

# PTME 6 - Test disconnect terminal block



3212170

<https://www.phoenixcontact.com/us/products/3212170>

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Test disconnect terminal block, nom. voltage: 500 V, nominal current: 30 A, connection method: Push-in connection, 1 level, Rated cross section: 6 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 10 mm<sup>2</sup>, color: gray

## Your advantages

- Feed-through terminal blocks of the same shape are available
- Easy operation
- Clear
- Clear selection thanks to printed switching symbols
- Compact design
- Six function shafts
- Flexible and comprehensive accessories
- Reliably snapped into the end positions

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 3212170       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | BE22          |
| Product key                          | BE2233        |
| GTIN                                 | 4046356514934 |
| Weight per piece (including packing) | 26.826 g      |
| Weight per piece (excluding packing) | 25.92 g       |
| Customs tariff number                | 85369010      |
| Country of origin                    | PL            |

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## Technical data

### Product properties

|                       |                                |
|-----------------------|--------------------------------|
| Product type          | Test disconnect terminal block |
| Number of connections | 2                              |
| Number of rows        | 1                              |
| Potentials            | 1                              |

### Insulation characteristics

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

### Electrical properties

|                                                 |        |
|-------------------------------------------------|--------|
| Rated surge voltage                             | 6 kV   |
| Maximum power dissipation for nominal condition | 1.31 W |

### Connection data

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

#### 1 level

|                                                                                                                   |                                                        |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Connection method                                                                                                 | Push-in connection                                     |
| Stripping length                                                                                                  | 12 mm                                                  |
| Internal cylindrical gage                                                                                         | A5                                                     |
| Connection in acc. with standard                                                                                  | IEC 60947-7-1                                          |
| Conductor cross-section rigid                                                                                     | 0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>             |
| Cross section AWG                                                                                                 | 20 ... 8 (converted acc. to IEC)                       |
| Conductor cross-section flexible                                                                                  | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>              |
| Conductor cross-section, flexible [AWG]                                                                           | 20 ... 10 (converted acc. to IEC)                      |
| Conductor cross-section flexible (ferrule without plastic sleeve)                                                 | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>              |
| Flexible conductor cross-section (ferrule with plastic sleeve)                                                    | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>              |
| Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve) | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>            |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve                         | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>            |
| Nominal current                                                                                                   | 30 A                                                   |
| Maximum load current                                                                                              | 30 A (with 10 mm <sup>2</sup> conductor cross-section) |
| Nominal voltage                                                                                                   | 500 V                                                  |
| Nominal cross section                                                                                             | 6 mm <sup>2</sup>                                      |

#### 1 level Connection cross sections directly pluggable

|                                                                   |                                          |
|-------------------------------------------------------------------|------------------------------------------|
| Conductor cross-section rigid                                     | 1 mm <sup>2</sup> ... 10 mm <sup>2</sup> |
| Conductor cross-section flexible (ferrule without plastic sleeve) | 1 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| Flexible conductor cross-section (ferrule with plastic sleeve)    | 1 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |

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## Dimensions

|                    |          |
|--------------------|----------|
| Width              | 8.2 mm   |
| End cover width    | 2.2 mm   |
| Height             | 100.8 mm |
| Depth on NS 35/7,5 | 49.6 mm  |
| Depth on NS 35/15  | 57.1 mm  |

## Material specifications

|                                                                         |                 |
|-------------------------------------------------------------------------|-----------------|
| Color                                                                   | gray (RAL 7042) |
| 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)) | 125 °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)                        | 27,5 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 | 7.3 kV      |
| Result                | Test passed |

### Temperature-rise test

|                                                |                                     |
|------------------------------------------------|-------------------------------------|
| Requirement temperature-rise test              | Increase in temperature $\leq 45$ K |
| Result                                         | Test passed                         |
| Short-time withstand current 4 mm <sup>2</sup> | 0.5 kA                              |
|                                                | 0.15 kA                             |
|                                                | 1.25 kA                             |
| Result                                         | Test passed                         |

### Power-frequency withstand voltage

|                       |             |
|-----------------------|-------------|
| Test voltage setpoint | 1.89 kV     |
| Result                | Test passed |

## Mechanical properties

### Mechanical data

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|                 |     |
|-----------------|-----|
| Open side panel | Yes |
|-----------------|-----|

## Mechanical tests

### Mechanical strength

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

### Attachment on the carrier

|                         |             |
|-------------------------|-------------|
| DIN rail/fixing support | NS 35       |
| Test force setpoint     | 5 N         |
| Result                  | Test passed |

### Test for conductor damage and slackening

|                                |                              |
|--------------------------------|------------------------------|
| Rotation speed                 | 10 rpm                       |
| Revolutions                    | 135                          |
| Conductor cross-section/weight | 0.5 mm <sup>2</sup> / 0.3 kg |
|                                | 6 mm <sup>2</sup> / 1.4 kg   |
|                                | 10 mm <sup>2</sup> / 2 kg    |
| Result                         | Test passed                  |

## Environmental and real-life conditions

### Aging

|                    |             |
|--------------------|-------------|
| Temperature cycles | 192         |
| Result             | Test passed |

### Needle-flame test

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

### Oscillation/broadband noise

|                        |                                                |
|------------------------|------------------------------------------------|
| Specification          | DIN EN 50155 (VDE 0115-200):2018-05            |
| Spectrum               | Long life test category 2, bogie-mounted       |
| Frequency              | $f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$ |
| ASD level              | 6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz      |
| Acceleration           | 3.12g                                          |
| Test duration per axis | 5 h                                            |
| Test directions        | X-, Y- and Z-axis                              |
| Result                 | Test passed                                    |

### Shocks

|                                |                                     |
|--------------------------------|-------------------------------------|
| Specification                  | DIN EN 50155 (VDE 0115-200):2018-05 |
| Pulse shape                    | Half-sine                           |
| Acceleration                   | 30g                                 |
| Shock duration                 | 18 ms                               |
| Number of shocks per direction | 3                                   |
| Test directions                | X-, Y- and Z-axis (pos. and neg.)   |

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

## Ambient conditions

|                                          |                                                                                                                              |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature (operation)          | -60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.) |
| Ambient temperature (storage/transport)  | -25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)                                                    |
| Ambient temperature (assembly)           | -5 °C ... 70 °C                                                                                                              |
| Ambient temperature (actuation)          | -5 °C ... 70 °C                                                                                                              |
| Permissible humidity (operation)         | 20 % ... 90 %                                                                                                                |
| Permissible humidity (storage/transport) | 30 % ... 70 %                                                                                                                |

## Standards and regulations

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

## Mounting

|               |           |
|---------------|-----------|
| Mounting type | NS 35/15  |
|               | NS 35/7,5 |

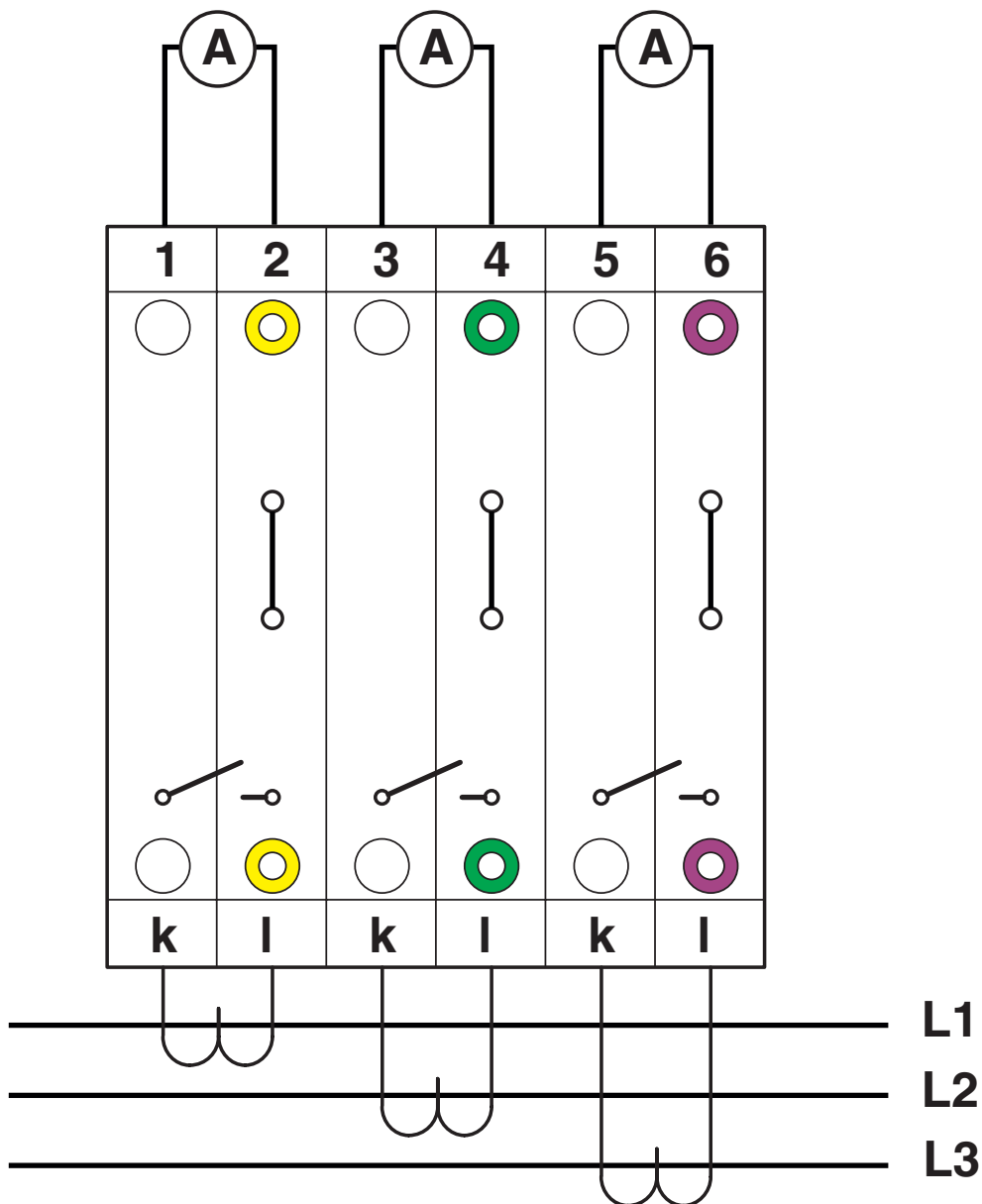
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## Drawings

Connection diagram



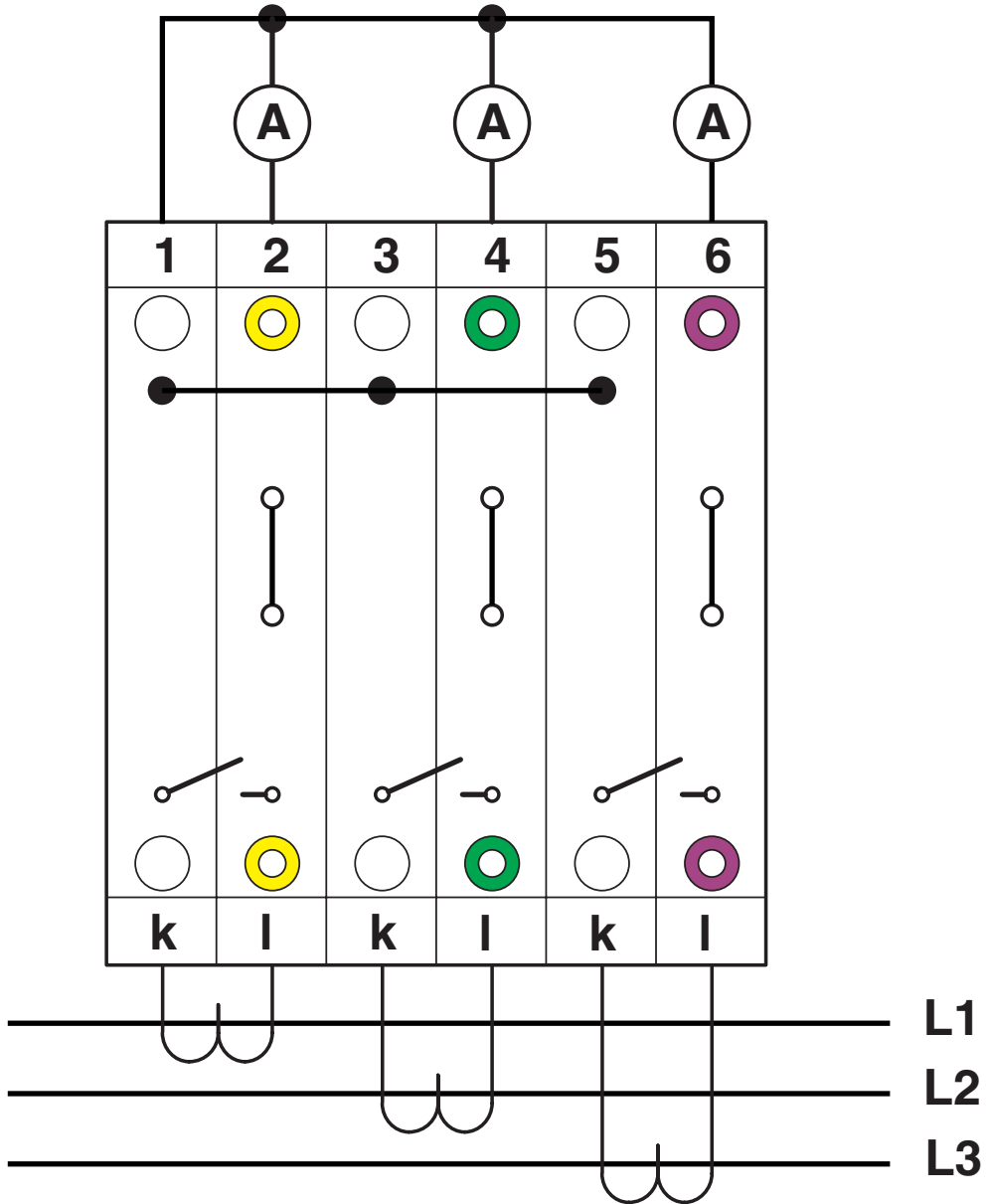
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### Connection diagram



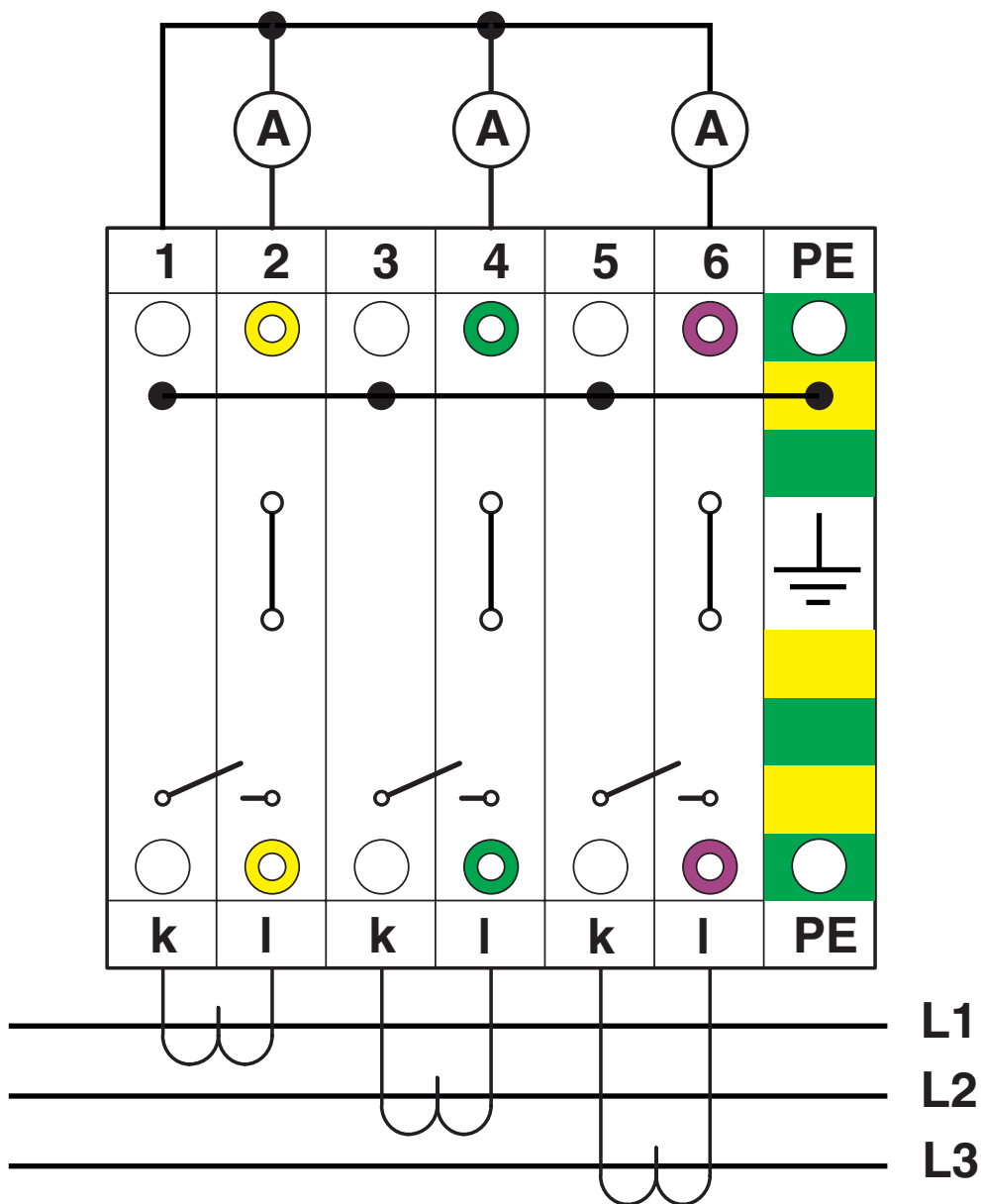
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Connection diagram

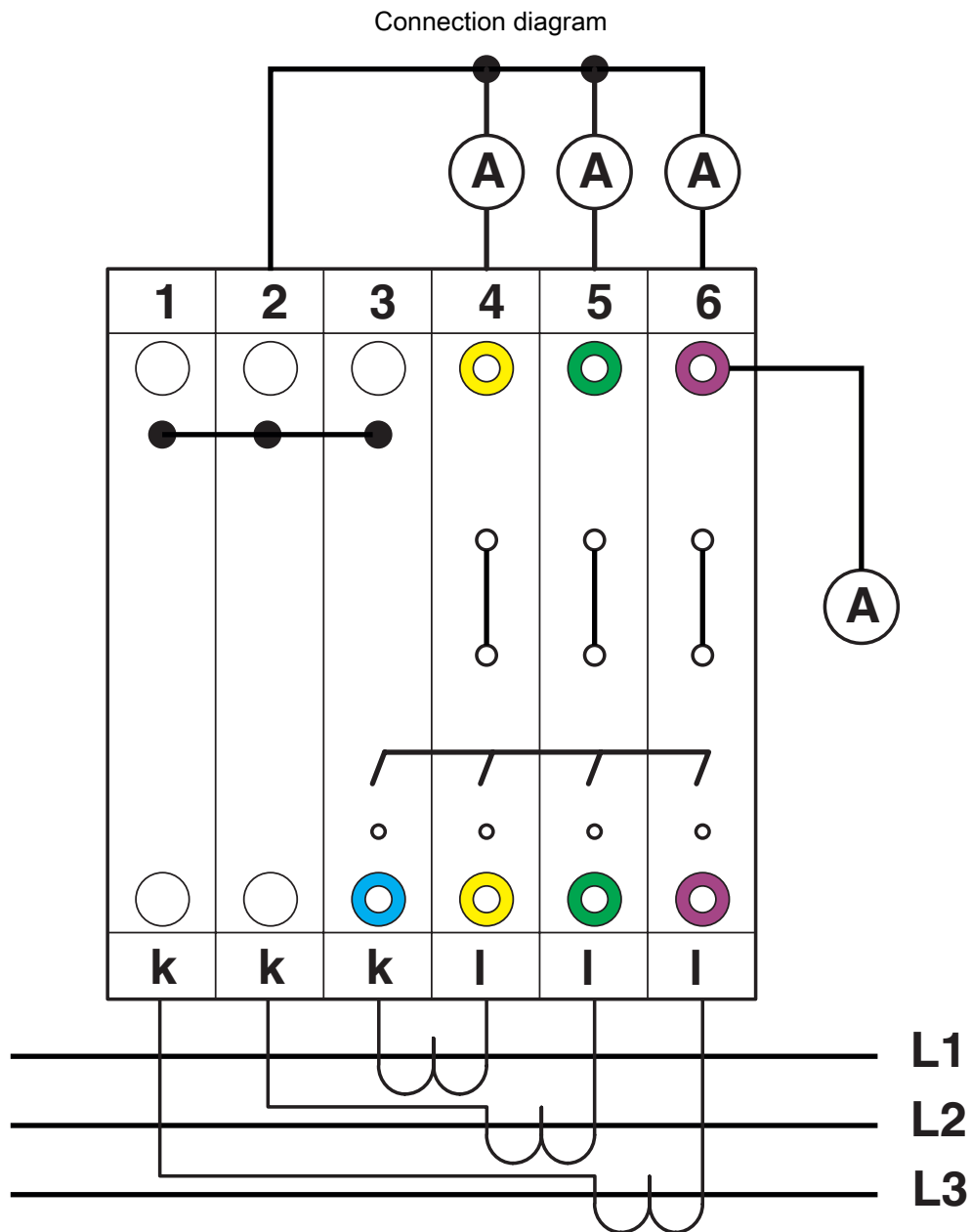


with PE terminals having the same contours

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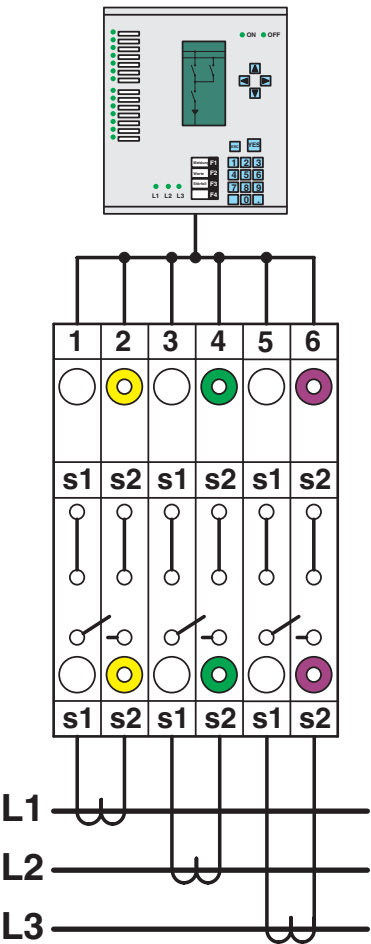
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Schematic diagram



Simple three-phase current transformer set

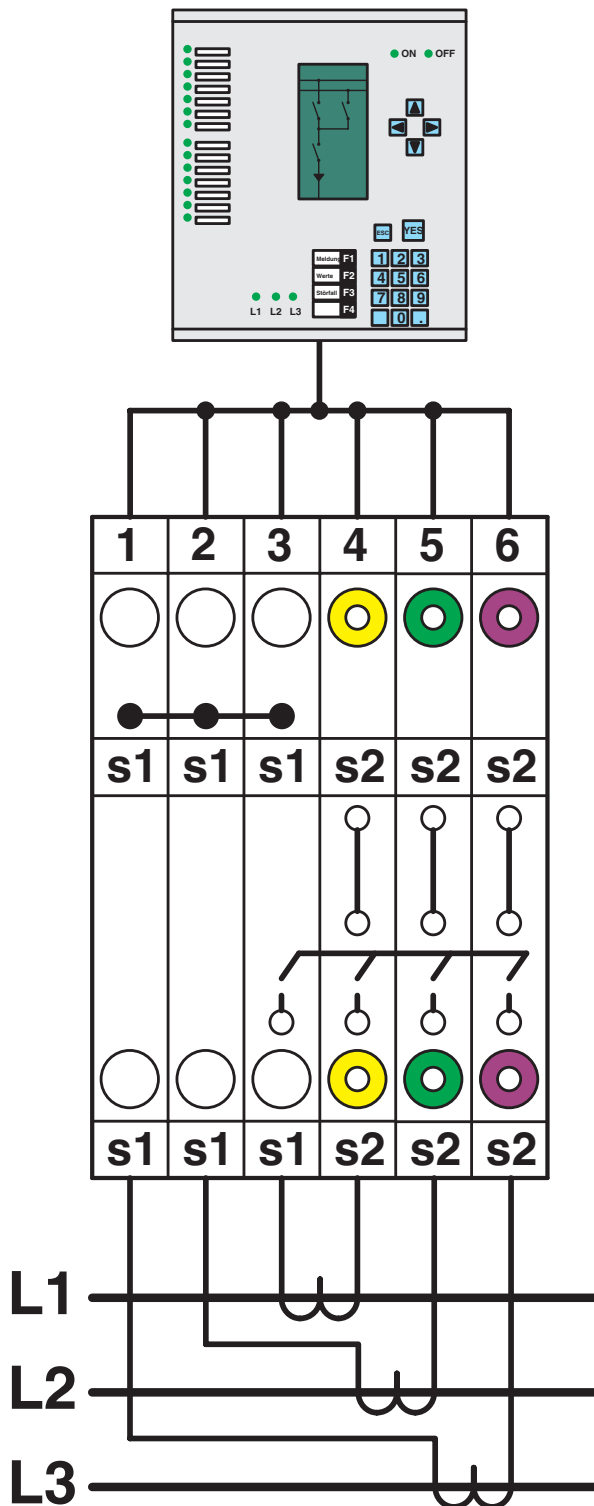
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Schematic diagram



Interlinked three-phase current transformer set

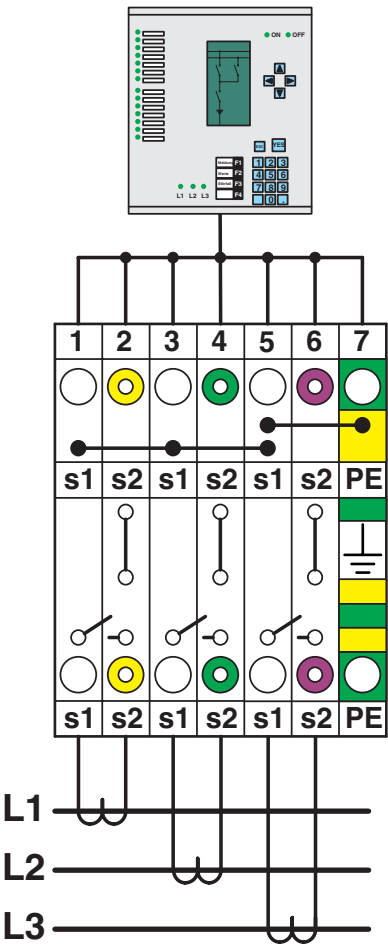
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Schematic diagram



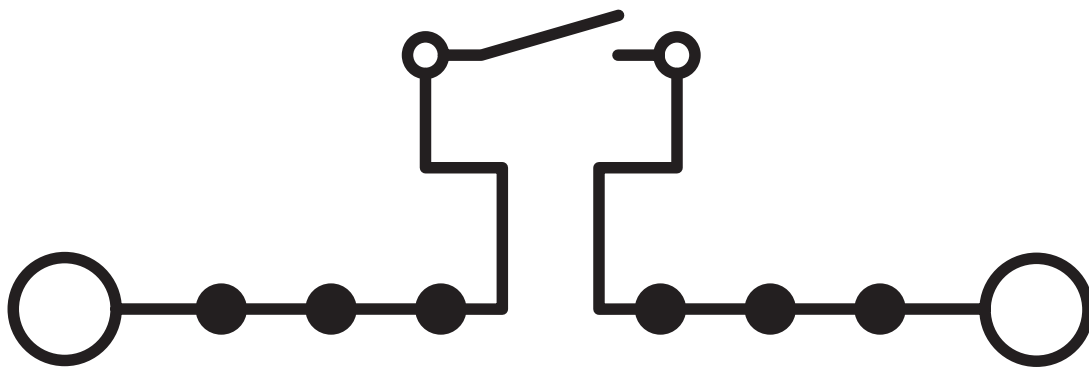
Interlinked three-phase current transformer set with grounded star point

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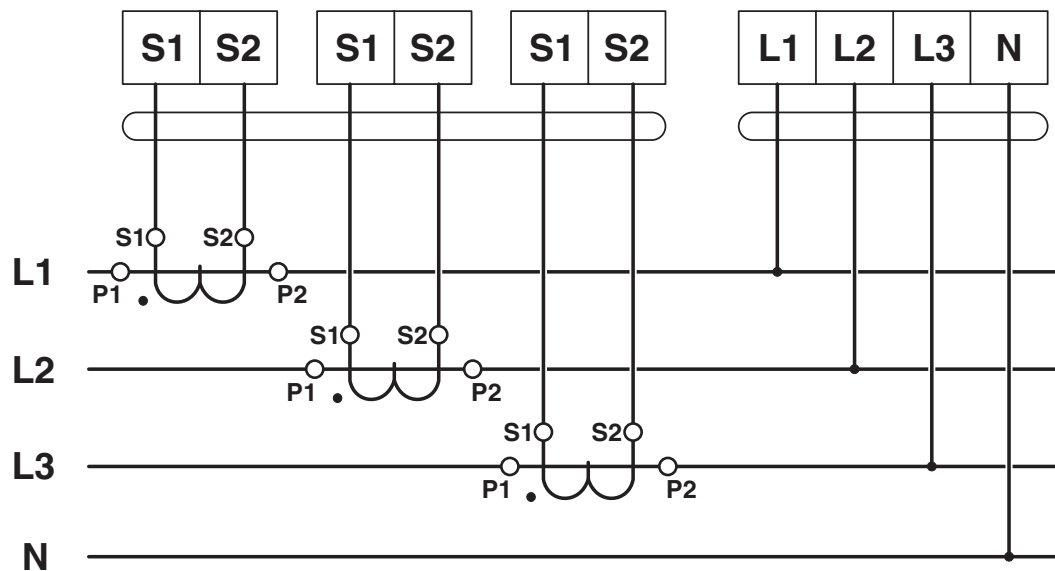
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Circuit diagram



Circuit diagram

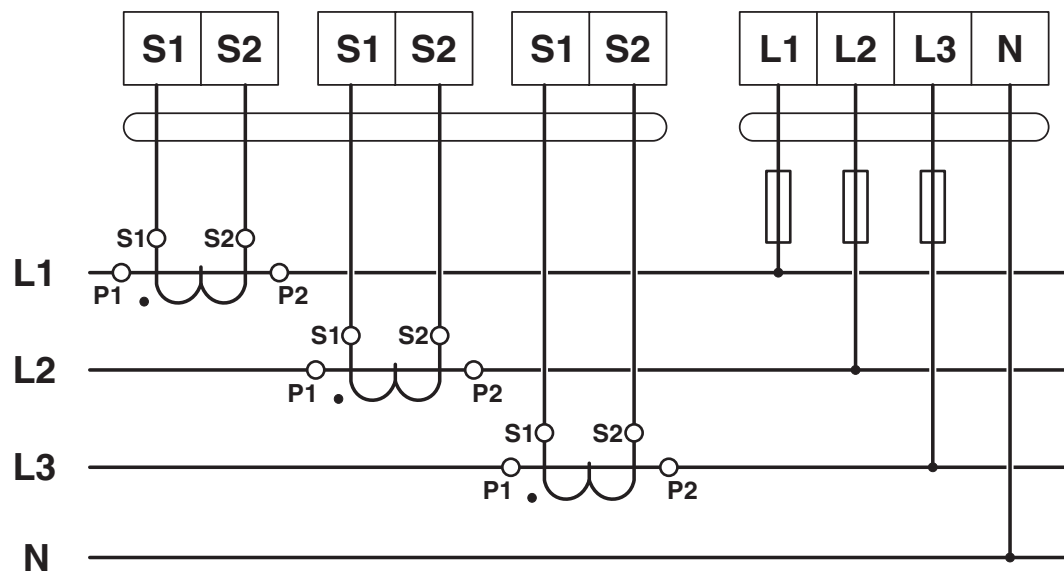


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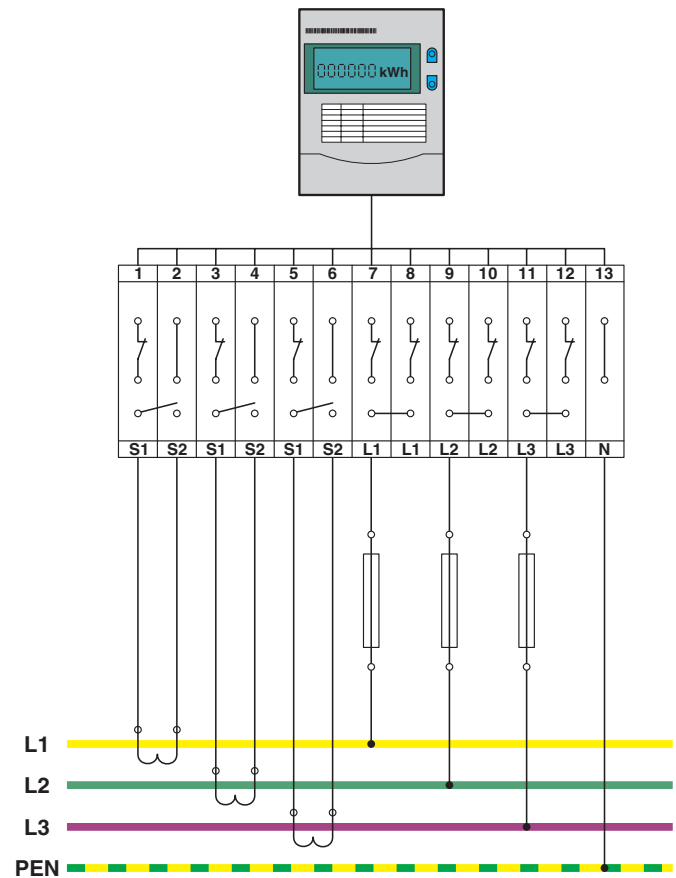


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Circuit diagram



Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3212170>



### IECEE CB Scheme

Approval ID: NL-37536



### EAC

Approval ID: RU C-DE.BL08.B.00644



### KEMA-KEUR

Approval ID: 2183172.01

|                          | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine                    |                       |                       |                   |                             |
| Only flexible conductors | 500 V                 | 30 A                  | -                 | 0.5 - 6                     |
| Only rigid conductors    | 500 V                 | 30 A                  | -                 | 0.5 - 10                    |



### cULus Recognized

Approval ID: E60425

|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| B |                       |                       |                   |                             |
|   | 300 V                 | 30 A                  | 24 - 8            | -                           |
| C |                       |                       |                   |                             |
|   | 300 V                 | 30 A                  | 24 - 8            | -                           |
| D |                       |                       |                   |                             |
|   | 600 V                 | 5 A                   | 24 - 8            | -                           |
| F |                       |                       |                   |                             |
|   | 500 V                 | 30 A                  | 24 - 8            | -                           |



### EAC

Approval ID: KZ7500651131219505



### CSA

Approval ID: 2030668

|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| B |                       |                       |                   |                             |
|   | 300 V                 | 30 A                  | 20 - 8            | -                           |
| C |                       |                       |                   |                             |
|   | 300 V                 | 30 A                  | 20 - 8            | -                           |
| D |                       |                       |                   |                             |

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|  |       |     |        |   |
|--|-------|-----|--------|---|
|  | 600 V | 5 A | 20 - 8 | - |
|--|-------|-----|--------|---|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27250109 |
| ECLASS-15.0 | 27250109 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000902 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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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%               |
| EF3.0 Climate Change                    |                                          |
| CO2e kg                                 | 0.166 kg CO2e                            |

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