

# Current-compensated Chokes



- | Rated currents from 0.3 to 10 A
- | DC to 400 Hz frequency
- | 100 kHz to 3 MHz common-mode resonance frequency
- | Dual-choke configurations
- | Multiple PCB-mounting options



### Performance indicators



## Technical specifications

|  |  |
|--|--|
| <b>Operating voltage</b>                                     | 300 VAC  |
| <b>Operating frequency</b>                                   | DC to 400 Hz   |
| <b>Rated currents</b>  | 0.3 to 10 A @ rated ambient temperature                                    |
| <b>Rated inductance</b>                                      | 0.4 to 100 mH  |
| <b>Stray inductance</b>                                      | Typically 1% of $L_N$  |
| <b>Inductance reduction (DC bias with IN)</b>                | Less than 10% (25°C)   |
| <b>High potential test voltage winding-to-winding @ 25°C</b> | 1500 VAC, 60 sec, guaranteed<br>1500 VAC, 2 sec, factory test              |
| <b>winding-to-housing @ 25°C</b>                             | 4000 VAC, 60 sec, guaranteed   |
| <b>MTBF @ 40°C/230 V (Mil-HB-217F)</b>                       | >5,000,000 hours   |
| <b>Surge current @ 10 msec</b>                               | 20 x $I_N$ @ 25°C  |
| <b>Temperature range (operation and storage)</b>             | -40°C to 100°C (40/100/56)<br>acc. IEC 60068-1                             |
| <b>Flammability corresponding to</b>                         | Potting compound UL 94V-0<br>Housing UL 94V-0<br>Ringcore coating UL 94V-0 |
| <b>Design corresponding to</b>                               | UL 1283, IEC/EN 60938-1  |

## Approvals & Compliances



RN chokes are attenuating common-mode or asymmetric (P/N → E) interference signals, by being connected in series with the phase and neutral lines of an AC powerline input. Symmetrical components of the noise are also attenuated by the leakage inductance (stray inductance) of the windings. These chokes are typically used in conjunction with suppression capacitors.

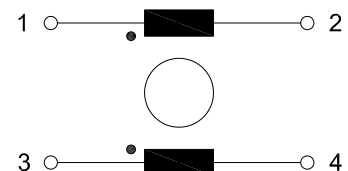
## Features and benefits

- | High saturation resistance and excellent thermal behavior
- | Through hole pin connections
- | Dual-choke configuration
- | Small compact design
- | Multiple housing options
- | Custom-specific versions are available on request
- | Higher temperature versions
- | Fully potted design usable for ruggedized applications

## Typical applications

- | Switch-mode power applications
- | Suppressing common-mode interference levels
- | EMI input filters
- | For suppression-equipment with no earth connection
- | Phase-angle control circuits in combination with saturating chokes

## Typical electrical schematic



## Choke selection table

| Choke             | Current<br>(I <sub>N</sub> )<br>[A] | @ ambient<br>temperature<br>[°C] | Inductance<br>(L <sub>N</sub> )<br>[mH] | Resistance<br>(R <sub>DC</sub> )<br>[mOhm] | A<br>[mm] | B<br>[mm] | H<br>[mm] | Weight<br>(g) |                     |
|-------------------|-------------------------------------|----------------------------------|---|--|-----------|-----------|-----------|---------------|---------------------|
| RN 102-0.3-02-22M | 0.3                                 | 40                               | 22.0                                    | 1300                                       | 10.0      | 10.0      | 9.0       | 4             | <a href="#">buy</a> |
| RN 102-0.3-02-12M | 0.3                                 | 40                               | 12.0                                    | 1100                                       | 10.0      | 10.0      | 9.0       | 3             | <a href="#">buy</a> |
| RN 102-0.6-02-4M4 | 0.6                                 | 40                               | 4.4                                     | 380  | 10.0      | 10.0      | 9.0       | 3             |                     |
| RN 102-1-02-3M0   | 1.0                                 | 40                               | 3.0                                     | 210  | 10.0      | 10.0      | 9.0       | 3             |                     |
| RN 102-1.5-02-1M6 | 1.5                                 | 40                               | 1.6                                     | 94   | 10.0      | 10.0      | 9.0       | 3             |                     |
| RN 102-2-02-1M1   | 2.0                                 | 40                               | 1.1                                     | 70   | 10.0      | 10.0      | 9.0       | 3             |                     |
| RN 112-0.4-02-39M | 0.4                                 | 40                               | 39.0                                    | 1500                                       | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-0.4-02-27M | 0.4                                 | 40                               | 27.0                                    | 1400                                       | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-0.5-02-27M | 0.5                                 | 40                               | 27.0                                    | 1200                                       | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-0.5-02-18M | 0.5                                 | 40                               | 18.0                                    | 1100                                       | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-0.5-02-15M | 0.5                                 | 40                               | 15.0                                    | 700  | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-0.6-02-15M | 0.6                                 | 40                               | 15.0                                    | 490  | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-0.8-02-10M | 0.8                                 | 40                               | 10.0                                    | 380  | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-1.2-02-6M8 | 1.2                                 | 40                               | 6.8                                     | 250  | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-1.5-02-3M3 | 1.5                                 | 40                               | 3.3                                     | 102  | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-2-02-1M8   | 2.0                                 | 40                               | 1.8                                     | 74   | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-2-02-1M0   | 2.0                                 | 40                               | 1.0                                     | 70   | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-2.6-02-0M4 | 2.6                                 | 40                               | 0.4                                     | 40   | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-3.6-02-0M4 | 3.6                                 | 40                               | 0.4                                     | 27   | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 112-4-02-0M7   | 4.0                                 | 40                               | 0.7                                     | 24   | 15.0      | 10.0      | 12.6      | 6             |                     |
| RN 114-0.3-02-47M | 0.3                                 | 40                               | 47.0                                    | 1700                                       | 20.1      | 12.5      | 13.2      | 10            |                     |
| RN 114-0.5-02-39M | 0.5                                 | 40                               | 39.0                                    | 830  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 114-0.8-02-27M | 0.8                                 | 40                               | 27.0                                    | 500  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 114-1-02-15M   | 1.0                                 | 40                               | 15.0                                    | 370  | 20.1      | 12.5      | 13.2      | 10            |                     |
| RN 114-1.2-02-10M | 1.2                                 | 40                               | 10.0                                    | 195  | 20.1      | 12.5      | 13.2      | 10            |                     |
| RN 114-1.5-02-6M8 | 1.5                                 | 40                               | 6.8                                     | 123  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 114-2-02-4M2   | 2.0                                 | 40                               | 4.2                                     | 100  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 114-2.5-02-3M3 | 2.5                                 | 40                               | 3.3                                     | 72   | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 114-3-02-2M0   | 3.0                                 | 40                               | 2.0                                     | 52   | 20.1      | 12.5      | 13.2      | 10            |                     |
| RN 114-4-02-1M5   | 4.0                                 | 40                               | 1.5                                     | 34   | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 116-0.5-02-47M | 0.5                                 | 60                               | 47.0                                    | 960  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 116-0.5-02-39M | 0.5                                 | 60                               | 39.0                                    | 920  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 116-0.5-02-27M | 0.5                                 | 60                               | 27.0                                    | 790  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 116-0.8-02-27M | 0.8                                 | 60                               | 27.0                                    | 370  | 20.1      | 12.5      | 13.2      | 13            |                     |
| RN 116-1-02-15M   | 1.0                                 | 60                               | 15.0                                    | 260  | 20.1      | 12.5      | 13.2      | 12            |                     |
| RN 116-1-02-10M   | 1.0                                 | 60                               | 10.0                                    | 210  | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 116-1.3-02-6M8 | 1.3                                 | 60                               | 6.8                                     | 140  | 20.1      | 12.5      | 13.2      | 12            |                     |
| RN 116-1.5-02-10M | 1.5                                 | 60                               | 10.0                                    | 148  | 20.1      | 12.5      | 13.2      | 12            |                     |
| RN 116-1.7-02-4M0 | 1.7                                 | 60                               | 4.0                                     | 87   | 20.1      | 12.5      | 13.2      | 12            |                     |
| RN 116-2-02-3M3   | 2.0                                 | 60                               | 3.3                                     | 70   | 20.1      | 12.5      | 13.2      | 12            |                     |
| RN 116-2-02-2M2   | 2.0                                 | 60                               | 2.2                                     | 66   | 20.1      | 12.5      | 13.2      | 11            |                     |
| RN 122-0.5-02-56M | 0.5                                 | 40                               | 56.0                                    | 1800                                       | 25.0      | 15.0      | 16.5      | 20            |                     |
| RN 122-0.6-02-47M | 0.6                                 | 40                               | 47.0                                    | 1300                                       | 25.0      | 15.0      | 16.5      | 20            |                     |
| RN 122-0.8-02-39M | 0.8                                 | 40                               | 39.0                                    | 1000                                       | 25.0      | 15.0      | 16.5      | 20            |                     |
| RN 122-1-02-18M   | 1.0                                 | 40                               | 18.0                                    | 630  | 25.0      | 15.0      | 16.5      | 19            |                     |
| RN 122-1-02-10M   | 1.0                                 | 40                               | 10.0                                    | 560  | 25.0      | 15.0      | 16.5      | 19            |                     |
| RN 122-1.5-02-10M | 1.5                                 | 40                               | 10.0                                    | 250  | 25.0      | 15.0      | 16.5      | 20            |                     |
| RN 122-2-02-6M8   | 2.0                                 | 40                               | 6.8                                     | 156  | 25.0      | 15.0      | 16.5      | 20            |                     |
| RN 122-2-02-5M0   | 2.0                                 | 40                               | 5.0                                     | 140  | 25.0      | 15.0      | 16.5      | 21            |                     |
| RN 122-2.5-02-5M6 | 2.5                                 | 40                               | 5.6                                     | 110  | 25.0      | 15.0      | 16.5      | 20            |                     |
| RN 122-3-02-4M5   | 3.0                                 | 40                               | 4.5                                     | 80   | 25.0      | 15.0      | 16.5      | 21            |                     |
| RN 122-4-02-3M3   | 4.0                                 | 40                               | 3.3                                     | 46   | 25.0      | 15.0      | 16.5      | 22            |                     |
| RN 122-4-02-1M8   | 4.0                                 | 40                               | 1.8                                     | 42   | 25.0      | 15.0      | 16.5      | 22            |                     |

| Choke              | Current<br>(In)<br>[A] | @ ambient<br>temperature<br>[°C] | Inductance<br>(LN)<br>[mH] | Resistance<br>(Rdc)<br>[mOhm] | A<br>[mm] | B<br>[mm] | H<br>[mm] | Weight<br>(g) |
|--------------------|------------------------|----------------------------------|----------------------------|-------------------------------|-----------|-----------|-----------|---------------|
| RN 142-0.5-02-82M  | 0.5                    | 40                               | 82.0                       | 2700                          | 30.0      | 20.0      | 19.7      | 36            |
| RN 142-1-02-33M    | 1.0                    | 40                               | 33.0                       | 810                           | 30.0      | 20.0      | 19.7      | 37            |
| RN 142-1.4-02-27M  | 1.4                    | 40                               | 27.0                       | 500                           | 30.0      | 20.0      | 19.7      | 40            |
| RN 142-2-02-6M8    | 2.0                    | 40                               | 6.8                        | 192                           | 30.0      | 20.0      | 19.7      | 36            |
| RN 142-4-02-3M3    | 4.0                    | 40                               | 3.3                        | 67                            | 30.0      | 20.0      | 19.7      | 38            |
| RN 142-6-02-1M8    | 6.0                    | 40                               | 1.8                        | 20                            | 30.0      | 20.0      | 19.7      | 40            |
| RN 143-0.5-02-100M | 0.5                    | 40                               | 100.0                      | 2900                          | 30.0      | 20.0      | 19.7      | 36            |
| RN 143-1-02-47M    | 1.0                    | 40                               | 47.0                       | 890                           | 30.0      | 20.0      | 19.7      | 38            |
| RN 143-2-02-10M    | 2.0                    | 40                               | 10.0                       | 240                           | 30.0      | 20.0      | 19.7      | 42            |
| RN 143-4-02-3M9    | 4.0                    | 40                               | 3.9                        | 59                            | 30.0      | 20.0      | 19.7      | 39            |
| RN 143-6-02-1M8    | 6.0                    | 40                               | 1.8                        | 20                            | 30.0      | 20.0      | 19.7      | 42            |
| RN 152-1-02-68M    | 1.0                    | 40                               | 68.0                       | 1300                          | 40.0      | 15.0      | 25.0      | 75            |
| RN 152-2-02-18M    | 2.0                    | 40                               | 18.0                       | 350                           | 40.0      | 15.0      | 25.0      | 64            |
| RN 152-4-02-6M8    | 4.0                    | 40                               | 6.8                        | 87                            | 40.0      | 15.0      | 25.0      | 74            |
| RN 152-6-02-3M9    | 6.0                    | 40                               | 3.9                        | 42                            | 40.0      | 15.0      | 25.0      | 68            |
| RN 152-8-02-2M7    | 8.0                    | 40                               | 2.7                        | 22                            | 40.0      | 15.0      | 25.0      | 73            |
| RN 152-10-02-1M8   | 10.0                   | 40                               | 1.8                        | 14                            | 40.0      | 15.0      | 25.0      | 73            |
| RN 202-0.3-02-22M  | 0.3                    | 40                               | 22.0                       | 1300                          | 5.1       | 15.2      | 13.5      | 4             |
| RN 202-0.3-02-12M  | 0.3                    | 40                               | 12.0                       | 1100                          | 5.1       | 15.2      | 13.5      | 4             |
| RN 202-0.6-02-4M4  | 0.6                    | 40                               | 4.4                        | 380                           | 5.1       | 15.2      | 13.5      | 4             |
| RN 202-1-02-3M0    | 1.0                    | 40                               | 3.0                        | 210                           | 5.1       | 15.2      | 13.5      | 4             |
| RN 202-1.5-02-1M6  | 1.5                    | 40                               | 1.6                        | 94                            | 5.1       | 15.2      | 13.5      | 4             |
| RN 202-2-02-1M1    | 2.0                    | 40                               | 1.1                        | 70                            | 5.1       | 15.2      | 13.5      | 4             |
| RN 204-0.3-02-22M  | 0.3                    | 40                               | 22.0                       | 1300                          | 7.6       | 10.0      | 14.3      | 3             |
| RN 204-0.3-02-12M  | 0.3                    | 40                               | 12.0                       | 960                           | 7.6       | 10.0      | 14.3      | 3             |
| RN 204-0.6-02-4M4  | 0.6                    | 40                               | 4.4                        | 350                           | 7.6       | 10.0      | 14.3      | 3             |
| RN 204-1-02-3M0    | 1.0                    | 40                               | 3.0                        | 192                           | 7.6       | 10.0      | 14.3      | 3             |
| RN 204-1.5-02-1M6  | 1.5                    | 40                               | 1.6                        | 96                            | 7.6       | 10.0      | 14.3      | 3             |
| RN 204-2-02-1M1    | 2.0                    | 40                               | 1.1                        | 57                            | 7.6       | 10.0      | 14.3      | 3             |
| RN 212-0.4-02-39M  | 0.4                    | 40                               | 39.0                       | 1500                          | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-0.4-02-27M  | 0.4                    | 40                               | 27.0                       | 1400                          | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-0.5-02-27M  | 0.5                    | 40                               | 27.0                       | 1200                          | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-0.5-02-18M  | 0.5                    | 40                               | 18.0                       | 1100                          | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-0.5-02-15M  | 0.5                    | 40                               | 15.0                       | 700                           | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-0.6-02-15M  | 0.6                    | 40                               | 15.0                       | 490                           | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-0.8-02-10M  | 0.8                    | 40                               | 10.0                       | 380                           | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-1.2-02-6M8  | 1.2                    | 40                               | 6.8                        | 250                           | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-1.5-02-3M3  | 1.5                    | 40                               | 3.3                        | 102                           | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-2-02-1M8    | 2.0                    | 40                               | 1.8                        | 74                            | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-2-02-1M0    | 2.0                    | 40                               | 1.0                        | 70                            | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-2.6-02-0M4  | 2.6                    | 40                               | 0.4                        | 40                            | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-3.6-02-0M4  | 3.6                    | 40                               | 0.4                        | 27                            | 10.0      | 15.0      | 20.0      | 8             |
| RN 212-4-02-0M7    | 4.0                    | 40                               | 0.7                        | 24                            | 10.0      | 15.0      | 20.0      | 8             |
| RN 214-0.3-02-47M  | 0.3                    | 40                               | 47.0                       | 1700                          | 12.5      | 10.0      | 25.0      | 14            |
| RN 214-0.5-02-56M  | 0.5                    | 40                               | 56.0                       | 1700                          | 12.5      | 10.0      | 25.0      | 15            |
| RN 214-0.5-02-39M  | 0.5                    | 40                               | 39.0                       | 830                           | 12.5      | 10.0      | 25.0      | 14            |
| RN 214-0.8-02-27M  | 0.8                    | 40                               | 27.0                       | 500                           | 12.5      | 10.0      | 25.0      | 15            |
| RN 214-1-02-15M    | 1.0                    | 40                               | 15.0                       | 370                           | 12.5      | 10.0      | 25.0      | 14            |
| RN 214-1.2-02-10M  | 1.2                    | 40                               | 10.0                       | 195                           | 12.5      | 10.0      | 25.0      | 15            |
| RN 214-1.5-02-6M8  | 1.5                    | 40                               | 6.8                        | 123                           | 12.5      | 10.0      | 25.0      | 15            |
| RN 214-2-02-4M2    | 2.0                    | 40                               | 4.2                        | 100                           | 12.5      | 10.0      | 25.0      | 14            |

| Choke              | Current | @ ambient   | Inductance | Resistance | A    | B    | H    | Weight |
|--------------------|---------|-------------|------------|------------|------|------|------|--------|
|                    | (In)    | temperature |            |            |      |      |      |        |
|                    | [A]     | [°C]        | [mH]       | [mOhm]     | [mm] | [mm] | [mm] | [g]    |
| RN 214-2-02-2M2    | 2.0     | 40          | 2.2        | 67         | 12.5 | 10.0 | 25.0 | 14     |
| RN 214-2.5-02-3M3  | 2.5     | 40          | 3.3        | 72         | 12.5 | 10.0 | 25.0 | 15     |
| RN 214-3-02-2M0    | 3.0     | 40          | 2.0        | 52         | 12.5 | 10.0 | 25.0 | 14     |
| RN 214-4-02-1M5    | 4.0     | 40          | 1.5        | 34         | 12.5 | 10.0 | 25.0 | 15     |
| RN 216-0.5-02-47M  | 0.5     | 60          | 47.0       | 960        | 12.5 | 10.0 | 25.0 | 15     |
| RN 216-0.5-02-39M  | 0.5     | 60          | 39.0       | 920        | 12.5 | 10.0 | 25.0 | 15     |
| RN 216-0.5-02-27M  | 0.5     | 60          | 27.0       | 790        | 12.5 | 10.0 | 25.0 | 15     |
| RN 216-0.8-02-27M  | 0.8     | 60          | 27.0       | 370        | 12.5 | 10.0 | 25.0 | 16     |
| RN 216-1-02-15M    | 1.0     | 60          | 15.0       | 260        | 12.5 | 10.0 | 25.0 | 16     |
| RN 216-1-02-10M    | 1.0     | 60          | 10.0       | 210        | 12.5 | 10.0 | 25.0 | 15     |
| RN 216-1.3-02-6M8  | 1.3     | 60          | 6.8        | 140        | 12.5 | 10.0 | 25.0 | 16     |
| RN 216-1.5-02-10M  | 1.5     | 60          | 10.0       | 148        | 12.5 | 10.0 | 25.0 | 16     |
| RN 216-1.7-02-4M0  | 1.7     | 60          | 4.0        | 87         | 12.5 | 10.0 | 25.0 | 16     |
| RN 216-2-02-3M3    | 2.0     | 60          | 3.3        | 70         | 12.5 | 10.0 | 25.0 | 16     |
| RN 216-2-02-2M2    | 2.0     | 60          | 2.2        | 66         | 12.5 | 10.0 | 25.0 | 15     |
| RN 218-0.4-02-100M | 0.4     | 40          | 100        | 2800       | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-0.6-02-47M  | 0.6     | 40          | 47.0       | 1200       | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-0.7-02-39M  | 0.7     | 40          | 39.0       | 1150       | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-0.9-02-27M  | 0.9     | 40          | 27.0       | 620        | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-1-02-22M    | 1.0     | 40          | 22.0       | 520        | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-1.1-02-15M  | 1.1     | 40          | 15.0       | 420        | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-1.4-02-10M  | 1.4     | 40          | 10.0       | 330        | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-1.7-02-6M8  | 1.7     | 40          | 6.8        | 180        | 10.0 | 12.5 | 20.0 | 8      |
| RN 218-2.2-02-3M3  | 2.2     | 40          | 3.3        | 100        | 10.0 | 12.5 | 20.0 | 8      |
| RN 222-0.5-02-56M  | 0.5     | 40          | 56.0       | 1800       | 15.0 | 12.5 | 29.3 | 27     |
| RN 222-0.6-02-47M  | 0.6     | 40          | 47.0       | 1300       | 15.0 | 12.5 | 29.3 | 26     |
| RN 222-0.8-02-39M  | 0.8     | 40          | 39.0       | 1000       | 15.0 | 12.5 | 29.3 | 27     |
| RN 222-1-02-33M    | 1.0     | 40          | 33.0       | 1300       | 15.0 | 12.5 | 29.3 | 29     |
| RN 222-1-02-18M    | 1.0     | 40          | 18.0       | 630        | 15.0 | 12.5 | 29.3 | 26     |
| RN 222-1.5-02-10M  | 1.5     | 40          | 10.0       | 250        | 15.0 | 12.5 | 29.3 | 26     |
| RN 222-2-02-6M8    | 2.0     | 40          | 6.8        | 156        | 15.0 | 12.5 | 29.3 | 28     |
| RN 222-2.5-02-5M6  | 2.5     | 40          | 5.6        | 110        | 15.0 | 12.5 | 29.3 | 27     |
| RN 222-3-02-4M5    | 3.0     | 40          | 4.5        | 80         | 15.0 | 12.5 | 29.3 | 28     |
| RN 222-4-02-3M3    | 4.0     | 40          | 3.3        | 46         | 15.0 | 12.5 | 29.3 | 28     |
| RN 232-0.6-02-47M  | 0.6     | 40          | 47.0       | 1300       | 15.0 | 12.5 | 34.3 | 37     |
| RN 232-1-02-18M    | 1.0     | 40          | 18.0       | 390        | 15.0 | 12.5 | 34.3 | 38     |
| RN 232-1.6-02-10M  | 1.6     | 40          | 10.0       | 170        | 15.0 | 12.5 | 34.3 | 38     |
| RN 232-2.5-02-5M6  | 2.5     | 40          | 5.6        | 86         | 15.0 | 12.5 | 34.3 | 38     |
| RN 232-4-02-3M3    | 4.0     | 40          | 3.3        | 54         | 15.0 | 12.5 | 34.3 | 38     |
| RN 242-0.5-02-82M  | 0.5     | 40          | 82.0       | 2700       | 15.0 | 12.5 | 34.3 | 37     |
| RN 242-1-02-33M    | 1.0     | 40          | 33.0       | 810        | 15.0 | 12.5 | 34.3 | 38     |
| RN 242-1.4-02-27M  | 1.4     | 40          | 27.0       | 500        | 15.0 | 12.5 | 34.3 | 38     |
| RN 242-2-02-6M8    | 2.0     | 40          | 6.8        | 192        | 15.0 | 12.5 | 34.3 | 37     |
| RN 242-4-02-3M3    | 4.0     | 40          | 3.3        | 67         | 15.0 | 12.5 | 34.3 | 38     |
| RN 242-6-02-1M8    | 6.0     | 40          | 1.8        | 20         | 15.0 | 12.5 | 34.3 | 41     |

Test conditions: Measuring frequency: 10 kHz; 50 mV; Inductance tolerance: +50%, -30%; Resistance tolerance: ±15% @ 25°C; Electrical characteristics @ 25°C: ±2°C;  
 Stray Inductance measurement between pin 1 and 2 (pin 3 and 4 shorted)  
 For mechanical tolerances refer to mechanical data section.



## Thermal Derating

If higher ambient temperatures than the specified apply, the nominal current needs to be reduced according to the graph below.

Graph on the left side applies to RN with rated ambient temperature of 40 °C, right side for rated ambient temperature of 60 °C.



### Typical attenuation/resonance frequency characteristics

Per CISPR 17; 50 Ω/50 Ω asym

X can be exchanged with either 1 or 2 for different housing configuration, attenuation is similar



RN 218



RN 122, RN 222



RN 232



RN 142, RN 242



RN 143



RN 152



## Mechanical data



Pin material: Steel (base), Cu (under plating), Sn (final plating 6µm)

## Dimensions

|               | <b>A</b><br><b>(±0.6 mm)</b> | <b>B</b><br><b>(±0.6 mm)</b> | <b>H</b><br><b>(±0.3 mm)</b> | <b>L</b><br><b>(±0.3 mm)</b> | <b>W</b><br><b>(±0.3 mm)</b> | <b>P</b><br><b>(±0.5 mm)</b> | <b>ØP</b><br><b>(±0.1 mm)</b> |
|---------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|
| <b>RN 102</b> | 10.0 mm                      | 10.0 mm                      | 9.0 mm                       | 14.0 mm                      | 14.0 mm                      | 4.0 mm                       | 0.6 mm                        |
| <b>RN 112</b> | 15.0 mm                      | 10.0 mm                      | 12.6 mm                      | 17.7 mm                      | 17.1 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 114</b> | 20.1 mm                      | 12.5 mm                      | 13.2 mm                      | 22.5 mm                      | 21.5 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 116</b> | 20.1 mm                      | 12.5 mm                      | 13.2 mm                      | 22.5 mm                      | 21.5 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 122</b> | 25.0 mm                      | 15.0 mm                      | 16.5 mm                      | 28.0 mm                      | 27.0 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 142</b> | 30.0 mm                      | 20.0 mm                      | 19.7 mm                      | 33.1 mm                      | 32.5 mm                      | 4.3 mm                       | 0.8 mm                        |
| <b>RN 143</b> | 30.0 mm                      | 20.0 mm                      | 19.7 mm                      | 33.1 mm                      | 32.5 mm                      | 4.3 mm                       | 0.8 mm                        |
| <b>RN 152</b> | 40.0 mm                      | 15.0 mm                      | 25.0 mm                      | 43.0 mm                      | 41.8 mm                      | 4.5 mm                       | 1.2 mm                        |
| <b>RN 202</b> | 5.1 mm                       | 15.2 mm                      | 13.5 mm                      | 8.8 mm                       | 18.2 mm                      | 4.5 mm                       | 0.8 mm                        |
| <b>RN 204</b> | 7.6 mm                       | 10.0 mm                      | 14.3 mm                      | 9.0 mm                       | 14.0 mm                      | 4.0 mm                       | 0.5 mm                        |
| <b>RN 212</b> | 10.0 mm                      | 15.0 mm                      | 20.0 mm                      | 12.5 mm                      | 18.0 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 214</b> | 12.5 mm                      | 10.0 mm                      | 25.0 mm                      | 15.5 mm                      | 23.0 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 216</b> | 12.5 mm                      | 10.0 mm                      | 25.0 mm                      | 15.5 mm                      | 23.0 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 218</b> | 10.0 mm                      | 12.5 mm                      | 20.0 mm                      | 12.5 mm                      | 18.0 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 222</b> | 15.0 mm                      | 12.5 mm                      | 29.3 mm                      | 18.0 mm                      | 31.0 mm                      | 4.0 mm                       | 0.8 mm                        |
| <b>RN 232</b> | 15.0 mm                      | 12.5 mm                      | 34.3 mm                      | 18.0 mm                      | 31.0 mm                      | 4.2 mm                       | 0.8 mm                        |
| <b>RN 242</b> | 15.0 mm                      | 12.5 mm                      | 34.3 mm                      | 18.0 mm                      | 31.0 mm                      | 4.2 mm                       | 0.8 mm                        |

Please visit [www.schaffner.com](http://www.schaffner.com) to find more details on filter connections.





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