



Product Service

CERTIFICATE

No. B 119967 0002 Rev. 00

Holder of Certificate: **DONGGUAN JORDUN ELECTRONIC CO., LTD.**

Floor 4, 39-2#, MuLun Industrial 1 Rd.
ChangPing Town
523585 DongGuan City
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product:

**Surge absorber
(Varistor)**

The product was tested on a voluntary basis and complies with the essential requirements.
The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier.
All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 6810022003901D

Valid until: 2027-04-21

Date, 2023-06-21

(Richard Xu)

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Model(s): VCRRxxDyyyK#

Parameters:

Description the rule of the nomenclature:

VCRR xxD yyy K #
 I II III IV

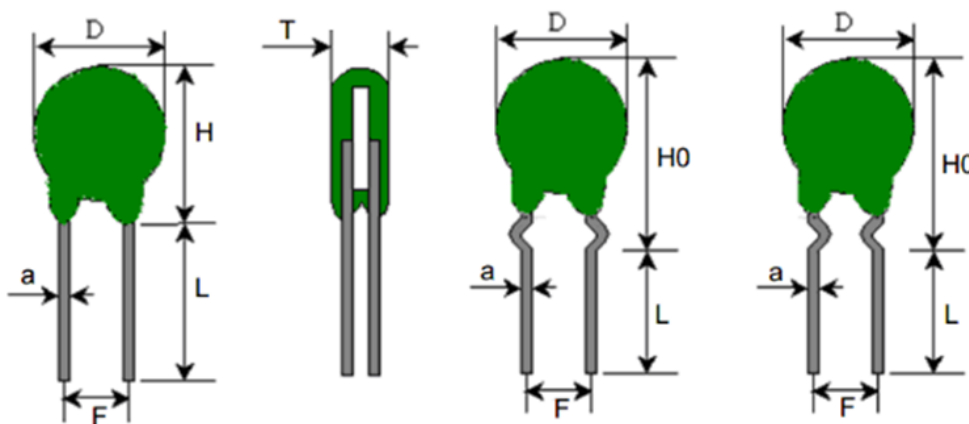
I – Diameter of the varistor chip: xx can be 05D, 07D, 10D, 14D, 20D. Means diameter of the varistor chip: 5mm, 7mm, 10mm, 14mm, 20mm.

II – Nominal varistor voltage: yyy can be 180, 220, 270, 330, 390, 470, 560, 680, 820, 101, 121, 151, 181, 201, 221, 241, 271, 301, 331, 361, 391, 431, 471, 511, 561, 621, 681, 721, 751, 781, 821, 911, 102, 112, 122, 142, 162, 182. For example, 151 stands for $15 \times 10^1 = 150V$.

III – K means Tolerance of Nominal varistor voltage: $\pm 10\%$.

IV – # stands for customer code, it can be T, J, N, H or blank. Means for different customers.

Dimensions



Model No.	D (mm)		H(mm)		H0(mm)		T (mm)		a $\pm 20\%$ (mm)
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
VCRR05DyyyK#	8.50	3.96	12.50	5.50	13.00	6.96	7.42	2.43	0.6
VCRR07DyyyK#	10.50	5.60	12.50	5.80	14.50	8.60	8.35	2.43	0.6
VCRR10DyyyK#	14.00	8.00	20.00	9.60	22.00	11.00	10.56	2.75	0.8
VCRR14DyyyK#	17.50	11.00	28.00	11.10	30.00	14.00	11.22	2.75	0.8
VCRR20DyyyK#	25.00	15.80	31.00	15.00	33.00	18.80	11.28	3.07	1.0

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Table 1: Electrical Rating and characteristics

Insulation voltage:	AC2500V
Maximum continuous voltage:	Details see below
Leakage current:	Details see below
Nominal varistor voltage:	Details see below
Reference current:	1mA
Clamping Voltage:	Details see below
Class current (8/20 μ s):	Details see below
Maximum peak current (8/20 μ s, 1time):	Details see below
Climatic category:	40/130/56

Model No.	Maximum continuous voltage(V)		Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μ s) (Max.)	Leakage current (μ A)
	A.C	D.C	V _N	V _C	8/20 μ s I _C	8/20 μ s (2 times)	J	I _L
VCRR05D180K#	11	14	18	40	1	500	0.4	50
VCRR05D220K#	14	18	22	49	1	500	0.5	50
VCRR05D270K#	17	22	27	60	1	500	0.6	50
VCRR05D330K#	20	26	33	74	1	500	0.8	50
VCRR05D390K#	25	31	39	87	1	500	0.9	50
VCRR05D470K#	30	38	47	105	1	500	1.1	50
VCRR05D560K#	35	45	56	125	1	500	1.3	50
VCRR05D680K#	40	56	68	135	1	800	1.6	50
VCRR05D820K#	50	65	82	140	5	800	2.5	20
VCRR05D101K#	60	85	100	165	5	800	3.0	20
VCRR05D121K#	75	100	120	200	5	800	4.0	20
VCRR05D151K#	95	125	150	250	5	800	4.8	20
VCRR05D181K#	115	150	180	300	5	800	5.9	20
VCRR05D201K#	130	170	200	340	5	800	6.5	20
VCRR05D221K#	140	180	220	360	5	800	7.0	20
VCRR05D241K#	150	200	240	395	5	800	8.0	20
VCRR05D271K#	175	225	270	455	5	800	8.5	20
VCRR05D301K#	190	250	300	500	5	800	9.0	20

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Model No.	Maximum continuous voltage(V)		Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μ s) (Max.)	Leakage current (μ A)
	A.C	D.C	V _N	V _C	8/20 μ s I _C	8/20 μ s (2 times)	J	I _L
VCRR05D331K#	210	275	330	550	5	800	9.5	20
VCRR05D361K#	230	300	360	595	5	800	10.0	20
VCRR05D391K#	250	320	390	650	5	800	12.0	20
VCRR05D431K#	275	350	430	710	5	800	12.5	20
VCRR05D471K#	300	385	470	775	5	800	13.0	20
VCRR05D511K#	320	415	510	845	5	800	13.5	20
VCRR05D561K#	350	460	560	925	5	800	14.0	20
VCRR05D621K#	385	505	620	1025	5	800	14.5	20
VCRR05D681K#	420	560	680	1120	5	800	15.0	20
VCRR07D180K#	11	14	18	40	2.5	800	0.9	50
VCRR07D220K#	14	18	22	49	2.5	800	1.1	50
VCRR07D270K#	17	22	27	60	2.5	800	1.4	50
VCRR07D330K#	20	26	33	74	2.5	800	1.7	50
VCRR07D390K#	25	31	39	87	2.5	800	2.1	50
VCRR07D470K#	30	38	47	105	2.5	800	2.5	50
VCRR07D560K#	35	45	56	125	2.5	800	3.1	50
VCRR07D680K#	40	56	68	135	2.5	1750	3.6	50
VCRR07D820K#	50	65	82	140	10	1750	5.5	20
VCRR07D101K#	60	85	100	165	10	1750	6.5	20
VCRR07D121K#	75	100	120	200	10	1750	7.8	20
VCRR07D151K#	95	125	150	250	10	1750	9.7	20
VCRR07D181K#	115	150	180	300	10	1750	11.7	20
VCRR07D201K#	130	170	200	340	10	1750	13.0	20
VCRR07D221K#	140	180	220	360	10	1750	14.0	20
VCRR07D241K#	150	200	240	395	10	1750	15.0	20
VCRR07D271K#	175	225	270	455	10	1750	18.0	20
VCRR07D301K#	190	250	300	500	10	1750	20.0	20
VCRR07D331K#	210	275	330	550	10	1750	23.0	20
VCRR07D361K#	230	300	360	595	10	1750	24.0	20

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Model No.	Maximum continuous voltage(V)		Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μ s) (Max.)	Leakage current (μ A)
	A.C	D.C	V _N	V _C	8/20 μ s I _C	8/20 μ s (2 times)	J	I _L
VCRR07D391K#	250	320	390	650	10	1750	26.0	20
VCRR07D431K#	275	350	430	710	10	1750	28.0	20
VCRR07D471K#	300	385	470	775	10	1750	29.0	20
VCRR07D511K#	320	415	510	845	10	1750	31.0	20
VCRR07D561K#	350	460	560	925	10	1750	35.0	20
VCRR07D621K#	385	505	620	1025	10	1750	38.0	20
VCRR07D681K#	420	560	680	1120	10	1750	42.0	20
VCRR07D751K#	460	615	750	1240	10	1750	43.0	20
VCRR07D781K#	485	640	780	1290	10	1750	44.0	20
VCRR07D821K#	510	670	820	1355	10	1750	45.0	20
VCRR10D180K#	11	14	18	40	5	2000	2.1	50
VCRR10D220K#	14	18	22	49	5	2000	2.5	50
VCRR10D270K#	17	22	27	60	5	2000	3.0	50
VCRR10D330K#	20	26	33	74	5	2000	4.0	50
VCRR10D390K#	25	31	39	87	5	2000	4.6	50
VCRR10D470K#	30	38	47	105	5	2000	5.5	50
VCRR10D560K#	35	45	56	125	5	2000	7.0	50
VCRR10D680K#	40	56	68	135	5	3500	8.2	50
VCRR10D820K#	50	65	82	140	25	3500	12.0	20
VCRR10D101K#	60	85	100	165	25	3500	15.0	20
VCRR10D121K#	75	100	120	200	25	3500	18.0	20
VCRR10D151K#	95	125	150	250	25	3500	22.0	20
VCRR10D181K#	115	150	180	300	25	3500	27.0	20
VCRR10D201K#	130	170	200	340	25	3500	30.0	20
VCRR10D221K#	140	180	220	360	25	3500	32.0	20
VCRR10D241K#	150	200	240	395	25	3500	35.0	20
VCRR10D271K#	175	225	270	455	25	3500	37.0	20
VCRR10D301K#	190	250	300	500	25	3500	40.0	20
VCRR10D331K#	210	275	330	550	25	3500	43.0	20

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	A.C	D.C	V _N	V _C	8/20 μ s I _C	8/20 μ s (2 times)	J	I _L
VCRR10D361K#	230	300	360	595	25	3500	47.0	20
VCRR10D391K#	250	320	390	650	25	3500	60.0	20
VCRR10D431K#	275	350	430	710	25	3500	65.0	20
VCRR10D471K#	300	385	470	775	25	3500	67.0	20
VCRR10D511K#	320	415	510	845	25	3500	69.0	20
VCRR10D561K#	350	460	560	925	25	3500	70.0	20
VCRR10D621K#	385	505	620	1025	25	3500	72.0	20
VCRR10D681K#	420	560	680	1120	25	3500	75.0	20
VCRR10D751K#	460	615	750	1240	25	3500	77.0	20
VCRR10D781K#	485	640	780	1290	25	3500	80.0	20
VCRR10D821K#	510	670	820	1355	25	3500	85.0	20
VCRR10D911K#	550	745	910	1500	25	3500	93.0	20
VCRR10D102K#	625	825	1000	1650	25	3500	102.0	20
VCRR10D112K#	680	895	1100	1815	25	3500	115.0	20
VCRR14D180K#	11	14	18	40	10	3000	4.0	50
VCRR14D220K#	14	18	22	49	10	3000	5.0	50
VCRR14D270K#	17	22	27	60	10	3000	6.0	50
VCRR14D330K#	20	26	33	74	10	4000	7.5	50
VCRR14D390K#	25	31	39	87	10	4000	8.6	50
VCRR14D470K#	30	38	47	105	10	4000	10.0	50
VCRR14D560K#	35	45	56	125	10	4000	11.0	50
VCRR14D680K#	40	56	68	135	10	6000	14.0	20
VCRR14D820K#	50	65	82	140	50	6000	22.0	20
VCRR14D101K#	60	85	100	165	50	6000	28.0	20
VCRR14D121K#	75	100	120	200	50	6000	32.0	20
VCRR14D151K#	95	125	150	250	50	6000	40.0	20
VCRR14D181K#	115	150	180	300	50	6000	50.0	20
VCRR14D201K#	130	170	200	340	50	6000	57.0	20
VCRR14D221K#	140	180	220	360	50	6000	60.0	20

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Model No.	Maximum continuous voltage(V)		Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μ s) (Max.)	Leakage current (μ A)
	A.C	D.C	V _N	V _C	8/20 μ s I _C	8/20 μ s (2 times)	J	I _L
VCRR14D241K#	150	200	240	395	50	6000	63.0	20
VCRR14D271K#	175	225	270	455	50	6000	70.0	20
VCRR14D301K#	190	250	300	500	50	6000	77.0	20
VCRR14D331K#	210	275	330	550	50	6000	85.0	20
VCRR14D361K#	230	300	360	595	50	6000	93.0	20
VCRR14D391K#	250	320	390	650	50	6000	100.0	20
VCRR14D431K#	275	350	430	710	50	6000	115.0	20
VCRR14D471K#	300	385	470	775	50	6000	118.0	20
VCRR14D511K#	320	415	510	845	50	6000	121.0	20
VCRR14D561K#	350	460	560	925	50	6000	125.0	20
VCRR14D621K#	385	505	620	1025	50	6000	128.0	20
VCRR14D681K#	420	560	680	1120	50	6000	130.0	20
VCRR14D721K#	445	590	720	1185	50	6000	137.0	20
VCRR14D751K#	460	615	750	1240	50	6000	143.0	20
VCRR14D781K#	485	640	780	1290	50	6000	148.0	20
VCRR14D821K#	510	670	820	1355	50	6000	157.0	20
VCRR14D911K#	550	745	910	1500	50	6000	175.0	20
VCRR14D102K#	625	825	1000	1650	50	6000	190.0	20
VCRR14D112K#	680	895	1100	1815	50	6000	213.0	20
VCRR14D122K#	750	990	1200	1980	50	6000	232.0	20
VCRR14D142K#	880	1140	1400	2310	50	6000	238.0	20
VCRR14D162K#	1000	1280	1600	2640	50	6000	243.0	20
VCRR14D182K#	1100	1465	1800	2970	50	6000	250.0	20
VCRR20D180K#	11	14	18	40	20	4000	11.0	50
VCRR20D220K#	14	18	22	49	20	4000	14.0	50
VCRR20D270K#	17	22	27	60	20	4000	16.0	50
VCRR20D330K#	20	26	33	74	20	4000	23.0	50
VCRR20D390K#	25	31	39	87	20	4000	26.0	50
VCRR20D470K#	30	38	47	105	20	4000	30.0	50

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Model No.	Maximum continuous voltage(V)		Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μ s) (Max.)	Leakage current (μ A)
	A.C	D.C	V _N	V _C	8/20 μ s I _C	8/20 μ s (2 times)	J	I _L
VCRR20D560K#	35	45	56	125	20	4000	38.0	50
VCRR20D680K#	40	56	68	135	20	8000	41.0	20
VCRR20D820K#	50	65	82	140	100	8000	45.0	20
VCRR20D101K#	60	85	100	165	100	8000	50.0	20
VCRR20D121K#	75	100	120	200	100	8000	55.0	20
VCRR20D151K#	95	125	150	250	100	8000	70.0	20
VCRR20D181K#	115	150	180	300	100	8000	85.0	20
VCRR20D201K#	130	170	200	340	100	8000	95.0	20
VCRR20D221K#	140	180	220	360	100	8000	100.0	20
VCRR20D241K#	150	200	240	395	100	8000	108.0	20
VCRR20D271K#	175	225	270	455	100	8000	127.0	20
VCRR20D301K#	190	250	300	500	100	8000	136.0	20
VCRR20D331K#	210	275	330	550	100	8000	150.0	20
VCRR20D361K#	230	300	360	595	100	8000	163.0	20
VCRR20D391K#	250	320	390	650	100	8000	180.0	20
VCRR20D431K#	275	350	430	710	100	8000	190.0	20
VCRR20D471K#	300	385	470	775	100	8000	204.0	20
VCRR20D511K#	320	415	510	845	100	8000	210.0	20
VCRR20D561K#	350	460	560	925	100	8000	215.0	20
VCRR20D621K#	385	505	620	1025	100	8000	224.0	20
VCRR20D681K#	420	560	680	1120	100	8000	230.0	20
VCRR20D721K#	445	590	720	1185	100	8000	245.0	20
VCRR20D751K#	460	615	750	1240	100	8000	255.0	20
VCRR20D781K#	485	640	780	1290	100	8000	265.0	20
VCRR20D821K#	510	670	820	1355	100	8000	282.0	20
VCRR20D911K#	550	745	910	1500	100	8000	310.0	20
VCRR20D102K#	625	825	1000	1650	100	8000	342.0	20
VCRR20D112K#	680	895	1100	1815	100	8000	383.0	20
VCRR20D122K#	750	990	1200	1980	100	8000	408.0	20

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Model No.	Maximum continuous voltage(V)		Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μ s) (Max.)	Leakage current (μ A)
	A.C	D.C	V_N	V_C	8/20 μ s I_C	8/20 μ s (2 times)	J	I_L
VCRR20D142K#	880	1140	1400	2310	100	8000	532.0	20
VCRR20D162K#	1000	1280	1600	2640	100	8000	606.0	20
VCRR20D182K#	1100	1465	1800	2970	100	8000	625.0	20

Remark: VCRR10DyyyK#, VCRR14DyyyK# and VCRR20DyyyK# with nominal varistor voltage at 200V and above were comply with Annex G.8.1 of IEC 62368-1:2018.

Tested according to: EN IEC 61051-1:2018
IEC 61051-2:1991/AMD1:2009
IEC 61051-2-2:1991



Product Service

CERTIFICATE

No. B 119967 0001 Rev. 00

Holder of Certificate: **DONGGUAN JORDUN ELECTRONIC CO., LTD.**

Floor 4, 39-2#, MuLun Industrial 1 Rd.
ChangPing Town
523585 DongGuan City
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product: **Surge Protective Device
(Thermal Fuse Varistor)**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 6810022017801

Valid until: 2028-03-01

Date, 2023-03-02

(Richard Xu)

CERTIFICATE

No. B 119967 0001 Rev. 00

Model(s):

14abbbK, 20abbbK

Description the rule of the designation:

<u>14 / 20</u>	<u>a</u>	<u>bbb</u>	<u>K</u>
I	II	III	IV

I – Represents the size of the varistor chip: 14 or 20

II – a can be N or E or M

N: Represents 2 pins of varistor

E: Represents 3 pins of varistor (temperature fuse at pin 3)

M: Represents 3 pins of varistor (temperature fuse at pin 2)

III– Nominal varistor voltage:

bbb can be 820,101,121,151, 181, 201, 221, 241, 271, 301, 331, 361, 391, 431, 471, 511, 561, 621, 681, 751, 781, 821, 911,102 and 112.

For example, 101 stands for $10 \times 10^1 = 100V$; 112 stands for $11 \times 10^2 = 1100V$.

IV – Tolerance of Nominal varistor voltage: $\pm 10\%$

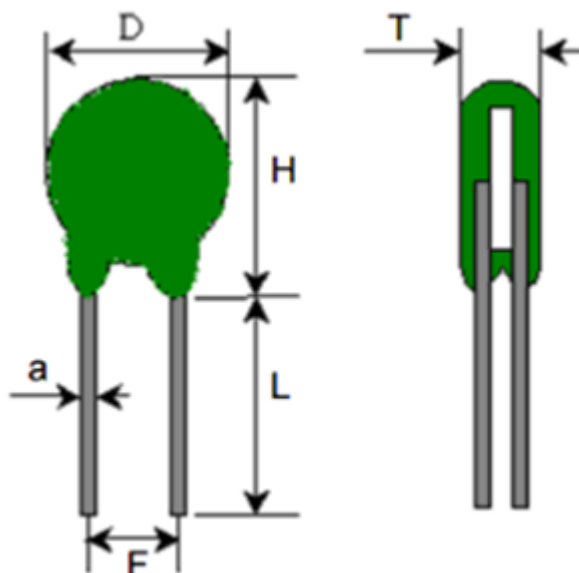
Parameters:

Maximum continuous voltage V_M /	
Maximum continuous operating voltage U_c :	See below table
Standby current I_{DC} :	$<25\mu A$
Varistor voltage V_V @1mA:	See below table
Specified peak pulse current I_P :	14N(M/E): 50A, 20N(M/E):100A
Clamping voltage @ I_P :	See below table
Nominal discharge current I_n :	See below table
Limiting voltage @ I_n :	See below table
Single-impulse [transient] maximum current I_{TM} /	
Maximum discharge current I_{max} :	See below table
Operating range:	Extend (-40°C to + 85°C)

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Dimention:



Sizes	D (mm)		H(mm)		T (mm)		a ±0.1 (mm)
	Max.	Min.	Max.	Min.	Max.	Min.	
14	22.80	15.20	21.00	15.00	19.20	7.04	0.8
20	28.80	19.20	26.00	21.00	19.20	7.20	1.0

Electrical rating:

Type	Maximum continuous voltage V_M (V)		Standby Current (μA)	Varistor voltage V_V @1mA (V)	Clamping Voltage @50A: (Max. V)	Nominal discharge current I_n (kA)	Limiting voltage @ I_n (V)	Maximum Peak Current I_{max} (KA)	Energy (J)	Capacitance (pF)
	AC	DC	I_{DC}	V_V	V_C	8/20 μs	U_p	8/20 μs	10/1000 μs	C_v
14N(M/E)820 K	50	65	<25	82	135	3	520	6	27	2400
14N(M/E)101 K	60	85	<25	100	165	3	630	6	33	2000
14N(M/E)121K	75	100	<25	120	200	3	756	6	40	1700

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No. B 119967 0001 Rev. 00

Type	Maximum continuous voltage V_M (V)		Standby Current (μA)	Varistor voltage V_V @1mA (V)	Clamping Voltage @50A: (Max. V)	Nominal discharge current I_n (kA)	Limiting voltage @ I_n (V)	Maximum Peak Current I_{max} (KA)	Energy (J)	Capacitance (pF)
	AC	DC	I_{DC}	V_V	V_C	8/20 μs	U_p	8/20 μs	10/1000 μs	C_v
14N(M/E)151K	95	125	<25	150	250	3	398	6	50	1300
14N(M/E)181K	115	150	<25	180	300	3	477	6	58	1100
14N(M/E)201K	130	170	<25	200	340	3	530	6	70	1000
14N(M/E)221K	140	180	<25	220	365	3	583	6	78	900
14N(M/E)241K	150	200	<25	240	395	3	636	6	60	830
14N(M/E)271K	175	225	<25	270	455	3	716	6	70	740
14N(M/E)301K	190	250	<25	300	500	3	795	6	107	670
14N(M/E)331K	210	275	<25	330	550	3	875	6	115	610
14N(M/E)361K	230	300	<25	360	595	3	954	6	125	560
14N(M/E)391K	250	320	<25	390	650	3	1034	6	140	510
14N(M/E)431K	275	350	<25	430	710	3	1140	6	155	460
14N(M/E)471K	300	385	<25	470	775	3	1246	6	175	430

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Type	Maximum continuous voltage V_M (V)		Standby Current (μA)	Varistor voltage V_V @1mA (V)	Clamping Voltage @50A: (Max. V)	Nominal discharge current I_n (kA)	Limiting voltage @ I_n (V)	Maximum Peak Current I_{max} (KA)	Energy (J)	Capacitance (pF)
	AC	DC	I_{DC}	V_V	V_C	8/20 μs	U_p	8/20 μs	10/1000 μs	C_v
14N(M/E)511K	320	415	<25	510	845	3	1352	6	190	390
14N(M/E)561K	350	460	<25	560	920	3	1484	6	200	360
14N(M/E)621K	385	505	<25	620	1025	3	1643	6	210	320
14N(M/E)681K	420	560	<25	680	1120	3	1802	6	220	290
14N(M/E)751K	460	615	<25	750	1240	3	1988	6	225	270
14N(M/E)781K	485	640	<25	780	1290	3	2067	6	240	260
14N(M/E)821K	510	670	<25	820	1355	3	2173	6	245	240
14N(M/E)911K	550	745	<25	910	1500	3	2412	6	255	220
14N(M/E)102K	625	825	<25	1000	1650	3	2650	6	280	200
14N(M/E)112K	680	895	<25	1100	1815	3	2915	6	310	180

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Type	Maximum continuous voltage V_M (V)		Standby Current (mA)	Varistor voltage V_V @1mA (V)	Clamping Voltage @50A: (Max. V)	Nominal discharge current I_n (kA)	Limiting voltage @ I_n (V)	Maximum Peak Current I_{max} (kA)	Energy (J)	Capacitance (pF)
	AC	DC	I_{DC}	V_V	V_C	8/20 μs	U_p	8/20 μs	10/1000 μs	C_v
20N(M/E)820K	50	65	<25	82	135	5	640	10	56	4900
20N(M/E)101K	60	85	<25	100	165	5	780	10	70	4000
20N(M/E)121K	75	100	<25	120	200	5	936	10	85	3300
20N(M/E)151K	95	125	<25	150	250	5	390	10	100	2700
20N(M/E)181K	115	150	<25	180	300	5	468	10	110	2200
20N(M/E)201K	130	170	<25	200	340	5	520	10	140	2000
20N(M/E)221K	140	180	<25	220	365	5	572	10	155	1800
20N(M/E)241K	150	200	<25	240	395	5	624	10	170	1650
20N(M/E)271K	175	225	<25	270	455	5	702	10	190	1500
20N(M/E)301K	190	250	<25	300	500	5	780	10	205	1300
20N(M/E)331K	210	275	<25	330	550	5	858	10	215	1200

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Type	Maximum continuous voltage V_M (V)		Standby Current (mA)	Varistor voltage V_V @1mA (V)	Clamping Voltage @50A: (Max. V)	Nominal discharge current I_n (kA)	Limiting voltage @ I_n (V)	Maximum Peak Current I_{max} (KA)	Energy (J)	Capacitance (pF)
	AC	DC	I_{DC}	V_V	V_C	8/20 μs	U_p	8/20 μs	10/1000 μs	C_v
20N(M/E)361K	230	300	<25	360	595	5	936	10	225	1100
20N(M/E)391K	250	320	<25	390	650	5	1014	10	240	1000
20N(M/E)431K	275	350	<25	430	710	5	1118	10	270	30
20N(M/E)471K	300	385	<25	470	775	5	1222	10	350	850
20N(M/E)511K	320	415	<25	510	845	5	1326	10	380	780
20N(M/E)561K	350	460	<25	560	920	5	1456	10	400	710
20N(M/E)621K	385	505	<25	620	1025	5	1612	10	425	650
20N(M/E)681K	420	560	<25	680	1120	5	1768	10	435	600
20N(M/E)751K	460	615	<25	750	1240	5	1950	10	455	530
20N(M/E)781K	485	640	<25	780	1290	5	2028	10	465	510
20N(M/E)821K	510	670	<25	820	1355	5	2132	10	475	500



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Type	Maximum continuous voltage V_M (V)		Standby Current (mA)	Varistor voltage V_V @1mA (V)	Clamping Voltage @50A: (Max. V)	Nominal discharge current I_n (kA)	Limiting voltage @ I_n (V)	Maximum Peak Current I_{max} (KA)	Energy (J)	Capacitance (pF)
	AC	DC	I_{DC}	V_V	V_C	8/20 μs	U_p	8/20 μs	10/1000 μs	C_v
20N(M/E)911K	550	745	<25	910	1500	5	2366	10	500	440
20N(M/E)102K	625	825	<25	1000	1650	5	2600	10	560	400
20N(M/E)112K	680	895	<25	1100	1815	5	2860	10	610	360

Remark: The models 14abbbK and 20abbbK with nominal varistor voltage at 200V and above were comply with Annex G.8.1 of IEC 62368-1:2018.

Tested according to: IEC 61643-331:2020
EN IEC 61643-331:2020