

# EMR

High-frequency filter



## Description

The **EMR** filters have been designed to reduce the high-frequency electromagnetic interferences generated by power converters as a consequence of semi-conductor switching operations.

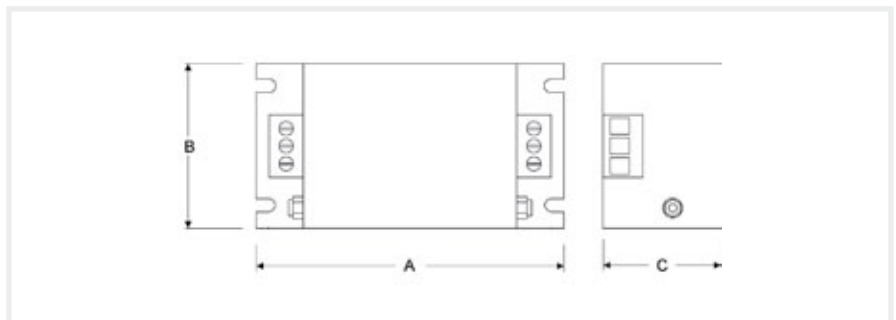
## Application

- Compulsory compliance with the electromagnetic compatibility directives for all units with electrical or electronic components.
- Avoid the propagation of electromagnetic distortions transmitted to sensitive receivers.

## Features

| Features                 | Single-phase                          | Three-phase |
|--------------------------|---------------------------------------|-------------|
| Maximum supply voltage   | 250 V a.c.                            | 440 V a.c.  |
| Frequency                | 50 ... 60 Hz                          |             |
| Dielectric rigidity      | 2.5 kV                                |             |
| Admissible current       | see tables                            |             |
| Overload conditions      | 1.5 $I_n$ 1 min every 20 min at 40 °C |             |
| Common mode attenuation  | 50 ... 60 dB                          |             |
| Range of frequencies     | 150 kHz ... 30 MHz                    |             |
| Environmental conditions |                                       |             |
| Operating temperature    | 35 °C                                 |             |
| Relative humidity        | 80 % non-condensing                   |             |

## Dimensions



**EMR**

## High-frequency filter

**References**

Single-phase, Power supply up to 250 V, 50 or 60 Hz

| $I_n$ (A) | Weight (kg) | $I_{leakage}$ (mA) |      | Losses (W) | Dimensions (mm)<br>A x B x C | Type        | Code   |
|-----------|-------------|--------------------|------|------------|------------------------------|-------------|--------|
|           |             | Min.               | Max. |            |                              |             |        |
| 10        | 1,6         | -                  | 3,2  | 4          | 150 x 55 x 45                | EMR-10-M250 | R71101 |
| 15        | 1,6         | -                  | 3,2  | 7          | 150 x 55 x 45                | EMR-15-M250 | R71102 |
| 25        | 2,2         | -                  | 3,2  | 10         | 170 x 80 x 55                | EMR-25-M250 | R71103 |
| 35        | 2,4         | -                  | 3,2  | 15         | 170 x 80 x 55                | EMR-35-M250 | R71104 |

Three-phase, Power supply up to 480 V, 50 or 60 Hz

EMR, without neutral

| $I_n$ (A) | Weight (kg) | $I_{leakage}$ (mA) |      | Losses (W) | Terminals<br>and screws | Dimensions (mm)<br>A x B x C | Type         | Code   |
|-----------|-------------|--------------------|------|------------|-------------------------|------------------------------|--------------|--------|
|           |             | Min.               | Max. |            |                         |                              |              |        |
| 6         | 1,6         | 0,5                | 27   | 8          | B: 6 mm <sup>2</sup>    | 250 x 110 x 60               | EMR-06-T440  | R71201 |
| 12        | 1,6         | 0,5                | 27   | 10         | B: 6 mm <sup>2</sup>    | 250 x 110 x 60               | EMR-12-T440  | R71202 |
| 20        | 2,2         | 0,5                | 27   | 15         | B: 10 mm <sup>2</sup>   | 270 x 140 x 60               | EMR-20-T440  | R71203 |
| 40        | 2,4         | 0,5                | 27   | 30         | B: 10 mm <sup>2</sup>   | 270 x 140 x 60               | EMR-40-T440  | R71204 |
| 60        | 3,5         | 0,5                | 27   | 51         | B: 16 mm <sup>2</sup>   | 350 x 180 x 90               | EMR-60-T440  | R71205 |
| 70        | 7,5         | 0,5                | 27   | 44         | B: 25 mm <sup>2</sup>   | 350 x 180 x 90               | EMR-70-T440  | R71206 |
| 100       | 13,8        | 0,75               | 130  | 69         | B: 35 mm <sup>2</sup>   | 420 x 200 x 130              | EMR-100-T440 | R71207 |
| 120       | 13,8        | 0,75               | 130  | 45         | B: 50 mm <sup>2</sup>   | 420 x 200 x 130              | EMR-120-T440 | R71208 |
| 170       | 23,5        | 0,75               | 130  | 80         | B: 95 mm <sup>2</sup>   | 480 x 200 x 160              | EMR-170-T440 | R71209 |
| 230       | 41          | 1,3                | 150  | 50         | T: M12                  | 580 x 250 x 205              | EMR-230-T440 | R71210 |
| 280       | 45          | 1,3                | 150  | 60         | T: M12                  | 580 x 250 x 205              | EMR-280-T440 | R71211 |
| 400       | 50          | 1,3                | 150  | 80         | T: M12                  | 580 x 250 x 205              | EMR-400-T440 | R71214 |
| 480       | 50          | 1,3                | 150  | 90         | T: M12                  | 580 x 250 x 205              | EMR-480-T440 | R71215 |

EMR, with neutral

| $I_n$ (A) | Weight (kg) | $I_{leakage}$ (mA) |      | Losses (W) | Terminals<br>and screws | Dimensions (mm)<br>A x B x C | Type         | Code   |
|-----------|-------------|--------------------|------|------------|-------------------------|------------------------------|--------------|--------|
|           |             | Min.               | Max. |            |                         |                              |              |        |
| 6         | 1,6         | 0,1                | 27   | 8          | B: 6 mm <sup>2</sup>    | 250 x 110 x 60               | EMR-06-N440  | R71301 |
| 12        | 1,6         | 0,1                | 27   | 10         | B: 6 mm <sup>2</sup>    | 250 x 110 x 60               | EMR-12-N440  | R71302 |
| 20        | 2,2         | 0,1                | 27   | 15         | B: 10 mm <sup>2</sup>   | 270 x 140 x 60               | EMR-20-N440  | R71303 |
| 40        | 2,4         | 0,1                | 27   | 30         | B: 10 mm <sup>2</sup>   | 270 x 140 x 60               | EMR-40-N440  | R71304 |
| 60        | 3,5         | 0,1                | 27   | 51         | B: 16 mm <sup>2</sup>   | 350 x 180 x 90               | EMR-60-N440  | R71305 |
| 70        | 7,5         | 0,1                | 27   | 44         | B: 25 mm <sup>2</sup>   | 350 x 180 x 90               | EMR-70-N440  | R71306 |
| 100       | 13,8        | 0,5                | 130  | 69         | B: 35 mm <sup>2</sup>   | 420 x 200 x 130              | EMR-100-N440 | R71307 |
| 120       | 13,8        | 0,5                | 130  | 45         | B: 50 mm <sup>2</sup>   | 420 x 200 x 130              | EMR-120-N440 | R71308 |
| 170       | 23,5        | 0,5                | 130  | 80         | B: 95 mm <sup>2</sup>   | 480 x 200 x 160              | EMR-170-N440 | R71309 |