



## OPTIM FRF-25-440

OPTIM FRF-25-440, Fixed capacitor with armonic filter

Code: R5X350.

- > Cable section (mm<sup>2</sup>): 10
- > kvar (400 V): 21
- > kvar (440 V): 25
- > Use voltage (V): 440

### Description

The **FRF / FRM** Series capacitor banks with detuned filters have been designed for power compensation purposes in motors and transformers with a constant load level, a high content of harmonics and where there is a risk of resonance. Including:

- **FRF**: general protection with NH-00 fuses with a high rupture power (HRP) for the capacitor.
- **FRM**: general circuit breaker protection for the capacitor.

### Application

Its application is mainly based on the compensation of transformers and motors. In general, it is used for the compensation of installations under constant loads and where there is a high content of harmonics in the network.



# OPTIM FRF-25-440

Fixed capacitor with rejection reactance p = 7 %

Code: R5X350.

## Specifications

### Electrical characteristics

|                       |                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------|
| Losses (W)            | Dielectric: < 0.2 W/kvar Total: < 0.5 W/kvar                                                                     |
| Discharge resistance  | 75 V / 3 min                                                                                                     |
| Surge                 | 11 % 8 h over 24 h 15 % up to 15 min over 24 hours 20 % up to 5 min over 24 hours 30 % up to 1 min over 24 hours |
| Reinforcement voltage | 440 V                                                                                                            |
| Tolerance C           | ±10 %                                                                                                            |

### Mechanical characteristics

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Size (mm) width x height x depth | 650 x 1060 x 420 (mm)                  |
| Thermal management               | Natural or forced according to options |
| Fastening                        | Vertical                               |
| Weight (kg)                      | 78                                     |

### Environmental characteristics

|                                          |       |
|------------------------------------------|-------|
| Protection class                         | IP 21 |
| Relative humidity (without condensation) | 80%   |

### Current measurement circuit

|                    |        |
|--------------------|--------|
| Permanent overload | 1,3 In |
|--------------------|--------|

### Standards

|                                       |        |
|---------------------------------------|--------|
| Electrical safety, Maximum height (m) | 2000 m |
|---------------------------------------|--------|

### Features / performance

|            |                                                                                          |
|------------|------------------------------------------------------------------------------------------|
| Components | CF capacitor General protection by fuse with high breaking capacity (APR). NH-00 series. |
|------------|------------------------------------------------------------------------------------------|

### Protection

|         |                                                                                            |
|---------|--------------------------------------------------------------------------------------------|
| Element | Individual protection of each step with fuses with high rupture power (HRP). NH-00 Series. |
|---------|--------------------------------------------------------------------------------------------|

### OPTIM FRF

Fixed capacitors with detuned reactor of P = 7% (fres=189 Hz), 50 Hz

| CODE                                         | TYPE               | kvar (400 V) | kvar (440 V) | Cable section (mm2) |
|----------------------------------------------|--------------------|--------------|--------------|---------------------|
| OPTIM FRF, fuse protection APR, 440 V, 50 Hz |                    |              |              |                     |
| R5X350.                                      | OPTIM FRF-25-440   | 21           | 25           | 10                  |
| R5X370.                                      | OPTIM FRF-37,5-440 | 31           | 37,5         | 16                  |



# OPTIM FRF-25-440

Fixed capacitor with rejection reactance  $p = 7 \%$

Code: R5X350.

| CODE    | TYPE              | kvar (400 V) | kvar (440 V) | Cable section (mm2) |
|---------|-------------------|--------------|--------------|---------------------|
| R5X380. | OPTIM FRF-50-440  | 42           | 50           | 25                  |
| R5X390. | OPTIM FRF-60-440  | 50           | 60           | 35                  |
| R5X3A0. | OPTIM FRF-75-440  | 62           | 75           | 50                  |
| R5X3B0. | OPTIM FRF-100-440 | 83           | 100          | 70                  |

See CFB capacitor and RZ /RBZ reactor components in the Low Voltage Capacitor and Reactor Section. Cable cross-section for installations with Un= 400 V. The installation company must ensure compliance with the low voltage directive at all times, in accordance with the particularities of each installation and type of cable



## OPTIM FRF-25-440

Fixed capacitor with rejection reactance  $p = 7\%$

Code: R5X350.

### Dimensions

