

OPTIM FRM-50-440

OPTIM FRM-50-440, Fixed capacitor with armonic filter

Code: R5Y380.

> Cable section (mm2): 25
> kvar (400 V): 42
> kvar (440 V): 50
> Cut off power: 50 kA
> 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 FRM-50-440

Fixed capacitor with rejection reactance p = 7 %

Code: R5Y380.

Specifications

Electrical characteristics

Losses (W)	Dielectric: < 0.2 W/kvar Total: < 0.5 W/kvar
Discharge resistance	75 V / 3 min
Surge	19 % 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 tripolar circuit breaker for protection. Waste filters tuned to 189 Hz to protect harmonics present in the network and avoid resonance phenomena with harmonics of order 5 or more. It incorporates a thermostat to disconnect the step in case of high temperature (90 °C).

Protection

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

OPTIM FRM
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 FRM, molded case circuit breaker protection, 440 V, 50 Hz				
R5Y350.	OPTIM FRM-25-440	21	25	10



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Fixed capacitor with rejection reactance p = 7 %

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CODE	TYPE	kvar (400 V)	kvar (440 V)	Cable section (mm2)
R5Y370.	OPTIM FRM-37,5-440	31	37,5	16
R5Y380.	OPTIM FRM-50-440	42	50	25
R5Y390.	OPTIM FRM-60-440	50	60	35
R5Y3A0.	OPTIM FRM-75-440	62	75	50
R5Y3B0.	OPTIM FRM-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

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Fixed capacitor with rejection reactance p = 7 %

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Dimensions

