

38FD3770A-F Datasheet



DiGi Electronics Part Number	38FD3770A-F-DG
Manufacturer	Cornell Dubilier Electronics (CDE)
Manufacturer Product Number	38FD3770A-F
Description	CAP FILM 70UF 10% 370VAC RADIAL
Detailed Description	70 μ F Film Capacitor 370V Polypropylene (PP), Metallized Radial, Can

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Manufacturer Product Number:

38FD3770A-F

Series:

MPF

Capacitance:

70 μ F

Voltage Rating - AC:

370V

Dielectric Material:

Polypropylene (PP), Metallized

Mounting Type:

Chassis Mount, Requires Holder/Bracket

Size / Dimension:

3.656" L x 1.969" W (92.87mm x 50.01mm)

Termination:

Quick Connect, Disconnect

Applications:

Motor Run; Power Factor Correction (PFC)

Features:

-

Manufacturer:

Cornell Dubilier Electronics (CDE)

Product Status:

Active

Tolerance:

\pm 10%

Voltage Rating - DC:

-

Operating Temperature:

-40°C ~ 70°C

Package / Case:

Radial, Can

Height - Seated (Max):

4.160" (105.66mm)

Lead Spacing:

0.813" (20.64mm)

Ratings:

-

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8532.25.0020

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

Type MPF, AC Motor Run Capacitors

Oval and Round, Oil Filled, 70 °C, Metallized Polypropylene Capacitors



[Click here to view hardware](#)

Type MPF AC metallized polypropylene film dielectric capacitors offer a reliable option for alternating current applications. All devices are oil filled in metal cases with 4-prong quick disconnect terminals for easy assembly. These capacitors pack high capacitance and voltage capabilities into a small, light-weight package. The MPF is internally protected for fail-safe operation. These capacitors have extremely low DF that is ideal for AC motor-run applications.

Highlights

- Low DF
- Protected with a pressure sensitive interrupter
- Small size and light weight
- UL E71645
- CSA 223507
- Air conditioning and refrigeration applications
- Power factor correction
- Motors

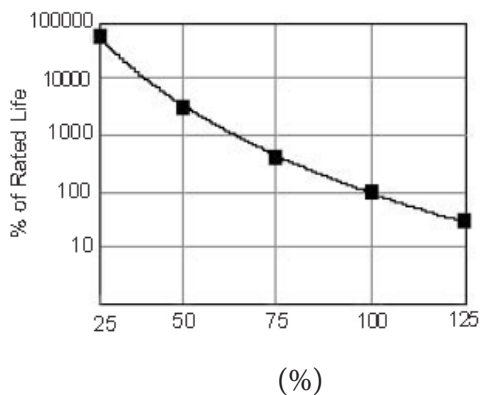
Specifications

Capacitance Range	1 μ F to 80 μ F
Capacitance Tolerance	\pm 10%
Rated Voltage	330 Vac, 370 Vac and 440 Vac
Operating Temperature Range with Ripple	-40 °C to +70 °C
Rated Frequency	50 Hz and 60 Hz
Dissipation Factor	0.1% max @ 60 Hz
Regulatory Information	

Service Life Objective

The service life objective for this series is 60,000 hours of operating life with a 94% survival rate when operated at full voltage, 60 Hz, and rated ambient temperature. AC capacitors are frequently used at voltages and ambient temperatures other than rated conditions. Service life may be estimated under specific conditions of temperature and voltage by using the curves as shown below and to the right.

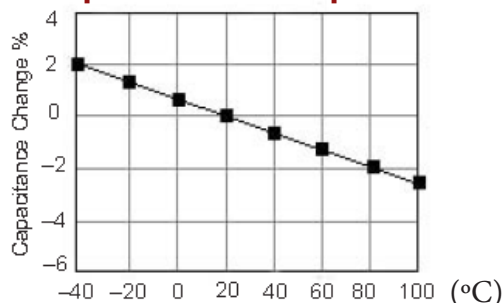
Life vs. Temperature



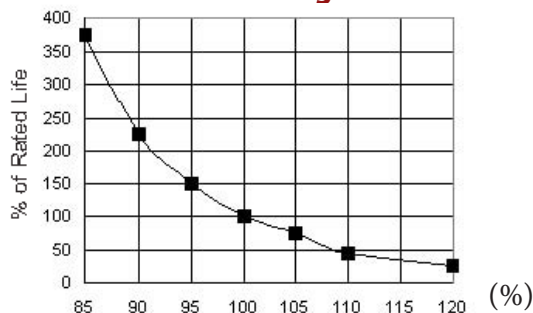
Capacitance vs. Temperature

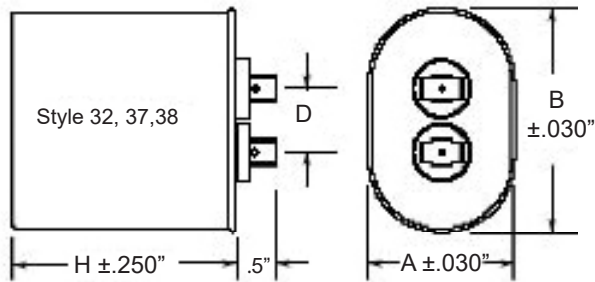
The Capacitance vs. Temperature curve may be used to determine the capacitance change as a function of temperature. Capacitance varies by no more than \pm 3% over the operating temperature range.

Capacitance vs. Temperature



Life vs. Voltage



Type MPF, AC Motor Run Capacitors**Oval and Round, Oil Filled, 70 °C, Metallized Polypropylene Capacitors****Oval Case Style**

See Ratings Table for "H" dimension

Oval				
Style	A	B	D	Industry Type
32	1 5/16"	2 5/32"	13/16"	1¼" Flat Oval
37	1 29/32"	2 29/32"	13/16"	1¼" Flat Oval
38	1 31/32"	3 21/32"	13/16"	2.0" Flat Oval

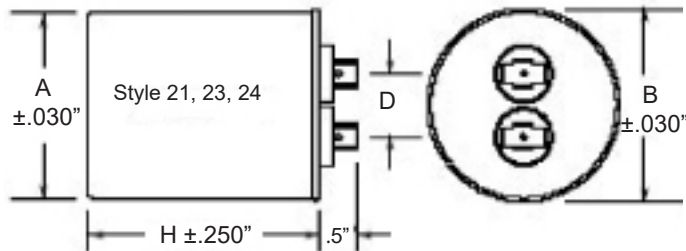
Construction Details

Case Material	Aluminum
Encapsulation	Environmentally Safe Dielectric Fluid
Terminal Material	Tin Plated Steel

Oval Ratings

Cap. (µF)	Case Code	Aluminum Catalog Part Number	H (inches)
370V			
1.0	32	32FD3701A-F	2.19
2.0	32	32FD3702A-F	2.19
3.0	32	32FD3703A-F	2.19
4.0	32	32FD3704A-F	2.19
5.0	32	32FD3705A-F	2.19
6.0	32	32FD3706A-F	2.19
7.5	32	32FD37075A-F	2.19
10.0	32	32FD3710A-F	2.88
12.5	32	32FD37125A-F	2.88
12.5	37	37FD37125A-F	2.38
15.0	37	37FD3715A-F	2.38
17.5	37	37FD37175A-F	2.38
20.0	37	37FD3720A-F	2.38
22.5	37	37FD37225A-F	2.38
25.0	37	37FD3725A-F	2.91
27.5	38	38FD37275A-F	2.91
30.0	37	37FD3730A-F	2.91
30.0	38	38FD3730A-F	2.91
35.0	37	37FD3735A-F	3.91
35.0	38	38FD3735A-F	2.91
40.0	37	37FD3740A-F	3.91
40.0	38	38FD3740A-F	2.91
45.0	37	37FD3745A-F	3.91
45.0	38	38FD3745A-F	2.91
50.0	38	38FD3750A-F	2.91
70.0	38	38FD3770A-F	3.91

Cap. (µF)	Case Code	Aluminum Catalog Part Number	H (inches)
440V			
1.0	32	32FB4401A-F	2.19
2.0	32	32FB4402A-F	2.19
3.0	32	32FB4403A-F	2.19
4.0	32	32FB4404A-F	2.19
5.0	32	32FB4405A-F	2.19
6.0	32	32FB4406A-F	2.19
7.5	32	32FB44075A-F	2.88
7.5	37	37FB44075A-F	2.38
10.0	32	32FB4410A-F	2.88
10.0	37	37FB4410A-F	2.38
12.5	37	37FB44125A-F	2.38
15.0	37	37FB4415A-F	2.38
17.5	37	37FB44175A-F	2.91
20.0	37	37FB4420A-F	2.91
20.0	38	38FB4420A-F	2.91
25.0	37	37FB4425A-F	3.91
25.0	38	38FB4425A-F	3.91
30.0	38	38FB4430A-F	3.91
35.0	37	37FB4435A-F	4.75
35.0	38	38FB4435A-F	3.91
40.0	37	37FB4440A-F	4.75
40.0	38	38FB4440A-F	3.91
45.0	38	38FB4445A-F	3.91
50.0	38	38FB4450A-F	3.91
55.0	38	38FB4455A-F	4.75
60.0	38	38FB4460A-F	4.75

Type MPF, AC Motor Run Capacitors**Oval and Round, Oil Filled, 70 °C, Metallized Polypropylene Capacitors****Round Case Style**

See Ratings Table for "H" dimension

Round				
Style	A	B	D	Industry Type
21	1¾"	1⅞"	13/16"	1¾" Round
23	2.0"	2⅛"	13/16"	2.0" Round
24	2½"	2⅝"	13/16"	2½" Round

Construction Details

Case Material	Aluminum
Encapsulation	Environmentally Safe Dielectric Fluid
Terminal Material	Tin Plated Steel

Round Ratings

Cap. (µF)	Case Code	Aluminum Catalog Part Number	H (inches)
330 V			
3.0	23	23FD3303A-F	2.38
4.0	23	23FD3304A-F	2.38
5.0	23	23FD3305A-F	2.38
6.0	23	23FD3306A-F	2.38
7.0	23	23FD3307A-F	2.38
8.0	23	23FD3308A-F	2.38
10.0	23	23FD3310A-F	2.38
370 V			
3.0	21	21FD3703A-F	2.38
4.0	21	21FD3704A-F	2.38
5.0	21	21FD3705A-F	2.38
6.0	21	21FD3706A-F	2.38
7.0	21	21FD3707A-F	2.38
8.0	21	21FD3708A-F	2.38
10.0	21	21FD3710A-F	2.38
12.5	21	21FD37125A-F	2.38
15.0	21	21FD3715A-F	2.38
17.5	21	21FD37175A-F	2.38
20.0	21	21FD3720A-F	2.38
25.0	21	21FD3725A-F	2.84
25.0	23	23FD3725A-F	2.91
30.0	21	21FD3730A-F	2.84
30.0	23	23FD3730A-F	2.91
35.0	21	21FD3735A-F	3.84
35.0	23	23FD3735A-F	2.91
40.0	21	21FD3740A-F	3.84
40.0	23	23FD3740A-F	2.91
45.0	23	23FD3745A-F	3.84
45.0	24	24FD3745A-F	2.91

Cap. (µF)	Case Code	Aluminum Catalog Part Number	H (inches)
370 V			
50.0	23	23FD3750A-F	3.84
50.0	24	24FD3750A-F	2.91
55.0	23	23FD3755A-F	3.84
55.0	24	24FD3755A-F	2.91
60.0	23	23FD3760A-F	3.84
60.0	24	24FD3760A-F	2.91
65.0	24	24FD3765A-F	3.91
70.0	24	24FD3770A-F	3.91
80.0	24	24FD3780A-F	4.75
440 V			
15.0	21	21FB4415A-F	2.38
20.0	21	21FB4420A-F	2.84
20.0	23	23FB4420A-F	2.91
22.5	21	21FB44225A-F	2.84
22.5	23	23FB44225A-F	2.91
25.0	21	21FB4425A-F	3.84
25.0	23	23FB4425A-F	2.91
30.0	23	23FB4430A-F	3.84
30.0	24	24FB4430A-F	2.91
35.0	23	23FB4435A-F	3.84
35.0	24	24FB4435A-F	2.91
40.0	23	23FB4440A-F	3.84
40.0	24	24FB4440A-F	3.91
45.0	24	24FB4445A-F	3.91
50.0	24	24FB4450A-F	3.91
55.0	24	24FB4455A-F	3.91
60.0	24	24FB4460A-F	4.75
70.0	24	24FB4470A-F	4.75

Type MPF, AC Motor Run Capacitors

Oval and Round, Oil Filled, 70 °C, Metallized Polypropylene Capacitors

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