

## Intrinsically Safe Radial Leaded Fuses

IECEX/ATEX Certified Fuse - IEC 60127-3 · 250 VAC · Quick Acting

### ISF021/F Series Fuse IECEx and ATEX certified



#### Features

- IEC 60127-3/3 · 250 VAC · Quick Acting
- Can operate continuously at full rated current
- Socket mountable - I.S. Replaceable - compatible sockets available
- Fuse resistance guaranteed - for resistance ranges see specification P005-09
- 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 60127-3/3  
 UL 248-14  
 CSA C22.2 no. 248.14

#### Approvals

##### Ex Certification

IECEX SIR 07.0050U  
 Sira 05ATEX2274U

##### Pre-encapsulated Fuse

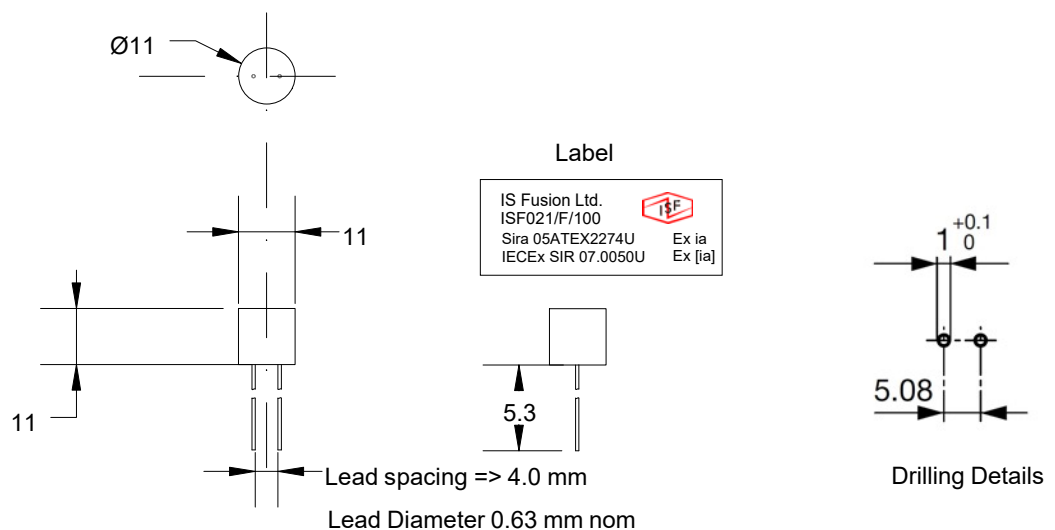
VDE Certificate Number: 101035  
 UL File Number: E41599  
 CSA File Number: 51172

#### Technical Data

Rated Voltage	250 VAC
Rated Current	0.04 - 5A
Breaking Capacity	35A
Characteristic	Quick Acting
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 max
0.04A - 5A	60 min	30 min	10 ms	3 s	3 ms	300 ms	20 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 <sup>2</sup> t 10.0 In typ [A <sup>2</sup> s]
ISF021/F/040	0.04	250	1)	~	400	~	0.00016
ISF021/F/050	0.05	250	1)	850	460	110	0.0004
ISF021/F/063	0.063	250	1)	750	330	120	0.001
ISF021/F/080	0.08	250	1)	650	280	140	0.001
ISF021/F/100	0.1	250	1)	600	300	160	0.002
ISF021/F/125	0.125	250	1)	550	210	180	0.006
ISF021/F/160	0.16	250	1)	500	460	210	0.014
ISF021/F/200	0.2	250	1)	480	470	250	0.024
ISF021/F/250	0.25	250	1)	440	360	290	0.058
ISF021/F/315	0.315	250	1)	400	345	330	0.104
ISF021/F/400	0.4	250	1)	370	80	390	0.044
ISF021/F/500	0.5	250	1)	350	75	460	0.09
ISF021/F/630	0.63	250	1)	320	70	530	0.15
ISF021/F/800	0.8	250	1)	300	70	630	0.22
ISF021/F/1.0	1	250	1)	280	70	740	0.33
ISF021/F/1.25	1.25	250	1)	280	65	920	0.68
ISF021/F/1.6	1.6	250	1)	250	70	1000	0.94
ISF021/F/2.0	2	250	1)	240	70	1360	1.3
ISF021/F/2.5	2.5	250	1)	200	65	1310	1.9
ISF021/F/3.15	3.15	250	1)	180	65	1490	5.4
ISF021/F/4.0	4	250	2)	160	60	1680	7.9
ISF021/F/5.0	5	250	2	150	60	1970	11.2

1) 35 A @ 250 VAC

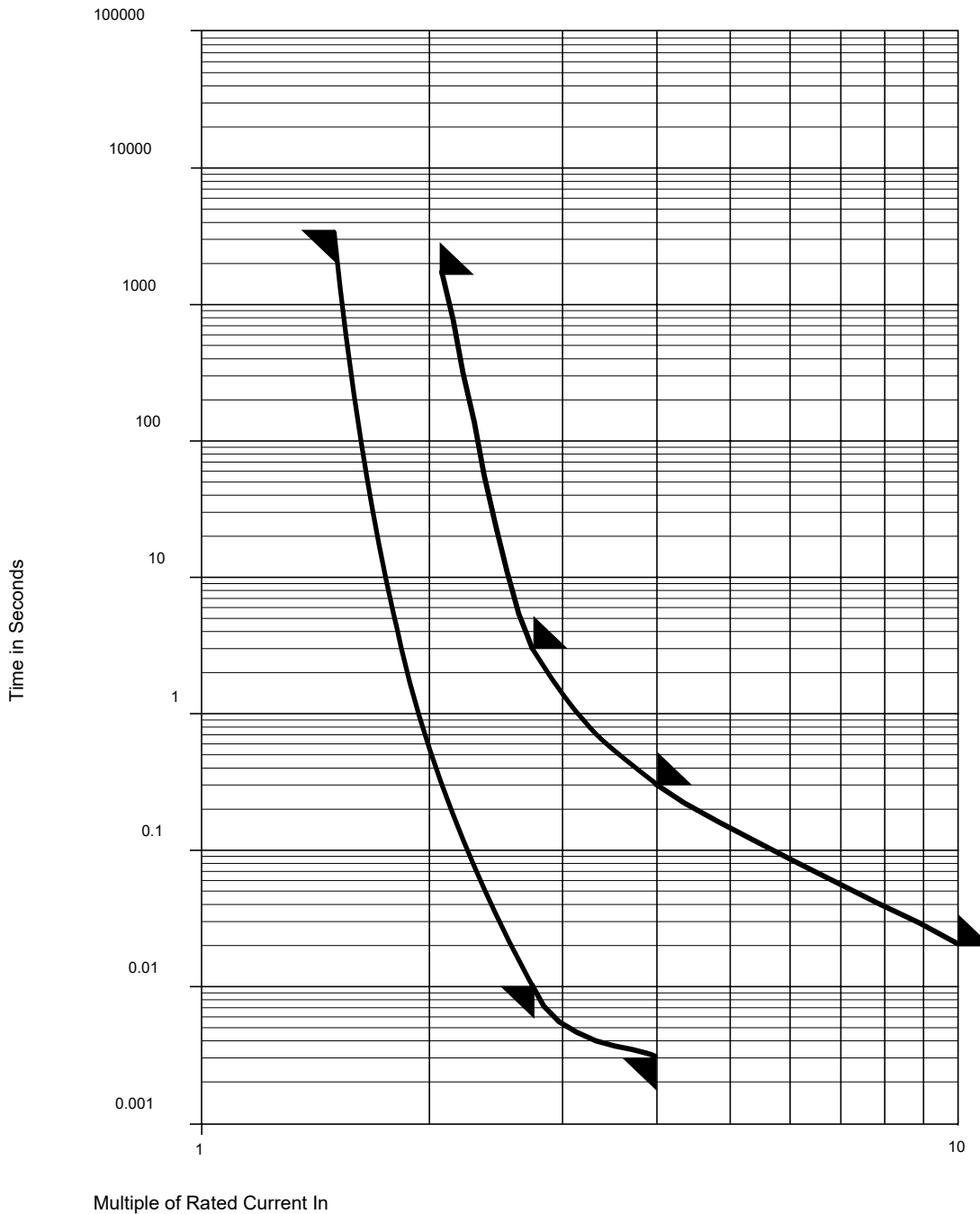
2) 10 In @ 250 VAC

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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] (Ga)	Ex ia I Ma Ex[ia] (Ma)
Marking required by Directive 94/9/EC	I M1 I (M1)	II 1 G II (1) G
Ambient range	-50°C to +93°C (I <sub>N</sub> = 5A max) -50°C to +80°C (I <sub>N</sub> = 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.