



OPTIM 16L P&P-1600-440

OPTIM 16L P&P-1600-440, Automatic capacitor bank

Code: R37L40.

- > Cable section (mm²): 3x185/3x185
- > Nr steps: 9
- > kvar (400 V): 1322
- > kvar (440 V): 1600
- > Optional circuit breaker (A) : 1600+1600
- > Optional manual switch (A): 1600+1600
- > Composition: 100+100+7x200
- > Use voltage (V): 440
- > Mounting: Floor-mounted

Description

The **OPTIM P&P** series automatic capacitor bank units have been designed for the automatic compensation of reactive energy in networks with fluctuating load levels and power variations during seconds, by switching operations carried out by contactors.

Application

Their simple installation, high-technology and robustness make the **OPTIM P&P** series the ideal unit for compensating reactive energy in installations with fluctuating load levels.



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Specifications

AC power supply

| | |
|-----------|-------|
| Frequency | 50 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 |
| Reinforcement voltage | 440 V |
| Tolerance C | -5% / 10 % |
| Voltage | 414 V (other voltages on request) |

Mechanical characteristics

| | |
|----------------------------------|---|
| Size (mm) width x height x depth | 2400 x 1900 x 650 (mm) |
| Envelope | Sheet metal RAL 7035 Grey / RAL 3005 Garnet |
| Thermal management | Natural or forced according to options |
| Fastening | Vertical |
| Weight (kg) | 580 |

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 I _n |
| Transformation ratio | I _n /5 A |

Standards

| | |
|---------------------------------------|---|
| Electrical safety, Maximum height (m) | 1000 máx. (para altitud mayor prever siempre ventilación forzada) |
| Standards | IEC 60831-1, IEC 61921, IEC 60439 |

Features / performance

| | |
|------------|--|
| Components | Reactive energy regulator, Computer C Wi-Fi, with digital indication and 6 or 12 relay outputs according to type. |
| Optional | Manual circuit breaker at capacitor bank header. Circuit breaker at capacitor bank header. Circuit breaker + earth leakage protection at capacitor bank header. Forced ventilation unit + thermostat. Polycarbonate plate to avoid direct exposure. 400/230 V autotransformer (included in OPTIM 8, 9, 8L, 14L, and 16L) Regulator |



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with built-in network analyser and three-phase Computer SMART III measurement. Other frequencies, consult.

Protection

| | |
|---------|---|
| Element | Fuses with high cut-off power (APR), type NH-00 |
|---------|---|

OPTIM P&P

Automatic capacitor banks, 12.5 to 1600 kvar, 50 Hz.

| CODE | TYPE | kvar (400 V) | kvar (440 V) | Nr steps | Cable section (mm ²) |
|---|-----------------------|--------------|--------------|----------|----------------------------------|
| OPTIM 3 P&P, automatic capacitor banks with computer C Wi-Fi regulator | | | | | |
| R3L110. | OPTIM 3 P&P-12,5-440 | 10 | 12,5 | 3 | 6 |
| R3L120. | OPTIM 3 P&P-17,5-440 | 14 | 17,5 | 3 | 6 |
| R3L130. | OPTIM 3 P&P-25-440 | 20 | 25 | 3 | 10 |
| R3L140. | OPTIM 3 P&P-31,25-440 | 26 | 31,25 | 3 | 10 |
| R3L150. | OPTIM 3 P&P-37,5-440 | 31,25 | 37,5 | 3 | 16 |
| R3L160. | OPTIM 3 P&P-43,75-440 | 36 | 43,75 | 3 | 25 |
| R3L170. | OPTIM 3 P&P-52,5-440 | 43 | 52,5 | 3 | 25 |
| R3L180. | OPTIM 3 P&P-62,5-440 | 51 | 62,5 | 3 | 35 |
| OPTIM 5 P&P, automatic capacitor banks with computer C Wi-Fi regulator | | | | | |
| R3L210. | OPTIM 5 P&P-55-440 | 45 | 55 | 4 | 35 |
| R3L220. | OPTIM 5 P&P-70-440 | 58 | 70 | 4 | 50 |
| R3L230. | OPTIM 5 P&P-90-440 | 74 | 90 | 4 | 70 |
| R3L240. | OPTIM 5 P&P-105-440 | 87 | 105 | 4 | 70 |
| R3L250. | OPTIM 5 P&P-135-440 | 112 | 135 | 5 | 95 |
| R3L260. | OPTIM 5 P&P-150-440 | 124 | 150 | 5 | 120 |
| OPTIM 8 P&P, automatic capacitor banks with computer C Wi-Fi regulator. Built-in power supply autotransformer | | | | | |
| R3L410. | OPTIM 8 P&P-300-440 | 248 | 300 | 6 | 2x150 |
| R3L420. | OPTIM 8 P&P-330-440 | 273 | 330 | 6 | 2x150 |
| R3L430. | OPTIM 8 P&P-390-440 | 322 | 390 | 7 | 2x185 |
| R3L440. | OPTIM 8 P&P-450-440 | 372 | 450 | 8 | 2x240 |
| R3L450. | OPTIM 8 P&P-480-440 | 396 | 480 | 8 | 2x240 |
| OPTIM 9 P&P, automatic capacitor banks with computer C Wi-Fi regulator. Built-in power supply autotransformer | | | | | |
| R3L310. | OPTIM 9 P&P-165-440 | 136 | 165 | 6 | 120 |
| R3L320. | OPTIM 9 P&P-195-440 | 161 | 195 | 7 | 150 |
| R3L330. | OPTIM 9 P&P-225-440 | 186 | 225 | 8 | 185 |
| R3L340. | OPTIM 9 P&P-255-440 | 211 | 255 | 9 | 240 |
| R3L350. | OPTIM 9 P&P-270-440 | 223 | 270 | 9 | 240 |
| OPTIM 8L P&P, automatic capacitor banks with computer C Wi-Fi regulator. Built-in power supply autotransformer | | | | | |
| R35L10. | OPTIM 8L P&P-550-440 | 454 | 550 | 6 | 2x240 |



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|--|------------------------|--------------|--------------|----------|----------------------------------|
| R35L20. | OPTIM 8L P&P-650-440 | 537 | 650 | 7 | 3x150 |
| R35L30. | OPTIM 8L P&P-750-440 | 620 | 750 | 8 | 3x185 |
| R35L40. | OPTIM 8L P&P-800-440 | 661 | 800 | 8 | 3x185 |
| OPTIM 14L P&P, automatic capacitor banks with computer C Wi-Fi regulator. Built-in power supply autotransformer | | | | | |
| R36L10. | OPTIM 14L P&P-900-440 | 743 | 900 | 10 | 3x150/185 |
| R36L20. | OPTIM 14L P&P-950-440 | 785 | 950 | 10 | 3x185/185 |
| R36L30. | OPTIM 14L P&P-1050-440 | 867 | 1050 | 11 | 3x185/240 |
| R36L40. | OPTIM 14L P&P-1150-440 | 950 | 1150 | 12 | 3x185/2x150 |
| R36L50. | OPTIM 14L P&P-1200-440 | 991 | 1200 | 12 | 3x185/2x185 |
| R36L60. | OPTIM 14L P&P-1300-440 | 1074 | 1300 | 7 | 3x185/2x240 |
| R36L70. | OPTIM 14L P&P-1400-440 | 1156 | 1400 | 8 | 3x185/3x120 |
| OPTIM 16L P&P, automatic capacitor banks with computer C Wi-Fi regulator. Built-in power supply autotransformer | | | | | |
| R37L30. | OPTIM 16L P&P-1500-440 | 1239 | 1500 | 8 | 3x185/3x150 |
| R37L40. | OPTIM 16L P&P-1600-440 | 1322 | 1600 | 9 | 3x185/3x185 |

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 characteristics of each installation and type of cable. All batteries with **computer C Wi-Fi** regulator come with charge VAR system



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Dimensions

