



## OPTIM FRF-60-440

---

OPTIM FRF-60-440, Fixed capacitor with armonic filter

Code: R5X390.

- > Cable section (mm<sup>2</sup>): 35
- > kvar (400 V): 50
- > kvar (440 V): 60
- > 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-60-440

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

Code: R5X390.

### Specifications

#### Electrical characteristics

Losses (W)	Dielectric: < 0.2 W/kvar Total: < 0.5 W/kvar
Discharge resistance	75 V / 3 min
Surge	14 % 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	$\pm 10\%$

#### 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)	90

#### 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)
<b>OPTIM FRF, fuse protection APR, 440 V, 50 Hz</b>				
R5X350.	OPTIM FRF-25-440	21	25	10
R5X370.	OPTIM FRF-37,5-440	31	37,5	16



## OPTIM FRF-60-440

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

Code: R5X390.

CODE	TYPE	kvar (400 V)	kvar (440 V)	Cable section (mm <sup>2</sup> )
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  $U_n = 400$  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-60-440

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

Code: R5X390.

### Dimensions

