Leclanché Capacitors
Avenue de Grandson 48
1400 Yverdon-les-Bains, Switzerland

Order code: DTIC 300-1100 r (K) 15kA Peak Current

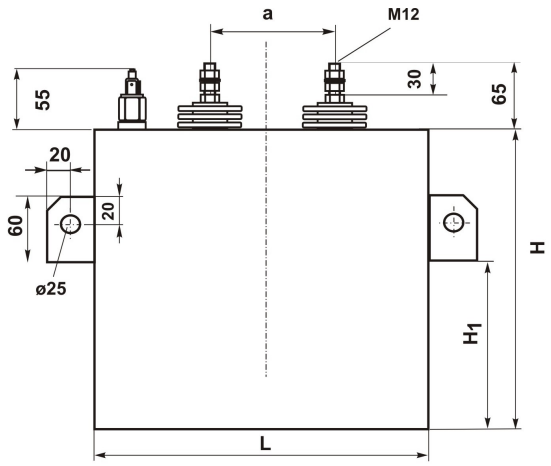
Application: MKP-DC capacitor for general use in power electronics also for nonsinusoidal voltages and currents, also for pulse operation

Standard: acc. to IEC 61071:2007

Characteristics

Rated capacitance	C_N	1000	µF -0/+20%
Rated d.c. voltage	U_N	3000	V d.c.
Ripple voltage	U_r	800	V
Insulation voltage	U_i	2200	V
Non-recurrent surge voltage	u_s	4500	V
Rated energy	W_N	5000	Ws
Maximum current	I_{max}	250	A
Maximum peak current	$\hat{I}$	15	kA
Maximum surge current	I_s	100	kA
Series resistance	R_s	0.3	mΩ
Tangent of the loss angle	$\tan\delta_o$	2	$x10^{-4}$
Self discharge time const.	$C \times R_{is}$	10000	s
Self inductance	Le ~	100	nH
Resonance frequency	f_r ~	15	kHz

outline drawing



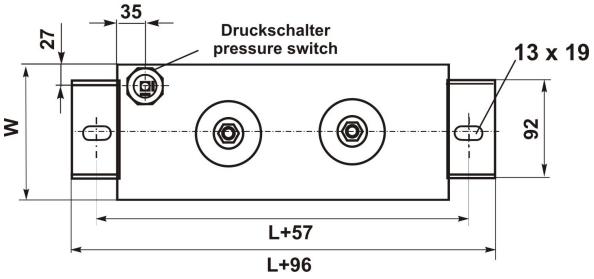
Thermal conditions

Lowest operating temperature	Θ_{min}	-25	°C
Maximum operating temperature	Θ_{max}	70	°C
Thermal resistance	R_{th}	0.6	K/W

Maximum power loss

P_{max}	at Θ_{amb}
52 W	40 °C
35 W	50 °C
17 W	60 °C
0 W	70 °C

Storage temperature	$\Theta_{storage}$	-40..+85	°C
Humidity class		C	



Failure rate		300	FIT
at $\Theta_{hotspot}$		65	°C
Reference service life		100000	h continous operation
No. of shots		$5x10^6$	pulsed operation (≤ 15kA / ΔU≤3000V , no voltage reversal)

Test data

Voltage test between terminals	U_{BB}	4500	V DC/10s
A.C. voltage test terminal/case	U_{BG}	5400	V AC/10s

Dimensions

Height of the case	**H**	450	mm
Lenght of the case	**L**	340	mm
Width of the case	**W**	140	mm
Distance of terminals	**a**	140	mm
Height of the brackets	H_1	300	mm
Clearance in air	**L**	45	mm
Creepage distance	**K**	120	mm
Approx weight		33	kg

Maximum permissible voltage
(Maximum within one day)

30% of on-load duration	3300V
30min	3450V
5min	3600V
1min	3900V
100ms (max. 1000x)	4500V

Mechanical characteristics

Dielectric	MKP-DC - metallized polypropylene capacitor, self-healing
Construction	Stainless steel case, welded, brass terminals, plastic insulators (V0 UL94)
Protection	pressure switch for monitoring of the internal pressure (opener)
Impregnant	dry type ,resin moulded (Non PCB)
Fire load	1000MJ