

Type 450C 105 °C Ultra-Ripple, Long-life, Inverter Grade, Radial Leaded

The Ultimate in Ripple for Plug-in



Type 450C is the 105 °C version of the Type 420C Inverter Grade capacitor, and it is the PC-mount version of the Type 550C. It delivers the ripple-current capability and exceptional life needed for motor-drive and inverter bus capacitors. It is a significantly better value than comparable 105 °C snap-in capacitors. The extended cathode foil of the 450C assures cool operation and heat flow from the capacitor element to the can in all orientations.

Highlights

- Better value than large 105 °C snap-in capacitors
- Especially for motor drives and UPS systems
- ESRs to 6.9 mΩ
- Printed-circuit mounting
- Thermal-Pak™ extended cathode construction

RoHS Compliant

Specifications

Operating Temperature:	-40 °C to 105 °C
Rated Voltage:	100 to 500 Vdc
Capacitance:	150 μF to 24,000 μF ± 20%
DC Leakage Current:	≤ 3 √CV μA, 4 mA max, 5 minutes
Cold Impedance:	20 °C multiple of 25 °C Z ≤ 3
Ripple Current Multipliers:	Ambient Temperature

45 °C	55 °C	65 °C	75 °C	85 °C	95 °C	105 °C
1.66	1.52	1.37	1.20	1.00	0.75	0.36

Frequency

	50 Hz	60 Hz	120 Hz	360 Hz	1 kHz	5 kHz	10 kHz
1 3/8" & 1 3/4" Diameters							
100 to 350 V	0.91	0.93	1.00	1.06	1.08	1.09	1.09
400 to 500 V	0.82	0.86	1.00	1.14	1.20	1.23	1.23
2" Diameters							
100 to 350 V	0.92	0.94	1.00	1.05	1.07	1.08	1.08
400 to 500 V	0.82	0.86	1.00	1.14	1.20	1.23	1.27

EIA Ripple Life: 5000 h at 85 °C per EIA IS-749 with 85 °C ripple current

Δ Capacitance ± 20%
ESR 200 % of limit
DCL 100 % of limit

Life Test: 10,000 h at 105 °C with rated voltage

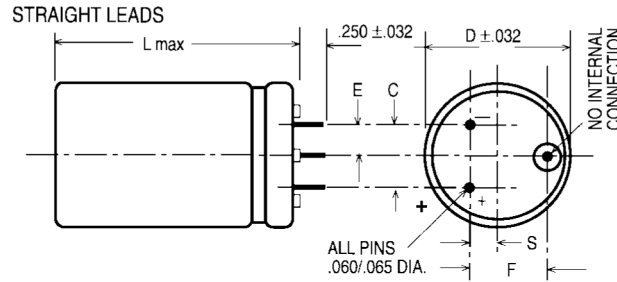
Δ Capacitance ± 10%
ESR 200 % of limit
DCL 100 % of limit

Shelf Life Test: 500 h at 105 °C. Capacitance, ESR and DCL meet initial requirements

Vibration: 10 to 55 Hz, 0.06" and 10 g max, 2 h each plane

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Outline Drawings



Case Dimensions

Case Code	Inches						Millimeters					
	D ±.031	L MAX	C ±.015	S ±.031	E ±.031	F ±.015	D ±.78	L MAX	C ±.78	S ±.78	E ±.78	F ±.38
AK	1.375	1.75	0.50	0.175	0.25	0.55	34.93	44.45	12.70	4.45	6.35	13.97
AA	1.375	2.25	0.50	0.175	0.25	0.55	34.93	57.15	12.70	4.45	6.35	13.97
AH	1.375	2.75	0.50	0.175	0.25	0.55	34.98	69.85	12.70	4.45	6.35	13.97
AB	1.375	3.25	0.50	0.175	0.25	0.55	34.93	82.55	12.70	4.45	6.35	13.97
AJ	1.375	3.75	0.50	0.175	0.25	0.55	34.93	95.25	12.70	4.45	6.35	13.97
AC	1.375	4.25	0.50	0.175	0.25	0.55	34.93	107.95	12.70	4.45	6.35	13.97
AD	1.375	4.75	0.50	0.175	0.25	0.55	34.93	120.65	12.70	4.45	6.35	13.97
AE	1.375	5.25	0.50	0.175	0.25	0.55	34.93	133.35	12.70	4.45	6.35	13.97
AF	1.375	5.75	0.50	0.175	0.25	0.55	34.93	146.05	12.70	4.45	6.35	13.97
EA	1.75	2.25	0.70	0.375	0.35	0.90	44.45	57.15	17.78	9.53	8.89	22.86
EH	1.75	2.75	0.70	0.375	0.35	0.90	44.45	69.85	17.78	9.53	8.89	22.86
EB	1.75	3.25	0.70	0.375	0.35	0.90	44.45	82.55	17.78	9.53	8.89	22.86
EJ	1.75	3.75	0.70	0.375	0.35	0.90	44.45	95.25	17.78	9.53	8.89	22.86
EC	1.75	4.25	0.70	0.375	0.35	0.90	44.45	107.95	17.78	9.53	8.89	22.86
ED	1.75	4.75	0.70	0.375	0.35	0.90	44.45	120.65	17.78	9.53	8.89	22.86
EE	1.75	5.25	0.70	0.375	0.35	0.90	44.45	133.35	17.78	9.53	8.89	22.86
EF	1.75	5.75	0.70	0.375	0.35	0.90	44.45	146.05	17.78	9.53	8.89	22.86
BA	2.00	2.25	0.80	0.425	0.40	1.00	50.80	57.15	20.32	10.80	10.16	25.40
BH	2.00	2.75	0.80	0.425	0.40	1.00	50.80	69.85	20.32	10.80	10.16	25.40
BB	2.00	3.25	0.80	0.425	0.40	1.00	50.80	82.55	20.32	10.80	10.16	25.40
BJ	2.00	3.75	0.80	0.425	0.40	1.00	50.80	95.25	20.32	10.80	10.16	25.40
BC	2.00	4.25	0.80	0.425	0.40	1.00	50.80	107.95	20.32	10.80	10.16	25.40
BD	2.00	4.75	0.80	0.425	0.40	1.00	50.80	120.65	20.32	10.80	10.16	25.40
BE	2.00	5.25	0.80	0.425	0.40	1.00	50.80	133.25	20.32	10.80	10.16	25.40
BF	2.00	5.75	0.80	0.425	0.40	1.00	50.80	146.05	20.32	10.80	10.16	25.40

Part Numbering System

450C	222	M	100	AK	8	
Type	Capacitance	Tolerance	Voltage	Case Code	Insulation	Terminal
	222 = 2200 μF 151 = 150 μF	M = ±20% T = -10% +50% U = -10% +75%	100 = 100 V 450 = 450 V		0 = Bare can 8 = PVC and Standoffs 9 = Polyester and Standoffs	(blank) = Straight Leads

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