Leclanché Capacitors
A FISCHER & TAUSCHE COMPANY

DATA SHEET
Capacitor for Power Electronics

Ordering code: PAM 170-40.0 cv5 (K)
Applications: AC/DC capacitor for general use in power electronics
also for nonsinusoidal voltages and currents

Standard: acc. to IEC 61071:2007

Characteristics

Rated capacitance	C_N	40	µF ±10%
Rated d.c. voltage	$U_{N\,DC}$	2800	V d.c.
Rated a.c. voltage	$U_{N\,AC}$	1700	V a.c.
Max. rms voltage (sinusoidal)	U_{rms}	1200	V
Non-recurrent surge voltage	u_s	4200	V
Rated energy	W_N	156.8	Ws
Maximum current	I_{max}	80	A
Maximum peak current	$\hat{I}$	3.9	kA
Maximum surge current	I_s	11.7	kA
Series resistance	R_s	0.65	mΩ
dielectric dissipation factor	$\tan\delta_0$	2	$x10^{-4}$
insulation strength	$C \times R_{is}$	5000	s
Self inductance	L_e	160	nH

thermal characteristics

lower category temperature	Θ_{min}	-25	℃
upper category temperature	Θ_{max}	85	℃
thermal resistance	R_{th}	2.2	K/W
storing temperature	$\Theta_{storage}$	-40..+85	℃

test parameters

test voltage between terminals	U_{TT}	4200	V DC/10s
A.C. voltage test terminals/case	U_{TC}	5000	V AC/10s

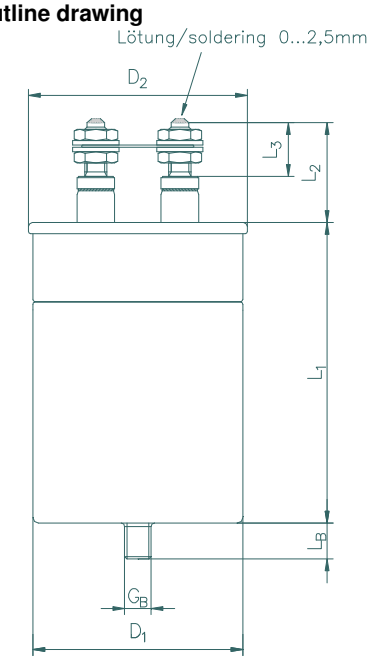
Statistical lifetime	>200000	h
Failure rate	< 100	FIT*
at $\Theta_{hotspot}$	≤70	℃

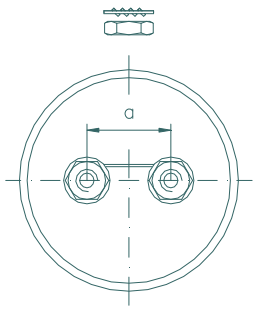
* See FIT-RATE diagram on pg.4

Dimensions

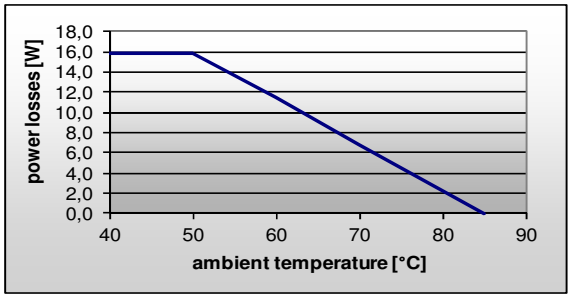
Rated diameter	D_1	116	(±1)	mm
Maximum diameter	D_2	120	(±0.5)	mm
Length of the case	L_1	176	(±2)	mm
Length of the terminals	L_2	25	(+5)	mm
Length of the terminals	L_4	-		mm
distance termials	b	-		mm
Terminal		M10 x20		mm
base mounting stud	$G_B x L_B$	M12x16	(+1)	mm
Clearance in air	L	17		mm
Creepage distance	K	20		mm
Approx weight		2		kg

outline drawing





permitted power losses during continuous operation



Mechanical characteristics

Dielectric	metallized polypropylene capacitor, selfhealing
Construction	aluminium can, flanged copper (folded edge)
Protection	without internal fuse, to be used only in uncritical environment
Terminals	Screw terminals on ceramic insulators M10
Impregnant	no liquid impregnants, filled with solidified PUR resin, non PCB
Fire load	80MJ

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