

PRODUCT SUMMARY

DEVICE SELECTION TABLE

MCOV		RANGE	B	C	D	E	F	G
dc	ac rms	Max Surge	100A	250A	500A	1000A	1000A	
13	10	ZL10	0.4	0.8	1.6	-	3.5	-
17	13	ZL13	0.5	1.0	2.0	-	4.0	-
18	14	ZL14	0.5	1.2	2.0	-	4.0	-
22	17	ZL17	0.6	1.3	2.5	-	5.0	-
26	20	ZL20	0.7	1.5	3.0	-	6.0	-
31	25	ZL25	0.8	1.7	3.5	-	7.0	-
38	30	ZL30	1.1	2.3	4.5	-	8.5	-
45	35	ZL35	1.3	2.7	5.5	-	10	-
56	40	ZL40	1.6	3.2	6.5	-	13	-

MCOV		RANGE	B	C	D	E	F	G
dc	ac rms	Max Surge	400A	1200A	2500A	2500A	4500A	6500A
65	50	ZL50	2.0	4.0	9.0	-	14	-
85	60	ZL60	2.7	6.0	13	-	19	-
100	75	ZL75	3.0	5.0	11	13	20	35
120	95	ZL95	3.5	6.0	15	18	25	50

MCOV		RANGE	B	C	D	E	F	G	J	NP	LP & PS	HP & HL	HHP
dc	ac rms	Max Surge	400A	1200A	2500A	3000A	4500A	6500A	8000A	10000A	12000A	20000A	30000A
157	121	Z110	5.0	10	14	18	35	50	60	-	-	-	-
172	132	Z120	5.5	11	17	22	48	70	72	100	120	200	220
195	150	Z135	6.5	13	19	27	59	80	82	120	145	220	-
214	165	Z150	7.0	14	20	32	67	90	92	125	150	-	-
260	200	Z180	8.0	16	25	34	77	100	110	130	155	-	-
325	250	Z220	11	21	34	47	85	130	133	160	190	340	400
329	253	Z230	11	21	34	47	85	130	133	160	190	-	400
358	275	Z250	12	23	40	52	90	145	150	180	215	360	460
416	320	Z280	13	25	42	54	95	160	164	210	250	400	-
458	352	Z320	15	26	44	57	100	175	180	230	275	-	-
546	420	Z380	18	28	50	64	120	185	190	260	310	450	625
598	460	Z415	19	30	55	70	130	195	200	290	350	500	700
629	484	Z440	20	32	59	74	135	200	210	320	380	530	-
675	525	Z480	-	-	-	80	140	210	220	-	-	-	-
710	550	Z500	-	-	-	85	150	215	225	350	420	-	-
754	580	Z525	-	-	-	89	155	220	230	355	435	600	-
780	605	Z550	-	-	-	95	160	230	240	-	-	-	-
825	632	Z575	-	-	-	-	165	250	256	375	450	-	-
850	660	Z600	-	-	-	-	170	260	275	400	480	650	950
950	726	Z660	-	-	-	-	190	275	282	450	540	750	-
1072	825	Z750	-	-	-	-	-	-	-	510	610	-	-
1115	858	Z780	-	-	-	-	-	-	-	520	620	-	-
1215	935	Z850	-	-	-	-	-	-	-	600	720	-	-
1200	1000	Z900	-	-	-	-	250	360	370	650	780	-	-

PRODUCT SELECTION GUIDE

1. Find the maximum continuous operating voltage (MCOV) for your application on the table.
2. Read the number type from the column to the right.
3. Read across the table until your required maximum energy, in J, is equalled or exceeded.
4. Move up the table and confirm that the maximum surge current is sufficient for the application.
5. If the surge current rating is not sufficient, move along the table further until the current is equalled or exceeded.
6. Move up the table and read the range letter.
7. Confirm that the maximum clamping voltage is within the required limit from the data in the following pages.

EXAMPLE

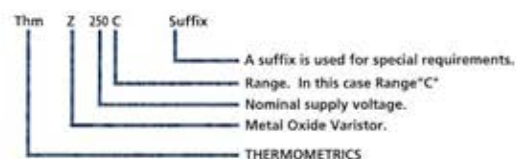
Operating voltage = 210V rms
 Overvoltage tolerance = 10%
 Maximum energy = 40J
 Maximum surge current = 4000A
 Maximum permissible clamping voltage = 700V at 50A

1. Add 10% to the operating voltage to take account of any overvoltage, i.e. MCOV = 231V rms.
2. From the table MCOV of 250V is required to cover 231V (i.e. type Z220).
3. Read across the table until the energy of 40J is exceeded, i.e. 47J.
4. Moving up the table, the maximum surge current is 3000A.
5. Since the current capability is insufficient, move along the table to current of 4500A.
6. Type Z220F is therefore suggested.
7. From data on 'F Range' maximum clamping voltage of Z220F is 650V at 50A.

MATCHING

To increase energy and current capabilities, discs can be used in parallel combinations. Due to the high non-linearity of the devices, special matching is essential. We will be pleased to discuss your individual requirements.

ORDERING INFORMATION AND PRODUCT CODING



THERMOMETRICS

- No Suffix = Leads formed parallel to Varistor contact faces, Le offset.
- K = Kinked leads formed to be in same plane as Varistor disc.
- C25 = Cropped leads followed by the length. In this case 25mm.
- D = Bare disc silvered.
- M10 = Matched sets. In this case 1 set = 10 matched varistors. (Matching requirements to be specified)
- R = Revised electrical specification for custom selection.
- SO = Bare disc tinned.
- T/R = Tape & Reeled.
- W/C = Wired and coated versions of the NP & LP Ranges.
- W = Disc wired but uncoated.