

GLASS TUBULAR HIGH-VOLTAGE PAPER / POLYESTER DIFILM® CAPACITORS

TYPE 205P



FEATURES

- Glass case
- 2,000 VDC to 10,000 VDC
- Two temperature ranges
- Long leakage path
- High altitude stability
- Similar parts approved to MIL-PRF-19978 / 02

MAJOR APPLICATIONS:

High voltage applications both at high altitude, and ground level. Power supplies, induction heating equipment, electrostatic precipitators, as well as coupling and bypass applications.

PHYSICAL CHARACTERISTICS

CONSTRUCTION:

Dielectric-paper / polyester, electrode-aluminum foil either extended or laid in tab. Impregnated with vitamin Q.

CASE:

Heavy wall tempered glass. Metal ferrules are bonded to the end of the glass and metal end caps are soldered to the ferrules to make a hermetically sealed assembly.

LEAD / TERMINALS:

Tubes with a diameter of 0.53 inches have 20 AWG leads. Larger tube diameters have 8-32 studs on both ends.

LEAD PULL: 5 lbs (2.3 kg) for one minute. No physical damage.

LEAD BEND: After three complete consecutive bends. No damage.

MARKING: Dearborn trademark, type or catalog number, capacitance, and voltage.

ELECTRICAL SPECIFICATIONS

CAPACITANCE RANGE: 0.001 μ F to 0.5 μ F

VOLTAGE RATING: 2,000 VDC to 10,000 VDC

CAPACITANCE TOLERANCE: $\pm 20\%$, $\pm 10\%$

OPERATING TEMPERATURE: -55°C to $+85^{\circ}\text{C}$ or -55°C to $+125^{\circ}\text{C}$

DISSIPATION FACTOR: 1.0% maximum

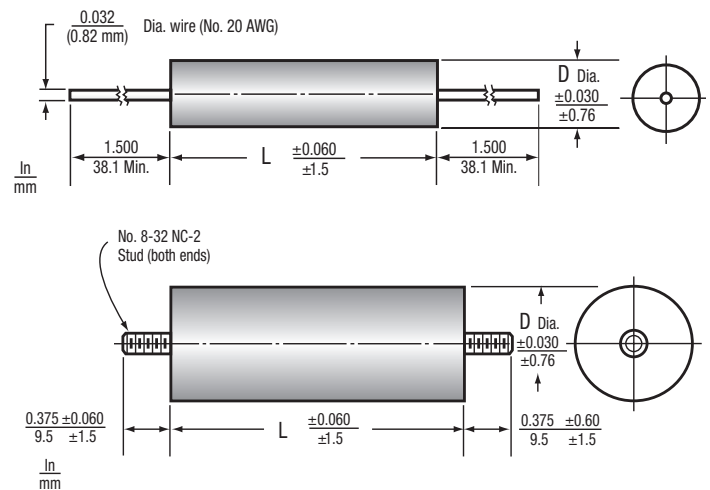
DC VOLTAGE TEST: 175% of rated voltage for 1 minute

INSULATION RESISTANCE:

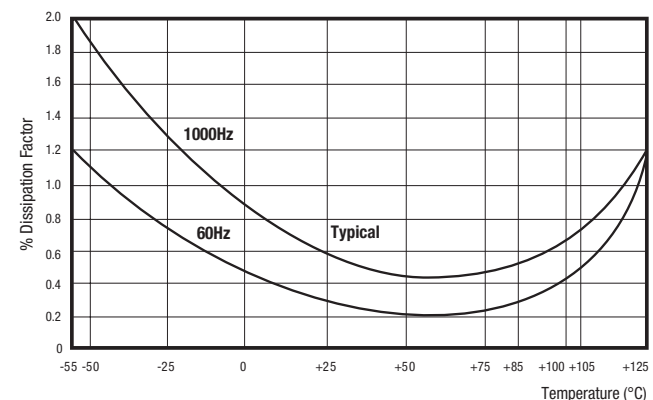
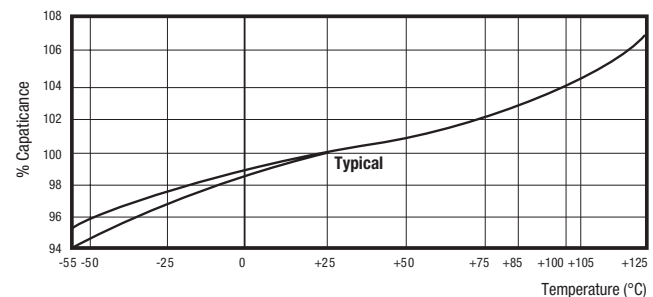
Measure at 500 VDC after a 2 minute charge.

- At $+25^{\circ}\text{C}$, 20,000 Megaohm-Microfarads, need not exceed 100,000 Megaohms
- At $+85^{\circ}\text{C}$, 300 Megaohm-Microfarads, need not exceed 2,000 Megaohms
- At $+125^{\circ}\text{C}$, 20 Megaohm-Microfarads, need not exceed 250 Megaohms

DIMENSIONS (in inches / mm)



ELECTRICAL CHARACTERISTICS VS. TEMPERATURE



GLASS TUBULAR HIGH-VOLTAGE PAPER / POLYESTER DIFILM® CAPACITORS

STANDARD RATINGS

	STANDARD RATINGS FOR +85°C OPERATION			STANDARD RATINGS FOR +125°C OPERATION		
μF	Catalog Number	Inches		Catalog Number	Inches	
		D	L		D	L
2,000 VDC						
0.001	-	-	-	205P102X92K0SK	0.53	1.19
0.002	-	-	-	205P202X92K0SK	0.53	1.19
0.005	-	-	-	205P502X92K0SK	0.53	1.19
0.01	-	-	-	205P103X92K0SK	0.53	1.19
0.02	205P203X92K0SE	0.53	1.56	205P203X92K0LK	0.63	1.56
0.05	205P503X92K0LE	0.75	1.75	205P503X92K0LK	0.75	2.25
0.10	205P104X92K0LE	0.75	2.25	205P104X92K0LK	1.03	2.25
0.25	205P254X92K0LE	1.03	2.75	205P254X92K0LK	1.34	3.50
0.50	205P504X92K0LE	1.34	2.75	-	-	-
3,000 VDC						
0.001	-	-	-	205P102X93K0SK	0.53	1.19
0.002	-	-	-	205P202X92K0SK	0.53	1.19
0.005	205P502X92K0SE	0.53	1.19	205P502X92K0SK	0.53	1.56
0.01	205P103X92K0SE	0.53	1.56	205P103X93K0LK	0.63	1.56
0.02	205P203X92K0LE	0.63	2.25	205P203X93K0LK	0.75	1.75
0.05	205P503X92K0LE	0.75	2.25	205P503X93K0LK	1.03	2.25
0.10	205P104X92K0LE	1.03	2.25	205P104X93K0LK	1.34	2.75
0.25	205P254X93K0LE	1.34	2.75	-	-	-
4,000 VDC						
0.001	205P102X94K0SE	0.53	1.19	205P102X94K0SK	0.53	1.56
0.002	205P202X94K0SE	0.53	1.19	205P202X94K0SK	0.53	1.56
0.005	205P502X94K0SE	0.53	1.56	205P502X94K0LK	0.63	1.56
0.01	205P103X94K0LE	0.63	1.56	205P103X94K0LK	0.75	1.75
0.02	205P203X94K0LE	0.75	1.75	205P203X94K0LK	0.75	2.25
0.05	205P503X94K0LE	0.87	2.25	205P503X94K0LK	1.34	2.75
0.10	205P104X94K0LE	1.03	2.75	205P104X94K0LK	1.34	2.75
0.25	205P254X94K0LE	1.34	3.50	-	-	-
5,000 VDC						
0.001	-	-	-	205P102X95K0SK	0.53	1.56
0.002	-	-	-	205P202X95K0SK	0.53	1.56
0.005	205P502X95K0SE	0.53	1.56	205P502X95K0LK	0.63	1.56
0.01	205P103X95K0LE	0.63	1.56	205P103X95K0LK	0.75	1.75
0.02	205P203X95K0LE	0.75	1.75	205P203X95K0LK	0.87	2.75
0.05	205P503X95K0LE	0.87	2.25	205P503X95K0LK	1.34	2.25
0.10	205P104X95K0LE	1.03	2.75	205P104X95K0LK	1.34	3.50
7,500 VDC						
0.001	205P102X97K5LE	0.63	2.25	205P102X97K5LK	0.63	2.25
0.002	205P202X97K5LE	0.63	2.25	205P202X97K5LK	0.75	1.75
0.005	205P502X97K5LE	0.75	1.75	205P502X97K5LK	0.75	2.25
0.01	205P103X97K5LE	0.75	2.25	205P103X97K5LK	0.87	2.25
0.02	205P203X97K5LE	1.03	2.75	205P203X97K5LK	1.34	2.75
0.03	-	-	-	205P303X97K5LK	1.34	2.75
0.05	205P503X97K5LE	1.34	2.75	205P503X97K5LK	1.34	4.25
0.10	205P104X97K5LE	1.34	3.50	-	-	-
10,000 VDC						
0.0001	-	-	-	205P101X910KLK	0.63	2.25
0.0002	-	-	-	205P201X910KLK	0.63	2.25
0.0005	-	-	-	205P501X910KLK	0.63	2.25
0.001	205P102X910KLE	0.63	2.25	205P102X910KLK	0.75	2.25
0.002	205P202X910KLE	0.63	2.25	205P202X910KLK	0.87	2.25
0.005	205P502X910KLE	0.75	2.25	205P502X910KLK	1.03	2.75
0.01	205P103X910KLE	1.03	2.75	205P103X910KLK	1.34	2.75
0.02	205P203X910KLE	1.34	2.75	205P203X910KLK	1.34	4.25
0.05	205P503X910KLE	1.34	4.25	-	-	-

The catalog numbers given are for capacitance tolerance of $\pm 10\%$. To specify $\pm 20\%$ tolerance, change X9 to X0.