

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 drives 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

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	\$;-010j,:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 10A	N/A
MIF316	\$010k0:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 16A	
MIF323	\$010k1:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 23A	
MIF330B	\$010k2:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 30A	SLV37 - 3pk
MIF350	\$010k3:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 50A	SLV38 - 3pk
MIF375	\$010k4:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 75A	SLV39 - 3pk
MIF3100	\$010k5:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 100A	
MIF3150	\$;0010k6:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 150A	SLV40 - 3pk
MIF3180	\$;0010k7:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 180A	
MIF3400B	\$;0010k8:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 400A	N/A
MIF3800	\$;0010k9:	EMI Input Filter for 3-phase AC drives, 230/460 VAC, 800A	

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

* 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.

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	800.0	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.

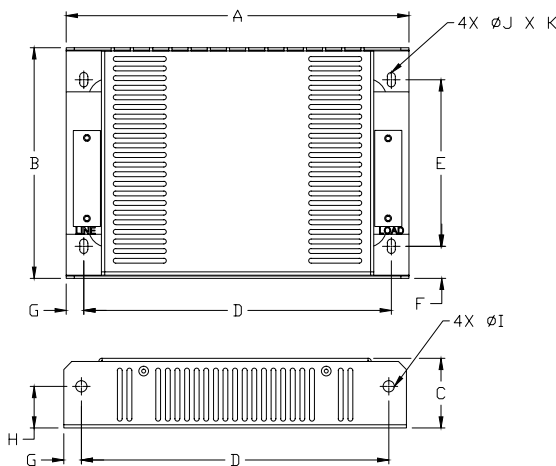
Specifications												
	Parameter	MIF310	MIF316	MIF323	MIF330B	MIF350	MIF375	MIF3100	MIF3150	MIF3180	MIF3400B	MIF3800
	Max Power, kW [max/ph]	8.3 [2.4]	13.3 [3.8]	19.1 [5.5]	24.9 [7.2]	41.5 [12]	62.3 [18]	83 [24]	124.6 [36]	149.5 [43.2]	332.2 [96]	664.3 [192]
	Current Rating (A)	10	16	23	30	50	75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

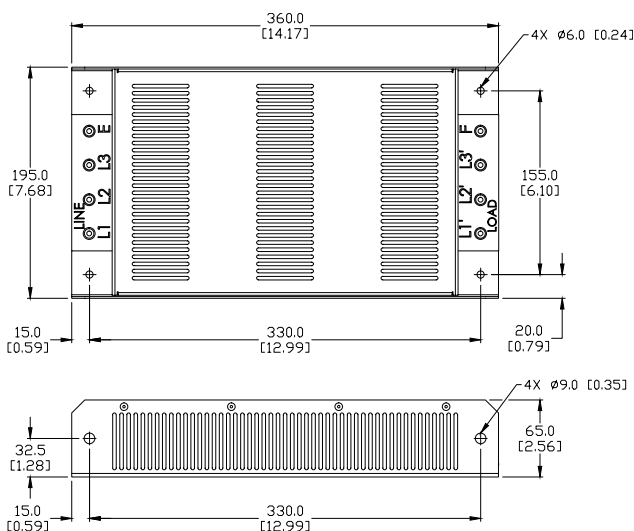
mm [inches]

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

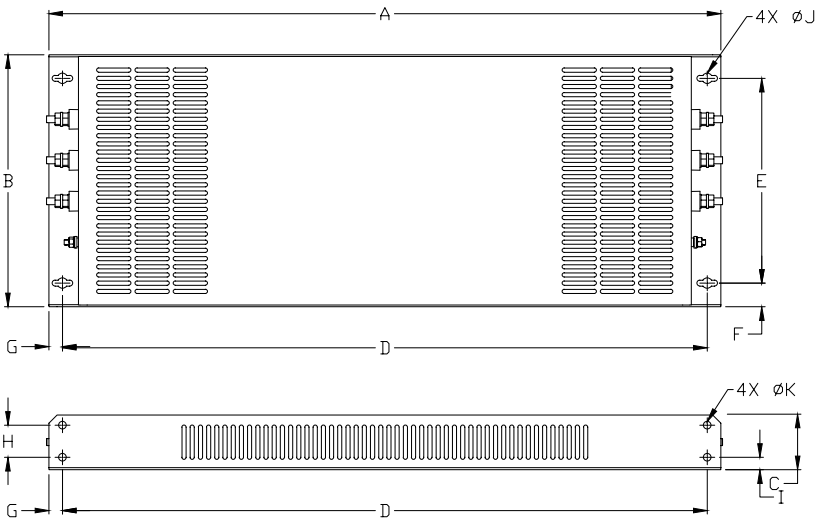


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Dimensions

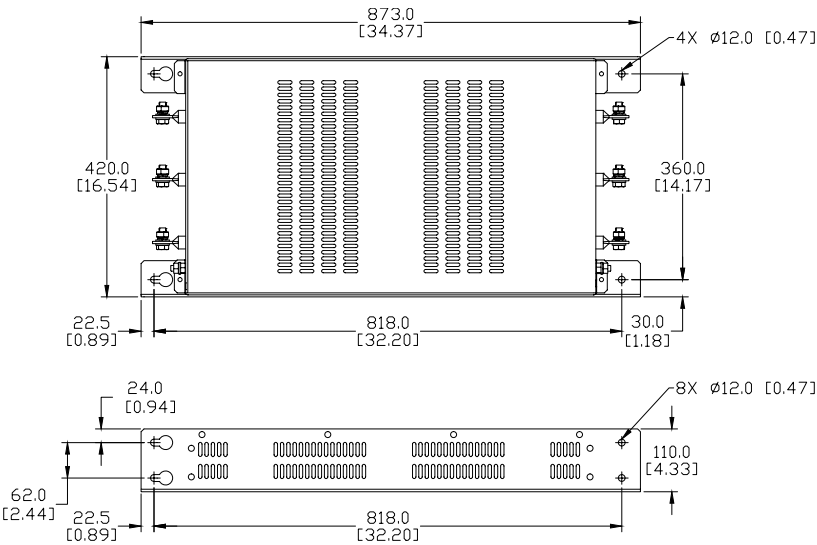
mm [inches]

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

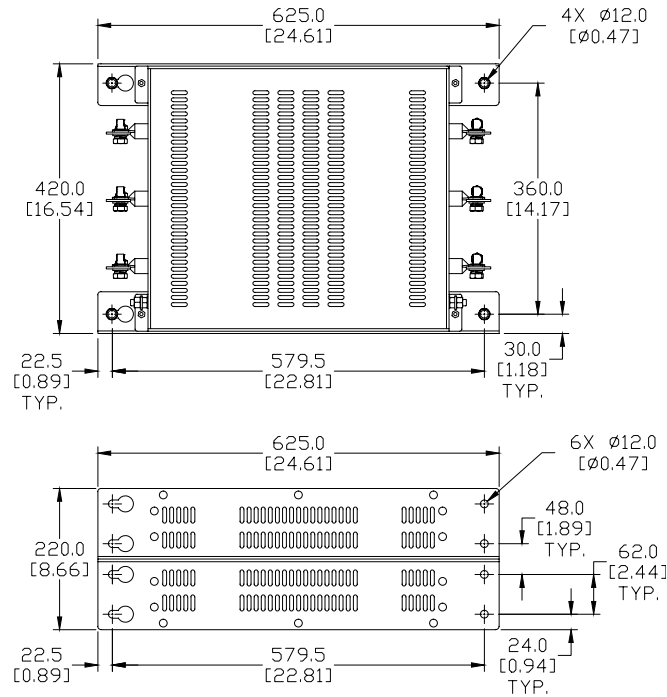


Roxburgh MIF3 Series EMI Filters

Dimensions

mm [inches]

MIF3800

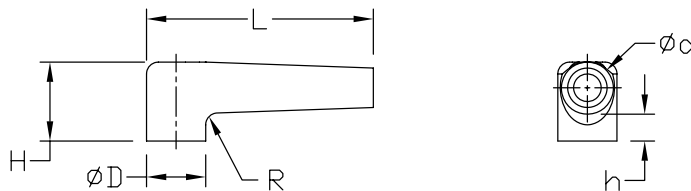


Protective Boot for MIF3 Series

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	$\varnothing D$	H	L	h	$\varnothing d$	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]