Film Capacitors – AC Capacitors

Motor run capacitors

Series/Type: **B32335 – Dual MotorCap™, 450 V**
Ordering code: **B32335**

Date: January 2010
Version: 4

Construction

- Metallized polypropylene film
- Aluminum can with plastic top
- Soft polyurethane resin

Applications

- For general sine wave applications,
  mainly as motor run capacitor for air condition application

Features

- Self-healing properties
- Low dissipation factor
- Highest safety level P2 to IEC 60252-1 2001-02
- Overpressure disconnection device
- High insulation resistance
- EN 60335 compliance on request

Terminals

- Single fast on 6.3 x 0.8 mm for FAN (F)
- Double fast on 6.3 x 0.8 mm for HERM (H)
- Quadruple fast on 6.3 x 0.8 Common (C)
- Other terminations on request

Mounting parts

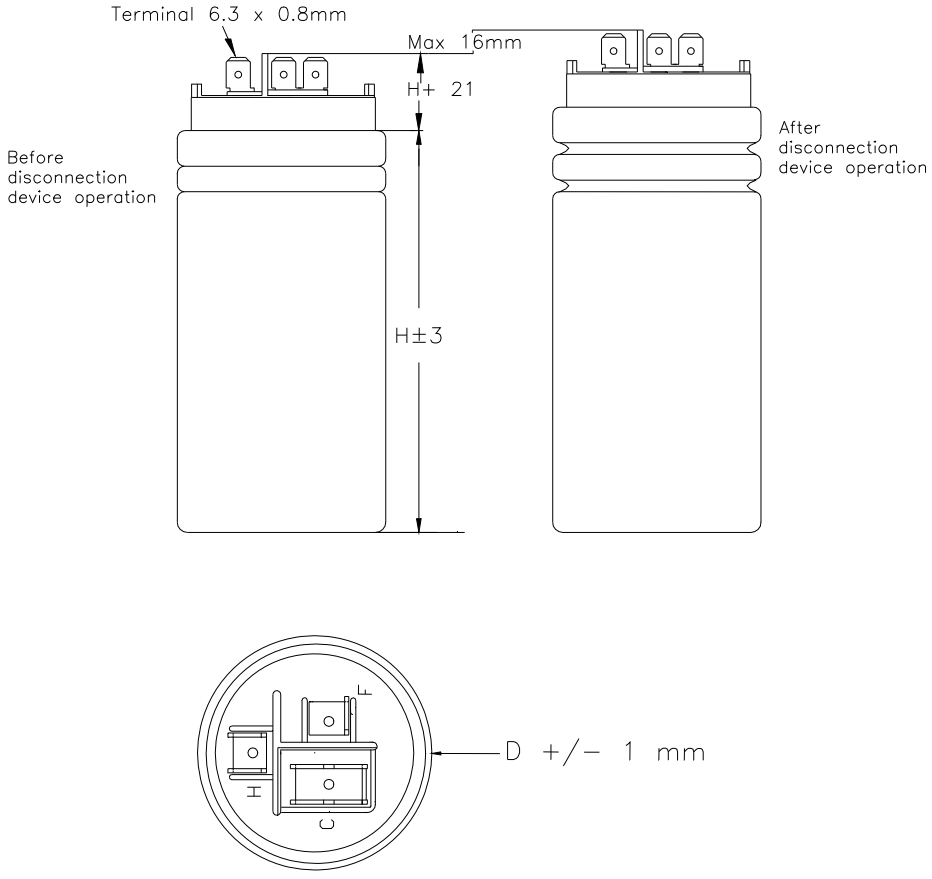
- Threaded stud at bottom of can (M8, max. torque = 5 Nm) as option

Technical data and specifications	
Reference standards	IEC 60252-1 2001-02 EN 60252 2001 UL 810
Life expectance to IEC 60252 2001	450 V: 10,000 h (class B)
Safety class according to IEC 60252-1 2001-02	P2
UL 810 file E 106388	Approved Component 10000 AFC protected up to 450 V
Rated capacitance C_R	10+1 to 60+10µF
Tolerance	±5%
Permitted capacitance ΔC/C	≤3 %
Rated voltage V_R	450 V AC
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)
AC test voltage terminals to can V_{TC}	2 kV AC, 2 s (routine test) 2 kV AC, 60 s (type test)
Insulation resistance R_{ins} or time constant τ at 20 °C, Rel. humidity max. value 85%, annual means ≤ 65%	3,000 s
Dissipation factor tan δ at 20 °C	≤1.0 ·10^{-3} (120 Hz)
Maximum rate of voltage rise dV/dt_{max}	10 V/µs
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	
Ball pressure test to IEC 60309-1 sec. 27.3	At 125 °C
Plastic can and top disk material	UL 94 V2 minimum
Option A: ■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-1/1 Test temperature 550 °C for I_R ≤ 0.5 A Test temperature 850 °C for I_R > 0.5 A	Self extinguish within 30 seconds of withdrawing the glow
Option B: ■ UL 94 V2/V0 compatible ■ Glow wire test to IEC 60335-1 / 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	RoHS compatible

Approvals		
TÜV		
450 V / 85 °C:	10,000 h (class B)	Approved
UL 810 E106388		Approved Component 10000 AFC, protected up to 450 V
C UL US		
Logistics		
Delivery mode		■ EU palett as standard ■ Cardboard tape on palett ■ Pack unit, see dimension table

Dimensional drawing



Ordering codes

V_R V AC	C_R µF	Dimensions D x H mm	Ordering code	Packing unit
450	10+1	40 x 70	B32335I6116J0*0	36
	10+1.5	40 x 70	B32335I6116J5*0	36
	10+2	40 x 70	B32335I6126J0*0	36
	12+1.5	40 x 70	B32335I6136J5*0	36
	12+2	40 x 70	B32335I6146J0*0	36
	12+5	40 x 70	B32335I6176J0*0	36
	13+1.5	40 x 70	B32335I6146J5*0	36
	13+1.8	40 x 70	B32335I6146J8*0	36
	13+2	40 x 70	B32335I6156J0*0	36
	13+5	40 x 70	B32335I6186J0*0	36
	15+1.5	40 x 70	B32335I6166J5*0	36
	15+2	40 x 70	B32335I6176J0*1	36
	15+2.5	40 x 70	B32335I6176J5*0	36
	15+3	40 x 70	B32335I6186J0*1	36
	15+4	40 x 70	B32335I6196J0*0	36
	15+5	40 x 70	B32335I6206J0*0	36
	17+1.8	40 x 80	B32335I6186J8*0	36
	20+1.5	40 x 80	B32335I6216J5*0	36
	20+2	40 x 80	B32335I6226J0*0	36
	20+4	40 x 80	B32335I6246J0*0	36
	20+5	40 x 80	B32335I6256J0*0	36
	25+1.5	40 x 80	B32335I6266J5*0	36
	25+2	40 x 80	B32335I6276J0*0	36
	25+2.5	40 x 80	B32335I6276J5*0	36
	25+3	40 x 80	B32335I6286J0*0	36
	25+4	40 x 80	B32335I6296J0*0	36
	25+5	40 x 80	B32335I6306J0*0	36
	25+7.5	40 x 94	B32335I6326J5*0	36
	25+8	40 x 94	B32335I6336J0*0	36
	25+10	40 x 94	B32335I6356J0*0	36
	30+1.5	40 x 94	B32335I6316J5*0	36
	30+1.8	40 x 94	B32335I6316J8*0	36
	30+2	40 x 94	B32335I6326J0*0	36
	35+1.5	40 x 105	B32335I6366J5*0	36
	35+2	40 x 105	B32335I6376J0*0	36

V_R V AC	C_R µF	Dimensions D x H mm	Ordering code	Packing unit
450	35+3	40 x 105	B32335I6386J0*0	36
	35+5	40 x 105	B32335I6406J0*0	36
	35+6	40 x 105	B32335I6416J0*0	36
	35+8	40 x 105	B32335I6436J0*0	36
	35+10	40 x 105	B32335I6456J0*0	36
	40+5	40 x 105	B32335I6456J0*1	36
	45+4	45 x 105	B32335I6496J0*0	25
	45+5	45 x 105	B32335I6506J0*0	25
	46+6	45 x 105	B32335I6526J0*0	25
	45+10	45 x 105	B32335I6556J0*0	25
	50+4	45 x 105	B32335I6546J0*0	25
	50+5	45 x 105	B32335I6556J0*1	25
	55+5	53 x 105	B32335I6606J0*0	25
	60+10	53 x 105	B32335I6706J0*0	25

Composition of ordering code:

***** : construction of can and plastic top

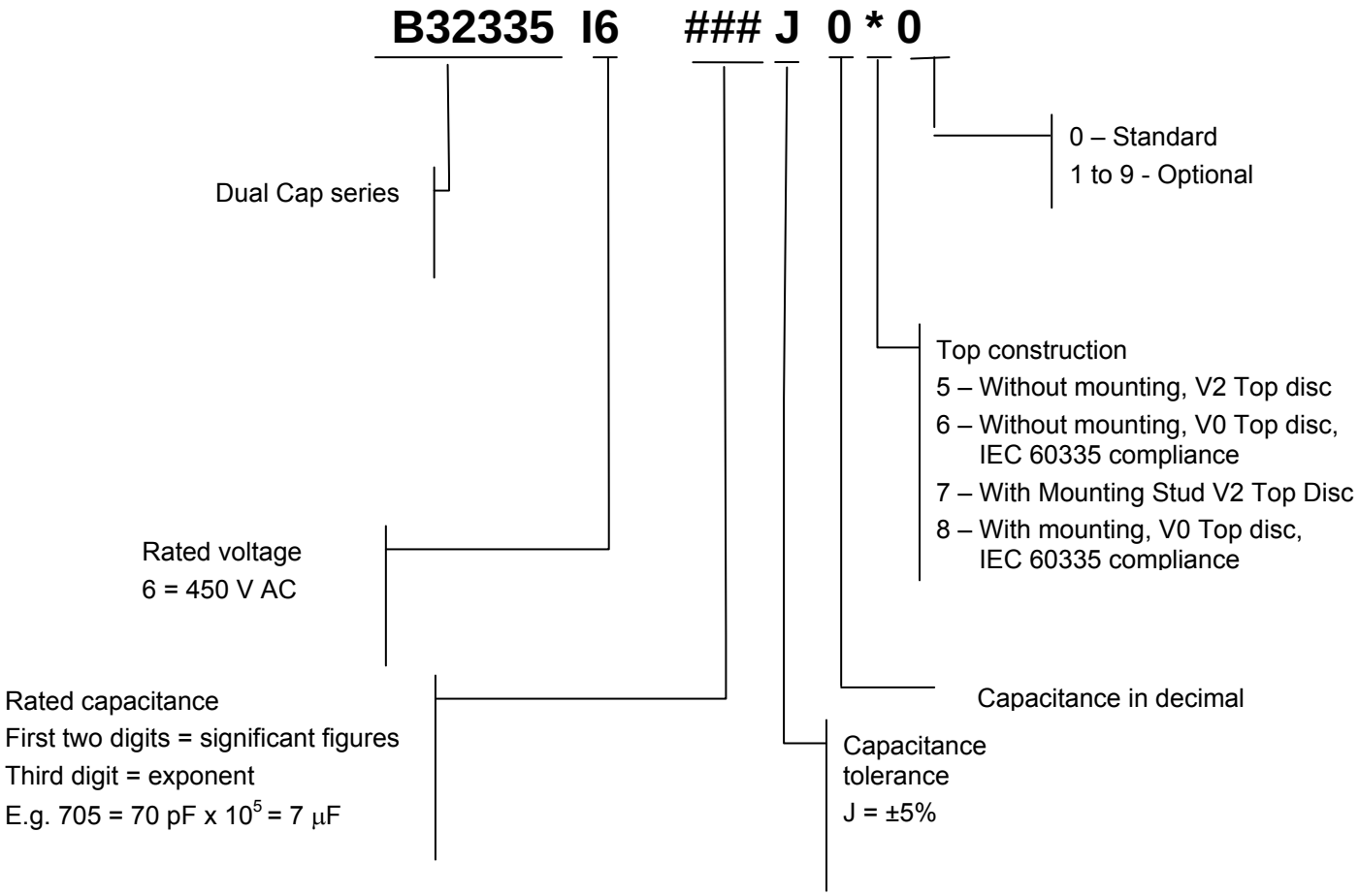
5 aluminum can, without mounting, V2 Top disc

6 aluminum can, without mounting, V0 Top disc, IEC60335 compliance

7 aluminum can, with M 8 bolt, UL 94 V2 top disc

8 aluminum can, with M 8 bolt, UL 94 V2/V0 top disc / IEC 60335-1

Ordering code structure:



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