

CAPACITORS WITH HIGH CAPACITANCE STABILITY DESIGNED FOR AC APPLICATIONS

MPET AC

MAIN APPLICATION: This series is specially designed for energy meter applications, voltage dropper, capacitive power supply, etc for long stability of capacitance value

CONSTRUCTION: Series constructed metallized polyester film and normal metallized polyester film as internal electrodes which are protected with solvent resistant & flame retardant epoxy resin or encased in a flame retardant grade PBT box class UL 94 V0 with flame retardant grade resin

CLIMATIC CATEGORY: 55/100/56 as per IEC 60068-1

OPERATING TEMPERATURE RANGE: -55°C to 100°C

RELATED STANDARD: IEC 384-2

ELECT. CHARACTERISTICS: Rated Voltage - 310V AC / 560V DC

TEMPERATURE DERATING: For temperatures between +85°C and +100°C a decreasing factor of 1.25% per degree Celsius on the rated voltage is applied

CAPACITANCE TOLERANCE: ±5%, ±10%, ±20%

VOLTAGE PROOF BETWEEN TERMINALS (DC): 1.6*Ur for 2 sec

INSULATION RESISTANCE:

Test conditions:

Temperature: +25°C ±2°C

Voltage applied: 100V DC for 1min.

Criteria after the test:

For $C \leq 0.33\mu\text{f}$, $I_r \geq 30000\text{M}\Omega$

For $C > 0.33\mu\text{f}$, $\tau \geq 10000\text{S}$ ($\tau = I_r \times C$)

Tanδ at +25°C ±2°C:

Frequency

kHz	C<1 μf	C>1 μf
1	0.01	0.01
10	0.015	0.03

DAMP HEAT TEST (Steady state):

Test 1:

Temperature	+40°C ± 2°C
Relative humidity	93 ± 2% RH
Duration	1000 hours

Test 2:

Temperature	+50°C ± 2°C
Voltage	250 V AC
Relative humidity	93 ± 2% RH
Duration	1000 hours

Criteria after the test:

Capacitance change ($\Delta C/C$)	≤5%
$\Delta \text{Tan } \delta$:	≤0.005 at 1kHz
Insulation resistance	≥50% of initial limit

LIFE TEST:

Test conditions

Temperature +85°C ±2°C

Voltage applied 1.25 * U_r~

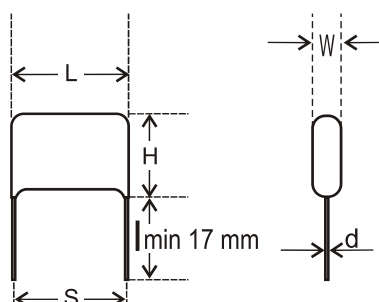
Duration 1000 hours

Criteria after the test:

Capacitance change ($\Delta C/C$):	≤8%
$\Delta \text{Tan } \delta$	≤0.003 at 1kHz
Insulation resistance	≥50% of initial limit

Ordering codes and packaging units - Dip Type

Rated Voltage	Rated Cap. (μF)	Dimensions(mm)						DV/DT V/μs	Ordering code	Packing units Bulk
		W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F +0.8 / -0.2			
310V AC	0.18	6.5	12.0	25	0.8	22.5	22.5	200	24 184 +05*^	500
	0.22	7.0	12.5	25	0.8	22.5	22.5	200	24 224 + 05*^	500
	0.27	7.5	13.0	25	0.8	22.5	22.5	200	24 274 + 05*^	500
	0.33	7.5	14.5	25	0.8	22.5	22.5	200	24 334 + 05*^	500
	0.39	8.0	15.0	25	0.8	22.5	22.5	200	24 394 + 05*^	500
	0.41	8.5	15.5	25	0.8	22.5	22.5	200	24 414 + 05*^	500
	0.47	9.0	16.0	25	0.8	22.5	22.5	200	24 474 + 05*^	500
	0.56	9.5	16.5	25	0.8	22.5	22.5	200	24 564 + 05*^	500
	0.68	10.5	17.5	25	0.8	22.5	22.5	200	24 684 + 05*^	500
	1.00	12.5	19.5	25	0.8	22.5	22.5	200	24 105 + 05*^	500



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Ordering codes and packaging units - Box Type

Rated Voltage	Rated Cap. (μ F)	Dimensions(mm)						DV/DT V/ μ s	Ordering code	Packing units Bulk
		W ± 0.5	H ± 0.5	L ± 0.5	d ± 0.05	S ± 0.5	F +0.8 / -0.2			
310V AC	0.18	6.00	15.00	26.50	0.8	22.5	22.5	200	23 184 +05*^	500
	0.22	6.00	15.00	26.50	0.8	22.5	22.5	200	23 224 + 05*^	500
	0.27	7.00	16.50	26.50	0.8	22.5	22.5	200	23 274 + 05*^	500
	0.33	7.00	16.50	26.50	0.8	22.5	22.5	200	23 334 + 05*^	500
	0.39	8.50	17.00	26.50	0.8	22.5	22.5	200	23 394 + 05*^	500
	0.41	8.50	17.00	26.50	0.8	22.5	22.5	200	23 414 + 05*^	500
	0.47	8.50	17.00	26.50	0.8	22.5	22.5	200	23 474 + 05*^	500
	0.56	10.00	18.50	26.50	0.8	22.5	22.5	200	23 564 + 05*^	500
	0.68	11.00	20.00	26.50	0.8	22.5	22.5	200	23 684 + 05*^	500

