



ELECTRICAL SPECIFICATIONS

Current Range: 1 to 1000AAC continuous cycle
 1 to 2000AAC continuous cycle
 1 to 2400AAC continuous cycle for the full temperature range
 (3000A if temperature < 35°C or 95°F)

Transformation Ratio: 1000:1 - 2000:1 - 3000:1

Output Signal: 1mAAC / AAC (1A at 1000A)
 0.5mAAC / AAC (1A at 2000A)
 0.333mAAC / AAC (1A at 3000A)

Accuracy and Phase Shift*:

**Reference conditions: 23°C ±3°K, 20 to 85% RH, 45 to 65Hz, external magnetic field <40 A/m, no DC component, no external current carrying conductor, test sample centered.*

Accuracy: IEC 185-26-27, Class 1 (2.5VA) from 48 to 1000Hz

1000A RANGE

Primary current	50A	200A	1000A
Accuracy % Reading	3%	1.5%	1%
Phase shift	3°	1.5°	1°

Load Impedance: 2.5Ω

Overload: 1400A for 10 mn

Ampere Second Product: 25 A.s

2000A RANGE

Primary current	100A	400A	2000A
Accuracy % Reading	1.5%	0.75%	0.5%
Phase shift	1.5°	0.75°	0.5°

Load Impedance: 5Ω

Overload: 2400A for 10 mn

Ampere Second Product: 60 A.s

3000A RANGE

Primary current	150A	600A	3000A
Accuracy % Reading	1.5%	0.75%	0.5%
Phase shift	1.5°	0.75°	0.5°

Load Impedance: 10Ω

Overload: 3400A for 10 mn

Ampere Second Product: 90 A.s

Frequency Range: 30 to 1000Hz, current derating
 above 1000 Hz for continuous use.

Load Impedance : ≤ 10Ω

Working Voltage: 600Vac

Common Mode Voltage: 600Vac

Open Secondary Voltage: 42V max. by limiting circuit

Influence of Adjacent Conductor: < 0.005A / AAC

Influence of Conductor in Jaw Opening:

1.5% ± 0.2A on 1000:1 range
 1% ± 0.2A on 2000:1 range
 1% ± 0.2A on 3000:1 range

MECHANICAL SPECIFICATIONS

Operating Temperature: 14° to 122°F (-10° to 50°C)

Storage Temperature: -13° to 176°F (-25° to 80°C)

Influence of Temperature: <0.1% per 10°K

Jaw Opening: 3.54" (90mm)

Maximum Conductor Size:

Cable: 2.52" Ø max. (64mm)
 Bus bar: 1.97 x 5.31" (50 x 135 mm)
 2.52 x 3.94" (64 x 100 mm)

Envelope Protection: IP 20 (IEC 529)

Drop Test: 1 m (IEC 68-2-32)

Mechanical Shock: 100 g (IEC 68-2-27)

Vibration: 10/55/10 Hz, 0.15 mm (IEC 68-2-6)

Polycarbonate Material:

Handles: 10 % fiberglass charged polycarbonate UL 94 V0
 Jaws: ABS UL 94 V2

Dimensions: 4.72 x 12.40 x 1.9" (120 x 315 x 48 mm)

Weight: 2.65 lbs (1200 g)

Colors: Dark gray handles with red jaws

Output: Two standard safety banana jacks (4mm)

SAFETY SPECIFICATIONS

Electrical: Double insulation or reinforced insulation between the primary or the secondary and the outer case of the handle upon IEC 1010-2-32.

Common mode voltage: 600 V Category III, Pollution: 2

Electromagnetic Compatibility:

EN 50081-1 Class B
 EN 50082-2 Electrostatic discharge IEC 1000-4-2
 Radiated field IEC 1000-4-3
 Fast transients IEC 1000-4-4
 Magnetic field at 50/60 Hz IEC 1000-4-8



ORDERING INFORMATION

AC Current Probe JM850A..... Cat #2110.87

Accessories:

Leads, set of 2, 5 ft. safety (1000V) **Cat #2111.29**

Lead #221 for probe 5A series
 (5 ft., rated 250V) **Cat #2950.06**

Pair, safety current leads
 (5 ft. retractable, rated 250V) **Cat #100.319**

Shipping: The probe JM850 is shipped with an instruction manual and a product warranty and registration card.

Revision	Description	Date	Approved
1	First version	Sept. 20, 1993	
2	Work., common voltage 600V	Feb. 05, 1994	JPM
3	IEC 1010	Feb. 23, 1995	JPM
4	Update Specifications	Dec. 1, 1996	JPM
5	Verify Specifications	December 1998	JPM
6	IEC 1010-2-32; remove 300V	April 6, 2001	JPM