

Intrinsically Safe Radial Leaded Fuses

IECEx/ATEX Certified Fuse - IEC 60127-3 · 250 VAC · Time-Lag

ISF021/T Series Fuse IECEx and ATEX certified



Features

- IEC 60127-3 · 250 VAC · Time-Lag
- Can operate continuously at full rated current
- Socket mountable - I.S. Replaceable - compatible sockets available
- Fuse resistance guaranteed - for resistance ranges see specification P005-08
- Eliminates the need to encapsulate fuses in circuit. A minimum of 1mm of solid insulation is provided in all directions
- Speeds up Intrinsic Safety product certification process
- Certified for Mining as well as Surface applications
- Directly solderable on printed circuit boards
- Low Breaking Capacity

Standards

IEC/EN 60079-0:2006
IEC/EN 60079-11:2007
IEC 60127-3/4
UL 248-14
CSA C22.2 no. 248.14

Approvals

Ex Certification

IECEx SIR 07.0050U
Sira 05ATEX2274U

Pre-encapsulated Fuse

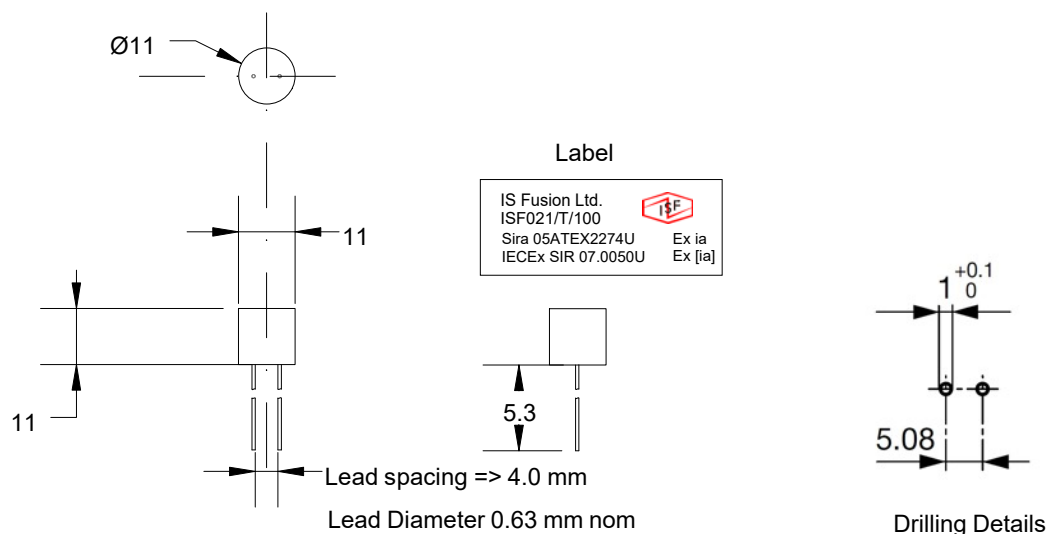
VDE Certificate Number: 40002080
UL File Number: E41599
CSA File Number: 51172

Technical Data

Rated Voltage	250 VAC
Rated Current	0.05 - 6.3A
Breaking Capacity	35A - 63A
Characteristic	Time-Lag T
Mounting	PCB,THT
Fuse Resistance	Tables available on request

Soldering Methods	Wave, Iron
Solderability	235 °C / 2 sec acc. to IEC 60068-2-20, Test Ta, method 1
Resistance to Soldering Heat	260 °C / 5 sec acc. to IEC 60068-2-20, Test Tb, method 1A
Terminal Strength	MIL-STD-202, Method 211A (Deflection of board 1 mm for 1 minute)

Dimensions



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Pre-Arcing Time

Rated Current In	1.5 x In min.	2.1 x In max.	2.75 x In min	2.75 x In max.	4.0 x In min.	4.0 x In max.	10.0 x In min.	10.0 x In max
0.05A - 6.3A	60 min	120 sec	400 ms	10 s	150 ms	3 s	20 ms	150 ms

Part Number	Rated Current [A]	Rated Voltage [VAC]	Breaking Capacity	Voltage Drop 1.0 In max. [mV]	Voltage Drop 1.0 In typ. [mV]	Power Dissipation 1.5 In max [mW]	Melting I ² t 10.0 In typ [A ² s]
ISF021/T/050	0.05	250	1)	550	415	155	0.03
ISF021/T/063	0.063	250	1)	480	420	160	0.05
ISF021/T/080	0.08	250	1)	400	360	165	0.06
ISF021/T/100	0.1	250	1)	350	320	170	0.08
ISF021/T/125	0.125	250	1)	300	270	180	0.12
ISF021/T/160	0.16	250	1)	280	190	190	0.24
ISF021/T/200	0.2	250	1)	260	150	200	0.35
ISF021/T/250	0.25	250	1)	240	120	220	0.6
ISF021/T/315	0.315	250	1)	220	120	250	0.8
ISF021/T/400	0.4	250	1)	200	110	280	1.1
ISF021/T/500	0.5	250	1)	190	100	310	2.5
ISF021/T/630	0.63	250	1)	180	90	360	4
ISF021/T/800	0.8	250	1)	160	80	430	8
ISF021/T/1.0	1	250	1)	140	70	500	12
ISF021/T/1.25	1.25	250	1)	130	70	600	15
ISF021/T/1.6	1.6	250	1)	120	60	730	30
ISF021/T/2.0	2	250	1)	100	60	870	34
ISF021/T/2.5	2.5	250	1)	100	50	1000	55
ISF021/T/3.15	3.15	250	1)	100	50	1200	76
ISF021/T/4.0	4	250	2)	100	50	1400	80
ISF021/T/5.0	5	250	3)	–	50	–	230
ISF021/T/6.3	6.3	250	3)	–	45	–	360

1) IEC: 35 A @ 250 VAC

1) UL: 35 A @ 250 VAC / 50 A @ 125 VDC

2) IEC: 10 In @ 250 VAC

2) UL: 10 In @ 250 VAC / 10 In @ 125 VDC

3) IEC: 10 In @ 250 VAC

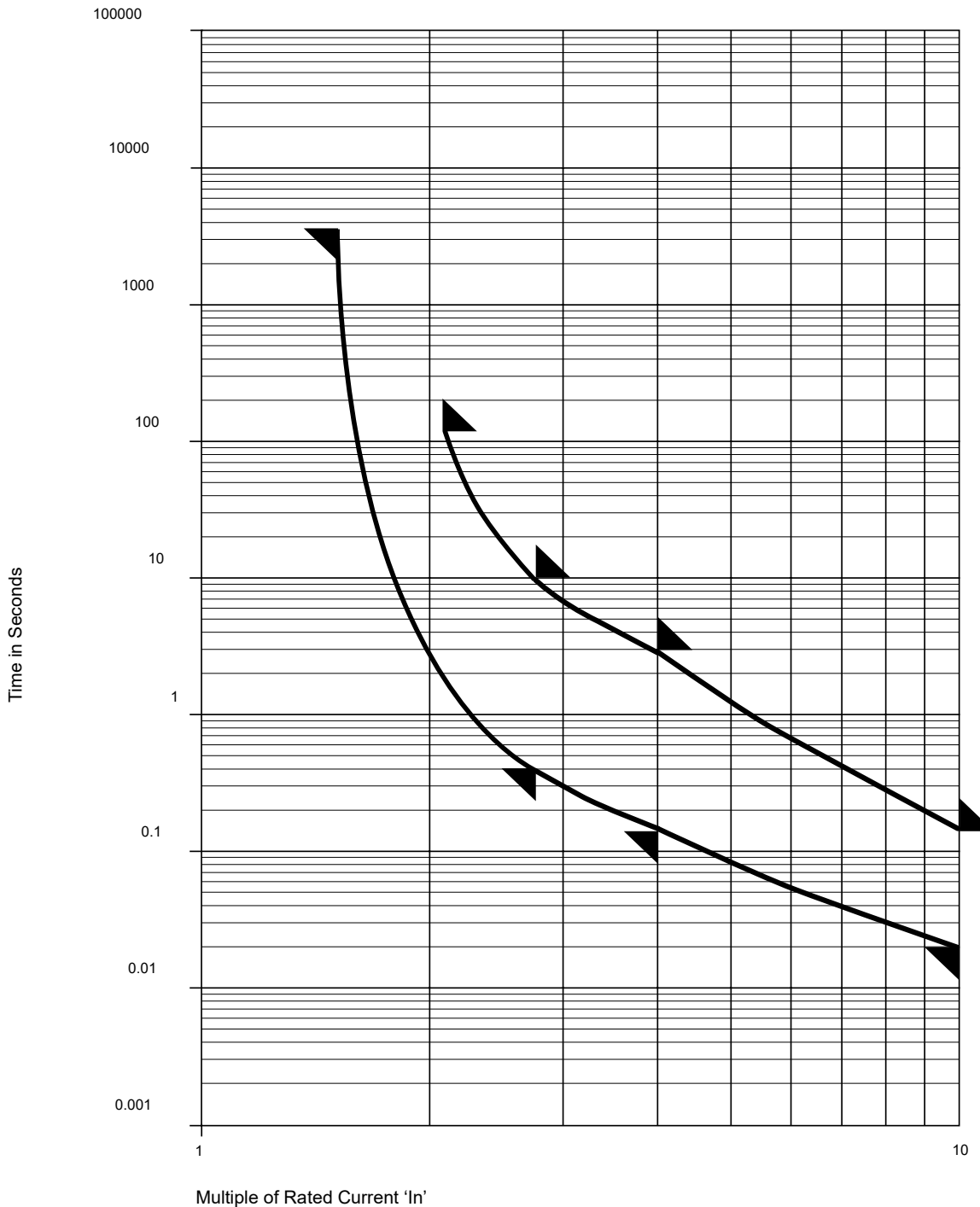
3) UL: 10 In @ 250 VAC / 10 In @ 63 VDC

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Time-Current-Curves




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Certification Details

Certificates: International European	IECEX SIR 07.0050U Sira 05ATEX2274U
Certification Code	Ex ia IIC Ga, Ex ia I Ma, Ex[ia] (Ga), Ex[ia] (Ma)
Marking required by Directive 94/9/EC	I M1 II 1 G I (M1) II (1) G 
Ambient range	-50°C to +93°C (I _N = 5A max) -50°C to +80°C (I _N = 6.3A max)
Maximum Installed Circuit Voltage	90 Volts or 250 Volts under coating

Special Conditions for Safe Use

Mounting of fuse	The mounting of the fuse shall be such that its creepage and clearance distances comply with table 5 of IEC 60079-11:2011.
The maximum external surface temperature rise of the fuses	85K
Marking	Due to size limitations, the marking shown on the actual fuses is limited. The full information is shown on the product packaging label and detailed in this data sheet. Therefore, the user/installer shall refer to these items in order to determine the suitability of the particular fuse before use.