



# AC & DC FANS

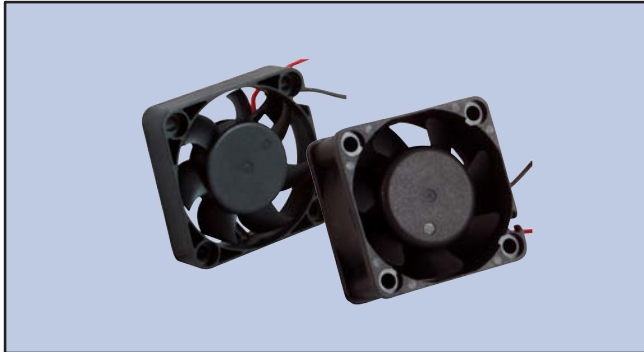
- AC and DC Types:  
12 and 24VDC  
100-125VAC
- Sizes Include:  
40x40mm  
60x60mm  
80x80mm  
92x92mm  
120x120mm
- Ball Bearings
- Locked Rotor Protection
- All are RoHS Compliant
- Most are UL Recognized
- Fan Cords, Fan Filters and  
Metal Fan Guard Accessories

# Fan, DC Types, 40 x 40mm

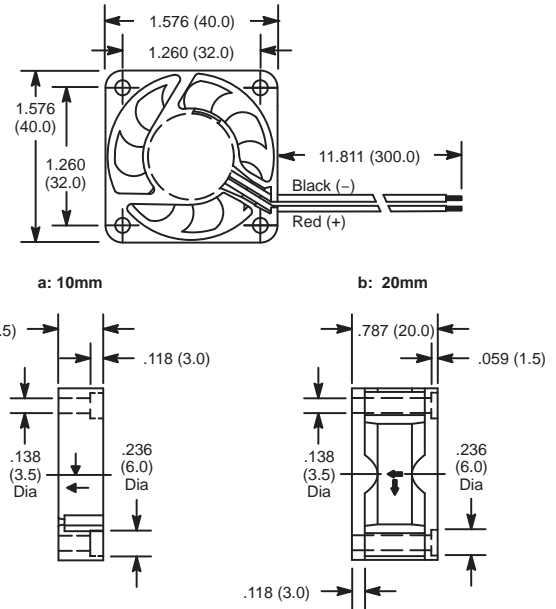


## Features

- High Speed
- Ball Bearings
- 26 AWG Red (+) and Black (-) Leads
- 11.8" (300mm) Lead Length



F1



DC OPERATED							
NTE Type No.	Rated Voltage	Max. Input Current	Max. Input Power (W)	Speed $\pm 10\%$ (RPM)	Max Air Flow (CFM)	Max Acoustical Noise	Diag No.
77-4010D12	12	0.10A	1.24	7000	7.73	36dB(A)	F1a
77-4010D24	24	0.10A	2.48	7000	7.73	36dB(A)	F1a
77-4020D12	12	0.14A	1.66	7500	8.13	35dB(A)	F1b
77-4020D24	24	0.08A	1.93	7500	8.13	35dB(A)	F1b

ACCESSORIES		
FAN TYPE	DESCRIPTION	NTE TYPE NO.
40 X 40mm	Fan Guard, Metal	77-MG40
40 X 40mm	Fan Filter, 3-Piece w/Cover	77-FF40

## Specifications

### Electrical Characteristics

**Insulation Resistance:** 10M $\pm$  Min. (at 500VDC) between frame and positive terminal

**Dielectric Strength:** 500VAC, 1 minute; 600VAC, 1 sec at 5mA Max. between frame and positive terminal

**Life Expectancy:** Approx. 70000 hours at rated voltage, +40°C, 15% to 65% RH

### Mechanical Characteristics

**Frame:** Thermoplastic, Black, UL94V-0

**Impeller:** Thermoplastic, Black, UL94V-0

**Bearing:** 2 Ball Bearings

**Weight:** Approx. 16g (10mm); 29g (20mm)

### Environmental Characteristics

**Operating Temperature:** -10°C to +70°C

**Storage Temperature:** -40°C to +75°C

**Operating Humidity:** 35% to 85% RH

**Storage Humidity:** 35% to 85% RH

### Protection

**Polarity:** Damage will not occur for up to 10 minutes with positive and negative leads connected in reverse.

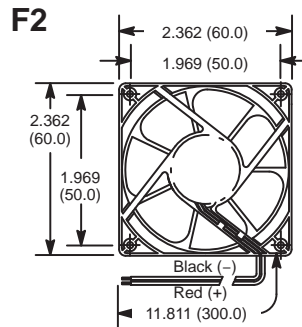
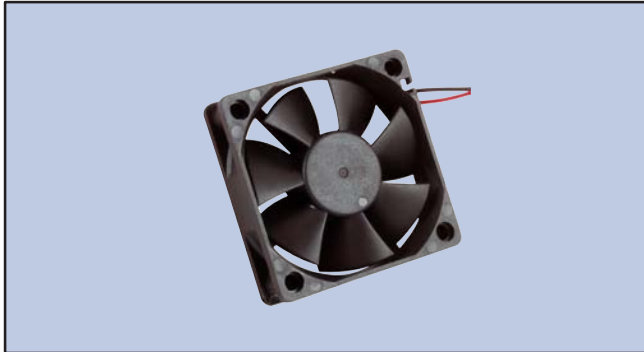
**Locked Rotor:** Within 72 hours of a rotor locking condition, at the rated voltage and operating temperature, the impedance of the motor winding will protect the motor from damage.

# Fan, DC Types, 60 x 60mm



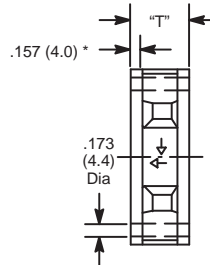
## Features

- High Speed
- Ball Bearings
- 24 AWG Red (+) and Black (-) Leads
- 11.8" (300mm) Lead Length



	Thickness "T"	
	DC	AC
15mm	.610 (15.5)	N/A
20mm	.787 (20.0)	N/A
25mm	.984 (25.0)	N/A

### a: Lead Types



\* 15mm Types: .118 (3.0)

## DC OPERATED

NTE Type No.	Rated Voltage	Max. Input Current	Max. Input Power (W)	Speed $\pm 10\%$ (RPM)	Max Air Flow (CFM)	Max Acoustical Noise	Diag No.
77-6015D12	12	0.20A	2.35	4500	18.62	39dB(A)	F2a
77-6015D24#	24	0.17A	4.14	4500	18.62	39dB(A)	F2a
77-6020D12	12	0.18A	2.21	4200	22.43	38dB(A)	F2a
77-6020D24#	24	0.15A	3.59	4200	22.43	38dB(A)	F2a
77-6025D12	12	0.16A	1.93	4000	19.25	32dB(A)	F2a
77-6025D24	24	0.16A	3.86	4000	19.25	32dB(A)	F2a

# These devices do not meet UL approval

## ACCESSORIES

FAN TYPE	DESCRIPTION	NTE TYPE NO.
60 X 60mm	Fan Guard, Metal	77-MG60
60 X 60mm	Fan Filter, 3-Piece w/Cover	77-FF60

## Specifications

### Electrical Characteristics

**Insulation Resistance:** 10M $\pm$  Min. (at 500VDC) between frame and positive terminal

**Dielectric Strength:** 500VAC, 1 minute; 600VAC, 1 sec at 5mA Max. between frame and positive terminal

**Life Expectancy:** Approx. 70000 hours at rated voltage, +40°C, 15% to 65% RH

### Mechanical Characteristics

**Frame:** Thermoplastic, Black, UL94V-0

**Impeller:** Thermoplastic, Black, UL94V-0

**Bearing:** 2 Ball Bearings

**Weight:** Approx. 34g (15mm); 50g (20mm); 62g (25mm)

### Environmental Characteristics

**Operating Temperature:** -10°C to +70°C

**Storage Temperature:** -40°C to +75°C

**Operating Humidity:** 35% to 85% RH

**Storage Humidity:** 35% to 85% RH

### Protection

**Polarity:** Damage will not occur for up to 10 minutes with positive and negative leads connected in reverse.

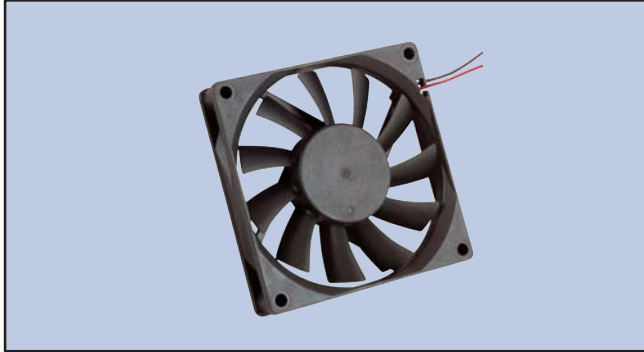
**Locked Rotor:** Within 72 hours of a rotor locking condition, at the rated voltage and operating temperature, the impedance of the motor winding will protect the motor from damage.

# Fan, AC & DC Types, 80 x 80mm

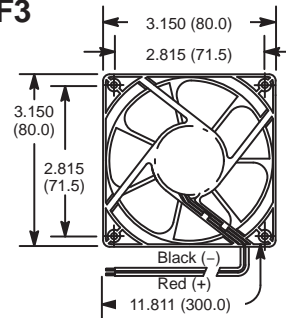


## Features

- High Speed
- Ball Bearings
- Terminal Types – “T” Suffix
- 24 AWG Red (+) and Black (-) Leads – DC Types
- 22 AWG Black Leads – AC Types
- 11.8” (300mm) Lead Length

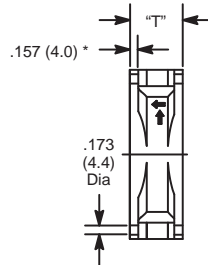


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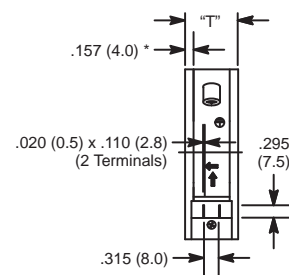


	Thickness “T”	
	DC	AC
15mm	.590 (15.0)	N/A
25mm	.984 (25.0)	1.043 (26.5)
38mm	N/A	1.516 (38.5)

a: Lead Types



b: Terminal Types



\* 15mm Types: .118 (3.0)

DC OPERATED							
NTE Type No.	Rated Voltage	Max. Input Current	Max. Input Power (W)	Speed ±10% (RPM)	Max Air Flow (CFM)	Max Acoustical Noise	Diag No.
77-8015D12	12	0.20A	2.35	3000	31.74	38dB(A)	F3a
77-8015D24#	24	0.17A	4.14	3000	31.74	38dB(A)	F3a
77-8025D12	12	0.26A	3.17	3000	41.06	37dB(A)	F3a
77-8025D24	24	0.17A	4.14	3000	41.06	37dB(A)	F3a
AC OPERATED							
NTE Type No.	Rated Voltage	Max. Input Current	Max. Input Power (W)	Speed ±10% (RPM)	Max Air Flow (CFM)	Max Acoustical Noise	Diag No.
77-8025A120	115	0.13A	13	2200	19	26dB(A)	F3a
77-8025A120-T	115	0.13A	13	2200	19	26dB(A)	F3b
77-8038A120	115	0.20A	12	3000	29	34dB(A)	F3a
77-8038A120-T	115	0.20A	12	3000	29	34dB(A)	F3b

# These devices do not meet UL approval

ACCESSORIES		
FAN TYPE	DESCRIPTION	NTE TYPE NO.
80 X 80mm	Fan Guard, Metal	77-MG80
80 X 80mm	Fan Filter, 3-Piece w/Cover	77-FF80
80 X 80mm, Terminal Type	Fan Cord, 12", 45° Blunt Cut	77-FC12
	Fan Cord, 24", 45° Blunt Cut	77-FC24
	Fan Cord, 36", 45° Blunt Cut	77-FC36
	Fan Cord, 48", 45° Blunt Cut	77-FC48
	Fan Cord, 72", 45° Blunt Cut	77-FC72

## Specifications

### Electrical Characteristics

**Insulation Resistance:** 10M± Min. (at 500VDC) between frame and positive terminal

**Dielectric Strength:**

**DC Types:** 500VAC, 1 minute; 600VAC, 1 sec at 5mA Max. between frame and positive terminal

**AC Types:** 1500VAC, 1 minute; 1800VAC, 1 sec at 5mA Max. between frame and positive terminal

**Life Expectancy:**

**DC Types:** Approx. 70000 hrs at rated voltage, +40°C, 15% to 65% RH

**AC Types:** Approx. 50000 hrs at rated voltage, +25°C, 15% to 65% RH

### Mechanical Characteristics

**Frame:**

**DC Types:** Thermoplastic, Black, UL94V-0

**AC Types:** Die-Cast Aluminum, Black

**Impeller:** Thermoplastic, Black, UL94V-0

**Bearing:**

**DC Types:** 2 Ball Bearings

**AC Types:** Ball Bearing

**Weight:**

**DC Types:** Approx. 54g (15mm); 76g (25mm)

**AC Types:** Approx. 208g (25mm); 340g (38mm)

### Environmental Characteristics

**Operating Temperature:** -10°C to +70°C

**Storage Temperature:** -40°C to +75°C

**Operating Humidity:** 35% to 85% RH

**Storage Humidity:** 35% to 85% RH

### Protection

**Polarity (DC Types ONLY):** Damage will not occur for up to 10 minutes with positive and negative leads connected in reverse.

**Locked Rotor:** Within 72 hours of a rotor locking condition, at the rated voltage and operating temperature, the impedance of the motor winding will protect the motor from damage.

# Fan, AC Types, 92 x 92mm

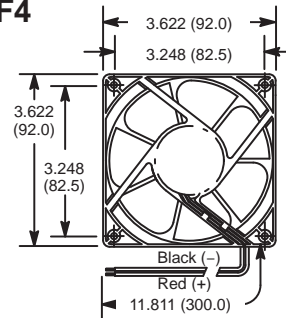


## Features

- High Speed
- Ball Bearing
- Terminal Types – “T” Suffix
- 22 AWG Black Leads
- 11.8” (300mm) Lead Length

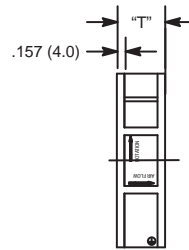


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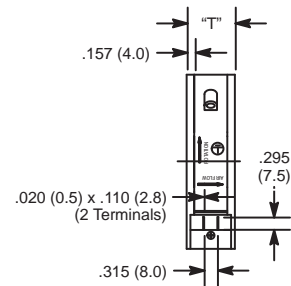


	Thickness "T"	
	DC	AC
25mm	N/A	1.043 (26.5)

a: Lead Types



b: Terminal Types



## AC OPERATED

NTE Type No.	Rated Voltage	Max. Input Current	Max. Input Power (W)	Speed $\pm 10\%$ (RPM)	Max Air Flow (CFM)	Max Acoustical Noise	Diag No.
77-9225A120	115	0.13A	13	1900	30	26dB(A)	F4a
77-9225A120-T	115	0.13A	13	1900	30	26dB(A)	F4b

## ACCESSORIES

FAN TYPE	DESCRIPTION	NTE TYPE NO.
92 X 92mm	Fan Guard, Metal	77-MG92
92 X 92mm	Fan Filter, 3-Piece w/Cover	77-FF92
92 X 92mm, Terminal Type	Fan Cord, 12", 45° Blunt Cut	77-FC12
	Fan Cord, 24", 45° Blunt Cut	77-FC24
	Fan Cord, 36", 45° Blunt Cut	77-FC36
	Fan Cord, 48", 45° Blunt Cut	77-FC48
	Fan Cord, 72", 45° Blunt Cut	77-FC72

## Specifications

### Electrical Characteristics

**Insulation Resistance:** 10M $\Omega$  Min. (at 500VDC) between frame and positive terminal

**Dielectric Strength:** 1500VAC, 1 minute; 1800VAC, 1 sec at 5mA Max. between frame and positive terminal

**Life Expectancy:** Approx. 50000 hours at rated voltage, +25°C, 15% to 65% RH

### Mechanical Characteristics

**Frame:** Die-Cast Aluminum, Black

**Impeller:** Thermoplastic, Black, UL94V-0

**Bearing:** Ball Bearing

**Weight:** Approx. 240g

### Environmental Characteristics

**Operating Temperature:** -10°C to +70°C

**Storage Temperature:** -40°C to +75°C

**Operating Humidity:** 35% to 85% RH

**Storage Humidity:** 35% to 85% RH

### Protection

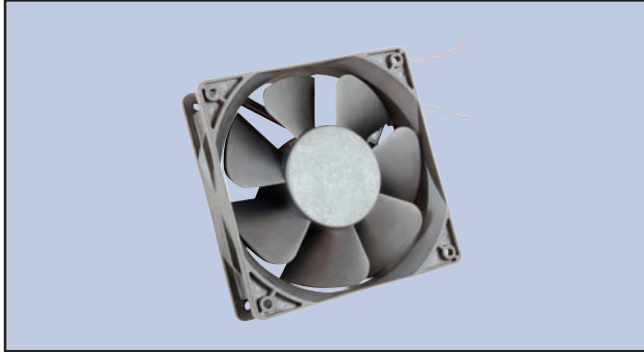
**Locked Rotor:** Within 72 hours of a rotor locking condition, at the rated voltage and operating temperature, the impedance of the motor winding will protect the motor from damage.

# Fan, AC & DC Types, 120 x 120mm

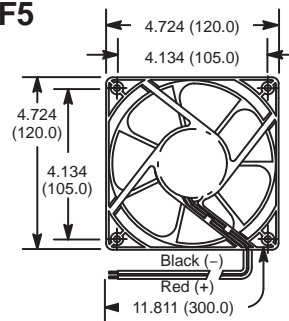


## Features

- High Speed
- Ball Bearings
- Terminal Types – “T” Suffix
- 24 AWG Red (+) and Black (-) Leads – DC Types
- 22 AWG Black Leads – AC Types
- 11.8” (300mm) Lead Length

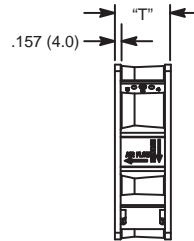


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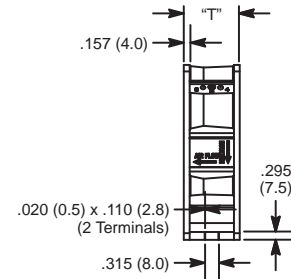


	Thickness “T”	
	DC	AC
25mm	1.000 (25.4)	1.043 (26.5)
32mm	1.256 (32.0)	N/A
38mm	1.496 (38.0)	1.496 (38.0)

a: Lead Types



b: Terminal Types



## DC OPERATED

NTE Type No.	Rated Voltage	Max. Input Current	Max. Input Power (W)	Speed $\pm 10\%$ (RPM)	Max Air Flow (CFM)	Max Acoustical Noise	Diag No.
77-12025D12	12	0.46A	5.5	2400	87.79	44dB(A)	F5a
77-12025D24	24	0.40A	9.6	2400	87.79	44dB(A)	F5a
77-12032D12	12	0.69A	8.2	3750	121.53	55dB(A)	F5a
77-12032D24	24	0.32A	7.73	3750	108.94	55dB(A)	F5a
77-12038D12	12	1.50A	17.94	3800	138.49	54dB(A)	F5a
77-12038D24	24	0.69A	16.56	3800	138.49	54dB(A)	F5a

## AC OPERATED

NTE Type No.	Rated Voltage	Max. Input Current	Max. Input Power (W)	Speed $\pm 10\%$ (RPM)	Max Air Flow (CFM)	Max Acoustical Noise	Diag No.
77-12025A120	115	0.17A	14	2450	68	39dB(A)	F5a
77-12025A120-T	115	0.17A	14	2450	68	39dB(A)	F5b
77-12038A120	115	0.30A	29	3000	111	44dB(A)	F5a
77-12038A120-T	115	0.30A	29	3000	111	44dB(A)	F5b

## ACCESSORIES

FAN TYPE	DESCRIPTION	NTE TYPE NO.
120 X 120mm	Fan Guard, Metal	77-MG1212
120 X 120mm	Fan Filter, 3-Piece w/Cover	77-FF120
120 X 120mm, Terminal Type	Fan Cord, 12", 45° Blunt Cut	77-FC12
	Fan Cord, 24", 45° Blunt Cut	77-FC24
	Fan Cord, 36", 45° Blunt Cut	77-FC36
	Fan Cord, 48", 45° Blunt Cut	77-FC48
	Fan Cord, 72", 45° Blunt Cut	77-FC72

## Specifications

### Electrical Characteristics

**Insulation Resistance:** 10M $\Omega$  Min. (at 500VDC) between frame and positive terminal

**Dielectric Strength:**

**DC Types:** 500VAC, 1 minute; 600VAC, 1 sec at 5mA Max. between frame and positive terminal

**AC Types:** 1500VAC, 1 minute; 1800VAC, 1 sec at 5mA Max. between frame and positive terminal

**Life Expectancy:**

**DC Types:** Approx. 70000 hrs at rated voltage, +40°C, 15% to 65% RH

**AC Types:** Approx. 50000 hrs at rated voltage, +25°C, 15% to 65% RH

### Mechanical Characteristics

**Frame:**

**DC Types:** Thermoplastic, Black, UL94V-0

**AC Types:** Die-Cast Aluminum, Black

**Impeller:** Thermoplastic, Black, UL94V-0

**Bearing:**

**DC Types:** 2 Ball Bearings

**AC Types:** Ball Bearing

**Weight:**

**DC Types:** Approx. 164g (25mm); 250g (32mm); 290g (38mm)

**AC Types:** Approx. 370g (25mm); 500g (38mm)

### Environmental Characteristics

**Operating Temperature:** -10°C to +70°C

**Storage Temperature:** -40°C to +75°C

**Operating Humidity:** 35% to 85% RH

**Storage Humidity:** 35% to 85% RH

### Protection

**Polarity (DC Types ONLY):** Damage will not occur for up to 10 minutes with positive and negative leads connected in reverse.

**Locked Rotor:** Within 72 hours of a rotor locking condition, at the rated voltage and operating temperature, the impedance of the motor winding will protect the motor from damage.

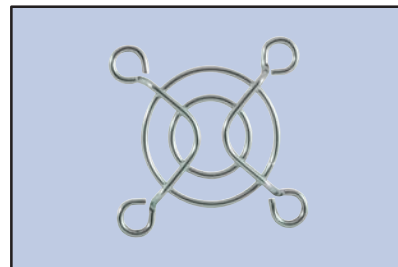
## 77-MG40

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### Fan Guard, Metal

#### Features

- For 40mm x 40mm Fans



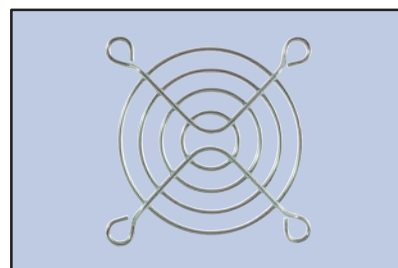
## 77-MG60

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### Fan Guard, Metal

#### Features

- For 60mm x 60mm Fans



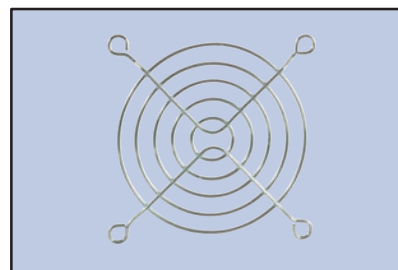
## 77-MG80

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### Fan Guard, Metal

#### Features

- For 80mm x 80mm Fans



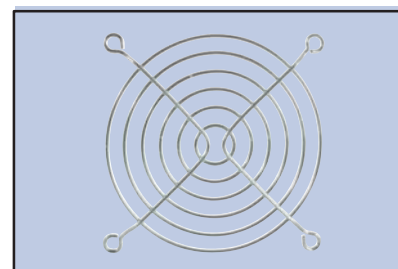
## 77-MG92

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### Fan Guard, Metal

#### Features

- For 92mm x 92mm Fans

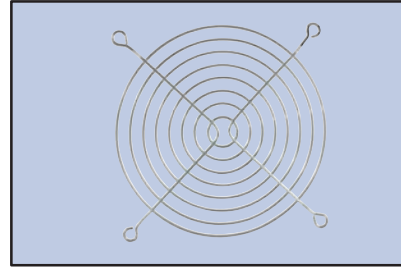


# 77-MG120

## Fan Guard, Metal

### Features

- For 120mm x 120mm Fans



# 77-FF40 thru 77-FF120

## Fan Filter, 3-Piece

### Contains:

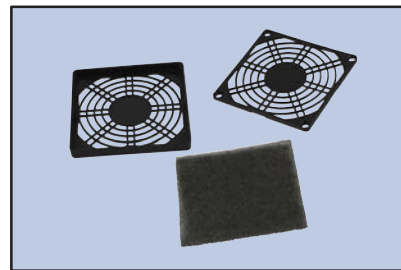
- 1 UL94-V0 Plastic Base (that attaches to the fan)
- 1 Nylon Fiber Synthetic Resin Filter
- 1 1 UL94-V0 Plastic Cover

### Features

- 35PPI Rating

### Fan Applications:

- 40mm x 40mm uses 77-FF40
- 60mm x 60mm uses 77-FF60
- 80mm x 80mm uses 77-FF80
- 92mm x 92mm uses 77-FF92
- 120mm x 120mm uses 77-FF120



# 77-FC12 thru 77-FC72

## Fan Cord

### Features

- Black Molded PVC Hood with Copper Terminal Connector
- Power Cable, Bar Copper 17\*0.15 BC/2C, Black PVC Jacket
- (UL) SPT-1 60°C VW-1 22AWGX2C

### Cord Lengths:

- 77-FC12 - 12 inches
- 77-FC24 - 24 inches
- 77-FC36 - 36 inches
- 77-FC48 - 48 inches
- 77-FC72 - 72 inches

