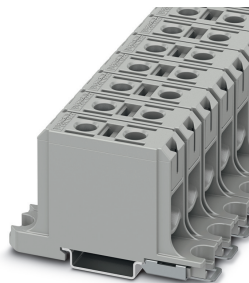


High-current terminal block - UBAL 50 - 1086465

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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 mm² - 50 mm², AWG: 6 - 1/0, width: 19.2 mm, height: 51 mm, color: gray, mounting type: NS 35/15, NS 35/7,5

Your advantages

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



Key Commercial Data

Packing unit	20 pc
GTIN	 4 0 5 5 6 2 6 8 7 9 2 0 8
GTIN	4055626879208

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 ²
Color	gray
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

High-current terminal block - UBAL 50 - 1086465

Technical data

General

Note	The following values apply to aluminum conductors
Maximum load current	145 A (with 50 mm ² conductor cross section – test current in accordance with IEC 61238-1)
Nominal current I _N	145 A
Nominal voltage U _N	1000 V
Note	The following values apply to copper wires
Maximum load current	150 A (with 50 mm ² conductor cross section)
Nominal current I _N	150 A
Nominal voltage U _N	1000 V
Open side panel	No
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	9.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2.2 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of flexion and pull-out test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	2.5 mm ² / 0.7 kg
	50 mm ² / 9.5 kg
Tensile test result	Test passed
Conductor cross section tensile test	2.5 mm ²
Tractive force setpoint	50 N
Conductor cross section tensile test	50 mm ²
Tractive force setpoint	236 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	10 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	$U_1 \leq 3.2 \text{ mV}; U_2 \leq 1.5 \times U_1$
Result of temperature-rise test	Test passed
Requirement temperature-rise test	Increase in temperature $\leq 45 \text{ K}$
Short circuit stability result	Test passed
Conductor cross section short circuit testing	50 mm ²
Short-time current	6 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	10 s

High-current terminal block - UBAL 50 - 1086465

Technical data

General

Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Shock form	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	400 °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
	The following values apply to aluminum conductors
Connection method	Screw connection
Screw thread	M10
Stripping length	23 mm
Tightening torque max	12 Nm
Connection in acc. with standard	IEC 61238-1
Conductor cross section solid min.	6 mm ²
Conductor cross section solid max.	50 mm ²
Conductor cross section AWG min.	6
Conductor cross section AWG max.	1/0
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
Stripping length	23 mm
Tightening torque, min	4 Nm
Tightening torque max	12 Nm

High-current terminal block - UBAL 50 - 1086465

Technical data

Connection data

Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	4 mm ²
Conductor cross section solid max.	50 mm ²
Conductor cross section AWG min.	6
Conductor cross section AWG max.	1/0
Conductor cross section flexible min.	6 mm ²
Conductor cross section flexible max.	50 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve min.	2.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	16 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	16 mm ²
2 conductors with same cross section, stranded min.	1.5 mm ²
2 conductors with same cross section, stranded max.	16 mm ²

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 11.0	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 9.0	27141120

High-current terminal block - UBAL 50 - 1086465

Classifications

ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	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

Approvals

UL Recognized / EAC

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
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EAC		RU C- DE.BL08.B.00534
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Accessories

Accessories

End cover

High-current terminal block - UBAL 50 - 1086465

Accessories

Cover plate - CEC UBAL 50 - 1086473



Cover plate, color: yellow

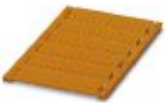
Terminal marking

Marker for terminal blocks - UCT-TM 5 - 0828734



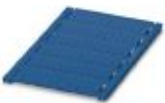
Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: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

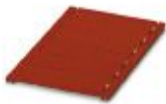


Marker for terminal blocks, Sheet, yellow, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field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

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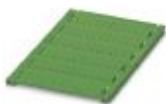
Accessories

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

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

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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