

**Application:** MKP-AC capacitor for general use in power electronics also for nonsinusoidal voltages and currents with low self inductance

**Standard:** acc. to IEC 61071:2007

### Characteristics

Rated capacitance	$C_N$	1000 $\mu\text{F} \pm 10\%$
Rated d.c. voltage	$U_N$	900 V d.c.
Ripple voltage	$U_r$	640 V
Insulation voltage	$U_i$	1000 V
Non-recurrent surge voltage	$u_s$	1800 V
Rated energy	$W_N$	400 Ws
Maximum current	$I_{\text{max}}$	330 A
Maximum peak current	$\hat{i}$	15 kA
Maximum surge current	$I_s$	100 kA
Series resistance	$R_s$	0.15 m $\Omega$
Dielectric loss factor	$\tan\delta_o$	$2 \times 10^{-4}$
Loss factor at 50Hz	$\tan\delta_{50\text{Hz}}$	$2.4 \times 10^{-4}$
Self discharge time const.	$C \times R_{is}$	10000 s
Self inductance	$L_e$	~ 60 nH
Resonance frequency	$f_r$	~ 21 kHz

### Thermal conditions

Lowest operating temperature	$\Theta_{\text{min}}$	-25 $^{\circ}\text{C}$
Maximum operating temperature	$\Theta_{\text{max}}$	75 $^{\circ}\text{C}$
Thermal resistance	$R_{\text{th}}$	0.5 K/W <sup>1)</sup>
Maximum power loss	$P_{\text{max}}^{\text{1)}$	at $\Theta_{\text{amb}}$
	56 W	45 $^{\circ}\text{C}$
	47 W	50 $^{\circ}\text{C}$
	28 W	60 $^{\circ}\text{C}$
	9 W	70 $^{\circ}\text{C}$
Storage temperature	$\Theta_{\text{storage}}$	-40..+85 $^{\circ}\text{C}$
Humidity class		C

### Service life

Load duration	100000 h
at $\Theta_{\text{hotspot}}$	$\leq 70^{\circ}\text{C}$
Failure quota	300 FIT

### Test data

Voltage test between terminals	$U_{\text{BB}}$	1935 V DC/10s
A.C. voltage test terminal/contai	$U_{\text{BG}}$	3000 V AC/10s

### Dimensions<sup>2)</sup>

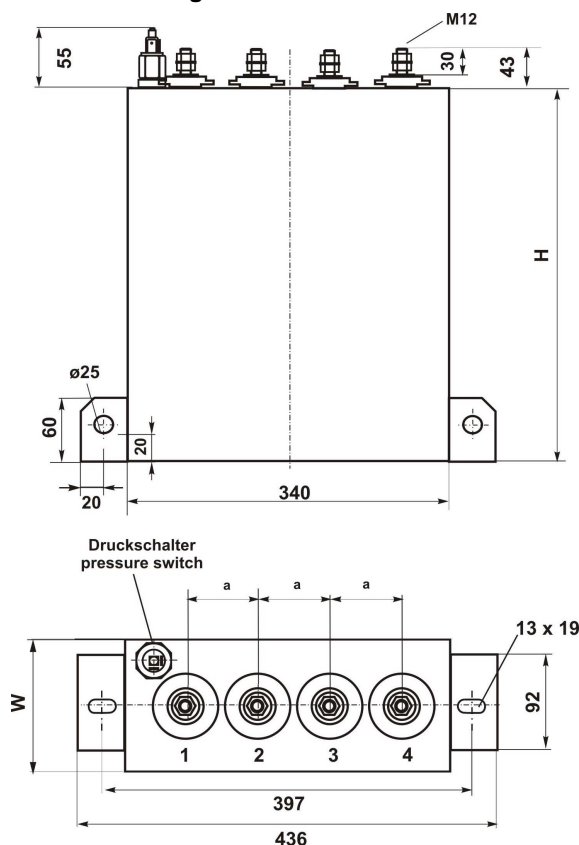
Height of the case	$H$	400 mm
Length of the case	$L$	340 mm
Width of the case	$W$	125 mm
Distance of terminals	$a$	80 mm
Clearance in air	$L$	26 mm
Creepage distance	$K$	48 mm

**Approx weight** 22 kg

### Mechanical characteristics

Construction	MKP-AC - metallized polypropylene capacitor, self-healing, metallic case
Protection	pressure switch for monitoring of the internal pressure (opener)
Impregnant	dry type ,resin moulded (Non PCB)
Fire load	630MJ

### outline drawing



### Maximum permissible voltage

(Maximum within one day)	
30% of on-load duration	990V
30min	1040V
5min	1080V
1min	1170V
100ms	1350V

1) exact values have to be determined at the type test