

**Description**

Low impedance  
Low ESR  
Wide frequency range

**Applications**

Power supplies  
Hi-End electronics  
Industrial electronics

**Electrical characteristics**

Operating temperature: -25 °C ÷ 70 °C  
Rated voltage: 385VDC ÷ 500VDC  
Rated capacitance: 47 µF ÷ 800 µF  
Capacitance tolerance ( at 100Hz, 20°C): -10% +30%  
Dissipation factor ( at 100Hz, 20°C): 0,15 ÷ 0,25  
Leakage current (after 5 minutes application of rated voltage):  $I = 0,005 \cdot C \cdot U$   
I - current [µA]  
C - rated capacitance [µF]  
U - rated voltage [V]

The aluminum case capacitors are supplied with PVC sleeve insulation and a safety vent located on end-deck.

**Load life:**

Load life is 1000 hours (at maximum operating temperature, at rated voltage and AC current load as per Table 1).

After 1000 hours of the above application of rated voltage and current load, capacitors must meet the following characteristics requirements:

Capacitance change  $\leq \pm 15\%$  of initial value

$\tan \delta \leq 150\%$  of initial value

Leakage current  $\leq$  initial value

**AC Load:**

The maximum AC load at maximum operating temperature (70°C) is given in Table 1. The AC load can be increased at lower operating temperatures by coefficient as per Table 2, with capacitor life expectancy unaffected.

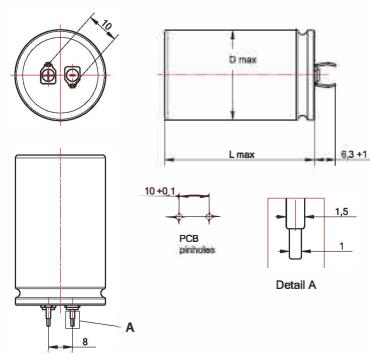
01  
table

Type Number	Rated Capacitance C <sub>N</sub> [μF]	Rated Voltage U <sub>N</sub> [V]	Dimensions D <sub>max</sub> x L <sub>max</sub> [mm x mm]	Max. tanδ at 100Hz, 20 °C	Iac [mA]	Drawing Number
TC 529	16 + 16	500	35 x 50	0,20	100 + 100	3

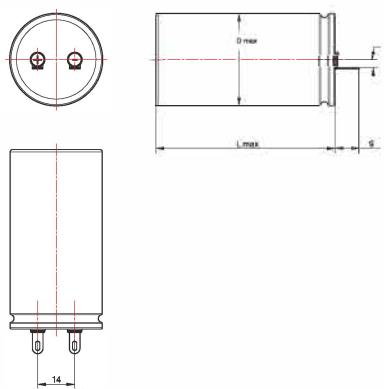
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table

Coefficient for permissible Iac increase	2,3	2,0	1,7	1,53	1,3	1,15	1,0
Operating temperature	<= 40°C	45°C	50°C	55°C	60°C	65°C	70°C

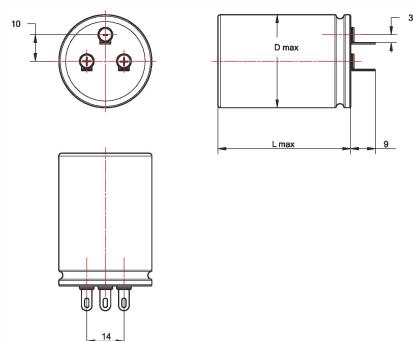
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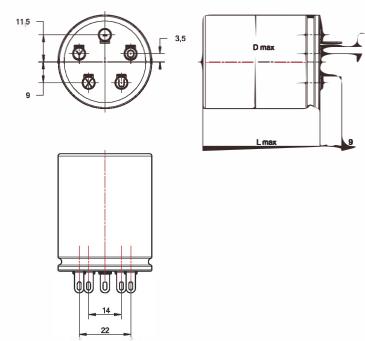
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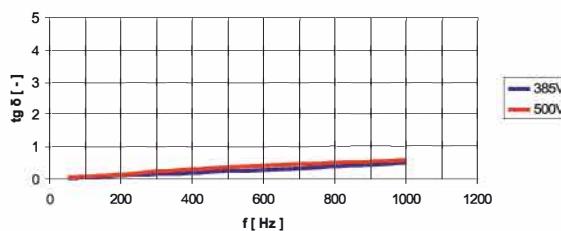
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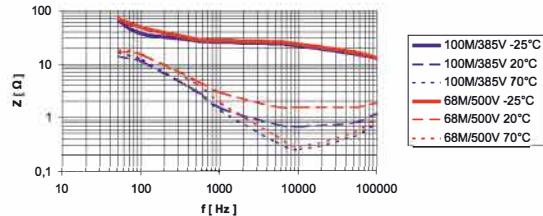
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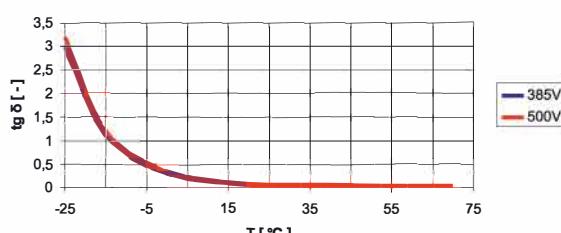
Dissipation factor vs. frequency



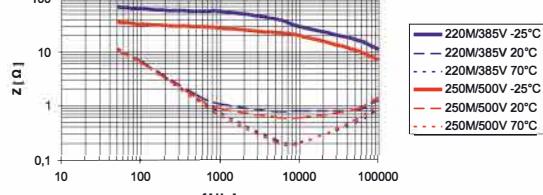
Impedance vs. frequency



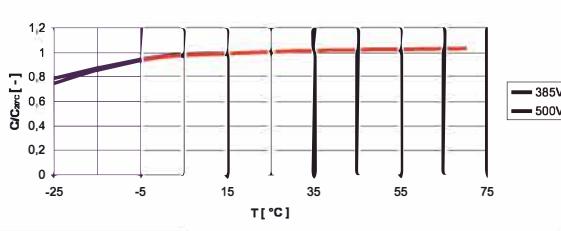
Dissipation factor vs. temperature



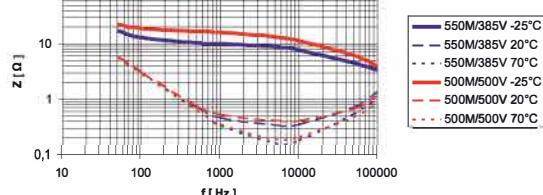
Impedance vs. frequency



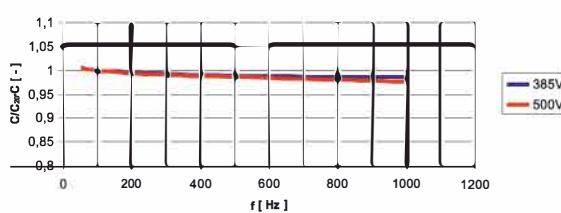
Capacitance vs. temperature



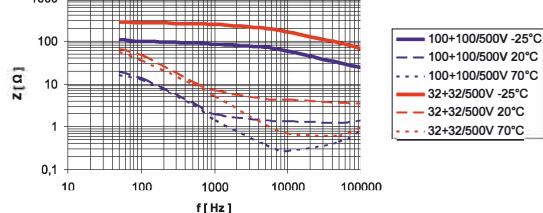
Impedance vs. frequency



Capacitance vs. frequency



Impedance vs. frequency



TC series