



PI-800 Gen2

Portable Circuit Breaker Test Set



Our Mission is Reliability

ETI Precision manufactures industry-leading high-current circuit breaker testers and AC/DC variable power supplies. Our products are manufactured in the USA and deployed at testing companies and within critical environments nationwide, ensuring technical functionality, accuracy, and increased equipment availability.

DESCRIPTION

The PI-800 Circuit Breaker Test System incorporates modular design and flexibility to provide unequaled capability in a portable unit. This tester has been designed and built with a focus on reliability, durability, and ease-of-use.

- **Peak Output of 8,000A:** This test set achieves peak output of approximately 8,000A, making the unit ideal for testing draw-out breakers and molded-case breakers up to to 800A continuous.
- **Built For Field Service:** The PI-800 test set incorporates a modular design with rugged interlocking suitcase-size enclosures. Each piece weighs no more than 125 pounds, allowing one-person hand truck mobility.
- **Easy and Accurate:** Basic operation is very simple, and the proven MAC-21 instrumentation provides optimal output control and measurement. The MAC-21 instrumentation is supplied in a separate rugged portable case, interlocks with the PI-800, and connects to a cable in the rear of the test set.
- **Maximizing Testing Flexibility:** Available in two switch-selectable input voltage options including:
 - Option A Input: 120, 208-240 VAC
 - Option B Input: 208, 240, and 277 VAC
- **Prioritizing Safety:** Upgrades and improvements include protecting your equipment and technicians from accidental mains overvoltage situations.

APPLICATIONS

This test set will test low-voltage, molded-case, and metal-clad, direct acting AC circuit breakers from various manufacturers. The test set can also be used for high-current applications like ratio transformers and heat runs. Using SCR's the PI-800 eliminates closing time errors. Initiation at the zero crossover point eliminates DC offset in the current waveform and results in accurate, repeatable test results even with short-duration currents for high-speed, solid-state, or electromechanical trip devices.

SPECIFICATIONS¹

Option A: Output Current & Overload Capabilities

4.2V (S/P)	8.4 V (Series)	Overload	Duty	Max ON Time	Min OFF Time	Max Input Curr 240V	Max Input Curr 120V
800 A	400 A	1X	100%	Continuous	N/A	18 A	36 A
1120 A	560 A	1.4 X	50%	15 Min	15 Min	25 A	50 A
1600 A	800 A	2 X	25%	5 Min	15 Min	36 A	72 A
2400 A	1200 A	3 X	10%	2.5 Min	20 Min	50 A	100 A
3200 A	1600 A	4 X	6%	75 Sec	20 Min	72 A	144 A
4000 A	2000 A	5 X	4%	4 Sec	2 Min	90 A	180 A
5600 A ²	2800 A ²	7 X	2%	2 Sec	2 Min	126 A	²
8000 A ²	4000 A ²	10 X	1%	0.6 Sec	1 Min	180 A	²

Option B: Output Current & Overload Capabilities

4.2V (S/P)	8.4 V (Series)	Overload	Duty	Max ON Time	Min OFF Time	Max Input Curr 208V	Max Input Curr 240V	Max Input Curr 277V
800 A	400 A	1X	100%	Continuous	N/A	21 A	18 A	16 A
1120 A	560 A	1.4 X	50%	15 Min	15 Min	29 A	25 A	22 A
1600 A	800 A	2 X	25%	5 Min	15 Min	42 A	36 A	31 A
2400 A	1200 A	3 X	10%	2.5 Min	20 Min	58 A	50 A	43 A
3200 A	1600 A	4 X	6%	75 Sec	20 Min	83 A	72 A	62 A
4000 A	2000 A	5 X	4%	4 Sec	2 Min	104 A	90 A	78 A
5600 A	2800 A	7 X	2%	2 Sec	2 Min	146 A	126 A	109 A
8000 A	4000 A	10 X	1%	0.6 Sec	1 Min	208 A	180 A	155 A
12800 A	6400 A	16 X	0.5%	0.1 Sec	1 Min	330 A	300 A	248 A

¹Specifications are subject to change without notice.

²Available with 240 VAC input only; Max ON Times may be less at 120VAC

Current Ranges:

- 0-1000 Amps
- 5 Kilo-Amps
- 25 Kilo-Amps
- 100 Kilo-Amps

Current Accuracy:

- +/- 0.5% of reading + 0.5% of range continuous
- +/- 1% of reading + 1% of range pulse

Timer Ranges:

- 0-9999.999 Seconds
- 0-9999.9 Cycles

Timer Accuracy:

- +/- 0.5% of Reading +/- 1 Count

Dimensions and Net Weight (MAC-21):

- Height: 11.5 in. (292 mm)
- Width: 21.5 in. (546 mm)
- Depth: 22.5 in (572 mm)
- Weight: 30 lb. (13 kg)

Dimensions and Net Weight (PI-800):

- Height: 11.5 in. (292 mm)
- Width: 21.5 in. (546 mm)
- Depth: 22.5 in (572 mm)
- Weight: 125 lb. (57 kg)

Input Supply:

- Option A: 120 or 208-240 VAC + 10%, -15% (Switch Selectable), Single Phase
- Option B: 208, 240 or 277 VAC + 10%, -15% (Switch Selectable), Single Phase
- 60 Hz (50 Hz at 10% Lower Maximum Line Voltages)
- 4.2 KVA (Continuous) at 3.8KVA Output (90% Efficiency)

Standard Accessories:

Accessory	Part #	Quantity
Series Bar Outer	M-D167	2 EA
Series Bar Inner	M-D166	2 EA
Output Bar	M-D168	2 EA
Contact Leads	S-B194	1 EA
Remote Initiate Cable	S-B143	1 EA
MAC-21 Cable MAC to 800	S-B444	1 EA
Technical Manual	S-A121	1 EA

Optional Accessories:

Accessory	Part #
MAC Report Generator Software	OP-112

Serial Port:

- Standard serial port for connection to printer, computer or other device to print or store time and current values in ASCII format.