

# High-current terminal block - UBAL 50 BK - 1086469

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High-current terminal block, Terminal block for aluminum and copper conductors (AL-CU), nom. voltage: 1000 V, nominal current: 145 A, connection method: Screw connection, number of connections: 2, number of positions: 1, cross section: 6 mm<sup>2</sup> - 50 mm<sup>2</sup>, AWG: 6 - 1/0, width: 19.2 mm, height: 51 mm, color: black, mounting type: NS 35/15, NS 35/7,5

## Your advantages

- Maintenance-free terminal points that are greased beforehand simplify the connection of aluminum conductors
- Tailor-made screw connection for multi-stranded aluminum conductors and copper wires
- Extremely robust housing made from fiberglass-reinforced polyamide with V0 approval



## Key Commercial Data

|              |               |
|--------------|---------------|
| Packing unit | 20 pc         |
| GTIN         |               |
| GTIN         | 4055626878058 |

## Technical data

### General

|  |   |
|--|---|
| Note                                   | Terminal block for aluminum and copper conductors (AL-CU) |
| Number of positions                    | 1   |
| Number of levels                       | 1   |
| Number of connections                  | 2   |
| Potentials                             | 1   |
| Nominal cross section                  | 50 mm <sup>2</sup>  |
| Color                                  | black   |
| Insulating material                    | PA  |
| Flammability rating according to UL 94 | V0  |
| Rated surge voltage                    | 8 kV  |
| Degree of pollution                    | 3   |
| Overvoltage category                   | III   |
| Insulating material group              | II  |

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## Technical data

### General

|  |   |
|--|---|
| Note                                     | The following values apply to aluminum conductors   |
| Maximum load current                     | 145 A (with 50 mm <sup>2</sup> conductor cross section – test current in accordance with IEC 61238-1) |
| Nominal current I <sub>N</sub>           | 145 A   |
| Nominal voltage U <sub>N</sub>           | 1000 V  |
| Note                                     | The following values apply to copper wires  |
| Maximum load current                     | 150 A (with 50 mm <sup>2</sup> conductor cross section)   |
| Nominal current I <sub>N</sub>           | 150 A   |
| Nominal voltage U <sub>N</sub>           | 1000 V  |
| Open side panel                          | No  |
| Ambient temperature (operation)          | -60 °C ... 85 °C  |
| Ambient temperature (storage/transport)  | -25 °C ... 55 °C (For a short time, not exceeding 24 h, -60 to +70 °C)                                |
| Permissible humidity (storage/transport) | 30 % ... 70 %   |
| Ambient temperature (assembly)           | -5 °C ... 70 °C   |
| Ambient temperature (actuation)          | -5 °C ... 70 °C   |

### Dimensions

|                  |         |
|------------------|---------|
| Width            | 19.2 mm |
| Length           | 82.5 mm |
| Height           | 51 mm   |
| Height NS 35/7,5 | 51 mm   |
| Height NS 35/15  | 58.5 mm |

### Connection data

|                                       |  |
|---------------------------------------|--|
| Note                                  | Screws with hexagonal socket   |
| Connection method                     | Screw connection   |
| Screw thread                          | M10  |
| Stripping length                      | 23 mm  |
| Note                                  | The following values apply to aluminum conductors  |
| Connection in acc. with standard      | IEC 61238-1  |
| Conductor cross section solid min.    | 6 mm <sup>2</sup>  |
| Conductor cross section solid max.    | 50 mm <sup>2</sup>   |
| Conductor cross section AWG min.      | 6  |
| Conductor cross section AWG max.      | 1/0  |
| Conductor cross section flexible min. | 6 mm <sup>2</sup>  |
| Conductor cross section flexible max. | 50 mm <sup>2</sup>   |
| Note                                  | The values for aluminum conductors relate to rigid and multi-stranded conductors in accordance with EN 60228. Application notes on connecting aluminum conductors can be found in the download area. |
|                                       | The following values apply to copper wires   |
| Connection in acc. with standard      | IEC 60947-7-1  |
| Conductor cross section solid min.    | 2.5 mm <sup>2</sup>  |

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## Technical data

### Connection data

|  |                     |
|--|---------------------|
| Conductor cross section solid max.   | 50 mm <sup>2</sup>  |
| Conductor cross section AWG min.   | 6                   |
| Conductor cross section AWG max.   | 1/0                 |
| Conductor cross section flexible min.                                      | 2.5 mm <sup>2</sup> |
| Conductor cross section flexible max.                                      | 35 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 2.5 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 35 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule with plastic sleeve min.    | 2.5 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule with plastic sleeve max.    | 35 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded min.                        | 1.5 mm <sup>2</sup> |
| 2 conductors with same cross section, stranded max.                        | 16 mm <sup>2</sup>  |

### Standards and Regulations

|  |               |
|--|---------------|
| Connection in acc. with standard       | IEC 61238-1   |
|  | IEC 60947-7-1 |
| Flammability rating according to UL 94 | V0            |

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

Circuit diagram



## Classifications

### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27141120 |
| eCl@ss 4.0    | 27141120 |
| eCl@ss 4.1    | 27141120 |
| eCl@ss 5.0    | 27141120 |
| eCl@ss 5.1    | 27141100 |
| eCl@ss 6.0    | 27141100 |
| eCl@ss 7.0    | 27141120 |
| eCl@ss 8.0    | 27141120 |
| eCl@ss 9.0    | 27141120 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000897 |
| ETIM 3.0 | EC000897 |
| ETIM 4.0 | EC000897 |
| ETIM 5.0 | EC000897 |
| ETIM 6.0 | EC000897 |
| ETIM 7.0 | EC000897 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211811 |
| UNSPSC 7.0901 | 39121410 |
| UNSPSC 11     | 39121410 |
| UNSPSC 12.01  | 39121410 |
| UNSPSC 13.2   | 39121410 |
| UNSPSC 18.0   | 39121410 |
| UNSPSC 19.0   | 39121410 |
| UNSPSC 20.0   | 39121410 |
| UNSPSC 21.0   | 39121410 |

## Approvals

### Approvals

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#### Approvals

UL Recognized

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#### Ex Approvals

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### Approval details

|               |  |   |              |
|---------------|--|---|--------------|
| UL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 60425 |
|---------------|--|---|--------------|

## Accessories

Accessories

End cover

## High-current terminal block - UBAL 50 BK - 1086469

### Accessories

Cover plate - CEC UBAL 50 - 1086473



Cover plate, color: yellow

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### Terminal marking

Marker for terminal blocks - UCT-TM 5 - 0828734



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

Marker for terminal blocks - UCT-TM 5 OG - 0829155



Marker for terminal blocks, Sheet, orange, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

Marker for terminal blocks - UCT-TM 5 BU - 0829157



Marker for terminal blocks, Sheet, blue, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

Marker for terminal blocks - UCT-TM 5 YE - 0828735

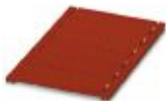


Marker for terminal blocks, Sheet, yellow, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

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### Accessories

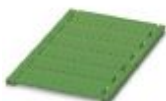
#### Marker for terminal blocks - UCT-TM 5 RD - 0829154



Marker for terminal blocks, Sheet, red, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

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#### Marker for terminal blocks - UCT-TM 5 GN - 0829158



Marker for terminal blocks, Sheet, green, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

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#### Marker for terminal blocks - UCT-TM 5 VT - 0829156



Marker for terminal blocks, Sheet, violet, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

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