



1400 Series

1403A, 1405A, 1407

100W Triple Output Switching DC Power Supply



Description:

Cal Test Electronics introduces the Global Specialties 1403A, 1405A, and 1407 100W triple output switching mode DC power supplies designed for accuracy, compactness, and portability. Equipped with rotary encoder knobs for precise voltage and current adjustment with a 4-digit LCD for clear readout. They operate in both constant voltage (CV) and constant current (CC) modes, with automatic crossover based on load conditions. Each model is passively cooled for quiet operation and suited for benchtop or embedded applications.

All three outputs—one variable and two fixed—are fully isolated, allowing flexible configurations for a wide range of test and development scenarios. The main output is adjustable (up to 20V, 36V, or 60V depending on the model), while auxiliary outputs provide fixed 3.3/5VDC and 12VDC. Isolation enables series or parallel connections for generating bipolar, stacked, or higher voltage rails, making these supplies ideal for troubleshooting multi-voltage circuit boards or devices requiring dual supplies. Output polarity is user-configurable across terminals.

The series now supports Windows 11 and includes a USB Type-B interface for remote control and monitoring. Users can operate the power supply through PC control software with graphical interface or via custom automation using standard SCPI command sets. This feature enhances usability in automated test setups or when precise programmable control is needed from a host PC. The LCD panel confirms USB connection status for clear remote operation feedback.

Designed with robust protection features, the power supplies include overvoltage, overcurrent, short-circuit, and overtemperature safeguards. Compliance with CE safety and EMC standards ensures suitability for lab, production, and educational environments. With passive power factor correction and high efficiency (>80%), the 1400 series delivers clean, reliable power in a compact chassis.

For detailed specifications, model cross-references, or compatible test accessories, visit www.caltestelectronics.com.

Features:

- One adjustable main output (up to 20V, 36V, or 60V depending on model)
- Two fixed outputs (3.3/5VDC and 12VDC)
- Precision Display & Controls
- PC Control Software for Automated Testing
- RoHS and REACH compliant
- One-year warranty

Specifications:

- See page 2

Specifications & Characteristics

Warm up the device for 20 minutes prior to testing. Specifications are valid after temperature stabilization at $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$. All specifications based on 115 VAC, 60 Hz.

NOTE All entries included in the following tables are characteristics unless otherwise stated.

REMARQUE Toutes les entrées incluses dans les tableaux suivants sont des caractéristiques, sauf indication contraire.

NOTIZ Alle in den folgenden Tabellen enthaltenen Einträge sind Merkmale, sofern nicht anders angegeben.

Table 3 Safety Specifications

Parameter	Condition
IEC/EN 62368-1:2023	Measurement Category II
Approval	CE

Table 4 Electrical Specifications (Not Warranted)

Parameter	1403A	1405A	1407		
Input Voltage	110 - 120 VAC, 50 / 60Hz (or on request)				
Full Load Input Current at 115 VAC	1.9 A	2.1 A	1.9 A		
Output Voltage Adjustable Range	0.8 - 20 VDC	0.8 - 36 VDC	0.8 - 60 VDC		
Output Current Adjustable Range	0.1 - 5 A	0.1 - 3 A	0.1 - 3 A		
Voltage Regulation:					
Load from 10% to 90% Variation	\leq 60 mV	\leq 50 mV	\leq 40 mV		
Line from 98 to 132 VAC Variation	\leq 10 mV				
Ripple & Noise (peak to peak)	\leq 100 mV	\leq 100 mV	\leq 120 mV		
Current Regulation:					
Load from 10% to 90% Variation	\leq 30 mA				
Line from 98 to 132 VAC Variation	\leq 10 mA				
Ripple & Noise (peak to peak)	\leq 30 mA				
Switching Operation Frequency	50 KHz to 150 KHz				
Aux output 1	Fixed 3.3 /5 VDC. 1.8 A cont. 2 A Max				
Aux output 2	Fixed 12 VDC, 800 mA cont. 1 A Max				
Efficiency (Optimum)	\geq 80%	\geq 79%	\geq 80%		
Volt and Amp Control Type	Rotary Encoder				
Voltmeter and Ammeter Display	4 Digit LCD				
Voltmeter Accuracy (Main Output)	5 counts for range $V < 5$ V ($\pm 0.1\%$ +5 counts for range $V \geq 5$ V)				

Ammeter Accuracy (Main Output)	8 counts for range $I \leq 1$ A ($\pm 0.2\%$ +6 counts for range $I > 1$ A)
Ammeter Accuracy (Aux. Output 1 & 2)	± 0.2 A
LCD Indication	CC, CV, Amp, Volt, Output ON-OFF, Aux output current, USB remote control
Protection	Short Circuit, Overload, Over Temperature, Tracking OVP
Command Set	SCPI
Communication Type	USB (Bundled, Type B)

Table 5 Mechanical Specifications

Parameter	Characteristic
Dimension (L x W x H)	265 mm (L) x 71 mm (W) x 165 mm (H)
Weight	2 Kgs (4.4 Lbs)
Cooling System	Natural Convection

Table 6 Environmental Specifications

Parameter	Characteristic
Operating Temperature	0°C to 40°C
Storage Temperature	-30°C to 70°C
Humidity	$\leq 80\%$ RH @ 25°C to 35°C
Altitude	Operating: 2000 m Non-operating: 15000 m
Pollution Degree	P2

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

Ordering Information:

1403A, 1405A, 1407

Order Example:

1405A

Contact Info:

Phone: 714-221-9330

Fax: 714-921-9849

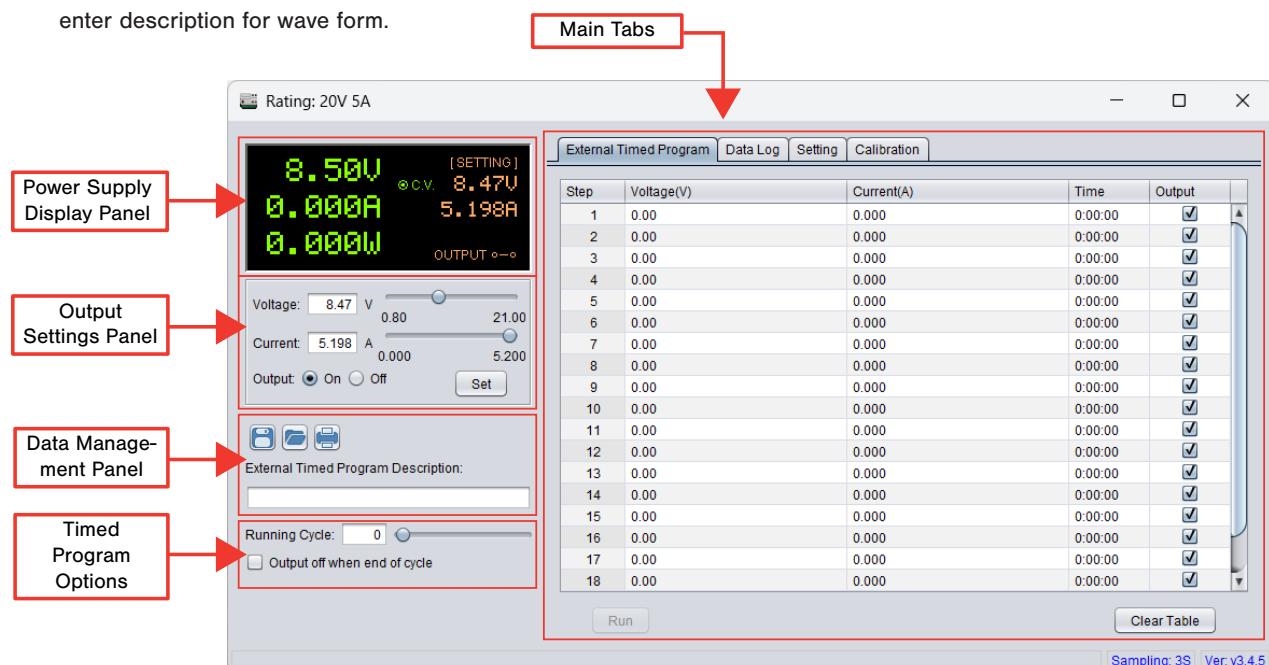
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www.caltestelectronics.com

PC Software Overview

1. **Main Tabs** - tabs to setup timed program, display data log, change connection settings, and calibrate the power supply.
2. **Power Supply Display Panel** – use to display real-time information of connected power supply.
3. **Setting Panel** – use to set voltage value, current value and output On/Off.
4. **Data Management Panel** – save, load, export, or print measurement data or program settings. Textbox is used to enter description for wave form.



Supplied Accessories

Table 2 Accessories

Accessory	Model No.	Quantity
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Power Cord	-	1
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Alligator Clip to Right Angle Sheathed Banana Plugs	-	1
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