



OPTIM FR4 P&P-37,5-240-60Hz

OPTIM FR4 P&P-37,5-240-60Hz, Detuned capacitor bank ,60 Hz

Code: R54SF0.

- > kvar (240 V): 37,5
- > Aut.Switch (A): 3 x 125
- > Composition: 3x12,5
- > Use voltage (V): 240
- > Mounting: Floor-mounted
- > P%: 7

Description

The **OPTIM FR P&P** Series capacitor banks with detuned filters have been designed for power compensation purposes in networks with fluctuating load levels, a high content of harmonics and where there is a risk of resonance. Power variations are relatively slow (in seconds) so that the switching operations are carried out with contactors.

Application

Its application is mainly focused on the compensation of installations with different loads, which require a regulated compensation, as a result of the power factor variations and where there is a high content of harmonics in the network.

- Fixed detuned filters. For the compensation of transformers and motors (**OPTIM FRF / FRM**)
- Automatic detuned filters, For the monitoring of variable loads (**OPTIM FR P&P**).



OPTIM FR4 P&P-37,5-240-60Hz

Automatic capacitor banks with detuned filters

Code: R54SF0.

Specifications

AC power supply

| | |
|-----------|-------|
| Frequency | 60 Hz |
|-----------|-------|

Electrical characteristics

| | |
|----------------------|------------------------------------------------------------------------------------------------------------------|
| Losses (W) | < 0,5 W/kvar |
| Discharge resistance | 75 V / 3 min |
| Surge | 10 % 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 |
| Manoeuvre voltage | Contactors: 230 V |
| Tolerance C | -5% / 10 % |

Mechanical characteristics

| | |
|----------------------------------|---------------------------------------------|
| Size (mm) width x height x depth | 900 x 1900 x 650 (mm) |
| Envelope | Sheet metal RAL 7035 Grey / RAL 3005 Garnet |
| Thermal management | Natural or forced according to options |
| Fastening | Vertical / Self-supporting |
| Weight (kg) | 225 |

Environmental characteristics

| | |
|------------------------------------------|------------------------------------------------------------------------------------------------------|
| Protection class | IP 21 |
| Relative humidity (without condensation) | 80% |
| Working temperature | T ^a class D: Daily average: 45 °C, annual average: 35 °C, maximum: 55 °C, minimum: -50 °C |

Current measurement circuit

| | |
|----------------------|---------|
| Permanent overload | 1,3 In |
| Transformation ratio | In / 5A |

Protection

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

OPTIM FR P&P 60Hz

Automatic capacitor banks with detuned filters (contactors switching), type P=7% (fres=227 Hz), 60 Hz.

| CODE | TYPE | kvar (240 V) | Composition | Use voltage (V) | Aut.Switch (A) | P% | kvar (480 V) |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------|-------------|-----------------|----------------|----|--------------|
| OPTIM FRS P&P, automatic capacitor banks with computer SMART III regulator. Steps protections by Circuit Breaker | | | | | | | |
| R54RBN. | OPTIM FRS P&P-25-240-60Hz | 25 | 2x5+10 | 240 | 3 x 100 | 7 | |



OPTIM FR4 P&P-37,5-240-60Hz

Automatic capacitor banks with detuned filters

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| CODE | TYPE | kvar (240 V) | Composition | Use voltage (V) | Aut.Switch (A) | P% | kvar (480 V) |
|------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|-------------|-----------------|----------------|----|--------------|
| R54RBP. | OPTIM FRS P&P-30-240-60Hz | 30 | 3x10 | 240 | 3 x 125 | 7 | |
| R54RBS. | OPTIM FRS P&P-40-240-60Hz | 40 | 4x10 | 240 | 3 x 160 | 7 | |
| OPTIM FR4 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54SF0. | OPTIM FR4 P&P-37,5-240-60Hz | 37,5 | 3x12,5 | 240 | 3 x 125 | 7 | |
| R54SF2. | OPTIM FR4 P&P-50-240-60Hz | 50 | 2x12,5+25 | 240 | 3 x 200 | 7 | |
| R54SF3. | OPTIM FR4 P&P-62,5-240-60Hz | 62,5 | 12,5+2x25 | 240 | 3 x 250 | 7 | |
| R54SF4. | OPTIM FR4 P&P-75-240-60Hz | 75 | 3x25 | 240 | 3 x 250 | 7 | |
| R54SF5. | OPTIM FR4 P&P-87,5-240-60Hz | 87,5 | 12,5+3x25 | 240 | 3 x 400 | 7 | |
| R54SF6. | OPTIM FR4 P&P-100-240-60Hz | 100 | 4x25 | 240 | 3 x 400 | 7 | |
| R54SF8. | OPTIM FR4 P&P-140-240-60Hz | 140 | 20+3x40 | 240 | 3 x 400 | 7 | |
| R54SF9. | OPTIM FR4 P&P-160-240-60Hz | 160 | 4x40 | 240 | 3 x 630 | 7 | |
| OPTIM FR6 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54SG3. | OPTIM FR6 P&P-180-240-60Hz | 180 | 20+4x40 | 240 | 3 x 630 | 7 | |
| R54SG4. | OPTIM FR6 P&P-200-240-60Hz | 200 | 5x40 | 240 | 3 x 630 | 7 | |
| R54SG6. | OPTIM FR6 P&P-220-240-60Hz | 220 | 20+5x40 | 240 | 3 x 800 | 7 | |
| R54SG7. | OPTIM FR6 P&P-240-240-60Hz | 240 | 6x40 | 240 | 3 x 800 | 7 | |
| OPTIM FR8 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54SH1. | OPTIM FR8 P&P-280-240-60Hz | 280 | 7x40 | 240 | 3 x 1000 | 7 | |
| R54SH2. | OPTIM FR8 P&P-320-240-60Hz | 320 | 8x40 | 240 | 3 x 1000 | 7 | |
| OPTIM FR10 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54SJ4. | OPTIM FR10 P&P-360-240-60Hz | 360 | 9x40 | 240 | 3 x 1250 | 7 | |
| R54SJ6. | OPTIM FR10 P&P-400-240-60Hz | 400 | 10x40 | 240 | 3 x 1250 | 7 | |
| OPTIM FR12 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54SK4. | OPTIM FR12 P&P-440-240-60Hz | 440 | 11x40 | 240 | 3 x 1600 | 7 | |
| R54SK6. | OPTIM FR12 P&P-480-240-60Hz | 480 | 12x40 | 240 | 3 x 1600 | 7 | |
| OPTIM FRS P&P, automatic capacitor banks with computer SMART III regulator. General protection by Circuit Breaker | | | | | | | |
| R54RB2. | OPTIM FRS P&P-50-480-60Hz | | 2x12,5+25 | 480 | 3 x 100 | 7 | 50 |
| R54RB4. | OPTIM FRS P&P-75-480-60Hz | | 3x25 | 480 | 3 x 125 | 7 | 75 |
| R54RB9. | OPTIM FRS P&P-100-480-60Hz | | 4x25 | 480 | 3 x 160 | 7 | 100 |
| OPTIM FR4 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54SB4. | OPTIM FR4 P&P-75-480-60Hz | | 3x25 | 480 | 3 x 125 | 7 | 75 |
| R54SB6. | OPTIM FR4 P&P-100-480-60Hz | | 2x25+50 | 480 | 3 x 200 | 7 | 100 |
| R54SB7. | OPTIM FR4 P&P-125-480-60Hz | | 25+2x50 | 480 | 3 x 250 | 7 | 125 |
| R54SB3. | OPTIM FR4 P&P-150-480-60Hz | | 2x25+2x50 | 480 | 3 x 250 | 7 | 150 |
| R54SB0. | OPTIM FR4 P&P-175-480-60Hz | | 25+3x50 | 480 | 3 x 400 | 7 | 175 |
| R54SB9. | OPTIM FR4 P&P-200-480-60Hz | | 4x50 | 480 | 3 x 400 | 7 | 200 |
| R54SB8. | OPTIM FR4 P&P-262,5-480-60Hz | | 37,5+3x75 | 480 | 3 x 400 | 7 | 262,5 |
| R54SB5. | OPTIM FR4 P&P-300-480-60Hz | | 4x75 | 480 | 3 x 630 | 7 | 300 |



OPTIM FR4 P&P-37,5-240-60Hz

Automatic capacitor banks with detuned filters

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|------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|-------------|-----------------|----------------|----|--------------|
| OPTIM FR6 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54TB3. | OPTIM FR6 P&P-337,5-480-60Hz | | 37,5+4x75 | 480 | 3 x 630 | 7 | 337,5 |
| R54TB4. | OPTIM FR6 P&P-375-480-60Hz | | 5x75 | 480 | 3 x 630 | 7 | 375 |
| R54TB6. | OPTIM FR6 P&P-412,5-480-60Hz | | 37,5+5x75 | 480 | 3 x 800 | 7 | 412,5 |
| R54TB7. | OPTIM FR6 P&P-450-480-60Hz | | 6x75 | 480 | 3 x 800 | 7 | 450 |
| OPTIM FR8 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54UC0. | OPTIM FR8 P&P-487,5-480-60Hz | | 37,5+6x75 | 480 | 3 x 800 | 7 | 487,5 |
| R54UC1. | OPTIM FR8 P&P-525-480-60Hz | | 7x75 | 480 | 3 x 1000 | 7 | 525 |
| R54UC2. | OPTIM FR8 P&P-600-480-60Hz | | 8x75 | 480 | 3 x 1000 | 7 | 600 |
| OPTIM FR10 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54VB4. | OPTIM FR10 P&P-675-480-60Hz | | 9x75 | 480 | 3 x 1250 | 7 | 675 |
| R54VB6. | OPTIM FR10 P&P-750-480-60Hz | | 10x75 | 480 | 3 x 1250 | 7 | 750 |
| OPTIM FR12 P&P, automatic capacitor banks with computer SMART III regulator. Steps protection by blade fuse type NH-00. | | | | | | | |
| R54WD1. | OPTIM FR12 P&P-825-480-60Hz | | 11x75 | 480 | 3 x 1600 | 7 | 825 |
| R54WD2. | OPTIM FR12 P&P-900-480-60Hz | | 12x75 | 480 | 3 x 1600 | 7 | 900 |