

# RBO 12-3L-HC - Bolt connection terminal block



3076060

<https://www.phoenixcontact.com/us/products/3076060>

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Bolt connection terminal block, nom. voltage: 1500 V, nominal current: 415 A, number of connections: 6, connection method: Bolt connection, Rated cross section: 240 mm<sup>2</sup>, 1 level, mounting type: NS 35/7,5, NS 35/15, direct screw connection, color: gray

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 3076060       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Product key                          | BE4412        |
| GTIN                                 | 4046356653206 |
| Weight per piece (including packing) | 1,342.1 g     |
| Weight per piece (excluding packing) | 1,342.1 g     |
| Country of origin                    | CN            |

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## Technical data

### Product properties

|                       |                                |
|-----------------------|--------------------------------|
| Product type          | Bolt connection terminal block |
| Pitch                 | 49 mm                          |
| Number of connections | 6                              |
| Number of rows        | 1                              |
| Potentials            | 3                              |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Electrical properties

|                     |      |
|---------------------|------|
| Rated surge voltage | 8 kV |
|---------------------|------|

### Connection data

|                                 |                     |
|---------------------------------|---------------------|
| Number of connections per level | 6                   |
| Nominal cross section           | 240 mm <sup>2</sup> |

#### 1 level

|                                  |                                                                                           |
|----------------------------------|-------------------------------------------------------------------------------------------|
| Connection method                | Bolt connection                                                                           |
| Stripping length                 | The stripping length depends on the specification provided by the cable lug manufacturer. |
| Connection in acc. with standard | IEC 60947-7-1                                                                             |
| Nominal current                  | 415 A                                                                                     |
| Maximum load current             | 415 A (with 240 mm <sup>2</sup> conductor cross-section)                                  |
| Nominal voltage                  | 1500 V                                                                                    |
| Nominal cross section            | 240 mm <sup>2</sup>                                                                       |

#### Cable lug connection DIN 46234:1980-03

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| Connection in acc. with standard | DIN 46234:1980-03                          |
| Cross section                    | 10 mm <sup>2</sup> ... 240 mm <sup>2</sup> |
| Cross section range AWG          | 8 ... 500 kcmil (converted acc. to IEC)    |
| Hole diameter                    | 13 mm                                      |
| Width                            | 38 mm                                      |
| Bolt diameter                    | 12 mm                                      |
| Screw thread                     | M12                                        |
| Tightening torque                | 14 ... 30 Nm                               |
| Connection in acc. with standard | DIN 46235:1983-07                          |
| Cross section                    | 10 mm <sup>2</sup> ... 240 mm <sup>2</sup> |
| Cross section range AWG          | 8 ... 500 kcmil (converted acc. to IEC)    |
| Hole diameter                    | 13 mm                                      |
| Width                            | 42 mm                                      |
| Bolt diameter                    | 12 mm                                      |

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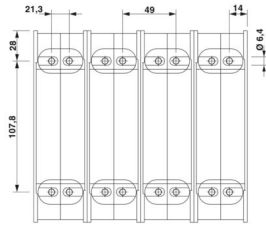


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|                   |              |
|-------------------|--------------|
| Screw thread      | M12          |
| Tightening torque | 14 ... 30 Nm |

## Dimensions

|                     |                                                                                    |
|---------------------|------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 147 mm                                                                             |
| Pitch               | 49 mm                                                                              |

## Material specifications

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| Color                                                                   | gray        |
| Flammability rating according to UL 94                                  | V0          |
| Insulating material group                                               | I           |
| Insulating material                                                     | PA          |
| Static insulating material application in cold                          | -60 °C      |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °C      |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C      |
| Fire protection for rail vehicles (DIN EN 45545-2) R22                  | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23                  | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24                  | HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26                  | HL 1 - HL 3 |
| Calorimetric heat release NFPA 130 (ASTM E 1354)                        | 28 MJ/kg    |
| Surface flammability NFPA 130 (ASTM E 162)                              | passed      |
| Specific optical density of smoke NFPA 130 (ASTM E 662)                 | passed      |
| Smoke gas toxicity NFPA 130 (SMP 800C)                                  | passed      |

## Electrical tests

### Surge voltage test

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 12 kV       |
| Result                | Test passed |

### Temperature-rise test

|                                                  |                                     |
|--------------------------------------------------|-------------------------------------|
| Requirement temperature-rise test                | Increase in temperature $\leq 45$ K |
| Result                                           | Test passed                         |
| Short-time withstand current 240 mm <sup>2</sup> | 28.8 kA                             |
| Result                                           | Test passed                         |

### Power-frequency withstand voltage

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|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 2.7 kV      |
| Result                | Test passed |

## Mechanical properties

### Mechanical data

|                 |    |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

## Mechanical tests

### Mechanical strength

|        |             |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

### Attachment on the carrier

|                         |             |
|-------------------------|-------------|
| DIN rail/fixing support | NS 35       |
| Test force setpoint     | 20 N        |
| Result                  | Test passed |

## Environmental and real-life conditions

### Needle-flame test

|                  |             |
|------------------|-------------|
| Time of exposure | 30 s        |
| Result           | Test passed |

### Oscillation/broadband noise

|                        |                                                  |
|------------------------|--------------------------------------------------|
| Specification          | DIN EN 50155 (VDE 0115-200):2008-03              |
| Spectrum               | Long life test category 1, class B, body mounted |
| Frequency              | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$   |
| ASD level              | $1.857 \text{ (m/s}^2\text{)}^2\text{/Hz}$       |
| Acceleration           | 0.8g                                             |
| Test duration per axis | 5 h                                              |
| Test directions        | X-, Y- and Z-axis                                |
| Result                 | Test passed                                      |

### Shocks

|                                |                                     |
|--------------------------------|-------------------------------------|
| Specification                  | DIN EN 50155 (VDE 0115-200):2008-03 |
| Pulse shape                    | Half-sine                           |
| Acceleration                   | 5g                                  |
| Shock duration                 | 30 ms                               |
| Number of shocks per direction | 3                                   |
| Test directions                | X-, Y- and Z-axis (pos. and neg.)   |
| Result                         | Test passed                         |

## Standards and regulations

|                                  |               |
|----------------------------------|---------------|
| Connection in acc. with standard | IEC 60947-7-1 |
|----------------------------------|---------------|

## Mounting

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|               |                         |
|---------------|-------------------------|
| Mounting type | NS 35/7,5               |
|               | NS 35/15                |
|               | direct screw connection |

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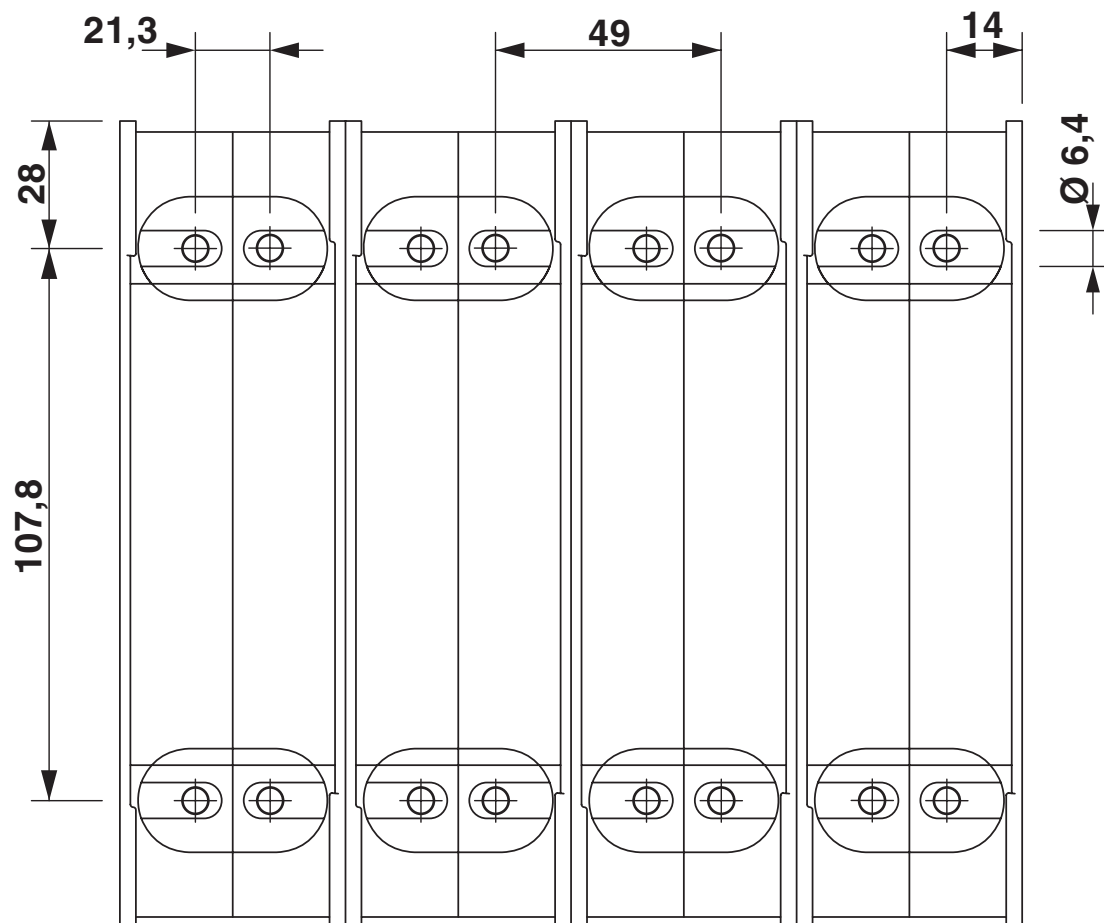


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## Drawings

Dimensional drawing



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## Environmental product compliance

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| EU RoHS                                 |                                          |
| Fulfills EU RoHS substance requirements | Yes, No exemptions                       |
| China RoHS                              |                                          |
| Environment friendly use period (EFUP)  | EFUP-E                                   |
|                                         | No hazardous substances above the limits |
| EU REACH SVHC                           |                                          |
| REACH candidate substance (CAS No.)     | No substance above 0.1 wt%               |

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