

**Order code:** DTIC 500-50.0 cv5 (K)  
**Applications:** DC capacitor for general use in power electronics  
 also for nonsinusoidal voltages and currents  
**Standard:** acc. to IEC 61071

**Characteristics**

Rated capacitance	<b>C<sub>N</sub></b>	50 µF ±10%
Rated d.c. voltage	<b>U<sub>N DC</sub></b>	5000 V d.c.
Max. ripple voltage	<b>U<sub>r</sub></b>	800 V
Non-recurrent surge voltage	<b>u<sub>s</sub></b>	7500 V
Rated energy	<b>W<sub>N</sub></b>	625 Ws
Maximum current	<b>I<sub>max</sub></b>	80 A
Maximum peak current	<b>î</b>	4 kA
Maximum surge current	<b>I<sub>s</sub></b>	12 kA
Series resistance	<b>R<sub>s</sub></b>	1.5 mΩ
Tangent of the loss angle	<b>tanδ<sub>o</sub></b>	2 x10 <sup>-4</sup>
Self discharge time const.	<b>C x R<sub>is</sub></b>	5000 s
Self inductance	<b>L<sub>e</sub></b>	240 nH

**Thermal conditions**

Lowest operating temperature	<b>Θ<sub>min</sub></b>	-40 °C
Maximum operating temperature	<b>Θ<sub>max</sub></b>	70 °C
Thermal resistance	<b>R<sub>th</sub></b>	1.2 K/W
Storage temperature	<b>Θ<sub>storage</sub></b>	-40..+85 °C

**Failure rate**

reference service life		50 FIT*
at Θ <sub>hotspot</sub>		100000 h
		<70 °C

\* See FIT-RATE diagram on pg.4

**Test data**

Voltage test between terminals	<b>U<sub>BB</sub></b>	7500 V /10s
A.C. voltage test terminal/container	<b>U<sub>BG</sub></b>	12000 V AC/10s

**Dimensions**

Rated diameter	<b>D<sub>1</sub></b>	116 (±1) mm
Maximum diameter	<b>D<sub>2</sub></b>	120 (±0,5) mm
Length of the case	<b>L<sub>1</sub></b>	320 (±2) mm
Length of the terminals	<b>L<sub>2</sub></b>	55 (+5) mm
distance termials	<b>a</b>	38 (±1) mm
Terminal		M10 x 20 mm
base mounting stud	<b>G<sub>B</sub>xL<sub>B</sub></b>	M12x16 (+1) mm
Clearance in air	<b>L</b>	17 mm
Creepage distance	<b>K</b>	54 mm

**Approx weight**

4.1 kg

**Mechanical characteristics**

Construction	metallized polypropylene capacitor, selfhealing
Protection	overpressure disconnecter
Terminals	Screw terminals on ceramic insulators
Impregnant	liquid impregnants. non PCB
Fire load	164 MJ

**outline drawing**

