KMKP/KA

Vishay ESTA

Power Electronic, Standard AC Capacitors

STANDARD CAPACITORS IN CYLINDRICAL CASING, OIL IMPREGNATED, SELF-HEALING, WITH FUSE

AC-CAPACITORS, COMMUTATION AND DAMPING CAPACITORS

Series KMKP/KA 900 V - 3500 V, higher voltages upon request.

Capacitance range from 0.1 to 100µF, in relation to rated voltage and dimension. Other capacitance values, upon request.

GENERAL

Vishay ESTA Commutation capacitors are used in static frequency changers. They act, for example, as quenching capacitors taking over for a short time the current of the main thyristor thus making sure that the latter will safely block when the voltage returns.

The current load is very high on commutation and damping capacitors. Owing to the non-sinusoidal characteristic of the voltage path, high pulse-shaped recharge currents occur. With regard to ohmic and dielectric losses, the commutation capacitors have to be of a particularly high quality. Since modern low-loss dielectrics are applied and also the current paths are generously dimensioned, Vishay ESTA commutation capacitors are ideal for such extreme loads.

TECHNICAL DATA

OPERATING MODE

continuous operation

CLASS OF APPLICATION

HSF (refer to general information

IMPREGNATION

Oil (NON-PCB, refer general information)

PERMISSIBLE TEMPERATURE RANGE

Min./max. casing temperature: - 25 °/70 °C
Min./max. storage temperature: - 40 °/85 °C

SELF-DISCHARGE TIME CONSTANT

> 10.000 s

PERMISSIBLE RELATIVE AIR HUMIDITY

95 %

LIFE EXPECTANCY WITH 3% FAILURE RATE

100000h

CONNECTIONS

AMP plugs 6.3 x 0.8
Threaded bolts M10

MOUNTING POSITION

Vertical/Horizontal
Upside down position, upon request only

PROTECTION

Overpressure tear-off fuse, refer to general information

LOSS FACTOR

(50 Hz)	1.5×10^{-4}
(10k Hz)	5.0×10^{-4}

CAPACITANCE TOLERANCE

± 10 %

TEST VOLTAGE

terminal/ terminal 2.15 x Un/ $\sqrt{2}$ AC/10 s
terminal/casing 2 x Un/ $\sqrt{2}$ + 1000 VAC/60 s
min. 3.000VAC/10 sec.

PEAK CURRENT (periodical) du/dt x C [A]

STANDARD

VDE 0560/12 IEC 61071-1 EN 61071-1

DIELECTRIC

metallized polypropylene film, refer to general information

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AC-CAPACITORS, COMMUTATION AND DAMPING
CAPACITORS SERIES KMKP/KA 900 V - 3500 V
RATED VOLTAGEUn900 V
RMS voltageU_{rms}640 V
Peak voltage (periodical)U_s1344 V
Surge peak voltage (not periodical)U_{smax}2688 V
DC voltage U_{DC}1800 V

MODEL	C µF	I A	du / dt V / µs	DIMENSIONS Ø d x h (mm)	WEIGHT kg	FIGURE*
KMKP 900 - 0.10 IA	0.10	12.0	750	30 x 52	0.04	1
KMKP 900 - 0.22 IA	0.22	12.0	750	30 x 52	0.04	1
KMKP 900 - 0.33 IA	0.33	12.0	600	30 x 52	0.04	1
KMKP 900 - 0.47 IA	0.47	12.0	500	30 x 52	0.04	1
KMKP 900 - 0.68 IA	0.68	15.0	500	30 x 52	0.04	1
KMKP 900 - 1.0 IA	1.0	16.0	500	35 x 52	0.05	1
KMKP 900 - 2.2 IA	2.2	16.0	500	35 x 72	0.07	1
KMKP 900 - 3.3 IA	3.3	16.0	500	35 x 82	0.08	1
KMKP 900 - 4.7 IA	4.7	18.0	300	40 x 97	0.12	1
KMKP 900 - 6.8 IA	6.8	18.0	300	50 x 92	0.18	4
KMKP 900 - 10 IA	10.0	18.0	300	60 x 97	0.27	4
KMKP 900 - 15 IA	15.0	18.0	300	60 x 127	0.31	4
KMKP 900 - 15 IB	15.0	40.0	300	64 x 109	0.31	6 I
KMKP 900 - 22 IB	22.0	80.0	300	64 x 140	0.45	6 I
KMKP 900 - 33 IB	33.0	80.0	300	64 x 240	0.68	6 I
KMKP 900 - 47 IB	47.0	80.0	300	64 x 240	1.06	6 I
KMKP 900 - 68 IB	68.0	80.0	300	84 x 240	1.33	6 I
KMKP 900 - 100 IB	100.0	80.0	300	84 x 340	1.42	6 I

*See dimensional drawings document number :13104

Other values available upon request. Standard capacitors types usually, available ex stock. Non-standard and custom styles to be manufactured in accordance with specific orders. Minimum order quantities are applicable depending on the various capacitor types. Vishay reserve the right to change any dimensions without notice.

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AC-CAPACITORS, COMMUTATION AND DAMPING

CAPACITORS SERIES KMKP/KA 900 V - 3500 V

RATED VOLTAGE	**U_n**	**1400 V**
RMS voltage	U_{rms}	1000 V
Peak voltage (periodical)	U_s	2100 V
Surge peak voltage (not periodical)	U_{smax}	4200 V
DC voltage	U_{DC}	3000 V

MODEL	C µF	I A	du / dt V / µs	DIMENSIONS Ø d x h (mm)	WEIGHT kg	FIGURE*
KMKP 1400 - 0.10 SA	0.10	10.0	900	40 x 52	0.07	3
KMKP 1400 - 0.22 SA	0.22	10.0	900	40 x 52	0.07	3
KMKP 1400 - 0.33 SA	0.33	10.0	900	40 x 52	0.07	3
KMKP 1400 - 0.47 SA	0.47	10.0	750	40 x 52	0.07	3
KMKP 1400 - 0.68 IA	0.68	18.0	500	50 x 72	0.16	4
KMKP 1400 - 1.0 IA	1.0	18.0	500	50 x 72	0.16	4
KMKP 1400 - 2.2 IA	2.2	18.0	500	50 x 97	0.19	4
KMKP 1400 - 3.3 IA	3.3	18.0	450	50 x 127	0.25	4
KMKP 1400 - 4.7 IB	4.7	40.0	450	64 x 140	0.45	6 I
KMKP 1400 - 6.8 IB	6.8	60.0	450	64 x 190	0.61	6 I
KMKP 1400 - 6.8 IBK	6.8	80.0	450	84 x 140	0.78	6 I
KMKP 1400 - 10 IB	10.0	60.0	250	64 x 190	0.61	6 I
KMKP 1400 - 15 IB	15.0	80.0	250	84 x 190	1.05	6 I
KMKP 1400 - 22 IB	22.0	80.0	250	84 x 190	1.16	6 I
KMKP 1400 - 30 IB	30.0	80.0	250	84 x 240	1.33	6 I
KMKP 1400 - 0.10 IAX	0.10	10.0	900	35 x 52	0.05	2
KMKP 1400 - 0.22 IAX	0.22	10.0	900	35 x 52	0.05	2
KMKP 1400 - 0.33 IAX	0.33	10.0	900	40 x 52	0.07	2
KMKP 1400 - 0.47 IAX	0.47	10.0	750	40 x 52	0.07	2
KMKP 1400 - 1.0 IAX	1.0	10.0	500	40 x 75	0.09	2

RATED VOLTAGE	**U_n**	**3500 V**
RMS voltage	U_{rms}	2480 V
Peak voltage (periodical)	U_s	5208 V
Surge peak voltage (not periodical)	U_{smax}	10416 V
DC voltage	U_{DC}	7200 V

MODEL	C µF	I A	du / dt V / µs	DIMENSIONS Ø d x h (mm)	WEIGHT kg	FIGURE*
KMKP 3500 - 0.10 SA	0.10	12.0	1900	40 x 97	0.16	3
KMKP 3500 - 0.22 SA	0.22	12.0	1900	40 x 127	0.16	3
KMKP 3500 - 0.33 SA	0.33	12.0	900	50 x 127	0.25	3
KMKP 3500 - 0.47 SA	0.47	15.0	750	50 x 127	0.25	3
KA 3500 - 0.68 SA	0.68	15.0	750	60 x 127	0.36	3
KA 3500 - 1.0 SB	1.0	30.0	500	64 x 190	0.61	7 II
KA 3500 - 1.5 SB	1.5	60.0	400	84 x 190	1.05	7 II
KA 3500 - 2.0 SB	2.0	80.0	400	84 x 190	1.05	7 II
KA 3500 - 3.0 SB	3.0	80.0	400	84 x 210	1.16	7 II

*See dimensional drawings document number :13104

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