

# Roxburgh MIF3 Series EMI Filters

## Three-phase Drive Rated EMI Filters - Very High Performance

The MIF3 Series industrial multi-stage EMI filters are most suitable for drive applications requiring long cable lengths between the drive and motor, as well as a variety of other industrial applications. The multi-stage filters provide higher attenuation performance than two-stage KMF series filters (See respective filter attenuation curves in datasheet online for specific noise mitigation). All MIF3 series filters are installed on the line side, ahead of the drive, and provide effective filtering for supply

voltages from 0-500V and frequencies of 0-60Hz. Ideal for 230V or 460V drives as well as DC applications.

The MIF3 filters are available in 11 current ratings from 10 Amps to 800 Amps. The ultra-compact design offers flat or side mounting (MIF3800- side mounting only), a ventilated metal case, and screw or stud terminations. All products are RoHS compliant, include UL and cUL approvals, and are CE.

### Features

- 230/460 VAC, 50/60 Hz, 3-phase
- 10A - 800A models
- Panel mount, flat and side
- Ultra-compact, low profile ventilated metal case
- Screw or stud terminals

Filter performance curves are available on item page at [www.AutomationDirect.com](http://www.AutomationDirect.com)

### Applications

- AC Drives applications requiring long cable lengths between drive and motor
- Electrically noisy applications requiring high filter performance.

### Standards and Certifications



MIF3 Series Filters			
Part Number	Price	Description	Line & Load Side Protective Boot*
MIF310	\$154.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 10A	N/A
MIF316	\$160.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 16A	
MIF323	\$183.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 23A	
MIF330B	\$194.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 30A	SLV37 - 3pk
MIF350	\$313.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 50A	SLV38 - 3pk
MIF375	\$330.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 75A	SLV39 - 3pk
MIF3100	\$414.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 100A	
MIF3150	\$622.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 150A	SLV40 - 3pk
MIF3180	\$630.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 180A	
MIF3400B	\$1,103.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 400A	N/A
MIF3800	\$2,039.00	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 800A	

# Roxburgh MIF3 Series EMI Filters

General Specifications	
<b>Voltage Rating</b>	230/460 VAC, 0-60 Hz
<b>Voltage Max.</b>	528V
<b>Voltage Withstand</b>	2900VDC/ 60 secs.
<b>Phase</b>	3
<b>UL/IEC Pollution Class</b>	Degree II
<b>Humidity</b>	93% RH (non-condensing)
<b>Overload Current</b>	135% 2Hrs, 150% 60s
<b>Insulation Resistance</b>	500VDC >3.5 MΩ
<b>Climate Class (IEC 60068-1)</b>	-25/85/21
<b>Temperature Rise</b>	45°C
<b>Temperature Rating</b>	-13 to 185°F (-25 to 85°C)
<b>Flammability (UL94)</b>	V-2
<b>Case Material</b>	Aluminum
<b>Altitude*</b>	1000m (3000m with derating)
<b>Mounting Clearance</b>	≥50mm gap
<b>Agency Approval**</b>	CE (EN 60939-1), cURus: File# E191581 (Standard: UL1283 & C22.2 No.8)

Temperature Derating Chart above 40°C*										
	Part Number	Ambient °C								
		40	45	50	55	60	65	70	75	80
Continuous Ampacity at Ambient °C	MIF310	10.00	9.34	8.65	7.94	7.18	6.36	5.46	4.42	3.10
	MIF316	16.00	14.94	13.84	12.70	11.49	10.18	8.74	7.08	4.96
	MIF323	23.00	21.48	19.90	18.25	16.51	14.64	12.56	10.17	7.13
	MIF330B	30.00	28.01	25.96	23.81	21.54	19.09	16.39	13.27	9.30
	MIF350	50.00	46.69	43.26	39.68	35.89	31.82	27.31	22.11	15.50
	MIF375	75.00	70.03	64.89	59.52	53.84	47.73	40.97	33.16	23.25
	MIF3100	100.00	93.37	86.52	79.36	71.79	63.64	54.63	44.22	31.00
	MIF3150	150.00	140.06	129.78	119.04	107.68	95.45	81.94	66.33	46.50
	MIF3180	180.00	168.07	155.74	142.85	129.22	114.55	98.33	79.59	55.80
	MIF3400B	400.00	373.50	346.08	317.45	287.15	254.55	218.51	176.88	124.01
	MIF3800	800.00	747.00	692.17	634.89	574.31	509.09	437.02	353.75	248.02

\*NOTE: Using these filters above 40°C would comprise a non-UL application of device.

\*Derate 1% per 100m after 1000m; Max 3000m.

\*\*To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific component part number web page.

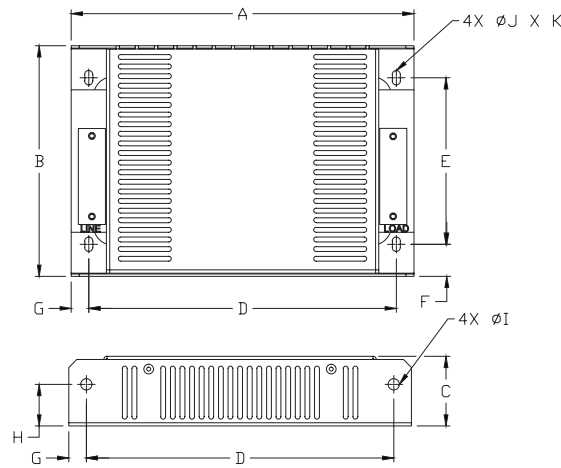
Specifications													
	Parameter	MIF310	MIF316	MIF323	MIF330B	MIF350	MIF375	MIF3100	MIF3150	MIF3180	MIF3400B	MIF3800	
	<b>Max Power, kW [max/ph]</b>	8.3 [2.4]	13.3 [3.8]	19.1 [5.5]	24.9 [7.2]	41.5 [12]	62.3 [18]	83 [24]	124.6 [36]	149.5 [43.2]	332.2 [96]	664.3 [192]	
	<b>Current Rating (A)</b>	10	16	23	30	50	75	100	150	180	400	800	
	<b>SCCR Rating (kA)</b>	5				10				30			
	<b>Ingress Protection</b>	IP20				IP00							
GND Terminal	<b>Terminal Style</b>	Screw			Stud M5	Stud M8				Stud M10			
	<b>Torque, lb-in [N·m]</b>	4.4 [0.5]			17.7 [2]	53.1 [6]				221.2 [25]			
	<b>Ring Terminal Size</b>	N/A			M5 (#10)	M8 (5/16")				M10 (3/8")			
Wire Terminal	<b>Terminal Style</b>	Screw			Stud M5	Stud M8			Stud M10		Stud M12		
	<b>Torque, lb-in [N·m]</b>	4.4 [0.5]			17.7 [2]	39.8 [4.5]	53.1 [6]		177 [20]		265.5 [30]		
	<b>Max Wire Gauge (AWG)</b>	12			N/A								
	<b>Ring Terminal Size</b>	N/A			M5 (#10)	M8 (5/16")			M10 (3/8")		M12 (1/2")		
	<b>Operational Leakage Current (mA)</b>	4.2	8.9	8.9	15.0	7.3	10.4	15.0	22.6		663.4	884.5	
	<b>Total Resistance (Line to Load) (mΩ/ph)</b>	44	13.3	12.7	14.1	3.4	3.4	2.5	1.23	1.63	88μΩ/ph	31μΩ/ph	
	<b>Residual Voltage (V@5s)</b>	1	44		391	19	126	132	288		595V@5s, 0V @270s	615V@5s, 0V @300s	
	<b>Heat Dissipation (W/ph)</b>	4.4	3.4	6.7	12.7	8.47	19	25	27.7	52.7	14.1	20	
	<b>Weight (lb [kg])</b>	1.8 [0.8]	3.4 [1.5]	3.0 [1.4]	5.3 [2.4]	11.9 [5.3]	13.4 [6.1]	20.2 [9.2]	38.8 [17.6]	32.2 [14.6]	48.7 [22.12]	74.2 [33.7]	

# Roxburgh MIF3 Series EMI Filters

## Dimensions

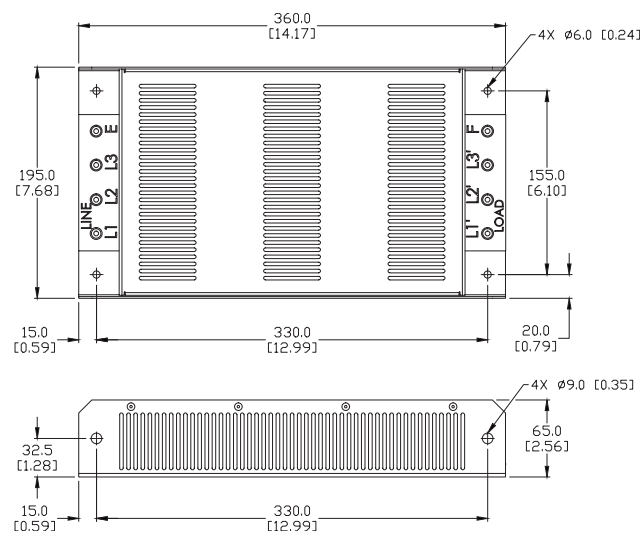
mm [inches]

**MIF310**  
**MIF316**  
**MIF323**



PART NUMBER	A	B	C	D	E	F	G	H	ØI	ØJ	K
MIF310	214.0 [8.42]	144.0 [5.67]	43.5 [1.71]	192.0 [7.56]	104.0 [4.09]	20.0 [0.79]	11.0 [0.43]	26.0 [1.02]	7.0 [0.28]	5.0 [0.20]	9.0 [0.35]
MIF316	214.0 [8.42]	204.0 [8.03]	50.0 [1.97]	192.0 [7.56]	164.0 [6.45]	20.0 [0.79]	11.0 [0.43]	27.5 [1.08]	7.0 [0.28]	5.0 [0.20]	N/A
MIF323	214.0 [8.42]	204.0 [8.03]	50.0 [1.97]	192.0 [7.56]	164.0 [6.45]	20.0 [0.79]	11.0 [0.43]	27.5 [1.08]	7.0 [0.28]	5.0 [0.20]	N/A

**MIF330B**

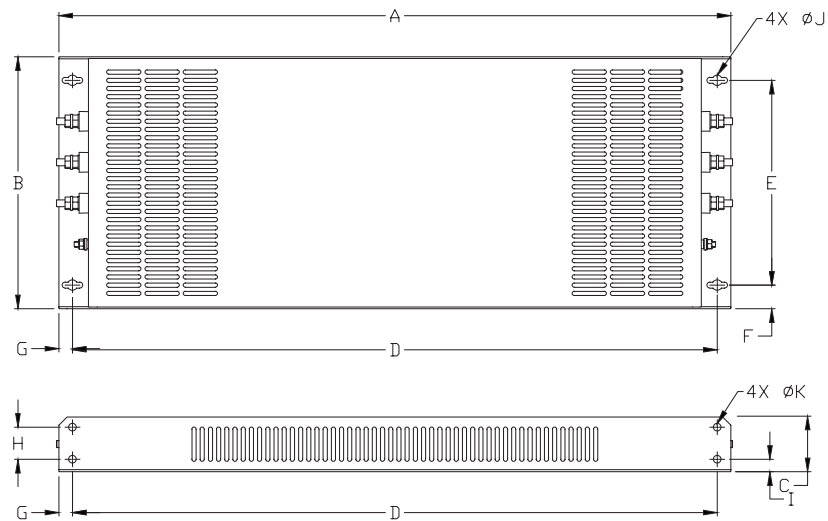


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## Dimensions

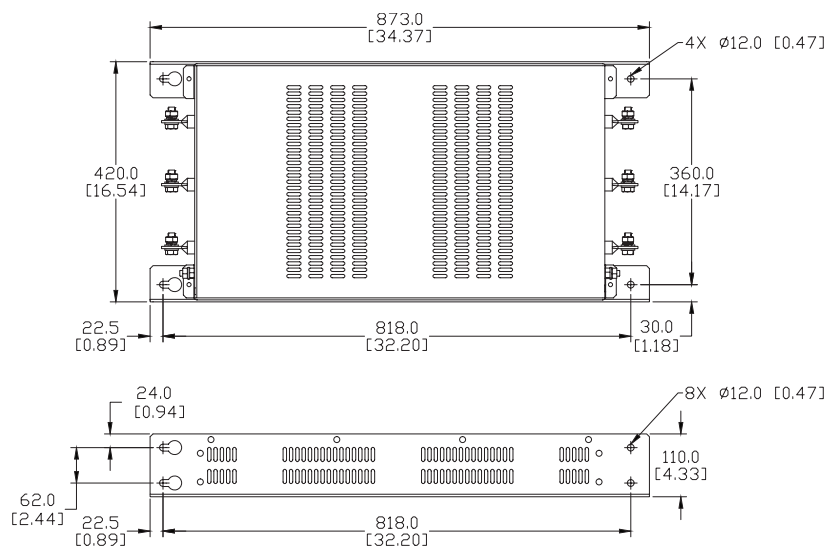
mm [inches]

**MIF350**  
**MIF375**  
**MIF3100**  
**MIF3150**  
**MIF3180**



PART NUMBER	A	B	C	D	E	F	G	H	I	ØJ	ØK
MIF350	618.0 [24.32]	229.0 [9.01]	68.2 [2.68]	578.0 [22.75]	160.0 [6.30]	34.5 [1.36]	20.0 [0.79]	35.0 [1.38]	18.2 [0.72]	11.0 [0.43]	7.0 [0.28]
MIF375	686.0 [27.00]	260.9 [10.27]	68.2 [2.68]	646.0 [25.42]	192.0 [7.56]	34.5 [1.36]	20.0 [0.79]	35.0 [1.38]	18.2 [0.72]	12.7 [0.50]	9.0 [0.35]
MIF3100	785.0 [30.89]	274.8 [10.81]	80.2 [3.16]	741.0 [29.16]	215.0 [8.46]	29.9 [1.18]	22.0 [0.87]	47.0 [1.85]	18.2 [0.72]	13.0 [0.51]	9.0 [0.35]
MIF3150	984.0 [38.72]	369.0 [14.52]	81.4 [3.20]	944.0 [37.15]	300.0 [11.81]	34.5 [1.36]	20.0 [0.79]	47.0 [1.85]	18.2 [0.72]	15.0 [0.59]	11.0 [0.43]
MIF3180	984.0 [38.72]	369.0 [14.52]	81.4 [3.20]	944.0 [37.15]	300.0 [11.81]	34.5 [1.36]	20.0 [0.79]	47.0 [1.85]	18.2 [0.72]	15.0 [0.59]	11.0 [0.43]

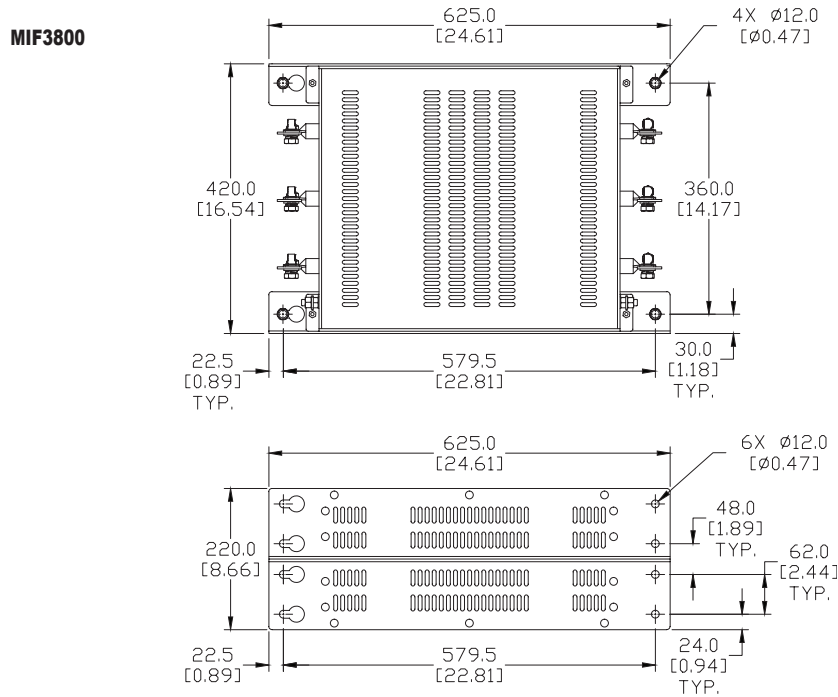
### MIF3400B



# Roxburgh MIF3 Series EMI Filters

## Dimensions

mm [inches]

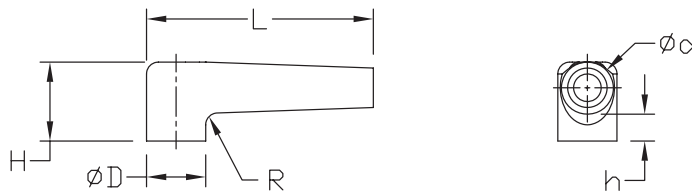


## Protective Boot for MIF3 Series

One set of protective boots is included with filter order where applicable. Table below contains replacement protective boot part numbers for the associated MIF3 Series Filters.

## Dimensions

mm [inches]



FOR USE WITH	SLEEVE PART NUMBER	ØD	H	L	h	ød	R
MIF330B	SLV37-3PK	12.0 [0.47]	20.0 [0.79]	50.0 [1.97]	7.0 [0.28]	7.0 [0.28]	3.0 [0.12]
MIF350	SLV38-3PK	17.0 [0.67]	30.0 [1.18]	60.0 [2.36]	10.0 [0.39]	10.0 [0.39]	5.0 [0.20]
MIF375 MIF3100	SLV39-3PK	22.0 [0.87]	35.0 [1.38]	70.0 [2.75]	12.0 [0.47]	15.0 [0.59]	6.0 [0.24]
MIF3150 MIF3180	SLV40-3PK	28.0 [1.10]	40.0 [1.57]	70.0 [2.75]	12.0 [0.47]	15.0 [0.59]	8.0 [0.31]