FUSE-LINKS FOR SEMICONDUCTOR PROTECTION UP TO 690 V a.c. (CYLINDRICAL)

Cd/Pb-free

Fuse-links for semiconductor protection PV5.. are intended for protection of semiconductors and devices especially sensitive to short circuits.

- Extremely low values of I^2t and cut-off current.
- Small dimensions and low power losses.
- Possibility of use in OPV fuse switch-disconnectors or fuse-bases SPV.
- Application even in adverse climatic conditions.
- The fuse-links do not contain harmful substances according to the Regulation RoHS (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.
- In use of the fuse-links in fuse switch-disconnectors it is necessary to reduce connection cross-sections of cables depending on current load. Required cross-sections are specified in the tables in chapter "Conditions for use of cylindrical fuse-links in switch-disconnectors" see page I33 and I34.

Fuse-links for semiconductor protection

	I_n [A]	Type	Product code	Power losses [W]	Total I^2t [A^2s]	Weight [kg]	Packing [pcs]
PV510	6	**PV510 6A gR**	15200	2.5	6	0.010	10
	8	**PV510 8A gR**	15201	4.2	8	0.010	10
	10	**PV510 10A gR**	15202	3.3	20	0.010	10
	12	**PV510 12A gR**	15203	4.0	30	0.010	10
	16	**PV510 16A gR**	15204	6.0	45	0.010	10
	20	**PV510 20A gR**	15205	7.8	110	0.010	10
	25	**PV510 25A gR**	15206	8.7	140	0.010	10
	32	**PV510 32A gR**	15207	12.0	450	0.010	10
PV514	6	**PV514 6A gR**	08660	3.1	2.8	0.030	10
	8	**PV514 8A gR**	08671	4.8	5.6	0.030	10
	10	**PV514 10A gR**	08670	4.6	12.2	0.030	10
	12	**PV514 12A gR**	08672	4.2	21.0	0.030	10
	16	**PV514 16A gR**	08664	6.7	31.5	0.030	10
	20	**PV514 20A gR**	08665	7.4	68	0.030	10
	25	**PV514 25A gR**	08666	8.4	108	0.030	10
	32	**PV514 32A gR**	08667	12.3	175	0.030	10
	40	**PV514 40A gR**	08669	11.7	470	0.030	10
	50	**PV514 50A gR**	08661	16.3	830	0.030	10
	63	**PV514 63A aR**	08662	16.7	2 100	0.030	10
PV522	25	**PV522 25A gR**	13790	8.1	180	0.053	10
	32	**PV522 32A gR**	13791	9.0	330	0.053	10
	40	**PV522 40A gR**	13792	12.5	700	0.053	10
	50	**PV522 50A gR**	13793	15.2	1 250	0.053	10
	63	**PV522 63A gR**	13794	17.5	2 400	0.053	10
	80	**PV522 80A gR**	13795	23.0	4 400	0.053	10
	100	**PV522 100A gR**	13796	28.1	11 500	0.053	10
	125	**PV522 125A aR**	13797	35.3	16 500	0.053	10

Parameters

Type		PV510		PV514		PV522	
Rated voltage	U_n	690 V a.c. 440 V d.c. 250 V d.c.	 for 6 ÷ 16 A for 20 ÷ 32 A	690 V a.c. 700 V d.c. 600 V d.c. 440 V d.c. 250 V d.c.	 for 6 ÷ 12 A for 16 ÷ 32 A for 40 A for 50 ÷ 63 A	690 V a.c. 700 V d.c. 600 V d.c. 440 V d.c. 250 V d.c.	 for 25 A for 32 A for 40 A for 50 ÷ 125 A
Rated frequency	f_n	50 Hz					
Rated breaking capacity (rms)	I_1	PV510 PV514 PV522	120 kA 120 kA, 50 kA (d.c.) 120 kA				
Standards		IEC 60269-1, 2, 4; EN 60269-1, 4 EN 60269					
Approval marks							

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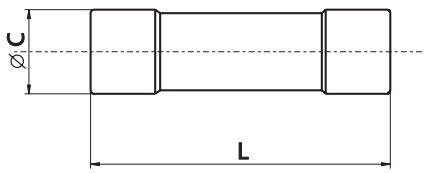
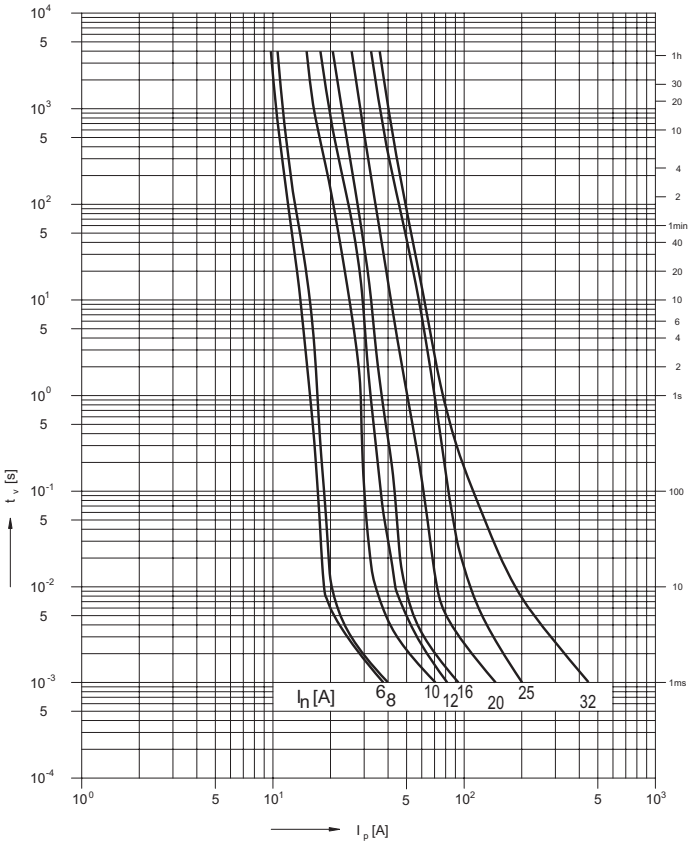
Dimensions



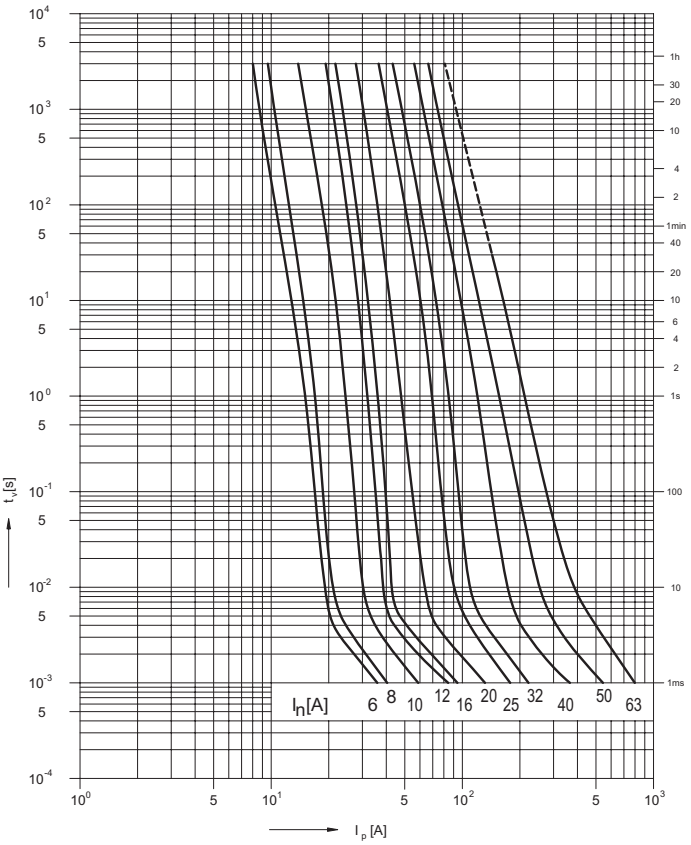
Type	⌀ C	L
PV510	10.3	38
PV514	14.3	51
PV522	22.8	58

Characteristics

Prearcing time/current characteristic
PV510 gR



Prearcing time/current characteristic
PV514 gR, aR



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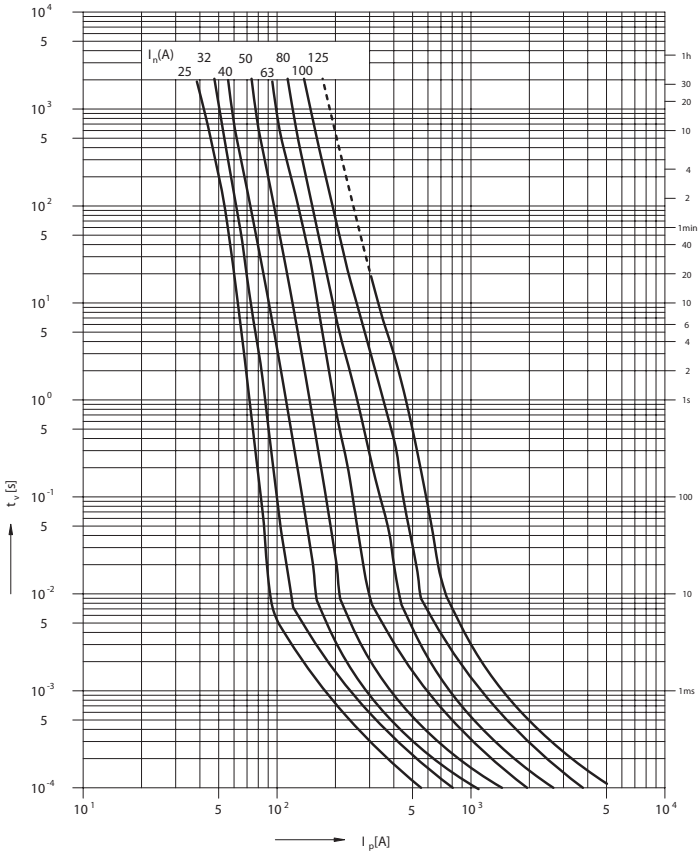
Cd/Pb-free

Characteristics

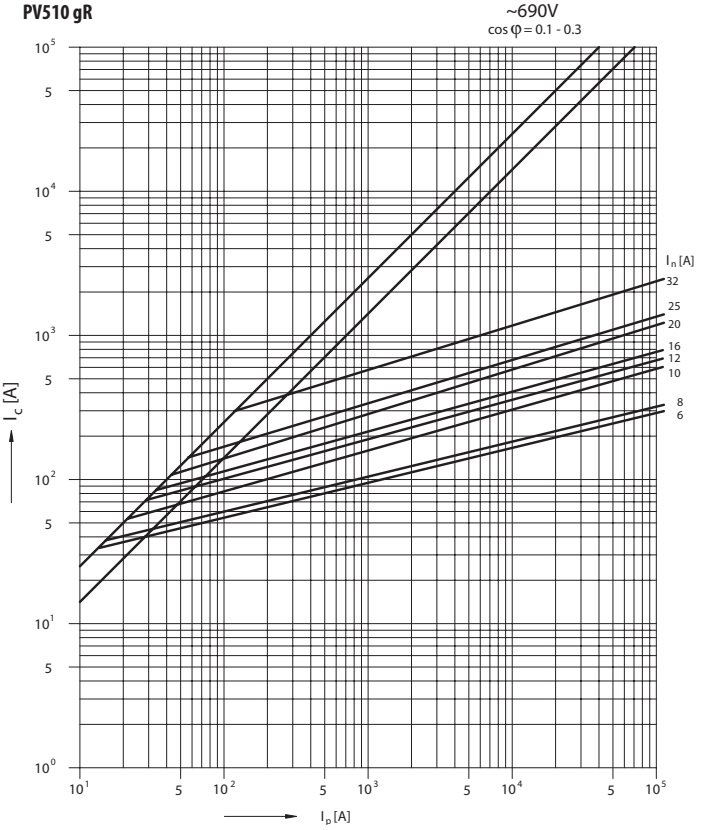
Prearcing time/current characteristic

PV522 gR,aR



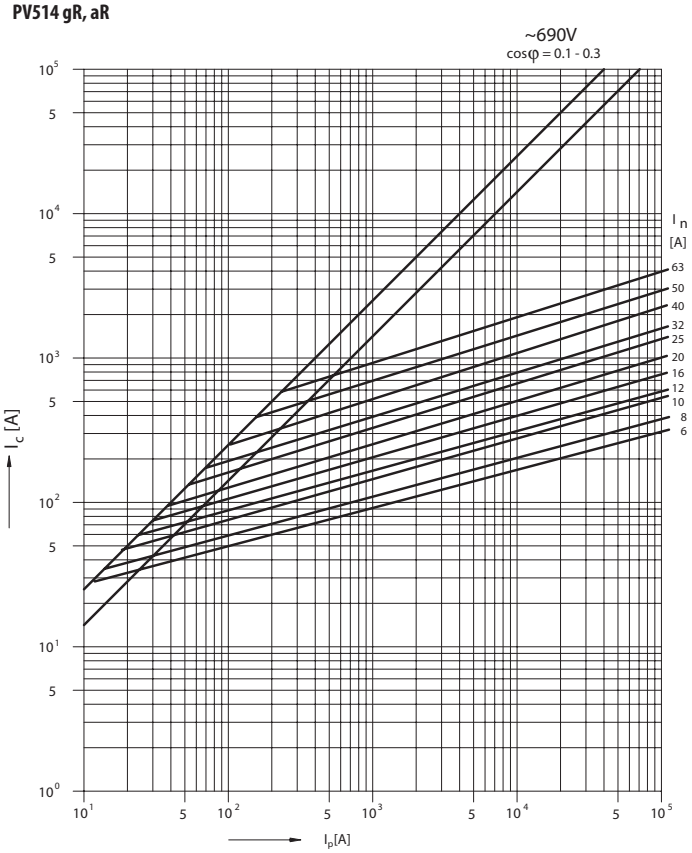
Cut-off characteristic

PV510 gR



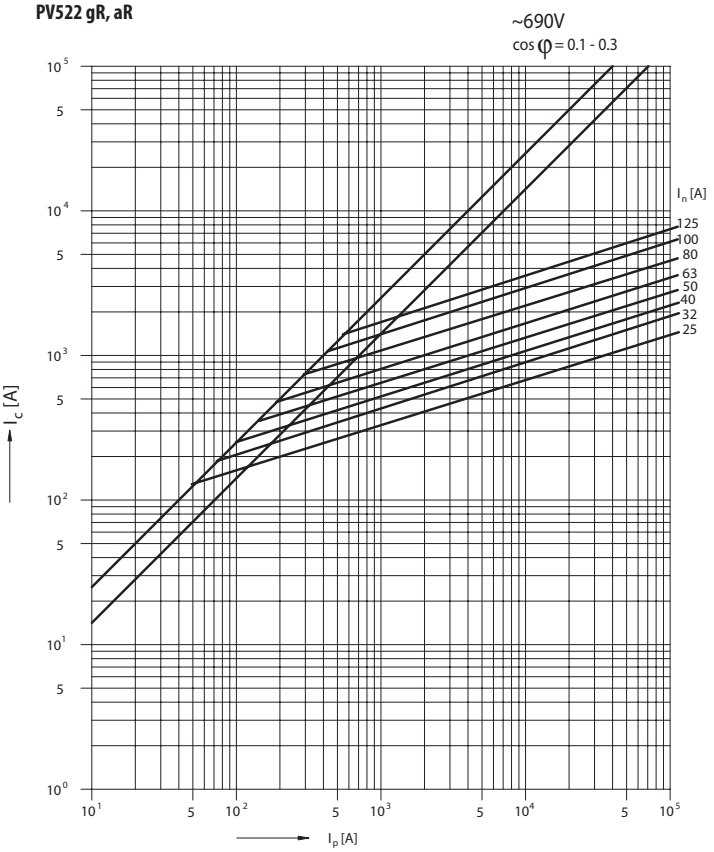
Cut-off characteristic

PV514 gR, aR



Cut-off characteristic

PV522 gR, aR



FUSE-LINKS FOR SEMICONDUCTOR PROTECTION UP TO 690 V a.c. (CYLINDRICAL)

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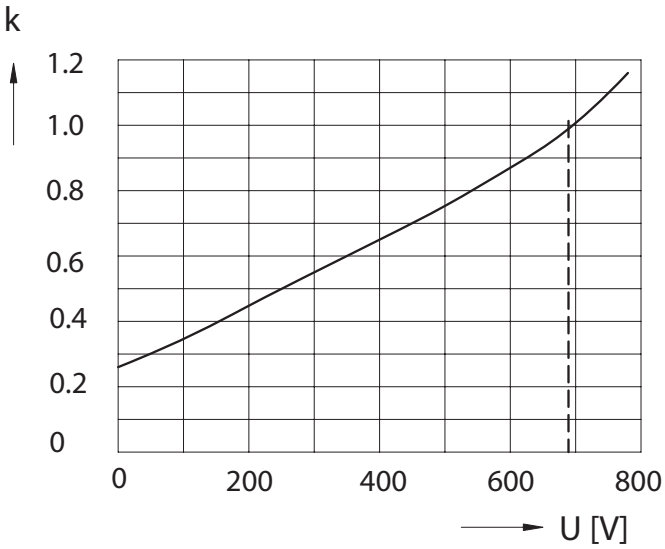
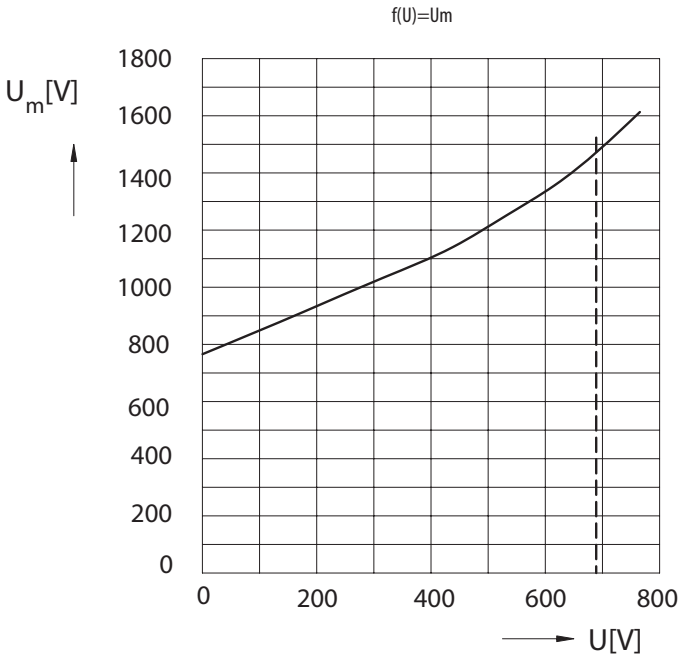
Characteristics

Correction factor „k" of I^2t dependence on operating voltage
$(I^2t_{total})_{f(U)} = k \times I^2t_{total}$
PV510, PV514, PV522



Overvoltage dependence on operating voltage
PV510, PV514, PV522



CONDITIONS FOR USE OF FUSE-LINKS IN FUSE SWITCH-DISCONNECTORS

Use of cylindrical fuse-links PV522 in switch-disconnectors OPV22 installed side-by-side

Fuse-link	Cross-section of Cu conductor [mm²]	Reduced rated current [A]				
		1 - pole	3 - pole	5 - pole	7 - pole	10 - pole
PV522 25A	4	25	23	22	21.5	21.5
	6	25	24.5	23.5	23	22.5
	10	25	25	25	24.5	24.5
PV522 32A	6	32	28	27	27	26.5
	10	32	29	27.5	27.5	27.5
	16	32	31.5	31	31	30
	25	32	32	32	32	32
PV522 40A	10	38	34.5	33.5	32.5	32.5
	16	40	37	35.5	34	34
	25	40	40	39	38	38
PV522 50A	10	43	39.5	38.5	37.5	37.5
	16	46.5	41	39	39.5	39.5
	25	50	46.5	45	44.5	44
	35	50	49	47.5	47	46
PV522 63A	16	55.5	48	46.5	46	46
	25	60	54.5	53.5	52.5	51
	35	62.5	57	55	54.5	52.5
	50	63	59	57.5	57.5	57
PV522 80A	25	70	65	62.5	61	61
	35	74	67	65	61.5	60
	50	79.5	72	71	70	69
PV522 100A	35	84	76.5	77.5	75.5	72.5
	50	90	84	81	80	79
PV522 125A	50	103	96	93	92	90

Prearcing time/current characteristic for PV522 installed in OPV22