

## Power Electronic AC Capacitors (PEC)



### LINKS TO ADDITIONAL RESOURCES



### FEATURES

- Overpressure disconnecter
- Self-healing properties
- High reliability
- Cylindrical aluminum case
- Plastic self-extinguishing sealing covers



Available  
**RoHS\***  
 Available  
**HALOGEN**  
**FREE**  
**GREEN**  
 [5-2008]  
 Available

### Note

\* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

### APPLICATIONS

- Power electronic AC applications with high current and harmonics distortion with long life expectancy
- Inverter
- Filtering
- Switching

QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Rated AC voltage min.	350 V <sub>AC</sub>
Rated AC voltage max.	1700 V <sub>AC</sub>
Capacitance min.	6.8 μF
Capacitance max.	600 μF
Capacitance tolerance	± 5 %
Technology	Metallized polypropylene film, self-healing
Dielectric loss factor (dielectric only)	$\tan \delta_0 2 \times 10^{-4}$
Operating temperature min.	-40 °C
Operating temperature max.	+85 °C (hotspot)
Climatic category	3K22 (IBB design), 3K21 (IBP / IAP design) according to IEC 60721-3-3
Life time expectancy	100 000 h at U <sub>RMS</sub> , θ <sub>hs</sub> = 70 °C
Reliability	300 FIT
DC test voltage (terminal to terminal)	2.15 x U <sub>N</sub> , 10 s
AC test voltage (terminal to case)	According to IEC 61071-1, 2 x U <sub>i</sub> + 1000
Filling	Biodegradable vegetable oil (non PCB)
Standard	IEC 61071, IEC 61881-1, UL 94 V-0 (plastic isolator of the bushing)



TYPE DESCRIPTION												
TYPE ACMKP...-... IBB / IBP / IAP	C <sub>N</sub> (μF)	I <sub>max.</sub> (A)	$\hat{i}$ (kA)	$\hat{I}_S$ (kA)	R <sub>S</sub> (mΩ)	R <sub>th</sub> (K/W)	DIA. (mm)	H (mm)	d (mm)	TERMINAL	MOQ / PU (PCS)	DRAWING NO.
<b>ACMKP 350; U<sub>N</sub> = 350 V; U<sub>RMS</sub> = 250 V</b>												
ACMKP 350-30	30	23	0.3	0.9	1.83	14.6	50	75	23	Faston	25	3
ACMKP 350-40	40	25	0.4	1.1	1.65	13.4	50	75	23	Faston	25	3
ACMKP 350-50	50	30	0.5	1.5	1.41	10.8	64	75	23.5	M6	9	2
ACMKP 350-60	60	33	0.6	1.8	1.33	9.5	64	75	23.5	M6	9	2
ACMKP 350-70	70	33	0.6	1.8	1.3	9.6	64	75	23.5	M6	9	2
ACMKP 350-80	80	30	0.6	1.7	1.6	9.3	64	82.5	23.5	M6	9	2
ACMKP 350-100	100	31	0.6	1.9	1.52	9	64	82.5	23.5	M6	9	2
ACMKP 350-150	150	50	1	3	1.4	4.5	64	145	23.5	M6	9	2
ACMKP 350-200	200	52	1.3	3.8	1.3	3.8	64	145	23.5	M6	9	2
ACMKP 350-250	250	64	2.3	6.8	0.69	4.3	84	120	35	M10	4	1
ACMKP 350-300	300	64	2.2	6.5	0.83	3.7	84	145	35	M10	4	1
ACMKP 350-400	400	60	2.2	6.5	0.96	3.4	84	168	35	M10	4	1
ACMKP 350-500	500	60	2.4	7.4	0.94	3.4	84	168	35	M10	4	1
ACMKP 350-600	600	80	3.3	9.8	0.71	2.2	84	245	35	M10	4	1
<b>ACMKP 465; U<sub>N</sub> = 465 V; U<sub>RMS</sub> = 330 V</b>												
ACMKP 465-20	20	20	0.2	0.7	2.1	16	50	75	23	Faston	25	3
ACMKP 465-25	25	22	0.3	0.8	2	14.4	50	75	23	Faston	25	3
ACMKP 465-30	30	22	0.3	0.9	1.9	14.4	50	75	23	Faston	25	3
ACMKP 465-40	40	31	0.5	1.4	1.47	9.7	64	75	23.5	M6	9	2
ACMKP 465-50	50	28	0.4	1.3	1.83	9.8	64	82.5	23.5	M6	9	2
ACMKP 465-60	60	24	0.4	1.2	2.25	10	64	95	23.5	M6	9	2
ACMKP 465-70	70	26	0.5	1.4	2.08	9.2	64	95	23.5	M6	9	2
ACMKP 465-80	80	24	0.4	1.3	2.47	8.6	64	108	23.5	M6	9	2
ACMKP 465-100	100	45	0.9	2.6	1.45	4.5	64	145	23.5	M6	9	2
ACMKP 465-120	120	40	0.8	2.4	1.73	4.4	64	165	23.5	M6	9	2
ACMKP 465-150	150	32	0.8	2.5	1.42	7.6	84	105	35	M10	4	1
ACMKP 465-200	200	58	1.7	5.2	0.88	4.1	84	145	35	M10	4	1
ACMKP 465-250	250	54	1.7	5.1	1.04	3.7	84	168	35	M10	4	1
ACMKP 465-300	300	50	1.7	5	1.2	3.4	84	193	35	M10	4	1
ACMKP 465-400	400	80	2.7	8.1	0.75	2.3	84	243	35	M10	4	1
ACMKP 465-500	500	60	2.7	8.2	1.04	2.7	100	193	35	M10	4	1
<b>ACMKP 640; U<sub>N</sub> = 640 V; U<sub>RMS</sub> = 450 V</b>												
ACMKP 640-10	10	16	0.2	0.6	1.92	18.4	50	70	23	Faston	25	3
ACMKP 640-15	15	18	0.2	0.7	2.24	15.8	50	75	23	Faston	25	3
ACMKP 640-20	20	17	0.2	0.7	2.83	14.1	50	82.5	20	M6	25	2
ACMKP 640-25	25	17	0.2	0.6	3.54	12.6	50	95	20	M6	25	2
ACMKP 640-30	30	16	0.2	0.6	4.24	11.2	50	108	20	M6	25	2
ACMKP 640-40	40	22	0.3	1	2.54	10.4	64	95	23.5	M6	9	2
ACMKP 640-50	50	21	0.3	1	2.91	9.2	64	108	23.5	M6	9	2
ACMKP 640-70	70	42	0.7	2.2	1.55	4.8	64	145	23.5	M6	9	2
ACMKP 640-80	80	50	1.2	3.6	1.15	4.1	84	120	35	M10	4	1
ACMKP 640-100	100	54	1.5	4.4	0.77	5	84	120	35	M10	4	1
ACMKP 640-150	150	46	1.3	2.8	1.15	4.2	84	168	35	M10	4	1
ACMKP 640-200	200	56	1.2	6.6	0.84	3.7	100	145	35	M10	4	1
ACMKP 640-250	250	52	2.1	6.4	0.98	3.4	100	168	35	M10	4	1
ACMKP 640-400	400	50	2.8	8.3	0.75	3.3	116	193	35	M10	4	1
ACMKP 640-500	500	75	4.2	12.7	0.46	2.5	116	243	35	M10	4	1

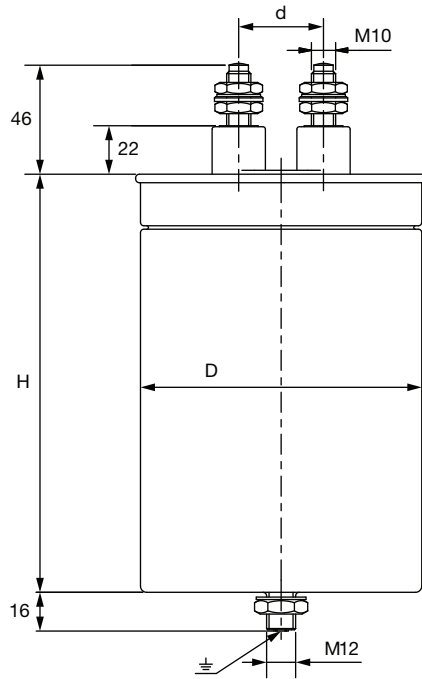


TYPE DESCRIPTION												
TYPE ACMKP...-... IBB / IBP / IAP	C <sub>N</sub> (μF)	I <sub>max.</sub> (A)	$\hat{i}$ (kA)	$\hat{I}_S$ (kA)	R <sub>S</sub> (mΩ)	R <sub>th</sub> (K/W)	DIA. (mm)	H (mm)	d (mm)	TERMINAL	MOQ / PU (PCS)	DRAWING NO.
<b>ACMKP 680; U<sub>N</sub> = 680 V; U<sub>RMS</sub> = 480 V</b>												
ACMKP 680-10	10	16	0.2	0.6	1.89	18.2	50	62.5	23	Faston	25	3
ACMKP 680-15	15	16	0.2	0.5	3.34	15.5	50	82.5	23	Faston	25	3
ACMKP 680-20	20	17	0.2	0.6	3.21	13.4	50	87.5	23	Faston	25	3
ACMKP 680-25	25	21	0.3	0.9	2.33	12.5	64	82.5	23.5	M6	9	2
ACMKP 680-30	30	23	0.4	1	2.09	11.2	64	82.5	23.5	M6	9	2
ACMKP 680-40	40	22	0.4	1	2.49	10	64	95	23.5	M6	9	2
ACMKP 680-50	50	21	0.4	1.1	2.86	8.9	64	108	23.5	M6	9	2
ACMKP 680-60	60	40	0.7	2.1	1.58	4.9	64	145	23.5	M6	9	2
ACMKP 680-68	68	48	1.1	3.3	1.18	4.3	84	120	35	M10	4	1
ACMKP 680-70	70	36	0.6	1.9	1.93	4.7	64	170	23.5	M6	9	2
ACMKP 680-80	80	52	1.3	3.8	0.8	5.3	84	120	35	M10	4	1
ACMKP 680-100	100	48	1.2	3.5	1	4.8	84	145	35	M10	4	1
ACMKP 680-150	150	54	1.7	5.2	0.88	4	100	145	35	M10	4	1
ACMKP 680-200	200	50	1.8	5.4	1.02	3.5	100	168	35	M10	4	1
ACMKP 680-250	250	75	2.9	8.7	0.65	2.6	100	205	35	M10	4	1
ACMKP 680-300	300	50	2.6	7.9	0.67	3.7	116	168	35	M10	4	1
ACMKP 680-350	350	75	4	11.8	0.41	3	116	205	35	M10	4	1
ACMKP 680-400	400	75	3.6	10.8	0.48	2.6	116	243	35	M10	4	1
<b>ACMKP 750; U<sub>N</sub> = 750 V; U<sub>RMS</sub> = 530 V</b>												
ACMKP 750-10	10	17	0.2	0.5	2.74	16.4	50	75	23	Faston	25	3
ACMKP 750-15	15	23	0.3	0.9	1.91	13	64	75	26.5	Faston	9	3
ACMKP 750-20	20	21	0.3	0.8	2.42	12	64	82.5	26.5	Faston	9	3
ACMKP 750-30	30	22	0.3	0.9	2.69	9.9	64	95	23.5	M6	9	2
ACMKP 750-40	40	22	0.4	1.1	2.89	8.3	64	108	23.5	M6	9	2
ACMKP 750-50	50	20	0.3	1	3.95	7.3	64	132.5	23.5	M6	9	2
ACMKP 750-60	60	26	0.5	1.6	2.25	7.3	84	105	35	M10	4	1
ACMKP 750-65	65	27	0.6	1.7	2.16	6.9	84	105	35	M10	4	1
ACMKP 750-70	70	28	0.6	1.8	1.77	7.7	84	105	35	M10	4	1
ACMKP 750-75	75	33	0.8	2.4	1.2	7.4	100	93	35	M10	4	1
ACMKP 750-80	80	50	1.1	3.3	1.37	3.7	84	143	35	M10	4	1
ACMKP 750-100	100	54	1.4	4.1	1.28	3.2	100	143	35	M10	4	1
ACMKP 750-150	150	56	2.1	6.2	0.86	3.6	116	143	35	M10	4	1
ACMKP 750-200	200	56	2.1	6.4	1.21	2.6	116	168	35	M10	4	1
ACMKP 750-220	220	56	2.3	6.8	1.2	2.6	116	168	35	M10	4	1
ACMKP 750-250	250	52	2.1	6.4	0.83	3.2	116	193	35	M10	4	1
ACMKP 750-300	300	81	3.2	9.7	1	1.6	116	243	35	M10	4	1
ACMKP 750-350	350	75	3.1	9.2	1.08	1.6	116	280	35	M10	4	1
ACMKP 750-400	400	70	4.3	12.9	0.48	2.5	136	243	35	M10	2	1
ACMKP 750-500	500	70	4.4	13.2	0.54	2.1	136	280	35	M10	2	1
<b>ACMKP 850; U<sub>N</sub> = 850 V; U<sub>RMS</sub> = 600 V</b>												
ACMKP 850-10	10	15	0.3	1	2.37	12.9	64	82.5	26.5	Faston	9	3
ACMKP 850-15	15	15	0.5	1.5	1.9	10.6	64	82.5	26.5	Faston	9	3
ACMKP 850-20	20	27	0.5	1.5	1.96	9.4	64	95	26.5	Faston	9	3
ACMKP 850-25	25	30	0.6	1.8	1.76	8.3	64	95	23.5	M6	9	2
ACMKP 850-30	30	27	0.6	1.8	2.03	7.7	64	108	23.5	M6	9	2
ACMKP 850-40	40	26	0.6	1.7	2.65	6.7	64	132.5	23.5	M6	9	2
ACMKP 850-47	47	37	1.1	3.3	1.03	7.5	84	93	35	M10	4	1
ACMKP 850-50	50	34	1	3	1.26	7.4	84	105	35	M10	4	1
ACMKP 850-60	60	40	1.5	4.3	0.92	6.6	100	93	35	M10	4	1
ACMKP 850-70	70	50	1.7	5.1	1.01	4	84	168	35	M10	4	1
ACMKP 850-80	80	50	2	5.8	0.98	3.8	84	168	35	M10	4	1
ACMKP 850-100	100	60	2.4	7.2	0.92	3.4	100	168	35	M10	4	1
ACMKP 850-120	120	62	2.9	8.7	0.89	3.1	100	168	35	M10	4	1
ACMKP 850-130	130	62	3.1	9.4	0.88	3	100	168	35	M10	4	1
ACMKP 850-150	150	60	2.9	8.8	1.01	2.8	100	193	35	M10	4	1
ACMKP 850-200	200	60	3.9	11.7	0.66	3.1	116	193	35	M10	4	1
ACMKP 850-250	250	60	3.5	10.4	0.86	2.6	116	243	35	M10	4	1
ACMKP 850-300	300	80	7.2	21.7	0.4	2.5	136	243	35	M10	2	1

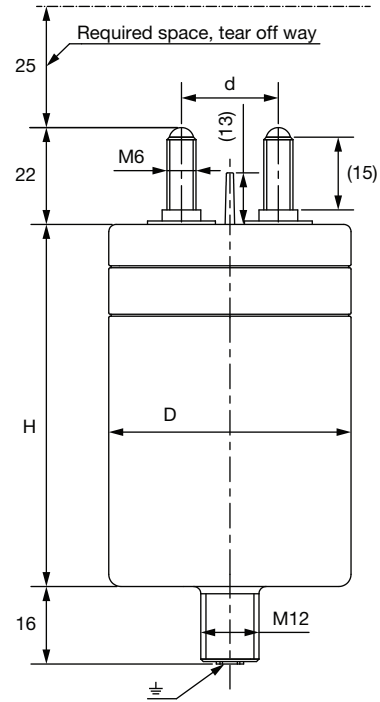


TYPE DESCRIPTION												
TYPE ACMKP...-... IBB / IBP / IAP	C <sub>N</sub> (μF)	I <sub>max.</sub> (A)	$\hat{i}$ (kA)	$\hat{I}_S$ (kA)	R <sub>S</sub> (mΩ)	R <sub>th</sub> (K/W)	DIA. (mm)	H (mm)	d (mm)	TERMINAL	MOQ / PU (PCS)	DRAWING NO.
<b>ACMKP 1.02; U<sub>N</sub> = 1020 V; U<sub>RMS</sub> = 720 V</b>												
ACMKP 1.02-10	10	21	0.3	0.8	2.27	13.7	50	95	20	M6	25	2
ACMKP 1.02-20	20	27	0.6	1.7	1.29	11.3	84	93	35	M10	4	1
ACMKP 1.02-25	25	30	0.7	2.2	1.12	10	84	93	35	M10	4	1
ACMKP 1.02-33	33	34	0.9	2.8	0.98	8.7	84	93	35	M10	4	1
ACMKP 1.02-50	50	30	0.8	2.5	1.78	6.2	84	132.5	35	M10	4	1
ACMKP 1.02-60	60	38	1.4	4.1	1.08	5.8	100	105	35	M10	4	1
ACMKP 1.02-70	70	60	2	6.1	0.96	3.3	100	168	35	M10	4	1
ACMKP 1.02-80	80	60	2.3	7	0.93	3.2	100	168	35	M10	4	1
ACMKP 1.02-100	100	56	2.4	7	1.06	2.9	100	193	35	M10	4	1
ACMKP 1.02-150	150	62	3.5	10.5	0.69	2.8	100	193	35	M10	4	1
ACMKP 1.02-200	200	80	4.7	14	0.49	2.2	116	280	35	M10	4	1
ACMKP 1.02-250	250	63	7	21	0.42	2.5	136	243	35	M10	2	1
<b>ACMKP 1.1; U<sub>N</sub> = 1100 V; U<sub>RMS</sub> = 780 V</b>												
ACMKP 1.1-10	10	21	0.3	0.9	2.55	11.2	64	95	23.5	M6	9	2
ACMKP 1.1-15	15	25	0.5	1.4	2	9.7	84	93	35	M10	4	1
ACMKP 1.1-20	20	29	0.6	1.9	1.73	8.1	84	93	35	M10	4	1
ACMKP 1.1-25	25	32	0.8	2.4	1.57	7	84	93	35	M10	4	1
ACMKP 1.1-33	33	32	0.8	2.5	1.38	7.3	84	105	35	M10	4	1
ACMKP 1.1-47	47	36	1.2	3.6	1.16	6.1	100	105	35	M10	4	1
ACMKP 1.1-68	68	56	2.1	6.4	0.95	3.3	100	168	35	M10	4	1
ACMKP 1.1-75	75	58	2.4	7.1	0.93	3.2	100	168	35	M10	4	1
ACMKP 1.1-100	100	80	3.1	9.4	0.71	2.2	100	243	35	M10	4	1
ACMKP 1.1-150	150	80	4.7	14.1	0.67	2	116	243	35	M10	4	1
<b>ACMKP 1.2; U<sub>N</sub> = 1200 V; U<sub>RMS</sub> = 850 V</b>												
ACMKP 1.2-6,8	6.8	18	0.2	0.7	2.83	13.4	50	95	20	M6	25	2
ACMKP 1.2-10	10	22	0.3	1	2.09	11.9	64	95	23.5	M6	9	2
ACMKP 1.2-15	15	24	0.4	12.3	2.17	9.5	64	108	23.5	M6	9	2
ACMKP 1.2-20	20	30	0.7	2	1.33	8.9	84	93	35	M10	4	1
ACMKP 1.2-25	25	28	0.7	2	1.55	8	84	105	35	M10	4	1
ACMKP 1.2-33	33	46	1.1	3.3	1.17	4.5	84	168	35	M10	4	1
ACMKP 1.2-40	40	50	1.4	4.1	1.09	4	84	168	35	M10	4	1
ACMKP 1.2-47	47	50	1.6	4.8	1.04	3.3	84	168	35	M10	4	1
ACMKP 1.2-50	50	46	1.4	4.1	1.26	3.7	84	193	35	M10	4	1
ACMKP 1.2-60	60	54	2	6.1	0.97	3.4	100	168	35	M10	4	1
ACMKP 1.2-68	68	72	2.3	6.9	0.77	2.5	84	243	35	M10	4	1
ACMKP 1.2-80	80	80	2.7	8.1	0.73	2.3	100	243	35	M10	4	1
ACMKP 1.2-100	100	50	2.7	8.2	1.04	3	116	193	35	M10	4	1
ACMKP 1.2-150	150	60	5.1	15.2	0.44	2.7	136	243	35	M10	2	1
ACMKP 1.2-200	200	57	5.5	16.4	0.49	2.3	136	280	35	M10	2	1
<b>ACMKP 1.4; U<sub>N</sub> = 1400 V; U<sub>RMS</sub> = 1000 V</b>												
ACMKP 1.4-15	15	30	0.6	1.9	1.41	8.4	84	93	35	M10	4	1
ACMKP 1.4-22	22	25	0.6	1.7	2.37	6.5	84	132.5	35	M10	4	1
ACMKP 1.4-30	30	30	0.8	2.3	1.92	5.6	100	132.5	35	M10	4	1
ACMKP 1.4-47	47	54	1.6	5	1.18	3	100	193	35	M10	4	1
ACMKP 1.4-60	60	81	2.6	7.8	0.75	2.1	100	243	35	M10	4	1
<b>ACMKP 1.7; U<sub>N</sub> = 1700 V; U<sub>RMS</sub> = 1200 V</b>												
ACMKP 1.7-30	30	81	3	9	0.73	1.9	100	243	35	M10	4	1
ACMKP 1.7-40	40	81	4	12	0.7	1.7	116	243	35	M10	4	1
ACMKP 1.7-60	60	81	3.3	9.9	1	1.4	116	355	35	M10	4	1
ACMKP 1.7-90	90	81	4.9	14.7	0.92	1.3	136	355	35	M10	2	1

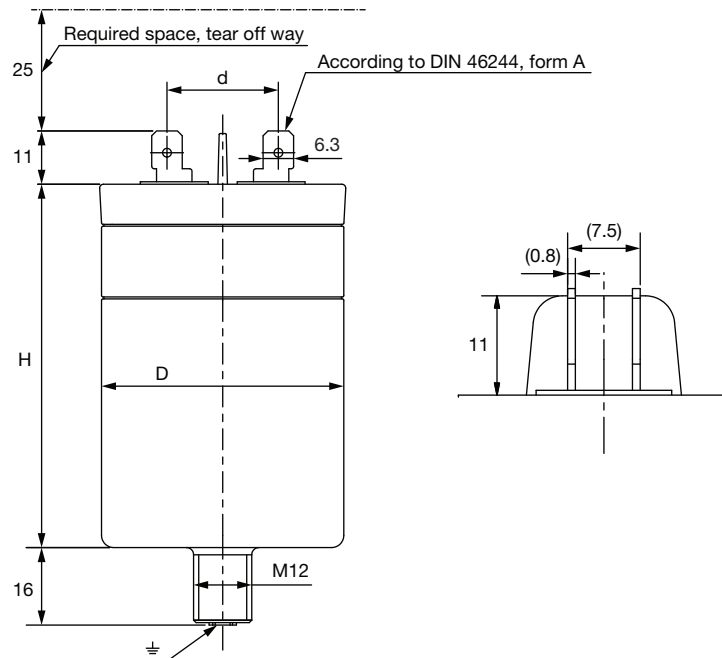
**DIMENSIONS** in millimeters



**Drawing 1**  
ACMKP...-...IBB



**Drawing 2**  
ACMKP...-...IBP



**Drawing 3**  
ACMKP...-...IAP

**Note**

- For the diameters 50 mm and 64 mm you can choose between M6 bolts and faston terminal solution

**Contact Us**

Other voltage, current, and capacitance values are available on request without additional cost and lead time for the individual design.



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

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