

K50-90

ALUMINUM ELECTROLYTIC CAPACITOR

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AZHAR.673541.018 TU



Are highly-reliable polar, radial screw capacitors, polar sealed radial screw capacitor type in isolated and non-isolated case is used for operation in direct current and ripple current circuits, secondary power sources and converter equipment.

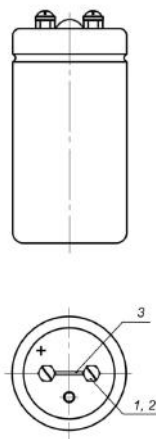
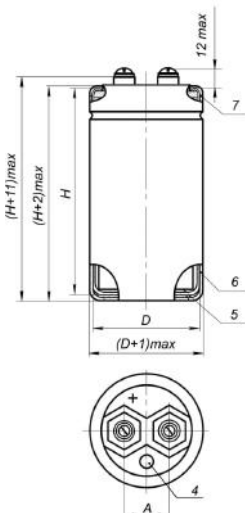
MAIN PARAMETERS

Name	Value
Rated voltage, V	250...450
Rated capacitance, μF	100...680
Temporary overvoltage within 10 sec., V	1.15 U_R ($U_R=250$) 1.1 U_R ($U_R>250$)
Capacitance tolerance (25 °C, 50 Hz), %	+50...-20; ± 20
Maximum operating temperature T_{env} , °C	+85
Minimal operating temperature T_{env} , °C	-40

CAPASITOR PHYSICAL CONFIGURATION

All climate
(Isolated)

Temperate/cold climate
version (Nonisolated)



- 1 – Screw BM5-6g
- 2 – Washer 5.65
- 3 – Jumper for discharge
- 4 – Explosion proof valve
- 5 – Insulating gasket
- 6 – Enameling
- 7 – Insulating tube

D, mm	A, mm
35	12.5
50	22

CAPACITORS RELIABILITY

Reliability Operation modes	Minimal nonfailure operating time, t_λ , hours	Capacitor failure rate, λ , 1/hour, max
Maximum-permissible mode (U_R , $T_{env}=85\text{ }^\circ\text{C}$)	10 000	10^{-5}
Light mode ($0.5U_R$, $T_{env}=60\text{ }^\circ\text{C}$)	50 000	10^{-6}
Light mode ($0.5U_R$, $T_{env}=50\text{ }^\circ\text{C}$)	100 000	10^{-7}
Storageability Gamma-rated time of capacitor storageability T_{cy} at $\gamma=99.5\%$, years, min	25	

DIMENSION SIZES AND CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

U_R , V	C_R , μF	Size DxH, mm	$\text{tg } \delta$, %, 25°C, 50 Hz, max	I_{LEAK} , μA , 25°C, after 5 min., max	Mass, g, max	Z, Ohm, 25°C, 100kHz, max	I_R , A, 85°C, 50 Hz, max																																																																																																				
250	680	35x60	25	1 379	150	0.95	0.7																																																																																																				
		50x45			120			350	150	35x40	608	85	2.30	1.2	220	35x45	794	120	1.35	1.3	330	35x50	1 053	140	0.75	1.4	470	35x60	1 348	150	1.6	50x45					400	100	35x40	504	85	5.80	1.7	150	35x45	667	120	3.10	1.8	220	35x50	871	140	1.80	1.9	330	35x60	1 156	150	1.55	2.2	50x45					470	35x80	1 480	160	0.90	2.8	50x50		185			450	100	35x45	546	120	6.55	1.3	150	35x50	724	140	3.50	1.4	220	35x60	946	150	3.40	1.6	50x45					330	35x80	1 255	160	1.75	2.0
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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

T_{env}, °C	25	40	50	60	70	85
K_T	1.43	1.37	1.31	1.25	1.17	1.0

K_F - I_r CORRECTION FACTOR VERSUS FREQUENCY

F, Hz	50	100	300	600	1 000	10 000	≥50 000
K_F	1	1.25	1.5	1.63	1.69	1.88	2.0

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K50-90 – 450V – 330µF (+50 -20)% (35×80) I AZHYAR.673541.018 TU

CAPACITOR K50-90 – 250V – 680µF ±20% (50×45) I B AZHYAR.673541.018 TU

CAPACITOR K50-90 – 450V – 220µF ±20% (50×45) AZHYAR.673541.018 TU

CAPACITOR K50-90 – 400V – 470µF ±20% (50×50) B AZHYAR.673541.018 TU