

Feed-through terminal block - BTO 2,0 - 3281107

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Feed-through terminal block, with an open screw shaft, nom. voltage: 690 V, nominal current: 24 A, connection method: Ring cable lug, number of connections: 2, cross section: 0.5 mm² - 2.5 mm², width: 8 mm, color: black, mounting type: NS 35/7,5, NS 35/15

Your advantages

- ✓ Convenient ring cable lug connection thanks to the screw connection principle with spring-guided screw; maintenance-free with integrated screw locking
- ✓ Easy potential distribution with time-saving jumper system
- ✓ Safety for users thanks to integrated shock protection
- ✓ Maximum overview thanks to extensive marking and labeling of every terminal point
- ✓ Reduction in logistics costs with the uniform CLIPLINE complete system accessories

RoHS

Key Commercial Data

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	 4 055626 118079
GTIN	4055626118079

Technical data

General

Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	2.5 mm ²
Color	black
Insulating material	PC
Flammability rating according to UL 94	V0
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III

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Technical data

General

Insulating material group	IIIa
Maximum power dissipation for nominal condition	0.77 W
Ambient temperature (operation)	-40 °C ... 110 °C
Maximum load current	24 A
Nominal current I_N	24 A
Nominal voltage U_N	690 V
Open side panel	Yes
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Note regarding shock protection	Finger safety is only guaranteed with cover profile.
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	1.89 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending 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
Tensile test result	Test passed
Conductor cross section tensile test	2.5 mm ²
Tractive force setpoint	50 N
Conductor cross section tensile test	2 mm ²
Tractive force setpoint	50 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	1 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	2.5 mm ²
Short-time current	0.3 kA
Conductor cross section short circuit testing	2 mm ²
Short-time current	0.24 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 2, bogie-mounted

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General

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
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
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)	130 °C

Dimensions

Width	8 mm
Length	42 mm
Height NS 35/7,5	33.5 mm
Height NS 35/15	41 mm

Connection data

Connection method	Ring cable lug
Screw thread	M3,5
Tightening torque, min	1 Nm
Tightening torque max	1.3 Nm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	2.5 mm ²
Min. AWG conductor cross section, flexible	26
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.2 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm ²
Cable lug connection according to standard	DIN 46234:1980-03
Min. cross section for cable lug connection	0.14 mm ²
Max. cross section for cable lug connection	2.5 mm ²
AWG min	26
AWG max	16
Hole diameter, min.	3.7 mm
Cable lug width, max.	6.8 mm

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Technical data

Connection data

Bolt diameter	3.5 mm
Screw thread	M3,5
Tightening torque, min	1 Nm
Tightening torque max	1.3 Nm

Connection data (JIS standard)

Connection method	Ring cable lug
Connection in acc. with standard	JIS 8207-7-1
Single-wire/terminal point, solid diameter min.	0.5 mm
Single-wire/terminal point, solid diameter max.	1.6 mm
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	2 mm ²
Cable lug connection according to standard	JIS 8207-7-1
Min. cross section for cable lug connection	0.5 mm ²
Max. cross section for cable lug connection	2 mm ²
Hole diameter, min.	3.7 mm
Cable lug width, max.	6.8 mm
Bolt diameter	3.5 mm
Screw thread	M3,5
Tightening torque, min	1 Nm
Tightening torque max	1.3 Nm
Nominal current I _N	21 A
Maximum load current	21 A
Nominal voltage U _N	600 V

Standards and Regulations

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

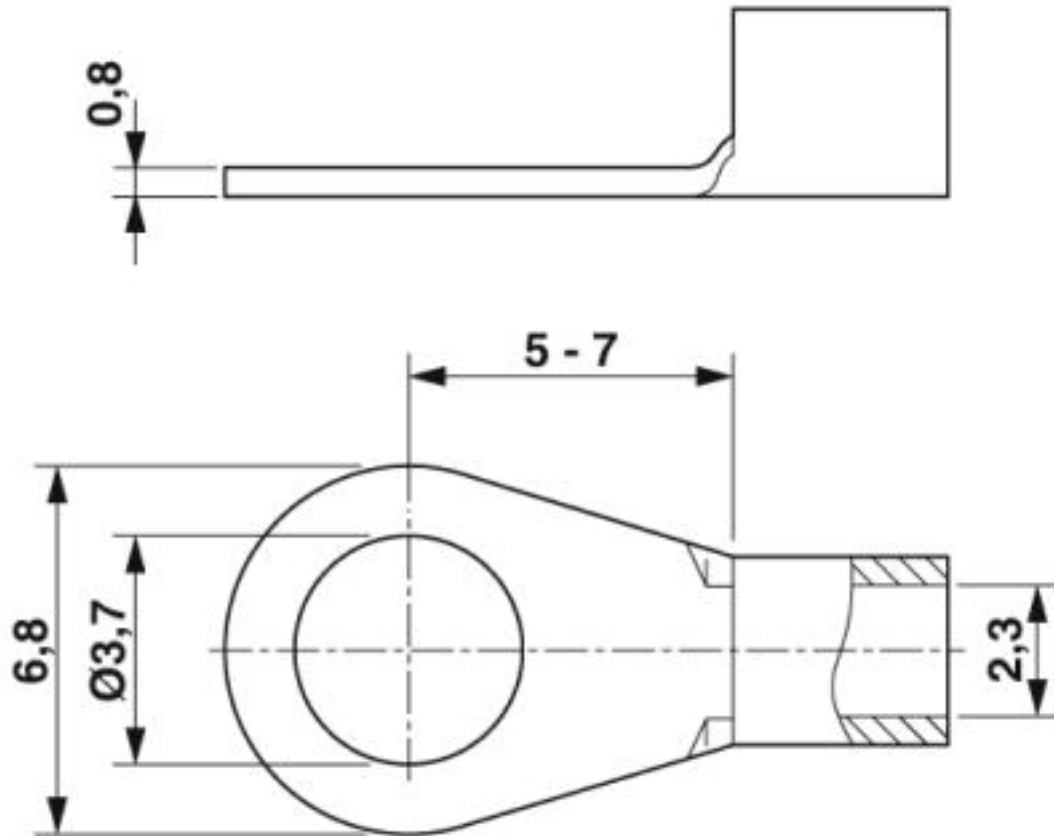
Environmental Product Compliance

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

Drawings

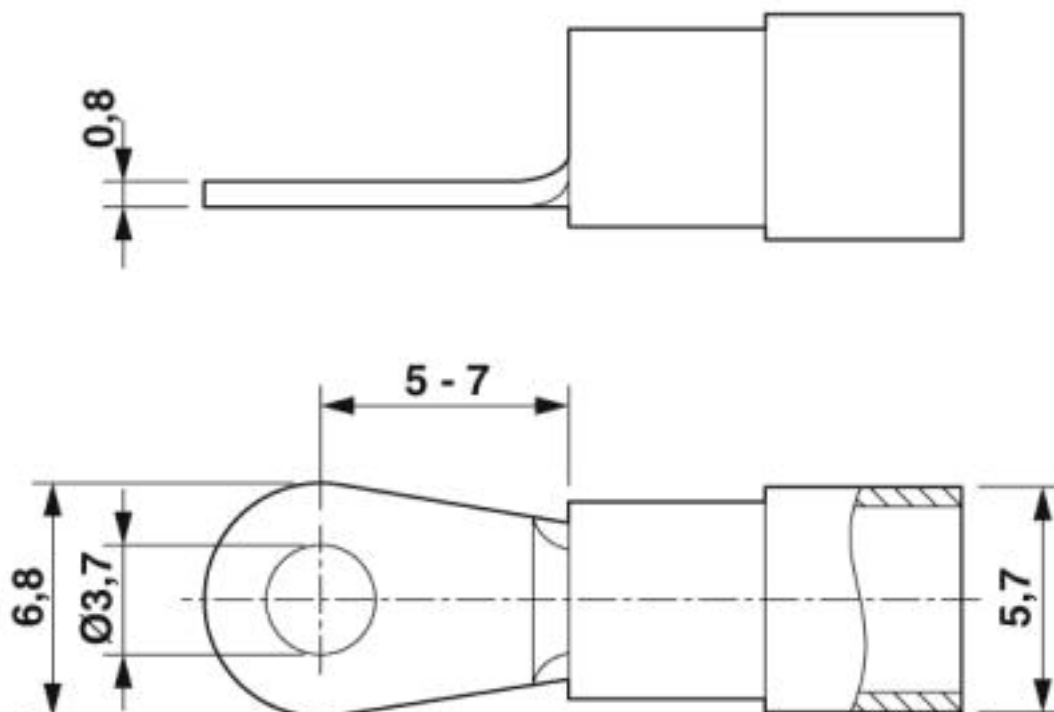
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Dimensional drawing



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Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

DNV GL / CSA / UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approval details

DNV GL



<https://approvalfinder.dnvgl.com/>

TAE00001S2

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Approvals

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	15 A	15 A	
mm²/AWG/kcmil	26-14	26-14	

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	15 A	15 A	
mm²/AWG/kcmil	26-14	26-14	

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	15 A	15 A	
mm²/AWG/kcmil	26-14	26-14	

EAC		RU C- DE.BL08.B.00541
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cULus Recognized	
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