FUSE-LINKS FOR SEMICONDUCTOR PROTECTION UP TO 1000 V a.c. (WITH SCREW CONNECTIONS)

Fuse-links for semiconductor protection P40U10, P50U10 and P50V10 are intended for protection of semiconductors and devices especially sensitive to short-circuits. Fuses P50.. represent a new generation with especially low values of I^2t.

- Extremely low values of I^2t and cut-off currents.
- Small dimensions and low power losses.
- Possibility of remote signalling of fuse state - see page H29.
- Fuse marked P..U10S is equipped with signalling S42.
- Possibility of use in fuse holders SP50... page H31.
- Possibility of parallel connection of the fuses – see page H33.
- The fuse-links do not contain harmful substances according to the RoHS Regulation (cadmium, lead and other).
- Utilization category gR for protection of semiconductor devices against overload and short-circuit.
- Utilization category aR for protection of semiconductor devices only against short-circuit.
- Connection cross-section according to IEC, IEC 60269-4 (current density 1 ÷1.6 A/mm² min. 500 mm from each side of the fuse-link).

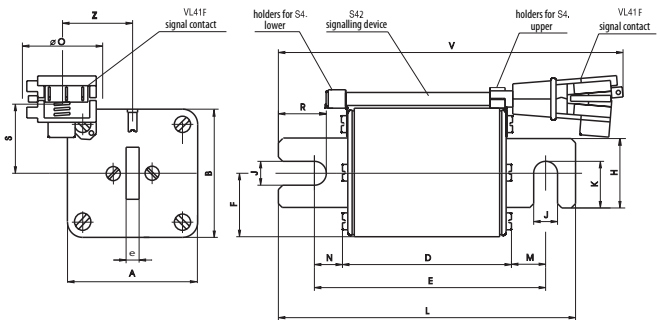
Fuse-links for semiconductor protection

	I_n [A]	Without signalling Type	Product code	With signalling S42 Type	Product code	Power losses [W]	Temperature rise [K]	I^2t total [A²s]	Weight [kg]	Package [pcs]
P40U10	32	**P40U10 32A gR**	09013	**P40U10S 32A gR**	11835	9.0	32	4 500	0.540	3
	40	**P40U10 40A gR**	09014	**P40U10S 40A gR**	11834	13.0	35	6 000	0.540	3
	50	**P40U10 50A gR**	09015	**P40U10S 50A gR**	11833	18.0	45	8 000	0.540	3
	63	**P40U10 63A gR**	09016	**P40U10S 63A gR**	11832	25.0	62	9 000	0.540	3
	80	**P40U10 80A aR**	06548	**P40U10S 80A aR**	06549	30.0	63	12 000	0.540	3
	100	**P40U10 100A aR**	13501	**P40U10S 100A aR**	06550	39.0	72	15 000	0.540	3
	125	**P40U10 125A aR**	06551	**P40U10S 125A aR**	06552	36.0	63	25 000	0.540	3
	160	**P40U10 160A aR**	06553	**P40U10S 160A aR**	06554	50.0	83	33 000	0.540	3
	200	**P40U10 200A aR**	06555	**P40U10S 200A aR**	06556	58.5	85	55 000	0.540	3
	250	**P40U10 250A aR**	06557	**P40U10S 250A aR**	06558	68.0	91	105 000	0.540	3
	315	**P40U10 315A aR**	06559	**P40U10S 315A aR**	06560	76.5	94	210 000	0.540	3
	350	**P40U10 350A aR**	11245	**P40U10S 350A aR**	13749	82.0	96	250 000	0.540	3
	400	**P40U10 400A aR**	06561	**P40U10S 400A aR**	06562	99.5	105	280 000	0.540	3
P50U10	400	**P50U10 400A aR**	08677	**P50U10S 400A aR**	20519	80.0	90	260 000	0.540	3
	450	**P50U10 450A aR**	08657	**P50U10S 450A aR**	08680	90.0	98	400 000	0.540	3
	500	**P50U10 500A aR**	08654	**P50U10S 500A aR**	08681	105.0	100	580 000	0.540	3
	550	**P50U10 550A aR**	08655	**P50U10S 550A aR**	17515	112.0	107	750 000	0.540	3
	630	**P50U10 630A aR**	08656	**P50U10S 630A aR**	08571	127.0	110	850 000	0.540	3
P50V10	700	**P50V10 700A aR**	08682	**P50V10S 700A aR**	08683	125.0	112	1 100 000	0.720	3

Parameters

Type		P40U10	P50U10	P50V10
Size/connection spacing		1/110 mm (1/130 mm on demand)	1/110 mm	2/110 mm
Rated voltage	U_n	1000 V a.c., 600 V d.c.	1000 V a.c./600 V d.c.	1000 V a.c./600 V d.c.
Rated breaking capacity (rms)	I_1	1000 V a.c. 100 kA 600 V d.c. 50 kA	1000 V a.c. > 60 kA	
Signalling		remote signalling type S (add ….S in the marking) for signal contact VL41F		
Rated frequency	f_n	50 Hz		
Standards		IEC 60269-1, -4; EN 60269-1, -4; EN 60269		
Approval marks				

Dimensions



Type	A	B	D	E	F	H	J	K	L	M	N	R	e	V	⌀O	S	Z
	[mm]																
P40U10	52	52	78.4	106.6	26	25	11	18	137	15.7	12.5	22.3	6	160	36.5	30	30
P40U10 (DIN 130)	52	52	78.4	126.6	26	25	11	18	157	25.7	12.5	22.3	6	170	36.5	30	30
P50U10	52	52	78.4	106.6	26	25	11	18	137	15.7	12.5	22.3	6	160	36.5	30	30
P50V10	60	60	78.4	105.6	30	32	11	21.5	137	15.1	12.1	22.1	6	160	36.5	33	33

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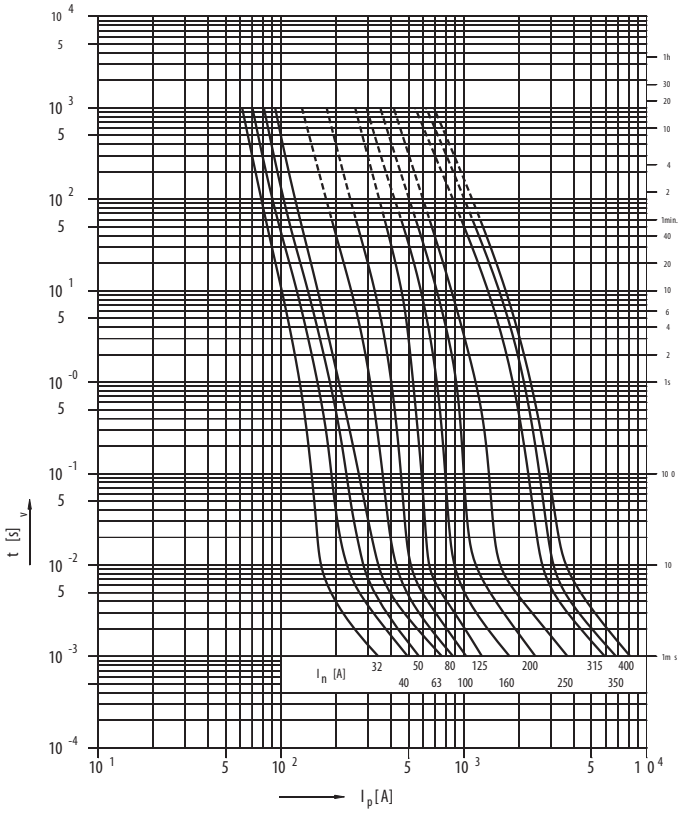
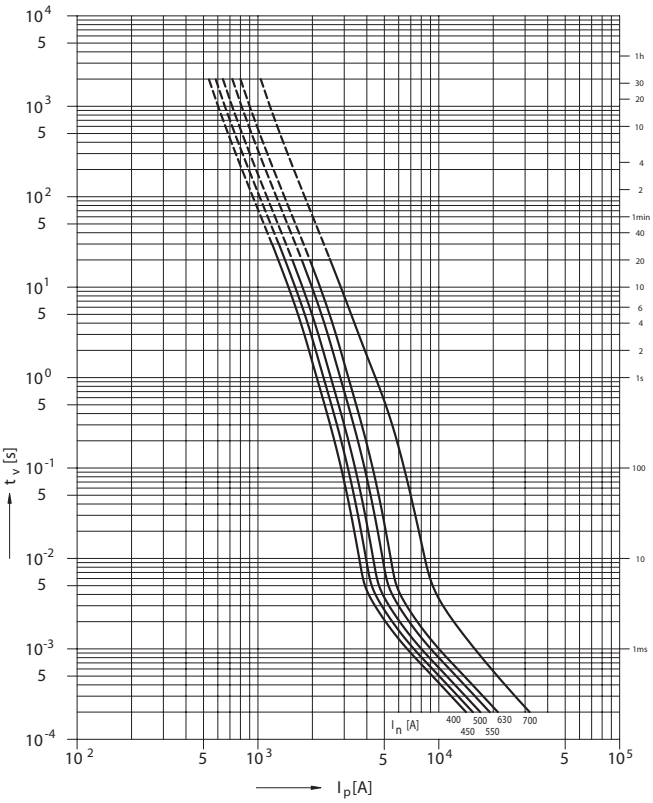
Characteristics

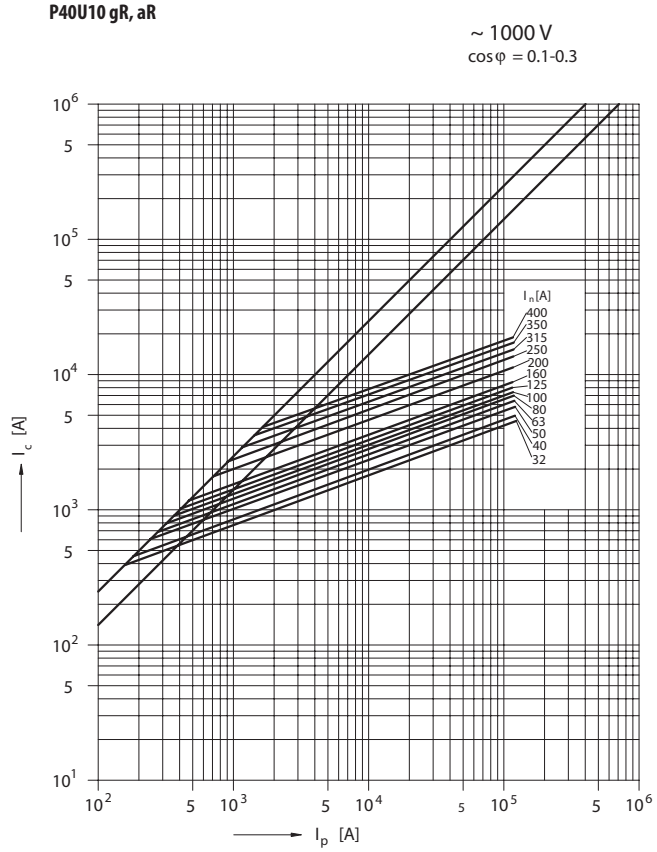
Prearcing time/current characteristic
P40U10 gR, aR



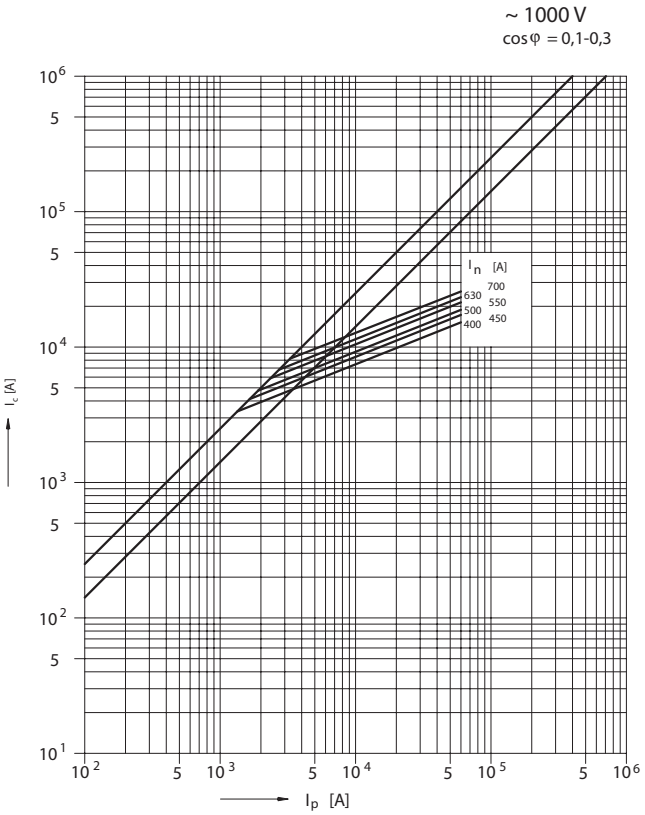
Prearcing time/current characteristic
P50U10, P50V10 aR



Cut-off characteristic
P40U10 gR, aR



Cut-off characteristic
P50U10, P50V10 aR



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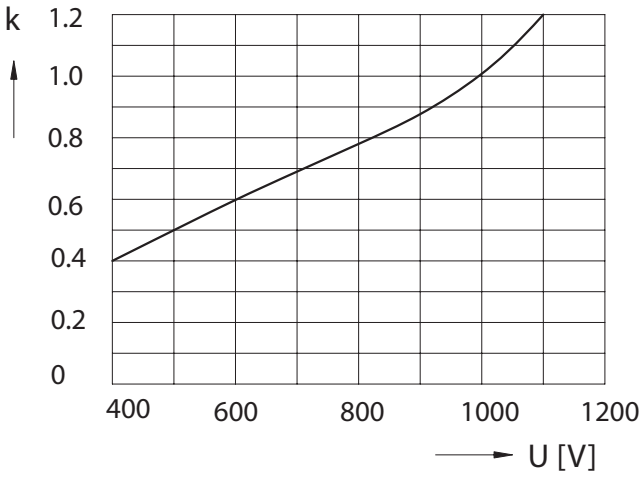
Characteristics

Correction factor „k" of I^2t dependence on operating voltage U

$(I^2t_{total})_{f(U)} = k \times I^2t_{total}$

P40U10



Overvoltage dependence on operating voltage

P40U10