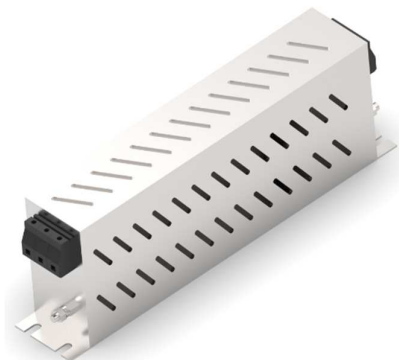


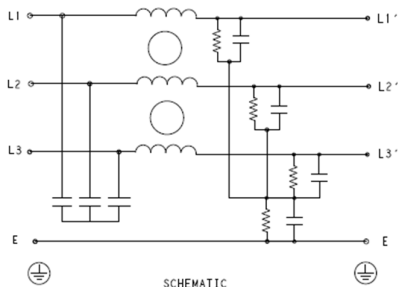
## Three Phase Superior Performance EMI Filter – Bookshelf Type Single Stage Delta Configuration

### DATASHEET

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



### Typical Circuit Diagram



### 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<br>Line to Line 1892VDC for 1 Minute |
| High Potential Test Voltage -520VAC  | Line to Ground 2856VDC for 1 Minute<br>Line to Line 2236VDC for 1 Minute |
| Overload Capability                  | 135% of Rated current for 15 minutes                                     |

#### Functional Characteristics

|                               |                |
|-------------------------------|----------------|
| Operating Temperature Range   | -25°C to +85°C |
| 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 |
|-------------------------|---------------------------------|

### Approvals & Compliance

UL Recognised \*

CSA Certified \*\*

\*31<sup>st</sup> July 2020

\*\*31<sup>st</sup> August 2020



### Features

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


### Applications

- Industrial Automation
- HVAC
- CNC Machines
-


# KEM-BS SERIES



## 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

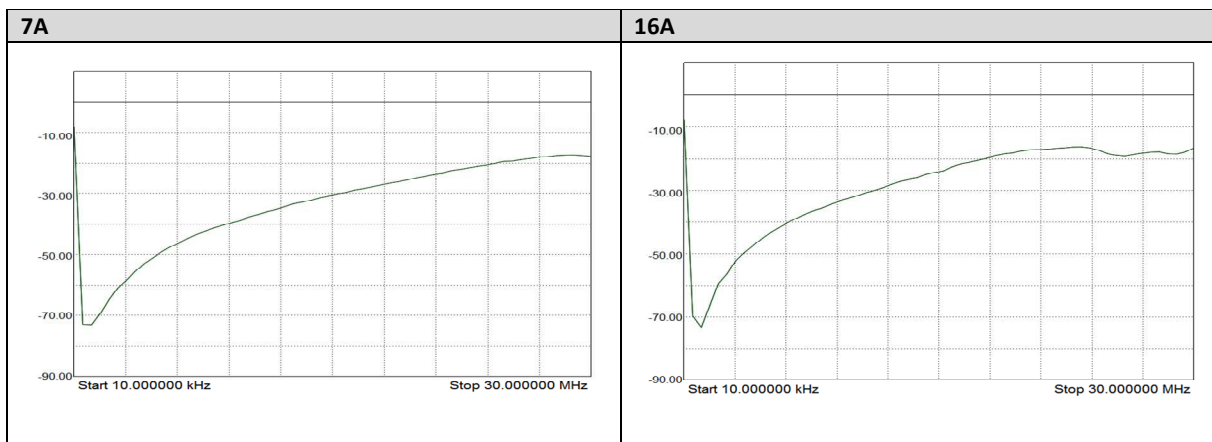
|  | 41                  | 10                   | 16                        | 25                 | 50                 |
|---|---------------------|----------------------|---------------------------|--------------------|--------------------|
| Wire Section (mm <sup>2</sup> )   | 4mm <sup>2</sup>    | 10 mm <sup>2</sup>   | 16 mm <sup>2</sup>        | 25 mm <sup>2</sup> | 50 mm <sup>2</sup> |
| 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   |

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

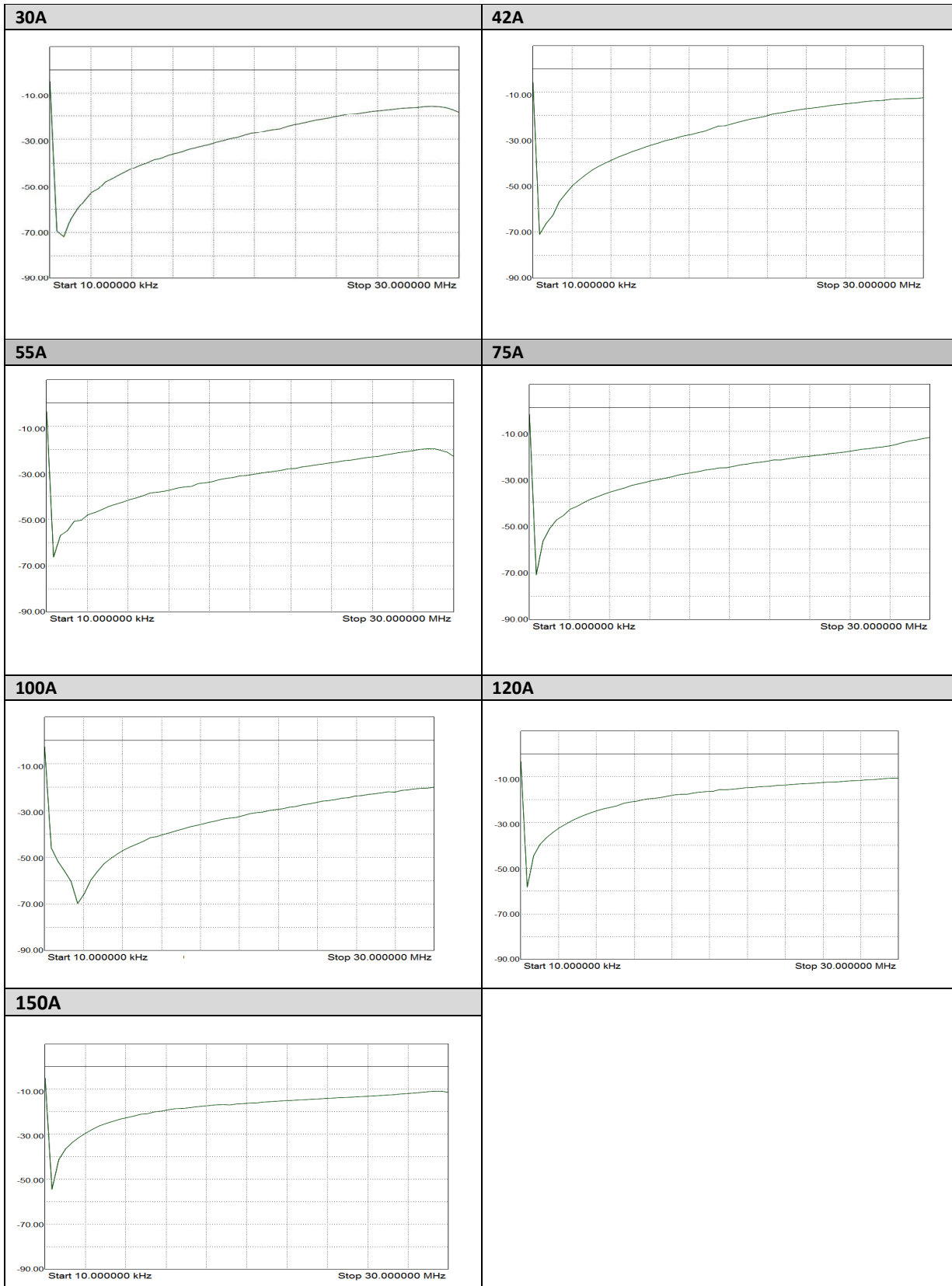
|                |      | Common Mode 50Ω / 50Ω |      |      |     |    |    |    |    |    |
|----------------|------|-----------------------|------|------|-----|----|----|----|----|----|
|                |      | Frequency in MHz      |      |      |     |    |    |    |    |    |
|                |      | 0.01                  | 0.05 | 0.15 | 0.5 | 1  | 3  | 5  | 10 | 30 |
| Current Rating | 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 |      |      |     |    |    |    |    |    |
|----------------|------|-----------------------------|------|------|-----|----|----|----|----|----|
|                |      | Frequency in MHz            |      |      |     |    |    |    |    |    |
|                |      | 0.01                        | 0.05 | 0.15 | 0.5 | 1  | 3  | 5  | 10 | 30 |
| Current Rating | 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)



# KEM-BS SERIES



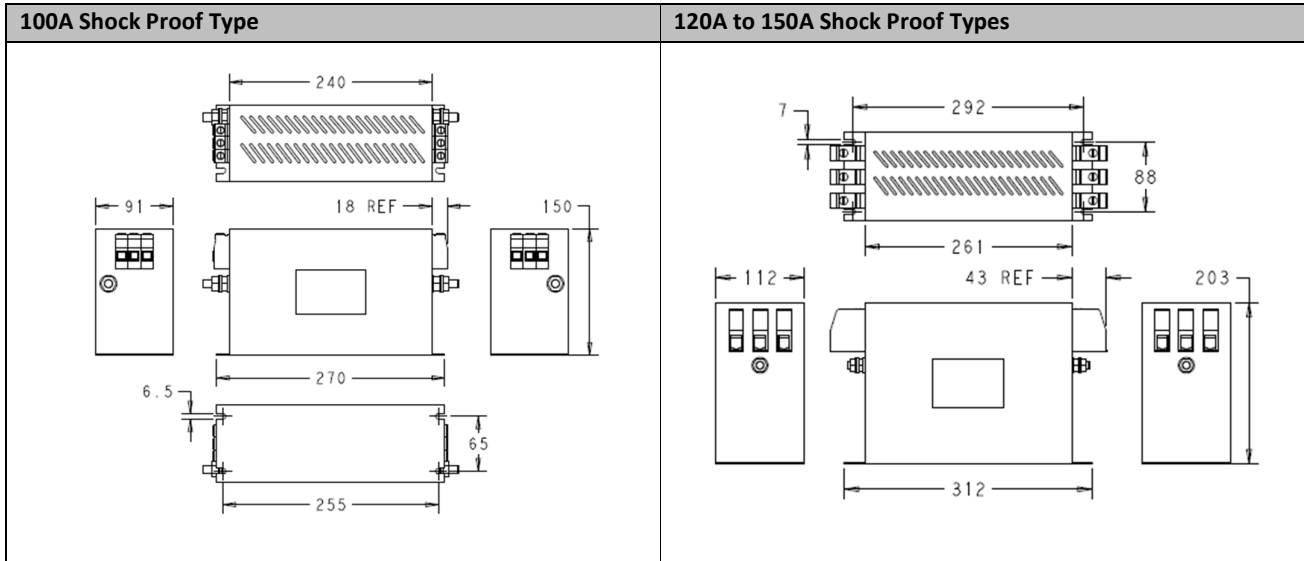
# KEM-BS SERIES



## 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 |
|                      |                      |

# KEM-BS SERIES



All dimensions in mm; Tolerances according: ISO2768-m

## How to Order

