

DNR

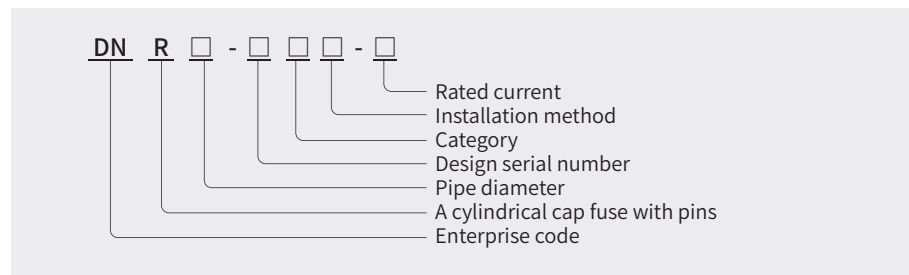
Fuse for Semiconductor Equipment Protection



Product Description

The DNR□-J1M series of fuses for semiconductor equipment protection have a rated voltage of AC690V/DC500V and a rated current of 32 to 400A. They are used in frequency converters, rectifiers, inverters, various power semiconductor equipment, as well as batteries, motors, capacitors, wires and other equipment and components, and can provide short-circuit and backup protection.

Model and Meaning



Normal working conditions

- Working humidity range: When the maximum temperature is 40°C, the relative humidity shall not exceed 50%. When the maximum temperature is 20°C, the relative humidity shall not exceed 90%.
- Normal operating temperature range: -5°C to 40°C;
Allowable operating temperature range: -40°C to 80°C
- Altitude: No more than 2000 meters. When the altitude exceeds this value:
For every 100 meters increase in altitude, the temperature rise of the fuse increases by approximately 0.5k.
For every 100 meters increase in altitude, the ambient temperature drops by approximately 0.5°C on average.
- Generally, for fuses used in open environments, the influence of altitude on the rated current can be ignored, and they should still be selected in accordance with standard conditions.
4) For fuses used in a closed environment, if the ambient air temperature of the box or the internal temperature of the box does not significantly decrease with the increase of altitude and can still reach above 40°C, the rated current capacity needs to be reduced. Selection formula for rated current of fuses

$$I = I_n \times \left(1 - \frac{h-2000}{100} \times \frac{0.5}{100}\right)$$
- Flame retardant requirements (for flammable materials containing plastics, etc.) : Flame Retardant grade (UL94)V-0.

DNR10-J1M

Fuse for Semiconductor Equipment Protection

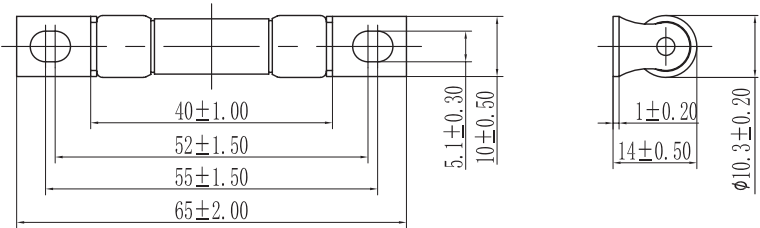


Rated voltage	AC 690V/DC 500V
Rated current	4A~32A
Protection category	aR
Breaking capacity	AC 100kA/DC 50kA
Time constant	10~15ms(DC50kA)
Reference standard	GB/T 13539.4 IEC 60269-4
Certification mark	CCC, CE, TUV

Product Parameter Table

Specification and model	Size	In (A)	I²t (A²S)		0.5In Power dissipation(W)	0.8In Power dissipation(W)	1.0In Power dissipation(W)
			Pre-Arcing	Fusing			
DNR10-J1M-4A	10	4A	75	270	0.2	0.4	0.8
DNR10-J1M-6A	10	6A	84	301	0.2	0.5	0.9
DNR10-J1M-8A	10	8A	94	337	0.3	0.5	1
DNR10-J1M-10A	10	10A	113	400	0.3	0.7	1.2
DNR10-J1M-12A	10	12A	123	440	0.4	0.7	1.3
DNR10-J1M-16A	10	16A	160	573	0.5	0.9	1.7
DNR10-J1M-20A	10	20A	198	708	0.6	1.1	2.1
DNR10-J1M-25A	10	25A	255	911	0.8	1.5	2.7
DNR10-J1M-30A	10	30A	302	1064	0.9	1.7	3.1
DNR10-J1M-32A	10	32A	311	1080	1	1.8	3.2

Product external dimensions (mm)



Installation method

Installation method	Bolt installation
Use bolts	M5
Suggested installation torque	4N·m

DNR18-J1M

Fuse for Semiconductor Equipment Protection

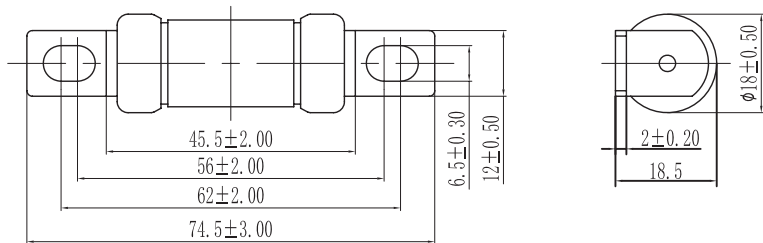


Rated voltage	AC 690V/DC 500V
Rated current	10A~100A
Protection category	aR
Breaking capacity	AC 100kA/DC 50kA
Time constant	10~15ms(DC50kA)
Reference standard	GB/T 13539.4 IEC 60269-4
Certification mark	CCC, CE, TUV

Product Parameter Table

Specification and model	Size	In (A)	I ² t (A ² S)		0.5In Power dissipation(W)	0.8In Power dissipation(W)	1.0In Power dissipation(W)
			Pre-Arcing	Fusing			
DNR18-J1M-10A	18	10A	2600	10000	1.4	2.5	4.6
DNR18-J1M-16A	18	16A	3500	13500	1.7	3	5.5
DNR18-J1M-20A	18	20A	4000	15900	2	3.7	6.8
DNR18-J1M-25A	18	25A	5700	22000	2.3	4	7.5
DNR18-J1M-32A	18	32A	6200	24000	2.3	4	7.5
DNR18-J1M-40A	18	40A	7500	28800	3	5.3	9.8
DNR18-J1M-50A	18	50A	9000	34700	3.5	6.3	11.8
DNR18-J1M-63A	18	63A	11675	45000	4.6	8.3	15.3
DNR18-J1M-80A	18	80A	15500	58700	6	10.8	20
DNR18-J1M-100A	18	100A	19000	72000	7.3	13.2	24.5

Product external dimensions (mm)



Installation method

Installation method	Bolt installation
Use bolts	M6
Suggested installation torque	8N·m

DNR30-J1M

Fuse for Semiconductor Equipment Protection

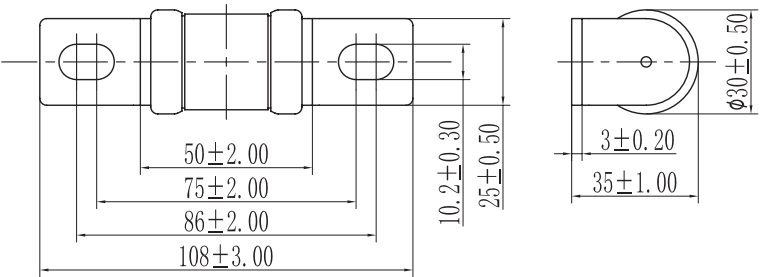


Rated voltage	AC 690V/DC 500V
Rated current	80A~250A
Protection category	aR
Breaking capacity	AC 100kA/DC 50kA
Time constant	10~15ms(DC50kA)
Reference standard	GB/T 13539.4 IEC 60269-4
Certification mark	CCC, CE, TUV

Product Parameter Table

Specification and model	Size	In (A)	I ² t (A ² s)		0.5In Power dissipation(W)	0.8In Power dissipation(W)	1.0In Power dissipation(W)
			Pre-Arcing	Fusing			
DNR30-J1M-80A	30	80A	9500	41000	5.2	9.7	18
DNR30-J1M-100A	30	100A	11700	50000	6.7	11.8	21.7
DNR30-J1M-125A	30	125A	13900	57000	7.4	13.3	24.5
DNR30-J1M-160A	30	160A	17000	67600	8.7	15.7	29
DNR30-J1M-200A	30	200A	17800	80000	10	18.6	34.3
DNR30-J1M-225A	30	225A	23000	97760	12.5	22.5	41.7
DNR30-J1M-250A	30	250A	26300	112300	14.4	25.9	47.9

Product external dimensions (mm)



Installation method

Installation method	Bolt installation
Use bolts	M10
Suggested installation torque	21N·m

DNR38-J1M

Fuse for Semiconductor Equipment Protection

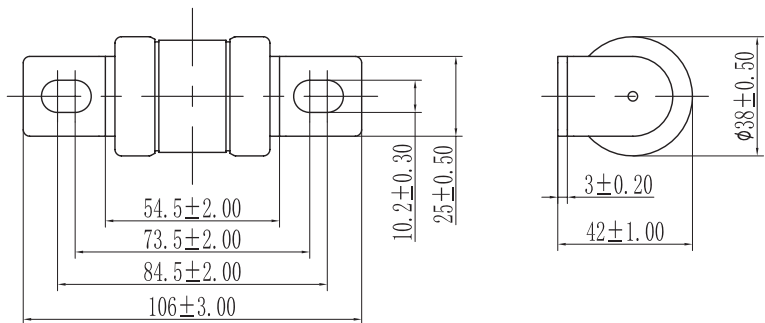


Rated voltage	AC 690V/DC 500V
Rated current	160A~400A
Protection category	aR
Breaking capacity	AC 100kA/DC 50kA
Time constant	10~15ms(DC50kA)
Reference standard	GB/T 13539.4 IEC 60269-4
Certification mark	CCC, CE, TUV

Product Parameter Table

Specification and model	Size	In (A)	I ² t (A ² s)		0.5In Power dissipation(W)	0.8In Power dissipation(W)	1.0In Power dissipation(W)
			Pre-Arcing	Fusing			
DNR38-J1M-160A	38	160A	30600	102000	10	18.7	34.1
DNR38-J1M-200A	38	200A	39000	122000	13.8	25.1	46.5
DNR38-J1M-225A	38	225A	44900	145000	14.8	27.5	51
DNR38-J1M-250A	38	250A	53600	173000	16.4	31.2	57.5
DNR38-J1M-300A	38	300A	65000	200000	17	33.2	61.4
DNR38-J1M-315A	38	315A	82200	242000	19.2	35.5	65.7
DNR38-J1M-350A	38	350A	106000	280000	21.1	39.9	73.8
DNR38-J1M-400A	38	400A	130000	340000	23	42.9	78

Product external dimensions (mm)



Installation method

Installation method	Bolt installation
Use bolts	M10
Suggested installation torque	21N·m