

# Roxburgh KMFV Series EMI Filters

## Three-phase Drive Rated EMI Filters up to 600V - High Performance

The KMFV high performance, two-stage, three-phase industrial filters are designed for industrial drives applications in harsh environments such as the petrochemical industry. The Roxburgh KMFV Series filters are specifically designed as a line filter for

3-phase, 575VAC devices. They provide good performance for both common mode and differential mode interference and are rated up to 600V. The filters are designed to be mounted in a cabinet.

### Features

- 0-600 VAC, 0-60 Hz, 3-phase
- 6A- 36A models
- Metal case
- Screw terminals
- Separate GND lug
- Panel mount, horizontal or vertical

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

### Applications

- Ideally suited for products that must conform to part 15, FCC regulations
- Industrial AC drives
- Digital electronics

### Standards and Certifications



| KMFV EMI Filters               |          |                                                     |
|--------------------------------|----------|-----------------------------------------------------|
| Part Number                    | Price    | Description                                         |
| <a href="#"><u>KMF306V</u></a> | \$119.00 | EMI Input Filter for 3-phase AC drives, 575VAC, 6A  |
| <a href="#"><u>KMF310V</u></a> | \$140.00 | EMI Input Filter for 3-phase AC drives, 575VAC, 10A |
| <a href="#"><u>KMF318V</u></a> | \$151.00 | EMI Input Filter for 3-phase AC drives, 575VAC, 18A |
| <a href="#"><u>KMF325V</u></a> | \$180.00 | EMI Input Filter for 3-phase AC drives, 575VAC, 25A |
| <a href="#"><u>KMF336V</u></a> | \$232.00 | EMI Input Filter for 3-phase AC drives, 575VAC, 36A |

| Filter General Specifications      |                                                                       |
|------------------------------------|-----------------------------------------------------------------------|
| <b>Voltage Rating</b>              | 600VAC                                                                |
| <b>Voltage Max.</b>                | 630V                                                                  |
| <b>Voltage Withstand</b>           | 3100VDC/ 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>       | 500V DC, >3.5M Ohms                                                   |
| <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) |

\* 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.

# Roxburgh KMFV Series EMI Filters

| Specifications |                                        |                 |               |               |           |                 |
|----------------|----------------------------------------|-----------------|---------------|---------------|-----------|-----------------|
|                | Parameter                              | KMF306V         | KMF310V       | KMF318V       | KMF325V   | KMF336V         |
|                | Max Power kW (max/ph)                  | 6.2<br>(1.4)    | 10.4<br>(2.4) | 18.7<br>(4.3) | 26<br>(6) | 37<br>(8.6)     |
|                | Current Rating (A)                     | 6               | 10            | 18            | 25        | 36              |
|                | SCCR Rating (kA)                       | 5               |               |               |           |                 |
|                | Ingress Protection                     | IP20            |               |               |           |                 |
| GND Terminal   | Terminal Style                         | M5x15 Stud (SS) |               |               |           | M6x20 Stud (SS) |
|                | Torque, lb·in (N·m)                    | 17.7 (2)        |               |               |           | 35.4 (4)        |
|                | Ring Terminal Size                     | M5 (#10)        |               |               |           | M6 (1/4)        |
| Wire Terminal  | Terminal Style                         | Screw           |               |               |           |                 |
|                | Torque, lb·in (N·m)                    | 7 (0.8)         |               | 17.7 (2)      |           |                 |
|                | Max Wire Gauge (AWG)                   | 10              |               | 8             |           |                 |
|                | Operational Leakage Current (mA)       | 6               |               | 19.8          |           | 26.4            |
|                | Total Resistance, Line to Load (mΩ/ph) | 33              | 14            | 11.4          | 4.2       | 4.12            |
|                | Residual Voltage (V@5s)                | 48V@5s          |               | 306V@5s       | 305V@5s   | 299V@5s         |
|                | Heat Dissipation (W/ph)                | 1.2             | 1.4           | 3.7           | 2.6       | 5.34            |
|                | Weight lbs. (kg)                       | 1.1 (0.5)       | 1.5 (0.7)     | 3.5 (1.6)     | 4.2 (1.9) | 4.8 (2.2)       |

| Temperature Derating Chart above 40°C* |             |            |       |       |       |       |       |       |       |      |
|----------------------------------------|-------------|------------|-------|-------|-------|-------|-------|-------|-------|------|
|                                        | Part Number | Ambient °C |       |       |       |       |       |       |       |      |
|                                        |             | 40         | 45    | 50    | 55    | 60    | 65    | 70    | 75    | 80   |
| Continuous Ampacity at Ambient °C      | KMF306V     | 6.00       | 5.60  | 5.19  | 4.76  | 4.31  | 3.82  | 3.28  | 2.65  | 1.86 |
|                                        | KMF310V     | 10.00      | 9.34  | 8.65  | 7.94  | 7.18  | 6.36  | 5.46  | 4.42  | 3.10 |
|                                        | KMF318V     | 18.00      | 16.81 | 15.57 | 14.29 | 12.92 | 11.45 | 9.83  | 7.96  | 5.58 |
|                                        | KMF325V     | 25.00      | 23.34 | 21.63 | 19.84 | 17.95 | 15.91 | 13.66 | 11.05 | 7.75 |
|                                        | KMF336V     | 36.00      | 24.28 | 22.50 | 20.63 | 18.66 | 16.55 | 14.20 | 11.50 | 8.06 |

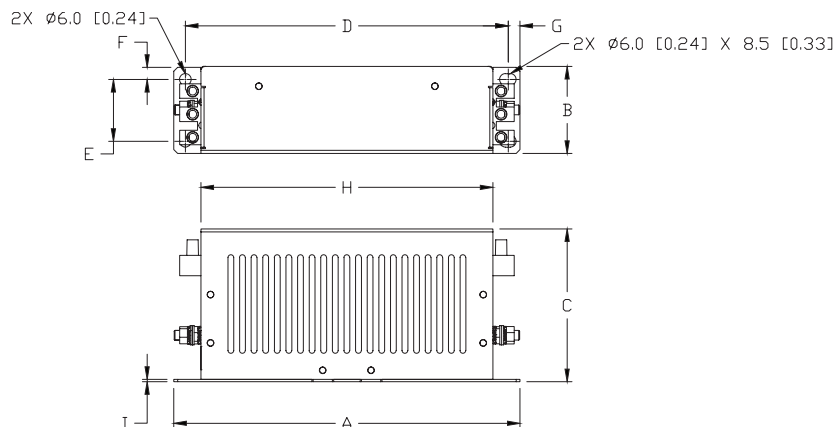
\* NOTE: Using these filters above 40°C would comprise a non-UL application of device.

# Roxburgh KMFV Series EMI Filters

## Dimensions

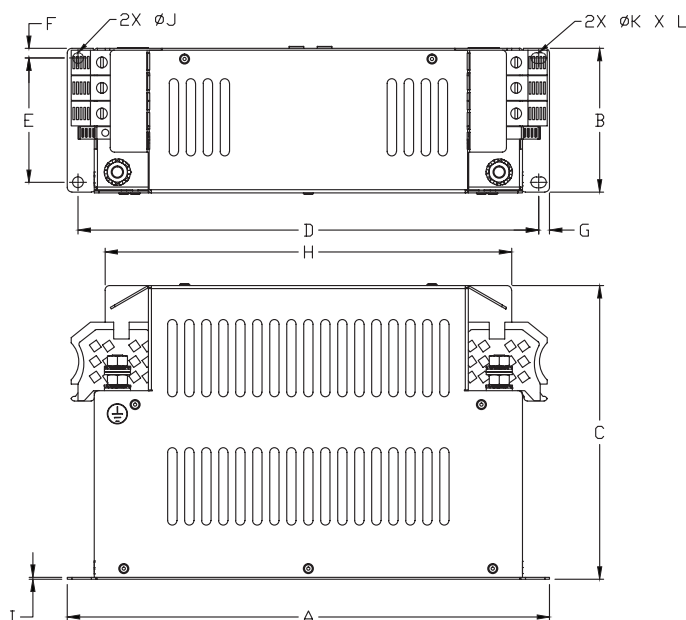
mm [inches]

**KMF306V**  
**KMF310V**  
**KMF318V**  
**KMF325V**



| PART NUMBER | A               | B              | C               | D               | E              | F             | G             | H               | I             |
|-------------|-----------------|----------------|-----------------|-----------------|----------------|---------------|---------------|-----------------|---------------|
| KMF306V     | 179.0<br>[7.04] | 45.0<br>[1.77] | 79.0<br>[3.11]  | 167.0<br>[6.57] | 32.0<br>[1.26] | 6.3<br>[0.25] | 6.3<br>[0.25] | 151.0<br>[5.94] | 1.2<br>[0.05] |
| KMF310V     | 179.0<br>[7.04] | 45.0<br>[1.77] | 79.0<br>[3.11]  | 167.0<br>[6.57] | 32.0<br>[1.26] | 6.3<br>[0.25] | 6.3<br>[0.25] | 151.0<br>[5.94] | 1.2<br>[0.05] |
| KMF318V     | 229.0<br>[9.01] | 55.2<br>[2.17] | 115.5<br>[4.55] | 217.0<br>[8.54] | 42.0<br>[1.65] | 5.6<br>[0.22] | 6.0<br>[0.24] | 201.0<br>[7.91] | 1.2<br>[0.05] |
| KMF325V     | 229.0<br>[9.01] | 55.2<br>[2.17] | 115.5<br>[4.55] | 217.0<br>[8.54] | 42.0<br>[1.65] | 5.6<br>[0.22] | 6.0<br>[0.24] | 201.0<br>[7.91] | 1.2<br>[0.05] |

**KMF336V**



| PART NUMBER | A                | B              | C               | D                | E              | F             | G             | H               | I             | ØJ            | ØK            | L             |
|-------------|------------------|----------------|-----------------|------------------|----------------|---------------|---------------|-----------------|---------------|---------------|---------------|---------------|
| KMF336V     | 272.0<br>[10.70] | 73.2<br>[2.88] | 162.2<br>[6.38] | 258.0<br>[10.15] | 60.0<br>[2.36] | 5.9<br>[0.23] | 7.0<br>[0.28] | 226.0<br>[8.89] | 1.2<br>[0.05] | 6.5<br>[0.26] | 6.5<br>[0.26] | 9.5<br>[0.37] |