



## REZ-20-400

REZ-20-400, Reactor

Code: P73225.

- > L(mH): 5,68
- > For capacitor: CFB-46/25-6B
- > In (A): 17 A
- > Frequency (Hz): 50
- > kvar (400 V): 20
- > Losses: 91

### Description

CIRCUTOR has standardised the reactors of the REZ / RBEZ series for their use in static capacitor banks. The best operation of the unit requires the reactors to be connected within the triangle made p of the capacitor-reactor group. At the same power rating, the REZ / RBEZ reactors have a nominal current value that is 1.73 times lower and an inductance value that is 3 times higher than that in an RZ / RBZ reactor. There is a standard range of 400 V rejection reactors with  $p = 7\%$ , with a resonance frequency of 189 Hz for 50 Hz networks (or 227 Hz on demand for 60 Hz networks). In addition, reactors can be manufactured on demand for static capacitor banks adapted to any value of the power rating,  $p\%$ , voltage and frequency. REZ-type low-power reactors are built with low-loss plates and are coiled with copper wire. The connection is made using suitable terminals. In the case of higher power ratings, RBEZ reactors are used, with a magnetic plate nucleus and multiple air gaps, which offer excellent features and a low loss ratio. The coils are made with an aluminium band (or copper band, on demand). The input and output connections run through a busbar. Both REZ and RBEZ type reactors are impregnated with a varnish in a vacuum to increase insulation and reduce noise levels.

### Application

The rejection reactors of the REZ / RBEZ series have been specifically designed for use in static capacitor banks in installations with a high harmonic content. The reactors must be connected in series with each capacitor for adequate protection of the capacitors and the static operations module, and to avoid resonance effects in the installation.



## REZ-20-400

Three-phase reactors for static capacitor banks

Code: P73225.

### Specifications

#### AC power supply

|           |                             |
|-----------|-----------------------------|
| Frequency | 50 Hz (Bajo demanda: 60 Hz) |
|-----------|-----------------------------|

#### Electrical characteristics

|                             |                                 |
|-----------------------------|---------------------------------|
| Permanent overload          | 1,17 In                         |
| Linearity (5% L)            | 1,8 In                          |
| Maximum transient current   | 2 In (1 min)                    |
| Voltage                     | 400 V, on request: up to 1000 V |
| Tolerance L                 | ± 5 %                           |
| L value (mH)                | 5.68                            |
| Insulation voltage, circuit | 4 kV                            |

#### Electrical characteristic

|                          |              |
|--------------------------|--------------|
| Overvoltage factor (p %) | 7 % (189 Hz) |
|--------------------------|--------------|

#### Mechanical characteristics

|                                  |                             |
|----------------------------------|-----------------------------|
| Size (mm) width x height x depth | 130 x 245 x 250 (mm)        |
| Envelope                         | Conductor type: copper wire |
| Weight (kg)                      | 9                           |

#### Environmental characteristics

|                                   |                                                   |
|-----------------------------------|---------------------------------------------------|
| Thermal Class                     | "class F (+155 °C) On request: class H (+180 °C)" |
| Protection class                  | IP 00                                             |
| Installation, location, position. | Inside                                            |
| Ambient temperature               | -10 ... +45 °C                                    |

#### Standards

|           |                         |
|-----------|-------------------------|
| Standards | UNE-EN 60289, IEC 60076 |
|-----------|-------------------------|

#### Protection

|                      |                    |
|----------------------|--------------------|
| Circuit breaker type | 90°C NC thermostat |
|----------------------|--------------------|

#### REZ-RBEZ

Reactors III for detuned static filters for FRE static switching bank

| CODE                                       | TYPE | L(mH) | For capacitor | In (A) | Frequency (Hz) | kvar (400 V) | Losses | P% |
|--------------------------------------------|------|-------|---------------|--------|----------------|--------------|--------|----|
| 400 V, 50 Hz, f resonance = 189 Hz / p= 7% |      |       |               |        |                |              |        |    |



# REZ-20-400

Three-phase reactors for static capacitor banks

Code: P73225.

| CODE    | TYPE        | L(mH) | For capacitor  | In (A) | Frequency (Hz) | kvar (400 V) | Losses | P% |
|---------|-------------|-------|----------------|--------|----------------|--------------|--------|----|
| P73210. | REZ-5-400   | 23,67 | CFB-46/6-6B    | 5 A    | 50             | 5            | 63     | 7% |
| P73215. | REZ-10-400  | 11,27 | CFB-46/12,5-6B | 9 A    | 50             | 10           | 69     | 7% |
| P73220. | REZ-15-400  | 7,5   | CFB-46/19-6B   | 13 A   | 50             | 15           | 70     | 7% |
| P73225. | REZ-20-400  | 5,68  | CFB-46/25-6B   | 17 A   | 50             | 20           | 91     | 7% |
| P73230. | REZ-25-400  | 4,68  | CFB-46/30-6B   | 21 A   | 50             | 25           | 110    | 7% |
| P73235. | REZ-30-400  | 3,84  | CFB-46/37-6B   | 26 A   | 50             | 30           | 109    | 7% |
| P73240. | RBEZ-40-400 | 2,84  | CFB-46/50-6B   | 35 A   | 50             | 40           | 179    | 7% |
| P73245. | RBEZ-50-400 | 2,29  | CFB-46/62-6B   | 42 A   | 50             | 50           | 189    | 7% |
| P73250. | RBEZ-60-400 | 1,89  | CFB-46/74-6B   | 51 A   | 50             | 60           | 252    | 7% |
| P73255. | RBEZ-80-400 | 1,42  | CFB-46/100-6B  | 68 A   | 50             | 80           | 263    | 7% |

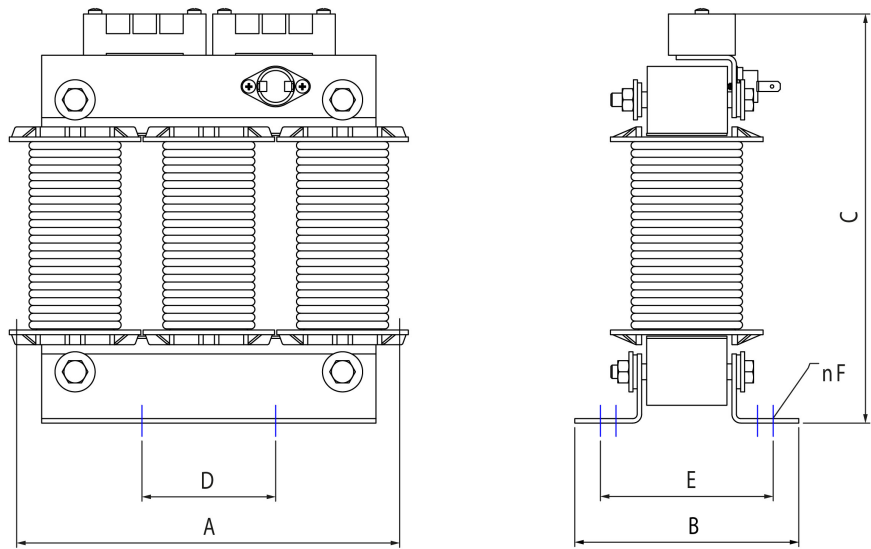


REZ-20-400

Three-phase reactors for static capacitor banks

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Dimensions



| Tipo        | A<br>mm | B<br>mm | C<br>mm | D*<br>mm | E*<br>mm | F<br>mm | G<br>mm | kg  |
|-------------|---------|---------|---------|----------|----------|---------|---------|-----|
| RZ-5-400    | 155     | 76      | 165     | 75       | 55       | 7       | -       | 4   |
| RZ-6,24-400 | 180     | 112     | 190     | 90       | 75       | 7       | -       | 6   |
| RZ-10-400   | 180     | 112     | 190     | 90       | 75       | 7       | -       | 6,5 |
| RZ-12,5-400 | 180     | 112     | 190     | 90       | 75       | 7       | -       | 7   |
| RZ-15-400   | 180     | 112     | 190     | 90       | 75       | 7       | -       | 8   |

| Tipo       | A<br>mm | B<br>mm | C<br>mm | D*<br>mm | E*<br>mm | F<br>mm | G<br>mm | kg |
|------------|---------|---------|---------|----------|----------|---------|---------|----|
| REZ-05-400 | 150     | 90      | 155     | 75       | 70       | 7       | -       | 4  |
| REZ-10-400 | 180     | 110     | 195     | 90       | 83       | 7       | -       | 7  |
| REZ-15-400 | 180     | 120     | 195     | 90       | 93       | 7       | -       | 9  |
| REZ-20-400 | 250     | 130     | 245     | 130      | 98       | 7       | -       | 15 |
| REZ-25-400 | 250     | 130     | 245     | 130      | 98       | 7       | -       | 16 |
| REZ-30-400 | 250     | 130     | 245     | 130      | 98       | 7       | -       | 17 |

\* Distance between fixations