



# Certificate of Compliance

**Certificate:** 2559686

**Master Contract:** 241538

**Project:** 70206784

**Date Issued:** December 25, 2019

**Issued to:** TDK (Zhuhai FTZ) Co.,Ltd  
No.4 Lianfeng Road, Xiangzhou District  
Zhuhai City, 519030  
CHINA

**Attention:** Mr. Michael Zhang

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicator ▲*



*Norman Luo*

**Issued by:** Norman Luo

## PRODUCTS

CLASS 2213 31 - SURGE PROTECTIVE DEVICES -Components and Subassemblies

Type 5 – Component Surge Protective Devices (SPD), Varistors Type SIOV-S and SIOV-SFS Series:

5mm series - SIOV-S and SIOV-SFS series:				
Model #	Mode (Ld-Ld)	MCOV (V) ac	Varistor Voltage Vn (Vdc)	Nominal Discharge Current (In) (kA)
05K11	Ld-Ld	11	18	0.05
05K14	Ld-Ld	14	22	0.05
05K17	Ld-Ld	17	27	0.05
05K20	Ld-Ld	20	33	0.05
05K25	Ld-Ld	25	39	0.05
05K30	Ld-Ld	30	47	0.05
05K35	Ld-Ld	35	56	0.05
05K40	Ld-Ld	40	68	0.05
05K50	Ld-Ld	50	82	0.15
05K60	Ld-Ld	60	100	0.15
05K75	Ld-Ld	75	120	0.15
05K95	Ld-Ld	95	150	0.15



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05K115	Ld-Ld	115	180	0.15
05K130	Ld-Ld	130	205	0.15
05K140	Ld-Ld	140	220	0.15
05K150	Ld-Ld	150	240	0.15
05K175	Ld-Ld	175	270	0.15
05K210	Ld-Ld	210	330	0.15
05K230	Ld-Ld	230	360	0.15
05K250	Ld-Ld	250	390	0.15
05K275	Ld-Ld	275	430	0.15
05K300	Ld-Ld	300	470	0.15
05K320	Ld-Ld	320	510	0.15
05K350	Ld-Ld	350	560	0.15
05K360	Ld-Ld	360	580	0.15
05K385	Ld-Ld	385	620	0.15
05K420	Ld-Ld	420	680	0.15
05K440	Ld-Ld	440	715	0.15
05K460	Ld-Ld	460	750	0.15
05K510	Ld-Ld	510	820	0.15
05K550	Ld-Ld	550	910	0.15
05K575	Ld-Ld	575	910	0.15

7mm series - SIOV-S and SIOV-SFS series:

Model #	Mode (Ld-Ld)	MCOV (V) ac	Varistor Voltage Vn (Vdc)	Nominal Discharge Current (In) (kA)
07K11	Ld-Ld	11	18	0.1
07K14	Ld-Ld	14	22	0.1
07K17	Ld-Ld	17	27	0.1
07K20	Ld-Ld	20	33	0.1
07K25	Ld-Ld	25	39	0.1
07K30	Ld-Ld	30	47	0.1
07K35	Ld-Ld	35	56	0.1
07K40	Ld-Ld	40	68	0.1
07K50	Ld-Ld	50	82	0.5
07K60	Ld-Ld	60	100	0.5
07K75	Ld-Ld	75	120	0.5
07K95	Ld-Ld	95	150	0.5
07K115	Ld-Ld	115	180	0.5
07K130	Ld-Ld	130	205	0.5
07K140	Ld-Ld	140	220	0.5
07K150	Ld-Ld	150	240	0.5
07K175	Ld-Ld	175	270	0.5
07K210	Ld-Ld	210	330	0.5



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07K230	Ld-Ld	230	360	0.5
07K250	Ld-Ld	250	390	0.5
07K275	Ld-Ld	275	430	0.5
07K300	Ld-Ld	300	470	0.5
07K320	Ld-Ld	320	510	0.5
07K350	Ld-Ld	350	560	0.5
07K360	Ld-Ld	360	580	0.5
07K385	Ld-Ld	385	620	0.5
07K420	Ld-Ld	420	680	0.5
07K440	Ld-Ld	440	715	0.5
07K460	Ld-Ld	460	750	0.5
07K510	Ld-Ld	510	820	0.5
07K550	Ld-Ld	550	910	0.5
07K575	Ld-Ld	575	910	0.5
07K625	Ld-Ld	625	1000	0.5

10mm series - SIOV-S and SIOV-SFS series:

Model #	Mode (Ld-Ld)	MCOV (V) ac	Varistor Voltage Vn (Vdc)	Nominal Discharge Current (In) (kA)
10K11	Ld-Ld	11	18	0.25
10K14	Ld-Ld	14	22	0.25
10K17	Ld-Ld	17	27	0.25
10K20	Ld-Ld	20	33	0.25
10K25	Ld-Ld	25	39	0.25
10K30	Ld-Ld	30	47	0.25
10K35	Ld-Ld	35	56	0.25
10K40	Ld-Ld	40	68	0.25
10K50	Ld-Ld	50	82	1.5
10K60	Ld-Ld	60	100	1.5
10K75	Ld-Ld	75	120	1.5
10K95	Ld-Ld	95	150	1.5
10K115	Ld-Ld	115	180	1.5
10K130	Ld-Ld	130	205	1.5
10K140	Ld-Ld	140	220	1.5
10K150	Ld-Ld	150	240	1.5
10K175	Ld-Ld	175	270	1.5
10K210	Ld-Ld	210	330	1.5
10K230	Ld-Ld	230	360	1.5
10K250	Ld-Ld	250	390	1.5
10K275	Ld-Ld	275	430	1.5
10K300	Ld-Ld	300	470	1.5
10K320	Ld-Ld	320	510	1.5



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10K350	Ld-Ld	350	560	1.5
10K360	Ld-Ld	360	580	1.5
10K385	Ld-Ld	385	620	1.5
10K420	Ld-Ld	420	680	1.5
10K440	Ld-Ld	440	715	1.5
10K460	Ld-Ld	460	750	1.5
10K510	Ld-Ld	510	820	1.5
10K550	Ld-Ld	550	910	1.5
10K575	Ld-Ld	575	910	1.5
10K625	Ld-Ld	625	1000	1.5
10K680	Ld-Ld	680	1100	1.5
10K1000	Ld-Ld	1000	1800	1.5
10K130E2K1	Ld-Ld	130	205	2
10K140E2K1	Ld-Ld	140	220	2
10K150E2K1	Ld-Ld	150	240	2
10K175E2K1	Ld-Ld	175	270	2
10K210E2K1	Ld-Ld	210	330	2
10K230E2K1	Ld-Ld	230	360	2
10K250E2K1	Ld-Ld	250	390	2
10K275E2K1	Ld-Ld	275	430	2
10K300E2K1	Ld-Ld	300	470	2
10K320E2K1	Ld-Ld	320	510	2
10K350E2K1	Ld-Ld	350	560	2
10K360E2K1	Ld-Ld	360	580	2
10K385E2K1	Ld-Ld	385	620	2
10K420E2K1	Ld-Ld	420	680	2
10K440E2K1	Ld-Ld	440	715	2
10K460E2K1	Ld-Ld	460	750	2
10K510E2K1	Ld-Ld	510	820	2
10K550E2K1	Ld-Ld	550	910	2
10K575E2K1	Ld-Ld	575	910	2
10K625E2K1	Ld-Ld	625	1000	2
10K680E2K1	Ld-Ld	680	1100	2

14mm series - SIOV-S and SIOV-SFS series:

Model #	Mode (Ld-Ld)	MCOV (V) ac	Varistor Voltage Vn (Vdc)	Nominal Discharge Current (In) (kA)
14K11	Ld-Ld	11	18	0.5
14K14	Ld-Ld	14	22	0.5
14K17	Ld-Ld	17	27	0.5
14K20	Ld-Ld	20	33	0.5
14K25	Ld-Ld	25	39	0.5



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14K30	Ld-Ld	30	47	0.5
14K35	Ld-Ld	35	56	0.5
14K40	Ld-Ld	40	68	0.5
14K50	Ld-Ld	50	82	3
14K60	Ld-Ld	60	100	3
14K75	Ld-Ld	75	120	3
14K95	Ld-Ld	95	150	3
14K115	Ld-Ld	115	180	3
14K130	Ld-Ld	130	205	3
14K140	Ld-Ld	140	220	3
14K150	Ld-Ld	150	240	3
14K175	Ld-Ld	175	270	3
14K210	Ld-Ld	210	330	3
14K230	Ld-Ld	230	360	3
14K250	Ld-Ld	250	390	3
14K275	Ld-Ld	275	430	3
14K300	Ld-Ld	300	470	3
14K320	Ld-Ld	320	510	3
14K350	Ld-Ld	350	560	3
14K360	Ld-Ld	360	580	3
14K385	Ld-Ld	385	620	3
14K420	Ld-Ld	420	680	3
14K440	Ld-Ld	440	715	3
14K460	Ld-Ld	460	750	3
14K510	Ld-Ld	510	820	3
14K550	Ld-Ld	550	910	3
14K575	Ld-Ld	575	910	3
14K625	Ld-Ld	625	1000	3
14K680	Ld-Ld	680	1100	3
14K1000	Ld-Ld	1000	1800	3
14K130E2K1	Ld-Ld	130	205	3
14K140E2K1	Ld-Ld	140	220	3
14K150E2K1	Ld-Ld	150	240	3
14K175E2K1	Ld-Ld	175	270	3
14K210E2K1	Ld-Ld	210	330	3
14K230E2K1	Ld-Ld	230	360	3
14K250E2K1	Ld-Ld	250	390	3
14K275E2K1	Ld-Ld	275	430	3
14K300E2K1	Ld-Ld	300	470	3
14K320E2K1	Ld-Ld	320	510	3
14K350E2K1	Ld-Ld	350	560	3
14K360E2K1	Ld-Ld	360	580	3



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14K385E2K1	Ld-Ld	385	620	3
14K420E2K1	Ld-Ld	420	680	3
14K440E2K1	Ld-Ld	440	715	3
14K460E2K1	Ld-Ld	460	750	3
14K510E2K1	Ld-Ld	510	820	3
14K550E2K1	Ld-Ld	550	910	3
14K575E2K1	Ld-Ld	575	910	3
14K625E2K1	Ld-Ld	625	1000	3
14K680E2K1	Ld-Ld	680	1100	3

18mm series - SIOV-S and SIOV-SFS series:				
Model #	Mode (Ld-Ld)	MCOV (V) ac	Varistor Voltage Vn (Vdc)	Nominal Discharge Current (In) (kA)
18K115	Ld-Ld	115	180	3
18K130	Ld-Ld	130	205	3
18K140	Ld-Ld	140	220	3
18K150	Ld-Ld	150	240	3
18K175	Ld-Ld	175	270	3
18K210	Ld-Ld	210	330	3
18K230	Ld-Ld	230	360	3
18K250	Ld-Ld	250	390	3
18K275	Ld-Ld	275	430	3
18K300	Ld-Ld	300	470	3
18K320	Ld-Ld	320	510	3
18K350	Ld-Ld	350	560	3
18K385	Ld-Ld	385	620	3
18K420	Ld-Ld	420	680	3
18K440	Ld-Ld	440	715	3
18K460	Ld-Ld	460	750	3
18K510	Ld-Ld	510	820	3
18K550	Ld-Ld	550	910	3
18K575	Ld-Ld	575	950	3
18K625	Ld-Ld	625	1000	3
18K680	Ld-Ld	680	1100	3
18K1000	Ld-Ld	1100	1800	3
18K130E3	Ld-Ld	130	205	5

20mm series - SIOV-S and SFS series:				
Model #	Mode (Ld-Ld)	MCOV (V) ac	Varistor Voltage Vn (Vdc)	Nominal Discharge Current (In) (kA)
20K11	Ld-Ld	11	18	1



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20K14	Ld-Ld	14	22	1
20K17	Ld-Ld	17	27	1
20K20	Ld-Ld	20	33	1
20K25	Ld-Ld	25	39	1
20K30	Ld-Ld	30	47	1
20K35	Ld-Ld	35	56	1
20K40	Ld-Ld	40	68	1
20K50	Ld-Ld	50	82	3
20K60	Ld-Ld	60	100	3
20K75	Ld-Ld	75	120	3
20K95	Ld-Ld	95	150	3
20K115	Ld-Ld	115	180	3
20K130	Ld-Ld	130	205	3
20K140	Ld-Ld	140	220	3
20K150	Ld-Ld	150	240	3
20K175	Ld-Ld	175	270	3
20K210	Ld-Ld	210	330	3
20K230	Ld-Ld	230	360	3
20K250	Ld-Ld	250	390	3
20K275	Ld-Ld	275	430	3
20K300	Ld-Ld	300	470	3
20K320	Ld-Ld	320	510	3
20K350	Ld-Ld	350	560	3
20K360	Ld-Ld	360	580	3
20K385	Ld-Ld	385	620	3
20K420	Ld-Ld	420	680	3
20K440	Ld-Ld	440	715	3
20K460	Ld-Ld	460	750	3
20K510	Ld-Ld	510	820	3
20K550	Ld-Ld	550	910	3
20K575	Ld-Ld	575	910	3
20K625	Ld-Ld	625	1000	3
20K680	Ld-Ld	680	1100	3
20K1000	Ld-Ld	1000	1800	3
20K115E3	Ld-Ld	115	180	5
20K130E3	Ld-Ld	130	205	5
20K140E3	Ld-Ld	140	220	5
20K150E3	Ld-Ld	150	240	5
20K175E3	Ld-Ld	175	270	5
20K210E3	Ld-Ld	210	330	5
20K230E3	Ld-Ld	230	360	5
20K250E3	Ld-Ld	250	390	5



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20K275E3	Ld-Ld	275	430	5
20K300E3	Ld-Ld	300	470	5
20K320E3	Ld-Ld	320	510	5
20K350E3	Ld-Ld	350	560	5
20K360E3	Ld-Ld	360	580	5
20K385E3	Ld-Ld	385	620	5
20K420E3	Ld-Ld	420	680	5
20K460E3	Ld-Ld	460	750	5
20K510E3	Ld-Ld	510	820	5
20K550E3	Ld-Ld	550	910	5
20K575E3	Ld-Ld	575	910	5
20K625E3	Ld-Ld	625	1000	5
20K680E3	Ld-Ld	680	1100	5
20K115E3K1	Ld-Ld	115	130	5
20K130E3K1	Ld-Ld	130	205	5
20K140E3K1	Ld-Ld	140	220	5
20K150E3K1	Ld-Ld	150	240	5
20K175E3K1	Ld-Ld	175	270	5
20K210E3K1	Ld-Ld	210	330	5
20K230E3K1	Ld-Ld	230	360	5
20K250E3K1	Ld-Ld	250	390	5
20K275E3K1	Ld-Ld	275	430	5
20K300E3K1	Ld-Ld	300	470	5
20K320E3K1	Ld-Ld	320	510	5
20K350E3K1	Ld-Ld	350	560	5
20K360E3K1	Ld-Ld	360	580	5
20K385E3K1	Ld-Ld	385	620	5
20K420E3K1	Ld-Ld	420	680	5
20K440E3K1	Ld-Ld	440	715	5
20K460E3K1	Ld-Ld	460	750	5
20K510E3K1	Ld-Ld	510	820	5
20K550E3K1	Ld-Ld	550	910	5
20K575E3K1	Ld-Ld	575	910	5
20K625E3K1	Ld-Ld	625	1000	5
20K680E3K1	Ld-Ld	680	1100	5

25mm series - SIOV-S25K series:

Model #	Mode (Ld-Ld)	MCOV (V) ac	Varistor Voltage Vn (Vdc)	Nominal Discharge Current (In) (kA)
SIOV-S25K130E4	Ld-Ld	130	205	10
SIOV-S25K140E4	Ld-Ld	140	220	10



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SIOV-S25K150E4	Ld-Ld	150	240	10
SIOV-S25K175E4	Ld-Ld	175	270	10
SIOV-S25K210E4	Ld-Ld	210	330	10
SIOV-S25K230E4	Ld-Ld	230	360	10
SIOV-S25K250E4	Ld-Ld	250	390	10
SIOV-S25K275E4	Ld-Ld	275	430	10
SIOV-S25K300E4	Ld-Ld	300	470	10
SIOV-S25K320E4	Ld-Ld	320	510	10
SIOV-S25K350E4	Ld-Ld	350	560	10
SIOV-S25K360E4	Ld-Ld	360	580	10
SIOV-S25K385E4	Ld-Ld	385	620	10
SIOV-S25K420E4	Ld-Ld	420	680	10
SIOV-S25K440E4	Ld-Ld	440	715	10
SIOV-S25K460E4	Ld-Ld	460	750	10
SIOV-S25K510E4	Ld-Ld	510	820	10
SIOV-S25K550E4	Ld-Ld	550	910	10
SIOV-S25K575E4	Ld-Ld	575	910	10
SIOV-S25K580E4	Ld-Ld	580	940	10
SIOV-S25K625E4	Ld-Ld	625	1000	10
SIOV-S25K680E4	Ld-Ld	680	1100	10
SIOV-S25K750E4	Ld-Ld	1000	1200	10

Notes:

1. These varistors are Certified for use only as components of other Certified equipment where the suitability of the combination is to be determined by CSA Group.
2. The prefix “SIOV” for varistors are optional. The above models may have extra prefix and suffix, refer to nomenclature in DESCRIPTION.
3. The “K” in the model designation of varistors may be replaced by “J”, where “J” denotes the varistor tolerance of  $\pm 5\%$  and “K”  $\pm 10\%$ .
4. Models with rated Nominal Discharge Current (In) of  $<3\text{kA}$  may not be suitable for use in SPD end products.

**APPLICABLE REQUIREMENTS**

C22.2 No. 269.5-17 - Surge protective devices - Type 5 – Components



## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
70206784	Dec 25, 2019	Update Report 2559686 for adding new models S series, SFS series from Report 2408080, S25K series from Report 2408083, S series from Report 2408086 and to upgrade the standard to CSA 269.5-17 in accordance with CSA Certification Notice for Surge Protective Devices No.08.
2635382	Jun 13, 2013	Update to include alternative epoxy coating materials
2559686	Dec 6, 2012	Original Certification