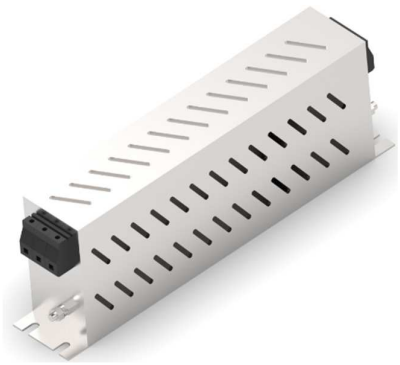
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# KEM-BS SERIES

**Three Phase Superior Performance EMI Filter – Bookshelf Type Single Stage Delta Configuration**

## DATASHEET

Bookshelf design for motor drive applications requiring minimum space and convenient installation with superior performance at significant interference levels



### Approvals & Compliance

UL Recognised *

CSA Certified **

RoHS compliant

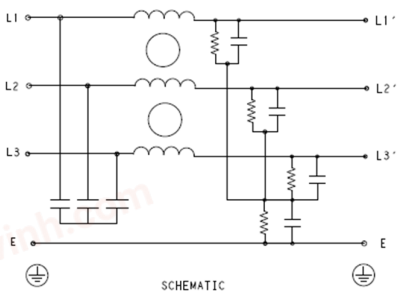
*31st July 2020

**31st August 2020

### Features

- 3 Phase filters for Drives/invertors
- Bookshelf Design
- Chassis mounting

### Typical Circuit Diagram




### Applications

- Industrial Automation
- HVAC
- CNC Machines
-

## Specifications

**Electrical Characteristics**

| | |
|---|---|
| Maximum Continuous Operating Voltage | 440/520VAC |
| Current Ratings | 7A to 150A @40°C |
| Operating Frequency | 50/60Hz |
| High Potential Test Voltage -440VAC | Line to Ground 2632VDC for 1 Minute |
| | Line to Line 1892VDC for 1 Minute |
| High Potential Test Voltage -520VAC | Line to Ground 2856VDC for 1 Minute |
| | Line to Line 2236VDC for 1 Minute |
| Overload Capability | 135% of Rated current for 15 minutes |

**Functional Characteristics**

| | |
|---|---|
| Operating Temperature Range | -25°C to +85ºC |
| Climatic Category | 25/85/21 |
| Termination | Shock Proof |
| Flammability corresponding to | UL 94 V-0 |

**Reference Standards**

| | |
|---|---|
| Design Corresponding to | UL 60939-3 and CSA 22.2 No.8-13 |

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## Selection Table

| TE Ordering Number | Catalog Number | Rated Current @40°C | Rated Voltage @40°C | Leakage Current (mA) | Termination  | Weight (Kgs) |
|---|---|---|---|---|---|---|
| 2-1609967-7 | 7KEMS10ABSD | 7A | 440 VAC | 18 | 41 | 0.7 |
| 3-1609967-0 | 16KEMS10ABSD | 16A | 440 VAC | 18 | 41 | 0.8 |
| 3-1609967-1 | 30KEMS10ABSD | 30A | 440 VAC | 18 | 41 | 0.8 |
| 3-1609967-2 | 42KEMS10ABSD | 42A | 440 VAC | 18 | 10 | 1.2 |
| 3-1609967-3 | 55KEMS10ABSD | 55A | 440 VAC | 18 | 10 | 2 |
| 3-1609967-4 | 75KEMS10ABSD | 75A | 440 VAC | 18 | 16 | 2 |
| 3-1609967-5 | 100KEMS10ABSD | 100A | 440 VAC | 18 | 25 | 3 |
| 3-1609967-6 | 120KEMS10ABSD | 120A | 440 VAC | 18 | 50 | 4 |
| 3-1609967-7 | 150KEMS10ABSD | 150A | 440 VAC | 18 | 50 | 4 |
| 5-1609967-7 | 7KEMS10BBSD | 7A | 520 VAC | 20 | 41 | 0.7 |
| 6-1609967-0 | 16KEMS10BBSD | 16A | 520 VAC | 20 | 41 | 0.8 |
| 6-1609967-1 | 30KEMS10BBSD | 30A | 520 VAC | 20 | 41 | 0.8 |
| 6-1609967-2 | 42KEMS10BBSD | 42A | 520 VAC | 20 | 10 | 1.2 |
| 6-1609967-3 | 55KEMS10BBSD | 55A | 520 VAC | 20 | 10 | 2 |
| 6-1609967-4 | 75KEMS10BBSD | 75A | 520 VAC | 20 | 16 | 2 |
| 6-1609967-5 | 100KEMS10BBSD | 100A | 520 VAC | 18 | 25 | 3 |
| 6-1609967-6 | 120KEMS10BBSD | 120A | 520 VAC | 18 | 50 | 4 |
| 6-1609967-7 | 150KEMS10BBSD | 150A | 520 VAC | 18 | 50 | 4 |

## Connectors Cross Section

|  | 41 | 10 | 16 | 25 | 50 |
|---|---|---|---|---|---|
| **Wire Section ($mm^2$)** | $4mm^2$ | $10\ mm^2$ | $16\ mm^2$ | $25\ mm^2$ | $50\ mm^2$ |
| **Wire Section (AWG)** | 12AWG | 8 AWG | 6 AWG | 4 AWG | 1/0 AWG |
| **Wire Stripping** | Max 10mm | max 13.5 mm | max 17 mm | max 17 mm | max 20 mm |
| **Max Recommended Torque** | 0.5 Nm / 4.5 in.lbs | 1.2 Nm / 10.8 in.lbs | 2÷2.2 Nm / 18÷19.8 in.lbs | 2 Nm / 18 in.lbs | 6 Nm / 54 in.lbs |

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## Insertion Loss (Typical) – Measured in Closed 50Ω System

Common Mode 50Ω / 50Ω

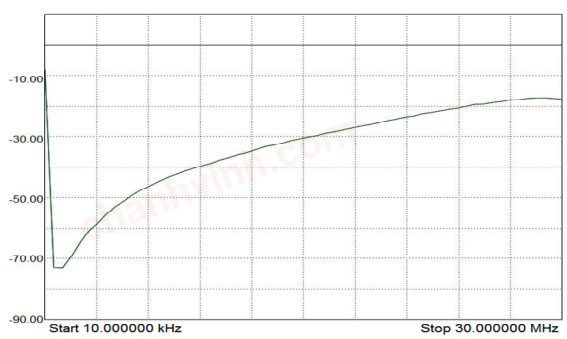
| Current Rating | Frequency in MHz | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| 7A | 54 | 56 | 48 | 71 | 82 | 70 | 65 | 40 | 16 |
| 16A | 42 | 34 | 46 | 80 | 73 | 48 | 40 | 29 | 13 |
| 30A | 40 | 26 | 47 | 70 | 73 | 51 | 44 | 34 | 13 |
| 42A | 20 | 13 | 46 | 78 | 69 | 50 | 42 | 32 | 12 |
| 55A | 24 | 28 | 32 | 73 | 66 | 56 | 48 | 36 | 19 |
| 75A | 23 | 32 | 36 | 71 | 67 | 60 | 54 | 30 | 17 |
| 100A | 21 | 32 | 36 | 69 | 58 | 56 | 50 | 30 | 17 |
| 120A | 19 | 28 | 33 | 70 | 60 | 56 | 49 | 26 | 18 |
| 150A | 20 | 20 | 31 | 65 | 40 | 28 | 24 | 19 | 11 |

Differential Mode 50Ω / 50Ω

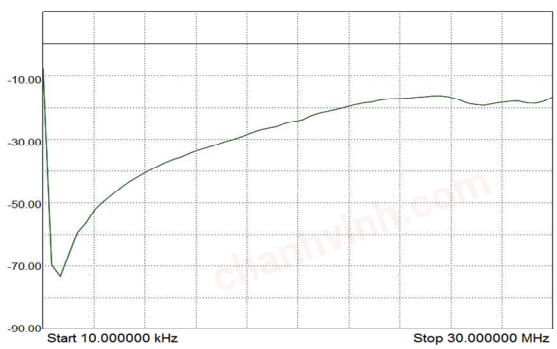
| Current Rating | Frequency in MHz | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| 7A | 30 | 32 | 40 | 69 | 54 | 50 | 48 | 34 | 25 |
| 16A | 28 | 30 | 42 | 79 | 81 | 58 | 43 | 8 | 22 |
| 30A | 28 | 21 | 37 | 76 | 82 | 67 | 49 | 20 | 28 |
| 42A | 18 | 21 | 35 | 83 | 74 | 64 | 45 | 13 | 27 |
| 55A | 22 | 30 | 34 | 69 | 70 | 58 | 40 | 49 | 22 |
| 75A | 38 | 40 | 45 | 86 | 81 | 68 | 50 | 49 | 35 |
| 100A | 36 | 40 | 47 | 80 | 75 | 62 | 54 | 50 | 35 |
| 120A | 32 | 35 | 45 | 78 | 72 | 60 | 54 | 47 | 31 |
| 150A | 31 | 30 | 34 | 48 | 39 | 28 | 23 | 17 | 15 |

## Common Mode Insertion Loss (Typical in dB – refer to Table above)

**7A**



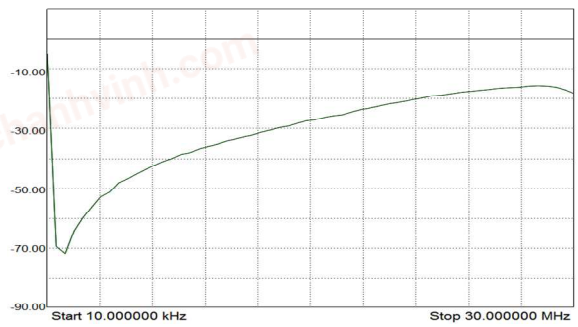

**16A**



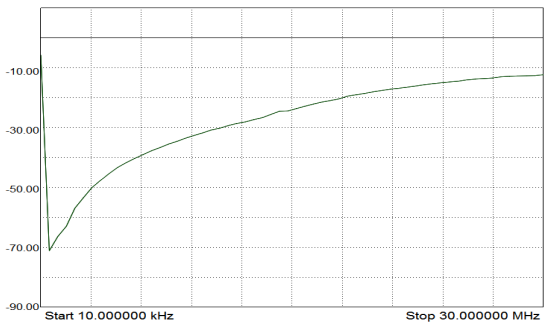
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# KEM-BS SERIES

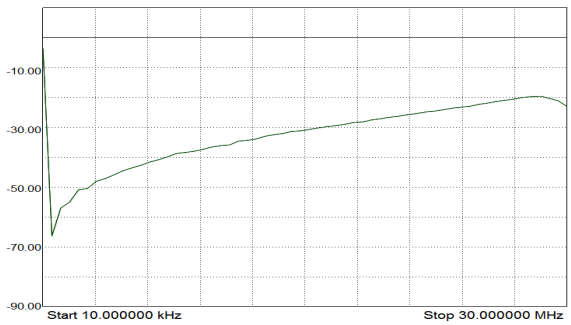
## 30A



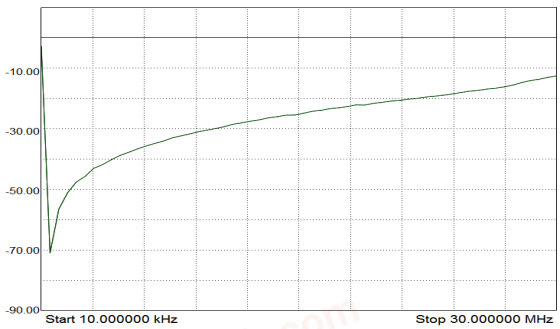

## 42A



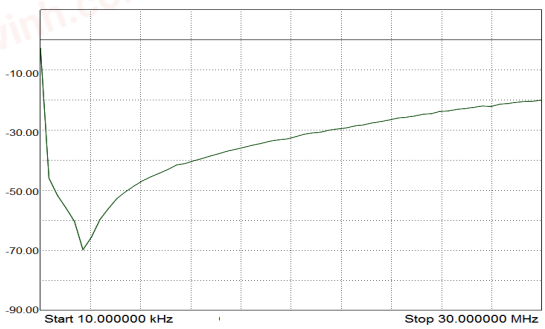

## 55A



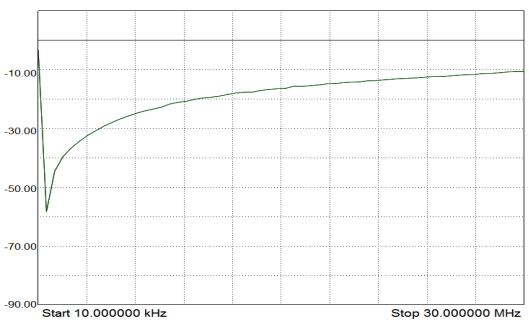

## 75A



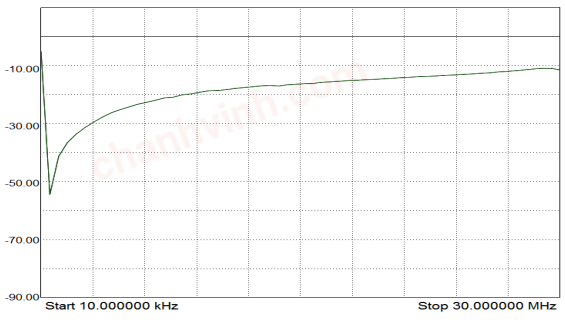

## 100A




## 120A




## 150A

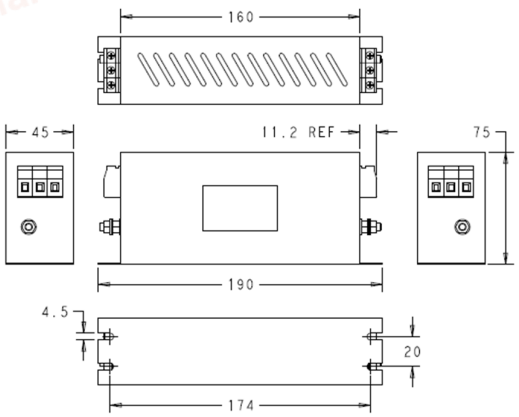


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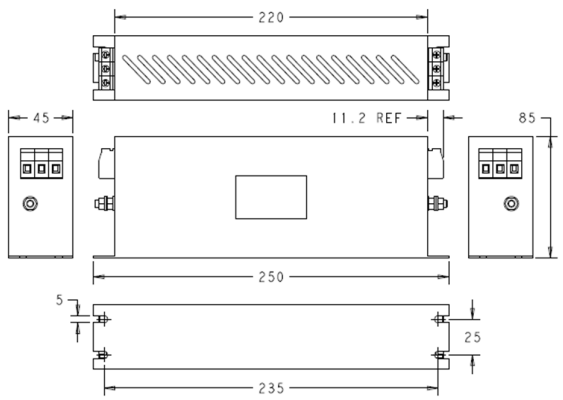
# KEM-BS SERIES

## Case Dimensions

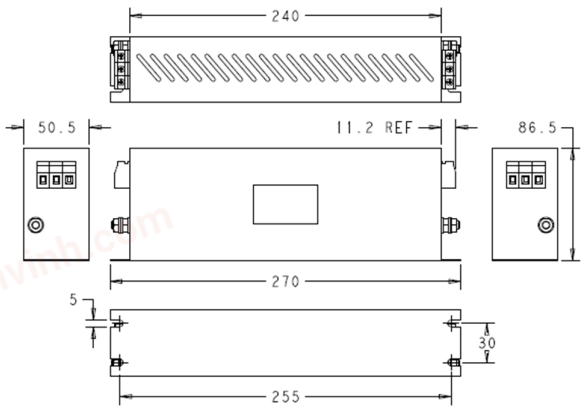
### 7A Shock Proof Type



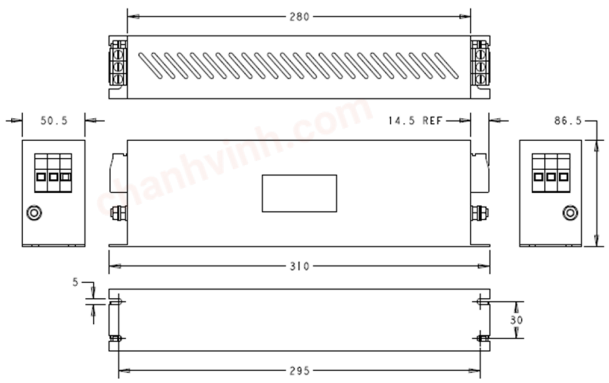

### 16A Shock Proof Type



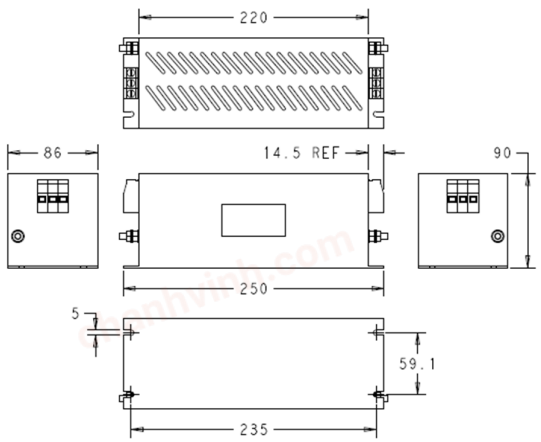

### 30A Shock Proof Type



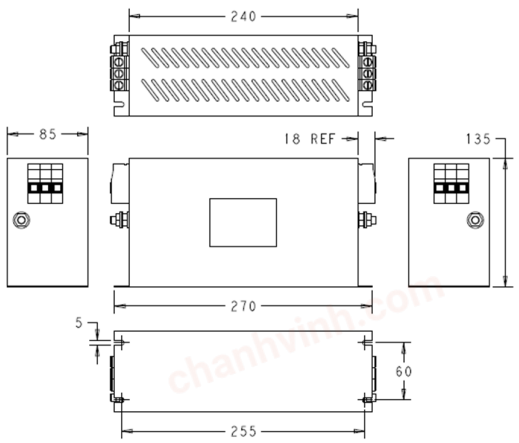

### 42A Shock Proof Type




### 55A Shock Proof Type

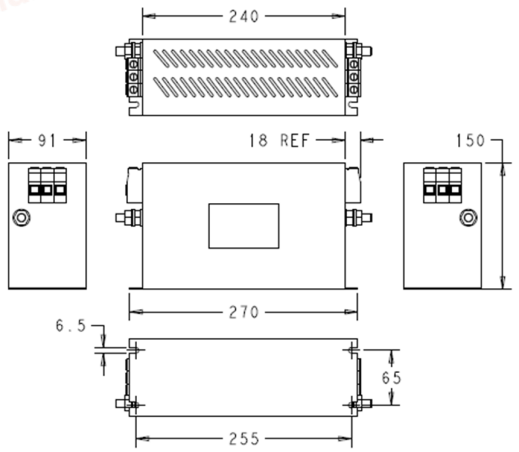
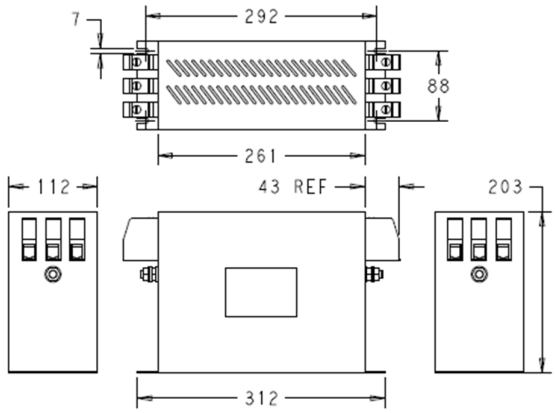



### 75A Shock Proof Type



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# KEM-BS SERIES

| 100A Shock Proof Type | 120A to 150A Shock Proof Types |
|---|---|
|  |  |





***All dimensions in mm; Tolerances according: ISO2768-m***

## How to Order

