

Roxburgh KMFA Series EMI Filters

Three-phase Drive Rated EMI Filters - High Performance

The Roxburgh KMFA Series filters are economically priced and specifically designed as a line filter for 230/460 VAC, 3-phase devices. The two-stage design provides good performance for both common mode and differential mode interference and are rated

from 6A to 100A at up to 500V. KMFA high performance three-phase industrial mains filters are designed for all drives applications including servos and AC or DC drives. The filters are designed to be mounted in a cabinet.

Features

- 230/460 VAC, 0-60 Hz, three-phase
- 6A - 100A models
- Rugged metal case
- Screw terminals
- Threaded GND lug
- Lightweight side mounting
- Panel mount

*Filter performance curves are available at www.AutomationDirect.com

Applications

- Drives applications
- Electrically noisy applications requiring high filter performance
- Ideally suited for products that must conform to part 15, FCC regulations
- Industrial applications include motor drives and inverters, machine tools, UPS, industrial controls, digital electronics, process controls and mechanical handling equipment, etc.

Standards and Certifications



| KMFA EMI Filters | | |
|------------------|----------|---|
| Part Number | Price | Description |
| KMF306A | \$84.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 6A |
| KMF310A | \$85.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 10A |
| KMF318A | \$112.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 18A |
| KMF325A | \$124.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 25A |
| KMF336A | \$144.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 36A |
| KMF350A | \$199.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 50A |
| KMF370A | \$229.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 70A |
| KMF3100A | \$237.00 | EMI Input Filter for 3-phase AC drives, 230/460 VAC, 100A |



| 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 >3.5M Ohms |
| 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 Approvals** | 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 | KMF306A | 6.00 | 5.60 | 5.19 | 4.76 | 4.31 | 3.82 | 3.28 | 2.65 | 1.86 |
| | KMF310A | 10.00 | 9.34 | 8.65 | 7.94 | 7.18 | 6.36 | 5.46 | 4.42 | 3.10 |
| | KMF318A | 18.00 | 16.81 | 15.57 | 14.29 | 12.92 | 11.45 | 9.83 | 7.96 | 5.58 |
| | KMF325A | 25.00 | 23.34 | 21.63 | 19.84 | 17.95 | 15.91 | 13.66 | 11.05 | 7.75 |
| | KMF336A | 26.00 | 24.28 | 22.50 | 20.63 | 18.66 | 16.55 | 14.20 | 11.50 | 8.06 |
| | KMF350A | 50.00 | 46.69 | 43.26 | 39.68 | 35.89 | 31.82 | 27.31 | 22.11 | 15.50 |
| | KMF370A | 70.00 | 65.36 | 60.56 | 55.55 | 50.25 | 44.55 | 38.24 | 30.95 | 21.70 |
| | KMF3100A | 100.00 | 93.37 | 86.52 | 79.36 | 71.79 | 63.64 | 54.63 | 44.22 | 31.00 |

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

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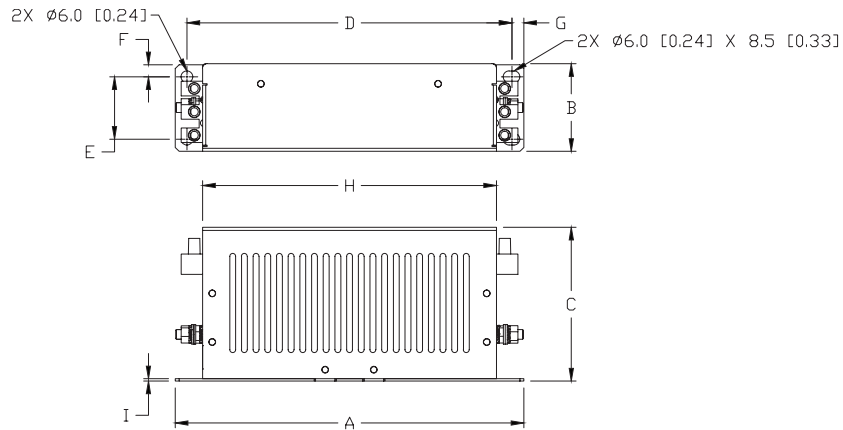
| Specifications | | | | | | | | | | | |
|----------------------|--|-----------------|--------------|---------------|-------------|-----------------|-----------------|----------------|------------|--|--|
| | Parameter | KMF306A | KMF310A | KMF318A | KMF325A | KMF336A | KMF350A | KMF370A | KMF3100A | | |
| | Max Power, kW (max/ph) | 5 (1.4) | 8.3 (2.4) | 14.9 (4.3) | 20.8 (6) | 29.9 (8.6) | 41.5 (12) | 58.1 (16.8) | 83 (24) | | |
| | Current Rating (A) | 6 | 10 | 18 | 25 | 36 | 50 | 70 | 100 | | |
| | SCCR Rating (kA) | 5 | | | | | 10 | 5 | 10 | | |
| | Ingress Protection | IP20 | | | | | | | | | |
| GND Terminal | Terminal Style | M5x15 Stud (SS) | | | | M6x20 Stud (SS) | M8x23 Stud (SS) | | | | |
| | Torque, lb-in (N·m) | 17.7 (2) | | | | 35.4 (4) | 53.1 (6) | | | | |
| | Ring Terminal Size | M5 (#10) | | | | M6 (1/4) | M8 (5/16) | | | | |
| Wire Terminal | Terminal Style | Screw | | | | | | | | | |
| | Torque, lb-in (N·m) | 7 (0.8) | | | 17.7 (2) | | | 44.2 (5) | | | |
| | Max Wire Gauge (AWG) | 10 | | | 8 | | | 2 | | | |
| | Operational Leakage Current (mA) | 7.2 | 6.8 | 7.2 | 13.5 | 17.6 | 22.8 | 21.4 | 30.6 | | |
| | Total Resistance (Line to Load) (mΩ/ph) | 33 | 14 | 11.4 | 4.2 | 4.12 | 2.1 | 1.3 | 0.96 | | |
| | Residual Voltage (V@5s) | 204V@5s | 116V@5s | 204V@5s | 204V@5s | 463V@5s | 463V@5s | 544V@5s | 544V@5s | | |
| | Heat Dissipation (W/ph) | 1.2 | 1.4 | 3.7 | 2.6 | 5.34 | 5.25 | 6.4 | 9.6 | | |
| | Weight lbs (kg) | 1.5 (0.7) | 1.7 (0.8) | 2.7 (1.25) | 3.59 (1.63) | 4.2 (1.9) | 7.3 (3.3) | 8.6 (3.9) | 9 (4.1) | | |

Roxburgh KMFA Series EMI Filters

Dimensions

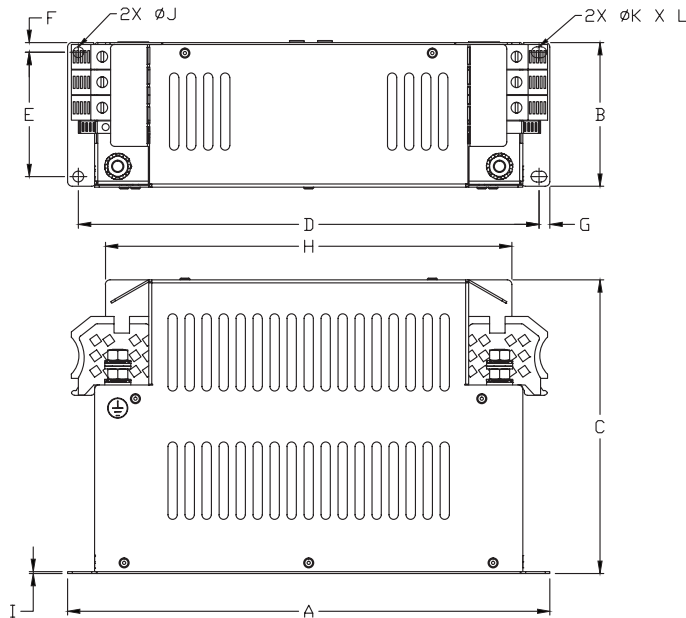
mm [inches]

KMF306A
KMF310A
KMF318A
KMF325A



| PART NUMBER | A | B | C | D | E | F | G | H | I |
|-------------|-----------------|----------------|-----------------|-----------------|----------------|---------------|---------------|-----------------|---------------|
| KMF306A | 179.0 [7.04] | 45.0 [1.77] | 79.0 [3.11] | 167.0 [6.57] | 32.0 [1.26] | 6.3 [0.25] | 6.3 [0.25] | 151.0 [5.94] | 1.2 [0.05] |
| KMF310A | 179.0 [7.04] | 45.0 [1.77] | 79.0 [3.11] | 167.0 [6.57] | 32.0 [1.26] | 6.3 [0.25] | 6.3 [0.25] | 151.0 [5.94] | 1.2 [0.05] |
| KMF318A | 229.0 [9.01] | 55.2 [2.17] | 115.5 [4.55] | 217.0 [8.54] | 42.0 [1.65] | 5.6 [0.22] | 6.0 [0.24] | 201.0 [7.91] | 1.2 [0.05] |
| KMF325A | 229.0 [9.01] | 55.2 [2.17] | 115.5 [4.55] | 217.0 [8.54] | 42.0 [1.65] | 5.6 [0.22] | 6.0 [0.24] | 201.0 [7.91] | 1.2 [0.05] |

KMF336A
KMF350A
KMF370A
KMF3100A



| PART NUMBER | A | B | C | D | E | F | G | H | I | ØJ | ØK | L |
|-------------|------------------|----------------|-----------------|------------------|----------------|---------------|---------------|------------------|---------------|---------------|---------------|----------------|
| KMF336A | 269.0 [10.59] | 73.2 [2.88] | 162.2 [6.38] | 258.0 [10.15] | 60.0 [2.36] | 5.9 [0.23] | 7.0 [0.28] | 226.0 [8.89] | 1.2 [0.05] | 6.5 [0.26] | 6.5 [0.26] | 9.5 [0.37] |
| KMF350A | 312.0 [12.28] | 93.5 [3.68] | 190.0 [7.48] | 298.0 [11.73] | 79.0 [3.11] | 7.8 [0.31] | 7.0 [0.28] | 263.0 [10.35] | 1.2 [0.05] | 7.0 [0.28] | 7.0 [0.28] | 10.0 [0.39] |
| KMF370A | 312.0 [12.28] | 93.5 [3.68] | 190.0 [7.48] | 298.0 [11.73] | 79.0 [3.11] | 7.8 [0.31] | 7.0 [0.28] | 263.0 [10.35] | 1.2 [0.05] | 7.0 [0.28] | 7.0 [0.28] | 10.0 [0.39] |
| KMF3100A | 312.0 [12.28] | 93.5 [3.68] | 190.0 [7.48] | 298.0 [11.73] | 79.0 [3.11] | 7.8 [0.31] | 7.0 [0.28] | 263.0 [10.35] | 1.2 [0.05] | 7.0 [0.28] | 7.0 [0.28] | 10.0 [0.39] |