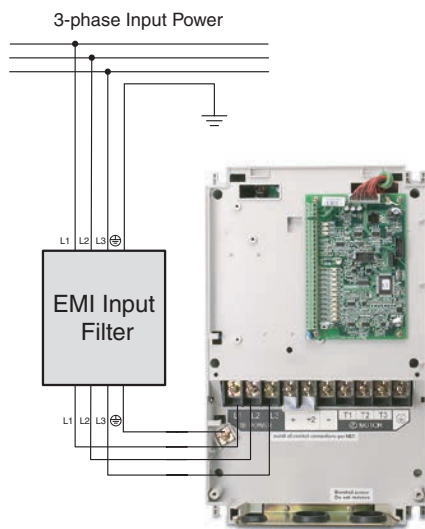


# GS2 & GS3 *DURAPULSE* Accessories – EMI Filters

## Overview

The CE Declaration of Conformity for the *DURAPULSE* GS3 AC drives was completed in conjunction with the EMI filters listed. Use the following table to specify the corresponding EMI filter for each AC drive model.

CE compliance requires the use of EMI filters for *DURAPULSE* GS3 AC drives. GS1 AC drives have internal EMI filtering, and do not require separate filters.



## EMI Input Filter Specifications

| GS AC Drive<br>115V / 230V | GS AC Drive<br>460V / 575V | AC Servo<br>Drive    | EMI Filter                 | Price | Input<br>Power | Dimen-<br>sions |
|----------------------------|----------------------------|----------------------|----------------------------|-------|----------------|-----------------|
| GS2-1xxx                   | –                          | SVA-2040<br>(1-ph) * | <a href="#">20DRT1W3S</a>  |       | 1-phase, 20A   | Figure 1        |
| GS3-23P0 (1-ph)            |                            |                      | <a href="#">32DRT1W3C</a>  |       | 1-phase, 32A   | Figure 2        |
| GS3-23P0                   |                            | –                    | <a href="#">26TDT1W4C</a>  |       | 3-phase, 26A   | Figure 3        |
| –                          | GS3-4020                   | –                    | <a href="#">50TDS4W4C</a>  |       | 3-phase, 50A   | Figure 4        |
| GS3-2020                   | GS3-4040                   | –                    | <a href="#">100TDS84C</a>  |       | 3-phase, 100A  | Figure 5        |
| GS3-2030                   | GS3-4060                   | –                    | <a href="#">150TDS84C</a>  |       | 3-phase, 150A  | Figure 6        |
| GS3-2040                   |                            |                      |                            |       |                |                 |
| GS3-2050                   | –                          | –                    | <a href="#">180TDS84C</a>  |       | 3-phase, 180A  | Figure 7        |
| –                          | GS3-4010                   | –                    | <a href="#">RF110B43CA</a> |       | 3-phase, 25A   | Figure 8        |
| –                          | GS3-4100                   | –                    | <a href="#">200TDDS84C</a> |       | 3-phase, 200A  | Figure 9        |

\* EMI filters 10TDT1W4C and 26TDT1W4C mount underneath *DURApulse* drives, but do NOT mount underneath GS2 drives. They also do NOT mount underneath *SureServo* AC Servo drives.

# GS2 & GS3 *DURAPULSE* Accessories – EMI Filters

## Dimensions

Figure 1 [ units = mm ]

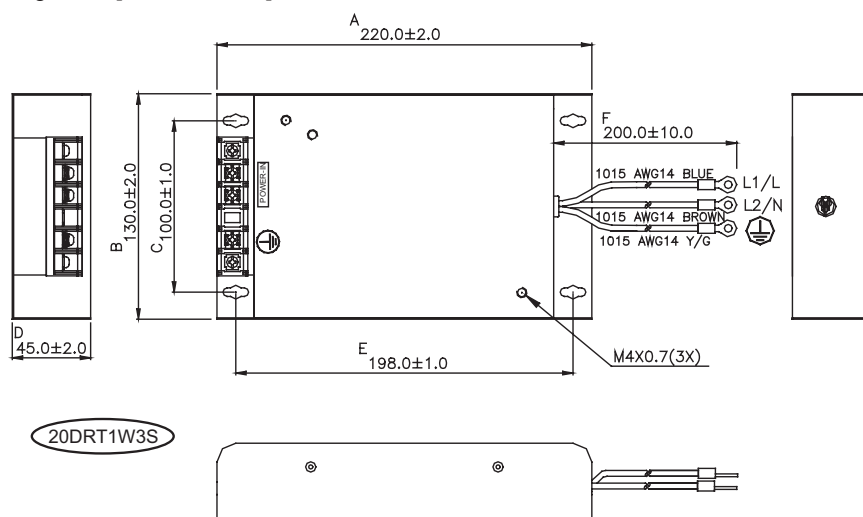
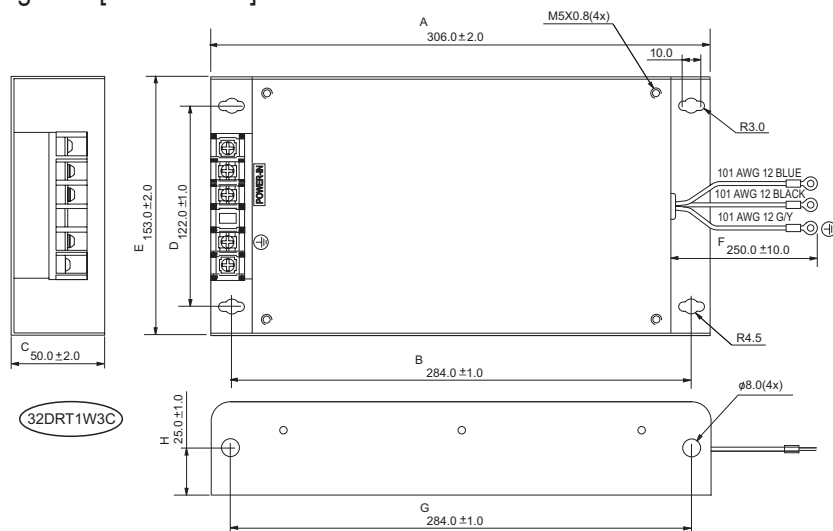


Figure 2 [ units = mm ]



# GS2 & GS3 *DURAPULSE* Accessories – EMI Filters

Figure 3 [ units = mm (in) ]

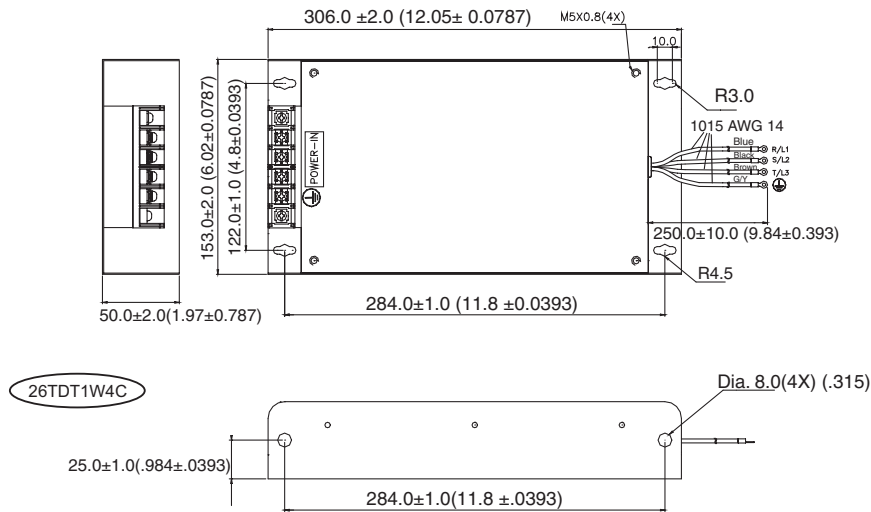


Figure 4 [ units = mm (in) ]

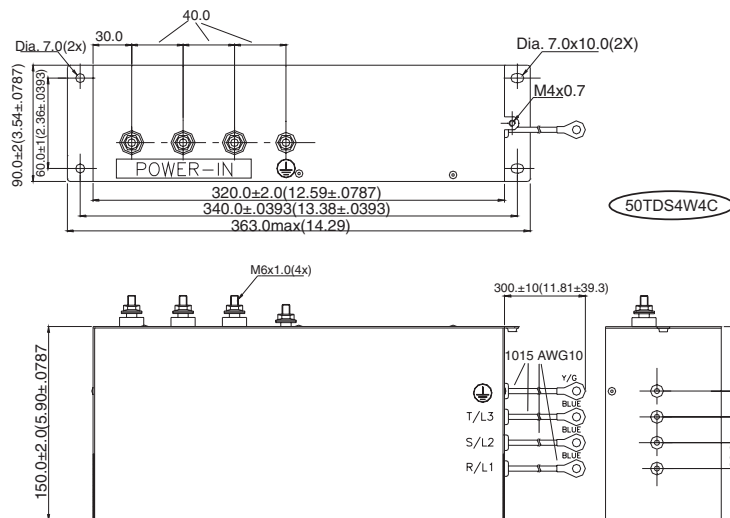
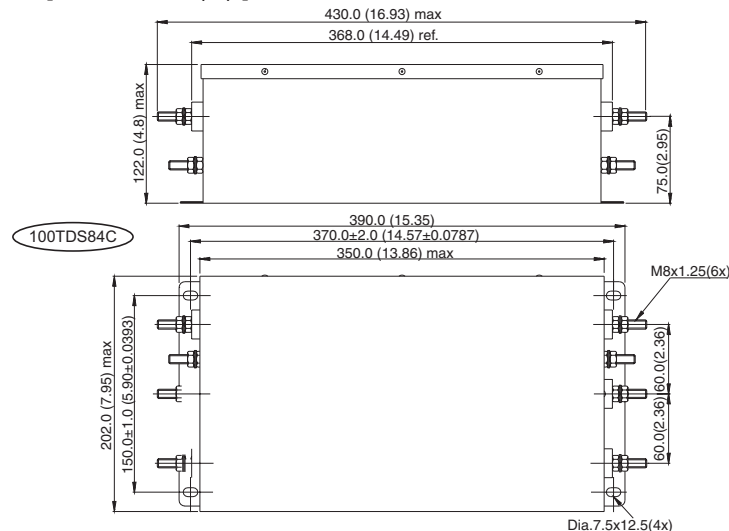


Figure 5 [ units = mm (in) ]



# GS2 & GS3 *DURAPULSE* Accessories – EMI Filters

Figure 6 [ units = mm (in) ]

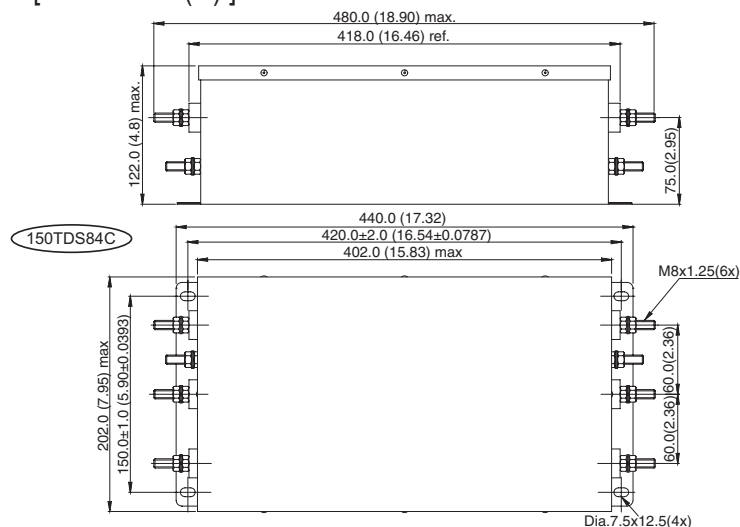
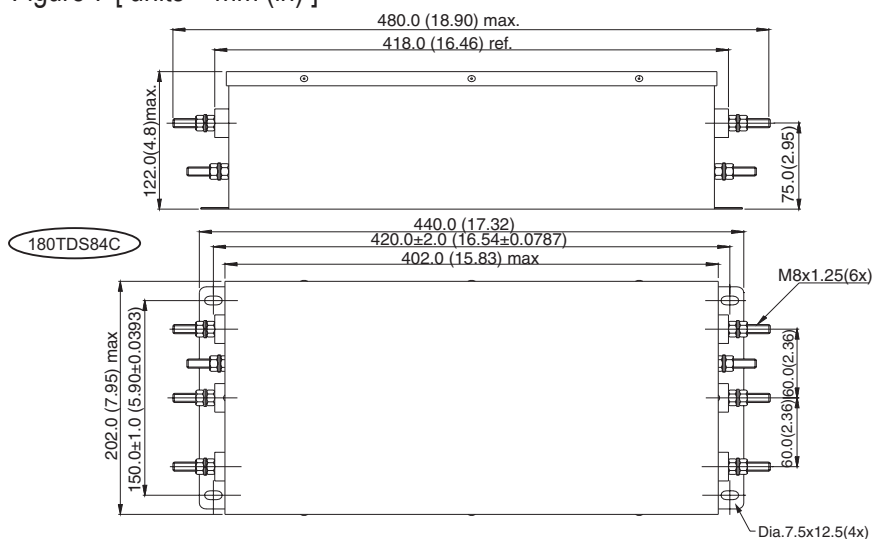


Figure 7 [ units = mm (in) ]



# GS2 & GS3 *DURAPULSE* Accessories – EMI Filters

Figure 8 [ units = mm (in) ]

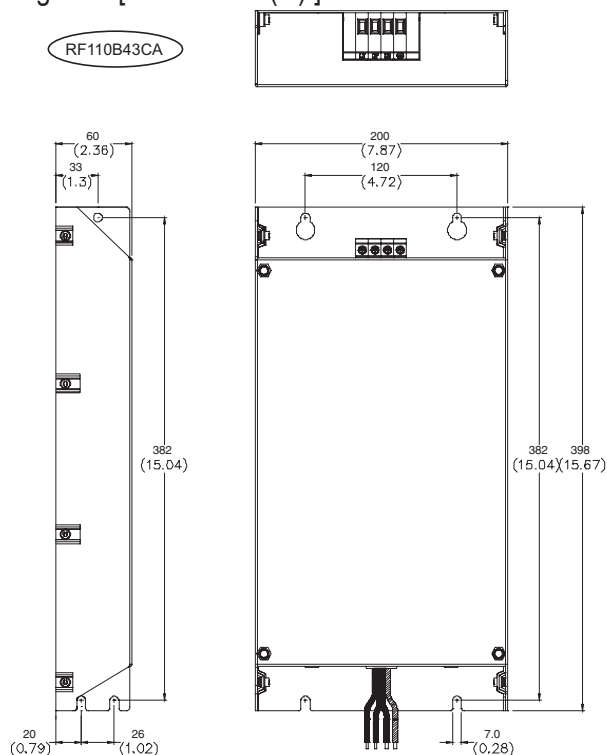
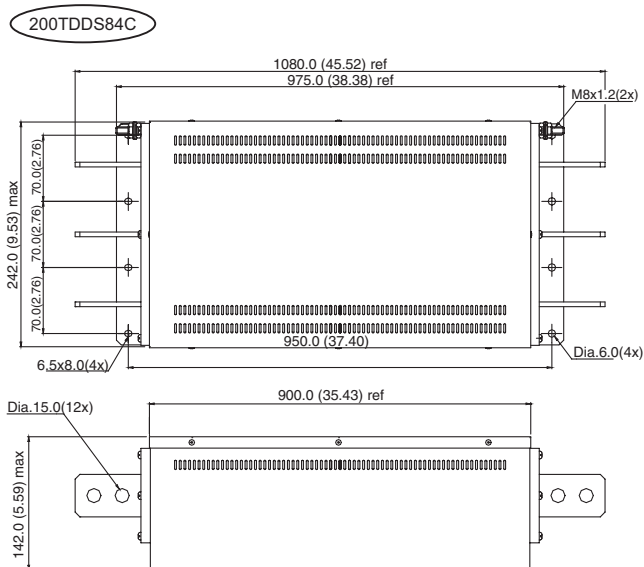


Figure 9 [ units = mm (in) ]



# GS4 DURAPULSE Accessories – EMI Filters Selection

## Selection (GS4)

The optional EMI Filters listed here are available for use with the GS4 drive. Selection of these accessories is application-specific and may improve drive performance. Additional information regarding filter installation and operation is available in the AutomationDirect white paper, "Applied EMI/RFI Techniques," downloadable from [AutomationDirect.com](http://AutomationDirect.com).

| EMI Filters Selection for GS4 AC Drives |                       |                                             |                          |                             |                     |
|-----------------------------------------|-----------------------|---------------------------------------------|--------------------------|-----------------------------|---------------------|
| Model*                                  | Description           | EMI Filter **                               | Max Power<br>kW [max/ph] | Max Torque<br>kg-cm [lb-in] | SCCR Rating<br>(kA) |
| <a href="#">GS4-21P0</a>                | 230V 1-ph/3-ph 1.0 hp | <a href="#">KMF325A</a>                     | 20.8 [6]                 | 17.7 [2]                    | 5                   |
| <a href="#">GS4-22P0</a>                | 230V 1-ph/3-ph 2.0 hp |                                             |                          |                             |                     |
| <a href="#">GS4-23P0</a>                | 230V 1-ph/3-ph 3.0 hp |                                             |                          |                             |                     |
| <a href="#">GS4-25P0</a>                | 230V 1-ph/3-ph 5.0 hp |                                             |                          |                             |                     |
| <a href="#">GS4-27P5</a>                | 230V 1-ph/3-ph 7.5 hp | <a href="#">KMF370A</a>                     | 58.1 [16.8]              | 44.2 [5]                    | 5                   |
| <a href="#">GS4-2010</a>                | 230V 1-ph/3-ph 10 hp  |                                             |                          |                             |                     |
| <a href="#">GS4-2015</a>                | 230V 1-ph/3-ph 15 hp  |                                             |                          |                             |                     |
| <a href="#">GS4-4025</a>                | 460V 3-ph 25 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-4030</a>                | 460V 3-ph 30 hp       | <a href="#">KMF3100A</a>                    | 83 [24]                  | 44.2 [5]                    | 10                  |
| <a href="#">GS4-4040</a>                | 460V 3-ph 40 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-2020</a>                | 230V 3-ph 20 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-2025</a>                | 230V 3-ph 25 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-2030</a>                | 230V 3-ph 30 hp       | <a href="#">KMF318A</a>                     | 14.9 [4.3]               | 17.7 [2]                    | 5                   |
| <a href="#">GS4-41P0</a>                | 460V 3-ph 1.0 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-42P0</a>                | 460V 3-ph 2.0 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-43P0</a>                | 460V 3-ph 3.0 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-45P0</a>                | 460V 3-ph 5.0 hp      | <a href="#">KMF350A</a>                     | 41.5 [12]                | 44.2 [5]                    | 10                  |
| <a href="#">GS4-47P5</a>                | 460V 3-ph 7.5 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-4010</a>                | 460V 3-ph 10 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-4015</a>                | 460V 3-ph 15 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-4020</a>                | 460V 3-ph 20 hp       | <a href="#">MIF375</a>                      | 62.3 [18]                | 53.1 [6]                    | 10                  |
| <a href="#">GS4-4050</a>                | 460V 3-ph 50 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-2040</a>                | 230V 3-ph 40 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-2050</a>                | 230V 3-ph 50 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-4060</a>                | 460V 3-ph 60 hp       | <a href="#">MIF3150</a>                     | 124.6 [36]               | 177 [20]                    | 10                  |
| <a href="#">GS4-4075</a>                | 460V 3-ph 75 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-4100</a>                | 460V 3-ph 100 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-2060</a>                | 230V 3-ph 60 hp       |                                             |                          |                             |                     |
| <a href="#">GS4-2075</a>                | 230V 3-ph 75 hp       | <a href="#">MIF3400B</a>                    | 332.2 [96]               | 265.5 [30]                  | 30                  |
| <a href="#">GS4-2100</a>                | 230V 3-ph 100 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-4125</a>                | 460V 3-ph 125 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-4150</a>                | 460V 3-ph 150 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-4175</a>                | 460V 3-ph 175 hp      | <a href="#">MIF3800 &amp; Qty. 3 TOR254</a> | 664.3 [192]              | 265.5 [30]                  | 30                  |
| <a href="#">GS4-4200</a>                | 460V 3-ph 200 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-4250</a>                | 460V 3-ph 250 hp      |                                             |                          |                             |                     |
| <a href="#">GS4-4300</a>                | 460V 3-ph 300 hp      |                                             |                          |                             |                     |

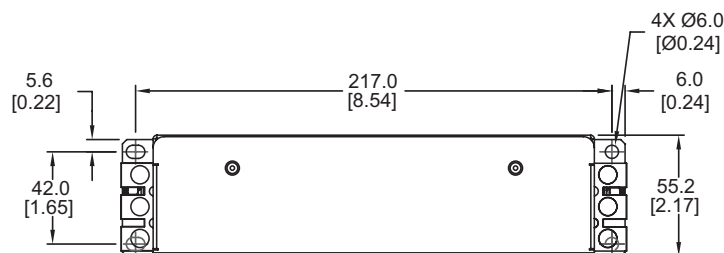
\* EMI filter selections for GS4-2xxx models are the same whether that particular model is supplied 1-Phase or 3-Phase 230 VAC.

\*\* Part numbers are Roxburgh EMI Filters available from AutomationDirect at the web link embedded with each part number listed above.

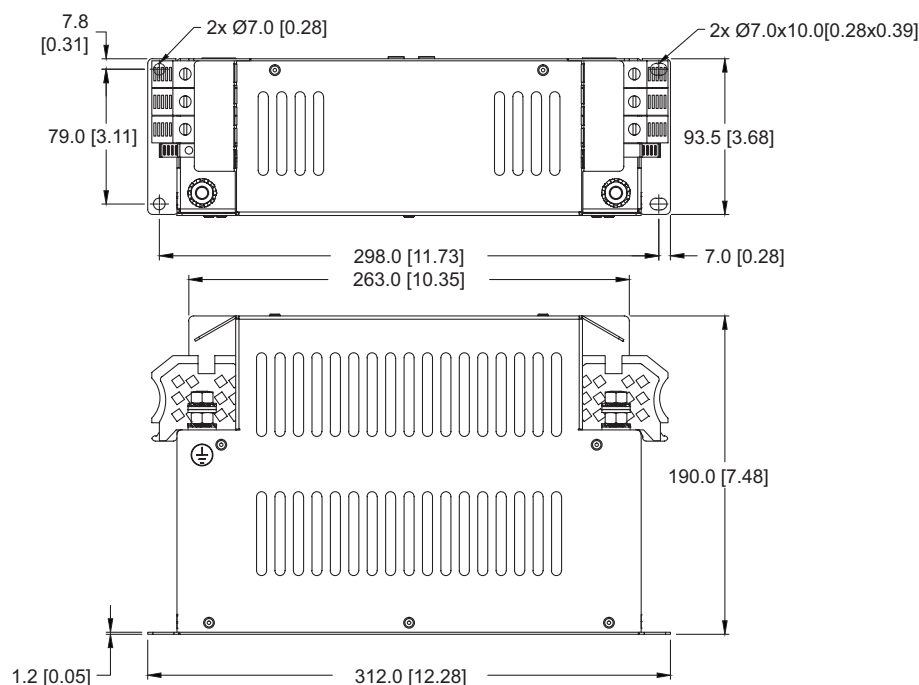
# GS4 DURAPULSE Accessories – EMI Filters

## Dimensions ( Units = mm [in] )

See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.



**KMF318A KMF325A**

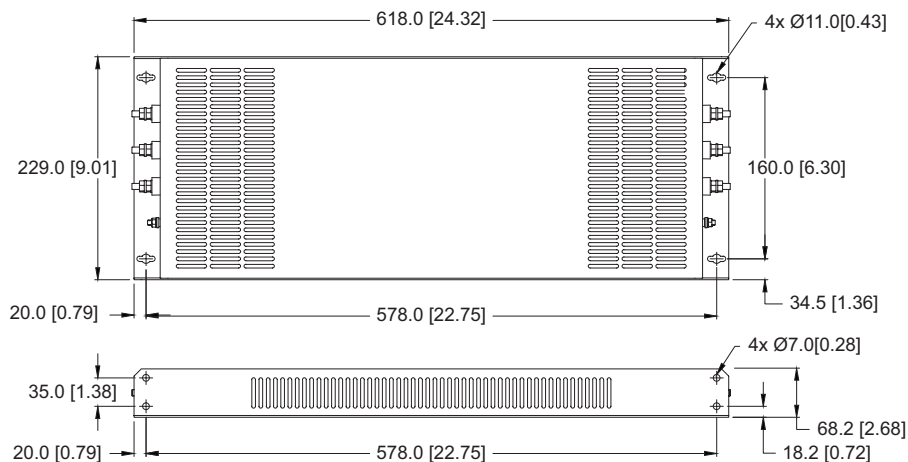


**KMF350A KMF370A KMF3100A**

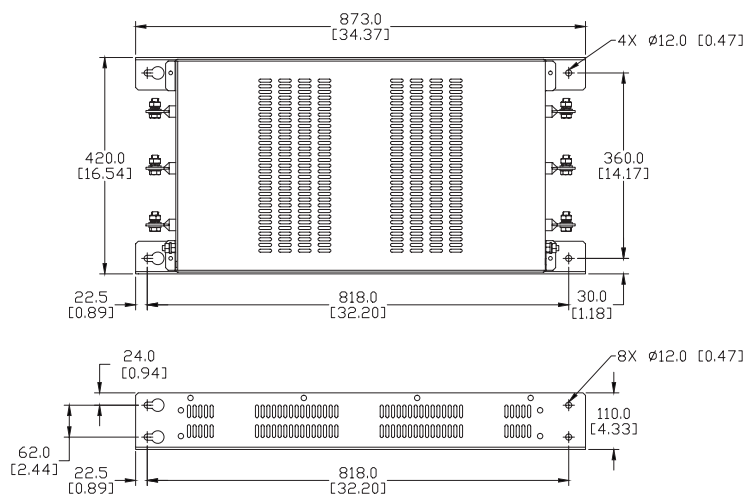
# GS4 DURAPULSE Accessories – EMI Filters

## Dimensions (Units = mm [in])

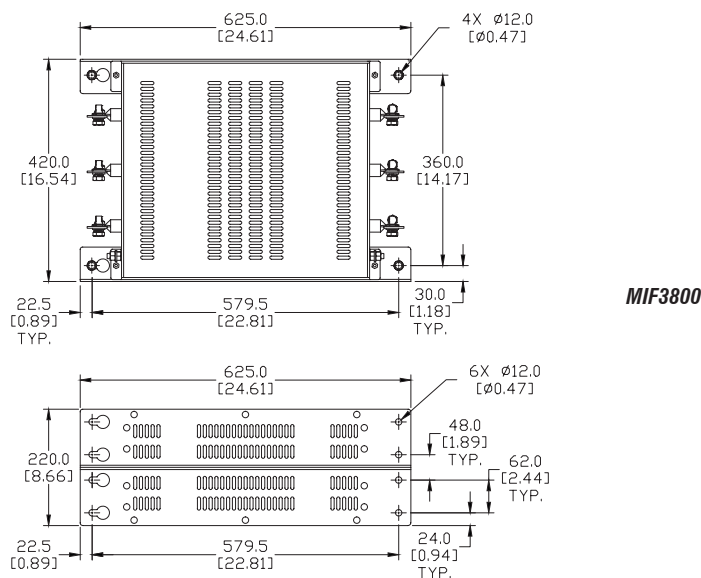
See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.



**MIF3150**



**MIF3400B**



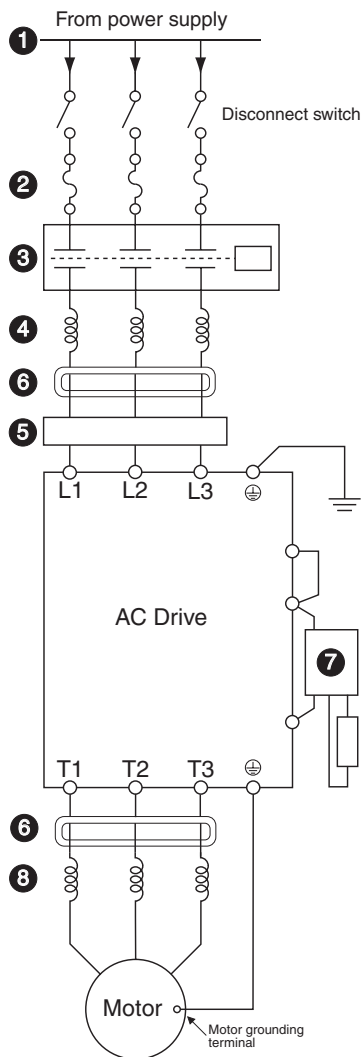
**MIF3800**



# AC Drives Optional Accessories – Overview

## Drive Accessories

(not all accessories are applicable for every drive model)



### 1 Power Supply

Please follow the specific power supply requirements as detailed in the specific drive manual.

### 2 Fuses

Input fuses protect the AC drive from excessive input current due to line surges, short circuits, and ground faults. They are recommended for all installations and may be required for UL-listed installations.

### 3 Contactor (Optional)

Do not use a contactor or disconnect switch for run/stop control of the AC drive and motor. This will reduce the operating life cycle of the AC drive. Cycling a power circuit switching device while the AC drive is in run mode should be done only in emergency situations.

### 4 Input Line Reactor (Optional)

See the Line Reactors section at [www.automationdirect.com](http://www.automationdirect.com) for more information.

Input line reactors protect the AC drive from transient overvoltage conditions, typically caused by utility capacitor switching. The input line reactor also reduces the harmonics associated with AC drives. Input line reactors are recommended for all installations.

### 5 EMI filter (Optional)

See the EMI Filters section at [www.automationdirect.com](http://www.automationdirect.com) for more information.

Input EMI filters reduce electromagnetic interference or noise on the input side of the AC drive. They are required for CE compliance and recommended for installations prone to or sensitive to electromagnetic interference.

### 6 RF filter (Optional)

RF filters reduce the radio frequency interference or noise on the input or output side of the inverter.

### 7 Braking Unit and/or Braking Resistor (Optional)

Dynamic braking allows the AC drive to produce additional braking (stopping) torque. AC drives can typically produce between 15% & 20% braking torque without the addition of any external components. The addition of optional braking may be required for applications that require rapid deceleration or high inertia loads.

### 8 Output Load Reactor or Voltage Time (dV/dT) Filter (Optional)

Output line reactors protect the motor insulation against AC drive short circuits and IGBT reflective wave damage, and also "smooth" the motor current waveform, allowing the motor to run cooler. They are **recommended for operating "noninverter-duty" motors and when the length of wiring between the AC drive and motor is less than 100 feet.**

**Voltage Time filters provide enhanced protection for motors with distances up to 1,000 feet.**

Voltage Time filters provide even more protection against wave reflection and reduce common mode noise. They are recommended when the length of wiring between the AC drive and motor is from 100 feet up to 1,000 feet.

See [www.automationdirect.com](http://www.automationdirect.com) for specific product offerings.