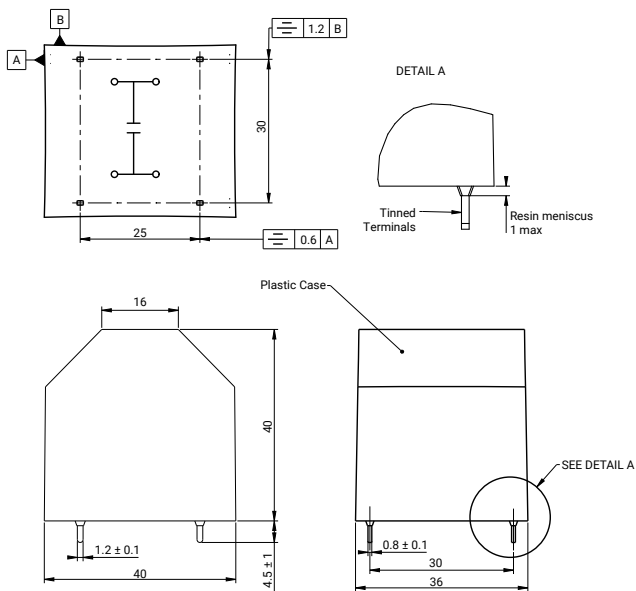




DIMENSIONS

Case Size 3

General tolerance: 0.5



APPLICATIONS

- High Reactive Energy Tuning for Convertors
- Protection of Semi-Conductors

TECHNOLOGY

Metallized polypropylene film and metal foil.

Dry capacitor.

PACKAGING

Rectangular resin case.

4 leads 1.2 x 0.8mm for printed circuit board mounting.

Self-extinguishing plastic case (V0 = in accordance with UL 94) filled thermosetting resin.

Self-extinguishing thermosetting resin (V0 = in accordance with UL 94; I3F2 = in accordance with NF F 16-101).

(Note that FFV3 and FAV3 are in the same packaging.)

STANDARDS

IEC 61071-1: IEC 61071-2: Power electronic capacitors

IEC 60068-1: Environmental testing

IEC 60077: Rules for electric traction equipment

UL 94: Fire requirements

NF F 16-101

NF F 16-102: Fire and smoke requirements

HOT SPOT TEMPERATURE CALCULATION

$$\Theta_{\text{hot spot}} = \Theta_{\text{ambient}} + (P_d + P_j) \times (R_{\text{th}} + 7.4) \text{ or}$$

$$\Theta_{\text{hot spot}} = \Theta_{\text{case}} + (P_d + P_j) \times R_{\text{th}}$$

$$\text{Dielectric losses} = P_d = Q \times \text{tg} \delta_0$$

for tuning applications:

$$P_d = (V_{\text{rms}}^2 \times C \times 2 \times \pi \times f) \times 2.10^{-4}$$

For protection applications:

$$P_d = [1/2 \times C_n \times (V_{\text{peak to peak}})^2 \times f] \times 2.10^{-4}$$

$$\text{Joules losses } P_j = R_s \times I_{\text{rms}}^2$$

C_n in Farad I_{rms} in Ampere f in Hertz

V in Volt R_s in Ohm θ in °C

R_{th} in °C/W R_{th} : $R_{\text{th case/hot spot}}$ in °C/W

HOW TO ORDER

FAV	3	6	K	0125	K	--
Series	Case Size Case Size 3	Dielectric 6 = Polypropylene	Voltage Code K = 600Vdc B = 800Vdc L = 1000Vdc U = 1200Vdc R = 1500Vdc N = 2000Vdc	Capacitance Code 0 + pF code 0125 = 1.2µF (1200nF) 0105 = 1.0µF (1000nF) 0154 = 0.15µF (150nF) etc.	Capacitance Tolerances K = ±10%	Terminal Code -- = Standard



ELECTRICAL CHARACTERISTICS

Climatic category	40/085/56 (IEC 60068)
Working temperature	hot spot temperature: -40°C to +85°C
Hot spot temperature	≤85°C (must be calculated: see below)
Capacitance range C _n	80 to 1200nF
Tolerance	±10%
Rated AC voltage	V _n rms = 300 to 650 V
Rated DC voltage	V _n dc = 600 to 2000 V
Maximum rms current	I _{rms} max = 10 to 40 Arms
Maximum reactive power	Q max = 7 to 14 kvar
Stray inductance	15 nH
Test voltage between terminals	1.5 x V _n dc 10s
Withstanding voltage between terminals and case	3000 V _{rms} 60s
Dielectric	Polypropylene

RATINGS AND PART NUMBER REFERENCE

Part Number	Capacitance (nF)	I _{rms} max (A)	Q max (kV)	Rs (mΩ)	Ls (nH)	Rth (°C/W)	Typical Weight (g)
V_ndc 600V Vrms: 300V							
FAV36K0125K-	1200	40	12	0.85	5	4	90
FAV36K0105K-	1000	32	10	1	5	4.1	90
V_ndc 800V Vrms: 400V							
FAV36B0804K-	800	35	14	0.9	5	4	90
FAV36B0624K-	620	27	11	1.1	5	4.1	90
V_ndc 1000V Vrms: 450V							
FAV36L0564K-	560	30	14	1	5	4	90
FAV36L0474K-	470	25	12	1.2	5	4.1	90
V_ndc 1200V Vrms: 500V							
FAV36U0334K-	330	21	11	1.4	5	4.2	90
FAV36U0274K-	270	17	9	1.7	5	4.4	90
V_ndc 1500V Vrms: 600V							
FAV36R0184K-	180	16	10	1.7	5	4.4	90
FAV36R0154K-	150	13	8	2	5	4.5	90
V_ndc 2000V Vrms: 650V							
FAV36N0124K-	120	15	10	1.7	5	4.6	90
FAV36N0104K-	100	12	8	1.9	5	4.9	90
FAV36N0803K-	80	10	7	2	5	5.2	90

LIFETIME EXPECTANCY

