

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

DATASHEET

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



Approvals & Compliance

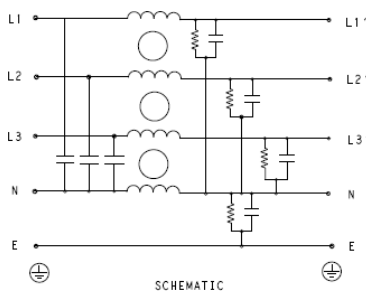
UL Recognised

CSA Certified *

*30th June 2021



Typical Circuit Diagram



Features

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

Applications

- Industrial Automation
- HVAC
- CNC Machines
- Robotics

Specifications

Electrical Characteristics

| | |
|--------------------------------------|--|
| Maximum Continuous Operating Voltage | 440/520VAC |
| Current Ratings | 7A to 150A @40°C, Din Mount 7A to 100A @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 | Shock Proof |
| Flammability corresponding to | UL 94 V-0 |

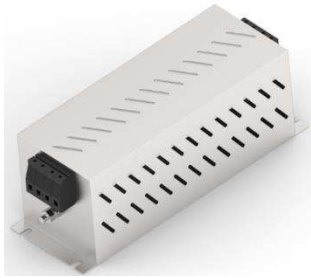
Reference Standards


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

KEP-BS SERIES



Selection Table – Standard Version



| TE Ordering Number | Catalog Number | Rated Current @40°C | Rated Voltage @40°C | Leakage Current (mA) | Termination  | Weight (Kgs) |
|--------------------|----------------|---------------------|---------------------|----------------------|--|--------------|
| 2-1609968-7 | 7KEPS10ABSW | 7A | 440 VAC | 5 | 41 | 0.8 |
| 3-1609968-0 | 16KEPS10ABSW | 16A | 440 VAC | 5 | 41 | 0.9 |
| 3-1609968-1 | 30KEPS10ABSW | 30A | 440 VAC | 5 | 41 | 1.2 |
| 3-1609968-2 | 42KEPS10ABSW | 42A | 440 VAC | 6 | 10 | 1.2 |
| 3-1609968-3 | 55KEPS10ABSW | 55A | 440 VAC | 6 | 10 | 1.6 |
| 3-1609968-4 | 75KEPS10ABSW | 75A | 440 VAC | 6 | 16 | 2 |
| 3-1609968-5 | 100KEPS10ABSW | 100A | 440 VAC | 11 | 25 | 2.2 |
| 3-1609968-6 | 125KEPS10ABSW | 120A | 440 VAC | 11 | 50 | 4 |
| 3-1609968-7 | 150KEPS10ABSW | 150A | 440 VAC | 11 | 50 | 5 |
| 5-1609968-7 | 7KEPS10BBSW | 7A | 520 VAC | 5 | 41 | 0.8 |
| 6-1609968-0 | 16KEPS10BBSW | 16A | 520 VAC | 5 | 41 | 0.9 |
| 6-1609968-1 | 30KEPS10BBSW | 30A | 520 VAC | 5 | 41 | 1.2 |
| 6-1609968-2 | 42KEPS10BBSW | 42A | 520 VAC | 6 | 10 | 1.2 |
| 6-1609968-3 | 55KEPS10BBSW | 55A | 520 VAC | 6 | 10 | 1.6 |
| 6-1609968-4 | 75KEPS10BBSW | 75A | 520 VAC | 6 | 16 | 2 |
| 6-1609968-5 | 100KEPS10BBSW | 100A | 520 VAC | 11 | 25 | 2.2 |
| 6-1609968-6 | 125KEPS10BBSW | 120A | 520 VAC | 11 | 50 | 4 |
| 6-1609968-7 | 150KEPS10BBSW | 150A | 520 VAC | 11 | 50 | 5 |

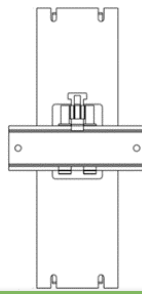
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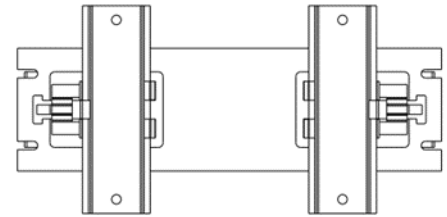
Selection Table – Din Rail Mount



NEW



HORIZONTAL MOUNT



Note: Din Rail not supplied

VERTICAL MOUNT

| TE Part Number | Catalog Number | Din Type | Rated Current @40°C | Rated Voltage @40°C | Leakage Current (mA) | Termination | Weight (Kgs) |
|----------------|-----------------|------------|---------------------|---------------------|----------------------|-------------|--------------|
| 9-1609968-3 | 7KEPS10ABSWHM | HORIZONTAL | 7A | 440 VAC | 5 | 41 | 0.9 |
| 9-1609968-4 | 16KEPS10ABSWHM | HORIZONTAL | 16A | 440 VAC | 5 | 41 | 1 |
| 9-1609968-5 | 30KEPS10ABSWHM | HORIZONTAL | 30A | 440 VAC | 5 | 41 | 1.3 |
| 9-1609968-6 | 42KEPS10ABSWHM | HORIZONTAL | 42A | 440 VAC | 6 | 10 | 1.3 |
| 9-1609968-7 | 7KEPS10ABSWVM | VERTICAL | 7A | 440 VAC | 5 | 41 | 1.8 |
| 9-1609968-8 | 16KEPS10ABSWVM | VERTICAL | 16A | 440 VAC | 5 | 41 | 1.4 |
| 9-1609968-9 | 30KEPS10ABSWVM | VERTICAL | 30A | 440 VAC | 5 | 41 | 1.4 |
| 7-1609969-0 | 42KEPS10ABSWVM | VERTICAL | 42A | 440 VAC | 6 | 10 | 1.8 |
| 7-1609969-1 | 55KEPS10ABSWHM | HORIZONTAL | 55A | 440 VAC | 6 | 10 | 2.2 |
| 7-1609969-2 | 75KEPS10ABSWHM | HORIZONTAL | 75A | 440 VAC | 6 | 16 | 2.4 |
| 7-1609969-3 | 100KEPS10ABSWHM | HORIZONTAL | 100A | 440 VAC | 11 | 25 | 3.2 |
| 8-1609969-5 | 7KEPS10BBSWHM | HORIZONTAL | 7A | 520 VAC | 5 | 41 | 0.9 |
| 8-1609969-6 | 16KEPS10BBSWHM | HORIZONTAL | 16A | 520 VAC | 5 | 41 | 1 |
| 8-1609969-7 | 30KEPS10BBSWHM | HORIZONTAL | 30A | 520 VAC | 5 | 41 | 1.3 |
| 8-1609969-8 | 42KEPS10BBSWHM | HORIZONTAL | 42A | 520 VAC | 6 | 10 | 1.3 |
| 8-1609969-9 | 7KEPS10BBSWVM | VERTICAL | 7A | 520 VAC | 5 | 41 | 1.8 |
| 9-1609969-0 | 16KEPS10BBSWVM | VERTICAL | 16A | 520 VAC | 5 | 41 | 1.4 |
| 9-1609969-1 | 30KEPS10BBSWVM | VERTICAL | 30A | 520 VAC | 5 | 41 | 1.4 |
| 9-1609969-2 | 42KEPS10BBSWVM | VERTICAL | 42A | 520 VAC | 6 | 10 | 1.8 |
| 9-1609969-3 | 55KEPS10BBSWHM | HORIZONTAL | 55A | 520 VAC | 6 | 10 | 2.2 |
| 9-1609969-4 | 75KEPS10BBSWHM | HORIZONTAL | 75A | 520 VAC | 6 | 16 | 2.4 |
| 9-1609969-5 | 100KEPS10BBSWHM | HORIZONTAL | 100A | 520 VAC | 11 | 25 | 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

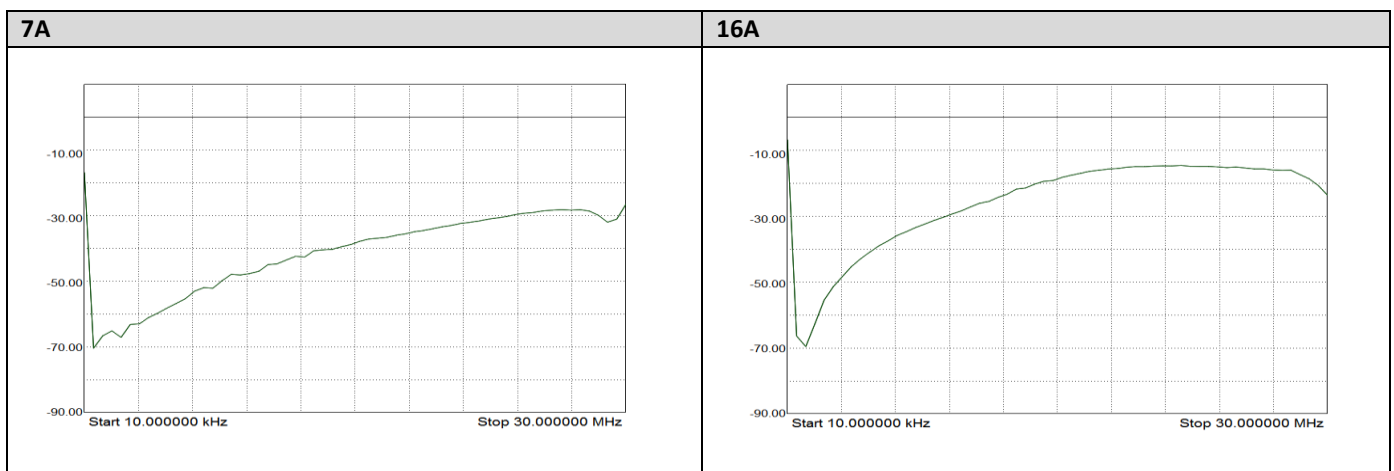
Common Mode 50Ω / 50Ω

| | | Frequency in MHz | | | | | | | | |
|----------------|------|------------------|------|------|-----|----|----|----|----|----|
| | | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| Current Rating | 7A | 22 | 18 | 48 | 60 | 70 | 65 | 58 | 31 | 11 |
| | 16A | 20 | 25 | 56 | 64 | 75 | 70 | 60 | 31 | 11 |
| | 30A | 21 | 23 | 35 | 61 | 67 | 50 | 43 | 37 | 19 |
| | 42A | 35 | 42 | 55 | 54 | 52 | 48 | 34 | 24 | 10 |
| | 55A | 32 | 40 | 55 | 56 | 52 | 48 | 34 | 24 | 12 |
| | 75A | 30 | 35 | 48 | 60 | 64 | 57 | 30 | 22 | 15 |
| | 100A | 24 | 24 | 29 | 56 | 46 | 50 | 54 | 23 | 12 |
| | 125A | 25 | 25 | 32 | 55 | 45 | 32 | 28 | 22 | 12 |
| | 150A | 24 | 25 | 31 | 50 | 41 | 30 | 26 | 21 | 13 |

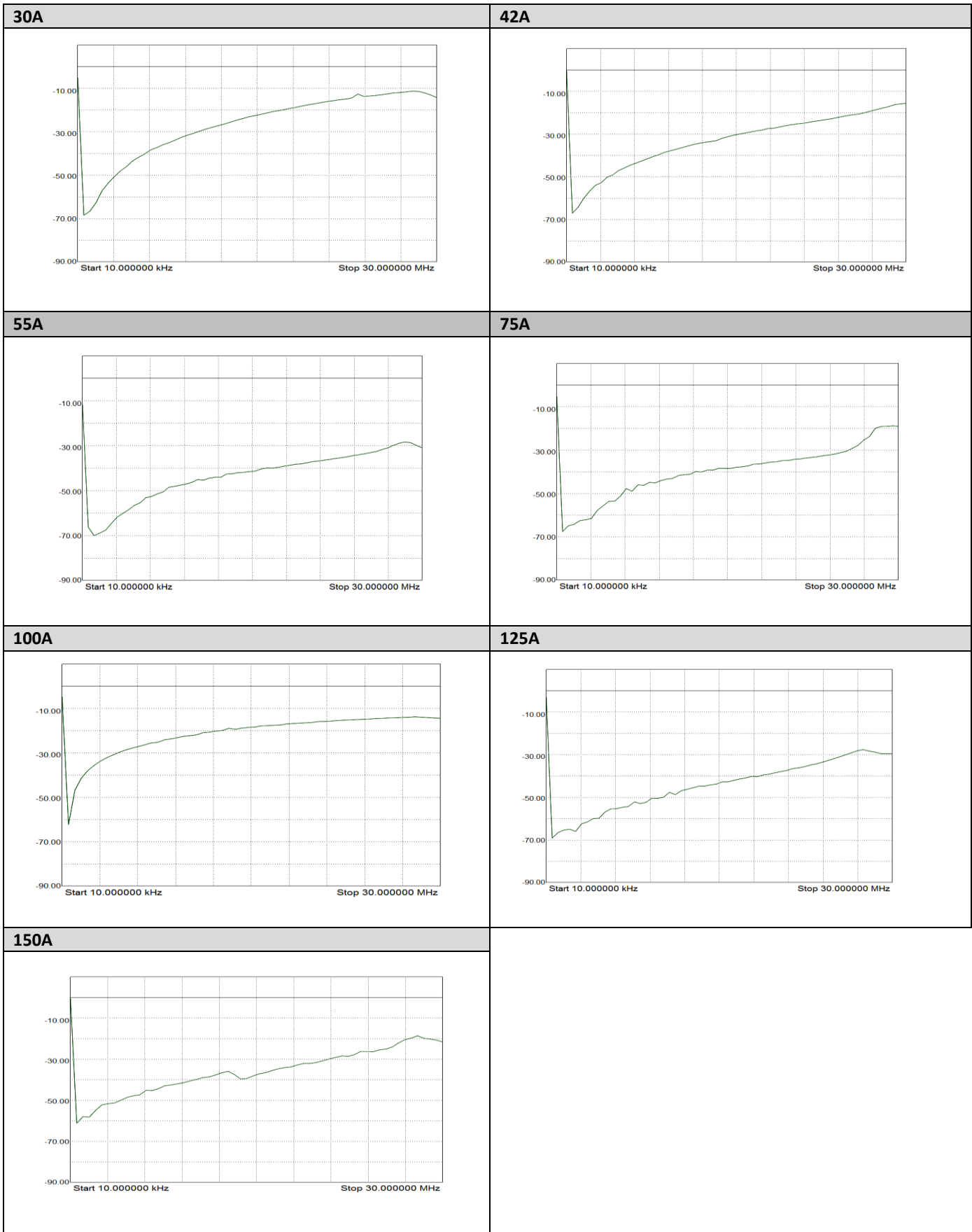
Differential Mode 50Ω / 50Ω

| | | Frequency in MHz | | | | | | | | |
|----------------|------|------------------|------|------|-----|----|----|----|----|----|
| | | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| Current Rating | 7A | 24 | 22 | 63 | 50 | 67 | 60 | 56 | 70 | 50 |
| | 16A | 32 | 40 | 63 | 60 | 70 | 65 | 60 | 50 | 60 |
| | 30A | 28 | 29 | 38 | 75 | 67 | 59 | 48 | 21 | 24 |
| | 42A | 32 | 40 | 50 | 65 | 62 | 68 | 62 | 40 | 18 |
| | 55A | 32 | 41 | 52 | 68 | 62 | 68 | 56 | 40 | 16 |
| | 75A | 27 | 32 | 41 | 56 | 68 | 60 | 49 | 38 | 19 |
| | 100A | 17 | 20 | 23 | 42 | 40 | 52 | 58 | 20 | 20 |
| | 125A | 44 | 45 | 49 | 48 | 40 | 31 | 25 | 17 | 16 |
| | 150A | 42 | 43 | 47 | 48 | 41 | 30 | 24 | 18 | 18 |

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



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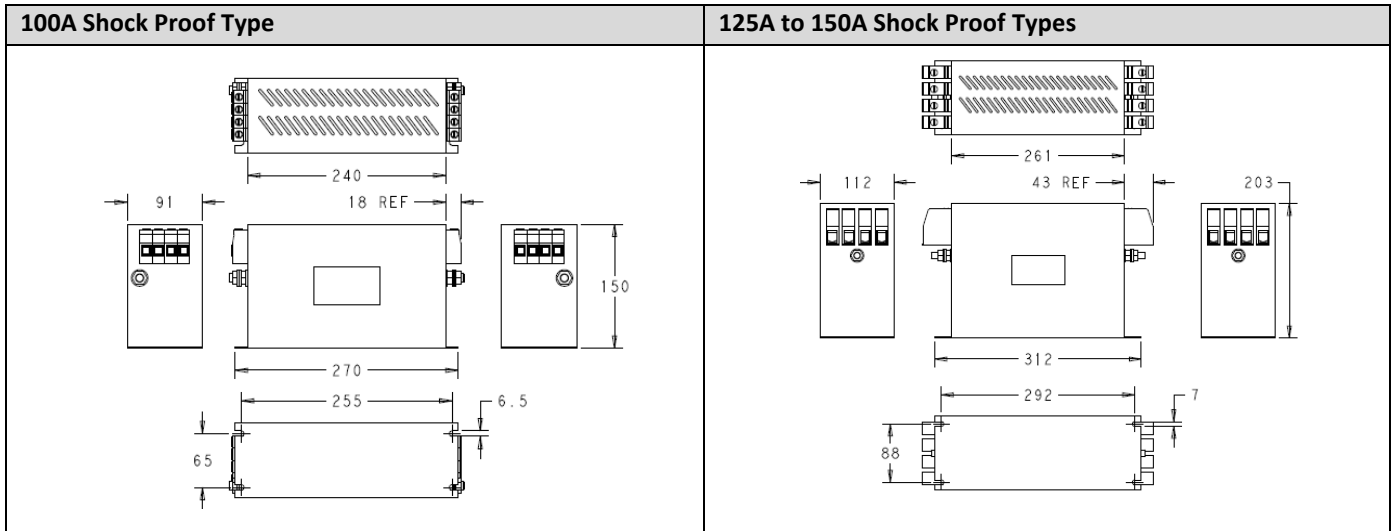
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Case Dimensions – Standard Version

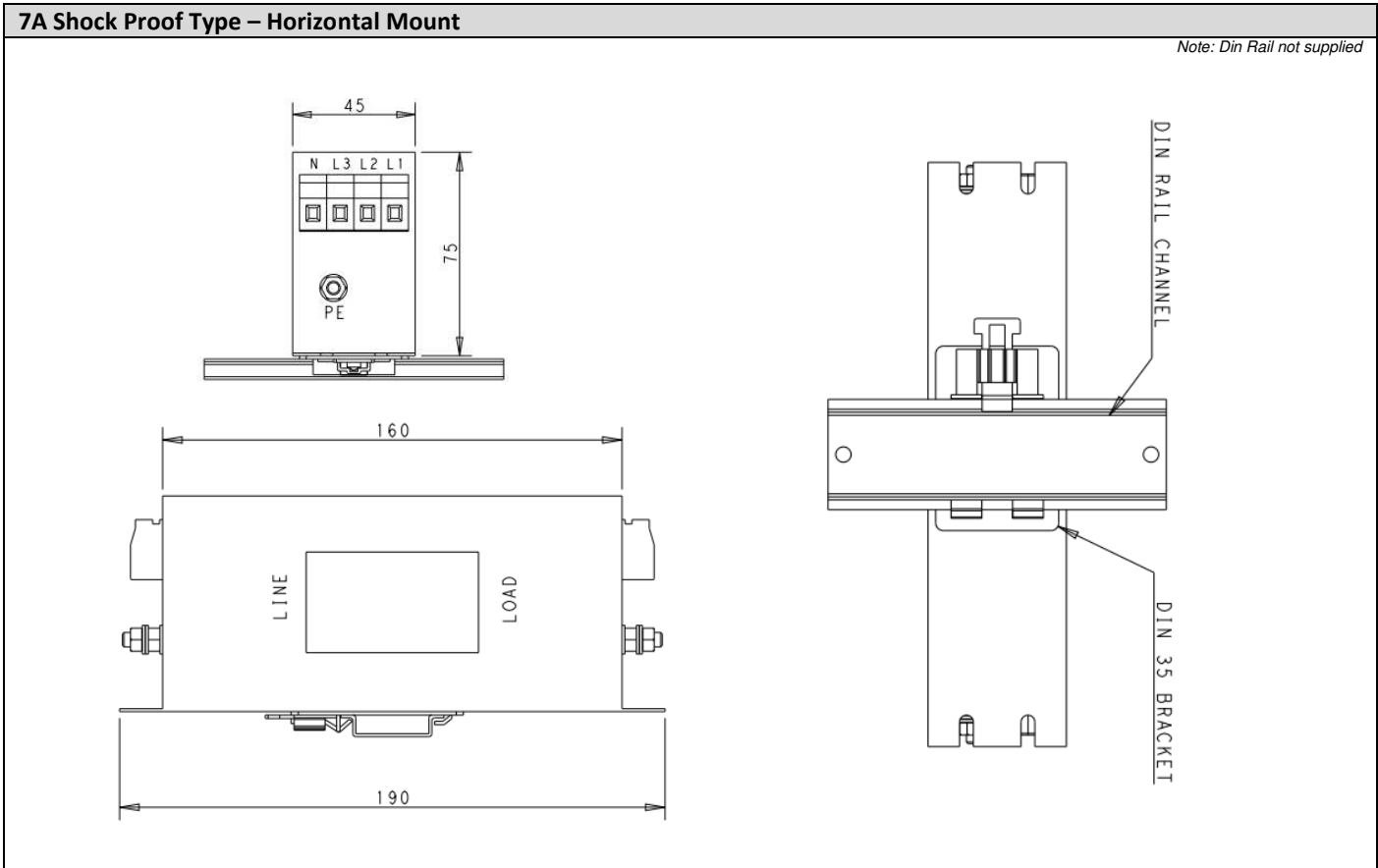
| 7A Shock Proof Type | 16A Shock Proof Type |
|----------------------|----------------------|
| | |
| 30A Shock Proof Type | 42 Shock Proof Type |
| | |
| 55A Shock Proof Type | 75A Shock Proof Type |
| | |

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All dimensions in mm; Tolerances according: ISO2768-m

Case Dimensions – Din Rail Mount

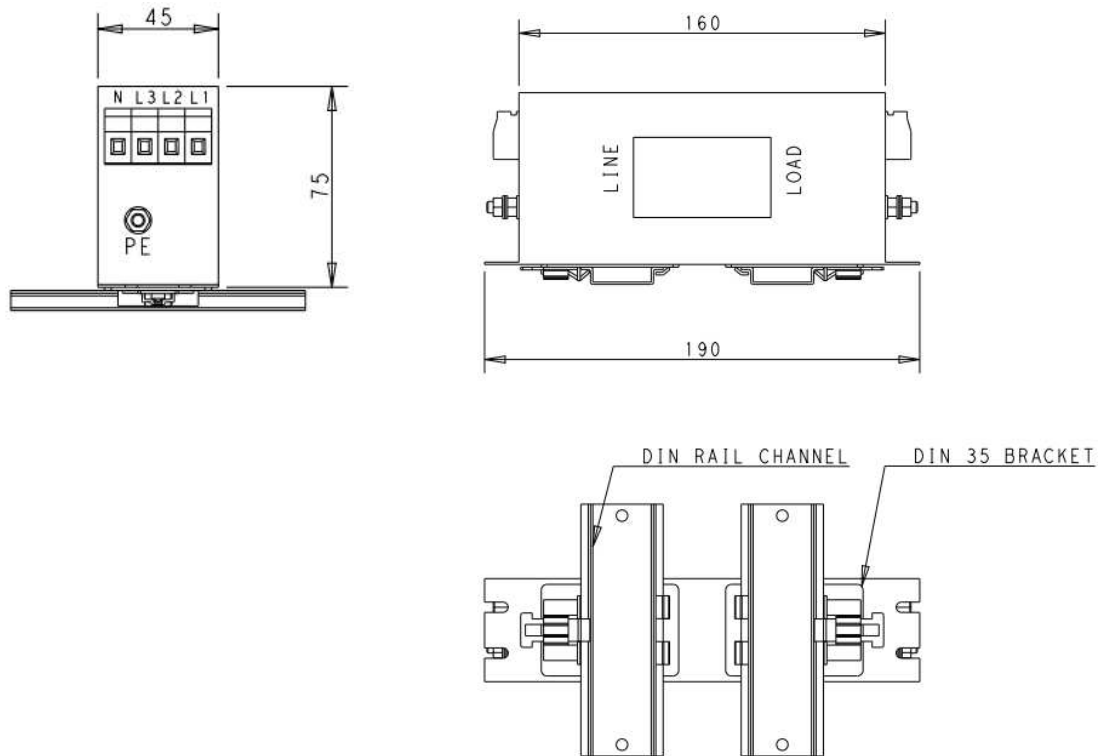


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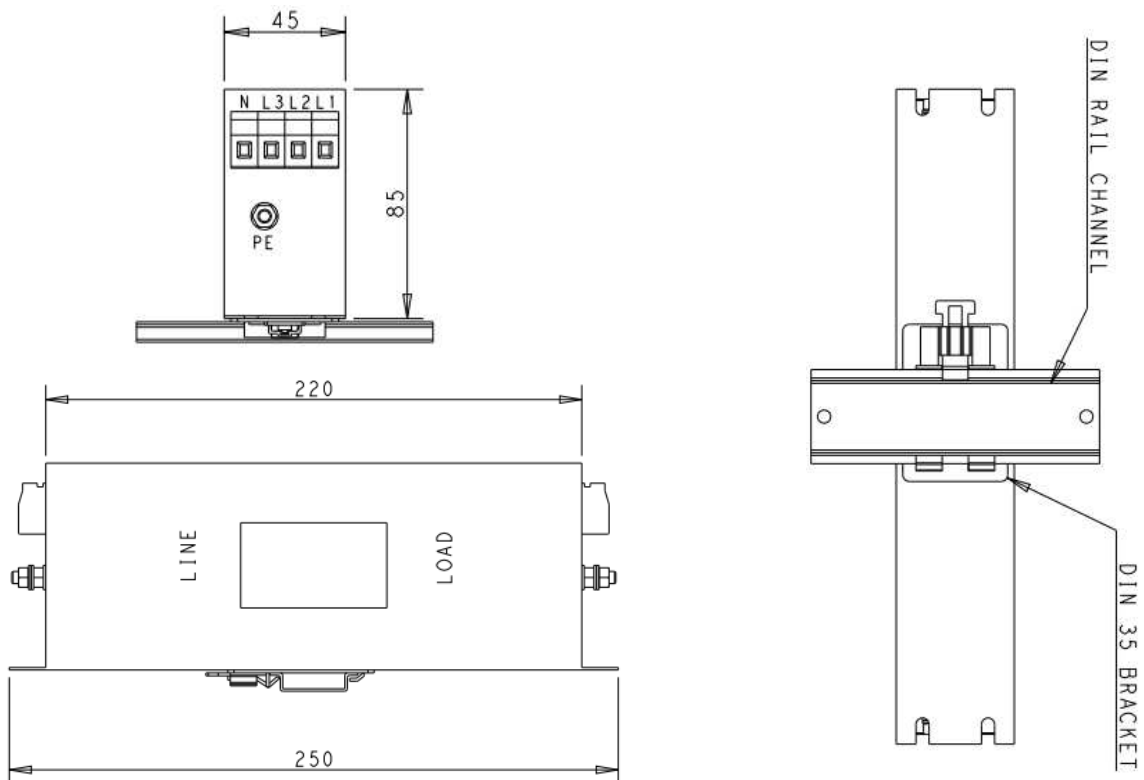
7A Shock Proof Type – Vertical Mount

Note: Din Rail not supplied



16A Shock Proof Type – Horizontal Mount

Note: Din Rail not supplied

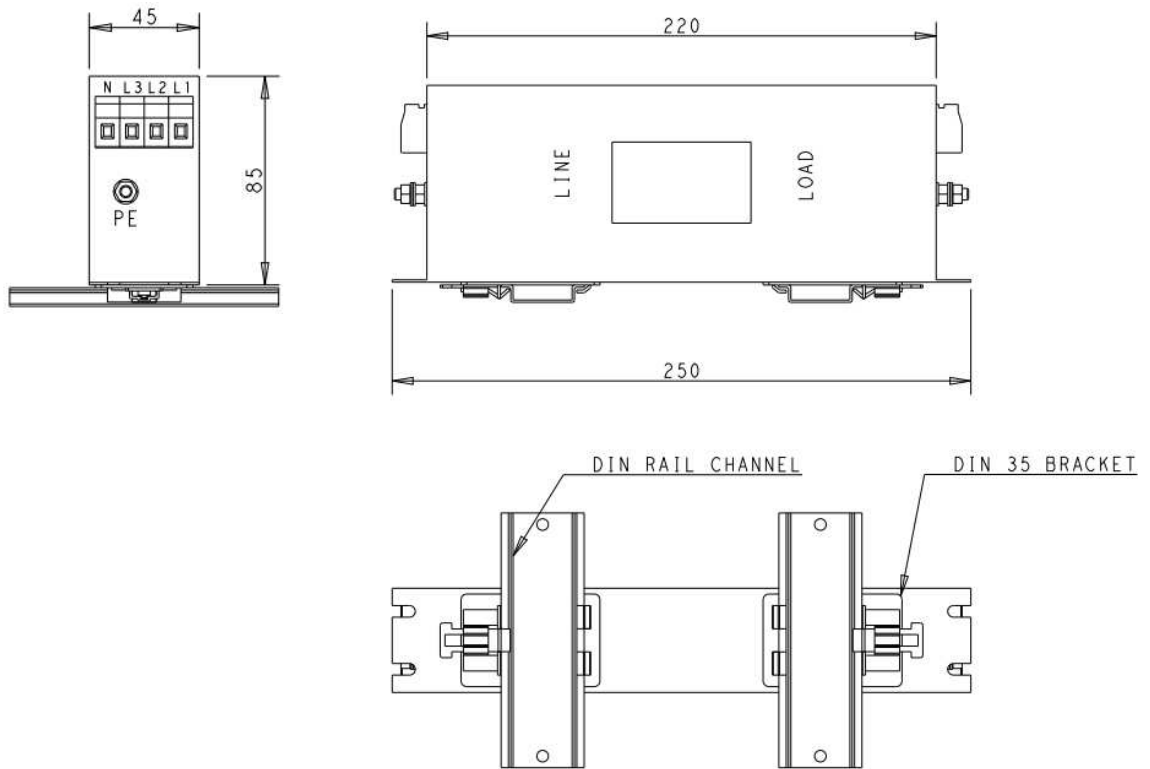


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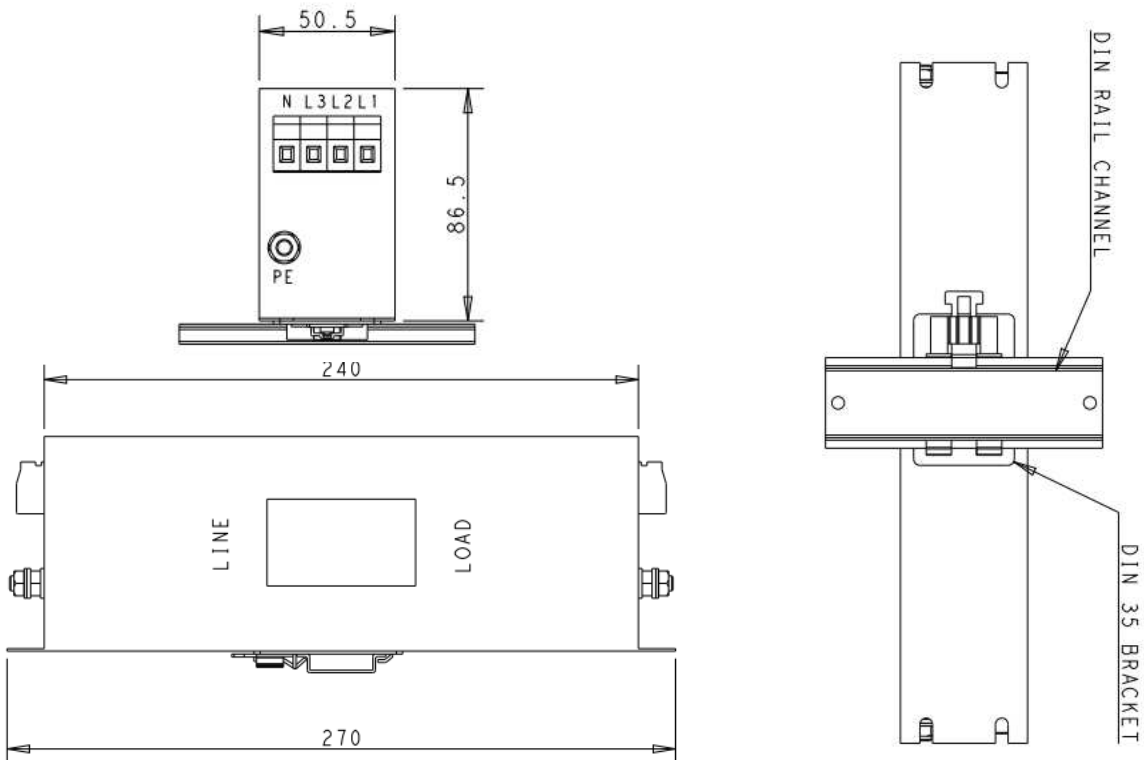
16A Shock Proof Type – Vertical Mount

Note: Din Rail not supplied



30A Shock Proof Type – Horizontal Mount

Note: Din Rail not supplied

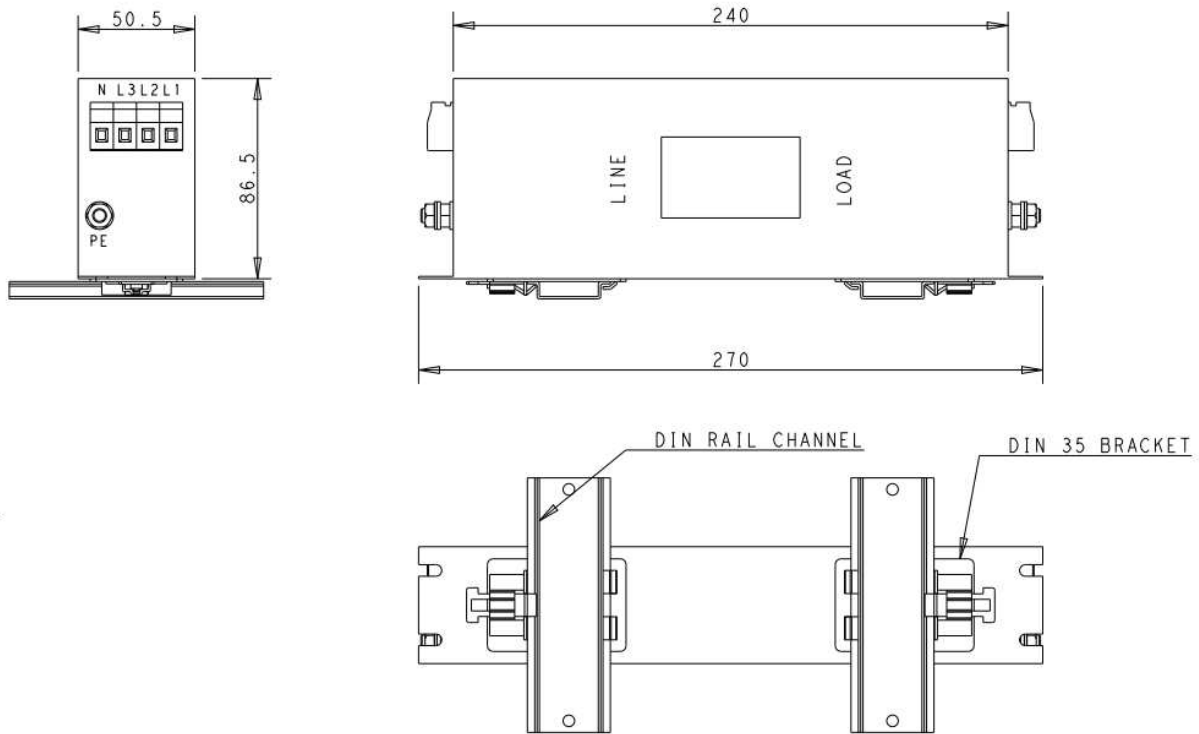


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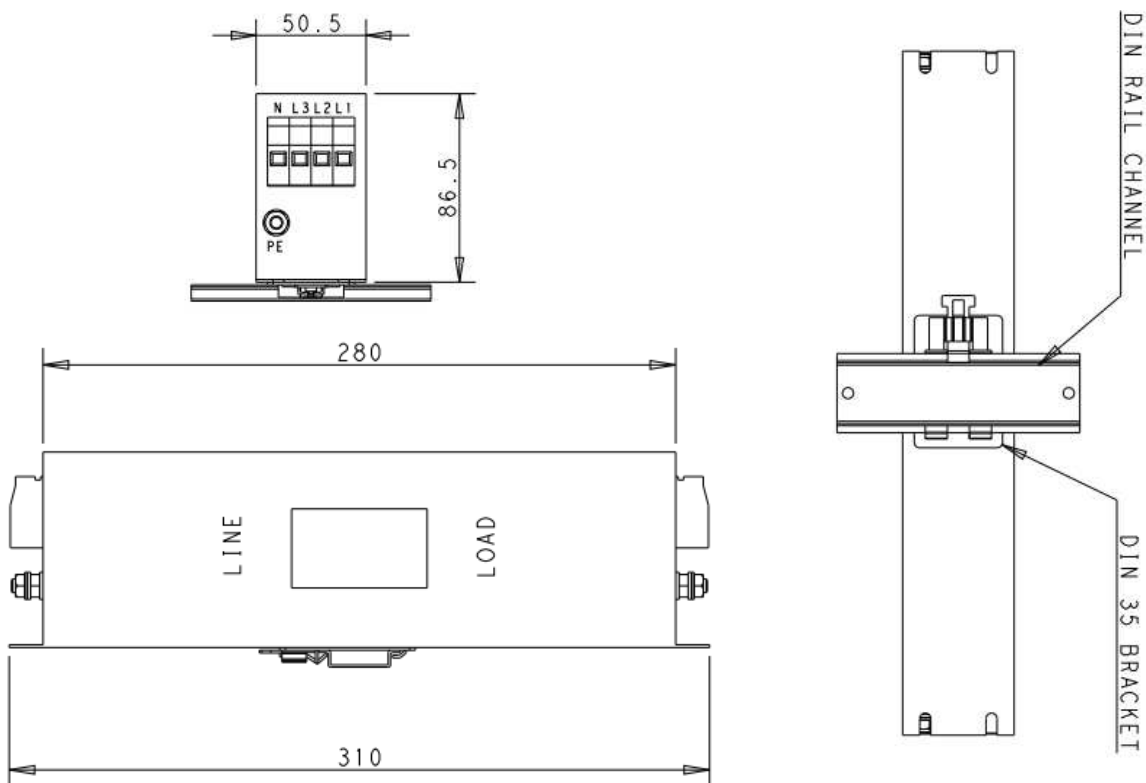
30A Shock Proof Type – Vertical Mount

Note: Din Rail not supplied



42A Shock Proof Type – Horizontal Mount

Note: Din Rail not supplied

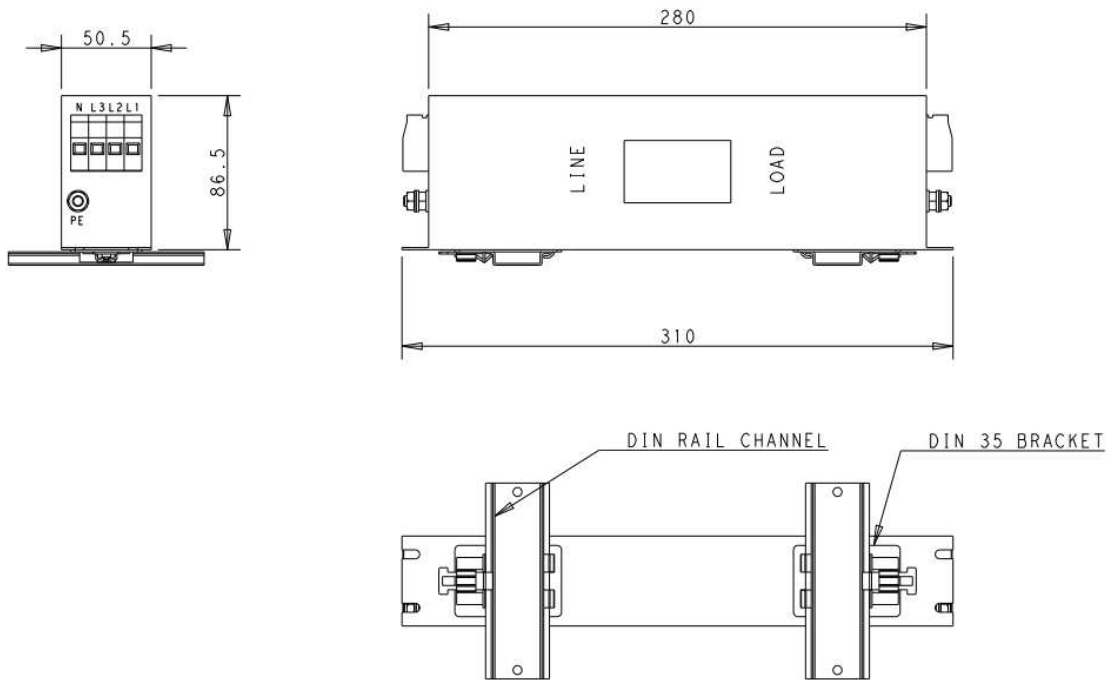


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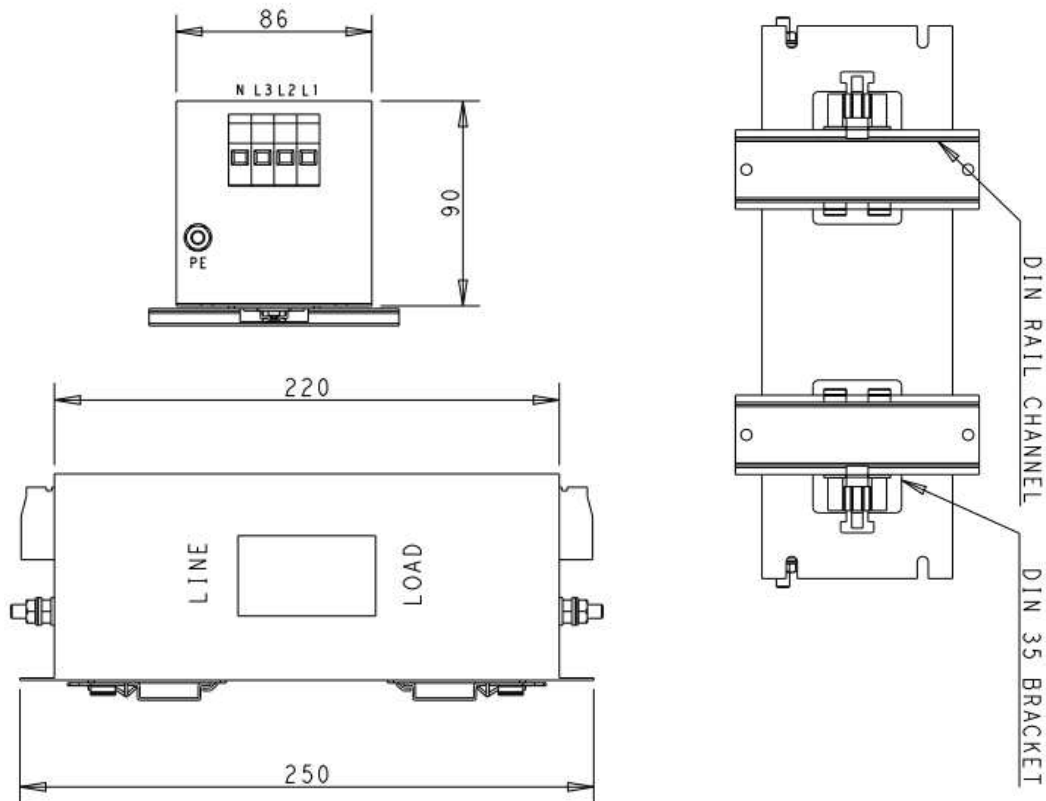
42A Shock Proof Type – Vertical Mount

Note: Din Rail not supplied



55A Shock Proof Type – Horizontal Mount

Note: Din Rail not supplied

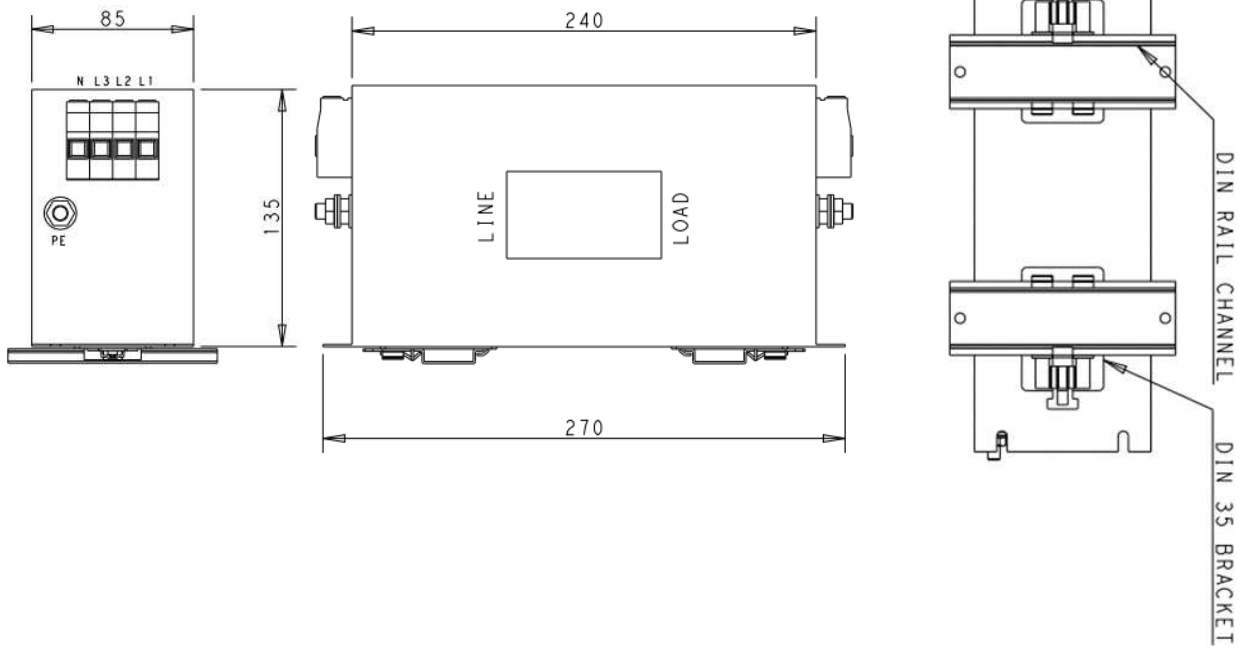


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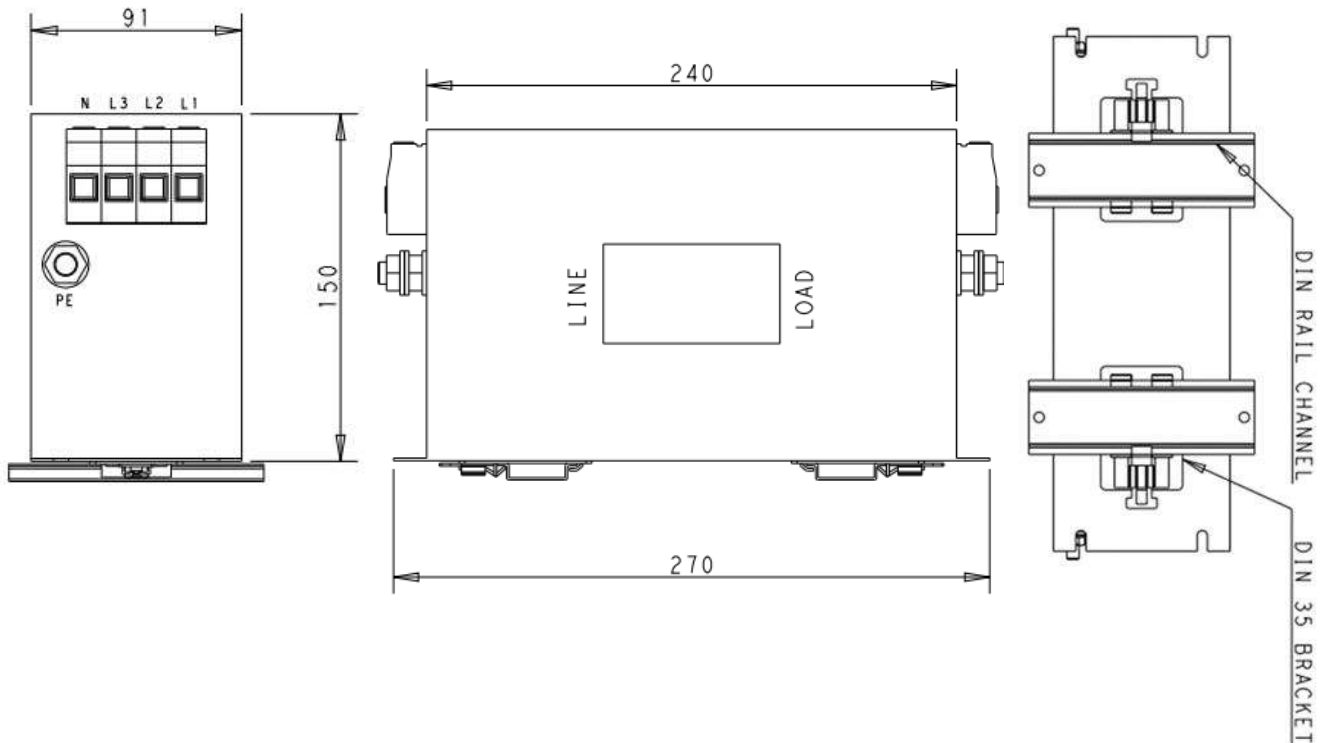
75A Shock Proof Type – Horizontal Mount

Note: Din Rail not supplied



100A Shock Proof Type – Horizontal Mount

Note: Din Rail not supplied

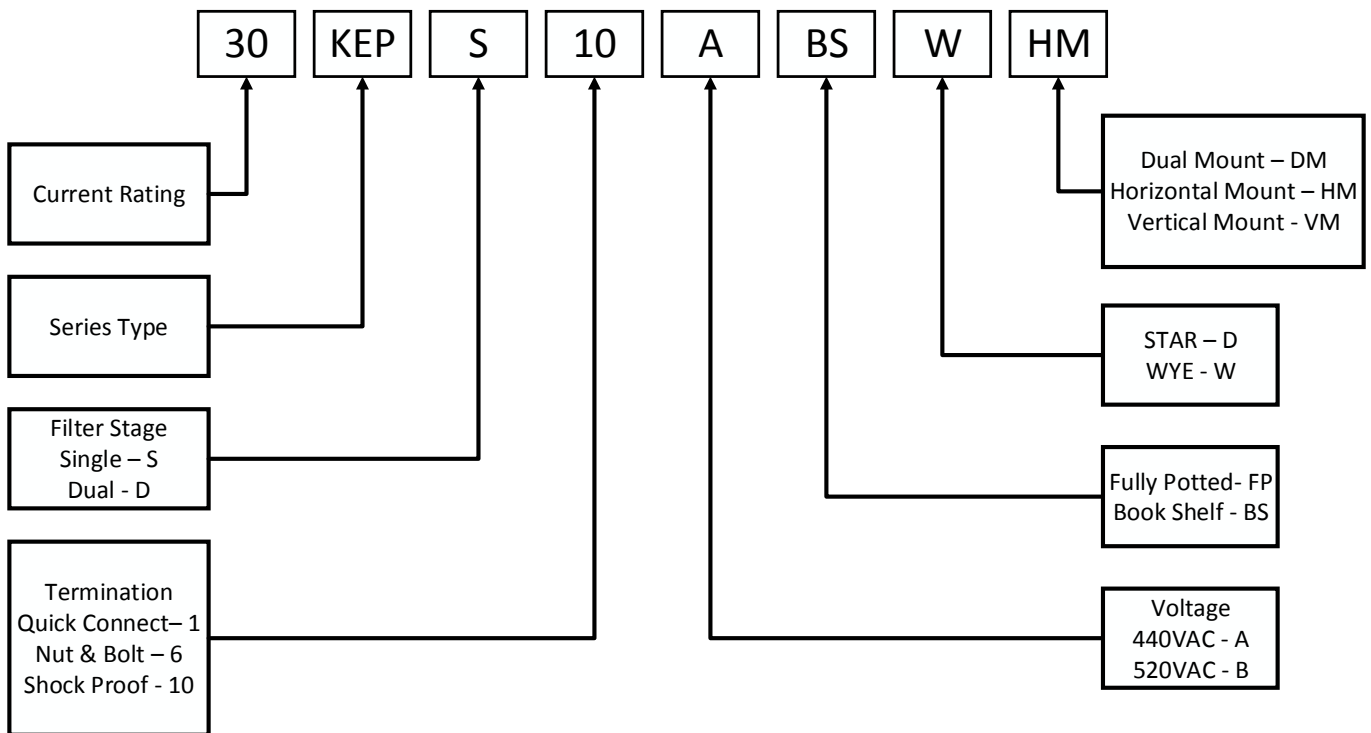


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All dimensions in mm; Tolerances according: ISO2768-m

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