

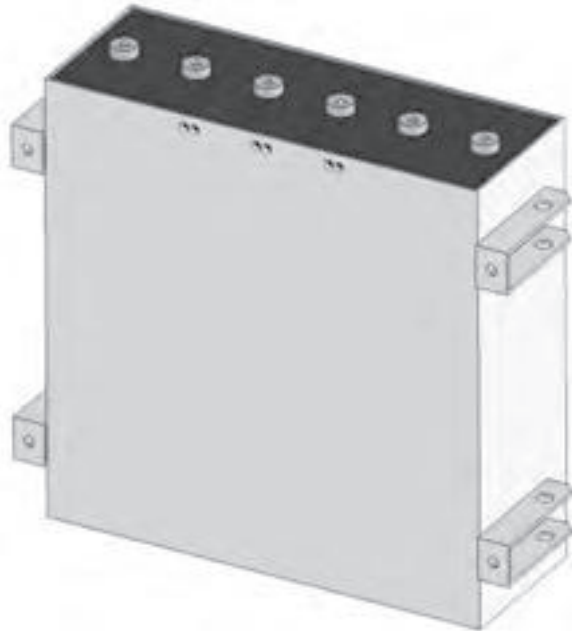


C3N

干式直流滤波电容器（定制品）

DC-Link-Capacitor（Customized products）

■ 外形图 Outline Drawing



■ 特点

- 应用于直流滤波电路中，可替代电解电容
- 等效串联电阻小，能承受大的纹波电流
- 自感小
- 有自愈性
- 寿命长
- 树脂灌封

■ 应用场合

- 风能发电、太阳能发电用变频器上
- 交通工具
- 焊接设备，电梯，电机驱动

■ Features

- Used in DC-Link circuits, Can replace electrolytic capacitor
- Low ESR, high ripple current handling capabilities
- Low ESL
- Self-healing property
- Long lifetime
- Filled with resin

■ Applications

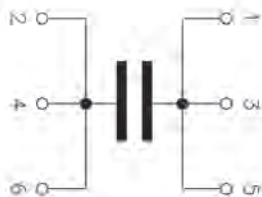
- Used in inverters of wind power and solar power
- Transportation
- Welders, Elevators, Motor Driver systems

■ 产品代码 Part number

C3N8U189K0*****

■ 技术参数 Technical datas

引用标准 Reference standards	IEC 61071
额定电压 Rated voltage (U _N)	680Vdc
额定电容量 Rated capacitance (C _N)	18 000μF
电容量偏差 Capacitance tolerance	± 10%(K)
介质损耗因素 Dielectric dissipation factor(tg δ _o)	0.0002
电容器的损耗因素 Loss factor of the capacitor(tg δ)	≤ 0.0040@100Hz
运行温度范围 (θ _{case}) Operating temperature range (θ _{case})	−40℃ ~ 85℃
热点温度 Hot-spot temperature (θ _{hs})	≤ 85℃ (θ _{hs} = θ _{amb} +I ² _{rms} × (R _s +tg δ _o /(2 × π × f _{ripple} × C _N) × R _{th})
贮存温度范围 Storage temperature range	−40℃ ~ 85℃
气候类别 Climatic category	40/85/56
主体尺寸 Body dimension	L × W × H: 420mm × 150mm × 420mm
近似重量 Approximate weight	38kg
外壳类型 Case	Aluminum
电极端子 Terminals	3 couples of thread hole M8 × 12, tinned brass
最大电极扭矩 Max. torque of terminals	6Nm
电气间隙 Clearance	≥ 20mm
爬电距离 Creepage distance	≥ 25mm
耐电压 (两极之间) Test voltage between terminals	1.5U _N (10s, 20℃ ± 5℃)
耐电压 (极壳之间) Test voltage between terminals and case	3 500Vac (10s, 50/60Hz, 20℃ ± 5℃)
绝缘电压 Insulation voltage (U _i)	U _N / √2 Vac, 50/60Hz
非周期冲击电压 Non-recurrent surge voltage (U _s)	1 050Vdc
最大电流 Maximum current (I _{max})	480A@ θ _{amb} =50℃
最大峰值电流 Maximum current (Î)	15 000A
最大冲击电流 maximum surge current (Î _s)	60 000A
串联电阻 Series resistance (R _s)	0.3mΩ @1kHz, 20℃ (approximate TCR: 0.004/℃)
热阻 Thermal resistance (R _{th})	0.4K/W
自感 Self-inductance (L _s)	≤ 50nH@1MHz
绝缘电阻 Insulation resistance (IR × C _N)	≥ 10 000s (20℃, 100Vdc, 1min)
最高使用海拔 Max. altitude	2 000m
预期寿命 Expected lifetime	100 000hrs @ U _N , θ _{hs} =70℃
失效率 Failure rate	100FIT



■ 产品代码 Part number

C3N3A608J0*****

■ 技术参数 Technical datas

引用标准 Reference standards	IEC 61071
额定电压 Rated voltage (U_N)	1 000Vdc
额定电容量 Rated capacitance (C_N)	6 000 μ F
电容量偏差 Capacitance tolerance	$\pm 5\%$ (J)
介质损耗因素 Dielectric dissipation factor($\text{tg } \delta_o$)	0.0002
电容器的损耗因素 Loss factor of the capacitor($\text{tg } \delta$)	$\leq 0.0020@100\text{Hz}$
运行温度范围 (θ_{case}) Operating temperature range (θ_{case})	$-40^\circ\text{C} \sim 85^\circ\text{C}$
热点温度 Hot-spot temperature (θ_{hs})	$\leq 85^\circ\text{C}$ ($\theta_{\text{hs}} = \theta_{\text{amb}} + I_{\text{rms}}^2 \times (R_s + \text{tg } \delta_o / (2 \times \pi \times \text{fripple} \times C_N)) \times R_{\text{th}}$)
贮存温度范围 Storage temperature range	$-40^\circ\text{C} \sim 85^\circ\text{C}$
气候类别 Climatic category	40/85/56
主体尺寸 Body dimension	L $\times$ W $\times$ H: 380mm $\times$ 160mm $\times$ 282mm
近似重量 Approximate weight	24kg
外壳类型 Case	Aluminum
电极端子 Terminals	5 couples of lugs, tinned copper
电气间隙 Clearance	$\geq 15\text{mm}$
爬电距离 Creepage distance	$\geq 50\text{mm}$
耐电压 (两极之间) Test voltage between terminals	1.5 U_N (10s, $20^\circ\text{C} \pm 5^\circ\text{C}$)
耐电压 (极壳之间) Test voltage between terminals and case	4 000Vac (10s, 50/60Hz, $20^\circ\text{C} \pm 5^\circ\text{C}$)
绝缘电压 Insulation voltage (U_i)	$U_N / \sqrt{2}$ Vac, 50/60Hz
非周期冲击电压 Non-recurrent surge voltage (U_s)	1 500Vdc
最大电流 Maximum current (I_{max})	350A @ $\theta_{\text{amb}} = 50^\circ\text{C}$
最大峰值电流 Maximum current ($\hat{I}$)	6 000A
最大冲击电流 maximum surge current ($\hat{I}_s$)	24 000A
串联电阻 Series resistance (R_s)	0.3m Ω @ 1kHz, 20°C (approximate TCR: 0.004/ $^\circ\text{C}$)
热阻 Thermal resistance (R_{th})	0.7K/W
自感 Self-inductance (L_s)	$\leq 30\text{nH}@1\text{MHz}$
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 10\,000\text{s}$ (20°C , 100Vdc, 1min)
最高使用海拔 Max. altitude	2 000m
预期寿命 Expected lifetime	100 000hrs @ U_N , $\theta_{\text{hs}} = 70^\circ\text{C}$
失效率 Failure rate	100FIT



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