Capacitors for Power Electronics (PEC) - Cylindrical

FEATURES

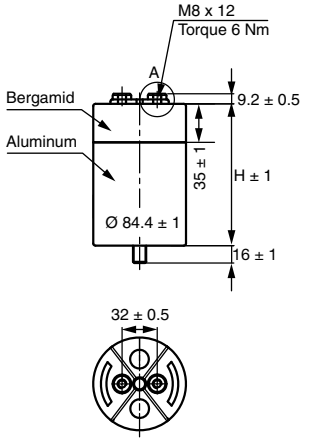
- High RMS current rating: Up to 120 A
- High impulse current rating: Up to 25 kA
- Low self-inductance of 70 nH
- High reliability and life expectancy
- Withstands heavy-duty shock and vibration
- Non-polar dielectric

APPLICATIONS

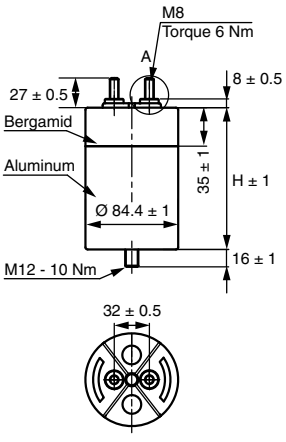
- DC linking and DC filtering in industry and traction converters
- DC linking in low-power drives
- DC linking in wind turbine converters
- Impulse discharge capacitors for magnetizing and welding
- Replacement of aluminum electrolytic capacitors (lower capacitance, higher currents)

QUICK REFERENCE DATA	
DESCRIPTION	**VALUE**
Rated DC voltage min.	900 V
Rated DC voltage max.	2700 V
Capacitance min.	40 µF
Capacitance max.	2235 µF
Technology	Metallized polypropylene film
Dissipation factor (tan δ_0)	< 2 x 10^{-4}/1 kHz
Capacitance tolerance	± 5 %
Operating temperature (hotspot)	$\theta_{min.}$ - 40 °C $\theta_{max.}$ + 80 °C
Inductance	70 nH
Lifetime expectancy	100 000 h at U_R and < 70 °C hotspot
Reliability	100 FIT
Test voltage	Terminal/terminal = 1.5 x U_{RDC}, 10 s terminal/case = 2 x U_{RDC} + 1000 V_{AC}, 60 s
Casing material	Aluminum/Bergamid 3700 UF
Filling	Resin dry, UL 94 V-0
Standards	IEC 61071-1, IEC 61881 and EN 61071-1

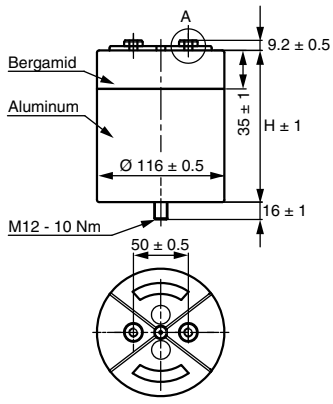
DIMENSIONS in millimeters



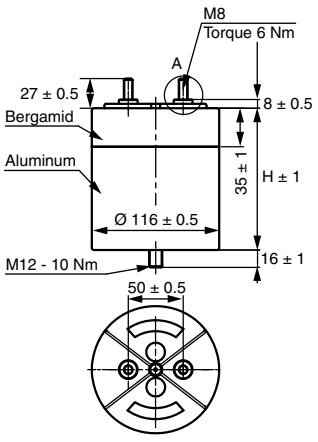
Drawing 1
i.e.: HDMKP...-...I



Drawing 2
i.e.: HDMKP...-...B



Drawing 3
i.e.: HDMKP...-...I



Drawing 4
i.e.: HDMKP...-...B

TYPE DESCRIPTION												
TYPE HDMKP.../ ...B/I	C_N [µF]	VOLTAGE V_{DC}	R_S [mΩ]	R_{th} [K/W]	$I_{MAX.}$ [A]	I_P [kA]	Î [kA]	HEIGHT [mm]	D [mm]	WEIGHT [kg]	PACKAGING UNIT	DRAWING NO.
HDMKP 900, U_{NDC} = 900 V												
900-360	360	900	2.4	6.0	32.0	1.30	3.92	105	84.4	0.7	4	1 and 2
900-460	460	900	3.2	5.4	29.0	1.25	3.77	135	84.4	0.9	4	1 and 2
900-720	720	900	1.3	3.2	59.0	1.32	3.98	185	84.4	1.2	4	1 and 2
900-950	950	900	1.7	2.7	56.0	1.30	3.89	235	84.4	1.6	4	1 and 2
900-1080	1080	900	0.9	2.2	85.0	1.31	3.94	260	84.4	1.7	4	1 and 2
900-2050	2050	900	1.3	1.7	75.0	5.61	16.8	235	116	3.0	4	3 and 4
900-2235	2235	900	0.6	1.6	120.0	8.38	25.1	260	116	3.3	4	3 and 4
HDMKP 1.1, U_{NDC} = 1100 V												
1.1-240	240	1100	2.9	4.1	28.0	1.12	3.37	105	84.4	0.7	4	1 and 2
1.1-325	325	1100	3.8	4.8	27.0	1.11	3.33	135	84.4	0.9	4	1 and 2
1.1-480	480	1100	1.6	2.5	50.0	2.25	6.75	185	84.4	1.2	4	1 and 2
1.1-650	650	1100	0.8	2.7	50.0	2.22	6.66	235	84.4	1.6	4	1 and 2
1.1-720	720	1100	0.5	2.2	75.0	3.37	10.1	260	84.4	1.7	4	1 and 2
1.1-1310	1310	1100	1.5	1.8	72.0	4.48	13.4	235	116	3.0	4	3 and 4
1.1-1425	1425	1100	0.6	1.7	114.0	6.68	20.0	260	116	3.3	4	3 and 4
HDMKP 1.35, U_{NDC} = 1350 V												
1.35-160	160	1350	3.2	6.7	26.0	0.90	2.69	105	84.4	0.7	4	1 and 2
1.35-200	200	1350	1.2	4.6	51.0	0.89	2.68	135	84.4	0.9	4	1 and 2
1.35-320	320	1350	1.7	3.5	50.0	0.90	2.69	185	84.4	1.2	4	1 and 2
1.35-400	400	1350	2.4	3.1	45.0	0.82	2.46	235	84.4	1.6	4	1 and 2
1.35-480	480	1350	1.2	2.4	72.0	0.90	2.69	260	84.4	1.7	4	1 and 2
1.35-910	910	1350	1.6	1.9	70.0	3.73	11.2	235	116	3.0	4	3 and 4
1.35-990	990	1350	0.7	1.8	108.0	5.56	16.6	260	116	3.3	4	3 and 4
HDMKP 2.0, U_{NDC} = 2000 V												
2.0-70	70	2000	4.4	7.2	21.0	0.59	1.77	105	84.4	0.7	4	1 and 2
2.0-90	90	2000	5.8	5.9	20.0	0.58	1.75	135	84.4	0.9	4	1 and 2
2.0-140	140	2000	2.3	3.8	41.0	0.59	1.77	185	84.4	1.3	4	1 and 2
2.0-180	180	2000	3.0	3.1	39.0	0.58	1.75	235	84.4	1.6	4	1 and 2
2.0-210	210	2000	1.6	2.7	60.0	0.59	1.78	260	84.4	1.7	4	1 and 2
2.0-390	390	2000	2.0	2.1	60.0	2.45	7.36	235	116	3.0	4	3 and 4
2.0-420	420	2000	0.9	1.9	90.0	3.65	10.9	260	116	3.3	4	3 and 4
HDMKP 2.25, U_{NDC} = 2250 V												
2.25-55	55	2250	4.8	7.4	20.0	0.53	1.59	105	84.4	0.7	4	1 and 2
2.25-75	75	2250	6.4	6.0	19.0	0.52	1.56	135	84.4	0.9	4	1 and 2
2.25-110	110	2250	2.5	3.9	39.0	0.53	1.59	185	84.4	1.2	4	1 and 2
2.25-150	150	2250	3.3	3.2	37.0	0.52	1.56	235	84.4	1.6	4	1 and 2
2.25-165	165	2250	1.7	2.7	56.0	0.53	1.59	260	84.4	1.7	4	1 and 2
2.25-320	320	2250	2.4	2.4	56.0	2.23	6.70	235	116	3.0	4	3 and 4
2.25-345	345	2250	1.1	2.0	90.0	3.33	9.99	260	116	3.3	4	3 and 4
HDMKP 2.7, U_{NDC} = 2700 V												
2.7-40	40	2700	5.1	8.4	18.0	0.46	1.39	105	84.4	0.7	4	1 and 2
2.7-50	50	2700	7.4	6.5	17.0	0.41	1.25	135	84.4	0.9	4	1 and 2
2.7-80	80	2700	5.1	6.8	20.0	0.46	1.39	185	84.4	1.2	4	1 and 2
2.7-100	100	2700	7.4	5.3	19.0	0.41	1.25	235	84.4	1.6	4	1 and 2
2.7-120	120	2700	5.2	6.2	21.0	0.45	1.34	260	84.4	1.7	4	1 and 2
2.7-220	220	2700	2.4	2.4	52.0	0.92	2.77	235	116	3.0	4	3 and 4
2.7-240	240	2700	1.1	2.0	84.0	0.92	2.78	260	116	3.3	4	3 and 4

Note

- Other voltage, current and capacitance values are available on request

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