



Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: B32330/B32332 – Super Motor Cap™, 420 V, 450 V
Ordering code: B32330/B32332
Date: January 2010
Version: 4

Construction

- Dielectric: polypropylene film
- Aluminum can
- Soft polyurethane resin

Features

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection device
- Highest safety level P2 to IEC 60252-1 2001-02
- High insulation resistance
- UL approval **CSA US**, VDE, TÜV, CQC

Typical applications

- For general sine wave applications, mainly as motor run capacitor

Terminals

- B32330 – single fast-on: 6.3 × 0.8 mm
- B32332 – double fast-on: 6.3 × 0.8 mm

Mounting parts

- Threaded stud at bottom of can (M8, max. torque = 5 Nm) as option




Technical data and specifications

Reference standards	IEC 60252-1 2001-02 / EN 60252 2001 UL 810	
Safety class to IEC 60252-1 2001-02	P2	
Life expectancy to IEC 60252 2001	420 V: 10000 h (class B) 450 V: 10000 h (class B)	
Rated capacitance C _R	See dimensions table	
Tolerance	±5%	
Rated voltage V _R	420 V, 450 V	
Rated frequency f _R	50/60 Hz	

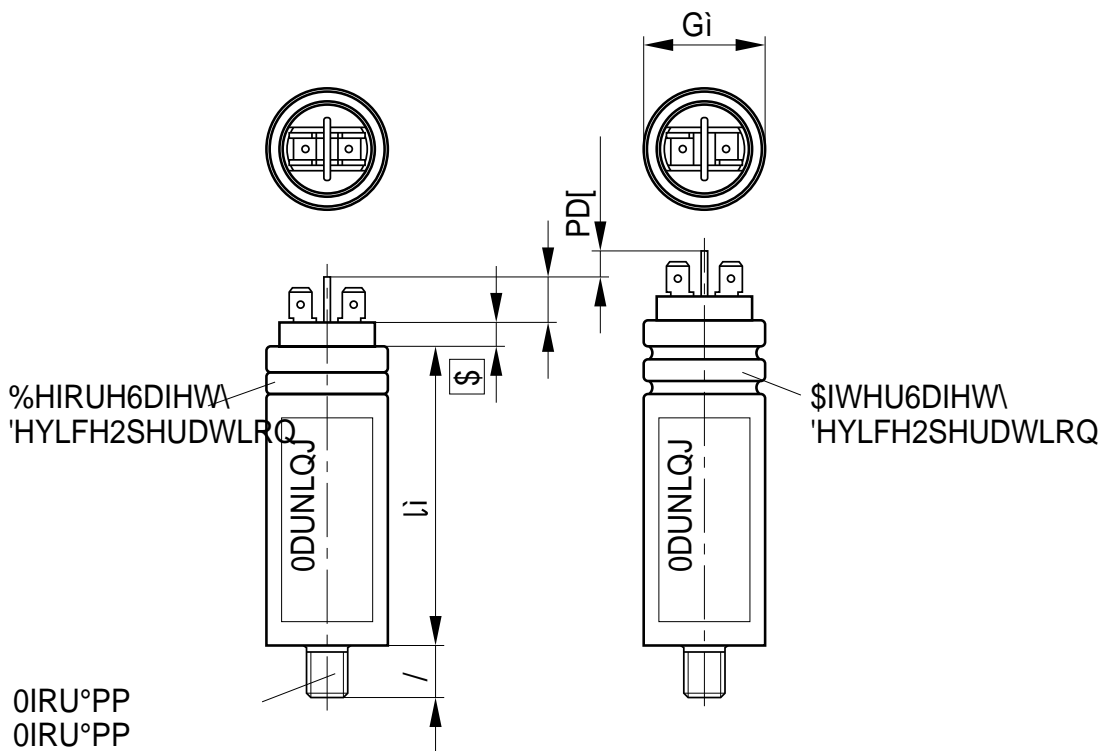
Maximum ratings

Maximum permissible voltage V _{max}	1.1 · V _R	(V _R = Rated voltage)
Maximum permissible current I _{max}	1.3 · I _R	(I _R = Rated current)


Test data	
AC test voltage terminal to terminal V_{TT}	2 · V_R , 2 s (routine test) 2 · V_R , 60 s (type test)
Insulation voltage terminals to case	2000 V AC, 60 s (type test) 2000 V AC, 2 s (routine test)
Insulation resistance R_{ins} or time constant τ at 20 °C, rel. Humidity $\leq 65\%$ (minimum as-delivered values)	3000 s
Dissipation factor $\tan \delta$ at 20 °C	$\leq 1.0 \cdot 10^{-3}$ (120 Hz)
Maximum rate of voltage rise dV/dt_{max}	10 V/ μ s
Climatic data	
Climatic category	25/085/21 to IEC 60068-1
Lower category T_{min}	-25 °C
Upper category T_{max}	+85 °C
Damp heat test t_{test}	21 days
Mechanical and thermal properties of terminal top disk material	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125°C
Top disk material	
Option A: <ul style="list-style-type: none"> ■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-1/1 Test temperature 550 °C for $I_R \leq 0.5$ A Test temperature 850 °C for $I_R > 0.5$ A 	Self-extinguish within 30 seconds of withdrawing glow wire
Option B: <ul style="list-style-type: none"> ■ UL 94 V2/V0 compatible ■ Glow wire test to IEC60335-1 / IEC 60695-2-1/1 Test temperature 550 °C / 750 °C ■ Part is compatible to EN 60335-1 	Self-extinguish within 2 seconds of withdrawing glow wire
Tracking test to IEC 60112 solution A	> 250 V
Compatibility to RoHS	
Compliance to directive 2002/95/EC	

Approvals	
UL UL 810 files E106388 See table for approved ratings	Approved Component 10000 AFC protected
VDE 420 V/85 °C: 10000 h (class B) See table for approved ratings	Approved
TÜV 450 V/70 °C: 10000 h (class B) See table for approved ratings	Approved
CQC 420 V/85 °C: 10000 h (class B)	Approval on request

Dimensional drawings B32330/B32332



 \$FFRUGLQJWR',1\$

 \$FFRUGLQJWR',1 .0.\$(

M8 bolt: L = 12 mm

M12 bolt: L = 16 mm

A = 5 mm for diameters d = 30, 35, 40, 45 mm

A = 0 mm for diameters d = 50, 53, 63.5 mm



Ordering codes and packing units

V _R V AC	C _R μF	Dimensions d × l mm	Ordering code (composition see below)	Packing units	VDE/TÜV	Approvals	
						UL	CQC
420 / 450	1.0	25 × 52	B3233+I5105J0*2	49	X		X
	1.5	25 × 52	B3233+I5105J5*2	49	X		X
	2.0	30 × 52	B3233+I5205J0*2	49	X		X
	2.5	30 × 52	B3233+I5255J0*2	49	X		X
	3.0	30 × 52	B3233+I5305J0*2	49	X		X
	3.0	30 × 68	B3233+I5305J0*1	49	X	X	X
	3.5	30 × 52	B3233+I5355J0*2	49	X		X
	3.5	30 × 68	B3233+I5355J0*1	49	X	X	X
	4.0	30 × 52	B3233+I5405J0*2	49	X		X
	4.0	30 × 68	B3233+I5405J0*1	49	X	X	X
	5.0	30 × 52	B3233+I5505J0*2	49	X		X
	5.0	30 × 68	B3233+I5505J0*1	49	X	X	X
	6.0	30 × 52	B3233+I5605J0*2	49	X		X
	6.0	30 × 68	B3233+I5605J0*1	49	X	X	X
	7.0	30 × 52	B3233+I5705J0*2	49	X		X
	7.0	30 × 68	B3233+I5705J0*1	49	X	X	X
	8.0	30 × 68	B3233+I5805J0*1	49	X	X	X
	10.0	30 × 68	B3233+I5106J0*1	49	X	X	X
	12.0	30 × 78	B3233+I5126J0*1	49	X	X	X
	15.0	30 × 78	B3233+I5156J0*1	49	X	X	X
	16.0	30 × 78	B3233+I5166J0*1	49	X	X	X
	18.0	35 × 78	B3233+I5186J0*1	36	X	X	X
	18.0	30 × 93	B3233+I5186J0*2	49	X	X	X
	20.0	35 × 78	B3233+I5206J0*1	36	X	X	X
	20.0	30 × 93	B3233+I5206J0*2	49	X	X	X
	22.0	35 × 78	B3233+I5226J0*1	36	X	X	X
	22.0	30 × 93	B3233+I5226J0*2	49	X	X	X
	25.0	40 × 78	B3233+I5256J0*1	36	X	X	X
	25.0	35 × 93	B3233+I5256J0*0	36	X	X	X
	30.0	40 × 78	B3233+I5306J0*1	36	X	X	X
	30.0	35 × 93	B3233+I5306J0*0	36	X	X	X
	35.0	40 × 103	B3233+I5356J0*0	36	X	X	X
	36.0	40 × 103	B3233+I5366J0*1	36	X	X	X
	40.0	40 × 103	B3233+I5406J0*1	36	X	X	X
	45.0	40 × 103	B3233+I5456J0*1	36	X	X	X
	50.0	45 × 103	B3233+I5506J0*1	36	X	X	X
55.0	45 × 103	B3233+I5556J0*1	36	X	X	X	
55.0	53 × 78	B3233+I5556J0*2	36	X	X	X	
60.0	45 × 103	B3233+I5606J0*1	36	X	X	X	
60.0	53 × 78	B3233+I5606J0*2	36	X	X	X	

Composition of ordering code:

+: terminals

- 0 single fast-on terminals
- 2 double fast-on terminals

*: construction of can and plastic top

- 5 aluminum can, Option A: UL 94 V2 top
- 6 aluminum can, Option B: UL 94 V2/V0 top/IEC 60335-1
- 7 aluminum can with M 8 bolt, Option A: UL 94 V2 top
- 8 aluminum can with M 8 bolt, Option B: UL 94 V2/V0 top/IEC 60335-1



⚠ Please read “Applications warning, installation and maintenance instructions” and the “General Safety Data Sheet for Power Capacitors” issued by ZVEI, which are available on the Internet at www.epcos.com/ac_capacitors, to ensure optimum performance and to prevent products from failing, and in worst case, bursting and fire. Information given in the data sheet reflects typical specifications. You are kindly requested to approve our product specifications or request our approval for your specification before ordering.

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