

Metallized Polypropylene Film Capacitor (Radial Lead, THB* compliance) AC Applications

FAG series

Overview

The FAG series is constructed of metallized polypropylene film encapsulated in rectangular plastic box sealed with epoxy resin and 2 or 4 tinned copper wires.



Applications

- Suitable for small power AC output filter.
- UPS systems, solar inverter, motor drivers.

Features

- High ripple current
- Self-healing property
- Low losses
- High contact reliability
- High stability of capacitance under severe ambient condition, such as high temperature and high humidity

Specifications

Items	Characteristics
Application	AC Filtering
Reference Standard	IEC 61071
Climatic Category	40/85/56 IEC 60068-1
Operating Temperature Range	-40~ +105°C(+85°C observing voltage must be de-rating at 1.5% per °C)
Rated Voltage	160Vac ~ 450Vac
Capacitance Range	0.47μF ~ 50μF
Capacitance Tolerance	±5% or ±10% at +25°C
Dissipation Factor (DF)	≤0.002 (0.20%) at 1 KHz. C≤20μF at +25°C ≤0.003 (0.30%) at 1 KHz. C>20μF at +25°C
Test Voltage Between Terminals	1.5 x rated voltage for 10s (terminal to terminal)
Test Voltage Terminal to Case	3.0KVac 50 Hz for 10s at +25°C
Insulation Resistance	IR x C≥30,000 Seconds at 100VDC 1 minute at +25°C
Life Expectancy	100,000 hours at Un @ Hot-Spot temperature T=+70°C
Protection	Solvent resistant plastic case UL94 V-0 Thermosetting resin sealing UL94 V-0 compliant
Installation	Any position
Leads	Tinned copper wires, standard lead wire length 5 ±1mm
Packaging	Packed in cardboard boxes with protection for the terminals
RoHS Compliant	Compliant with the restricted substance requirements of Directive 2011/65/EU
Storage Conditions	Storage time: ≤ 24 months from the date marked on the label package Temperature and relative humidity should be -10°C ~ +40°C and not more than 75%RH. RH ≤ 85% for 30 days randomly distributed throughout the year
Humidity Test	Test conditions & performance:
	Temperature: +40°C ±2°C Relative humidity(RH) :93% ±2%
	Test duration : 56 days
	Capacitance change :≤ ±5% DF change (Δtgδ):≤50 X 10 ⁻⁴ at 1KHz Insulation resistance: ≥50% of initial limit
Endurance Test	Test conditions & performance:
	Temperature: +85°C ±2°C Voltage applied:1.25 X V _R (a.c.)
	Test duration : 1000 hours
	Capacitance change : ≤ ±5% DF change (Δtgδ):≤40 X 10 ⁻⁴ at 1KHz Insulation resistance: ≥50% of initial limit
THB Test (Damp heat test with loading)	Test conditions & performance:
	Temperature: +85°C ±2°C Relative humidity(RH) :85% ±2%
	Loading Voltage: Rated voltage (50Hz/60Hz)
	Test duration : 1000 hours Capacitance change :≤ ±10%

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Vac	Cap	Dimensions			P	P1	Irms	Peak	ESR _{10K}	ESL	Thermal	dv/dt	Lead Wire	Part Number
	Value	W	H	T							Res			
	μF	mm	mm	mm							mm			
160	1.0	32.0	20.0	11.0	27.5	\	5.0	32.0	30.3	24	19.8	32	0.8	FAG16K105G++2GL5
160	2.2	32.0	20.0	11.0	27.5	\	7.0	70.4	15.3	24	20.0	32	0.8	FAG16K225G++2GL5
160	3.3	32.0	22.0	13.0	27.5	\	7.0	105.6	11.3	24	27.1	32	0.8	FAG16K335G++2GL5
160	5.0	32.0	28.0	14.0	27.5	\	7.0	160.0	8.8	26	34.8	32	0.8	FAG16K505G++2GL5
160	10.0	32.0	33.0	18.0	27.5	\	7.0	320.0	6.8	26	45.0	32	0.8	FAG16K106G++2GL5
160	10.0	42.5	37.0	28.0	37.5	10.2	12.0	220.0	7.2	30	14.5	22	1.2	FAG16K106K++4KB5
160	20.0	42.5	37.0	28.0	37.5	10.2	12.0	440.0	6.9	30	15.1	22	1.2	FAG16K206K++4KB5
160	30.0	42.5	45.0	30.0	37.5	20.3	12.0	660.0	7.4	30	14.1	22	1.2	FAG16K306K++4KD5
160	40.0	57.5	45.0	30.0	52.5	20.3	12.0	640.0	7.6	35	13.7	16	1.2	FAG16K406M++4MD5
160	50.0	57.5	50.0	35.0	52.5	20.3	12.0	800.0	7.5	35	13.9	16	1.2	FAG16K506M++4MD5
250	1.0	32.0	20.0	11.0	27.5	\	8.0	40.0	14.0	24	16.7	40	0.8	FAG25K105G++2GL5
250	1.5	32.0	20.0	11.0	27.5	\	8.0	60.0	10.0	24	23.4	40	0.8	FAG25K155G++2GL5
250	2.0	32.0	22.0	13.0	27.5	\	9.0	80.0	8.2	24	22.6	40	0.8	FAG25K205G++2GL5
250	3.3	32.0	28.0	14.0	27.5	\	9.0	132.0	6.2	26	29.9	40	0.8	FAG25K335G++2GL5
250	4.0	32.0	33.0	18.0	27.5	\	9.0	160.0	5.9	26	31.4	40	0.8	FAG25K405G++2GL5
250	5.0	32.0	33.0	18.0	27.5	\	9.0	200.0	5.2	26	35.6	40	0.8	FAG25K505G++2GL5
250	6.8	42.5	37.0	22.0	37.5	10.2	14.0	272.0	4.9	28	15.6	40	1.2	FAG25K685K++4KB5
250	10.0	42.5	40.0	20.0	37.5	10.2	14.0	300.0	5.6	30	13.7	30	1.2	FAG25K106K++4KB5
250	15.0	42.5	37.0	28.0	37.5	10.2	14.0	450.0	5.2	30	14.7	30	1.2	FAG25K156K++4KB5
250	20.0	42.5	45.0	30.0	37.5	20.3	14.0	600.0	4.8	30	15.9	30	1.2	FAG25K206K++4KD5
250	25.0	57.5	45.0	30.0	52.5	20.3	14.0	625.0	5.7	35	13.4	25	1.2	FAG25K256M++4MD5
250	30.0	57.5	45.0	30.0	52.5	20.3	14.0	750.0	5.3	35	14.4	25	1.2	FAG25K306M++4MD5
250	35.0	57.5	50.0	35.0	52.5	20.3	14.0	875.0	5.5	35	13.9	25	1.2	FAG25K356M++4MD5
250	40.0	57.5	50.0	35.0	52.5	20.3	14.0	1000.0	5.2	35	14.7	25	1.2	FAG25K406M++4MD5
275	1.0	32.0	20.0	11.0	27.5	\	8.0	40.0	13.0	24	18	40	0.8	FAG27K105G++2GL5
275	3.3	32.0	33.0	18.0	27.5	\	9.0	132.0	6.2	26	29.9	40	0.8	FAG27K335G++2GL5
275	6.8	32.0	37.0	22.0	27.5	\	9.0	272.0	4.7	28	39.4	40	1.0	FAG27K685G++2GL5
275	10.0	42.5	40.0	20.0	37.5	10.2	14.0	300.0	5.9	30	13	30	1.2	FAG27K106K++4KB5
275	15.0	42.5	45.0	30.0	37.5	20.3	14.0	450.0	5.1	30	15	30	1.2	FAG27K156K++4KD5
275	20.0	57.5	45.0	30.0	52.5	20.3	14.0	500.0	6.0	35	12.8	25	1.2	FAG27K206M++4MD5
275	30.0	57.5	50.0	35.0	52.5	20.3	14.0	750.0	5.3	35	14.4	25	1.2	FAG27K306M++4MD5
350	0.68	32.0	20.0	11.0	27.5	\	8.0	30.6	15.0	24	15.6	45	0.8	FAG35K684G++2GL5
350	1.0	32.0	22.0	13.0	27.5	\	9.0	45.0	10.9	24	17	45	0.8	FAG35K105G++2GL5
350	2.0	32.0	33.0	18.0	27.5	\	9.0	90.0	7.3	26	25.4	45	0.8	FAG35K205G++2GL5
350	2.2	32.0	33.0	18.0	27.5	\	9.0	99.0	6.9	26	26.8	45	0.8	FAG35K225G++2GL5
350	3.3	32.0	37.0	22.0	27.5	\	9.0	148.5	5.7	28	32.5	45	1.0	FAG35K335G++2GL5
350	4.7	42.5	40.0	20.0	37.5	10.2	14.0	159.8	6.9	30	11.1	34	1.2	FAG35K475K++4KB5
350	5.0	42.5	40.0	20.0	37.5	10.2	14.0	170.0	6.8	30	11.3	34	1.2	FAG35K505K++4KB5
350	6.8	42.5	37.0	28.0	37.5	10.2	14.0	231.2	6.2	30	12.3	34	1.2	FAG35K685K++4KB5
350	10.0	42.5	45.0	30.0	37.5	20.3	14.0	340.0	5.3	30	14.4	34	1.2	FAG35K106K++4KD5
350	12.0	57.5	45.0	30.0	52.5	20.3	14.0	336.0	6.8	35	11.3	28	1.2	FAG35K126M++4MD5
350	20.0	57.5	50.0	35.0	52.5	20.3	14.0	560.0	5.9	35	13	28	1.2	FAG35K206M++4MD5

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Vac	Cap	Dimensions			P	P1	Irms	Peak	ESR _{10k}	ESL	Thermal	dv/dt	Lead Wire	Part Number
	Value	W	H	T			10KHz	Current	Typical		Res			
	μF	mm	mm	mm			70°C A	A	mΩ		nH			
400	0.47	32.0	20.0	11.0	27.5	\	7.0	23.5	18.6	24	16.5	50	0.8	FAG40K474G++2GL5
400	1.00	32.0	28.0	14.0	27.5	\	9.0	50.0	10.3	26	18.0	50	0.8	FAG40K105G++2GL5
400	1.50	32.0	33.0	18.0	27.5	\	9.0	75.0	8.1	26	22.9	50	0.8	FAG40K155G++2GL5
400	2.20	32.0	33.0	18.0	27.5	\	9.0	110.0	6.4	26	28.9	50	0.8	FAG40K225G++2GL5
400	3.00	32.0	37.0	22.0	27.5	\	9.0	150.0	5.7	28	32.5	50	1.0	FAG40K305G++2GL5
400	5.00	42.5	37.0	28.0	37.5	10,2	14.0	200.0	6,2	30	12,3	40	1,2	FAG40K505K++4KB5
400	10,00	57,5	45,0	30,0	52,5	20,3	14,0	350,0	6,9	35	11,1	35	1,2	FAG40K106M++4MD5
400	15,00	57,5	50,0	35,0	52,5	20,3	14,0	525,0	6,1	35	12,5	35	1,2	FAG40K156M++4MD5
450	0.22	32.0	20.0	11.0	27.5	\	5.0	12.1	30.9	24	19.4	55	0.8	FAG45K224G++2GL5
450	0.47	32.0	22.0	13.0	27.5	\	8.0	25.9	15.7	24	14.9	55	0.8	FAG45K474G++2GL5
450	1.00	32.0	33.0	18.0	27.5	\	8.0	55.0	9.2	26	25.5	55	0.8	FAG45K105G++2GL5
450	1.50	32.0	37.0	22.0	27.5	\	8.0	82.5	7.3	28	32.1	55	1.0	FAG45K155G++2GL5
450	3.30	42.5	37.0	28.0	37.5	10,2	14.0	148.5	7.4	30	10.3	45	1.2	FAG45K335K++4KB5
450	4.70	42.5	45.0	30.0	37.5	20,3	14.0	211.5	6.2	30	12.3	45	1.2	FAG45K475K++4KD5
450	6.80	57.5	45.0	30.0	52.5	20,3	14.0	258.4	7.5	35	10.2	38	1.2	FAG45K685M++4MD5
450	10,00	57,5	50,0	35,0	52,5	20,3	14,0	380,0	6,6	35	11,6	38	1,2	FAG45K106M++4MD5

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