

AT30E

Surge arrester / protector for 2 wires instrumentation & signal lines, outdoor installation, according to EN-61000-4-5 Class 4



0.- INTRODUCTION

AT30I provides surge protection in two wires signal transmission lines such as 0/4 to 20 mA current loop instrumentation, voltage analog inputs/outputs, detectors, serial communications interfaces, switches,.. It includes an internal 3 stage based protection system with to earth drainage fast response devices. Manufactured by ISURKI since 1997, AT30I offers a reliable and cost-effective protection for industrial instruments and control devices.

1.- WORKING RATES

- nominal working voltage: 30 Vdc
- Maximum output current: 1.50 amps
- Inner resistance: $4 \Omega \pm 5\%$.

2.- TRANSIENT RESPONSE

2.1. Main protection

- DC breaking voltage (incremental slope of 100 V/s.):
 - typical: 90 V.
 - minimum: 72 V.
 - maximum: 108 V.
- AC breaking voltage (incremental slope of 1 kV/ μ sec.): 700 V.
- 8/20 μ sec curve maximum current (according to IEC 801-5): 5 kA.
- AC discharge (5 discharges at 3 minute intervals during 1 sec.): 5 A.
- Isolation resistance: 1000 M Ω .
- Maximum capacitance: < 1'5 pF

2.3. Fine protection

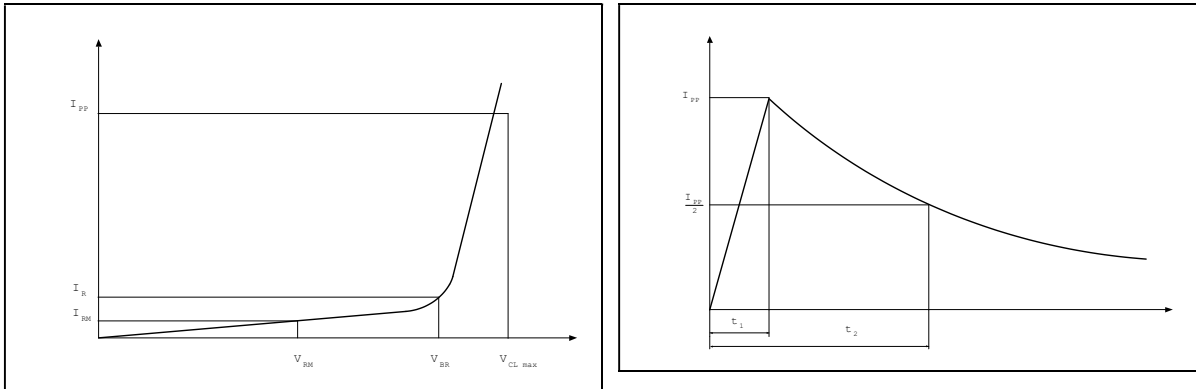
- Nominal voltage: 30.8 V
- Breaking voltage:
 - typical: 36.0 V.
 - minimum: 34.2 V.
 - maximum: 37.8 V.
- response time: 5 psec. maximum

2.2. Medium protection

- Maximum working voltage: 31 Vdc
- Maximum transient disipation (10/1000 μ sec curve): 1'5 jules
- Maximum transient current (8/20 μ sec curve): 250 A
- 8/20 μ sec curve: $V_{CLmax}=79V$ and $I_{ppmax}=5$ A.

Curve (t1/t2)	VCL max (v)	Ipp max (amp)
10/1000 μ sec	49.9	30
8/20 μ sec	64.3	280

3.- CURVES



4.- INSTALLATION

- AT30I does not replace the protection devices required to comply with local electric safety regulations.
- Suitable for outdoor installation. Enclosure characteristics:
 - Protection degree: IP66 / NEMA 4.
 - Material: polycarbonate.
 - External dimensions: 120x80x56 mm.
 - Temperature working range: -50 a 100°C.
 - Others: UV radiation protected, auto extinguishable, inflammability according to UL94 V-2
- input (D, A), output (E, H) and ground terminals (C, B, F or G) connection: screwed.
- Weight (gr.): 100 aprox.

