

**Features:**

- Compact size and low weight.
- Low leakage flux with strong insulation.
- Standard footprint with various inductance options.
- Custom versions and evaluation tools available.

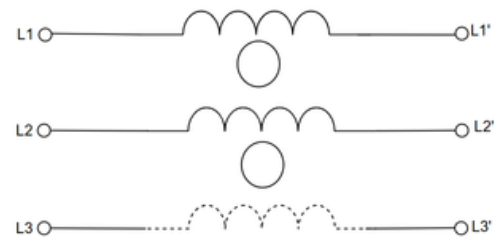
**Applications:**

- AC and DC filtering in midsize power applications.
- Ideal for drives, PV inverters, fast chargers, and UPS systems and supports charging stations and switch-mode power supplies.
- Provides low leakage current and high grid disturbance immunity.
- electronic devices, automation, and converters.


**DATASHEET**

## Common Mode Choke series - CMC72

This Series chokes filter EMI noise on AC power lines up to 600 VAC and 1000 DC lines in photovoltaic systems. They suppress noise from switched electronics or high-speed controllers and are used in PCB-integrated filters or with single-phase filters for low-leakage EMI suppression.

**Type Circuit Diagram:**

**Technical Specifications:**

|                                           |                                              |
|-------------------------------------------|----------------------------------------------|
| Operating voltage                         | :600 VAC/1000 VDC                            |
| Rated current                             | :16 to 50 A @ 60°C                           |
| Operating frequency                       | :DC to 400 Hz                                |
| Rated inductance                          | :0.2mH to 3mH                                |
| Temperature range (operation and storage) | :-40°C to +125°C (40/125/21) acc. IEC60068-1 |
| Cooling                                   | :Forced cooling                              |
| Flammability corresponding to             | :UL 94 V-0                                   |
| Design Corresponding to                   | :UL 1283                                     |

## Ordering Information

| Model Number      | Part Number | Current Ratings (A) | Inductance (mH) | Resistance (R <sub>DC</sub> ) mΩ | Choke Size | Min.Weight (g) |
|-------------------|-------------|---------------------|-----------------|----------------------------------|------------|----------------|
| CMC72-2100-16-1   | E115619-1   | 16                  | 1               | 5                                | 1          | 135            |
| CMC72-2100-25-0.6 | E115620-1   | 25                  | 0.6             | 3                                | 1          | 140            |
| CMC72-2100-36-0.5 | E115621-1   | 36                  | 0.5             | 1.5                              | 2          | 190            |
| CMC72-2100-50-0.3 | E115622-1   | 50                  | 0.3             | 1                                | 2          | 180            |
| CMC72-2200-16-1   | E115623-1   | 16                  | 1               | 5                                | 3          | 140            |
| CMC72-2200-25-0.6 | E115624-1   | 25                  | 0.6             | 3                                | 3          | 140            |
| CMC72-2200-36-0.5 | E115625-1   | 36                  | 0.5             | 1.5                              | 4          | 190            |
| CMC72-2200-50-0.3 | E115626-1   | 50                  | 0.3             | 1                                | 4          | 185            |
| CMC72-2200-16-3   | E115627-1   | 16                  | 3               | 9                                | 4          | 180            |
| CMC72-2200-25-2   | E115628-1   | 25                  | 2               | 4.8                              | 5          | 280            |
| CMC72-2200-36-1.5 | E115629-1   | 36                  | 1.5             | 3                                | 6          | 450            |
| CMC72-2200-50-0.8 | E115630-1   | 50                  | 0.8             | 2                                | 6          | 460            |
| CMC72-3100-16-0.8 | E115631-1   | 16                  | 0.8             | 5                                | 7          | 175            |
| CMC72-3100-25-0.5 | E115632-1   | 25                  | 0.5             | 2.8                              | 7          | 185            |
| CMC72-3100-36-0.4 | E115633-1   | 36                  | 0.4             | 1.5                              | 8          | 290            |
| CMC72-3100-50-0.2 | E115634-1   | 50                  | 0.2             | 1                                | 8          | 790            |
| CMC72-3200-16-0.8 | E115635-1   | 16                  | 0.8             | 5.5                              | 9          | 175            |
| CMC72-3200-25-0.5 | E115636-1   | 25                  | 0.5             | 2.8                              | 9          | 190            |
| CMC72-3200-36-0.4 | E115637-1   | 36                  | 0.4             | 2                                | 10         | 290            |
| CMC72-3200-50-0.2 | E115638-1   | 50                  | 0.2             | 1                                | 10         | 180            |
| CMC72-3200-16-1.3 | E115639-1   | 16                  | 1.3             | 6.5                              | 9          | 180            |
| CMC72-3200-25-0.9 | E115640-1   | 25                  | 0.9             | 3.5                              | 11         | 300            |
| CMC72-3200-36-0.8 | E115641-1   | 36                  | 0.8             | 2.3                              | 12         | 490            |
| CMC72-3200-50-0.3 | E115642-1   | 50                  | 0.3             | 1.5                              | 12         | 460            |

### Test conditions:

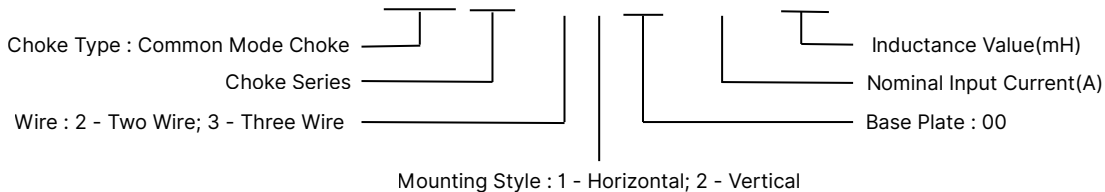
Measuring frequency: 1 kHz; 500 μA >0.16 mH <1.6 mH; 50 μA >1.6 mH <160 mH

Inductance tolerance: +50%, -30%

Resistance tolerance: ±15% @ 25°C Electrical characteristics @ 25°C: ±2°C

## Product Selector

### CMC 72 – X XXX –YY –ZZ



### Example:

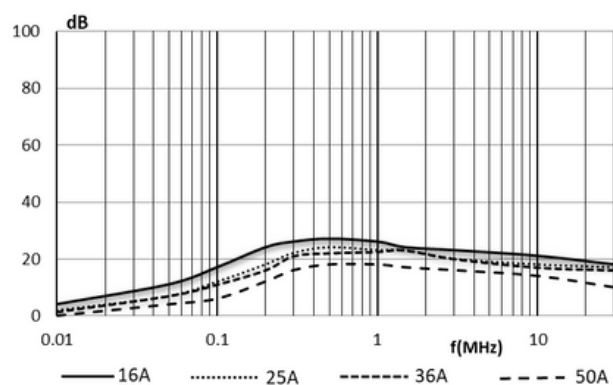
CMC72-21-50-0.3 = 2-wire choke with Horizontal mounting designed for 50 A with an inductance of 0.3 mH

CMC72-32-16-1.3 = 3-wire choke with Vertical mounting designed for 16 A with an inductance of 1.3 mH

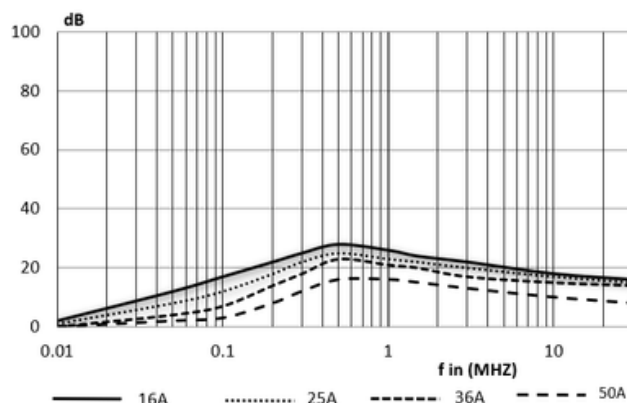
## Insertion Loss :

As Per CISPR 17; C=50Ω/50Ω D=50Ω/50Ω

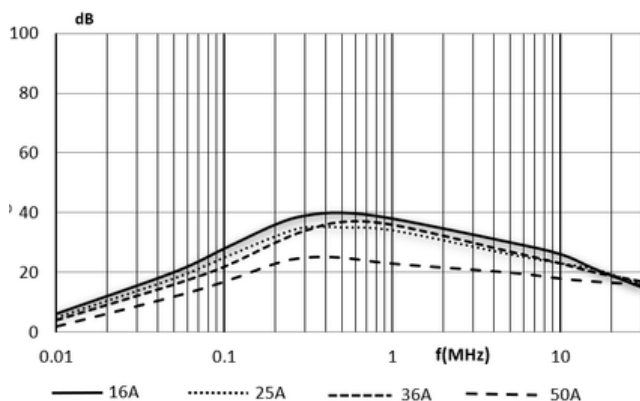
**Graph 1: CMC72-21 & CMC72-22**  
1mH, 0.6mH, 0.5mH, 0.3mH



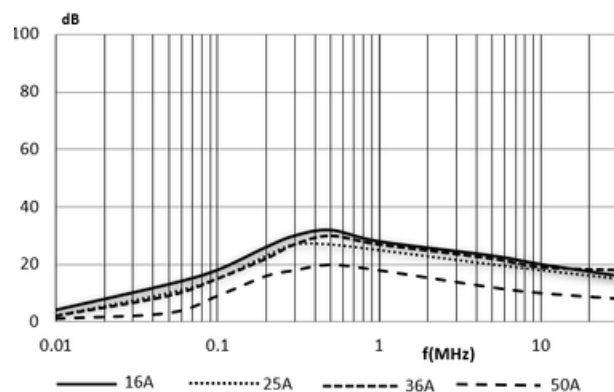
**Graph 2: CMC72-31 & CMC72-32**  
0.80mH, 0.5mH, 0.4mH, 0.2mH



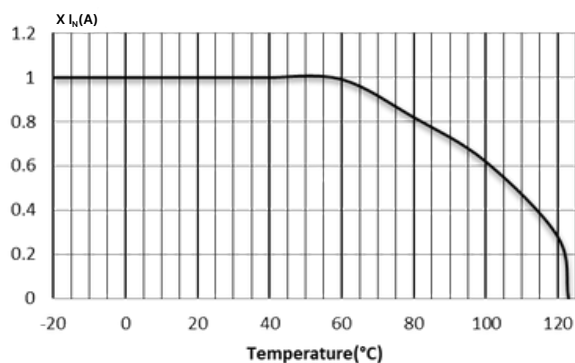
**Graph 3: CMC72-22**  
3mH, 2mH, 1.5mH, 0.8mH



**Graph 4 : CMC72-32**  
1.3mH, 0.9mH, 0.8mH, 0.3mH



## Thermal Derating



If the ambient temperature exceeds the specified limit, the nominal current needs to be reduced according to the thermal Derating graph shown above.

## Size 1

[illegible]

Technical drawing of the 100mm square flange. The drawing shows a top view and a side view.

**Top View Dimensions:**

- Overall width: 45
- Distance from top edge to first hole: 12.34
- Distance between first and last holes: 32.66
- Overall height: 38.1
- Distance from top edge to first hole: 19.05
- Distance from left edge to first hole: 5.08
- Distance between first and last holes: 20.32
- Distance from left edge to last hole: 25.4
- Distance from top edge to last hole: 47.5 (MAX)

**Top View Features:**

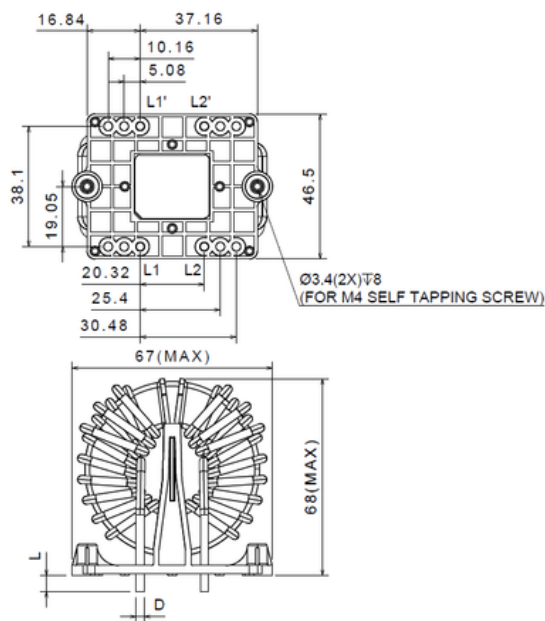
- Mounting holes labeled L1, L2, L1', and L2'.
- Note: Ø3.4(2X) 8 (FOR M4 SELF TAPPING SCREW)

**Side View Dimensions:**

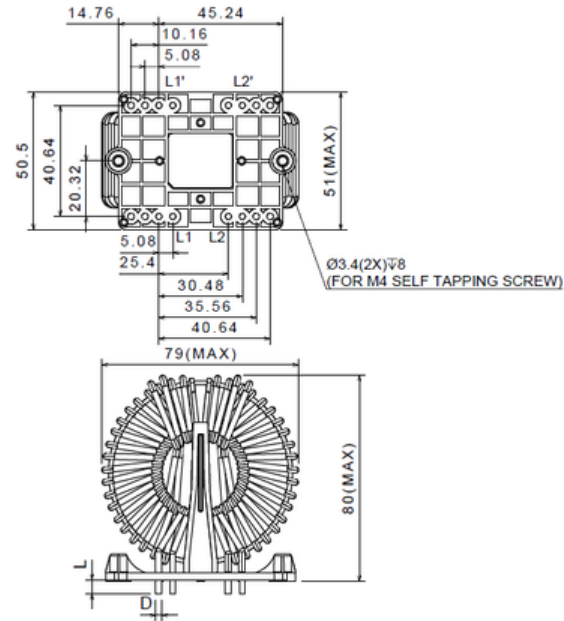
- Overall width: 55 (MAX)
- Overall height: 52 (MAX)
- Central hole diameter: L
- Mounting hole diameter: D

[illegible]

Size 5

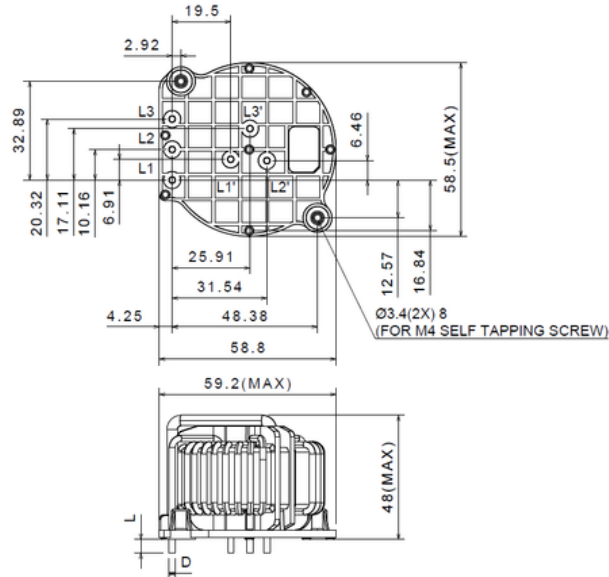


Size 6

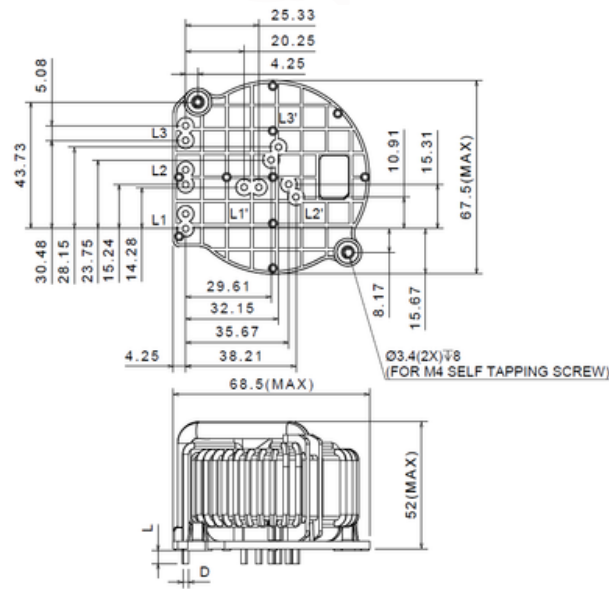


Mechanical Information :Three Wire

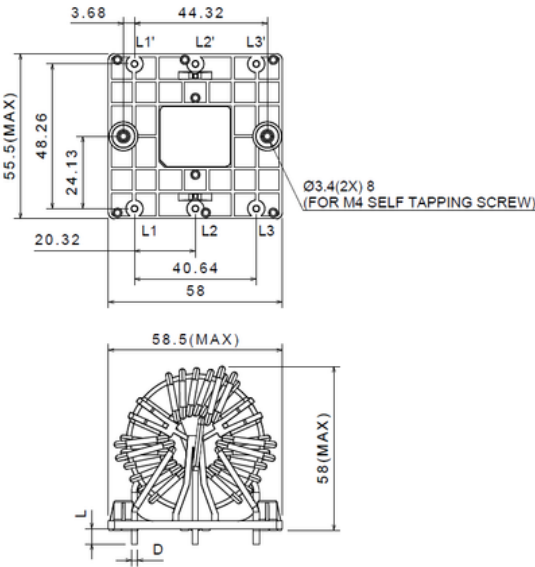
Size 7



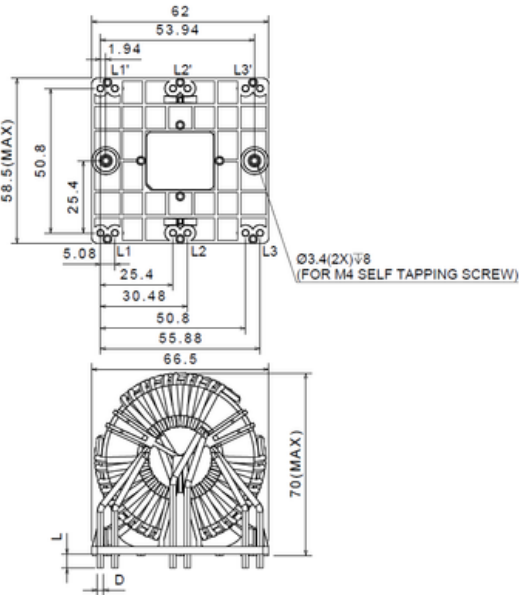
Size 8



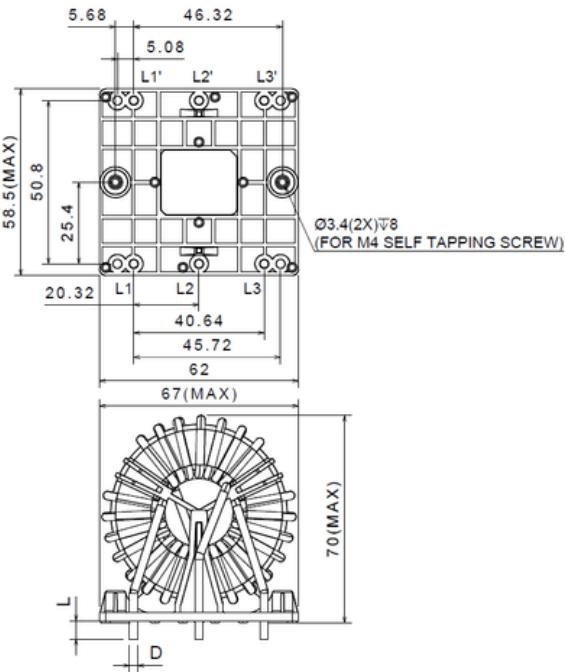
Size 9



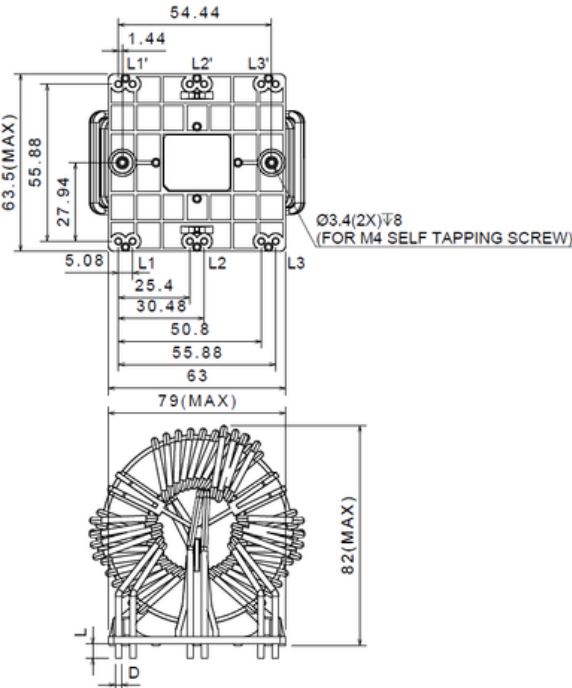
Size 10



Size 11



Size 12



All Dimension in mm; Tolerance According : ISO 2768-m