



## 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 900V - 3500V, higher voltages upon request.

Capacitance range from 0.1 to 100 $\mu$ F, 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**  
> 10.000s

**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**  
50Hz 1.5 x 10<sup>-4</sup>  
10kHz 5.0 x 10<sup>-4</sup>

**CAPACITANCE TOLERANCE**  
± 10%

**TEST VOLTAGES**  
terminal/terminal 2.15 x Un DC/2 AC/ 10 sec.  
terminal/casing 2.0 x Un/2 + 1000 VAC/60 sec.  
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 900V - 3500V**

<b>RATED VOLTAGE</b>	<b>U<sub>n</sub></b>	<b>900V</b>
RMS voltage	U <sub>rms</sub>	640V
Peak voltage (periodical)	U <sub>s</sub>	1344V
Surge peak voltage (not periodical)	U <sub>smax</sub>	2688V
DC voltage	U <sub>DC</sub>	1800V

<b>MODEL</b>	<b>C</b> μF	<b>I</b> <b>A</b>	<b>du / dt</b> V / μs	<b>DIMENSIONS</b> Ø d x h (mm)	<b>WEIGHT</b> kg	<b>FIGURE*</b>
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 l
KMKP 900 - 22 IB	22.0	80.0	300	64 x 140	0.45	6 l
KMKP 900 - 33 IB	33.0	80.0	300	64 x 240	0.68	6 l
KMKP 900 - 47 IB	47.0	80.0	300	64 x 240	1.06	6 l
KMKP 900 - 68 IB	68.0	80.0	300	84 x 240	1.33	6 l
KMKP 900 - 100 IB	100.0	80.0	300	84 x 340	1.42	6 l

\*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 900V - 3500V**

<b>RATED VOLTAGE</b>	<b>U<sub>n</sub></b>	<b>1400V</b>
RMS voltage	U <sub>rms</sub>	1000V
Peak voltage (periodical)	U <sub>s</sub>	2100V
Surge peak voltage (not periodical)	U <sub>smax</sub>	4200V
DC voltage	U <sub>DC</sub>	3000V

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

<b>RATED VOLTAGE</b>	<b>U<sub>n</sub></b>	<b>3500V</b>
RMS voltage	U <sub>rms</sub>	2480V
Peak voltage (periodical)	U <sub>s</sub>	5208V
Surge peak voltage (not periodical)	U <sub>smax</sub>	10416V
DC voltage	U <sub>DC</sub>	7200V

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

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