

AZHYAR. 673541.010 TU



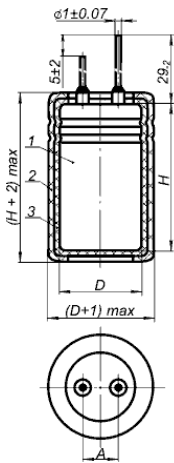
Low impedance capacitors with radial wire leads. Capacitor is used for operation in direct current and ripple current circuits, secondary power sources and converter equipment. Capacitor is available in all-climate and temperate/cold climate version. Sealed; isolated.

It is recommended to use this capacitor type as substitution for capacitors K50-15, K50-27 (the second variant), K50-29, K50-32, K50-32A, K50-33A, K50-68 types.

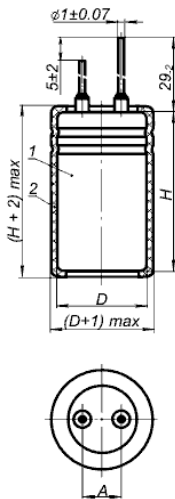
MAIN PARAMETERS

Name	Value
Rated voltage, V	16...250
Rated capacitance, μ F	47...6 800
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

All climate version



Temperate/cold climate version



A – spacing between terminals

- 1 – Case
- 2 – Isolation sleeve
- 3 – Lacquer coating

D, mm	A, mm
18	7.5±0.15
21	7.5±0.15
25	12.5±0.15

CAPACITORS OVERALL DIMENSIONS AND MASS

U _R , V	16	25	40	63	100	160	250
C _R , μF	DxH, mm mass, g						
47							18x33 16
100							18x46 26
220						25x40 33	21x60 43
330				18x28 14	18x46 26	25x48 38	25x58 48
470				18x33 16	21x60 43	25x70 52	25x80 66
680				18x46 26	25x58 48	25x95 78	
1 000			18x39 21	21x48 34	25x70 52		
2 200	18x28 14	18x39 21	21x48 34				
3 300	18x46 26	21x48 34	21x60 43				
4 700	21x48 34	21x60 38					
6 800	21x60 43						

CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

U _R , V	C _R , μF	tg δ, %, 25 °C, 50 Hz, max	I _{LEAK} , μA, 25 °C, after 5 min., max	Z, Ohm, 25 °C, 20kHz, max	ESR, Ohm, 25 °C, 100Hz, max	I _R , A, 85 °C, 50 Hz, max
16	2 200	25	375	0.15	0.16	1.65
	3 300		460	0.064	0.092	2.02
	4 700		548	0.056	0.076	2.54
	6 800		660	0.039	0.051	3.3
25	2 200	25	469	0.073	0.095	1.82
	3 300		674	0.053	0.08	2.5
	4 700		686	0.038	0.054	3.39
40	1 000	20	400	0.084	0.12	1.54
	2 200		593	0.047	0.07	2.54
	3 300		727	0.036	0.062	3.44
63	330	15	288	0.145	0.23	0.77
	470		344	0.11	0.165	1.04
	680		414	0.069	0.194	1.3
	1 000		502	0.062	0.152	1.54
100	330	15	363	0.109	0.289	1.6
	470		434	0.089	0.245	1.94
	680		522	0.055	0.14	2.42
	1 000		632	0.036	0.103	3.12
160	220	10	750	0.164	0.48	1.1
	330		919	0.106	0.334	1.37
	470		1 097	0.09	0.248	1.86
	680		1 098	0.06	0.167	2.52
250	47	10	353	0.67	1.6	0.35
	100		632	0.5	1.334	0.45
	220		938	0.227	0.626	1
	330		1 149	0.143	0.378	1.5
	470		1 371	0.102	0.24	1.87

Ripple current effective value
versus temperature and frequency can be found from the formula $I_{R0} = I_R \times K_T \times K_F$, where

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

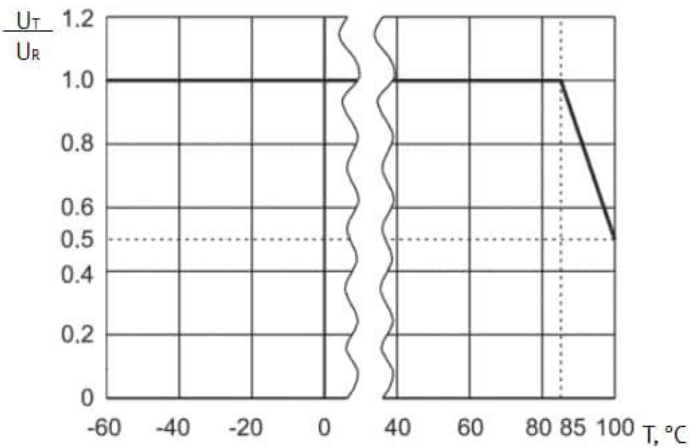
K_T - I_R CORRECTION FACTOR VERSUS TEMPERATURE

Tenv, °C	40	50	60	70	85	100
K_T	1.72	1.56	1.41	1.27	1	0.5

K_F - I_R CORRECTION FACTOR VERSUS FREQUENCY

U _R , V	F, Hz						
50	100	200	300	1 000	5 000	10 000 и более	
16...40	D = 18 mm						
	1	1.27	1.49	1.63	1.96	2.09	2.11
63	1	1.3	1.64	1.83	2.39	2.83	2.96
100...250	1	1.35	1.85	2.08	2.93	3.65	3.92
16...40	D = 21 mm						
	1	1.28	1.42	1.51	1.69	1.72	1.76
63	1	1.27	1.42	1.49	1.68	1.77	1.78
100...250	1	1.25	1.44	1.56	1.85	1.95	1.96
100...250	D = 25 mm						
	1	1.23	1.42	1.52	1.8	1.9	1.93

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 , $T_{env}=85\text{ }^{\circ}\text{C}$)	5 000	10^{-6}
Maximum-permissible mode ($0.5U_R$, $T_{env}=100\text{ }^{\circ}\text{C}$)	5 000	10^{-6}
Light mode ($0.6U_R$, $T_{env}=40\text{ }^{\circ}\text{C}$)	100 000	5×10^{-7}
Storageability Gamma-rated time of capacitor storageability T_{cy} at $y=95\%$, years, min	25	

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K50-81 – 63V – 1000 μ F (+30-10)% B AZHYAR. 673541.010 TU