Power Electronic AC Capacitors (PEC)

FEATURES

- Overpressure disconnector
- 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

LINKS TO ADDITIONAL RESOURCES

3D Models

QUICK REFERENCE DATA	
DESCRIPTION	**VALUE**
Rated AC voltage min.	350 V_{AC}
Rated AC voltage max.	1700 V_{AC}
Capacitance min.	6.8 µF
Capacitance max.	600 µF
Capacitance tolerance	± 5 %
Technology	Metallized polypropylene film, self-healing
Dielectric loss factor (dielectric only)	tan δ_0 2 x 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_{RMS}, θ_{hs} = 70 °C
Reliability	300 FIT
DC test voltage (terminal to terminal)	2.15 x U_N, 10 s
AC test voltage (terminal to case)	According to IEC 61071-1, 2 x U_i + 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_N (µF)	$I_{max.}$ (A)	$\hat{I}$ (kA)	$\hat{I}_S$ (kA)	R_S (mΩ)	R_{th} (K/W)	DIA. (mm)	H (mm)	d (mm)	TERMINAL	MOQ / PU (PCS)	DRAWING NO.
ACMKP 350; U_N = 350 V; U_{RMS} = 250 V												
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
ACMKP 465; U_N = 465 V; U_{RMS} = 330 V												
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
ACMKP 640; U_N = 640 V; U_{RMS} = 450 V												
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

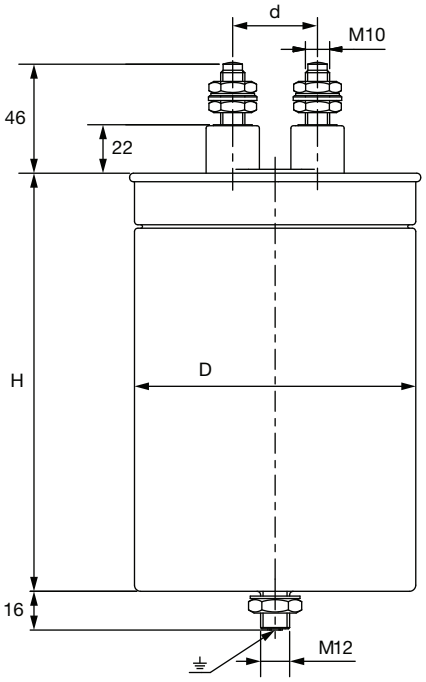
TYPE DESCRIPTION

TYPE ACMKP…-… IBB / IBP / IAP	C_N (µF)	$I_{max.}$ (A)	$\hat{I}$ (kA)	$\hat{I}_S$ (kA)	R_S (mΩ)	R_{th} (K/W)	DIA. (mm)	H (mm)	d (mm)	TERMINAL	MOQ / PU (PCS)	DRAWING NO.
ACMKP 680; U_N = 680 V; U_{RMS} = 480 V												
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
ACMKP 750; U_N = 750 V; U_{RMS} = 530 V												
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
ACMKP 850; U_N = 850 V; U_{RMS} = 600 V												
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

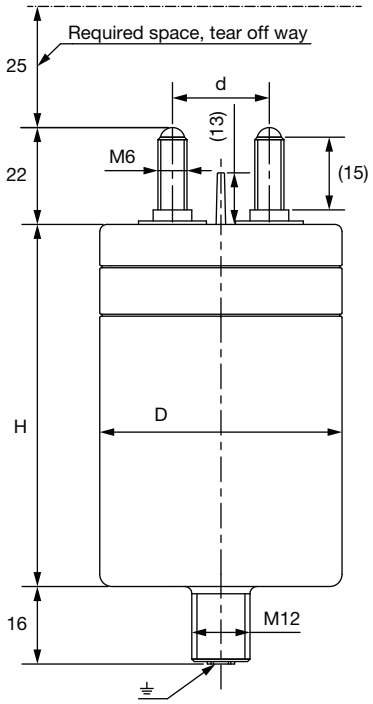
TYPE DESCRIPTION

TYPE ACMKP…-… IBB / IBP / IAP	C_N (µF)	$I_{max.}$ (A)	$\hat{I}$ (kA)	$\hat{I}_S$ (kA)	R_S (mΩ)	R_{th} (K/W)	DIA. (mm)	H (mm)	d (mm)	TERMINAL	MOQ / PU (PCS)	DRAWING NO.
ACMKP 1.02; U_N = 1020 V; U_{RMS} = 720 V												
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
ACMKP 1.1; U_N = 1100 V; U_{RMS} = 780 V												
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
ACMKP 1.2; U_N = 1200 V; U_{RMS} = 850 V												
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
ACMKP 1.4; U_N = 1400 V; U_{RMS} = 1000 V												
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
ACMKP 1.7; U_N = 1700 V; U_{RMS} = 1200 V												
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

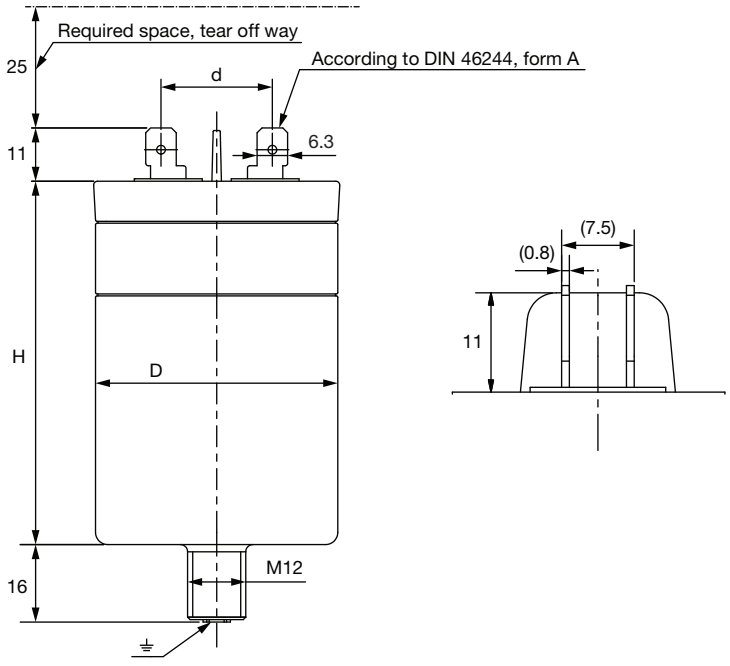
DIMENSIONS in millimeters



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

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