K50-80

ALUMINUM ELECTROLYTIC CAPACITOR

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AZHYAR. 673541.009 TU

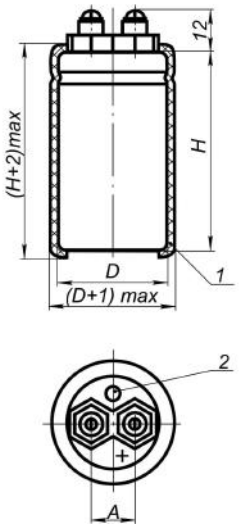
Low impedance capacitors with screw terminals. Capacitor is used for operation in direct current and ripple current circuits, secondary power sources and converter equipment. Capacitor is available in all-climate and temperate/cold climate version. Sealed; isolated.

It is recommended to use this capacitor type as substitution for capacitors K50-18, K50-32, K50-33A, K50-37 types.

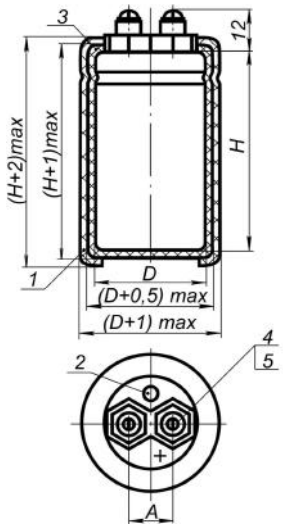
MAIN PARAMETERS

Name	Value
Rated voltage, V	16...160
Rated capacitance, μF	680...22 000
Temporary overvoltage within 10 sec., V	1.15 U_R
Capacitance tolerance (25 °C, 50 Hz), %	+30...-10
Maximum operating temperature Tenv, °C	+100
Minimal operating temperature Tenv, °C	-60

Temperate/cold climate version



All climate version



Spacing between terminals is 12.5±0.15 mm

1 – Insulating cover
2 – Explosion proof valve
3 – Paintwork
4 – Screw BM5-6g
5 – Washer 5.65

CAPACITORS OVERALL DIMENSIONS AND MASS

U_R, V	16	25	40	63	100	160
C_R, µF	DxH, mm mass, g					
680						35x55 75
1 000						35x80 110
2 200				35x55 75	35x80 110	
3 300				35x80 110		
4 700			35x55 75	35x80 110		
6 800		35x55 75	35x80 110			
10 000	35x55 75	35x80 110	35x80 110			
15 000	35x80 110					
22 000	35x80 110					

CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

C_R, µF	U_R, V	tg δ, %, 25 °C, 50 Hz, max	I_{LEAK}, µA, 25°C, after 5 min., max	Z, Ohm, 25°C, 100kHz, max	ESR, Ohm, 25°C, 100kHz, max	I_R, A, 85°C, 50 Hz, max
16	10 000	25	1 320	0.03	0.038	9.6
	15 000		1 617	0.025	0.026	12.8
	22 000		1 958	0.018	0.021	13.6
25	6 800		1 360	0.027	0.032	10.4
	10 000		1 650	0.021	0.028	12
40	4 700	20	1 431	0.028	0.033	11.2
	6 800		1 721	0.022	0.028	12.8
	10 000		2 087	0.017	0.027	15.2
63	2 200	15	1 230	0.03	0.06	7.5
	3 300		1 505	0.024	0.039	11.2
	4 700		1 796	0.02	0.031	13.6
100	2 200		1 548	0.03	0.057	9.6
160	680	10	1 089	0.048	0.092	1.9
	1 000		1 320	0.052	0.084	2.2

Ripple current effective value
versus temperature and frequency can be found from the formula $I_{RO} = I_R \times K_T \times K_F$, where

I_R – allowable ripple current at 85 °C, 50 Hz (See Table “Capacitor electric parameters”)

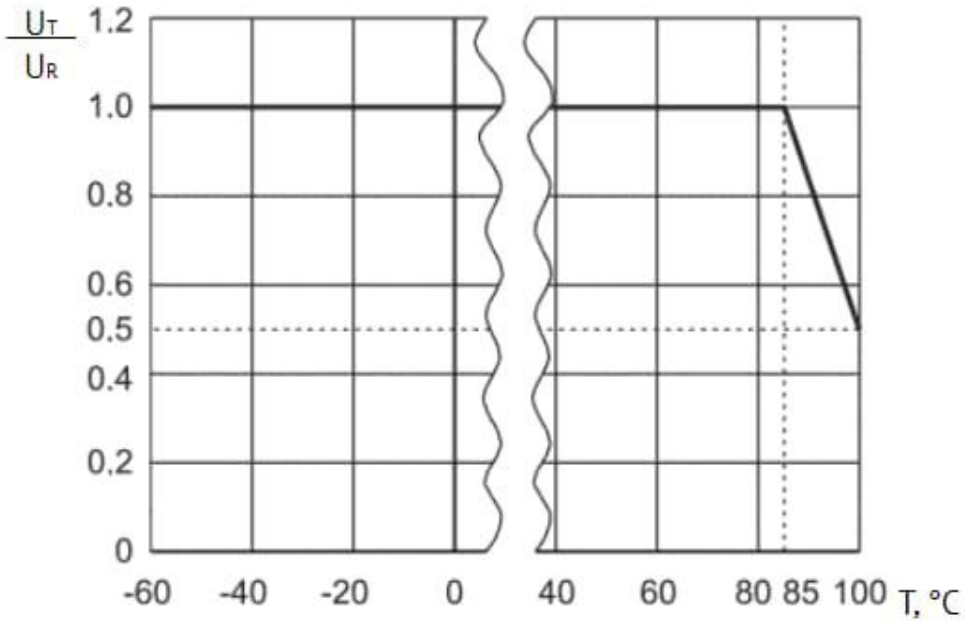
K_T - I_R CORRECTION FACTOR VERSUS TEMPERATURE

Tenv, °C	40	50	60	70	85	100
K_T	1.7	1.65	1.6	1.3	1	0.5

K_F - I_R CORRECTION FACTOR VERSUS FREQUENCY

F, Hz	50	100	200	300	400	500	1 000	≥2 000
K_F	1	1.25	1.4	1.48	1.51	1.54	1.58	1.6

VOLTAGE VERSUS TEMPERATURE



CAPACITORS RELIABILITY

Reliability Operation modes	Minimal nonfailure operating time, t_λ, hours	Capacitor failure rate, λ, 1/hour, max
Maximum-permissible mode (U_R, Tenv=85 °C)	10 000	10^{-6}
Maximum-permissible mode (0.5U_R, Tenv=100 °C)	10 000	10^{-6}
Light mode (0.6U_R, Tenv=40 °C)	100 000	10^{-7}
Storageability Gamma-rated time of capacitor storageability Tcy at y=95%, years, min	25	

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K50-80 – 63V – 3300μF (+30-10)% B AZHYAR. 673541.009 TU