

# Industrial fuses

- Rated current up to 7000 A.
- Rated voltage up to 1500V AC and up to 2400V DC.
- Triggering characteristics -gR, aR, gG, aM, gPV.
- Any types of designs and installation.
- Wide selection of holders and additional contacts.
- Possibility of custom manufacturing with individual characteristics.

The most widely used fuses are for protection:

- Frequency converters.
- Energy storage devices.
- Electricity conversion systems (inverters).
- Electronic components based on semiconductors.
- AC and DC power systems.
- Electrolysis installations.
- In solar and wind generation installations.

#### **Design options**

Square body
with end contacts

Cylindrical body with bolt contacts

cylindrical body, installation in holders

Square body, size 000, 00

Square body, size 01, 1, 2, 3

Square body, installation in holders

#### Triggering characteristics

gR	Protection of semiconductor elements. In energy storage systems and rolling stock. Overload and short circuit protection.
aR	Protection of semiconductor elements. In energy storage systems and rolling stock. Short circuit current protection.
gG	Protection of cables and lines.

### Square body fuses with end contacts for AC current up to 2000 A

Specifications		
Rated voltage	YOU	690
Rated current	Α	40 – 2000
Triggering characteristics		aR
Breaking capacity	kA	200
Compliance		IEC 60269, UL248, CE

Selection table				
Series	Dimensions	Execution	Rated current	Rated voltage
RS306	01	S1P	40 – 630A	690V
	1		50 - 800A	
	2		400 – 1250A	
	3		500 – 2000A	

### Square body fuses with end contacts for AC current up to 3600 A

Specifications		
Rated voltage	YOU	690
Rated current	A	1500 – 3600
Triggering characteristics		aR
Breaking capacity	kA	100
Compliance		IEC 60269, UL248, CE

Selection table			
Series	Dimensions	Rated voltage	Rated current
FRM	34P60	AC690	1500 – 2500A
	35P60		1600 – 3200A
	36P60		2300 – 3600A

#### Square body fuse with end contacts for DC current

Specifications		
Rated voltage	In DC	1000
Rated current	Α	40 – 2000
Triggering characteristics		aR
Breaking capacity	kA	200
Compliance		IEC 60269, UL248, CE

Selection table					
Series	Dimensions	Execution	Rated current	Rated voltage	
RS306	01	S5P	32 – 400A	1250V-D	
	1		160 - 630A		
	2		250 – 1000A		
	3		315 - 1400A		

Accessories	
Series	Description
WDK-Y	Trip signal contact 5 A, 250 V

## Fuses in cylindrical housing with bolt contacts for alternating current

Specifications		
Rated voltage	YOU	690
Rated current	А	35 – 900
Triggering characteristics	aR	
Breaking capacity	kA	100
Compliance		IEC 60269

Selection table				
Series	Dimensions	Rated voltage	Rated current	
FRB	21MB89	AC690	35 – 100A	
	25MB90		70 – 160A	
	38MB99		125 – 300A	
	51MB102		225 – 500A	
	63MB126		450 – 700A	
	75MB126		700 – 900A	

#### Fuses in cylindrical housing with bolt contacts for DC current

Specifications		
Rated voltage	In DC	1000
Rated current	Α	35 – 700
Triggering characteristics	aR	
Breaking capacity	kA	50
Compliance		IEC 60269

Selection table			
Series	Dimensions	Rated voltage	Rated current
FRB	25MB102	DC1000	35 – 125A
	38MB108		125 – 300A
	51MB106		250 – 550A
	63MB136		500 – 700A

Accessories	
Series	Description
FH MB	Holders up to 900 A, 690 V AC/ 1000 V DC

#### Fuses in cylindrical housing in holders for alternating current

Specifications		
Rated voltage	YOU	690
Rated current	Α	0.5 – 125
Triggering characteristics		aR
Breaking capacity kA		100
Compliance		IEC 60269

Selection table			
Series	Dimensions	Rated voltage	Rated current
FRC	10	AC690	1 – 50A
	14		6 – 80A
	22		10 – 160A
	27		32 – 125A

#### Fuses in cylindrical housing in holders for alternating current

Specifications		
Rated voltage	YOU	690
Rated current	Α	2 – 125
Triggering characteristics		gG
Breaking capacity kA		100
Compliance		IEC 60269

Selection table			
Series	Dimensions	Rated voltage	Rated current
SV	1038	AC690	2 – 32A
	1451		2 – 63A
	2258		10 – 125A

#### Fuses in cylindrical housing in holders for DC current



Specifications		
Rated voltage	In DC	700
Rated current A		2 – 100
Triggering characteristics		aR
Breaking capacity kA		100
Compliance		IEC 60269

Selection table			
Series	Dimensions	Rated voltage	Rated current
FRC	10	DC700	2 – 25A
	14		2 – 50A
	22		50 – 100A

Accessories	
Series	Description
SV	Safety load switches up to 125 A, 690 V AC/ 250 V DC

#### Fuses in square housing size 000, 00 for alternating current

Specifications		
Rated voltage	YOU	690
Rated current	A	10 – 400
Triggering characteristics	aR	
Breaking capacity	kA	100
Compliance		IEC 60269

Selection table			
Series	Dimensions	Rated voltage	Rated current
FRM	000LUN80	AC690	10 – 315A
	00LUN80		20 – 400A

#### Fuses in square housing size 000, 00 for DC

Specifications		
Rated voltage	In DC	700
Rated current	A	10 – 400
Triggering characteristics		aR
Breaking capacity kA		50
Compliance		IEC 60269

Selection table				
Series	Dimensions	Rated voltage	Rated current	
FRM	000LUN80	DC700	10 – 315A	
	00LUN80		20 – 400A	

### Fuses in square housing size 01, 1, 2, 3 for alternating current

Specifications				
Rated voltage	YOU	690		
Rated current A		40 – 2000		
Triggering characteristics	aR			
Breaking capacity kA		200		
Compliance		IEC 60269, UL248, CE		

Selection table					
Series	Dimensions	Execution	Rated current	Rated voltage	
RS306	01	T1Z	40 – 630A	690V	
	1		50 - 800A		
	2		400 – 1250A		
	3		500 – 2000A		

#### Fuses in square housing size 01, 1, 2, 3 for DC

Specifications				
Rated voltage	In DC	1000		
Rated current A		32 – 1400		
Triggering characteristics	aR			
Breaking capacity kA		50		
Compliance		IEC 60269, UL248, CE		

Selection table					
Series	Dimensions	Execution	Rated current	Rated voltage	
RS306	01	T5Z	32 – 400A	1250V-D	
	1		160 - 630A		
	2		250 – 1000A		
	3		315 – 1400A		

Accessories	
Series	Description
WDK-Y	Trip signal contact 5 A, 250 V (for RS306 fuses)
FH20-LUN80	Holders up to 400 A, 690 V AC/ 700 V DC (for FRM fuses)
RX1	Tripping signal contact 1A, 250V (for FRM fuses)

#### **Square Fuses in AC Fuse Holders**

Specifications				
Rated voltage	YOU	690		
Rated current A		10 – 1400		
Triggering characteristics	aR			
Breaking capacity kA		100		
Compliance		IEC 60269, UL248, CE		

Selection table				
Series	Dimensions	Rated voltage	Rated current	
FRM	000Z78	AC690	10 – 160A	
	00Z78		20 – 200A	
	1Z135		40 – 400A	
	2Z150		200 – 700A	
	3Z150		500 – 900A	

#### **Square Fuses in AC Fuse Holders**

Specifications		
Rated voltage	YOU	690
Rated current A		4 – 1400
Triggering characteristics		gG
Breaking capacity kA		120
Compliance		IEC 60269, UL248, CE

Selection table					
Series	Dimensions	Rated voltage	Rated current		
FNH	00	AC690	4 – 160A		
	1		32 – 250A		
	2		200 – 400A		
	3		400 – 630A		

### Fuses in square housing in holders for DC current

Specifications		
Rated voltage	In DC	700
Rated current	A	10 – 900
Triggering characteristics		aR
Breaking capacity kA		50
Compliance		IEC 60269

Selection table					
Series	Dimensions	Rated voltage	Rated current		
FRM	000Z78	DC500	10 – 160A		
	00Z78		25 – 200A		
	1Z135		40 – 400A		
	2Z150		200 – 700A		
	3Z150		500 – 900A		

Accessories	
Series	Description
FH Z	Holders up to 900 A, 690 V AC/ 500 V DC
VFSD	Vertical PVR up to 630 A, 690 V AC
RX1	Trigger signal contact 1A, 250V





# Sinver

SINOFUSE is one of the leading manufacturers of fuses for the protection of semiconductor equipment and specialized fuses with unique characteristics.

SINOFUSE fuses are used in

energy supply, mechanical engineering, automotive industry, railway industry, solar energy, and other industries.

SINOFUSE clients include such well-known manufacturers as BYD, GEELY, TESLA, DA I ML ER, ZTE, HUAWE I, MERSEN, CHINA RAILWAY, DELTA, FAW and many others.

FRZ (FRSI) specializes in the production of fuses and has one of the widest product lines.

The manufacturer produces both general industrial fuses and special ones (for protecting semiconductors, batteries, solar panels, etc.).

FRZ produces products not only under its own brand. One of the company's major OEM clients is Eaton.

The Sinvel brand produces holders for blade and cylindrical fuses, as well as fuse links for them.

The equipment complies with IEC/IEC standards and is suitable for use in AC and DC networks.

Holders and fuses are adapted to the requirements of Russian power grid companies.