

Power Electronic Capacitors (PEC)



FEATURES

- High ripple current
- High impulse current
- Low inductance
- High reliability and long life time
- Shock and vibration proof

APPLICATIONS

- DC link and DC filter in industrial converters and traction converters
- DC link in low-power drives
- DC link in wind turbine converters
- Impulse discharge capacitors for magnetizing and welding

ADDITIONAL RESOURCES



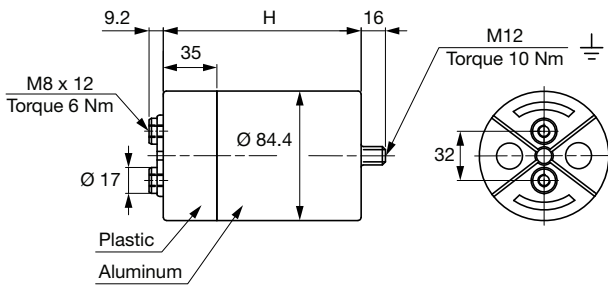
| QUICK REFERENCE DATA | |
|-------------------------------|---|
| DESCRIPTION | VALUE |
| Rated DC voltage min. | 900 V _{DC} |
| Rated DC voltage max. | 2700 V _{DC} |
| Capacitance min. | 40 µF |
| Capacitance max. | 2235 µF |
| Capacitance tolerance | ± 5 % or ± 10 % |
| Technology | Metallized polypropylene film, self-healing |
| Dielectric dissipation factor | < 2 x 10 ⁻⁴ |
| Operating temperature min. | -40 °C |
| Operating temperature max. | +85 °C (hotspot) |
| Inductance | < 100 nH |
| Lifetime expectancy | > 100 000 h at U _{NDC} and < 70 °C hotspot |
| Reliability | < 100 FIT |
| Test voltage | U _{tt} = 1.5 x U _{NDC} /10 s; U _{tc} = 2 x U _{NDC} + 1000 V _{AC} /10 s |
| Casing | Aluminum / plastic |
| Filling | Dry resin (UL 94 V-0) |
| Standard | IEC 61071, IEC 61881-1 |



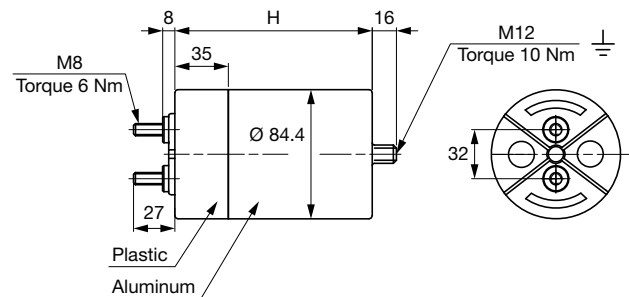
| TYPE DESCRIPTION | | | | | | | | | | | |
|---|-------------------------------------|---|-------------------------------------|---------------------------------------|---------------------------------------|--------------------------|--------------------------------------|-------------------------|----------------------------|---------------------------------|------------------------------|
| TYPE | C_N (μF) | U_{NDC} (V_{DC}) | R_S (mΩ) | R_{th} (K/W) | I_{max.} (A) | Î (kA) | Î_S (kA) | H (mm) | DIA. (mm) | MOQ / PU (pcs) | DRAWING NO. |
| HDMKP 900, U_{NDC} = 900 V | | | | | | | | | | | |
| 900-360 | 360 | 900 | 1.8 | 8.5 | 39 | 1.4 | 4.1 | 105 | 84.4 | 4 | 1 and 4 |
| 900-460 | 460 | 900 | 2.6 | 6.9 | 37 | 1.3 | 3.8 | 135 | 84.4 | 4 | 1 and 2 |
| 900-720 | 720 | 900 | 1.3 | 4.1 | 78 | 2.7 | 8.1 | 185 | 84.4 | 4 | 3 and 4 |
| 900-950 | 950 | 900 | 1.7 | 3.3 | 66 | 2.6 | 7.8 | 235 | 84.4 | 4 | 1 and 2 |
| 900-1080 | 1080 | 900 | 0.8 | 2.9 | 100 | 4.1 | 12.2 | 260 | 84.4 | 4 | 1 and 4 |
| 900-2050 | 2050 | 900 | 1.0 | 2.4 | 100 | 5.3 | 15.9 | 235 | 116 | 4 | 5 and 6 |
| 900-2235 | 2235 | 900 | 0.5 | 2.2 | 150 | 7.9 | 23.7 | 260 | 116 | 4 | 5 and 6 |
| HDMKP 1.1, U_{NDC} = 1100 V | | | | | | | | | | | |
| 1.1-240 | 240 | 1100 | 2.1 | 8.5 | 36 | 1.1 | 3.4 | 105 | 84.4 | 4 | 1 and 2 |
| 1.1-325 | 325 | 1100 | 2.9 | 6.8 | 35 | 1.1 | 3.3 | 135 | 84.4 | 4 | 1 and 4 |
| 1.1-480 | 480 | 1100 | 1.3 | 4.4 | 65 | 2.3 | 6.8 | 185 | 84.4 | 4 | 1 and 2 |
| 1.1-650 | 650 | 1100 | 1.7 | 3.5 | 64 | 2.2 | 6.7 | 235 | 84.4 | 4 | 1 and 2 |
| 1.1-720 | 720 | 1100 | 0.8 | 3.3 | 93 | 3.4 | 10.1 | 260 | 84.4 | 4 | 1 and 2 |
| 1.1-1310 | 1310 | 1100 | 1.2 | 2.5 | 92 | 4.1 | 12.4 | 235 | 116 | 4 | 5 and 6 |
| 1.1-1425 | 1425 | 1100 | 0.6 | 2.3 | 136 | 6.2 | 18.6 | 260 | 116 | 4 | 5 and 6 |
| HDMKP 1.35, U_{NDC} = 1350 V | | | | | | | | | | | |
| 1.35-160 | 160 | 1350 | 2.6 | 8.7 | 32 | 0.9 | 2.7 | 105 | 84.4 | 4 | 3 and 4 |
| 1.35-200 | 200 | 1350 | 1.1 | 5.9 | 57 | 1.8 | 5.4 | 135 | 84.4 | 4 | 1 and 4 |
| 1.35-320 | 320 | 1350 | 1.7 | 4.3 | 57 | 1.8 | 5.4 | 185 | 84.4 | 4 | 3 and 4 |
| 1.35-400 | 400 | 1350 | 2.4 | 3.5 | 54 | 1.6 | 4.9 | 235 | 84.4 | 4 | 1 and 2 |
| 1.35-480 | 480 | 1350 | 1.1 | 3.1 | 84 | 2.7 | 8.1 | 260 | 84.4 | 4 | 1 and 2 |
| 1.35-910 | 910 | 1350 | 1.3 | 2.6 | 84 | 3.5 | 10.5 | 235 | 116 | 4 | 5 and 6 |
| 1.35-990 | 990 | 1350 | 0.6 | 2.3 | 126 | 5.2 | 15.5 | 260 | 116 | 4 | 5 and 6 |
| HDMKP 1.5, U_{NDC} = 1500 V | | | | | | | | | | | |
| 1.5-120 | 120 | 1500 | 2.9 | 8.7 | 31 | 0.8 | 2.4 | 105 | 84.4 | 4 | 1 and 2 |
| 1.5-165 | 165 | 1500 | 4.0 | 6.9 | 30 | 0.8 | 2.4 | 135 | 84.4 | 4 | 1 and 2 |
| 1.5-240 | 240 | 1500 | 1.8 | 4.3 | 56 | 1.6 | 4.8 | 185 | 84.4 | 4 | 1 and 2 |
| 1.5-330 | 330 | 1500 | 2.4 | 3.4 | 55 | 1.6 | 4.8 | 235 | 84.4 | 4 | 1 and 2 |
| 1.5-360 | 360 | 1500 | 1.2 | 3.1 | 81 | 2.4 | 7.2 | 260 | 84.4 | 4 | 1 and 2 |
| 1.5-620 | 620 | 1500 | 1.5 | 2.6 | 80 | 2.9 | 8.6 | 235 | 116 | 4 | 5 and 6 |
| 1.5-675 | 675 | 1500 | 0.7 | 2.4 | 121 | 4.3 | 12.9 | 260 | 116 | 4 | 5 and 6 |
| HDMKP 1.7, U_{NDC} = 1700 V | | | | | | | | | | | |
| 1.7-90 | 90 | 1700 | 3.2 | 8.7 | 28 | 0.7 | 2.1 | 105 | 84.4 | 4 | 1 and 2 |
| 1.7-125 | 125 | 1700 | 4.3 | 6.9 | 28 | 0.7 | 2.1 | 135 | 84.4 | 4 | 1 and 2 |
| 1.7-180 | 180 | 1700 | 1.9 | 4.4 | 51 | 1.4 | 4.2 | 185 | 84.4 | 4 | 1 and 2 |
| 1.7-250 | 250 | 1700 | 2.6 | 3.5 | 50 | 1.4 | 4.2 | 235 | 84.4 | 4 | 1 and 2 |
| 1.7-270 | 270 | 1700 | 1.2 | 3.2 | 76 | 2.1 | 6.3 | 260 | 84.4 | 4 | 1 and 2 |
| 1.7-460 | 460 | 1700 | 1.6 | 2.7 | 74 | 2.5 | 7.6 | 235 | 116 | 4 | 5 and 6 |
| 1.7-495 | 495 | 1700 | 0.8 | 2.4 | 111 | 3.8 | 11.4 | 260 | 116 | 4 | 5 and 6 |
| HDMKP 2.0, U_{NDC} = 2000 V | | | | | | | | | | | |
| 2.0-70 | 70 | 2000 | 3.6 | 8.8 | 26 | 0.6 | 1.8 | 105 | 84.4 | 4 | 1 and 2 |
| 2.0-90 | 90 | 2000 | 5.3 | 7.1 | 25 | 0.6 | 1.7 | 135 | 84.4 | 4 | 1 and 2 |
| 2.0-140 | 140 | 2000 | 2.1 | 4.5 | 48 | 1.2 | 3.6 | 185 | 84.4 | 4 | 1 and 2 |
| 2.0-180 | 180 | 2000 | 3.1 | 3.6 | 45 | 1.1 | 3.4 | 235 | 84.4 | 4 | 3 and 4 |
| 2.0-210 | 210 | 2000 | 1.3 | 3.3 | 71 | 1.8 | 5.4 | 260 | 84.4 | 4 | 1 and 4 |
| 2.0-390 | 390 | 2000 | 1.7 | 2.7 | 72 | 2.3 | 6.8 | 235 | 116 | 4 | 5 and 6 |
| 2.0-420 | 420 | 2000 | 0.8 | 2.4 | 106 | 3.4 | 10.3 | 260 | 116 | 4 | 5 and 6 |
| HDMKP 2.25, U_{NDC} = 2250 V | | | | | | | | | | | |
| 2.25-55 | 55 | 2250 | 4.1 | 8.9 | 24 | 0.5 | 1.6 | 105 | 84.4 | 4 | 1 and 2 |
| 2.25-75 | 75 | 2250 | 5.7 | 7.1 | 23 | 0.5 | 1.6 | 135 | 84.4 | 4 | 3 and 4 |
| 2.25-110 | 110 | 2250 | 2.4 | 4.6 | 44 | 1.1 | 3.2 | 185 | 84.4 | 4 | 1 and 4 |
| 2.25-150 | 150 | 2250 | 3.3 | 3.6 | 44 | 1.1 | 3.2 | 235 | 84.4 | 4 | 1 and 2 |
| 2.25-165 | 165 | 2250 | 1.5 | 3.3 | 65 | 1.6 | 4.8 | 260 | 84.4 | 4 | 1 and 4 |
| 2.25-320 | 320 | 2250 | 1.8 | 2.7 | 68 | 2.1 | 6.2 | 235 | 116 | 4 | 5 and 6 |
| 2.25-345 | 345 | 2250 | 0.9 | 2.5 | 99 | 3.1 | 9.3 | 260 | 116 | 4 | 5 and 6 |

| TYPE DESCRIPTION | | | | | | | | | | | |
|--|------------------------|--|------------------------|--------------------------|--------------------------|------------|-------------------------|-----------|--------------|-------------------|----------------|
| TYPE | C _N (μF) | U _{NDC} (V _{DC}) | R _S (mΩ) | R _{th} (K/W) | I _{max.} (A) | İ (kA) | İ _S (kA) | H (mm) | DIA. (mm) | MOQ / PU (pcs) | DRAWING NO. |
| HDMKP 2.7, U_{NDC} = 2700 V | | | | | | | | | | | |
| 2.7-40 | 40 | 2700 | 4.6 | 8.8 | 22 | 0.5 | 1.4 | 105 | 84.4 | 4 | 1 and 4 |
| 2.7-50 | 50 | 2700 | 7.0 | 7.2 | 21 | 0.4 | 1.3 | 135 | 84.4 | 4 | 2 and 3 |
| 2.7-80 | 80 | 2700 | 2.7 | 4.6 | 41 | 0.9 | 2.8 | 185 | 84.4 | 4 | 3 and 4 |
| 2.7-100 | 100 | 2700 | 3.9 | 3.7 | 39 | 0.8 | 2.5 | 235 | 84.4 | 4 | 1 and 4 |
| 2.7-120 | 120 | 2700 | 1.7 | 3.3 | 61 | 1.4 | 4.2 | 260 | 84.4 | 4 | 1 and 4 |
| 2.7-220 | 220 | 2700 | 2.1 | 2.8 | 62 | 1.7 | 5.1 | 235 | 116 | 4 | 5 and 6 |
| 2.7-240 | 240 | 2700 | 1.0 | 2.5 | 91 | 2.6 | 7.7 | 260 | 116 | 4 | 5 and 6 |

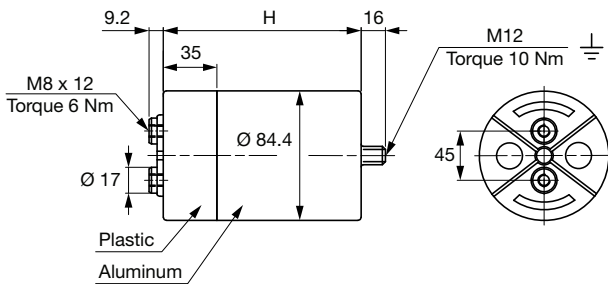
DIMENSIONS in millimeters



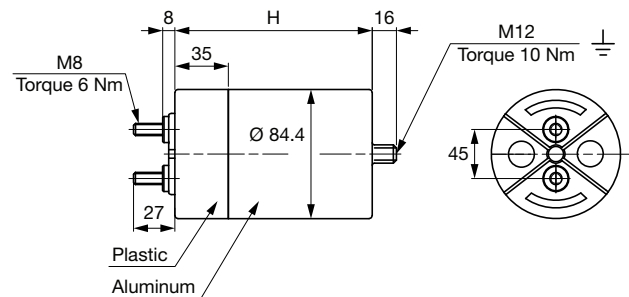
Drawing 1
i.e.: HDMKP...-...I



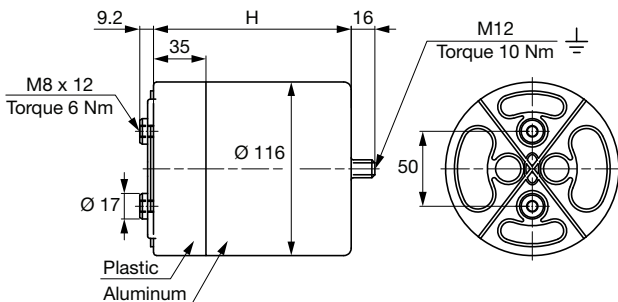
Drawing 2
i.e.: HDMKP...-...B



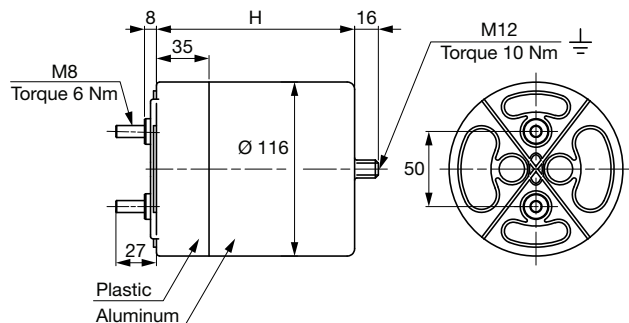
Drawing 3
i.e.: HDMKP...-...I



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



Drawing 5
i.e.: HDMKP...-...I



Drawing 6
i.e.: HDMKP...-...B

Contact Us

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



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