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Anlage zur Zeichengenehmigung / *Enclosure to marks approval*: **40031102**

Das nachfolgende Dokument VDE-AZ: 1809200-4790-0007/313811 –
TDK Electronics GmbH & Co OG, mit Ausgabedatum 10.11.2023 umfasst 12
Seiten und wurde durch den Unterzeichner geprüft und freigegeben.

*The subsequent document VDE-File-No.: 1809200-4790-0007/313811 –
TDK Electronics GmbH & Co OG, dated 2023-11-10 contains 12 pages and was
tested and approved by the signatory.*

17.11.2023, Jörg Göllner



Geprüft und freigegeben / *tested and approved*
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Enclosure to license no. **40031102** issued 2023-11-10, VDE-AZ. 1809200-4790-0007/313811. Certification holder TDK Electronics GmbH & Co OG

Table 1 (1 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions		
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)
*SFS14K130E2	S14K130E2	-	130	170	205	50	340	6000	3000	6.0kV/3.0kA	50	1900	20	23.1	9.2
*SFS14K140E2	S14K140E2		140	180	220	50	360	6000	3000	6.0kV/3.0kA	55	1750	20	23.1	9.2
*SFS14K150E2	S14K150E2	120	150	200	240	50	395	6000	3000	6.0kV/3.0kA	60	1600	20	23.1	9.2
*SFS14K175E2	S14K175E2		175	225	270	50	455	6000	3000	6.0kV/3.0kA	70	1380	20	23.1	9.2
*SFS14K210E2	S14K210E2		210	270	330	50	545	6000	3000	6.0kV/3.1kA	80	1250	20	23.1	9.2
*SFS14K230E2	S14K230E2		230	300	360	50	595	6000	3000	6.0kV/3.0kA	90	1100	20	23.1	9.2
*SFS14K250E2	S14K250E2		250	320	390	50	650	6000	3000	6.0kV/3.0kA	100	940	20	23.1	9.2
*SFS14K275E2	S14K275E2		275	350	430	50	710	6000	3000	6.0kV/3.0kA	110	900	20	23.1	9.2
*SFS14K300E2	S14K300E2	230/240	300	385	470	50	775	6000	3000	6.0kV/3.0kA	125	780	20	23.1	9.2
*SFS14K320E2	S14K320E2		320	420	510	50	840	6000	3000	6.0kV/3.0kA	136	680	20	23.1	9.2
*SFS14K350E2	S14K350E2		350	460	560	50	910	5000	3000	6.0kV/3.0kA	136	675	20	23.1	9.2
*SFS14K385E2	S14K385E2		385	505	620	50	1025	5000	3000	6.0kV/3.0kA	136	670	20	23.1	9.2
*SFS14K420E2	S14K420E2		420	560	680	50	1120	5000	3000	6.0kV/3.0kA	136	600	20	23.1	9.2
*SFS14K460E2	S14K460E2		460	615	750	50	1240	5000	3000	6.0kV/3.0kA	150	570	20	23.1	9.2

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "*" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

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Table 1 (2 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions			
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)	
*ETFV14K115E2	S14K115E2	-	115	150	180	50	300	6000	3000	6.0kV/3.0kA	35	2200	20	22	12.0	
*ETFV14K130E2	S14K130E2		130	170	205	50	340	6000	3000	6.0kV/3.0kA	50	1900	20	22	12.0	
*ETFV14K140E2	S14K140E2		140	180	220	50	360	6000	3000	6.0kV/3.0kA	55	1750	20	22	12.0	
*ETFV14K150E2	S14K150E2		120	150	200	240	50	395	6000	3000	6.0kV/3.0kA	60	1600	20	22	12.0
*ETFV14K175E2	S14K175E2		175	225	270	50	455	6000	3000	6.0kV/3.0kA	70	1380	20	22	12.0	
*ETFV14K210E2	S14K210E2		210	270	330	50	545	6000	3000	6.0kV/3.1kA	80	1250	20	22	12.0	
*ETFV14K230E2	S14K230E2		230	300	360	50	595	6000	3000	6.0kV/3.0kA	90	1100	20	22	12.0	
*ETFV14K250E2	S14K250E2		250	320	390	50	650	6000	3000	6.0kV/3.0kA	100	940	20	22	12.0	
*ETFV14K275E2	S14K275E2		275	350	430	50	710	6000	3000	6.0kV/3.0kA	110	900	20	22	12.0	
*ETFV14K300E2	S14K300E2	230/240	300	385	470	50	775	6000	3000	6.0kV/3.0kA	125	780	20	22	12.0	
*ETFV14K320E2	S14K320E2		320	420	510	50	845	6000	3000	6.0kV/3.0kA	136	680	20	22	12.0	
*ETFV14K350E2	S14K350E2		350	460	560	50	930	5000	3000	6.0kV/3.0kA	144	675	20	22	12.0	
*ETFV14K385E2	S14K385E2		385	505	620	50	1025	5000	3000	6.0kV/3.0kA	160	670	20	22	12.0	
*ETFV14K420E2	S14K420E2		420	560	680	50	1120	5000	3000	6.0kV/3.0kA	176	600	20	22	12.0	

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "*" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

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Table 1 (3 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions		
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)
*ETFV20K50	S20K50	-	50	65	82	100	135	6500	3000	6.0kV/3.0kA	27	9000	23	25.7	11.0
*ETFV20K115E2	S20K115E2		115	150	180	100	300	10000	3000	6.0kV/3.0kA	90	4000	23	25.7	11.0
*ETFV20K130E2	S20K130E2		130	170	205	100	340	10000	3000	6.0kV/3.0kA	100	3500	23	25.7	11.0
*ETFV20K140E2	S20K140E2		140	180	220	100	360	10000	3000	6.0kV/3.0kA	110	3250	23	25.7	11.0
*ETFV20K150E2	S20K150E2	120	150	200	240	100	395	10000	3000	6.0kV/3.0kA	120	3000	23	25.7	11.0
*ETFV20K175E2	S20K175E2		175	225	270	100	455	10000	3000	6.0kV/3.0kA	135	2600	23	25.7	11.0
*ETFV20K210E2	S20K210E2		210	270	330	100	545	10000	3000	6.0kV/3.1kA	160	2300	23	25.7	11.0
*ETFV20K230E2	S20K230E2		230	300	360	100	595	10000	3000	6.0kV/3.0kA	180	2000	23	25.7	11.0
*ETFV20K250E2	S20K250E2		250	320	390	100	650	10000	3000	6.0kV/3.0kA	195	1800	23	25.7	11.0
*ETFV20K275E2	S20K275E2		275	350	430	100	710	10000	3000	6.0kV/3.0kA	215	1800	23	25.7	11.0
*ETFV20K300E2	S20K300E2	230/240	300	385	470	100	775	10000	3000	6.0kV/3.0kA	250	1500	23	25.7	11.0
*ETFV20K320E2	S20K320E2		320	420	510	100	845	10000	3000	6.0kV/3.0kA	273	1300	23	25.7	11.0
*ETFV20K350E2	S20K350E2		350	460	560	100	930	10000	3000	6.0kV/3.0kA	285	1270	23	25.7	11.0
*ETFV20K385E2	S20K385E2		385	505	620	100	1025	10000	3000	6.0kV/3.0kA	315	1250	23	25.7	11.0
*ETFV20K420E2	S20K420E2		420	560	680	100	1120	10000	3000	6.0kV/3.0kA	360	1100	23	25.7	11.0

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "*" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

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Table 1 (4 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions			
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)	
*ETFV25K115E4	S25K115E4	-	115	150	180	150	300	20000	10000	6.0kV/3.0kA	170	8000	31	35.2	12.0	
*ETFV25K130E4	S25K130E4		130	170	205	150	340	20000	10000	6.0kV/3.0kA	185	7000	31	35.2	12.0	
*ETFV25K140E4	S25K140E4		140	180	220	150	360	20000	10000	6.0kV/3.0kA	195	6500	31	35.2	12.0	
*ETFV25K150E4	S25K150E4	120	150	200	240	150	395	20000	10000	6.0kV/3.0kA	215	6000	31	35.2	12.0	
*ETFV25K175E4	S25K175E4		175	225	270	150	455	20000	10000	6.0kV/3.0kA	245	5200	31	35.2	12.0	
*ETFV25K210E4	S25K210E4		210	270	330	150	545	20000	10000	6.0kV/3.1kA	290	4600	31	35.2	12.0	
*ETFV25K230E4	S25K230E4		230	300	360	150	595	20000	10000	6.0kV/3.0kA	315	4000	31	35.2	12.0	
*ETFV25K250E4	S25K250E4		250	320	390	150	650	20000	10000	6.0kV/3.0kA	345	3600	31	35.2	12.0	
*ETFV25K275E4	S25K275E4		275	350	430	150	710	20000	10000	6.0kV/3.0kA	375	3600	31	35.2	12.0	
*ETFV25K300E4	S25K300E4		230/240	300	385	470	150	775	20000	10000	6.0kV/3.0kA	410	3000	31	35.2	12.0
*ETFV25K320E4	S25K320E4			320	420	510	150	845	20000	10000	6.0kV/3.0kA	445	2600	31	35.2	12.0
*ETFV25K350E4	S25K350E4	350		460	560	150	930	20000	10000	6.0kV/3.0kA	495	3540	31	35.2	12.0	
*ETFV25K385E4	S25K385E4	385		505	620	150	1025	20000	10000	6.0kV/3.0kA	600	2500	31	35.2	12.0	
*ETFV25K420E4	S25K420E4	420		560	680	150	1120	20000	10000	6.0kV/3.0kA	700	2200	31	35.2	12.0	

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "*" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

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Table 1 (5 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continious voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 time)) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions		
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)
*T14K130E2	S14K130E2K1	-	130	170	205	50	340	6000	3000	6.0kV/3.0kA	50	2600	17.0	21.6	13.0
*T14K150E2	S14K150E2K1	120	150	200	240	50	395	6000	3000	6.0kV/3.0kA	60	2000	17.0	21.6	13.0
T14K175E2	S14K175E2K1		175	225	270	50	455	6000	3000	6.0kV/3.0kA	70	1800	17.0	21.6	13.0
*T14K230E2	S14K230E2K1		230	300	360	50	595	6000	3000	6.0kV/3.0kA	90	1400	17.0	21.6	13.0
*T14K250E2	S14K250E2K1		250	320	390	50	650	6000	3000	6.0kV/3.0kA	100	1200	17.0	21.6	13.0
*T14K275E2	S14K275E2K1		275	350	430	50	710	6000	3000	6.0kV/3.0kA	110	1100	17.0	21.6	13.0
*T14K300E2	S14K300E2K1		230/240	300	385	470	50	775	6000	3000	6.0kV/3.0kA	125	1100	17.0	21.6
*T14K320E2	S14K320E2K1	320		420	510	50	840	6000	3000	6.0kV/3.0kA	136	900	17.0	21.6	13.0
*T14K350E2	S14K350E2K1	350		460	560	50	910	6000	3000	6.0kV/3.0kA	150	800	17.0	21.6	13.0
*T14K385E2	S14K385E2K1	385		505	620	50	1025	6000	3000	6.0kV/3.0kA	165	850	17.0	21.6	13.0
*T14K420E2	S14K420E2K1	420		560	680	50	1120	6000	3000	6.0kV/3.0kA	180	750	17.0	21.6	13.0

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

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Table 1 (6 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions		
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)
T20 LV															
*T20K50	S20K50	-	50	65	82	100	135	6500	3000	6.0kV/3.0kA	27	9000	22	26	12.0
*T20K130E2	S20K130E2	-	130	170	205	100	340	10000	3000	6.0kV/3.0kA	100	3500	22	26	12.0
*T20K150E2	S20K150E2	120	150	200	240	100	395	10000	3000	6.0kV/3.0kA	120	3000	22	26	12.0
*T20K175E2	S20K175E2	120	175	225	270	100	455	10000	3000	6.0kV/3.0kA	135	2600	22	26	12.0
*T20K230E2	S20K230E2	120	230	300	360	100	595	10000	3000	6.0kV/3.0kA	180	2000	22	26	12.0
*T20K250E2	S20K250E2	120	250	320	390	100	650	10000	3000	6.0kV/3.0kA	195	1800	22	26	12.0
*T20K275E2	S20K275E2	120	275	350	430	100	710	10000	3000	6.0kV/3.0kA	215	1800	22	26	12.0
*T20K300E2	S20K300E2	230/240	300	385	470	100	775	10000	3000	6.0kV/3.0kA	250	1500	22	26	12.0
*T20K320E2	S20K320E2	230/240	320	420	510	100	845	10000	3000	6.0kV/3.0kA	273	1300	22	26	12.0
*T20K350E2	S20K350E2	230/240	350	460	560	100	930	10000	3000	6.0kV/3.0kA	223	1270	22	26	12.0
*T20K385E2	S20K385E2	230/240	385	505	620	100	1025	10000	3000	6.0kV/3.0kA	248	1250	22	26	12.0
*T20K420E2	S20K420E2	230/240	420	560	680	100	1120	10000	3000	6.0kV/3.0kA	273	1100	22	26	12.0

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

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Table 1 (7 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions		
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)
T20MV															
*T20K460	S20K460	-	460	615	750	100	1240	8000	3000	6.0kV/3.0kA	195	1100	27.5	27.5	13.6
*T20K460E2	S20K460E2		460	615	750	100	1240	10000	3000	6.0kV/3.0kA	300	1100	27.5	27.5	13.6
*T20K510	S20K510	380	510	670	820	100	1355	6500	3000	8.0kV/4.0kA	190	900	27.5	27.5	13.6
*T20K510E2	S20K510E2		510	670	820	100	1355	10000	3000	8.0kV/4.0kA	325	900	27.5	27.5	13.6
*T20K550	S20K550		550	745	910	100	1500	6500	3000	8.0kV/4.0kA	210	700	27.5	27.5	13.6
*T20K550E2	S20K550E2		550	745	910	100	1500	10000	3000	8.0kV/4.0kA	360	700	27.5	27.5	13.6
*T20K625	S20K625		625	825	1000	100	1650	6500	3000	8.0kV/4.0kA	230	650	27.5	27.5	13.6
*T20K625E2	S20K625E2		625	825	1000	100	1650	10000	3000	8.0kV/4.0kA	400	650	27.5	27.5	13.6
T20HV															
*T20K680	S20K680		680	895	1100	100	1815	6500	3000	8.0kV/4.0kA	250	600	27.5	27.5	18.5
*T20K680E2	S20K680E2		680	895	1100	100	1815	10000	3000	8.0kV/4.0kA	440	600	27.5	27.5	18.5
*T20K1000	S20K1000	690	1000	1465	1800	100	2970	6500	3000	8.0kV/4.0kA	410	400	27.5	27.5	18.5

- (1) For explanation of style reference number, see clause 1.5.
 (2) All types marked with "*" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.
 (3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

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Table 1 (8 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions		
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)
*NT14K130E2	S14K130E2	120	130	170	205	50	340	6000	3000	6.0kV/3.0kA	50	1900	17.0	22.0	9.0
*NT14K140E2	S14K140E2		140	180	220	50	360	6000	3000	6.0kV/3.0kA	55	1750	17.0	22.0	9.0
*NT14K150E2	S14K150E2		150	200	240	50	395	6000	3000	6.0kV/3.0kA	60	1600	17.0	22.0	9.0
*NT14K175E2	S14K175E2		175	225	270	50	455	6000	3000	6.0kV/3.0kA	70	1380	17.0	22.0	9.0
*NT14K210E2	S14K210E2		210	270	330	50	545	6000	3000	6.0kV/3.0kA	80	1100	17.0	22.0	9.5
*NT14K250E2	S14K250E2	230	250	320	390	50	650	6000	3000	6.0kV/3.0kA	100	940	17.0	22.0	9.5
*NT14K275E2	S14K275E2	240	275	350	430	50	710	6000	3000	6.0kV/3.0kA	110	900	17.0	22.0	9.5
*NT14K300E2	S14K300E2		300	385	470	50	775	6000	3000	6.0kV/3.0kA	125	780	17.0	22.0	11.0
*NT14K320E2	S14K320E2		320	420	510	50	840	6000	3000	6.0kV/3.0kA	136	680	17.0	22.0	11.0
*NT14K350E2	S14K350E2		350	460	560	50	910	6000 (4)	3000	6.0kV/3.0kA	136	675	17.0	22.0	11.0
*NT14K385E2	S14K385E2		385	505	620	50	1025	6000 (4)	3000	6.0kV/3.0kA	136	670	17.0	22.0	11.0
*NT14K420E2	S14K420E2		420	560	680	50	1120	6000 (4)	3000	6.0kV/3.0kA	136	600	17.0	22.0	11.0
*NT14K460E2	S14K460E2		460	615	750	50	1240	6000 (4)	3000	6.0kV/3.0kA	150	570	17.0	22.0	11.0
*NT14K510E2	S14K510E2		510	670	820	50	1355	6000 (4)	3000	6.0kV/3.0kA	165	460	17.0	22.0	12.0
*NT14K550E2	S14K550E2		550	745	910	50	1500	6000 (4)	3000	6.0kV/3.0kA	180	350	17.0	22.0	12.0
*NT14K625E2	S14K625E2		625	825	1000	50	1650	6000 (4)	3000	6.0kV/3.0kA	200	320	17.0	22.0	13.0
*NT14K680E2	S14K680E2		680	895	1100	50	1815	6000 (4)	3000	6.0kV/3.0kA	220	280	17.0	22.0	13.0

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "*" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

(4) Rating deviating to S14K*E2 series.

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Table 1 (9 of 9)

Style (1)	IEC 61051-2-2 AT0001: Detail Specification for leaded Disk	Supply voltage (3)	Maximum continuous voltage		Voltage at 1 mA (V)	Voltage at class current (8/20µs)		Max. peak current (8/20µs, 1 time) (A)	Max. peak current (8/20µs, 10 times) (A)	Max. peak current (8/20µs, combination pulse, 10 times) (A)	Rated Energy (2 ms, 1 time) (J)	Maximum capacitance (pF)	Dimensions			
			r.m.s. (V)	d.c. (V)		Class current(A)	Max. volt (V)						bmax (mm)	hmax (mm)	smax (mm)	
NT20 LV																
*NT20K50E2	S20K50E2		50	65	82	100	135	10000	5000 (4)	6.0kV/3.0kA	27	9000	23	28	9.0	
*NT20K130E2	S20K130E2	120	130	170	205	100	340	10000	5000 (4)	6.0kV/3.0kA	100	3500	23	28	9.0	
*NT20K140E2	S20K140E2		140	180	220	100	360	10000	5000 (4)	6.0kV/3.0kA	110	3250	23	28	9.0	
*NT20K150E2	S20K150E2		150	200	240	100	395	10000	5000 (4)	6.0kV/3.0kA	120	3000	23	28	9.0	
*NT20K175E2	S20K175E2		175	225	270	100	455	10000	5000 (4)	6.0kV/3.0kA	135	2600	23	28	9.0	
*NT20K210E2	S20K210E2		210	270	330	100	595	10000	5000 (4)	6.0kV/3.0kA	160	2300	23	28	9.5	
*NT20K250E2	S20K250E2	230	250	320	390	100	650	10000	5000 (4)	6.0kV/3.0kA	195	1800	23	28	9.5	
*NT20K275E2	S20K275E2	240	275	350	430	100	710	10000	5000 (4)	6.0kV/3.0kA	215	1800	23	28	9.5	
*NT20K300E2	S20K300E2		300	385	470	100	775	10000	5000 (4)	6.0kV/3.0kA	250	1500	23	28	11.0	
*NT20K320E2	S20K320E2		320	420	510	100	845	10000	5000 (4)	6.0kV/3.0kA	273	1300	23	28	11.0	
*NT20K350E2	S20K350E2		350	460	560	100	930	10000	5000 (4)	6.0kV/3.0kA	273	1270	23	28	11.0	
*NT20K385E2	S20K385E2		385	505	620	100	1025	10000	5000 (4)	6.0kV/3.0kA	273	1250	23	28	11.0	
*NT20K420E2	S20K420E2		420	560	680	100	1120	10000	5000 (4)	6.0kV/3.0kA	273	1100	23	28	11.0	
NT20 HV																
*NT20K460E2	S20K460E2		460	615	750	100	1240	10000	5000 (4)	6.0kV/3.0kA	300	1100	23	28	11.0	
*NT20K510E2	S20K510E2		510	670	820	100	1355	10000	5000 (4)	8.0kV/4.0kA	325	900	23	28	12.0	
*NT20K550E2	S20K550E2		550	745	910	100	1500	10000	5000 (4)	8.0kV/4.0kA	360	700	23	28	12.0	
*NT20K625E2	S20K625E2		625	825	1000	100	1650	10000	5000 (4)	8.0kV/4.0kA	400	650	23	28	13.0	
*NT20K680E2	S20K680E2		680	895	1100	100	1815	10000	5000 (4)	8.0kV/4.0kA	440	600	23	28	13.0	
*NT20K750E2	NA		750	1060	1200	100	2000	10000	3000	8.0kV/4.0kA	480	550	23	28	13.0	
*NT20K1000E2	S20K1000E2		1100	1465	1800	100	2970	10000	3000 (4)	8.0kV/4.0kA	620	400	23	28	15.0	

(1) For explanation of style reference number, see clause 1.5.

(2) All types marked with "" are covered by IEC 62368-1 G.8.1 and IEC 60950-1 Annex Q.

(3) Acc. To IEC 62368-1 G.8.2 and IEC60950-1, Annex Q: Maximum continuous voltage of the Varistors should be at least 1.25 times rated voltage of equipment/ rated voltage range. Only typical AC Mains Supply voltages are indicated.

(4) Rating deviating to S14K*E2 series.

Ordering information

Orders for varistors covered by this specification shall contain, in clear or in coded form, the following minimum information.
Remark: Below description is only for information (types covered by certification acc. table 1):

Example * _ 14 K 275 (V431) A (B,C) E2 G. GX A. S. R. H. M. P. K. K8 K9 T. VB

*	Style - (SFS: Fail-safe Varistor; ETFV, T, NT: ThermoFuse varistor, series designation)
<u>14</u>	Disc size (diameter of ceramic disc)
<u>K</u>	Tolerance $\pm 10\%$ of voltage at 1 mA (J: $\pm 5\%$; L: $\pm 15\%$; M: $\pm 20\%$; S: special tolerance)
<u>275</u>	Max. continuous r.m.s. voltage
<u>V431</u>	Alternative type designation with varistor voltage at 1 mA instead of max. cont. r.m.s voltage (code: 43×10^1)
<u>A</u> (<u>B,C</u>)	designation for special types
<u>E2</u> <u>E3</u> <u>E4</u>	High energy series
<u>G</u> .	Taping according IEC 60286, part 2
<u>GX</u>	Customer defined taping not defined with other standard taping styles
<u>A</u> .	Ammopack
<u>S</u> .	Crimp-Type, is omitted when Crimp-Type Standard
<u>R</u> .	Lead spacing (e): mm
<u>H</u> .	Component height (h or h ₁): mm
<u>M</u> .	Cut lead length (l): mm
<u>P</u> .	Test requirements additionally agreed to this detail specification
<u>K</u> .	Customer specific properties not defined with other codes (K1 - K99 available except for the two reserved codes below)
<u>K4</u>	Two pins version(without monitor lead) of ThermoFuse varistor
<u>K8</u> .	Special combination lead diameter - lead spacing
<u>K9</u> .	Components have the same ratings but they are matched for the varistor voltage at 1 mA within one package
<u>T</u> .	Resistance to temperature changes - denotes that the varistor exceeds the normally defined temperature range
(<u>_</u>)	additional numbers 00-99
SIOV	may be prefixed

Special varistor types with customer specific tolerances (tolerance designation S in combination with the letters A, B or C) and varistors with special geometrical specifications designated by R., H., M. or K8. are available on request.

Coating information (excl. housing):

Material: Epoxy,
Ref. No.: CP-930-1
Factory: Dae Joo

Material: Epoxy,
Ref. No.: PCE-282
Factory: Pelnox

Material: Epoxy,
Ref. No.: EF-150C, EF-150
Factory: Kaihua, Tianjin

Housing information

Material: Poly butylene terephthalate
Ref.No: PBT1403G6
Factory: NanYa

Material: Poly butylene terephthalate
Ref.No: PBT420 SEO
Factory: GE

Material: Poly butylene terephthalate
Ref.No: PBT420 SEO
Factory: GE

Material: Aromatic Liquid Crystal Polymer
Ref.No: LCP 3400 G-330
Factory: RTP SHIELD

NT Series:
Material: Epoxy,
Ref. No.: PCE-282
Factory: Pelnox

Material: Epoxy,
Ref. No.: EF-150C, EF-150F
Factory: Kaihua, Tianjin