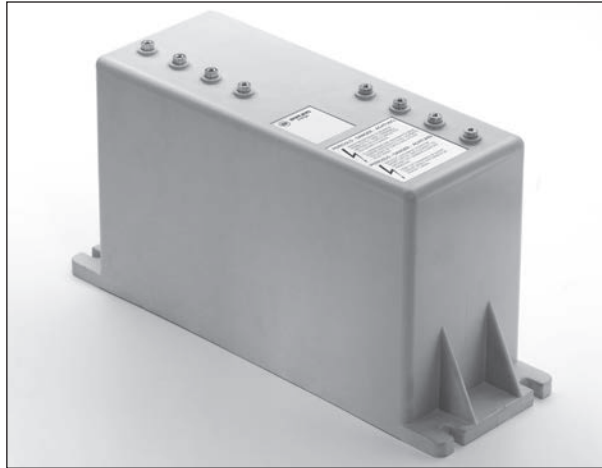


DC CAPACITORS



DC 86 P SERIES: **Dc - Link Capacitors in prismatic box**

| | |
|---|--|
| DC Voltage range | 550÷6800 V |
| Maximum ripple current | 300 A |
| Capacitance range | Up to 15000 µF |
| Capacitance tolerance | +0% / -15% |
| Thermal resistance natural cooling (R_{THC}) | 0,52 °C/W |
| Equivalent series inductance (L_{ESR}) | < 45 nH |
| Terminals | 4 x M6 internal threads per pole or bus-bars |
| Test voltage | $U_{tc} = 12 \text{ kVac @50 Hz 60s}$ $U_{tt} = 1,5 \times U_{nDC} 10s$ |
| Climatic Ambient Temperature | -25 / +45 °C |
| Working temperature ($\theta_{MIN} - \theta_{MAX}$) | -25 / +85 °C |
| Storage temperature | -25 / +85 °C |
| Filling | Self-extinguishing (UL94 V0) polyurethane resin |
| Dielectric | Self healing PPMd film |
| Container | Self-extinguishing (UL94 V0) plastic box |
| Failure quota | 50/10E9 |
| Life expectancy | 100.000 h (**) |
| Maximum altitude | 2000 m a.s.l. |
| Reference standard | IEC 1071-1/2 IEC 1881 UL 810 |
| M6 internal thread terminals | Max 3 Nm |
| Fixing slots | Max 10 Nm |

Safety system: These capacitors are designed with a particular type of polypropylene metalized film (PPMd film) that assures an open circuit at the end of life, if the operation is within the specification.

(**) For details please refer to page 10

Power Electronics Capacitors

DC CAPACITORS

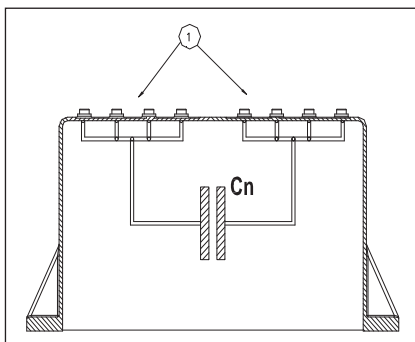
DC 86 P Series

| Capacitance Cn [μ F] | Rated DC Voltage Un [V] | Repet. Peak Voltage Up [kV] | Surge Voltage Us [kV] | Max. RMS Current Imax [A] | Repet. Peak Current Ip [A] | Surge Current Is [kA] | Series Resistance Rs [m Ω] | Thermal Resistance R _{THC} [°C/W] | Weight [kg] | Terminal solution A / B | Part number 416.86. |
|------------------------------|----------------------------|--------------------------------|--------------------------|------------------------------|-------------------------------|--------------------------|---------------------------------------|---|----------------|----------------------------|------------------------|
| 15.000 | 550 | 0,8 | 1,3 | 300 | 34500 | 45 | < 0,30 | 0,52 | < 19,0 | A / B | 009.X |
| 11.000 | 650 | 1,0 | 1,5 | 300 | 30800 | 45 | < 0,30 | 0,52 | < 19,0 | A / B | 109.X |
| 8.500 | 800 | 1,2 | 1,8 | 300 | 28050 | 45 | < 0,30 | 0,52 | < 19,0 | A / B | 159.X |
| 5.600 | 1000 | 1,5 | 2,3 | 250 | 26880 | 40 | < 0,45 | 0,52 | < 19,0 | A / B | 209.X |
| 3.800 | 1200 | 1,8 | 2,8 | 250 | 22800 | 40 | < 0,50 | 0,52 | < 19,0 | A / B | 259.X |
| 2.800 | 1350 | 2,0 | 3,1 | 250 | 22400 | 40 | < 0,50 | 0,52 | < 19,0 | A / B | 309.X |
| 2.100 | 1600 | 2,4 | 3,7 | 200 | 21000 | 40 | < 0,65 | 0,52 | < 19,0 | A / B | 359.X |
| 1.700 | 1800 | 2,7 | 4,1 | 200 | 20400 | 40 | < 0,70 | 0,52 | < 19,0 | A / B | 409.X |
| 1.050 | 2100 | 3,1 | 4,8 | 200 | 19950 | 40 | < 0,70 | 0,52 | < 19,0 | A / B | 459.X |
| 650 | 2700 | 4,0 | 6,2 | 200 | 19500 | 35 | < 0,75 | 0,52 | < 19,0 | A / B | 508.X |
| 500 | 3200 | 4,8 | 7,4 | 200 | 17500 | 35 | < 0,75 | 0,52 | < 19,0 | A / B | 559.X |
| 300 | 3800 | 5,7 | 8,7 | 200 | 13500 | 35 | < 0,75 | 0,52 | < 19,0 | A / B | 609.X |
| 200 | 4500 | 6,7 | 10,0 | 150 | 13000 | 30 | < 1,20 | 0,52 | < 19,0 | A | 659.0 |
| 160 | 5200 | 7,8 | 10,0 | 150 | 11200 | 30 | < 1,20 | 0,52 | < 19,0 | A | 709.0 |
| 120 | 6000 | 9,0 | 10,0 | 150 | 10800 | 25 | < 1,40 | 0,52 | < 19,0 | A | 759.0 |
| 80 | 6800 | 10,0 | 10,0 | 120 | 9600 | 20 | < 1,50 | 0,52 | < 19,0 | A | 809.0 |

- (Cn) Tolerance standard value: $-15 + 0\%$. Other tolerance values on request.
- (Cn) - (Un) Capacitance and rated voltage standard values, other values on request.
- (Rs) Related to 1 KHz.
- (R_{THC}) Thermal resistance CASE TO AMBIENT in natural cooling environment.
- (A/B solut.) Due to the clearance distance, B solution (X code = 1) is available only up to Un = 3800 V (Rated Voltage).
- (X Code) According to terminal type: A solution X = 0 / B solution X = 1.

| | |
|--------------------------------|--------------------|
| Box TYPE | |
| Standard box dimensions | mm 477 x 252 x 172 |
| No. pieces x box: | 1 |

INTERNAL CONNECTION:



① NOTE:

For A Solution: please, pay attention to connect all of the four M6 internal thread terminals for each polarity.

| | A solution (41686.xxx.0) | B solution (41686.xxx.1) |
|--------------------------------|--------------------------|--------------------------|
| Creepage distance (mm) | 100 | 40 |
| Clearance distance (mm) | 93 | 41 |

DC CAPACITORS

DC 86 P Series

MECHANICAL SOLUTIONS:

