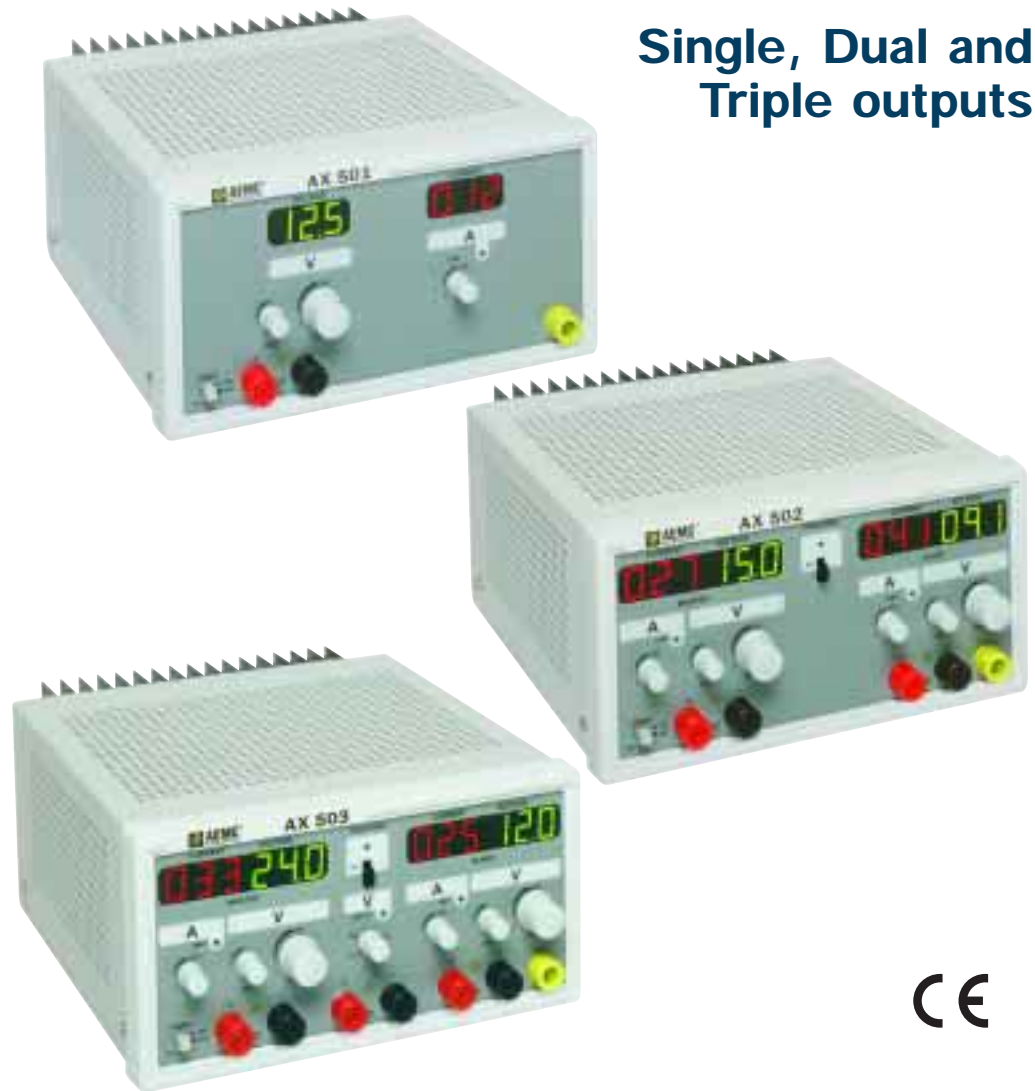


DC POWER SUPPLY

Models AX501, AX502 & AX503

The AX500 series is a comprehensive line of digital DC linear power supplies designed to meet the rigors of manufacturing, laboratory and educational applications. Designed around highly efficient toroidal transformers, they dissipate little heat, low electromagnetic emission, and are designed for continuous duty cycle at full rated output. Operator safety is enhanced with safety terminals and a front panel accessible ground terminal. Filtered Red and Green LED displays provide very clear readings and settings. Each power supply is actively protected against overloads, short circuits and overheating and will provide years of continuous service.

Single, Dual and Triple outputs.



- Single and Dual 0 to 30V_{DC}/0 to 2.5A outputs
- 5.5V/5A output (Model AX503 only)
- Series and Parallel operation permit 0 to 60V or 0 to 5A output (Models AX502 & AX503)
- Low noise (<1mV Ripple) and stable linear technology for clean output
- High efficiency toroidal transformers: no fan and low electromagnetic emissions
- Active protection against Overloads, Short Circuits and Overheating
- Unique Variable Tracking Mode for Master/Slave operation: Slave or Master track proportionally to the original setting
- Simultaneous display of Voltage and Current
- Highly visible Green (V) and Red (A) LED displays
- Compact design for bench tops
- Designed to IEC 61010-1 Safety Standards and CE marked

FEATURES

- 1, 2, and 3 output models
- Clean, stable output <math><1\text{mVrms}</math> of ripple
- Adjustable 30VDC at up to 2.5A
- Adjustable 5VDC at 5A with 3 and 5V positions
- Connect the 30V outputs together to double voltage or current
- Master/slave tracking with quick and easy setup
- Coarse and Fine voltage adjustments
- Current Limit adjustment with LED indication
- Short circuit protected at full rated current
- Display V and A simultaneously
- Front panel safety input terminals
- Front panel ground terminal

The AEMC® AX Series of Linear Power Supplies are designed for use in a wide variety of applications. They are equally at home in the precise needs of an electronic design lab, as well as the continuous operation required on a production test line. The state of the art linear technology provides a highly stable, low noise output with less than 1mV of ripple on each output. Active protection circuitry provides an extra level of insurance against damage from short circuits, overloads, and over heating. Highly efficient toroidal transformers allow these supplies to operate without fans, thus eliminating noise and electromagnetic emissions.

Three models are available offering single, dual and triple output capabilities. The single output, Model AX501 offers a 0 to 30VDC supply while the Models AX502 and AX503 each offer dual 30V outputs. Each provides the ability to display both voltage and current for each output. Additionally, the Model AX503 offers a 5V blind output which is adjustable from 2.7 to 5.5V. Dual 30V outputs can be connected in series to provide double the output voltage up to 60V, or they can be connected in parallel providing double the current output up to 5A. The Models AX502 and AX503 offer a unique master/slave tracking arrangement whereby the ratio between master and slave can be set-up on the fly as needed during the test. Adjusting the master voltage causes the slave to track. Adjusting the slave voltage causes the ratio from master to slave to change accordingly. All three models offer both a Coarse and Fine voltage adjustment as well as current limiting adjustment. Each of these supplies are built to provide many years of reliable, precise, easy-to-use operation and will be a welcome addition to any lab, test bench or production line.



Voltage levels and current limits are easily adjustable from the front panel.



SPECIFICATIONS

| MODEL | AX501 | AX502 | AX503 |
|-----------------------------|---|---|------------------------|
| Technology | Linear | | |
| Number of Outputs | 1 | 2 | 3 |
| VOLTAGE | | | |
| Output 1 | 0 to 30Vdc | 0 to 30Vdc | 0 to 30Vdc |
| Output 2 | - | 0 to 30Vdc | 0 to 30Vdc |
| Output 3 (No display) | - | - | 2.7 to 5.5Vdc |
| Display Resolution | 100mV | 100mV | 100mV |
| Accuracy | ±0.5% Reading ±1ct | ±0.5% Reading ±1ct | ±0.5% Reading ±1ct |
| Ripple | ±1mVrms | ±1mVrms | ±1mVrms |
| LINE REGULATION | | | |
| ±10% Line Voltage | ±0.03% Reading ±2mV | | |
| LOAD REGULATION | | | |
| 0 to 2.5A | ±0.02% Reading ±5mV | | |
| 0 to 5A | - | - | ±0.2% Reading ±10mV |
| CURRENT | | | |
| Output 1 | 0 to 2.5A | 0 to 2.5A | 0 to 2.5A |
| Output 2 | - | 0 to 2.5A | 0 to 2.5A |
| Output 3 | - | - | 5A max (no adjustment) |
| Resolution | 10mA | 10mA | 10mA |
| Basic Accuracy | ±0.5% Reading ±1ct | ±0.5% Reading ±1ct | ±0.5% Reading ±1ct |
| Limit Indicator | LED, Output 1 | LED, Outputs 1 & 2 | LED, Outputs 1, 2, & 3 |
| Short-circuit Protection | Electronic current limitation with voltage shutdown | | |
| Overheating Protection | Thermal protection | | |
| OUTPUT COUPLING | | | |
| Tracking | - | Output 1: Master / Output 2: Slave Proportional Slave tracking (0 to 100% of Master) | |
| Series Mode | - | 0 to 60Vdc / 0 to 2.5A | |
| Parallel Mode | - | 0 to 30Vdc / 0 to 5A | |
| GENERAL | | | |
| Power Supply | 115Vac ± 10% or 230Vac ± 10% (switch selectable) | | |
| Display (LED) | Dual Display: VOLTAGE in Green, CURRENT in Red; 0.56" (14.2mm) digit size | | |
| Operating Temperature Range | 50° to 104°F (10° to 40°C) | | |
| Operating Relative Humidity | <80% RH up to 104°F (40°C) | | |
| Storage Temperature Range | -4° to 158°F (-20° to 70°C) | | |
| Dimensions | 10.63 x 8.86 x 4.73" (270 x 225 x 120mm) | | |
| Weight | 8.8 lbs (4kg) | 9.9 lbs (4.5kg) | 13.2 lbs (6kg) |
| SAFETY | | | |
| Output | IEC 1010-1, 100V, Cat. I, CE Mark | | |
| Power Supply Inputs | Overvoltage Cat. 300V, Cat. II | | |



Optional Lead Set includes: 2 color coded leads, 1 ground lead (stripped), 2 alligator clips, and 2 grip probes
Catalog #2117.78



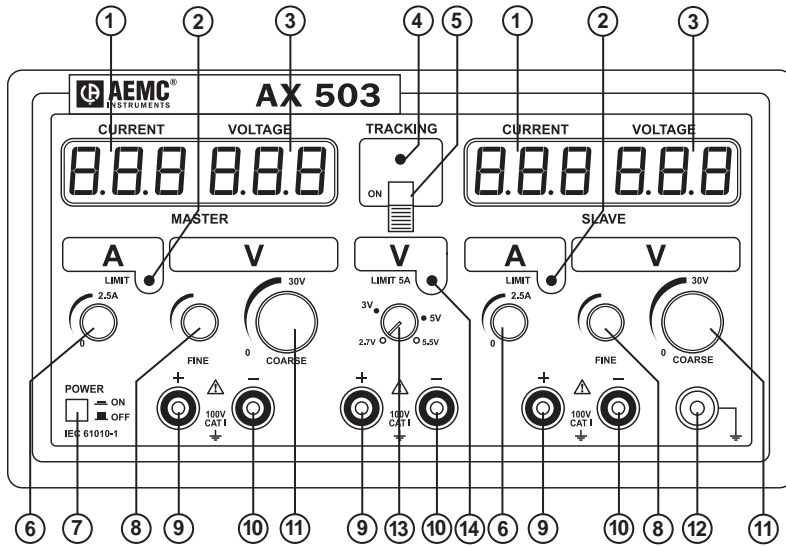
APPLICATIONS

- Engineering design labs
- Production testing
- Educational labs
- Quality assurance testing
- Approval agency testing
- Repair and calibration labs



Circuit board design testing using the 30V and 5Vdc outputs

CONSTRUCTION



1. Current display (Models AX502 & AX503 only)
2. Current Limit LED
3. Voltage display
4. Tracking function LED (Models AX502 & AX503 only)
5. Tracking switch (Models AX502 & AX503 only)
6. Current Limit adjustment potentiometer
7. On/Off button
8. Fine voltage adjustment potentiometer
9. Output terminals (+)
10. Output terminals (-)
11. Coarse voltage adjustment potentiometer
12. Ground terminal (⊥)
13. Voltage adjustment potentiometer (Model AX503 only)
14. 5A current Limit LED (Model AX503 only)

ORDERING INFORMATION

CATALOG NO.

| | |
|--|---------|
| DC Power Supply Model AX501 (Single output, 0 to 2.5A; 0 to 30Vdc) | 2130.05 |
| DC Power Supply Model AX502 (Dual output, 0 to 2.5A; 0 to 30Vdc) | 2130.06 |
| DC Power Supply Model AX503 (Triple output, two 0 to 2.5A; 0 to 30Vdc; 5A; 2.7 to 5.5Vdc) | 2130.07 |
| Accessories | |
| Lead Set (2 color-coded leads, 1 ground lead (stripped), 2 alligator clips, 2 grip probes) | 2117.78 |

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