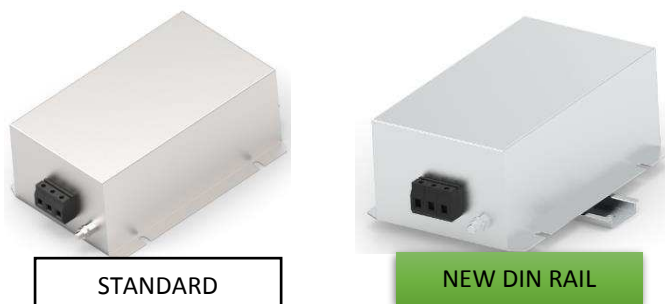


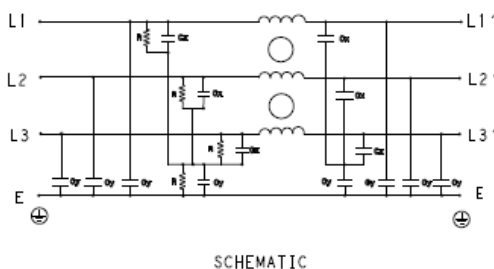
Three Phase Superior Performance EMI Filter – Single Stage Delta Configuration

DATASHEET

Provides superior performance when used in applications with low Impedance load controlling pulsed, continuous and intermittent interference noise and where high levels of mains borne interference are present.



Typical Circuit Diagram



Specifications

Electrical Characteristics

| | |
|--------------------------------------|--|
| Maximum Continuous Operating Voltage | 440/520VAC |
| Current Ratings | 6A to 250A @40°C, Din Mount 1A to 50A @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 +85°C |
| Climatic Category | 25/85/21 |
| Termination (Depends on Current Rating) | Shock Proof (6-100A), Nut & Bolt (150-250A) |
| 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 *



*30st June 2021

Features



- Compact
- Superior Performance
- Chassis mounting

Applications

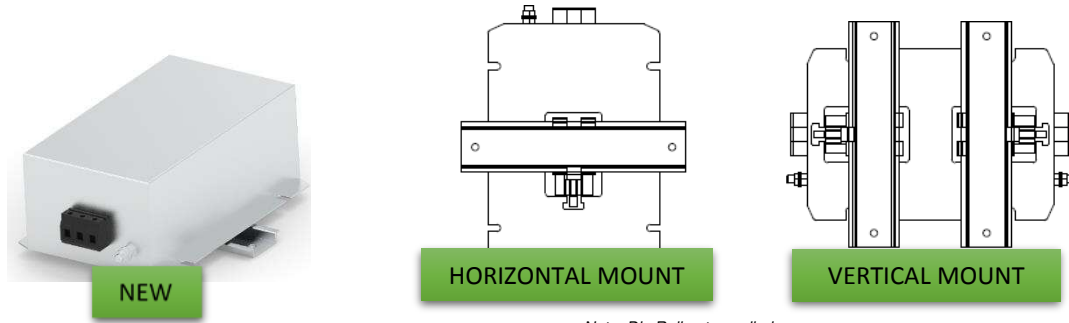
- CNC Machines
- HVAC
- Rectifier
- AC/DC Converters

Selection Table – Standard Version



| TE Part Number | Catalog Number | Rated Current @40°C | Rated Voltage @40°C | Leakage Current (mA) | Termination | | Weight (Kgs) |
|----------------|----------------|---------------------|---------------------|----------------------|---|---|--------------|
| | | | | |  |  | |
| 1-1609967-0 | 6KEMS10AFPD | 6A | 440 VAC | 18 | 41 | | 0.7 |
| 1-1609967-1 | 8KEMS10AFPD | 8A | 440 VAC | 18 | 41 | | 2 |
| 1-1609967-2 | 10KEMS10AFPD | 10A | 440 VAC | 18 | 41 | | 2 |
| 1-1609967-3 | 16KEMS10AFPD | 16A | 440 VAC | 18 | 41 | | 3 |
| 1-1609967-4 | 20KEMS10AFPD | 20A | 440 VAC | 18 | 41 | | 3 |
| 1-1609967-5 | 25KEMS10AFPD | 25A | 440 VAC | 18 | 41 | | 3 |
| 1-1609967-6 | 36KEMS10AFPD | 36A | 440 VAC | 18 | 10 | | 3 |
| 1-1609967-7 | 50KEMS10AFPD | 50A | 440 VAC | 18 | 10 | | 3 |
| 2-1609967-0 | 60KEMS10AFPD | 60A | 440 VAC | 18 | 16 | | 8 |
| 2-1609967-1 | 75KEMS10AFPD | 75A | 440 VAC | 20 | 16 | | 8 |
| 2-1609967-2 | 100KEMS10AFPD | 100A | 440 VAC | 20 | 25 | | 8 |
| 2-1609967-3 | 125KEMS6AFPD | 125A | 440 VAC | 20 | | M10 | 8 |
| 2-1609967-4 | 150KEMS6AFPD | 150A | 440 VAC | 20 | | M10 | 8 |
| 2-1609967-5 | 200KEMS6AFPD | 200A | 440 VAC | 20 | | M10 | 10 |
| 2-1609967-6 | 250KEMS6AFPD | 250A | 440 VAC | 20 | | M10 | 10 |
| 4-1609967-0 | 6KEMS10BFPD | 6A | 520 VAC | 18 | 41 | | 0.7 |
| 4-1609967-1 | 8KEMS10BFPD | 8A | 520 VAC | 18 | 41 | | 2 |
| 4-1609967-2 | 10KEMS10BFPD | 10A | 520 VAC | 18 | 41 | | 2 |
| 4-1609967-3 | 16KEMS10BFPD | 16A | 520 VAC | 18 | 41 | | 3 |
| 4-1609967-4 | 20KEMS10BFPD | 20A | 520 VAC | 18 | 41 | | 3 |
| 4-1609967-5 | 25KEMS10BFPD | 25A | 520 VAC | 18 | 41 | | 3 |
| 4-1609967-6 | 36KEMS10BFPD | 36A | 520 VAC | 18 | 10 | | 3 |
| 4-1609967-7 | 50KEMS10BFPD | 50A | 520 VAC | 18 | 10 | | 3 |
| 5-1609967-0 | 60KEMS10BFPD | 60A | 520 VAC | 18 | 16 | | 8 |
| 5-1609967-1 | 75KEMS10BFPD | 75A | 520 VAC | 20 | 16 | | 8 |
| 5-1609967-2 | 100KEMS10BFPD | 100A | 520 VAC | 20 | 25 | | 8 |
| 5-1609967-3 | 125KEMS6BFPD | 125A | 520 VAC | 20 | | M10 | 8 |
| 5-1609967-4 | 150KEMS6BFPD | 150A | 520 VAC | 20 | | M10 | 8 |
| 5-1609967-5 | 200KEMS6BFPD | 200A | 520 VAC | 20 | | M10 | 10 |
| 5-1609967-6 | 250KEMS6BFPD | 250A | 520 VAC | 20 | | M10 | 10 |


Selection Table – Din Rail Mount



Note: Din Rail not supplied

| TE Part Number | Catalog Number | Din Type | Rated Current @40°C | Rated Voltage @40°C | Leakage Current (mA) | Termination  | Weight (Kgs) |
|----------------|----------------|------------|---------------------|---------------------|----------------------|---|--------------|
| 7-1609967-0 | 6KEMS10AFPDHM | HORIZONTAL | 6A | 440 VAC | 18 | 41 | 0.8 |
| 7-1609967-1 | 8KEMS10AFPDHM | HORIZONTAL | 8A | 440 VAC | 18 | 41 | 2.1 |
| 7-1609967-2 | 10KEMS10AFPDHM | HORIZONTAL | 10A | 440 VAC | 18 | 41 | 2.1 |
| 7-1609967-3 | 6KEMS10AFPDVM | VERTICAL | 6A | 440 VAC | 18 | 41 | 0.9 |
| 7-1609967-4 | 8KEMS10AFPDVM | VERTICAL | 8A | 440 VAC | 18 | 41 | 2.2 |
| 7-1609967-5 | 10KEMS10AFPDVM | VERTICAL | 10A | 440 VAC | 18 | 41 | 2.2 |
| 7-1609967-6 | 16KEMS10AFPDHM | HORIZONTAL | 16A | 440 VAC | 18 | 41 | 3.2 |
| 7-1609967-7 | 20KEMS10AFPDHM | HORIZONTAL | 20A | 440 VAC | 18 | 41 | 3.2 |
| 7-1609967-8 | 25KEMS10AFPDHM | HORIZONTAL | 25A | 440 VAC | 18 | 41 | 3.2 |
| 7-1609967-9 | 36KEMS10AFPDHM | HORIZONTAL | 36A | 440 VAC | 18 | 10 | 3.2 |
| 8-1609967-0 | 50KEMS10AFPDHM | HORIZONTAL | 50A | 440 VAC | 18 | 10 | 3.2 |
| 9-1609967-1 | 6KEMS10BFPDHM | HORIZONTAL | 6A | 520 VAC | 18 | 41 | 0.8 |
| 9-1609967-2 | 8KEMS10BFPDHM | HORIZONTAL | 8A | 520 VAC | 18 | 41 | 2.1 |
| 9-1609967-3 | 10KEMS10BFPDHM | HORIZONTAL | 10A | 520 VAC | 18 | 41 | 2.1 |
| 9-1609967-4 | 6KEMS10BFPDVM | VERTICAL | 6A | 520 VAC | 18 | 41 | 0.9 |
| 9-1609967-5 | 8KEMS10BFPDVM | VERTICAL | 8A | 520 VAC | 18 | 41 | 2.2 |
| 9-1609967-6 | 10KEMS10BFPDVM | VERTICAL | 10A | 520 VAC | 18 | 41 | 2.2 |
| 9-1609967-7 | 16KEMS10BFPDHM | HORIZONTAL | 16A | 520 VAC | 18 | 41 | 3.2 |
| 9-1609967-8 | 20KEMS10BFPDHM | HORIZONTAL | 20A | 520 VAC | 18 | 41 | 3.2 |
| 9-1609967-9 | 25KEMS10BFPDHM | HORIZONTAL | 25A | 520 VAC | 18 | 41 | 3.2 |
| 7-1609968-0 | 36KEMS10BFPDHM | HORIZONTAL | 36A | 520 VAC | 18 | 10 | 3.2 |
| 7-1609968-1 | 50KEMS10BFPDHM | HORIZONTAL | 50A | 520 VAC | 18 | 10 | 3.2 |

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 |

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

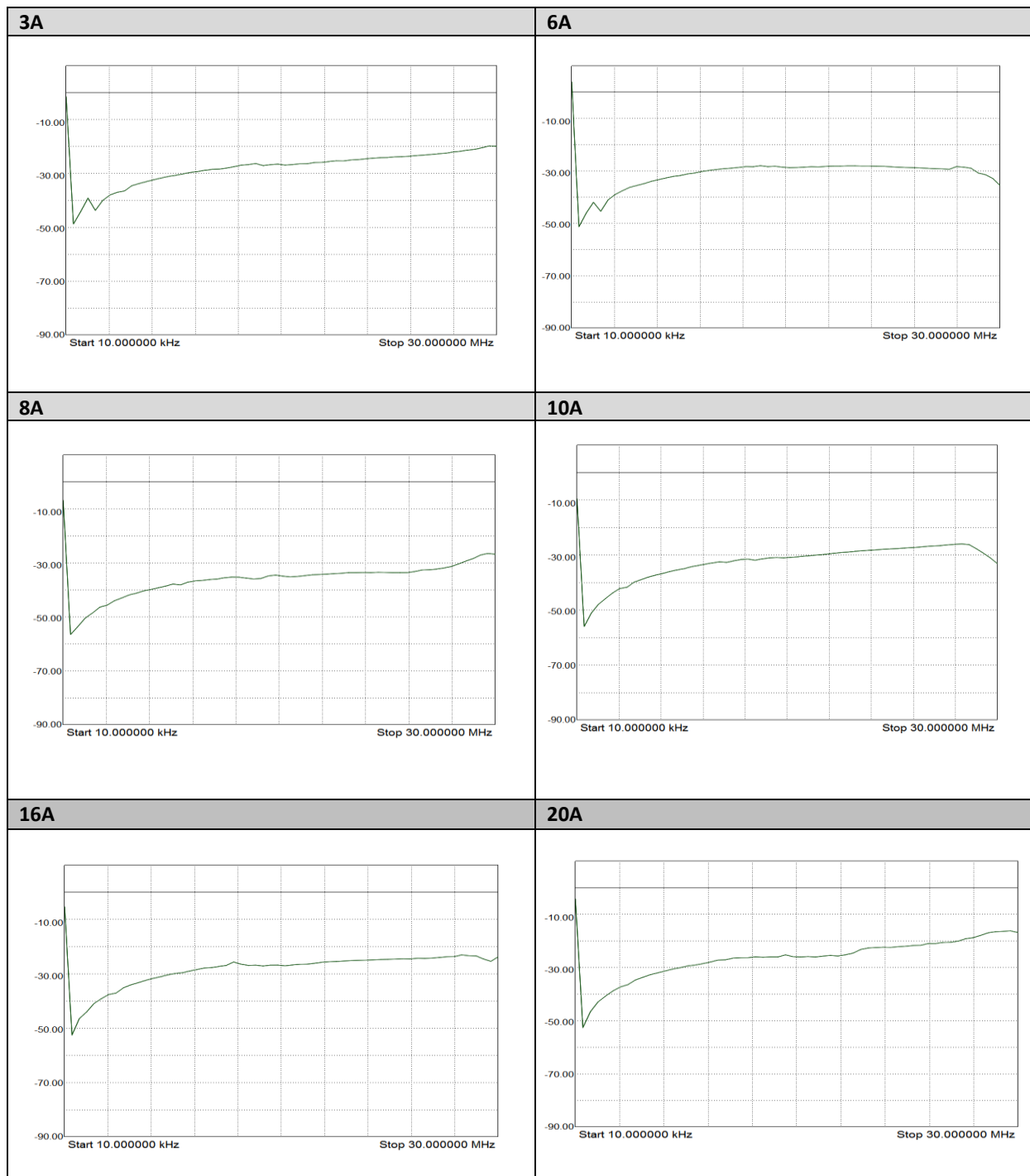
Common Mode 50Ω / 50Ω

| | | Frequency in MHz | | | | | | | | |
|----------------|------|------------------|------|------|-----|----|----|----|----|----|
| | | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| Current Rating | 6A | 60 | 64 | 64 | 57 | 51 | 44 | 40 | 34 | 30 |
| | 8A | 56 | 60 | 62 | 54 | 50 | 42 | 40 | 34 | 32 |
| | 10A | 65 | 64 | 61 | 55 | 51 | 42 | 38 | 33 | 27 |
| | 16A | 57 | 55 | 56 | 54 | 49 | 41 | 37 | 32 | 29 |
| | 20A | 56 | 54 | 56 | 53 | 49 | 45 | 38 | 32 | 24 |
| | 25A | 54 | 52 | 50 | 48 | 46 | 39 | 34 | 32 | 24 |
| | 36A | 60 | 55 | 48 | 38 | 32 | 30 | 28 | 44 | 35 |
| | 50A | 58 | 54 | 45 | 34 | 31 | 32 | 29 | 42 | 36 |
| | 60A | 54 | 51 | 47 | 36 | 39 | 29 | 32 | 38 | 44 |
| | 75A | 44 | 46 | 51 | 55 | 50 | 54 | 44 | 33 | 36 |
| | 100A | 36 | 40 | 46 | 48 | 52 | 49 | 40 | 34 | 27 |
| | 125A | 34 | 40 | 48 | 44 | 50 | 48 | 38 | 32 | 28 |
| | 150A | 34 | 36 | 42 | 44 | 51 | 47 | 40 | 34 | 30 |
| | 200A | 32 | 36 | 51 | 50 | 47 | 40 | 35 | 30 | 26 |
| | 250A | 32 | 35 | 51 | 51 | 47 | 39 | 35 | 29 | 26 |

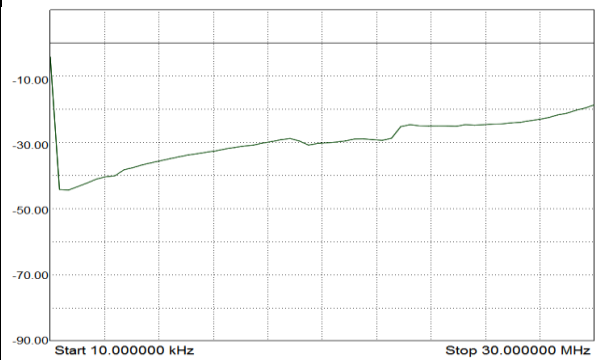
Differential Mode 50Ω / 50Ω

| | | Frequency in MHz | | | | | | | | |
|----------------|------|------------------|------|------|-----|----|----|----|----|----|
| | | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| Current Rating | 6A | 20 | 22 | 35 | 62 | 49 | 39 | 36 | 30 | 26 |
| | 8A | 20 | 24 | 35 | 60 | 46 | 39 | 36 | 30 | 26 |
| | 10A | 20 | 23 | 36 | 61 | 49 | 38 | 34 | 29 | 25 |
| | 16A | 35 | 37 | 46 | 55 | 48 | 38 | 35 | 29 | 26 |
| | 20A | 31 | 32 | 35 | 55 | 72 | 64 | 60 | 51 | 54 |
| | 25A | 32 | 34 | 34 | 50 | 68 | 62 | 59 | 50 | 52 |
| | 36A | 54 | 50 | 46 | 40 | 35 | 42 | 29 | 40 | 50 |
| | 50A | 56 | 51 | 48 | 42 | 40 | 48 | 46 | 52 | 54 |
| | 60A | 50 | 49 | 50 | 42 | 45 | 48 | 49 | 53 | 58 |
| | 75A | 48 | 51 | 54 | 49 | 52 | 49 | 46 | 32 | 28 |
| | 100A | 37 | 41 | 50 | 55 | 60 | 58 | 56 | 55 | 40 |
| | 125A | 32 | 38 | 51 | 57 | 61 | 56 | 58 | 58 | 46 |
| | 150A | 32 | 38 | 51 | 57 | 61 | 54 | 58 | 57 | 44 |
| | 200A | 34 | 38 | 52 | 52 | 46 | 37 | 38 | 31 | 25 |
| | 250A | 33 | 36 | 52 | 52 | 47 | 40 | 37 | 31 | 25 |

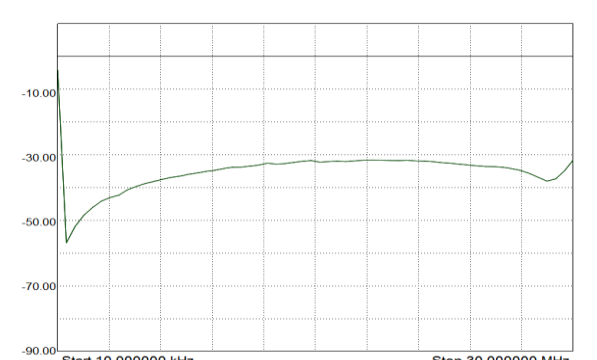
Common Mode Insertion Loss (Typical in dB – refer to Table above)



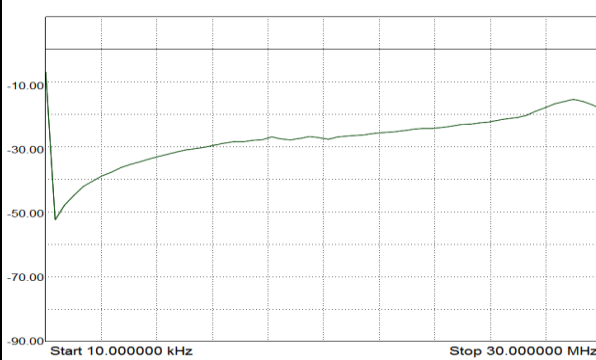
25A



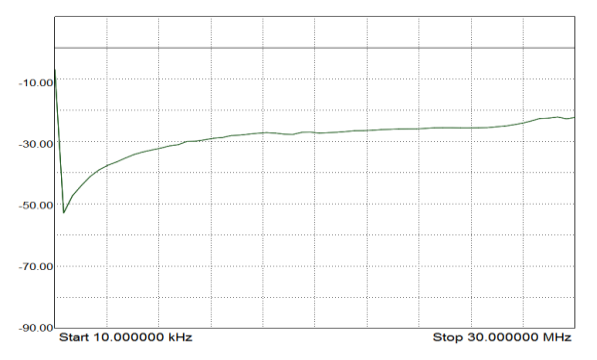
36A



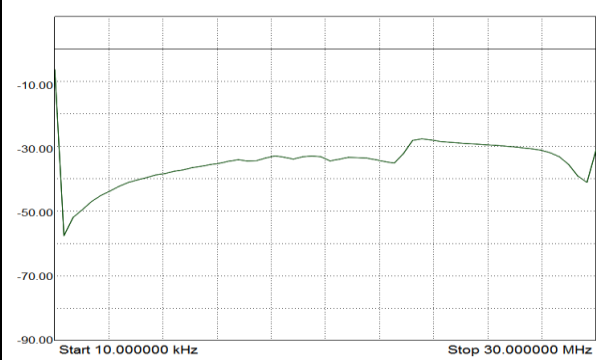
50A



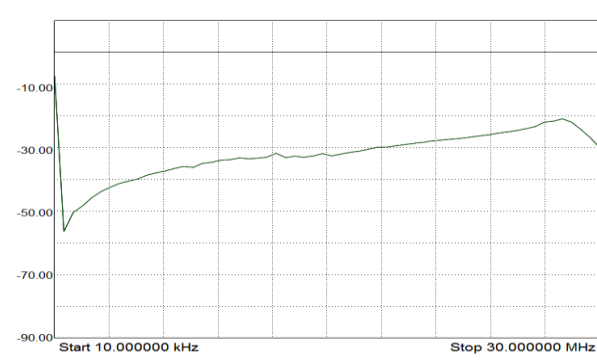
60A

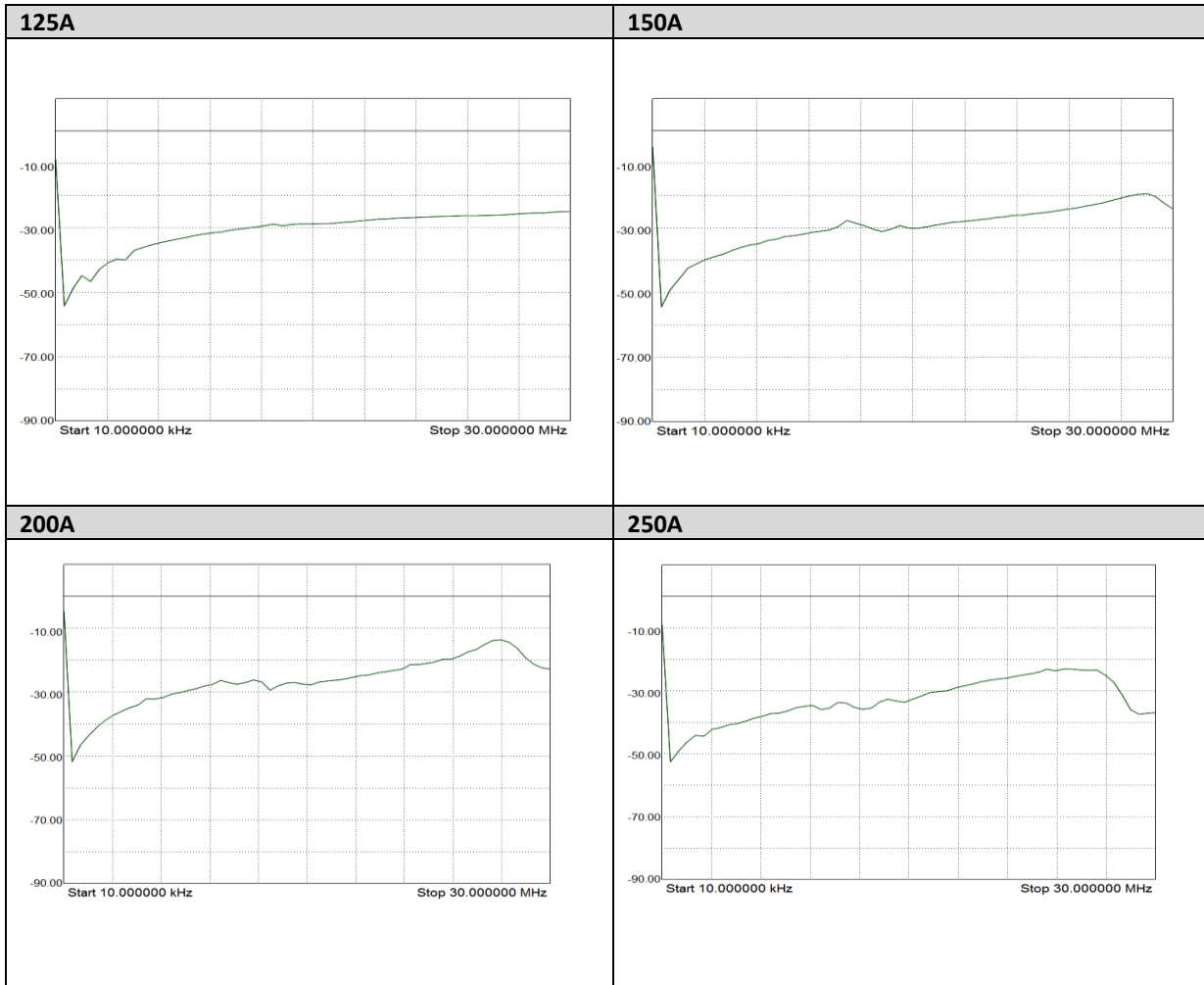


75A

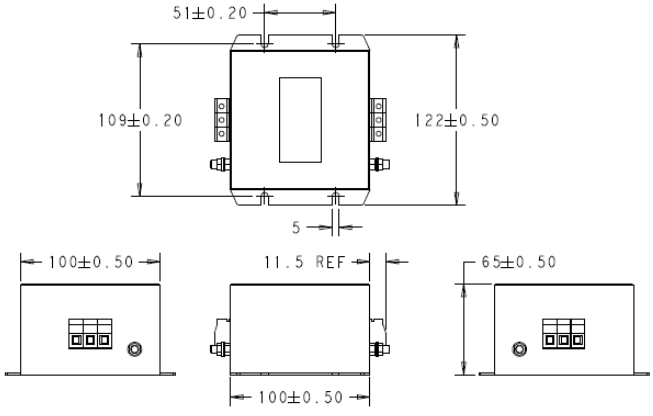
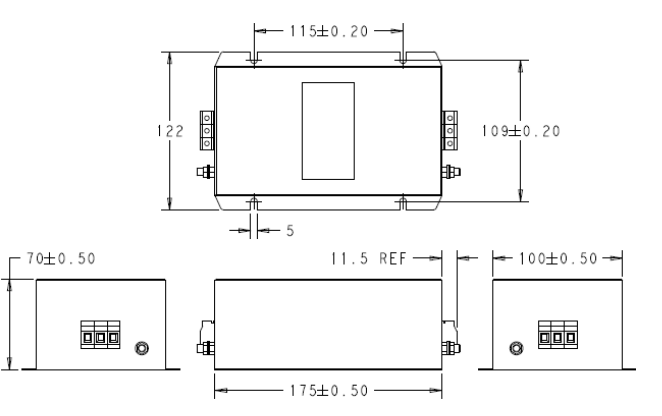
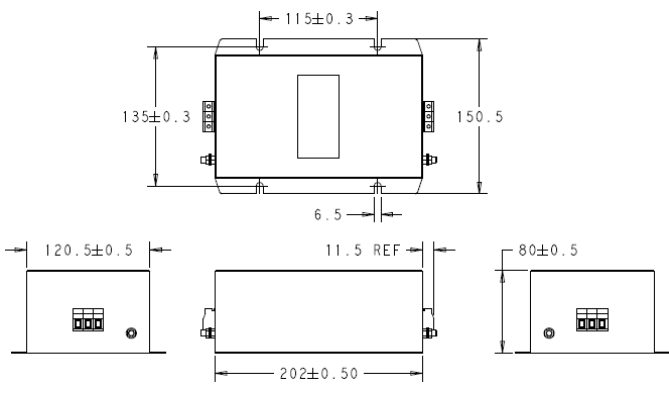
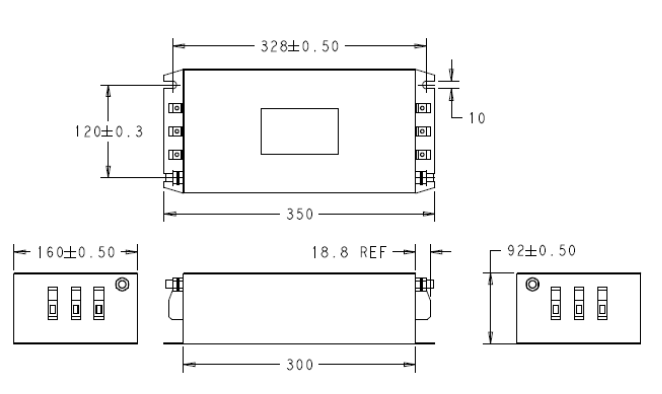
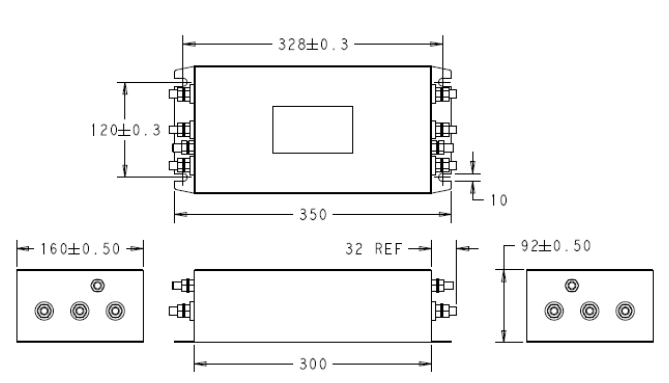
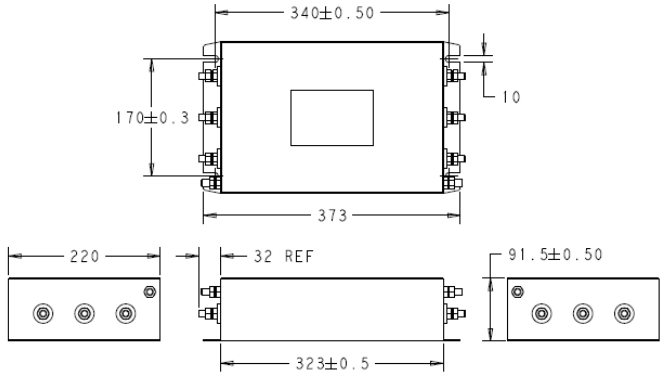


100A





Case Dimensions – Standard Version

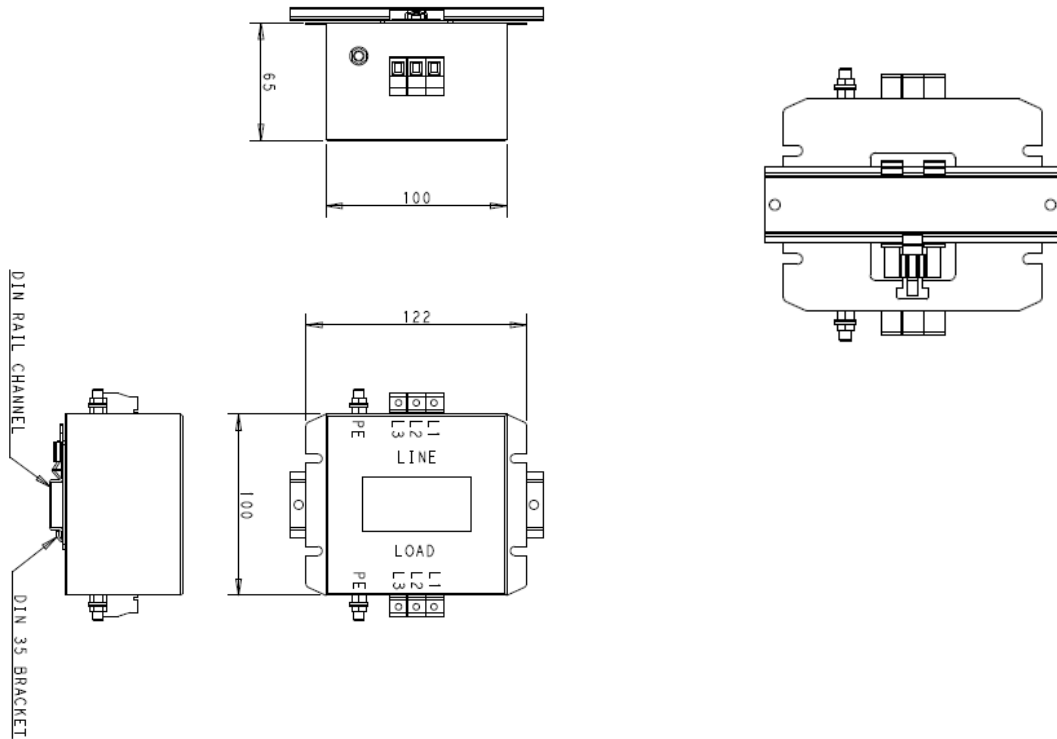
| 6A Shock Proof Type | 8A to 10A Shock Proof Types |
|---|--|
|  |  |
| 15A to 50A Shock Proof Types | 60A to 100A Shock Proof Types |
|  |  |
| 125A to 150A Nut & Bolt Types | 150A to 250A Nut & Bolt Types |
|  |  |

All dimensions in mm; Tolerances according: ISO2768-m

Case Dimensions – Din Rail Mount

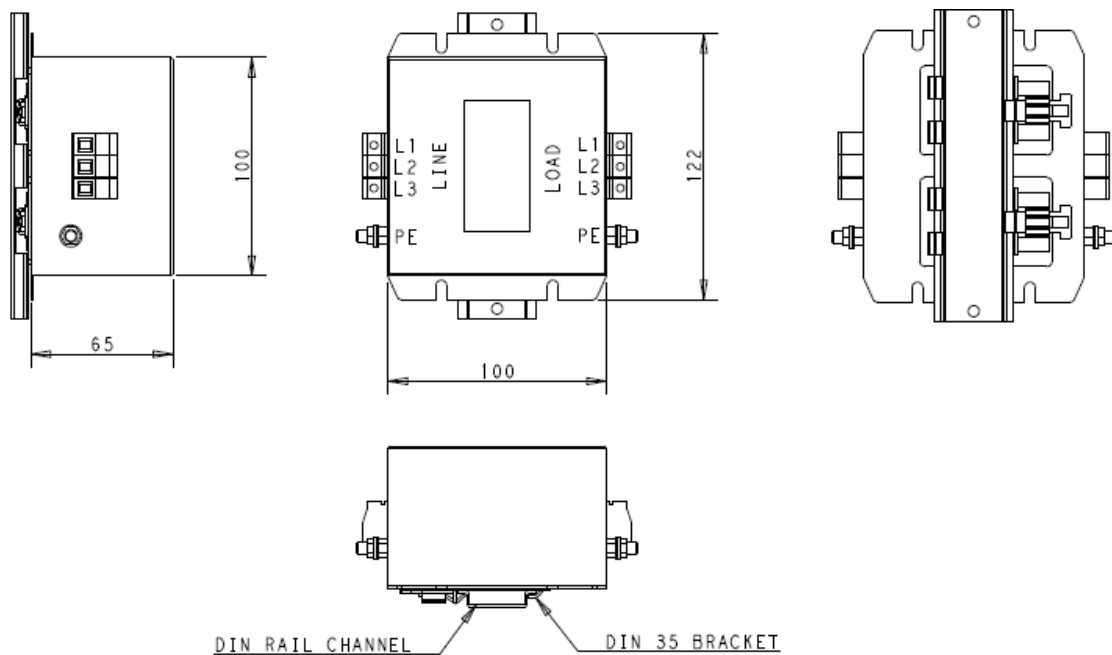
6A Shock Proof Type – Horizontal Mount

Note: Din Rail not supplied



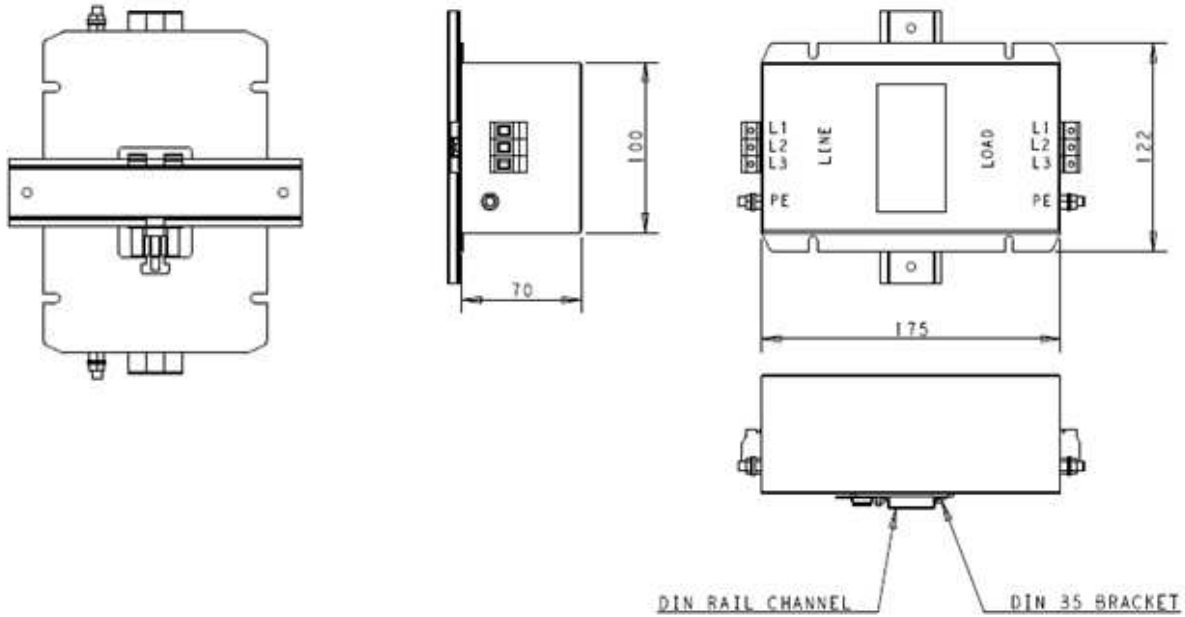
6A Shock Proof Type – Vertical Mount

Note: Din Rail not supplied



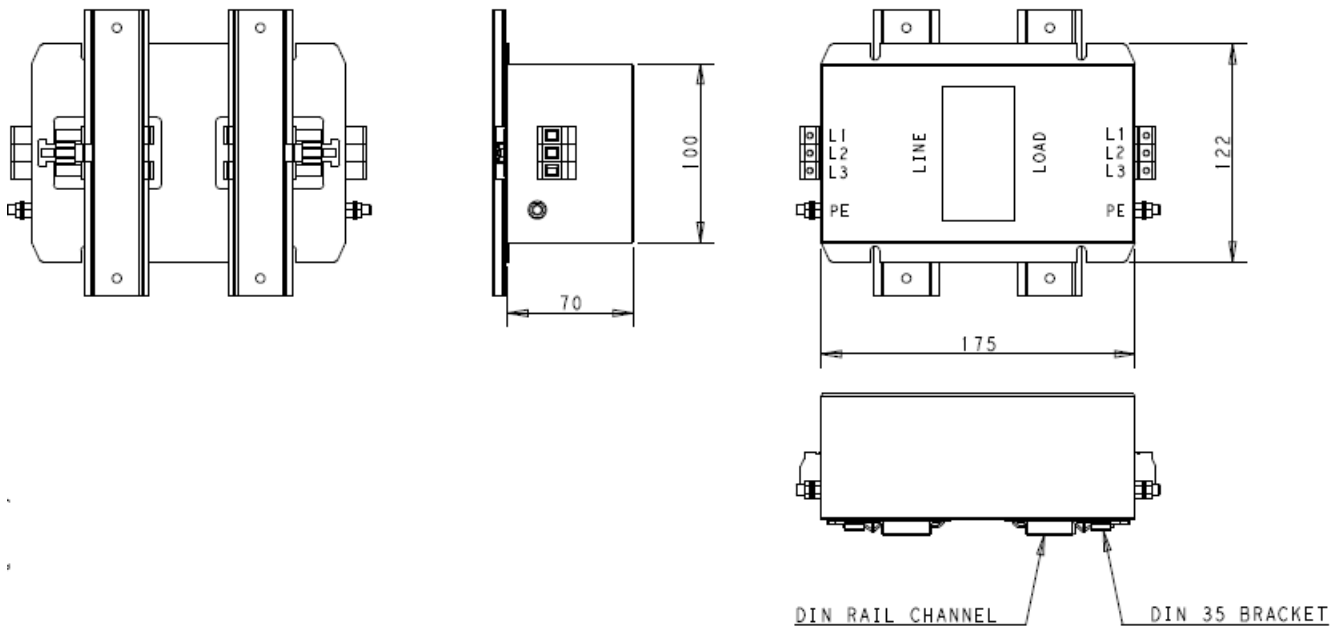
8A to 10A Shock Proof Types – Horizontal Mount

Note: Din Rail not supplied



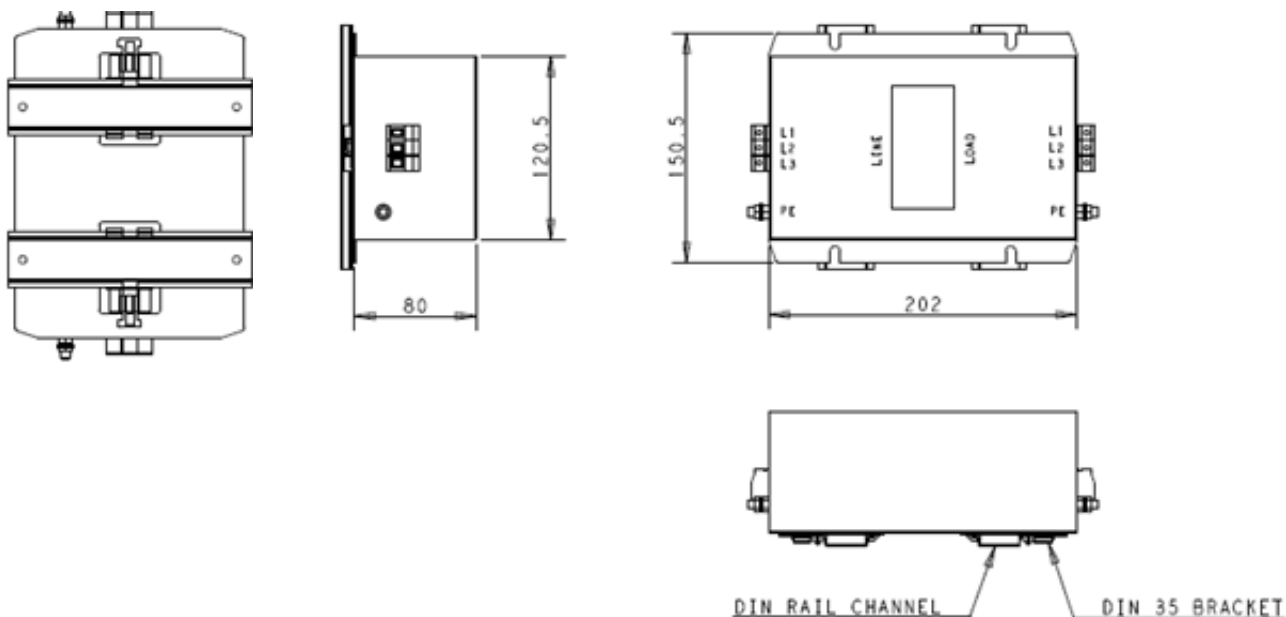
8A to 10A Shock Proof Types – Vertical Mount

Note: Din Rail not supplied



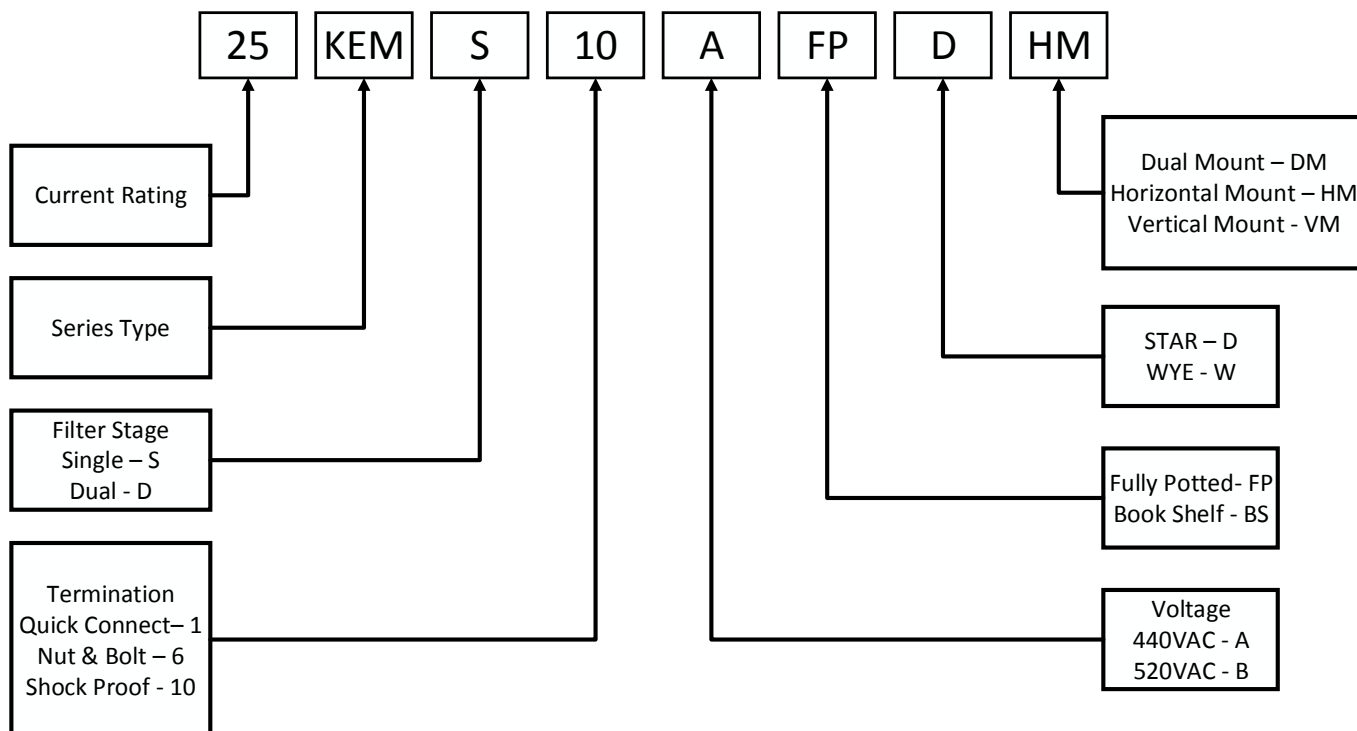
16A to 50A Shock Proof Types – Horizontal Mount

Note: Din Rail not supplied



All dimensions in mm; Tolerances according: ISO2768-m

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