

SUPERCAPACITOR K58-28 SPECIAL PURPOSES

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AZHYAR.673623.006 TU

Commercially produced capacitors. Available to order.



APPLICATION

- ✓ Maintaining of the equipment operation when voltage depression occurs;
- ✓ Safely shutdown of machineries;
- ✓ Maintaining "a bridge" when switching between the power supplies;
- ✓ Providing high discharging current in the equipment;
- ✓ Rapid electrical energy accumulation and further providing to the grid;
- ✓ Providing temporary electricity power for equipment while operating in autonomous mode;
- ✓ As an energy storage device in difficult remote equipment;
- ✓ As an power supply in single-use system;
- ✓ To improve the operational reliability of the equipment;
- ✓ Are used together with chemical and other current sources to extend the service life;

MAIN PARAMETERS

Name	Value
Rated voltage, V	2.7
Rated capacitance, F	1; 3; 5; 10; 15; 25; 50; 100; 200
Capacitance tolerance, %	+50...-20; ±20
Maximum operating temperature Tenv, °C	65
Minimal operating temperature Tenv, °C	-50
Maximum-permissible overvoltage, V	2.85

DIMENSIONAL DRAWING OF CAPACITOR

Figure 1

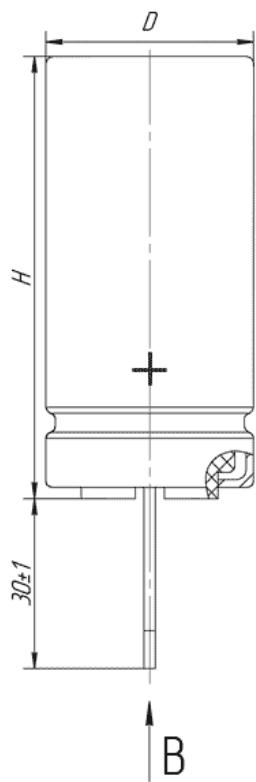
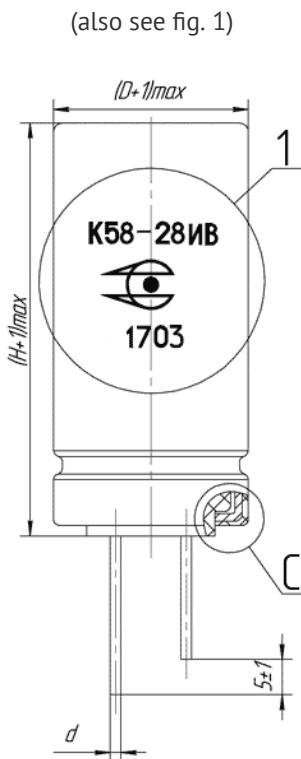
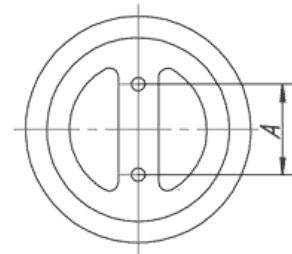


Figure 2



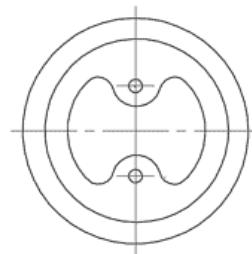
View B

(lid version 1)



View B

(lid version 2)



Д

(lid version 3)

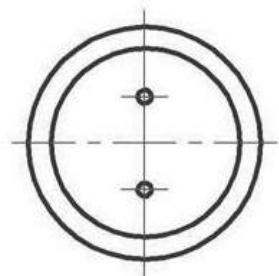


Figure 3

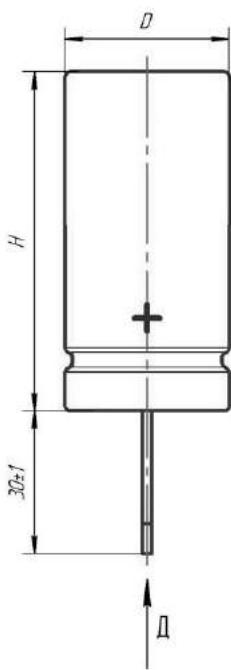


Figure 4

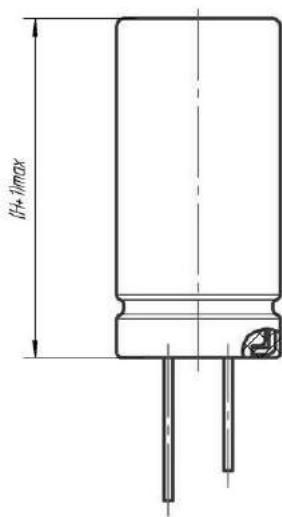
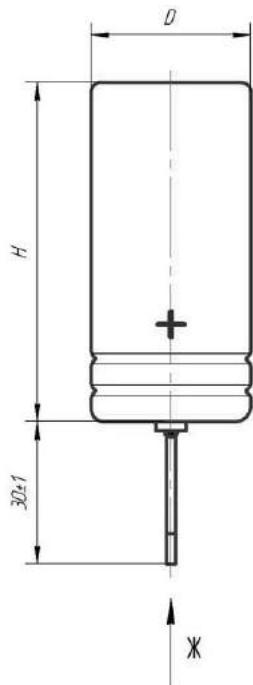
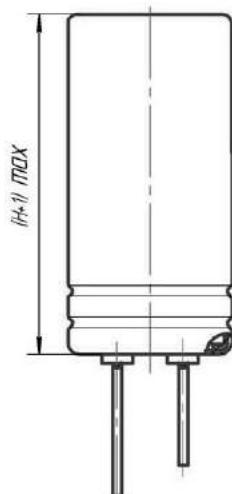
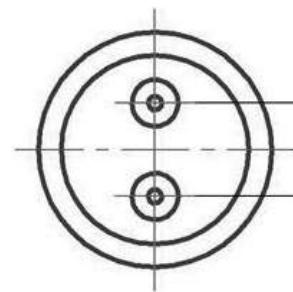


Figure 5**Figure 6**

(also see fig. 2)



X



CAPACITORS OVERALL DIMENSIONS AND MASS

U _R , V	C _R , F	Size DxH, mm	d, mm	A, mm	Mass, g	Lid version	Figure
2.7	1	6.3x14	0.6	2.3	2.5	2	1, 2, 3, 4
2.7	1	8x13	0.6	3.5	2.5	2, 3	1, 2, 3, 4
2.7	3	8x20	0.6	3.5	3.5	2, 3	1, 2, 3, 4
2.7	5	10x20	0.6	5	4.5	1	1, 2, 3, 4
2.7	10	10x30	0.6	5	6.5	1	1, 2, 3, 4
2.7	15	12.5x25	0.6	5	10.5	1	1, 2, 3, 4
2.7	25	16x25	0.8	7.5	15	1, 3	1, 2, 3, 4
2.7	50	18x40	0.8	7.5	25	1, 3	1, 2, 3, 4
2.7	100	20x40	0.8	10	45	1, 3	1, 2, 3, 4
2.7	200	25x60	1	15	90	-	5, 6

CASE PROTECTION

Climatic version	Lacquer coating	Jacketing with insulating tube	Design variant
Capacitors are intended for internal wiring with resistance to high humidity of 98% at the temperature 25°C	-	-	1, 3, 5
Capacitors are intended for internal wiring with resistance to high humidity of 98% at the temperature 25°C	-	+	2, 4, 6
Capacitors are intended for internal wiring with resistance to high humidity of 98% at the temperature 35°C	+	-	2, 4, 6
Capacitors are intended for internal wiring with resistance to high humidity of 98% at the temperature 35°C	+	+	2, 4, 6

CAPACITOR ELECTRIC PARAMETERS VALUE

U _R , V	C _R , F	Size DxH, mm	I _{LEAK} , μA T=25°C, 72h	E _{SR} _{DC} , MOhm T=25°C	Maximum charging and discharging current, A (discharge within 1sec. from U _R to ½U _R)	Stored energy, Wh	Specific stored energy, Wh/kg	Specific output, W/kg
2.7	1	6.3x14	10	200	0.55	0.001	0.46	1988.18
2.7	1	8x13	10	200	0.55	0.001	0.41	1749.60
2.7	3	8x20	10	55	1.7	0.003	0.87	4544.42
2.7	5	10x20	15	45	2.85	0.005	1.13	4320
2.7	10	10x30	25	35	5.15	0.010	1.56	3845.27
2.7	15	12.5x25	40	41	7	0.015	1.45	2032.06
2.7	25	16x25	65	27	10.35	0.025	1.69	2160
2.7	50	18x40	160	16	18.5	0.051	2.03	2187
2.7	100	20x40	200	15	32.5	0.101	2.25	1296
2.7	200	25x60	700	12	35	0.203	2.25	810

CAPACITORS RELIABILITY

Reliability Operation modes	t _λ , hours	t _λ , cycles	λ, 1/hour, max
Maximum-permissible mode (U _R , T _{env} =65°C)	1 500		5x10 ⁻⁵
Maximum-permissible mode (charge to U _R , discharge to ½U _R , T _{env} =65°C)		30 000	3x10 ⁻⁶
Typical operating mode (U _R , T _{env} =25°C)	30 000		3x10 ⁻⁶
Typical operating mode (charge to U _R , discharge to ½U _R , T _{env} =25 °C)		500 000	3x10 ⁻⁷

Gamma-rated time of capacitor storageability T_{CY} at y=95%, 25 years

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K58-27 – 2.7V – 1F (+50-20)% (6.3×14) AZHYAR.673623.006 TU

CAPACITOR K58-27 – 2.7V – 1F (+50-20)% – (8×13) – I AZHYAR.673623.006 TU

CAPACITOR K58-27 – 2.7V – 25F (+50-20)% – (16×25) – B AZHYAR.673623.006 TU

CAPACITOR K58-27 – 2.7V – 200F ±20% – (25×60) – IB AZHYAR.673623.006 TU