DC-Support Capacitor

C56

Characteristics

- Polypropylene film dielectric
- Plastic shell packaging, dry resin perfusion
- Copper nut /screw elicited, large capacity, small size, easy installation
- High ripple current, high dV/dt withstand capacity
- Esistance to high voltage, with self-healing

Application

- Widely used in of DC-link ciruit for energy storage.
- Can replace electrolytic capacitors, better performance and longer life.
- Pv inverter, wind power converter, All kinds of frequency converter and inverter power supply; Pure electric and hybrid cars; SVG,SVC devices and other kinds of power quality management.

Technical Data

Reference Standards	GB/T 17702 IEC 61071
Operating Temperature Range	-40°C～+85°C
Capacitance Range	20μF～750μF
Rated Voltage	700VDC～1800VDC
Capacity Tolerance	±5%(J); ±10%(K)
Test voltage between electrodes	$1.5U_N$(DC) 60S 25°C±5°C
Test voltage between electrode and case	$1000+2\times U_N/\sqrt{2}$(VAC) 50Hz 60S (min 3000VAC)
Dissipation Factor	tgδ≤2×10-3 at 25°C±5°C, 1KHz
Insulation Resistance	C•R≥5000S, at 100VDC, 25°C±5°C, 60S
Life Expectancy	100000h at U_N and ≤70°C

Overvoltage Operation

$1.1\times U_N$	30% of on-load-dur.
$1.15\times U_N$	30 min/day
$1.2\times U_N$	5 min/day
$1.3\times U_N$	1min/day
$1.5\times U_N$	100ms every time, no more than 1000 times during the lifetime

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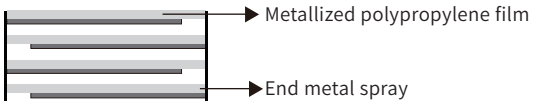
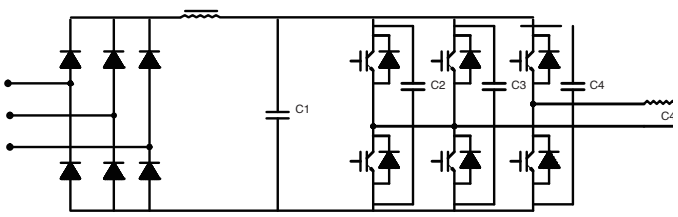
Construction Diagram

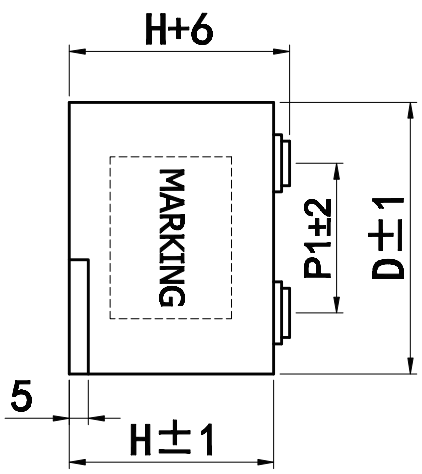


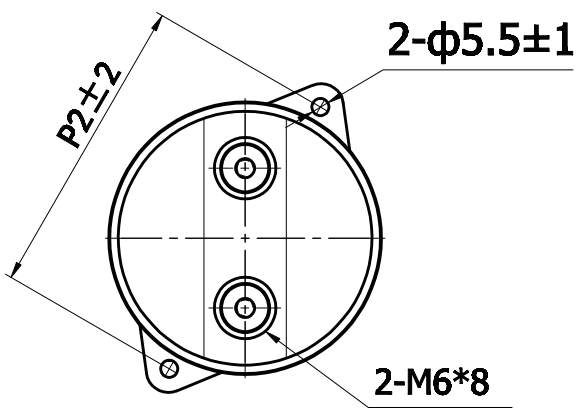
Typical Circuit



C1 stands for the AC Support Capacitor C56
in the main circuit diagram of three-phase inverter

Product Shape





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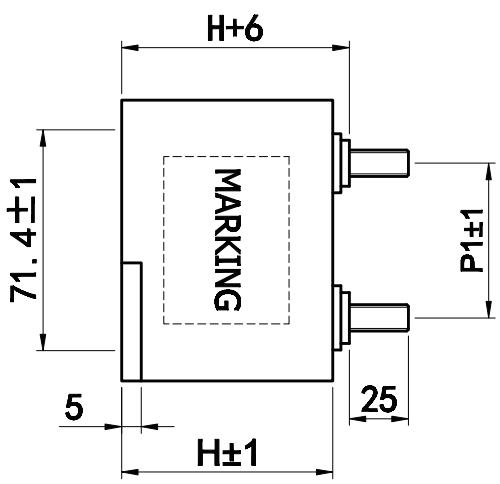

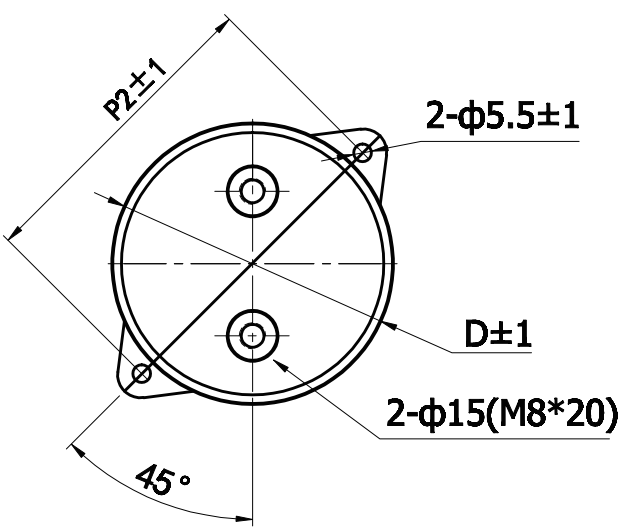

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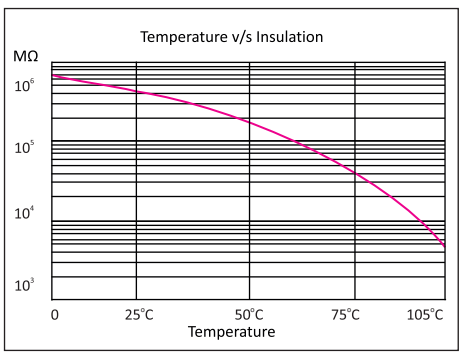
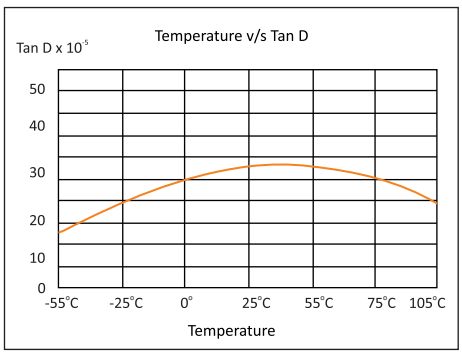
Product Coding

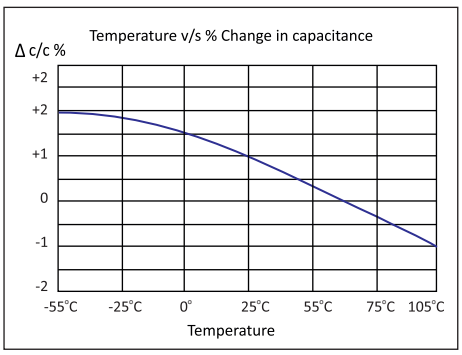
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
C	5	6	X	X	N	X	X	N	□	□	□	□	–	□	□

- 01 02 03: Product model
- 04 05 06: Rated voltage — XX*10^n (V)
- 07 08 09: Nominal capacity — XX*10^n (pF)
- 10: Capacity deviation
  - J ±5%
  - K ±10%
- 11: Extraction electrode
  - F -Nut
  - M -Bolt
  - W- UL Wire
  - R- 3C Wire
- 12 13: 引线型号 Lead wire type
- 14 15 16: Serial number — 01、02…

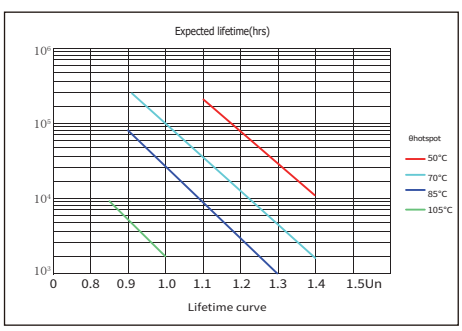
Frequency Characteristics







Life Expectancy



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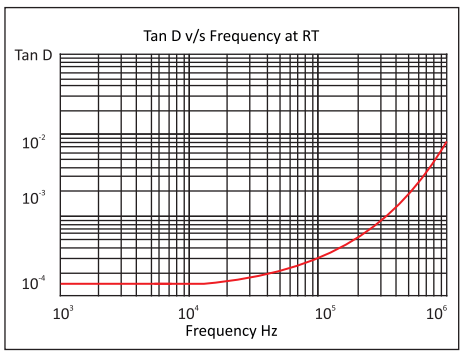
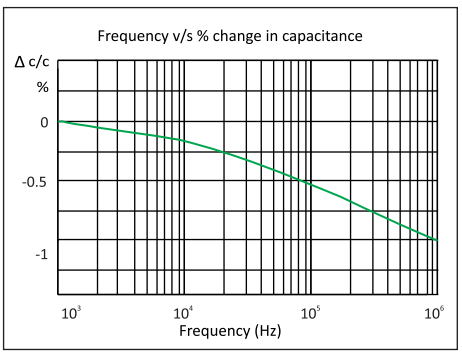
Temperature Characteristics





Article Table

Part Number	CAP μF	Dimension（mm） L	Dimension（mm） D	dv/dt (V/μs)	Ipeak (A)	Irms @100KHz50℃ (A)	ESL (nH)	ESR @10KHz20℃ (mΩ)	Output
U_N 700VDC									
C56701157K•••••	150	51	85	35	5250	85	0.4	＜30	M6
C56701247K•••••	240	65	85	23	5520	60	1	＜40	M6
U_N 900VDC									
C56901107K•••••	100	51	85	45	4500	75	0.55	＜30	M6
C56901157K•••••	150	65	85	30	4500	55	1.1	＜40	M6
U_N 1000VDC									
C56102806K•••••	80	51	85	50	4000	70	0.6	＜30	M6
U_N 1100VDC									
C56112706K•••••	70	51	85	55	3850	70	0.65	＜30	M6
C56112106K•••••	100	65	85	36	3600	50	1.3	＜40	M6
U_N 1250VDC									
C561252506K•••••	50	51	85	**65**	3250	65	0.75	＜30	M6
C561252756K•••••	75	65	85	40	3000	45	1.5	＜40	M6
U_N 1450VDC									
C561452406K•••••	40	51	85	70	2800	60	0.8	＜30	M8
C561452506K•••••	50	65	85	48	2400	45	1.6	＜40	M6
U_N 1800VDC									
C56182256K•••••	25	51	85	90	2250	55	1	＜30	M8
C56182356K•••••	35	65	85	60	2100	40	2	＜40	M8

The above table / graphics are for reference only, subject to the actual product (unit: mm)

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