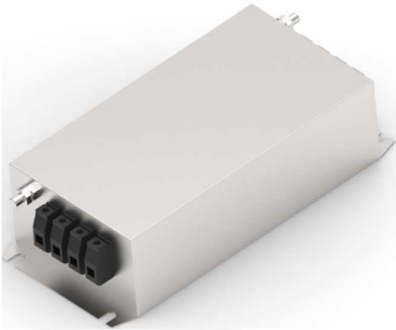


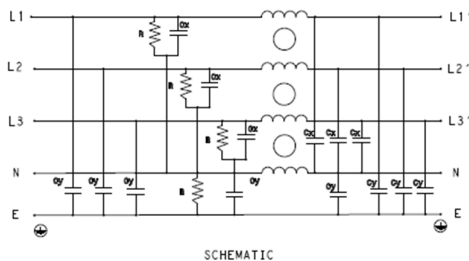
## Three Phase Superior Performance EMI Filter – Single Stage WYE Configuration

### 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                     |
| 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 \*\*



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

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

#### Features

- Compact
- Superior Performance
- Chassis mounting with neutral
- Low Leakage current

#### Applications

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

## Selection Table

| TE Ordering Number | Catalog Number | Rated Current @40°C | Rated Voltage @40°C | Leakage Current (mA) | Termination                                                                                                                                                             | Weight (Kgs) |
|--------------------|----------------|---------------------|---------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|                    |                |                     |                     |                      |   |              |
| 1-1609968-0        | 6KEPS10AFPW    | 6A                  | 440 VAC             | 8.5                  | 41                                                                                                                                                                      | 1            |
| 1-1609968-1        | 8KEPS10AFPW    | 8A                  | 440 VAC             | 8.5                  | 41                                                                                                                                                                      | 2            |
| 1-1609968-2        | 10KEPS10AFPW   | 10A                 | 440 VAC             | 8.5                  | 41                                                                                                                                                                      | 2            |
| 1-1609968-3        | 16KEPS10AFPW   | 16A                 | 440 VAC             | 8.5                  | 41                                                                                                                                                                      | 3            |
| 1-1609968-4        | 20KEPS10AFPW   | 20A                 | 440 VAC             | 8.5                  | 41                                                                                                                                                                      | 3            |
| 1-1609968-5        | 25KEPS10AFPW   | 25A                 | 440 VAC             | 8.5                  | 41                                                                                                                                                                      | 3            |
| 1-1609968-6        | 36KEPS10AFPW   | 36A                 | 440 VAC             | 8.5                  | 10                                                                                                                                                                      | 3            |
| 1-1609968-7        | 50KEPS10AFPW   | 50A                 | 440 VAC             | 8.5                  | 10                                                                                                                                                                      | 3            |
| 2-1609968-0        | 60KEPS10AFPW   | 60A                 | 440 VAC             | 8.5                  | 16                                                                                                                                                                      | 8            |
| 2-1609968-1        | 75KEPS10AFPW   | 75A                 | 440 VAC             | 12                   | 16                                                                                                                                                                      | 8            |
| 2-1609968-2        | 100KEPS10AFPW  | 100A                | 440 VAC             | 12                   | 25                                                                                                                                                                      | 8            |
| 2-1609968-3        | 125KEPS6AFPW   | 125A                | 440 VAC             | 12                   |                                                                                                                                                                         | M10 9        |
| 2-1609968-4        | 150KEPS6AFPW   | 150A                | 440 VAC             | 12                   |                                                                                                                                                                         | M10 9        |
| 2-1609968-5        | 200KEPS6AFPW   | 200A                | 440 VAC             | 12                   |                                                                                                                                                                         | M10 11       |
| 2-1609968-6        | 250KEPS6AFPW   | 250A                | 440 VAC             | 12                   |                                                                                                                                                                         | M10 11       |
| 4-1609968-0        | 6KEPS10AFPW    | 6A                  | 520 VAC             | 8.5                  | 41                                                                                                                                                                      | 1            |
| 4-1609968-1        | 8KEPS10AFPW    | 8A                  | 520 VAC             | 8.5                  | 41                                                                                                                                                                      | 2            |
| 4-1609968-2        | 10KEPS10AFPW   | 10A                 | 520 VAC             | 8.5                  | 41                                                                                                                                                                      | 2            |
| 4-1609968-3        | 16KEPS10AFPW   | 16A                 | 520 VAC             | 8.5                  | 41                                                                                                                                                                      | 3            |
| 4-1609968-4        | 20KEPS10AFPW   | 20A                 | 520 VAC             | 8.5                  | 41                                                                                                                                                                      | 3            |
| 4-1609968-5        | 25KEPS10AFPW   | 25A                 | 520 VAC             | 8.5                  | 41                                                                                                                                                                      | 3            |
| 4-1609968-6        | 36KEPS10AFPW   | 36A                 | 520 VAC             | 8.5                  | 10                                                                                                                                                                      | 3            |
| 4-1609968-7        | 50KEPS10AFPW   | 50A                 | 520 VAC             | 8.5                  | 10                                                                                                                                                                      | 3            |
| 5-1609968-0        | 60KEPS10AFPW   | 60A                 | 520 VAC             | 8.5                  | 16                                                                                                                                                                      | 8            |
| 5-1609968-1        | 75KEPS10AFPW   | 75A                 | 520 VAC             | 12                   | 16                                                                                                                                                                      | 8            |
| 5-1609968-2        | 100KEPS10AFPW  | 100A                | 520 VAC             | 12                   | 25                                                                                                                                                                      | 8            |
| 5-1609968-3        | 125KEPS6AFPW   | 125A                | 520 VAC             | 12                   |                                                                                                                                                                         | M10 9        |
| 5-1609968-4        | 150KEPS6AFPW   | 150A                | 520 VAC             | 12                   |                                                                                                                                                                         | M10 9        |
| 5-1609968-5        | 200KEPS6AFPW   | 200A                | 520 VAC             | 12                   |                                                                                                                                                                         | M10 11       |
| 5-1609968-6        | 250KEPS6AFPW   | 250A                | 520 VAC             | 12                   |                                                                                                                                                                         | M10 11       |

## Connectors Cross Section

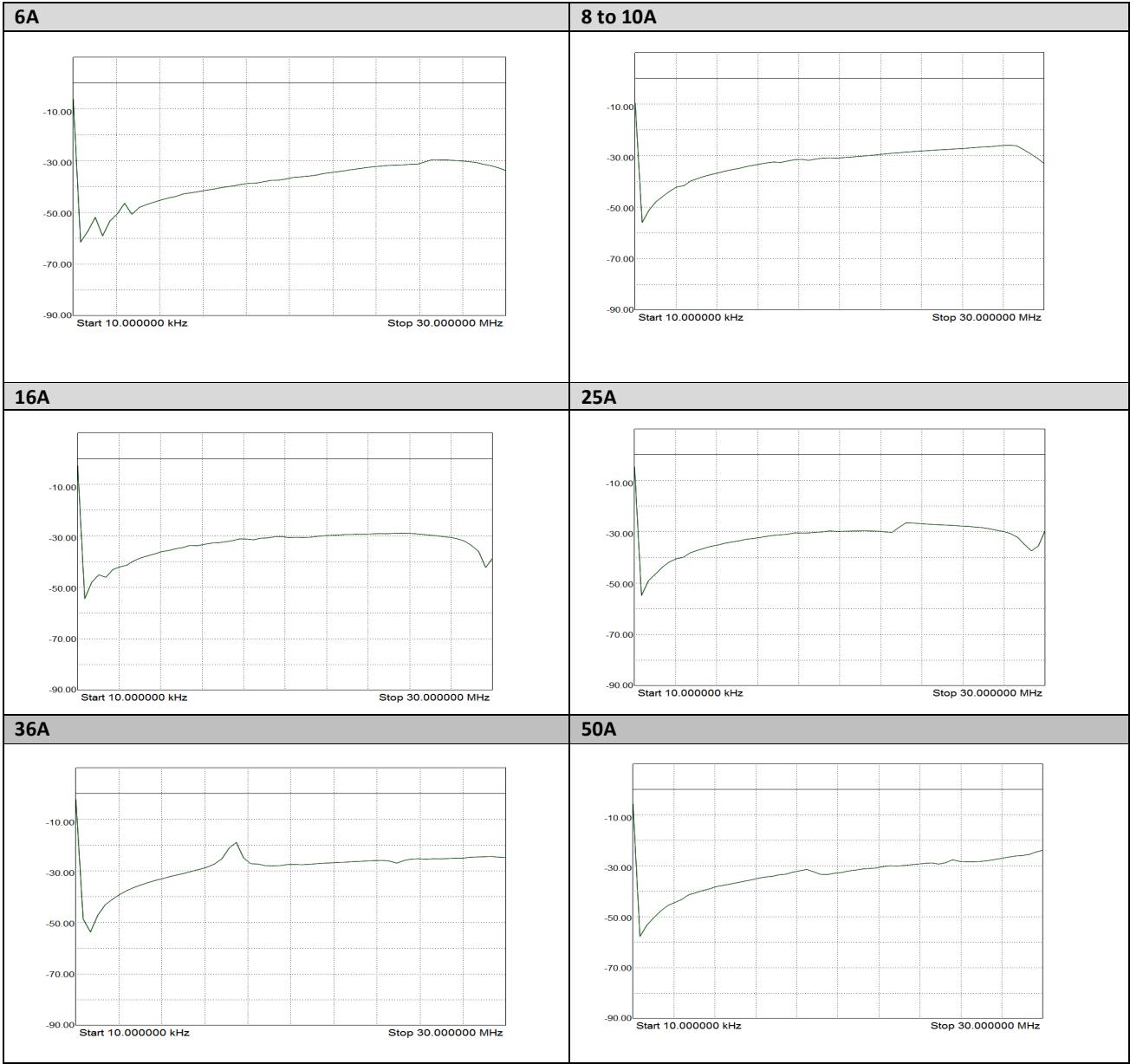
|  | 41                  | 10                   | 16                        | 25                 | 50                 |
|-------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|--------------------|--------------------|
| 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   |

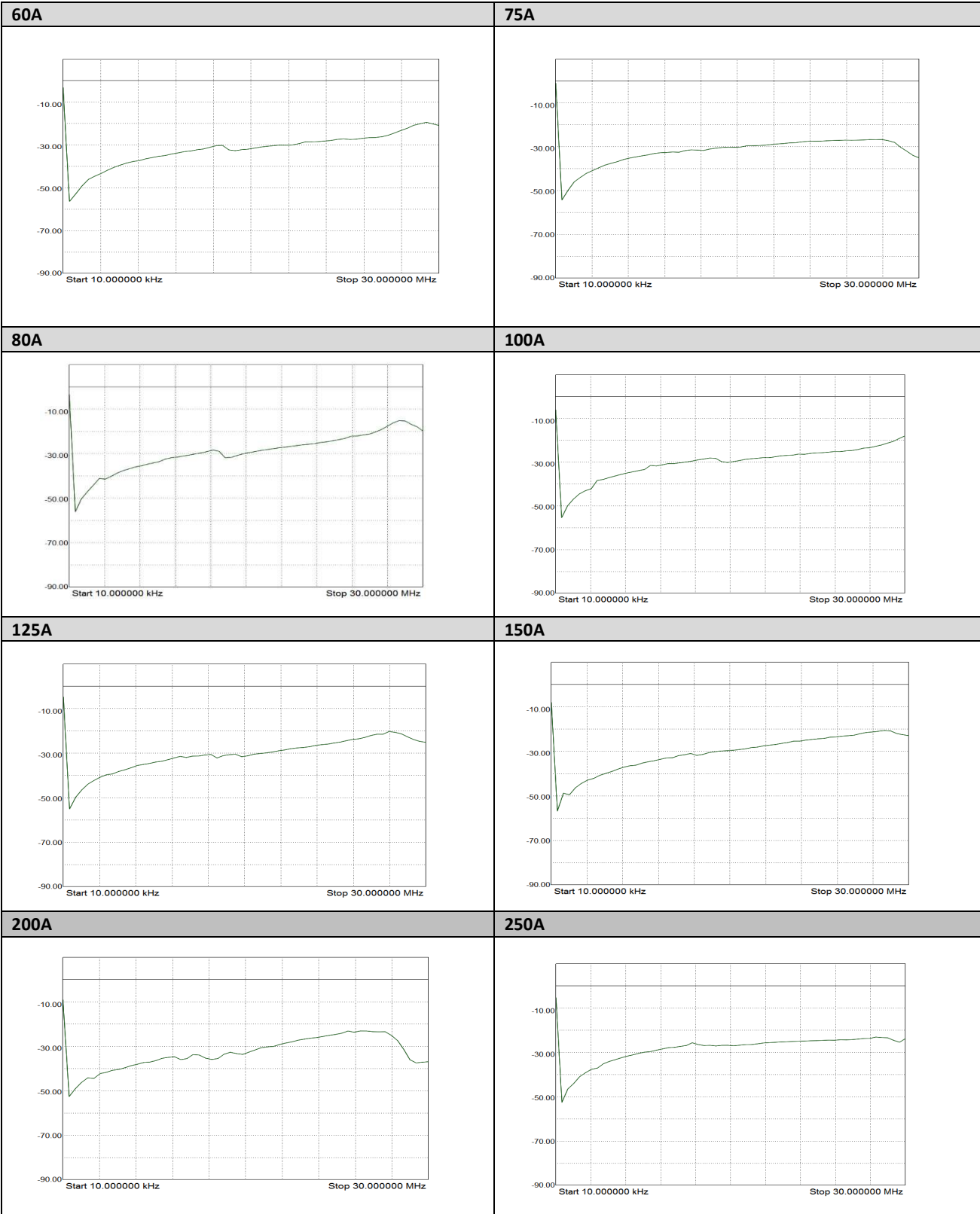
## Insertion Loss (Typical) – Measured in Closed 50Ω System

|                |      | Common Mode 50Ω / 50Ω |      |      |     |    |    |    |    |    |
|----------------|------|-----------------------|------|------|-----|----|----|----|----|----|
|                |      | Frequency in MHz      |      |      |     |    |    |    |    |    |
|                |      | 0.01                  | 0.05 | 0.15 | 0.5 | 1  | 3  | 5  | 10 | 30 |
| Current Rating | 6A   | 61                    | 60   | 60   | 55  | 49 | 40 | 38 | 34 | 26 |
|                | 8A   | 62                    | 64   | 57   | 52  | 50 | 44 | 36 | 32 | 28 |
|                | 10A  | 60                    | 60   | 59   | 54  | 50 | 42 | 37 | 32 | 26 |
|                | 16A  | 54                    | 58   | 59   | 54  | 49 | 41 | 37 | 31 | 28 |
|                | 20A  | 55                    | 57   | 60   | 51  | 45 | 38 | 30 | 28 | 32 |
|                | 25A  | 54                    | 58   | 50   | 54  | 47 | 43 | 38 | 33 | 25 |
|                | 36A  | 57                    | 56   | 58   | 51  | 50 | 48 | 35 | 33 | 31 |
|                | 50A  | 68                    | 65   | 63   | 54  | 49 | 42 | 38 | 32 | 36 |
|                | 60A  | 46                    | 44   | 40   | 40  | 31 | 40 | 38 | 30 | 21 |
|                | 75A  | 50                    | 50   | 51   | 53  | 50 | 48 | 42 | 36 | 34 |
|                | 100A | 54                    | 50   | 50   | 52  | 60 | 48 | 42 | 38 | 34 |
|                | 125A | 52                    | 50   | 45   | 50  | 58 | 48 | 44 | 40 | 38 |
|                | 150A | 36                    | 38   | 41   | 53  | 48 | 50 | 45 | 31 | 21 |
|                | 200A | 32                    | 39   | 41   | 53  | 45 | 52 | 45 | 30 | 21 |
|                | 250A | 37                    | 38   | 45   | 53  | 48 | 39 | 35 | 31 | 23 |

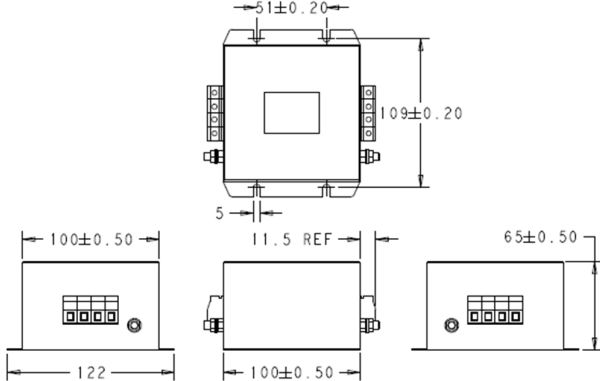
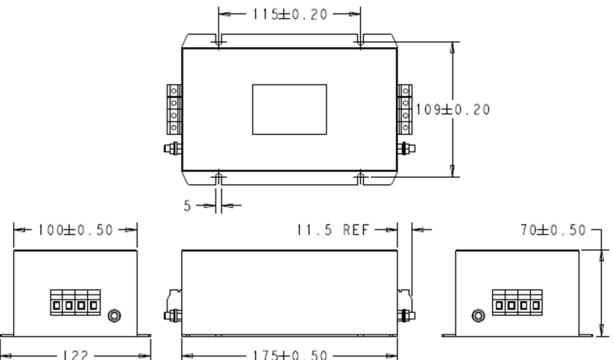
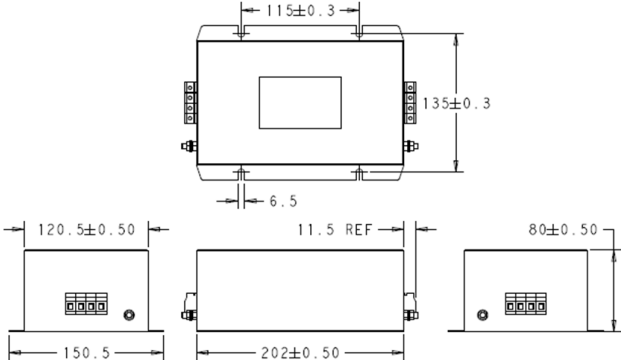
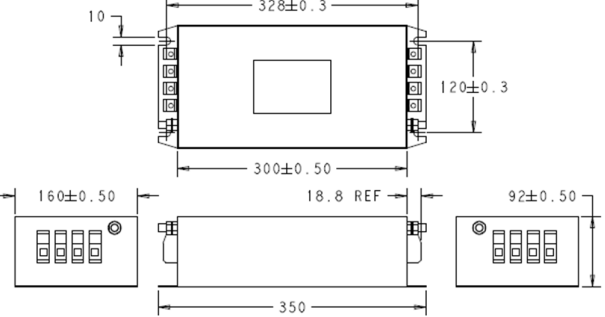
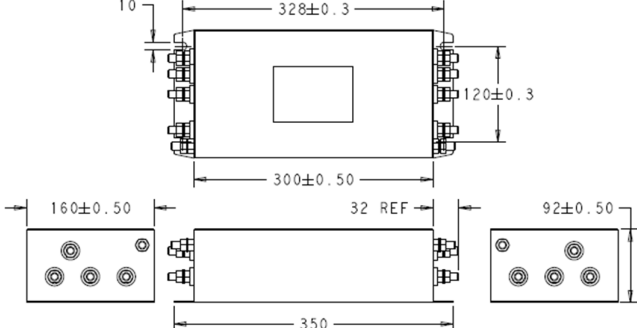
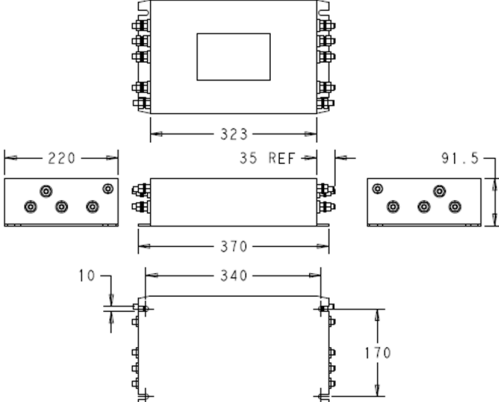
|                |      | Differential Mode 50Ω / 50Ω |      |      |     |    |    |    |    |    |
|----------------|------|-----------------------------|------|------|-----|----|----|----|----|----|
|                |      | Frequency in MHz            |      |      |     |    |    |    |    |    |
|                |      | 0.01                        | 0.05 | 0.15 | 0.5 | 1  | 3  | 5  | 10 | 30 |
| Current Rating | 6A   | 56                          | 52   | 54   | 50  | 47 | 35 | 30 | 40 | 32 |
|                | 8A   | 45                          | 35   | 42   | 54  | 48 | 35 | 40 | 29 | 26 |
|                | 10A  | 30                          | 31   | 40   | 54  | 46 | 38 | 33 | 29 | 24 |
|                | 16A  | 27                          | 32   | 55   | 53  | 47 | 36 | 35 | 30 | 27 |
|                | 20A  | 35                          | 32   | 52   | 50  | 47 | 36 | 33 | 30 | 25 |
|                | 25A  | 51                          | 51   | 53   | 52  | 45 | 37 | 35 | 30 | 25 |
|                | 36A  | 49                          | 50   | 65   | 82  | 86 | 70 | 65 | 66 | 37 |
|                | 50A  | 58                          | 52   | 60   | 50  | 43 | 50 | 42 | 38 | 30 |
|                | 60A  | 54                          | 50   | 62   | 68  | 63 | 50 | 55 | 63 | 52 |
|                | 75A  | 48                          | 42   | 40   | 60  | 38 | 40 | 40 | 39 | 35 |
|                | 100A | 48                          | 42   | 40   | 62  | 38 | 44 | 42 | 40 | 32 |
|                | 125A | 48                          | 42   | 40   | 62  | 38 | 50 | 46 | 42 | 34 |
|                | 150A | 25                          | 28   | 30   | 46  | 55 | 48 | 46 | 34 | 38 |
|                | 200A | 27                          | 28   | 30   | 46  | 55 | 48 | 46 | 34 | 38 |
|                | 250A | 42                          | 42   | 45   | 46  | 40 | 34 | 29 | 24 | 18 |

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





## Case Dimensions

| 6A Shock Proof Type                                                                                                                                                                                                                                                                                                                                                                                                            | 8A to 10A Shock Proof Types                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Top view: <math>51 \pm 0.20</math> (width), <math>109 \pm 0.20</math> (height), <math>5</math> (mounting hole offset).</p> <p>Front view: <math>100 \pm 0.50</math> (width), <math>11.5</math> REF (height), <math>65 \pm 0.50</math> (depth).</p> <p>Bottom view: <math>122</math> (width), <math>100 \pm 0.50</math> (depth).</p>       |  <p>Top view: <math>115 \pm 0.20</math> (width), <math>109 \pm 0.20</math> (height), <math>5</math> (mounting hole offset).</p> <p>Front view: <math>100 \pm 0.50</math> (width), <math>11.5</math> REF (height), <math>70 \pm 0.50</math> (depth).</p> <p>Bottom view: <math>122</math> (width), <math>175 \pm 0.50</math> (depth).</p> |
| 15A to 50A Shock Proof Types                                                                                                                                                                                                                                                                                                                                                                                                   | 60A to 100A Shock Proof Types                                                                                                                                                                                                                                                                                                                                                                                              |
|  <p>Top view: <math>115 \pm 0.3</math> (width), <math>135 \pm 0.3</math> (height), <math>6.5</math> (mounting hole offset).</p> <p>Front view: <math>120.5 \pm 0.50</math> (width), <math>11.5</math> REF (height), <math>80 \pm 0.50</math> (depth).</p> <p>Bottom view: <math>150.5</math> (width), <math>202 \pm 0.50</math> (depth).</p> |  <p>Top view: <math>328 \pm 0.3</math> (width), <math>120 \pm 0.3</math> (height), <math>10</math> (mounting hole offset).</p> <p>Front view: <math>160 \pm 0.50</math> (width), <math>18.8</math> REF (height), <math>92 \pm 0.50</math> (depth).</p> <p>Bottom view: <math>300 \pm 0.50</math> (width), <math>350</math> (depth).</p> |
| 125A to 150A Nut & Bolt Types                                                                                                                                                                                                                                                                                                                                                                                                  | 200A to 250A Nut & Bolt Types                                                                                                                                                                                                                                                                                                                                                                                              |
|  <p>Top view: <math>328 \pm 0.3</math> (width), <math>120 \pm 0.3</math> (height), <math>10</math> (mounting hole offset).</p> <p>Front view: <math>160 \pm 0.50</math> (width), <math>32</math> REF (height), <math>92 \pm 0.50</math> (depth).</p> <p>Bottom view: <math>300 \pm 0.50</math> (width), <math>350</math> (depth).</p>       |  <p>Top view: <math>323</math> (width), <math>35</math> REF (height), <math>91.5</math> (depth).</p> <p>Front view: <math>220</math> (width), <math>370</math> (depth), <math>10</math> (mounting hole offset), <math>170</math> (height).</p> <p>Bottom view: <math>340</math> (width), <math>370</math> (depth).</p>                 |

All dimensions in mm; Tolerances according: ISO2768-m



## How to Order

