PWS

Metallized polypropylene film with metal foil electrodes capacitor
MKP - High current - High pulse

Main applications: Snubber and SCR commutating circuits in SMPSs, deflection circuits in TV sets, high voltage, high current and high pulse applications

Dielectric	Polypropylene
Electrodes	Metal foils
Coating	UL 510 / CSA TIL I-26 polyester tape wrapping; UL 94 V-0 resin end fill (flame retardant execution)
Construction	Extended foil with internal series connection and metallized film (refer to general technical information)
Leads	Tinned copper wire
Reference standard	IEC 60384/13, IEC 60068, CECC 30000, CECC 31800
Climatic category	55/100/56 (IEC 60068/1), FMD (DIN40040)
Operating temperature range	-55°...+105°C
Rated capacitance (Cr)	1000pF to 0,47µF, in compliance with IEC60063, E6 series. Refer to article table
Capacitance tolerance (at 1kHz)	±10% (code=K), ±5% (code=J) and ±20% (code=M). Other tolerances upon request
Capacitance temperature coefficient	Refer to graphs in general technical information
Long term stability (at 1kHz)	Capacitance variation≤ ±0,5% after a period of 2 years at standard environmental conditions
Rated voltage (Ur)	630, 1000, 1500, 2000 Vdc (Permissible AC voltage at 60Hz: 300, 400, 450, 500 Vac)
Category voltage (Uc)	Uc=Ur at +85°C; Uc=0,8xUr at +100°C
Temperature derated voltage	For T> +85°C, Ur must be decreased 1,25% for every °C exceeding +85°C
Self inductance	≤ 1nH/mm of capacitor and leads length used for connection
Maximum pulse rise time	Refer to article table. The pulse characteristic Ko depends on the voltage waveform. In any case the value given in the article table must not be exceeded
Dissipation factor (DF), max.	(tgδ x10^{-4}, measured at 25±5°C)

Freq.	Cr≤1000pF	1000pF<Cr≤0,1µF	Cr>0,1µF
10kHz	-	5	10
100kHz	10	-	-

Insulation resistance (IR)	When measured between terminals, at 25±°C, after 1 minute of electrification at 100Vdc: IR ≥ 100GΩ .	
Test voltage between terminals (Ut)	2.0xUr (DC) applied for 2s at 25±5°C (1 minute for type test)	
Damp heat test (steady state)	**Test conditions:** Temperature= +40±2°C Relative humidity= 93±2% Test Duration= 56 days	**Performance:** Capacitance change≤ ±2% DF change≤ 0,0005 at 1kHz IR≥ 50% of initial limit value
Endurance test	**Test conditions:** Temperature= +85±2°C Test duration= 1000h Voltage applied= 1,5 x Ur(DC)	**Performance:** Capacitance change≤ ±1% DF change≤ 0,0005 at 10kHz IR≥ 50% of initial limit value
Resistance to soldering heat test	**Test conditions:** Solder bath temperature= +260±5°C Dipping time (with heat screen)= 10±1s	**Performance:** Capacitance change≤ ±1% DF change≤ 0,0005 at1kHz IR≥ 50% of limit value

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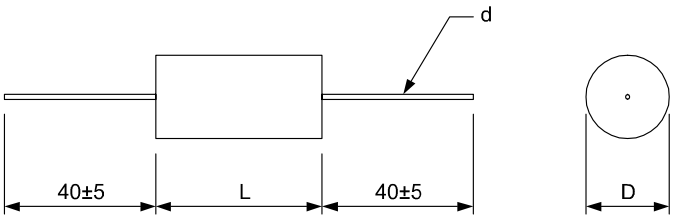

Dimensional tolerances (mm)

L	L±	D±
19,0	1,5	1,5
27,0	2,0	2,0
32,0	2,0	2,0

PWS article table (different values available upon request)

Rated voltage Vdc	Rated voltage Vac(2)	Cap. value (µF)	Dimension in mm D	Dimension in mm L	Dimension in mm d	du/dt V/µs	Ko V²/µs	ICEL ordering code(1)
630	300	0,015	7	19	0,8	4300	542E04	PWS1632150*D
630	300	0,022	8	19	0,8	4300	542E04	PWS1632220*D
630	300	0,033	10	19	0,8	4300	542E04	PWS1632330*D
630	300	0,033	7,5	27	0,8	2600	327E04	PWS1632330*G
630	300	0,047	8,5	27	0,8	2600	327E04	PWS1632470*G
630	300	0,068	10	27	0,8	2600	327E04	PWS1632680*G
630	300	0,1	12	27	0,8	2600	327E04	PWS1633100*G
630	300	0,15	15	27	0,8	2600	327E04	PWS1633150*G
630	300	0,15	12,5	32	0,8	1800	226E04	PWS1633150*J
630	300	0,22	15	32	0,8	1800	226E04	PWS1633220*J
630	300	0,33	18	32	1	1800	226E04	PWS1633330*J
630	300	0,47	22	32	1	1800	226E04	PWS1633470*J
1000	400	0,0033	7	19	0,8	14000	280E05	PWS2101330*D
1000	400	0,0047	8	19	0,8	14000	280E05	PWS2101470*D
1000	400	0,0068	10	19	0,8	14000	280E05	PWS2101680*D
1000	400	0,0068	6,5	27	0,8	5000	100E05	PWS2101680*G
1000	400	0,01	7	27	0,8	5000	100E05	PWS2102100*G
1000	400	0,015	8,5	27	0,8	5000	100E05	PWS2102150*G
1000	400	0,022	10	27	0,8	5000	100E05	PWS2102220*G
1000	400	0,033	12	27	0,8	5000	100E05	PWS2102330*G
1000	400	0,047	15	27	0,8	5000	100E05	PWS2102470*G
1000	400	0,047	12,5	32	0,8	3700	740E04	PWS2102470*J
1000	400	0,068	15	32	0,8	3700	740E04	PWS2102680*J
1000	400	0,1	17,5	32	0,8	3700	740E04	PWS2103100*J
1000	400	0,15	21,5	32	1	3700	740E04	PWS2103150*J
1000	400	0,22	26	32	1	3700	740E04	PWS2103220*J
1500	450	0,0022	7,5	19	0,8	17000	510E05	PWS2151220*D
1500	450	0,0033	8,5	19	0,8	17000	510E05	PWS2151330*D
1500	450	0,0047	10,5	19	0,8	17000	510E05	PWS2151470*D
1500	450	0,0047	7	27	0,8	6000	180E05	PWS2151470*G
1500	450	0,0068	7,5	27	0,8	6000	180E05	PWS2151680*G
1500	450	0,01	8,5	27	0,8	6000	180E05	PWS2152100*G
1500	450	0,015	10,5	27	0,8	6000	180E05	PWS2152150*G
1500	450	0,022	12,5	27	0,8	6000	180E05	PWS2152220*G
1500	450	0,033	16	27	0,8	6000	180E05	PWS2152330*G
1500	450	0,033	13	32	0,8	4500	135E05	PWS2152330*J
1500	450	0,047	15,5	32	0,8	4500	135E05	PWS2152470*J
1500	450	0,068	18,5	32	1	4500	135E05	PWS2152680*J
1500	450	0,1	22	32	1	4500	135E05	PWS2153100*J

(1)Change the * symbol with the needed capacitance tolerance code: J=±5%, K=±10%, M=±20%
(2)Not suitable for across the line application.

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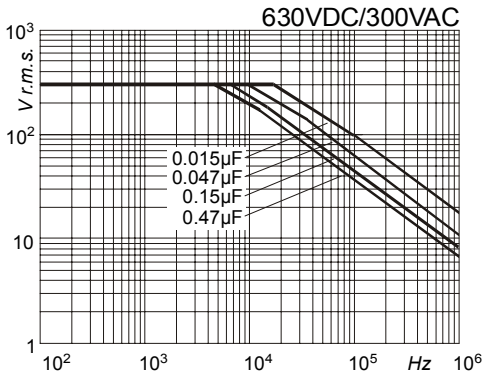
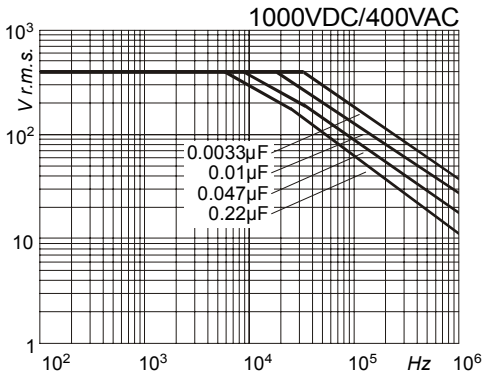
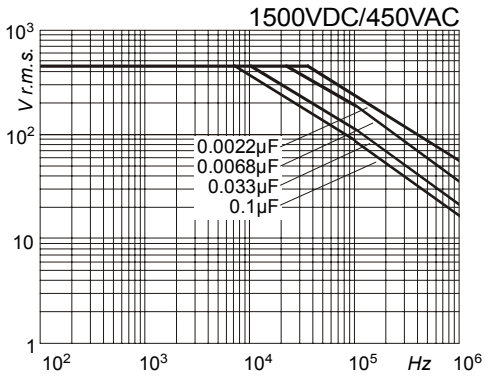
Rated voltage Vdc	Rated voltage Vac(2)	Cap. value (µF)	Dimension in mm D	Dimension in mm L	Dimension in mm d	du/dt V/µs	Ko V²/µs	ICEL ordering code(1)
2000	500	0,001	7,5	19	0,8	27000	108E06	PWS2201100*D
2000	500	0,0015	8,5	19	0,8	27000	108E06	PWS2201150*D
2000	500	0,0022	10,5	19	0,8	27000	108E06	PWS2201220*D
2000	500	0,0033	7,5	27	0,8	9800	392E05	PWS2201330*G
2000	500	0,0047	8,5	27	0,8	9800	392E05	PWS2201470*G
2000	500	0,0068	10	27	0,8	9800	392E05	PWS2201680*G
2000	500	0,01	12	27	0,8	9800	392E05	PWS2202100*G
2000	500	0,015	14,5	27	0,8	9800	392E05	PWS2202150*G
2000	500	0,022	14,5	32	0,8	7000	280E05	PWS2202220*J
2000	500	0,033	18	32	1	7000	280E05	PWS2202330*J
2000	500	0,047	20,5	32	1	7000	280E05	PWS2202470*J
2000	500	0,068	25	32	1	7000	280E05	PWS2202680*J

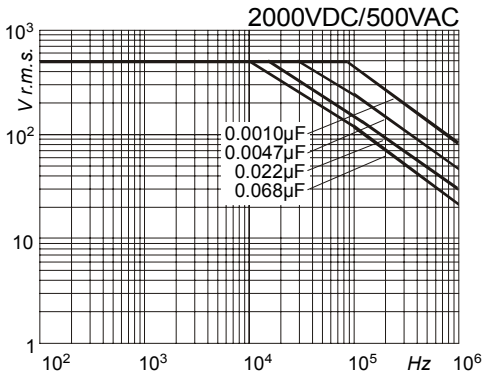
(1)Change the * symbol with the needed capacitance tolerance code: J=±5%, K=±10%, M=±20%
(2)Not suitable for across the line application.

Permissible AC voltage versus frequency (sinusoidal waveform) for ΔT= +10°C
Referred to the largest length execution among available ones









Warning

This specification must be completed with the data given in the "General technical information" chapter