

Ordering code: OBIC 87-50.0 cv5 (J)
Applications: MKP-1 AC/DC capacitor for general use in power electronics also for nonsinusoidal voltages and currents
Standard: acc. to IEC 61071:2007 / IEC 61881: 2011

Approval mark:
Characteristics

UL 810 - protected 10,000 AFC +85°C
CSA C22.2 No. 190 -M1985 - ambient max. 46°C

Rated capacitance	C_N	50 µF ±5%
Rated a.c. voltage	U_{N AC}	870 V a.c.
Rated d.c. voltage	U_{N DC}	1600 V d.c.
Max. rms voltage (sinusoidal)	U_{rms}	615 V
Non-recurrent surge voltage	u_s	2400 V
Rated energy	W_N	64 Ws
Maximum current	I_{max}	100 A
Maximum peak current	î	5 kA
Maximum surge current	I_s	15 kA
Series resistance	R_s	0.78 mΩ
dielectric dissipation factor	tanδ_o	2 x10 ⁻⁴
insulation strength	C x R_{is}	5000 s
Self inductance	L_e	160 nH

thermal characteristics

Lowest operating temperature	Θ_{min}	-25 °C
Maximum operating temperature	Θ_{max}	85 °C
storing temperature	Θ_{storage}	-40..+85 °C
thermal resistance	R_{th}	3.2 K/W

Test voltages

test voltage between terminals	U_{TT}	2400 V DC/10s
A.C. voltage test terminal/case	U_{TC}	3000 V AC/10s

Statistical lifetime

>200000 h

Failure rate

<100 FIT*

at Θ_{hotspot}

≤70 °C

* See FIT-RATE diagram on pg.4

Dimensions

Rated diameter	D₁	85 (±1)	mm
Maximum diameter	D₂	90.5 (±0.5)	mm
Length of the case	L₁	164 (±2)	mm
Length of the terminals	L₂	41 (±2)	mm
Length of the terminals	L₃	25 (±1)	mm
distance btw. terminals	a	35 (±1)	mm
Terminal		M10x22.5	mm
base mounting stud	G_BxL_B	M12x16 (+1)	mm
Clearance in air	L	15	mm
Creepage distance	K	25	mm

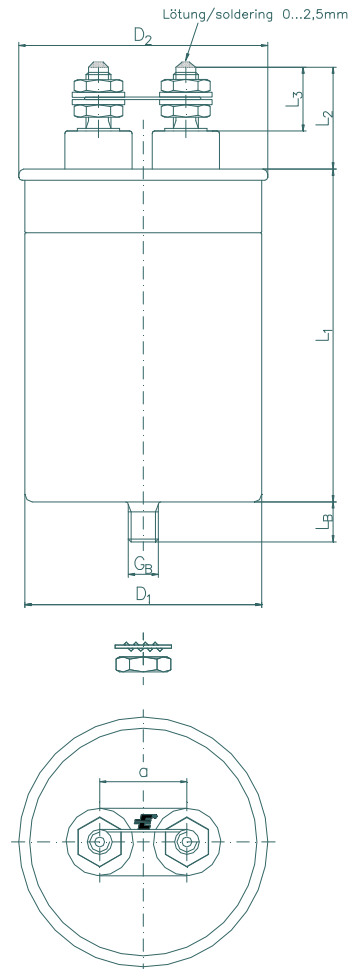
Approx weight

1 kg

Mechanical characteristics

Dielectric	metallized polypropylene capacitor, selfhealing
Construction	aluminium can (folded edge)
Protection	overpressure disconnecter
Terminals	Screw terminals on plastic insulators
Impregnant	liquid impregnants, no PCB
Fire load	40MJ

outline drawing



permitted power losses during continuous operation

