

Fuse systems

SITOR semiconductor fuses

NEOZED and DIAZED design, SILIZED,
3SE1, 5SD4

Overview

SILIZED is the brand name of the NEOZED fuses (D0 fuses) and the DIAZED fuses (D fuses) with super quick characteristic for semiconductor protection. The fuses are used in combination with fuse bases, fuse screw caps and accessory parts of the standard fuse system.

SILIZED fuses protect power semiconductors from the effects of short circuits because the super quick disconnect characteristic is far quicker than that of conventional fuses. They protect expensive devices and system components, such as semiconductor contactors, static relays, converters with fuses in the input and in the DC link, UPS systems and soft starters for motors up to 100 A.

When using fuse bases and fuse screw caps made of molded plastic, always heed the maximum permissible power loss values due to the high power loss (power dissipation) of the SILIZED fuses. When using these components, the following maximum permissible power loss applies:

- NEOZED D02: 5.5 W
- DIAZED DII: 4.5 W
- DIAZED DIII: 7.0 W

For this reason, sometimes a thermal permanent load of only 50 % is possible.

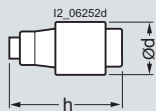
The DIAZED screw adapter DII for 25 A is used for the 30 A fuse link.

Technical specifications

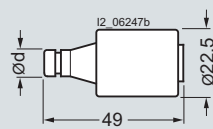
	SILIZED fuse links, NEOZED design 5SE1 3	SILIZED fuse links, DIAZED design 5SD4
Standards	DIN VDE 0636-3; IEC 60269-3; DIN VDE 0636-4; IEC 60269-4	
Operational class	gR	
Characteristic	Super quick	
Rated voltage U_n	V AC 400 V DC 250	500 500
Rated current I_n	A 10 ... 63	16 ... 100
Rated breaking capacity	kA AC 50 kA DC 8	
Mounting position	Any, but preferably vertical	
Non-interchangeability	Using adapter sleeves	Using screw adapter or adapter sleeves
Resistance to climate	°C up to 45 at 95 % rel. humidity	
Ambient temperature	°C -5 ... +40, humidity 90 % at 20	

Dimensional drawings

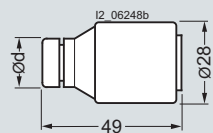
5SE1



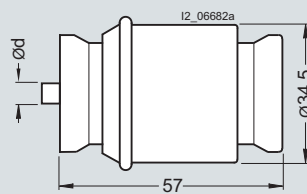
5SD4 20, 5SD4 30, 5SD4 40, 5SD4 80



5SD4 50, 5SD4 60, 5SD4 70



5SD5 10, 5SD5 20



Size	D01	D02
Rated current in A	10 ... 16	20 ... 63
Dimension d	11	15.3
Dimension h	36	36

Size/thread	DII/E27			
Rated current in A	16	20	25	30
Dimension d	10	12	14	14

Size/thread	DIII/E33		
Rated current in A	35	50	63
Dimension d	16	18	20

Size/thread	DIV/R1¼"	
Rated current in A	80	100
Dimension d	5	7

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SILIZED, NEOZED and DIAZED design

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Type	Sizes	NEOZED design						
		I_n	P_v	$\Delta 9$	$I^2 t_s$		$I^2 t_a$	
		A	W	K	1 ms A ² s	4 ms A ² s	230 V AC A ² s	400 V AC A ² s
5SE1 310	D01	10	6.9	64	30	30	56	73
5SE1 316		16	6.2	61	31	34	92	120
5SE1 320	D02	20	8.1	64	50	56	146	190
5SE1 325		25	8.2	63	120	120	166	215
5SE1 335		35	16.7	100	145	182	361	470
5SE1 350		50	12.0	80	460	540	1510	1960
5SE1 363		63	15.5	96	845	932	3250	4230

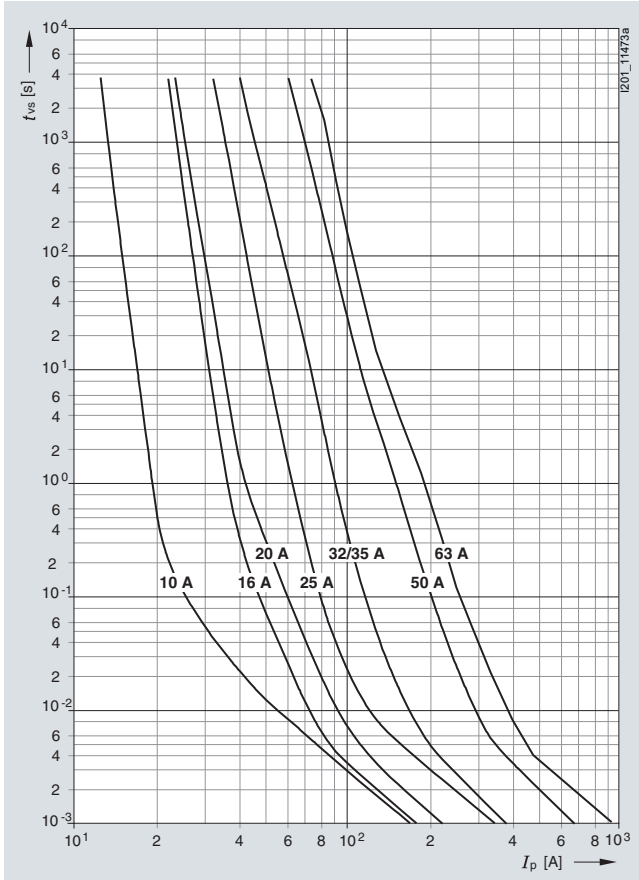
Type	Sizes	DIAZED design					
		I_n	P_v	$\Delta 9$	$I^2 t_s$	$I^2 t_a$	
		A	W	K	1 ms A ² s	500 V AC A ² s	
5SD4 20	DII	16	12.1	63	16.2	60	
5SD4 30		20	12.3	69	35.8	139	
5SD4 40		25	12.5	61	48.9	205	
5SD4 80		30	13.4	65	85	310	
5SD4 50	DIII	35	14.8	62	135	539	
5SD4 60		50	18.5	66	340	1250	
5SD4 70		63	28	84	530	1890	
5SD5 10	DIV	80	34.3	77	980	4200	
5SD5 20		100	41.5	83	1950	8450	

Characteristic curves

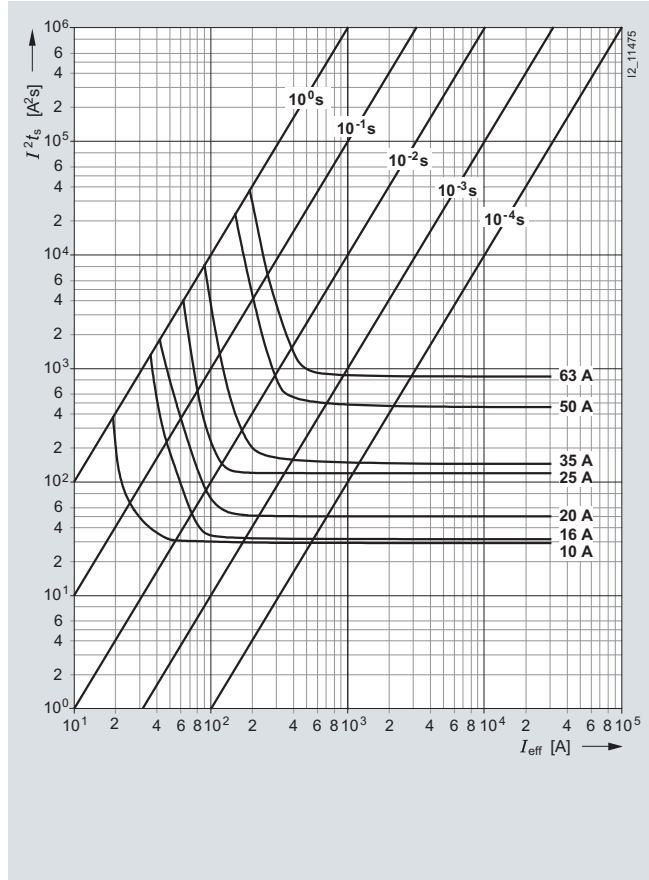
Series 5SE1 3..

Sizes: D01, D02
 Operational class: gR
 Rated voltage: 400 V AC/250 V DC
 Rated current: 10 ... 63 A

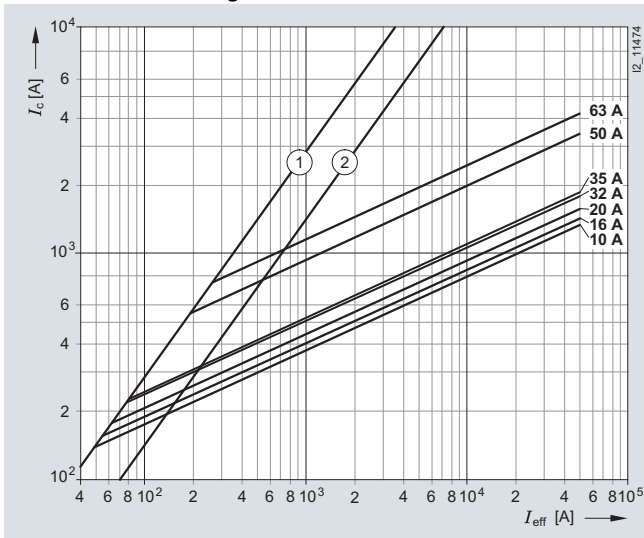
Time/current characteristics diagram



Melting I^2t values diagram



Current limitation diagram



- ① Peak short-circuit current with largest DC component
- ② Peak short-circuit current without DC component

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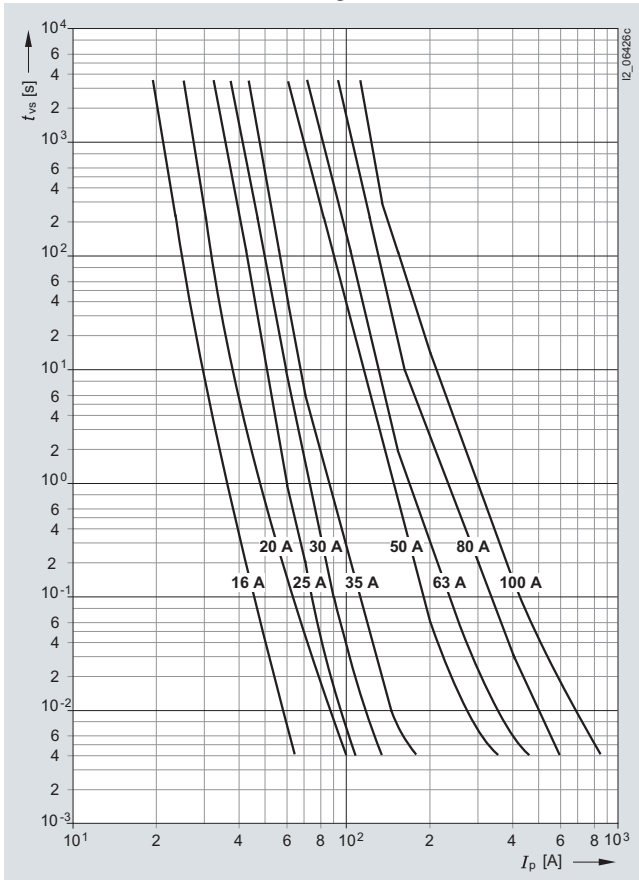
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SILIZED, NEOZED and DIAZED design

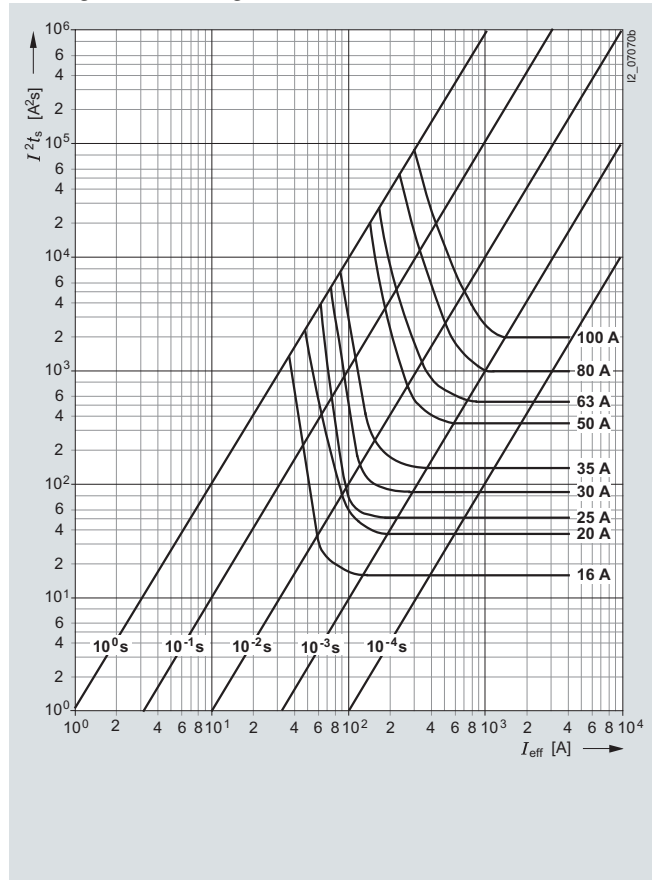
Series 5SD4, 5SD5

Size: DII, DIII, DIV
 Operational class: gR
 Characteristic: super quick
 Rated voltage: 500 V AC/500 V DC
 Rated current: 16 ... 100 A

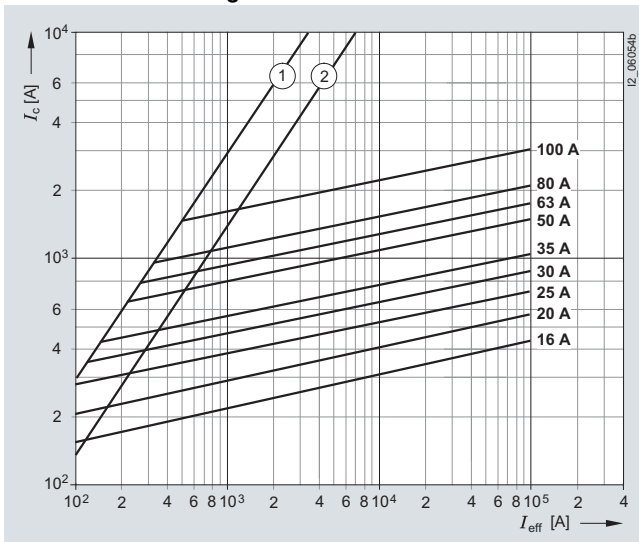
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