

# ACDC-10

## Portable AC DC power supply

- Input: 120 50/60 Hz VAC +/- 10%
- Output Voltages (1.0 KVA) Unregulated
- 0-560 VAC Selectable Output Ranges
- 0-480 VDC Selectable Output Ranges
- AC and DC ammeters
- 120VDC Range is filtered
- 63 pounds
- Rugged Pelican case with lifetime warranty



### DESCRIPTION

This instrument is housed in a rugged waterproof case with a hinged lid. The input connection is by way of a recessed three prong male inlet compatible with standard IEC cords. The input is protected and controlled by a 10-amp single pole circuit breaker. When it is turned ON, a dual-deck variable autotransformer (Vernier) is energized, as well as a 0 - 600 volt digital meter. The output arm(s) are protected by a two-pole breaker. The variable output of the Vernier is connected to the primaries of two 700 VA toroidal transformers. The secondaries are connected in series and parallel configuration by means of a multi-deck six position selector switch. The AC output is monitored by the 0 - 600 VAC digital meter. An additional resistor is added in DC mode to read the DC output voltage for open circuit or resistive loads.

The output is controlled by means of a three-position rotary switch. It has maintained, momentary, and center OFF positions. When turned ON, a relay is energized and the Output On lamp is illuminated. The contacts of the relay provide AC voltage directly to one pair of yellow binding posts and through a full-wave bridge rectifier to provide DC to a pair of red and black binding posts.

A 20 kOhm load resistance is connected to the DC output along with a 12-volt Zener diode. This provides a 3 - 12 watt load for the DC output.

This power supply has no filter capacitors on the 240VDC and 480VDC Output modes and is intended to be operated with no load capacitance. The actual AC voltage will drop by as much as 11% under rated load, and the voltmeter will read the actual voltage. Snubbers are connected across the output terminals to reduce noise and high voltage spikes when connected to inductive loads.

The TIMER jacks may be used to start an external timer when the output voltage is applied to the load. These contacts consist of a solid-state relay rated at 0.1 amps and 200 V.

The Remote Jacks may be used to remotely turn output on via solid state relay these are dry contacts.

### APPLICATION

The ACDC-10 is a small portable AC and DC power supply intended for circuit breaker charging motors and other general-purpose applications. It will provide DC voltage in three nominal ranges from 0 to 120, 240, and 480 volts at 1 kVA, and AC voltage in three nominal ranges from 0 to 140, 280, and 560 volts at 1.4 kVA. The unit is housed in a rugged plastic enclosure approximately 20" x 11" x 18" and weighs less than 65 lbs.

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### SPECIFICATIONS



<b>Width:</b>	20 inches (508 mm)		
<b>Length:</b>	11 inches (279 mm)		
<b>Height:</b>	18 inches (457 mm)		
<b>Weight:</b>	63 pounds (28 kg)		
<b>Input:</b>	105-130 VAC, 50/60 Hz, 1.2 kVA nominal (10 amperes)		
<b>Outputs:</b>	0-140 VAC at 7.2 A continuous (1.0 kVA)		
	0-280 VAC at 3.6 A continuous		
	0-560 VAC at 1.8A continuous		
	0-480 VDC at 1.8A continuous (0.86 kVA) (unfiltered)		
	0-240 VDC at 3.6A continuous (unfiltered)		
	0-120 VDC at 7.2A continuous (filtered)		
<b>Regulation:</b>	11% on AC outputs at 1.0 kVA		
	11% on DC outputs at 0.86 kVA		
<b>Ripple (DC):</b>	<2% 120VDC Range Only		
<b>Overloads:</b>	200%	30 seconds ON, 90 seconds OFF	(25% Duty Cycle)
	300%	10 seconds ON, 90 seconds OFF	(10% Duty Cycle)
<b>Voltmeter Accuracy:</b>			
	AC:	+/- 0.5% of reading +/- 0.5% FS	
	DC:	+/- 2% of reading +/- 1% FS (at rated output current and resistive load)	
<b>Ammeter Accuracy:</b>			
	AC:	+/- 0.15% FS, +/- 6 Counts	
	DC:	+/- 0.15% FS	

#### Included Accessories

- Input power cord 1
- Contacts leads 1 pair
- Technical manual 1 copy