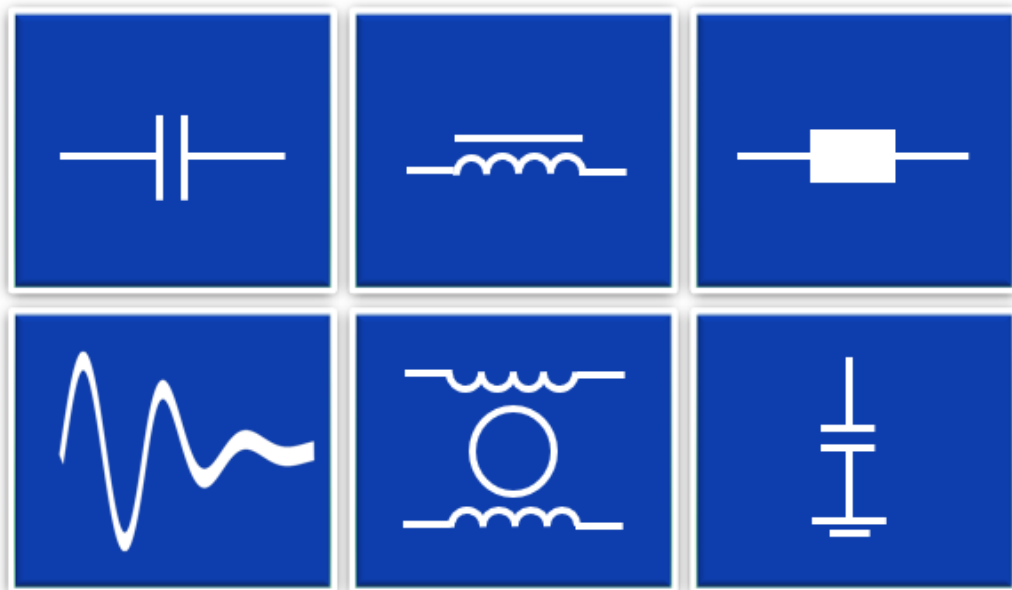




Feedthrough Capacitors

Features

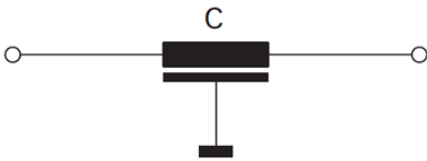
- ✓ Metallized polypropylene film
- ✓ Low inductance
- ✓ Self-healing property
- ✓ Low dissipation factor ($\tan \delta$)
- ✓ High insulation resistance
- ✓ Excellent stability
- ✓ Excellent high-frequency performance

Typical Applications

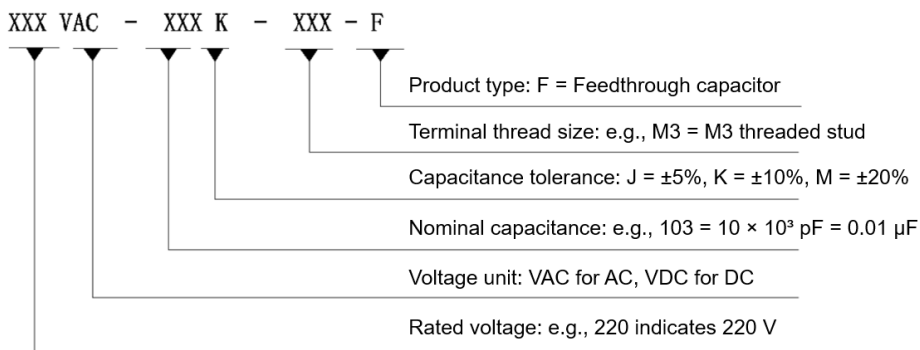
Shielding and filtering applications, such as:

- ✓ Power line filters
- ✓ Medical interface boards
- ✓ Shielded equipment
- ✓ Anechoic chambers
- ✓ Information security facilities

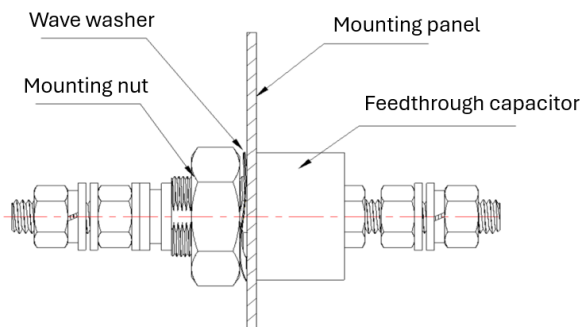
Typical Electrical Schematic



Naming System



Installation Diagram



	M3	M4	M6	M8	M10	M10×1	M12×1	M16×1	M20×1	M24×1	M25×1
Terminal tightening torque	0.5Nm	1.2Nm	2.5Nm	5Nm	8Nm						
Mounting torque						3Nm	4Nm	7Nm	10Nm	14Nm	14Nm

250VAC/275VAC/310VAC Feedthrough Capacitor

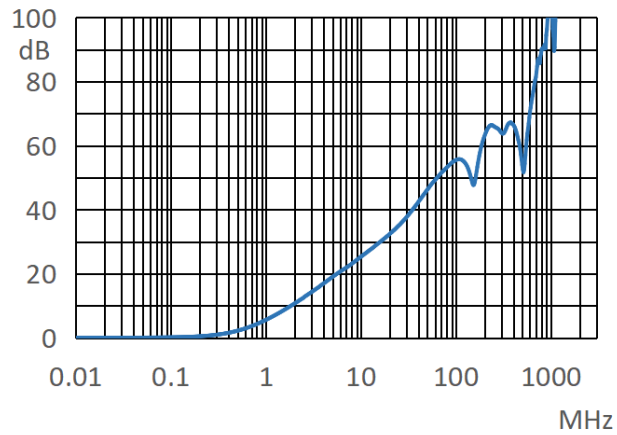
Common Technical Data

Type	Feedthrough Capacitor
Rated Voltage	250VAC/275VAC/310VAC, 50/60Hz
Capacitance Range	0.01uF ~ 1uF
Capacitance Tolerance	±10% (K), ±20% (M)
Reference Standard	IEC60384-14, GB/T14472
Operating Temperature Range	-40°C ~ +85°C
Voltage Proof	2000VDC, 2s
Insulation Resistance	CR≤0.33μF, IR≥10 000 MΩ CR>0.33μF, IR×C≥3 000s (20°C, 100V, 1min)
Dissipation Factor (tan δ)	≤30×10 ⁻⁴ (100Hz, 20°C)
Materials	RoHS 2.0 Compliant
Durability	90±2°C, 1.75Un, 1000h

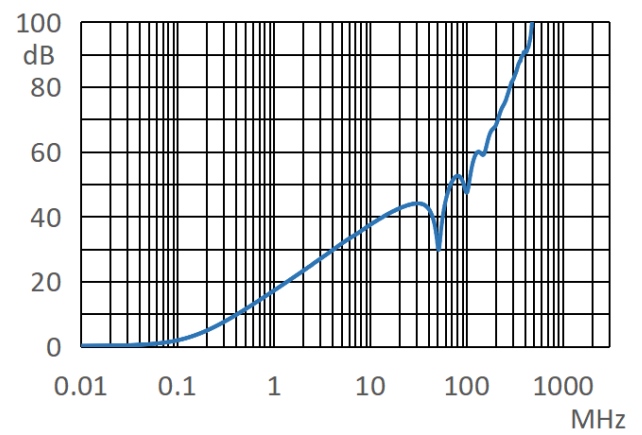
Model Specific Data

Model	Capacitance (nF)	Rated Current (A)	Capacitive current (mA, @250VAC/50Hz)	DC Resistance (mΩ)	Weight (g)
310VAC-103K-M3-F	10	10	0.8	<1	<20
310VAC-473K-M4-F	47	32	3.7	<0.8	<40
310VAC-104K-M4-F	100	32	7.9	<0.8	<40
310VAC-474K-M4-F	470	32	37	<0.8	<80
310VAC-103K-M6-F	10	63	0.8	<0.4	<80
310VAC-473K-M6-F	47	63	3.7	<0.4	<80
310VAC-104K-M6-F	100	63	7.9	<0.4	<80
310VAC-474K-M6-F	470	63	37	<0.4	<110
310VAC-473K-M8-F	47	100	3.7	<0.3	<150
310VAC-104K-M8-F	100	100	7.9	<0.3	<150
310VAC-474K-M8-F	470	100	37	<0.3	<150
310VAC-105K-M8-F	1000	100	79	<0.3	<200
310VAC-104K-M10-F	100	200	7.9	<0.2	<200
310VAC-474K-M10-F	470	200	37	<0.2	<200
310VAC-105K-M10-F	1000	200	79	<0.2	<280

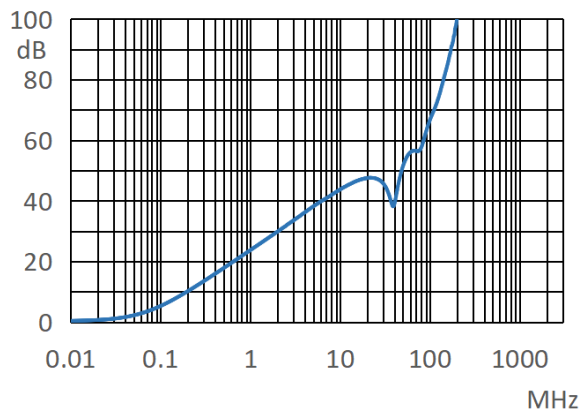
Typical Insertion Loss



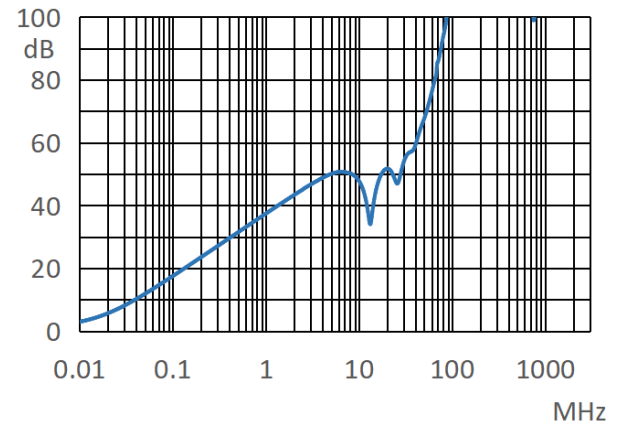
10nF models



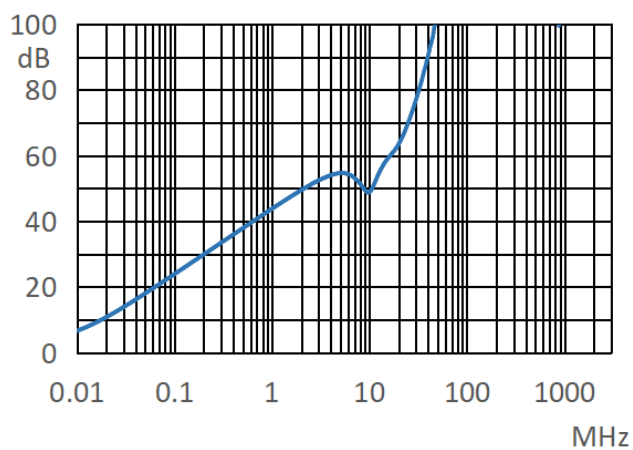
47nF models



100nF models

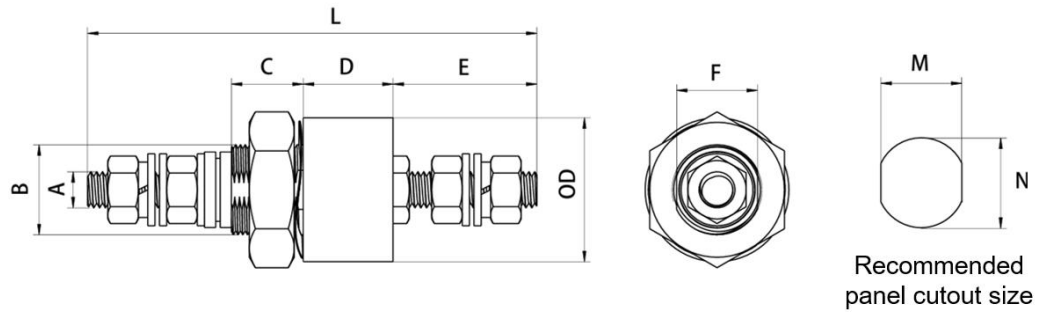


470nF models



1000nF models

Dimensions



Model	A	B	C	D	E	F	OD	L	M	N
310VAC-103K-M3-F	M3	M10×1	10	18.5	14.5±2	/	15±0.5	60±2	/	Φ10.5
310VAC-473K-M4-F	M4	M12×1	12	30	15±2	10	20±0.5	75±2	10.5	Φ12.5
310VAC-104K-M4-F	M4	M12×1	12	30	15±2	10	20±0.5	75±2	10.5	Φ12.5
310VAC-474K-M4-F	M4	M20×1	16	30	16±2	18	32±0.5	80±2	18.5	Φ20.5
310VAC-103K-M6-F	M6	M16×1	14	21	24±2	14	25±0.5	85±2	14.5	Φ16.5
310VAC-473K-M6-F	M6	M16×1	14	21	24±2	14	25±0.5	85±2	14.5	Φ16.5
310VAC-104K-M6-F	M6	M16×1	14	21	24±2	14	25±0.5	85±2	14.5	Φ16.5
310VAC-474K-M6-F	M6	M20×1	16	30	27±2	18	32±0.5	100±2	18.5	Φ20.5
310VAC-473K-M8-F	M8	M20×1	16	33	32±2	18	32±0.5	115±2	18.5	Φ20.5
310VAC-104K-M8-F	M8	M20×1	16	33	32±2	18	32±0.5	115±2	18.5	Φ20.5
310VAC-474K-M8-F	M8	M20×1	16	33	32±2	18	32±0.5	115±2	18.5	Φ20.5
310VAC-105K-M8-F	M8	M24×1	19	33	31±2	22	38±0.5	115±2	22.5	Φ24.5
310VAC-104K-M10-F	M10	M24×1	19	33	38±2	22	32±0.5	130±2	22.5	Φ24.5
310VAC-474K-M10-F	M10	M24×1	19	33	38±2	22	32±0.5	130±2	22.5	Φ24.5
310VAC-105K-M10-F	M10	M24×1	19	33	38±2	22	38±0.5	130±2	22.5	Φ24.5

General tolerances conform to ISO 2768-m

Unit: mm

500VAC Feedthrough Capacitor

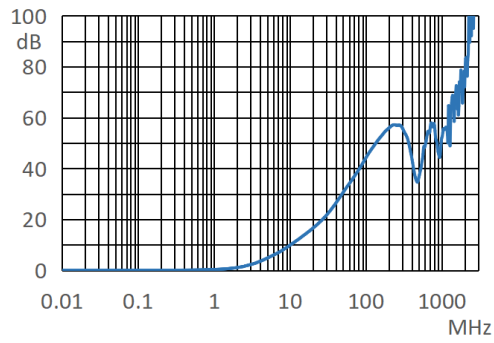
Common Technical Data

Type	Feedthrough Capacitor
Rated Voltage	500VAC, 50/60Hz
Capacitance Range	0.018uF ~ 0.33uF
Capacitance Tolerance	±10% (K), ±20% (M)
Reference Standard	IEC60384-14, GB/T14472
Operating Temperature Range	-40°C ~ +85°C
Voltage Proof	3000VDC, 2s
Insulation Resistance	IR≥10 000 MΩ (20°C, 100V, 1min)
Dissipation Factor (tan δ)	≤30x10 ⁻⁴ (100Hz, 20°C)
Materials	RoHS 2.0 Compliant
Durability	90±2°C, 1.75Un, 1000h

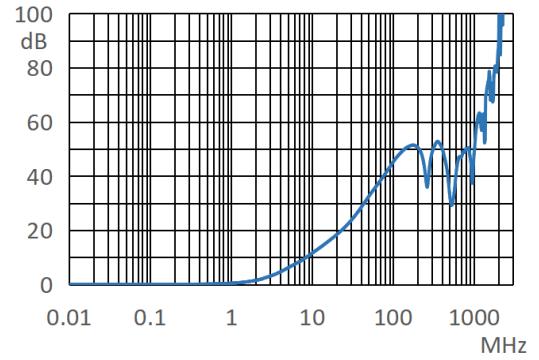
Model Specific Data

Model	Capacitance (nF)	Rated Current (A)	Capacitive current (mA, @500VAC/50Hz)	DC Resistance (mΩ)	Weight (g)
500VAC-182K-M3-F	1.8	10	0.28	<1	<20
500VAC-222K-M3-F	2.2	10	0.35	<1	<20
500VAC-332K-M3-F	3.3	10	0.52	<1	<25
500VAC-472K-M3-F	4.7	10	0.75	<1	<30
500VAC-103K-M3-F	10	10	1.6	<1	<30
500VAC-472K-M4-F	4.7	32	0.75	<0.8	<30
500VAC-103K-M4-F	10	32	1.6	<0.8	<30
500VAC-473K-M4-F	47	32	7.5	<0.8	<35
500VAC-104K-M4-F	100	32	16	<0.8	<70
500VAC-473K-M6-F	47	63	7.5	<0.5	<70
500VAC-104K-M6-F	100	63	16	<0.5	<70
500VAC-473K-M8-F	47	100	7.5	<0.3	<110
500VAC-104K-M8-F	100	100	16	<0.3	<110
500VAC-224K-M8-F	220	100	35	<0.3	<120
500VAC-104K-M10-F	100	200	16	<0.2	<160
500VAC-224K-M10-F	220	200	35	<0.2	<160
500VAC-334K-M10-F	330	200	52	<0.2	<180

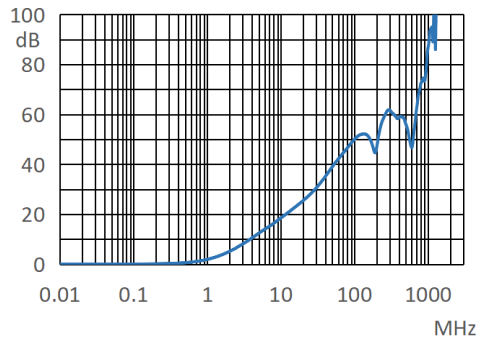
Typical Insertion Loss



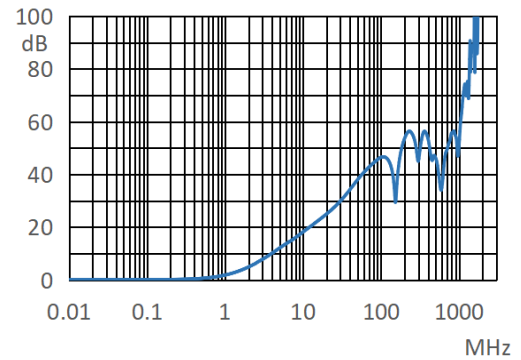
1.8nF models



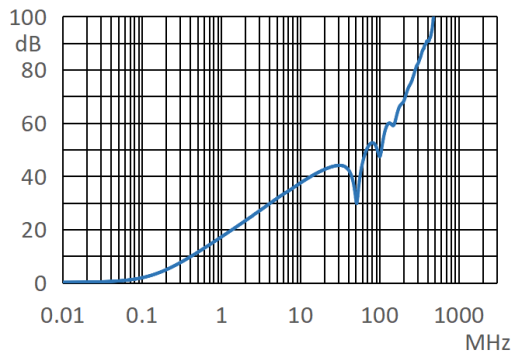
2.2nF models



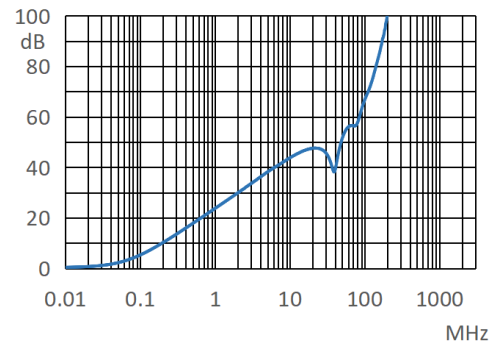
3.3nF models



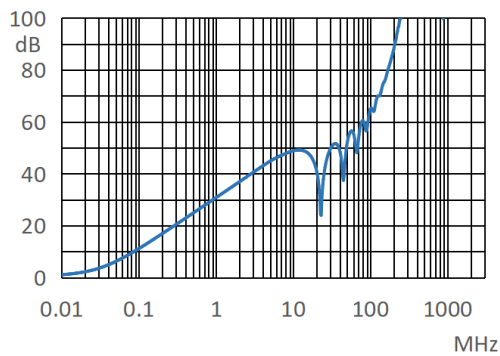
4.7nF models



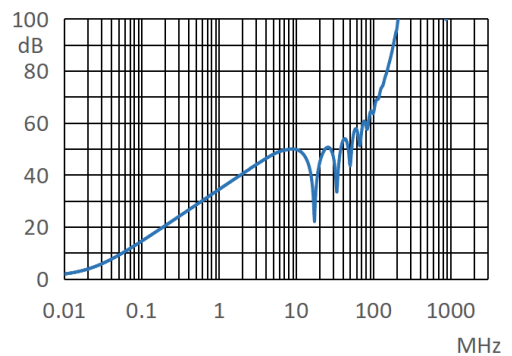
10nF models



100nF models

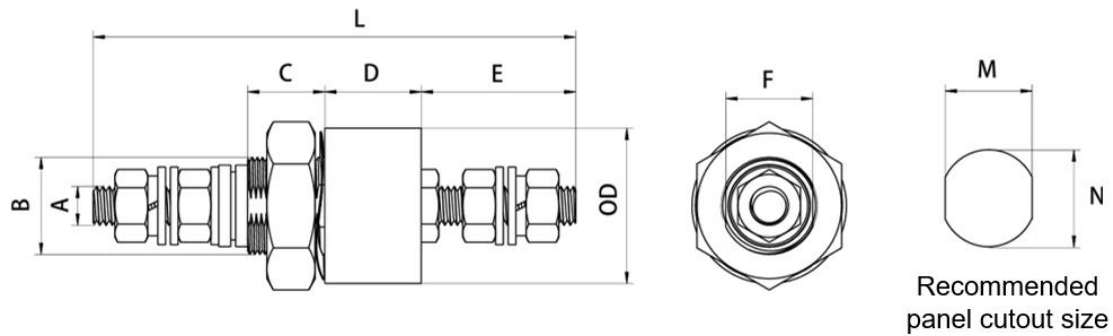


220nF models



330nF models

Dimensions



Model	A	B	C	D	E	F	OD	L	M	N
500VAC-182K-M3-F	M3	M10×1	10	19	15.5±2	/	17±0.5	60±2	/	Φ10.5
500VAC-222K-M3-F	M3	M10×1	10	19	15.5±2	/	17±0.5	60±2	/	Φ10.5
500VAC-332K-M3-F	M3	M10×1	10	19	15.5±2	/	17±0.5	60±2	/	Φ10.5
500VAC-472K-M3-F	M3	M10×1	10	19	15.5±2	/	17±0.5	60±2	/	Φ10.5
500VAC-103K-M3-F	M3	M10×1	10	19	15.5±2	/	17±0.5	60±2	/	Φ10.5
500VAC-472K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
500VAC-103K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
500VAC-473K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
500VAC-104K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
500VAC-473K-M6-F	M6	M16×1	14	20	28±2	14	25±0.5	90±2	14.5	Φ16.5
500VAC-104K-M6-F	M6	M16×1	14	20	28±2	14	25±0.5	90±2	14.5	Φ16.5
500VAC-473K-M8-F	M8	M20×1	16	20	32±2	18	32±0.5	100±2	18.5	Φ20.5
500VAC-104K-M8-F	M8	M20×1	16	20	32±2	18	32±0.5	100±2	18.5	Φ20.5
500VAC-224K-M8-F	M8	M20×1	16	20	32±2	18	32±0.5	100±2	18.5	Φ20.5
500VAC-104K-M10-F	M10	M24×1	19	22	39±2	22	38±0.5	120±2	22.5	Φ24.5
500VAC-224K-M10-F	M10	M24×1	19	22	39±2	22	38±0.5	120±2	22.5	Φ24.5
500VAC-334K-M10-F	M10	M24×1	19	22	39±2	22	38±0.5	120±2	22.5	Φ24.5

General tolerances conform to ISO 2768-m

Unit: mm

500VDC Feedthrough Capacitors

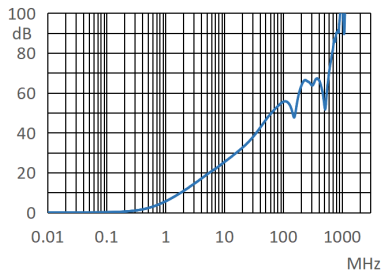
Common Technical Data

Type	Feedthrough Capacitor
Rated Voltage	500VDC
Capacitance Range	0.01uF ~ 1uF
Capacitance Tolerance	±10% (K), ±20% (M)
Reference Standard	IEC60384-14, GB/T14472
Operating Temperature Range	-40°C ~ +85°C
Voltage Proof	2000VDC, 2s
Insulation Resistance	CR≤0.33μF, IR≥10 000 MΩ CR>0.33μF, IR×C≥3 000s (20°C, 100V, 1min)
Dissipation Factor (tan δ)	≤30×10 ⁻⁴ (100Hz, 20°C)
Materials	RoHS 2.0 Compliant
Durability	90±2°C, 1.75Un, 1000h

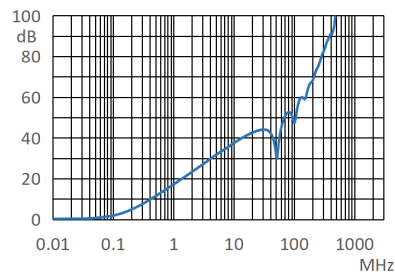
Model Specific Data

Model	Capacitance (uF)	Rated Current (A)	DC Resistance (mΩ)	Weight (g)
500VDC-103K-M3-F	10	10	<1	<20
500VDC-473K-M4-F	47	32	<0.8	<40
500VDC-104K-M4-F	100	32	<0.8	<40
500VDC-474K-M4-F	470	32	<0.8	<80
500VDC-103K-M6-F	10	63	<0.4	<80
500VDC-473K-M6-F	47	63	<0.4	<80
500VDC-104K-M6-F	100	63	<0.4	<80
500VDC-474K-M6-F	470	63	<0.4	<110
500VDC-473K-M8-F	47	100	<0.3	<150
500VDC-104K-M8-F	100	100	<0.3	<150
500VDC-474K-M8-F	470	100	<0.3	<150
500VDC-105K-M8-F	1000	100	<0.3	<200
500VDC-104K-M10-F	100	200	<0.2	<200
500VDC-474K-M10-F	470	200	<0.2	<200
500VDC-105K-M10-F	1000	200	<0.2	<280

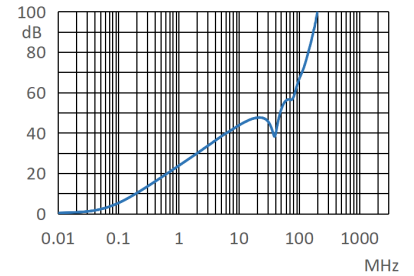
Insertion Loss



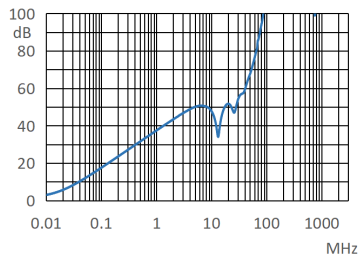
10nF models



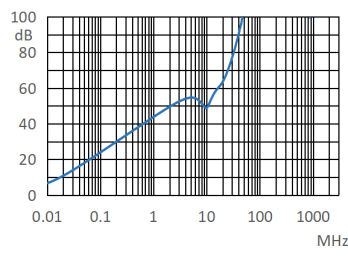
47nF models



100nF models

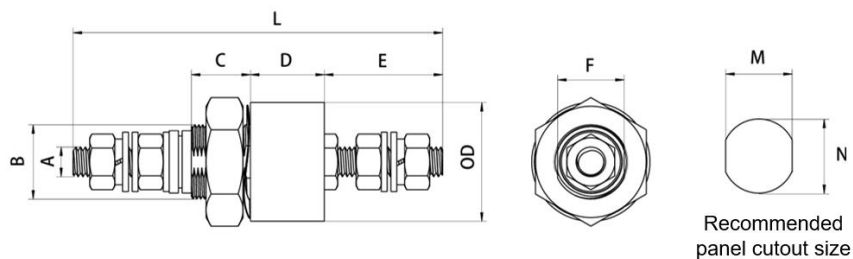


470nF models



1000nF models

Dimensions



Model	A	B	C	D	E	F	OD	L	M	N
500VDC-103K-M3-F	M3	M10×1	10	19	12±2	/	17±0.5	60±2	/	Φ10.5
500VDC-473K-M4-F	M4	M12×1	12	30	15±2	10	20±0.5	75±2	10.5	Φ12.5
500VDC-104K-M4-F	M4	M12×1	12	30	15±2	10	20±0.5	75±2	10.5	Φ12.5
500VDC-474K-M4-F	M4	M20×1	16	30	16±2	18	32±0.5	80±2	18.5	Φ20.5
500VDC-103K-M6-F	M6	M16×1	14	21	24±2	14	25±0.5	85±2	14.5	Φ16.5
500VDC-473K-M6-F	M6	M16×1	14	21	24±2	14	25±0.5	85±2	14.5	Φ16.5
500VDC-104K-M6-F	M6	M16×1	14	21	24±2	14	25±0.5	85±2	14.5	Φ16.5
500VDC-474K-M6-F	M6	M20×1	16	30	27±2	18	32±0.5	100±2	18.5	Φ20.5
500VDC-473K-M8-F	M8	M20×1	16	33	32±2	18	32±0.5	115±2	18.5	Φ20.5
500VDC-104K-M8-F	M8	M20×1	16	33	32±2	18	32±0.5	115±2	18.5	Φ20.5
500VDC-474K-M8-F	M8	M20×1	16	33	32±2	18	32±0.5	115±2	18.5	Φ20.5
500VDC-105K-M8-F	M8	M24×1	19	33	31±2	22	38±0.5	115±2	22.5	Φ24.5
500VDC-104K-M10-F	M10	M24×1	19	33	38±2	22	32±0.5	130±2	22.5	Φ24.5
500VDC-474K-M10-F	M10	M24×1	19	33	38±2	22	32±0.5	130±2	22.5	Φ24.5
500VDC-105K-M10-F	M10	M24×1	19	33	38±2	22	38±0.5	130±2	22.5	Φ24.5

General tolerances conform to ISO 2768-m; Unit: mm

1000VDC Feedthrough Capacitors

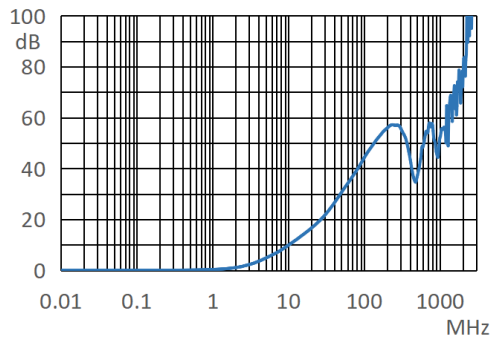
Common Technical Data

Type	Feedthrough Capacitor
Rated Voltage	1000VDC
Capacitance Range	0.0018uF ~ 0.33uF
Capacitance Tolerance	±10% (K), ±20% (M)
Reference Standard	IEC60384-14, GB/T14472
Operating Temperature Range	-40°C ~ +85°C
Voltage Proof	3000VDC, 2s
Insulation Resistance	IR≥10 000 MΩ (20°C, 100V, 1min)
Dissipation Factor (tan δ)	≤30x10 ⁻⁴ (100Hz, 20°C)
Materials	RoHS 2.0 Compliant
Durability	90±2°C, 1.75Un, 1000h

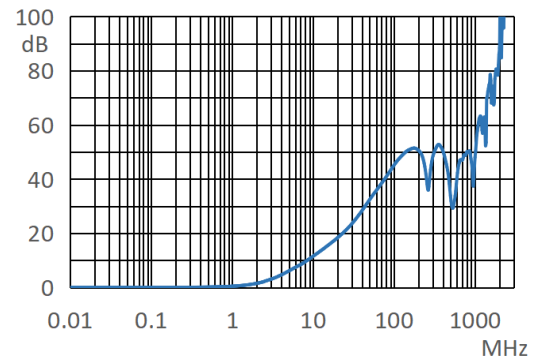
Model Specific Data

Model	Capacitance (uF)	Rated Current (A)	DC Resistance (mΩ)	Weight (g)
1000VDC-182K-M3-F	1.8	10	<1	<20
1000VDC-222K-M3-F	2.2	10	<1	<20
1000VDC-332K-M3-F	3.3	10	<1	<25
1000VDC-472K-M3-F	4.7	10	<1	<30
1000VDC-103K-M3-F	10	10	<1	<30
1000VDC-472K-M4-F	4.7	32	<0.8	<30
1000VDC-103K-M4-F	10	32	<0.8	<30
1000VDC-473K-M4-F	47	32	<0.8	<35
1000VDC-104K-M4-F	100	32	<0.8	<70
1000VDC-473K-M6-F	47	63	<0.5	<70
1000VDC-104K-M6-F	100	63	<0.5	<70
1000VDC-473K-M8-F	47	100	<0.3	<110
1000VDC-104K-M8-F	100	100	<0.3	<110
1000VDC-224K-M8-F	220	100	<0.3	<120
1000VDC-104K-M10-F	100	200	<0.2	<160
1000VDC-224K-M10-F	220	200	<0.2	<160
1000VDC-334K-M10-F	330	200	<0.2	<180

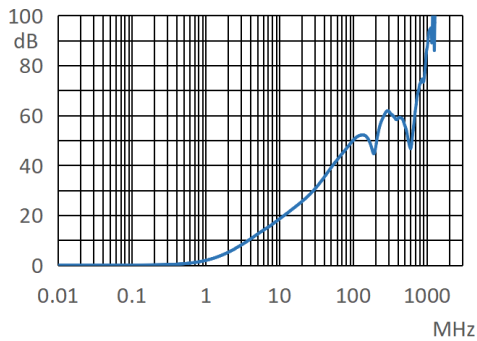
Insertion Loss



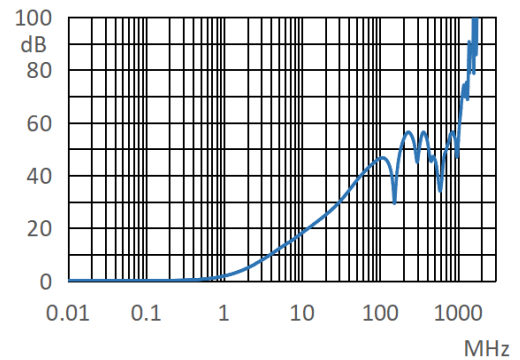
1.8nF models



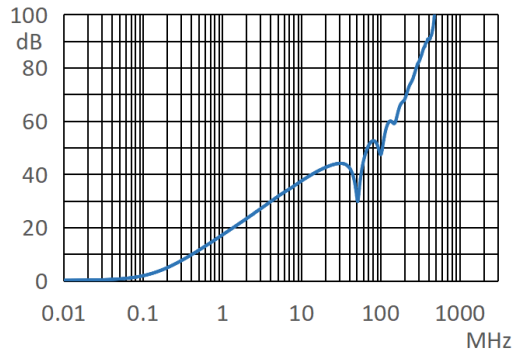
2.2nF models



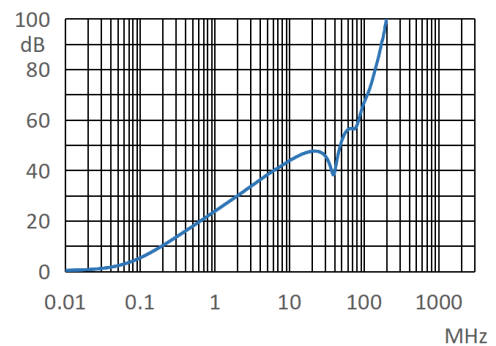
3.3nF models



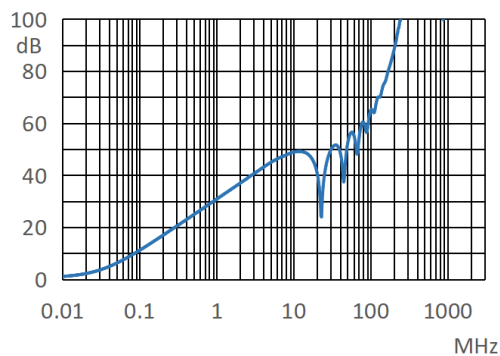
4.7nF models



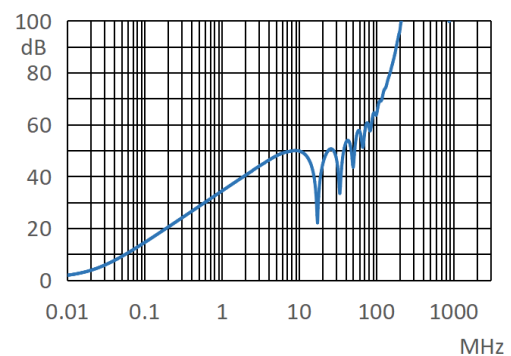
10nF models



100nF models

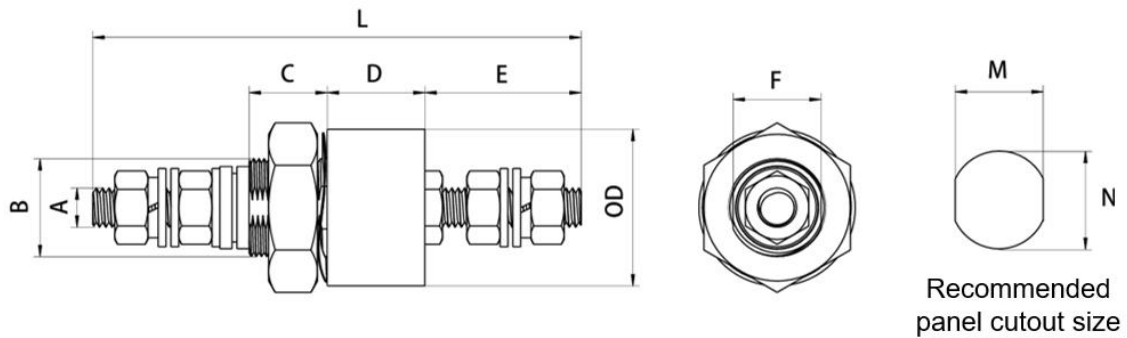


220nF models



330nF models

Dimensions



Model	A	B	C	D	E	F	OD	L	M	N
1000VDC-182K-M3-F	M3	M10×1	10	18.5	15.5±2	/	17±0.5	60±2	/	Φ10.5
1000VDC-222K-M3-F	M3	M10×1	10	18.5	15.5±2	/	17±0.5	60±2	/	Φ10.5
1000VDC-332K-M3-F	M3	M10×1	10	18.5	15.5±2	/	17±0.5	60±2	/	Φ10.5
1000VDC-472K-M3-F	M3	M10×1	10	18.5	15.5±2	/	17±0.5	60±2	/	Φ10.5
1000VDC-103K-M3-F	M3	M10×1	10	18.5	15.5±2	/	17±0.5	60±2	/	Φ10.5
1000VDC-472K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
1000VDC-103K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
1000VDC-473K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
1000VDC-104K-M4-F	M4	M12×1	12	19	16±2	10	22±0.5	65±2	10.5	Φ12.5
1000VDC-473K-M6-F	M6	M16×1	14	20	28±2	14	25±0.5	90±2	14.5	Φ16.5
1000VDC-104K-M6-F	M6	M16×1	14	20	28±2	14	25±0.5	90±2	14.5	Φ16.5
1000VDC-473K-M8-F	M8	M20×1	16	20	32±2	18	32±0.5	100±2	18.5	Φ20.5
1000VDC-104K-M8-F	M8	M20×1	16	20	32±2	18	32±0.5	100±2	18.5	Φ20.5
1000VDC-224K-M8-F	M8	M20×1	16	20	32±2	18	32±0.5	100±2	18.5	Φ20.5
1000VDC-104K-M10-F	M10	M24×1	19	22	39±2	22	38±0.5	120±2	22.5	Φ24.5
1000VDC-224K-M10-F	M10	M24×1	19	22	39±2	22	38±0.5	120±2	22.5	Φ24.5
1000VDC-334K-M10-F	M10	M24×1	19	22	39±2	22	38±0.5	120±2	22.5	Φ24.5

General tolerances conform to ISO 2768-m

Unit: mm

80VDC-400VDC Feedthrough Capacitors

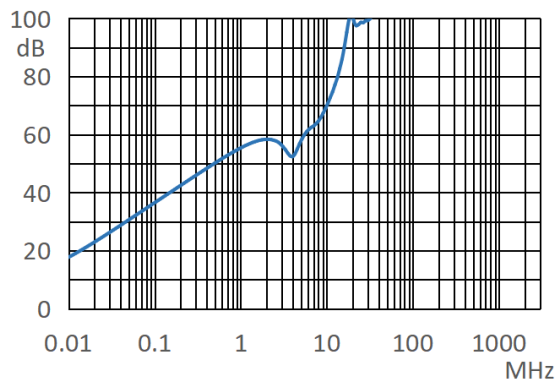
Common Technical Data

Type	Feedthrough Capacitor
Rated Voltage	80VDC-400VDC
Capacitance Range	0.8uF ~ 18uF
Capacitance Tolerance	±10% (K), ±20% (M)
Reference Standard	IEC60384-14,GB/T14472
Operating Temperature Range	-55°C~+85°C
Voltage Proof	2x Rated Voltage
Insulation Resistance	IR≥1000 MΩ (20°C,100V,1min)
Dissipation Factor (tan δ)	≤10×10 ⁻³ (1kHz,20°C)
Materials	RoHS 2.0 Compliant
Durability	90±2°C,1.75Un,1000h

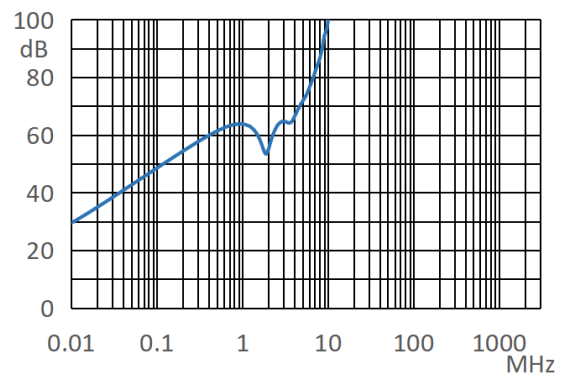
Model Specific Data

Model	Capacitance (uF)	Rated Current (A)	DC Resistance (mΩ)	Weight (g)
80VDC-186K-M6-F	18	100	<0.5	<120
100VDC-146K-M6-F	14	100	<0.5	<120
160VDC-605K-M6-F	6	100	<0.5	<120
250VDC-405K-M6-F	4	100	<0.5	<120
400VDC-205K-M6-F	2	100	<0.5	<120
80VDC-505K-M3-F	5	20	<1	<25
100VDC-405K-M3-F	4	20	<1	<25
160VDC-205K-M3-F	2	20	<1	<25
250VDC-105K-M3-F	1	20	<1	<25
400VDC-804K-M3-F	0.8	20	<1	<25

Insertion Loss



5uF models

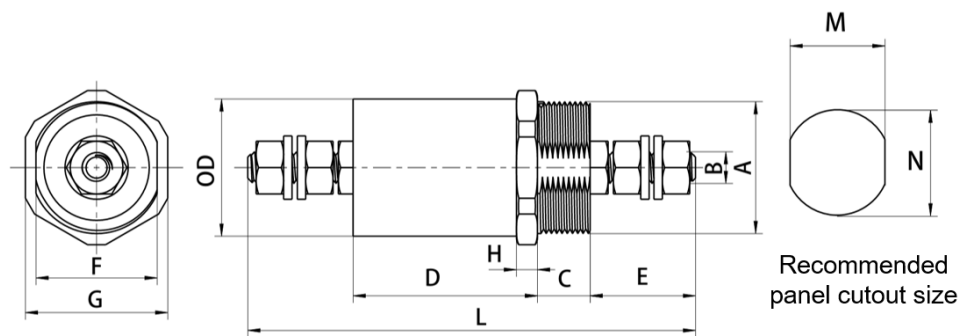


18uF models

WEMC Feedthrough Capacitors

Model	10kHz	30kHz	100kHz	300kHz	1MHz	10MHz	100MHz	1GHz
80VDC-186K-M6-F	29	39	49	59	66	90	90	90
100VDC-146K-M6-F	27	37	47	57	63	87	90	90
160VDC-605K-M6-F	20	30	40	50	60	77	90	90
250VDC-405K-M6-F	16	26	36	46	56	70	90	90
400VDC-205K-M6-F	10	20	30	40	50	58	90	90
80VDC-505K-M3-F	18	28	38	48	58	74	90	90
100VDC-405K-M3-F	16	26	36	46	56	70	90	90
160VDC-205K-M3-F	10	20	30	40	50	58	90	90
250VDC-105K-M3-F	5	14	24	34	44	52	84	90
400VDC-804K-M3-F	4	12	22	32	42	51	82	90

Dimensions



Model	A	B	C	D	E	F	G	H	OD	L	M	N
80VDC-186K-M6-F	M6	M25×1	10	35	20±2	23	27	4	26±1	85±2	23.5	Φ25.5
100VDC-146K-M6-F	M6	M25×1	10	35	20±2	23	27	4	26±1	85±2	23.5	Φ25.5
160VDC-605K-M6-F	M6	M25×1	10	35	20±2	23	27	4	26±1	85±2	23.5	Φ25.5
250VDC-405K-M6-F	M6	M25×1	10	35	20±2	23	27	4	26±1	85±2	23.5	Φ25.5
400VDC-205K-M6-F	M6	M25×1	10	35	20±2	23	27	4	26±1	85±2	23.5	Φ25.5
80VDC-505K-M3-F	M3	M16×1	14	22	7±2	/	Φ20	2	15±1	50±2	/	Φ16.5
100VDC-405K-M3-F	M3	M16×1	14	22	7±2	/	Φ20	2	15±1	50±2	/	Φ16.5
160VDC-205K-M3-F	M3	M16×1	14	22	7±2	/	Φ20	2	15±1	50±2	/	Φ16.5
250VDC-105K-M3-F	M3	M16×1	14	22	7±2	/	Φ20	2	15±1	50±2	/	Φ16.5
400VDC-804K-M3-F	M3	M16×1	14	22	7±2	/	Φ20	2	15±1	50±2	/	Φ16.5

General tolerances conform to ISO 2768-m

Unit: mm

Filters for
Anechoic Chamber/
Shielded Room

Filters for
LEMP/NEMP/
HEMP/EMP

**Expect
Results**

EV Filters

UL Listed
Filters

Filters For
Medical Device

Feedthrough
Filters



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This brochure uses international standards units for length and weight. For products that need to conform to other standards, please specify the requirements to the WEMC sales team.

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