

Capacitors for Power Electronics (PEC) - Cylindrical



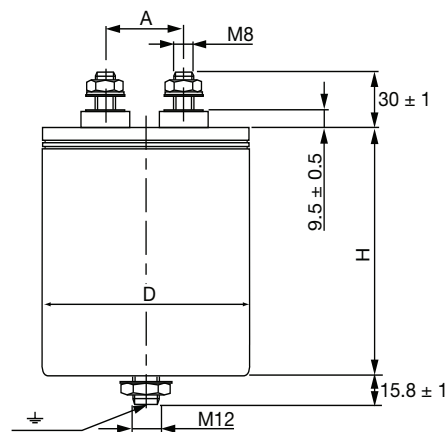
FEATURES

- High impulse current rating up to 10 kA
- Low self-inductance of < 100 nH
- High reliability and life expectancy
- Withstands heavy duty shock and vibration
- Non-polar dielectric
- Dry, resin filled

APPLICATIONS

- DC-linking and DC-filtering in industry and traction converters
- DC-linking in low-power drives
- 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.	880 V
Rated DC voltage max.	1000 V
Capacitance min.	30 μ F
Capacitance max.	2235 μ F
Technology	Metallized polypropylene
Dissipation factor ($\tan \delta_0$)	< 2×10^{-4}
Capacitance tolerance	$\pm 5 \%$
Operating temperature (hot spot)	$\theta_{min.} - 40 \text{ }^\circ\text{C}$ $\theta_{max.} + 80 \text{ }^\circ\text{C}$
Inductance	< 100 nH
Lifetime expectancy	200 000 h at U_{NDC} and < 60 $^\circ\text{C}$ hotspot
Reliability	200 FIT
Test voltage	Terminal/terminal = $1.5 \times U_{NDC}$, 10 s Terminal/case = $2 \times U_{NDC} + 1000 V_{AC}$, 60 s
Casing material	Aluminum
Filling	Resin Polyurethane, UL 94 V-0
Standards	IEC 61071-1, IEC 61881 and EN 61071-1



Drawing 1

TYPE DESCRIPTION												
TYPE DCMKP ...-...IBR	C _N [μF]	VOLTAGE V _{DC}	R _S [mΩ]	R _{th} [K/W]	I _{MAX.} [A]	I _P [A]	İ [A]	HEIGHT [mm]	DIA. [mm]	WEIGHT [kg]	PACKAGING UNIT	DRAWING NO.
DCMKP 880, U_{NDC} = 880 V, V_{AC} = 220 V_{RMS}												
880-200	200	880	3.4	15.0	34.0	750	2250	105	64	0.4	9	1
880-270	270	880	4.4	11.7	35.0	737	2212	130	64	0.4	9	1
880-370	370	880	2.2	12.8	46.0	1385	4155	105	84	0.6	4	1
880-510	510	880	2.8	9.8	48.0	1395	4185	130	84	0.7	4	1
DCMKP 1.1, U_{NDC} = 1100 V, V_{AC} = 275 V_{RMS}												
1.1-130	130	1100	3.9	14.9	32.0	607	1822	105	64	0.3	9	1
1.1-175	175	1100	5.2	11.6	32.0	600	1800	130	64	0.4	9	1
1.1-240	240	1100	2.5	12.7	43.0	1125	3375	105	84	0.6	4	1
1.1-280	280	1100	7.7	7.7	31.0	600	1800	185	64	0.5	9	1
1.1-330	330	1100	3.2	9.8	44.0	1125	3375	130	84	0.7	4	1
1.1-525	525	1100	4.5	6.5	46.0	1685	5055	185	84	1.3	4	1
1.1-1000	1000	1100	2.9	5.4	62.0	2142	6427	185	116	1.9	4	1
DCMKP 1.3, U_{NDC} = 1300 V, V_{AC} = 325 V_{RMS}												
1.3-90	90	1300	4.6	15.0	29.0	500	1500	105	64	0.3	9	1
1.3-120	120	1300	6.0	11.7	29.0	942	2827	130	64	0.7	9	1
1.3-165	165	1300	2.9	12.8	40.0	1917	5752	105	84	2.1	4	1
1.3-195	195	1300	9.0	7.7	30.0	500	1508	185	64	0.6	9	1
1.3-230	230	1300	3.6	9.8	41.0	935	2805	130	84	0.7	4	1
1.3-365	365	1300	5.1	6.5	42.0	2055	6165	185	84	1.3	4	1
1.3-710	710	1300	3.2	5.4	59.0	3835	11 500	185	116	1.9	4	1
DCMKP 1.55, U_{NDC} = 1550 V, V_{AC} = 385 V_{RMS}												
1.55-65	65	1550	5.2	15.1	28.0	430	1290	105	64	0.4	9	1
1.55-90	90	1550	6.8	11.6	28.0	433	1299	130	64	0.6	9	1
1.55-120	120	1550	3.2	12.9	38.0	787	23 683	105	84	0.6	4	1
1.55-145	145	1550	10.3	7.7	28.0	430	1290	185	64	0.6	9	1
1.55-165	165	1550	4.1	9.9	39.0	790	2370	130	84	0.7	4	1
1.55-265	265	1550	5.9	6.6	39.0	795	2385	185	84	1.0	4	1
1.55-520	520	1550	3.6	5.4	56.0	1707	5121	185	116	1.2	4	1
DCMKP 1.75, U_{NDC} = 1750 V, V_{AC} = 440 V_{RMS}												
1.75-50	50	1750	5.7	15.0	26.0	377	132	105	64	0.3	9	1
1.75-65	65	1750	7.6	11.6	26.0	365	1095	130	64	0.4	9	1
1.75-90	90	1750	3.5	12.9	36.0	697	2093	105	84	0.6	4	1
1.75-110	110	1750	11.5	7.7	26.0	377	1132	185	64	0.5	9	1
1.75-125	125	1750	4.5	9.9	37.0	700	2100	130	84	0.8	4	1
1.75-200	200	1750	6.6	6.6	37.0	695	2085	185	84	1.0	4	1
1.75-390	390	1750	3.9	5.5	53.0	1467	4400	185	116	2.1	4	1
DCMKP 2.0, U_{NDC} = 2000 V, V_{AC} = 500 V_{RMS}												
2.0-35	35	2000	6.4	15.2	25.0	302	907	105	64	0.4	9	1
2.0-50	50	2000	8.4	11.6	25.0	315	945	130	64	0.4	9	1
2.0-70	70	2000	3.8	12.8	35.0	607	1821	105	84	0.6	4	1
2.0-85	85	2000	12.9	7.8	25.0	333	999	185	64	0.5	9	1
2.0-110	110	2000	5.0	9.9	35.0	625	1875	130	84	0.8	4	1
2.0-160	160	2000	7.2	6.6	36.0	625	1875	185	84	1.0	4	1
2.0-310	310	2000	4.3	5.5	51.0	1187	3561	185	116	1.9	4	1
DCMKP 2.2, U_{NDC} = 2200 V, V_{AC} = 550 V_{RMS}												
2.2-30	30	2200	7.0	15.1	24.0	290	870	105	64	0.3	9	1
2.2-40	40	2200	9.2	11.6	24.0	277	832	130	64	0.4	9	1
2.2-55	55	2200	4.1	12.9	33.0	530	1590	105	84	0.6	4	1
2.2-70	70	2200	14.2	7.8	24.0	305	915	185	64	0.5	9	1
2.2-80	80	2200	5.4	9.9	34.0	560	1680	130	84	0.8	4	1
2.2-130	130	2200	8.0	6.6	34.0	565	1695	185	84	0.9	4	1
2.2-250	250	2200	4.7	5.5	49.0	1085	3255	185	116	2.1	4	1

Note

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



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