



**CAPACITOR
COMPETENCE**
since 1958

ALUMINUM ELECTROLYTIC CAPACITORS

ALUMINUM ELECTROLYTIC CAPACITORS · SNAP-IN TYPE

CD 296 KC SERIES

JIANGHAI EUROPE
Electronic Components GmbH

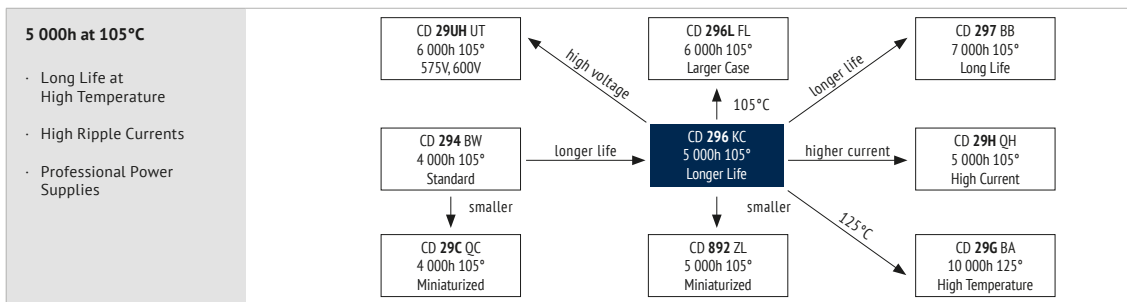


ENGINEERED SOLUTIONS

v2019.1

CD 296 KC SERIES

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ITEM CHARACTERISTICS

| | | |
|-------------------------------------|-------------|------------|
| Operating Temperature Range (°C) | -40 ~ +105 | -25 ~ +105 |
| Voltage Range (V) | 16 ~ 100 | 160 ~ 550 |
| Capacitance Range (µF) | 47 ~ 47 000 | |
| Capacitance Tolerance (20°C, 120Hz) | ± 20% | |

! The usage at lower temperatures than indicated may be possible. Please contact the Jianghai Europe sales office for approval.

Leakage Current: After 5 minutes at 20°C application of rated voltage, leakage current is not more than specified in table.

| | | | | |
|---|-------------------------|----------|-----------|-----------|
| Stability at Low Temperature (Impedance Ratio at 120Hz) | Rated Voltage (V) | 16 ~ 100 | 160 ~ 200 | 250 ~ 550 |
| | $Z_{-25°C} / Z_{+20°C}$ | 4 | | |
| | $Z_{-40°C} / Z_{+20°C}$ | 15 | | - |

Fast Charge-Discharge: **!** Please contact Jianghai for an appropriate choice of the capacitor or possible technical adaptations, esp. for applications like: Welding, Photoflash, Servo motors, X-Ray

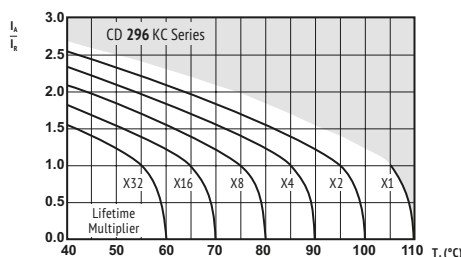
| ITEM | USEFUL LIFE | | LOAD LIFE | ENDURANCE TEST | SHELF LIFE | |
|---------------------|---------------------------------------|------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|
| Lifetime | 5 000h | > 200 000h | 3 000h | 4 000h | 1 000h | |
| Leakage Current | Not more than specified value | | Not more than specified value | Not more than specified value | Not more than specified value | |
| Capacitance Change | Within ± 30% of initial value | | Within ± 20% of initial value | Within ± 20% of initial value | Within ± 20% of initial value | |
| Dissipation Factor | Not more than 300% of specified value | | Not more than 200% of specified value | Not more than 200% of specified value | Not more than 200% of specified value | |
| Condition: | | | | | | |
| Applied Voltage | U_R | U_R | U_R | U_R | $U_R = 0$ | After test: U_R to be applied for 30 min > 24h before measurement |
| Applied Current | I_R | $1,4 \times I_R$ | I_R | $I_R = 0$ | $I_R = 0$ | |
| Applied Temperature | 105°C | 40°C | 105°C | 105°C | 105°C | |
| | | | | IEC 60384 | | |

MULTIPLIER FOR RIPPLE CURRENT (FREQUENCY COEFFICIENT)

| Frequency / Rated Voltage (V) | 50Hz | 120Hz | 300Hz | 1kHz | 10kHz | > 50 kHz |
|-------------------------------|------|-------|-------|------|-------|----------|
| ≤ 100 | 0,95 | 1,00 | 1,07 | 1,15 | 1,19 | 1,20 |
| 160 ~ 250 | 0,87 | 1,00 | 1,17 | 1,32 | 1,45 | 1,50 |
| ≥ 315 | 0,80 | 1,00 | 1,16 | 1,30 | 1,41 | 1,43 |

Multippliers for typical operating conditions.

MULTIPLIER FOR LIFETIME (LIFETIME DIAGRAM)



I_A = actual ripple current at 120Hz,
 I_R = rated ripple current at 120Hz, 105°C
Multiplier of Useful Life as a function of ambient temperature & ripple current load

ENVIRONMENTAL

The products are RoHS, WEEE and REACH compliant. The detailed version please see separate "Environmental Certificates" document or www.jianghai-europe.com

! SAFETY FACTOR

This diagram includes a safety margin. In many cases the allowed current capability/lifetime may be increased. For details and approvals please contact the Jianghai Europe sales office.



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Table with columns: U_RDC (V), C_R (μF), ESR_max (mΩ), ESR_typ (mΩ), tanδ, I_leak (mA), I_RAC (Arms), Size (mm), ORDER CODE. Includes pin style & length and pin number details.

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Customer specific adaptions needed? Please contact Jianghai Europe GmbH: TELEFON: +49 (0) 2151 652088-72 | E-MAIL: INFO@JIANGHAI-EUROPE.COM

Table with columns: U_RDC, C_R, ESR_max, ESR_typ, tanδ, I_leak, I_RAC, Size, ORDER CODE. Includes sub-headers for surge voltage, capacitance, resistance, dissipation, leakage current, ripple current, and dimensions.

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