

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.

1403/1405

All specifications apply to the unit after a temperature stabilization time of 15 minutes over an ambient temperature range of $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$.

	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	$\geq 80.5\%$	$\geq 80.5\%$

1403/1405

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	