 50/60 Hz | 100–240 VAC, 50/60 Hz |
| Full Load Input Current at 230 VAC | 0.83 A | 0.83 A |
| Output Voltage Adjustable Range | 1.0 – 20 VDC | 1.0 – 36 VDC |
| Output Current Adjustable Range | 0.25 – 5 A | 0.25 – 3 A |
| Voltage Regulation | | |
| Load from 10% to 90% Variation | 70 mV | 70 mV |
| Line from 90 to 264 VAC Variation | 25 mV | 25 mV |
| Ripple & Noise (peak to peak) | ≤120 mV | ≤150 mV |
| Current Regulation | | |
| Load from 10% to 90% Variation | 50 mA | 50 mA |
| Line from 90 to 264 VAC Variation | 20 mA | 20 mA |
| Ripple & Noise (peak to peak) | ≤50 mA | ≤50 mA |
| Switching Operation Frequency | 50 kHz to 150 kHz | 50 kHz to 150 kHz |
| Aux Output 1 | Fixed 3.3 /5 VDC. 1.8 mA cont. 2 A Max. | Fixed 3.3 /5 VDC. 1.8 mA cont. 2 A Max. |
| Aux Output 2 | Fixed 12 VDC, 800 mA cont. 1 A Max. | Fixed 12 VDC, 800 mA cont. 1 A Max. |
| Power Factor | >0.9 | >0.9 |
| Efficiency at Maximum Power | ≥80.5% | ≥80.5% |



1403/1405

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|-------------------------------|--|--|
| Volt and Amp Control Type | Rotary Encoder | Rotary Encoder |
| Voltmeter and Ammeter Display | 4 Digit LCD | 4 Digit LCD |
| Voltmeter Accuracy | 5 counts, $V < 5\text{ V}$ $\pm 0.2\% + 5\text{ counts}$, $V \geq 5\text{ V}$ | 5 counts, $V < 5\text{ V}$ $\pm 0.2\% + 5\text{ counts}$, $V \geq 5\text{ V}$ |
| Ammeter Accuracy | 15 counts, $I \leq 1\text{ A}$ $\pm 0.5\% + 6\text{ counts}$, $I > 1\text{ A}$ | 15 counts, $I \leq 1\text{ A}$ $\pm 0.5\% + 6\text{ counts}$, $I > 1\text{ A}$ |
| LCD Indication | CC, CV, Amp, Volt, Output ON-OFF, Aux output current | |
| Protection | Short Circuit, Overload, Over Temperature, Tracking OVP | |
| CE Approvals | LVD: EN 61010, EMC: EN 55011 | |
| Cooling System | Natural Convection | |
| Dimensions (WxHxD) | 70 x 150 x 250 mm (2.8 x 6.0 x 9.8 in) | |
| Weight | 2 kg (4.4 lbs) | |
| Remarks | All data based on 230 V/50 Hz | |

Specifications are subject to change without notice. To ensure the most current version of this manual, please download the current version from our website:



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Specialties