

PICO® 305 Series - 277V UL913 Intrinsically Safe Fuse

ROHS CAL UL913



| Agency Approvals | |
|------------------|---------------------|
| Agency | Agency File Number |
| ATEX | DEMKO 13 ATEX 1200U |
| c FN ° us | E358130 |
| IECEx | IECEx UL 13.0077U |

Reference Standards

| Agency | Standards |
|--------|--|
| ATEX | EN 60079-0, EN 60079-11, EN 60079-26 |
| IECEx | IEC 60079-0, IEC 60079-11, IEC 60079-26 |
| UL | UL 913, UL 60079-0, UL 60079-11 |
| cUL | CAN/CSA C22.2 No. 157, CAN/CSA C22.2 No. 60079-0, CAN/CSA C22.2 No. 60079-11 |

Description

The PICO 305-Series fuse offer a range of encapsulated fuses approved under UL 913 standard for Intrinsically Safe Electrical Equipment to operate in hazardous locations. Ideal for use in oil, gas, mine, chemical, and pharmaceutical industries, the PICO 305-Series fuse was designed to limit the energy and temperature generated during its operation. The fuse design and its encapsulant are suitable for use in an intrinsically safe apparatus and associated apparatus for voltage not exceeding 277V.

Features

- High Interrupting Rating of Designed for operation 1500A
- in a range of hazardous environments

Process control and

automations

Sensors

Sealed

- Well suited for 277V application
- Current rating options from 0.050 to 0.750A

Applications

- Testing, measuring or processing electronic and electrical equipment
- Motor controllers
- Lighting • Communication handsets • Flowmeters

Electrical Characteristics for Series

| % of Ampere Rating | OpeningTime |
|-----------------------|------------------------|
| 110% | 4 Hours, Minimum |
| 300% | 10 Seconds, Maximum |
| 1000% | 0.002 Seconds, Maximum |

Electrical Specifications by Items

| Ampere | | Ama Codo | Nominal | Nominal | A | gency Approvals | 6 |
|---------------|---------------------|----------|---------------------------|--------------------------|------|-----------------|-------|
| Rating (A) | Interrupting Rating | Amp Code | Cold Resistance (Ohms) | Melting I²t (A² Sec.) | ATEX | c 🔁 us | IECEx |
| 0.050 | | .050 | 12.00 | 0.00019 | х | х | х |
| 0.080 | | .080 | 8.19 | 0.00035 | х | x | х |
| 0.100 | | .100 | 5.00 | 0.00070 | х | x | х |
| 0.160 | 1500A @ 277VAC/DC | .160 | 3.00 | 0.00202 | х | х | х |
| 0.200 | - 1500A @ 277VAC/DC | .200 | 2.68 | 0.00288 | х | х | х |
| 0.250 | | .250 | 1.6 | 0.00662 | х | x | х |
| 0.500 | | .500 | 0.46 | 0.04462 | х | x | х |
| 0.750 | | .750 | 0.27 | 0.13448 | х | х | x |

1) The fuse must be mounted so that creepage and clearance distances aren't impaired in any way

2) The fuse is suitable for use in intrinsically safe equipment and associated apparatus for voltage not exceeding 375V peak.

3) Maximum surface temperature rise at 170% rated current 200mA=80°C, 250mA = 84°C, 500mA = 56°C, and 750mA = 84°C.

Product Characteristics

| OperatingT | emperature |
|----------------|--------------------|
| Current Rating | AmbientTemperature |
| ≤ 0.200 A | - 40 °C to +50 °C |
| 0.250 A | - 40 °C to +46 °C |
| 0.500 A | - 40 °C to +74 °C |
| 0.750 A | - 40 °C to +46 °C |

Note:

1) Any use of the 305 Series fuse outside of the ambient temperature ranges specified in the table is subject to additional investigation.

| Thermal Shock | Withstands 5 cycles of –55°C to 125°C |
|--|---|
| Vibration | Per MIL-STD-202F |
| Insulation Resistance (After Opening) | Greater than 10,000 ohms (at twice rated DC voltage) |

Soldering Parameters

| Wave Soldering | Wave |
|----------------|------|
|----------------|------|

260°C, 10 seconds max.

Dimensions



Part Numbering System



M = Bulk pack, 1000 pcs

H = Bulk pack, 100 pcs

V = Bulk pack, 5 pcs

Average Time Current Curves



Temperature Rerating Curve



Note:

1) Rerating depicted in this curve is in addition to the standard rerating of 25% for continuous operation.

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