

TB 50 I - Feed-through terminal block



3247180

<https://www.phoenixcontact.com/gb/products/3247180>

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 150 A, number of connections: 2, number of positions: 1, connection method: Screw connection, Rated cross section: 50 mm², cross section: 16 mm² - 70 mm², mounting type: NS 35/7,5, NS 35/15, color: dark gray

Commercial data

Item number	3247180
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BEK311
Product key	BEK311
GTIN	4046356723558
Weight per piece (including packing)	121.85 g
Weight per piece (excluding packing)	121.07 g
Customs tariff number	85369010
Country of origin	IN

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Technical data

Product properties

Product type	Feed-through terminal block
Product family	TB
Number of positions	1
Number of connections	2
Number of rows	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Maximum power dissipation for nominal condition	4.73 W
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Connection data

Number of connections per level	2
Nominal cross section	50 mm ²
Rated cross section AWG	1/0
Connection method	Screw connection
Screw thread	M6
Tightening torque	6 ... 8 Nm
Stripping length	24 mm
Internal cylindrical gage	A10 B10
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	16 mm ² ... 70 mm ²
Cross section AWG	4 ... 2/0 (converted acc. to IEC)
Conductor cross-section flexible	25 mm ² ... 70 mm ²
Conductor cross-section, flexible [AWG]	2 ... 2/0 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	25 mm ² ... 50 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	25 mm ² ... 50 mm ²
2 conductors with same cross section, solid	10 mm ² ... 16 mm ²
2 conductors with the same cross-section AWG rigid	6 ... 4 (converted acc. to IEC)
2 conductors with same cross section, flexible	10 mm ² ... 16 mm ²
2 conductors with the same cross-section AWG flexible	6 ... 4 (converted acc. to IEC)
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	10 mm ² ... 16 mm ²
Nominal current	150 A
Maximum load current	150 A
Nominal voltage	1000 V
Nominal cross section	50 mm ²

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Dimensions

Width	20 mm
Height	70.5 mm
Depth on NS 32	81.5 mm
Depth on NS 35/15	83.5 mm

Material specifications

Color	traffic grey B (RAL 7043)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °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
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	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 50 mm ²	6 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	No
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	10 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross-section/weight	16 mm ² / 2.9 kg
	50 mm ² / 9.5 kg
	70 mm ² /10.4 kg
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):2022-06
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 ²) ² /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

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

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 %

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Standards and regulations

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

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

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/3247180>



EAC

Approval ID: KZ7500651131219505



cULus Recognized

Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	150 A	6 - 1/0	-
C				
	600 V	150 A	6 - 1/0	-

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Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

ETIM

ETIM 9.0	EC000897
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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%

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Accessories

i Note: Applying some accessories below might limit this product.

FBI 2-20 - Fixed bridge

0201346

<https://www.phoenixcontact.com/gb/products/0201346>



Fixed bridge, pitch: 20 mm, number of positions: 2, color: silver-colored

i Max. current carrying capacity: 150 A

FBI 3-20 - Fixed bridge

0201317

<https://www.phoenixcontact.com/gb/products/0201317>



Fixed bridge, pitch: 20 mm, number of positions: 3, color: silver-colored

i Max. current carrying capacity: 150 A

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NS 35/ 7,5 PERF 2000MM - DIN rail perforated

0801733

<https://www.phoenixcontact.com/gb/products/0801733>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

NS 35/ 7,5 UNPERF 2000MM - DIN rail, unperforated

0801681

<https://www.phoenixcontact.com/gb/products/0801681>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver-colored

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NS 35/ 7,5 WH PERF 2000MM - DIN rail perforated

1204119

<https://www.phoenixcontact.com/gb/products/1204119>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: silver-colored

NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

<https://www.phoenixcontact.com/gb/products/1204122>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: silver-colored

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NS 35/ 7,5 AL UNPERF 2000MM - DIN rail, unperforated

0801704

<https://www.phoenixcontact.com/gb/products/0801704>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver-colored

NS 35/ 7,5 ZN PERF 2000MM - DIN rail perforated

1206421

<https://www.phoenixcontact.com/gb/products/1206421>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, zinc plating, Standard profile, color: silver-colored

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NS 35/ 7,5 ZN UNPERF 2000MM - DIN rail, unperforated

1206434

<https://www.phoenixcontact.com/gb/products/1206434>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, zinc plating, Standard profile, color: silver-colored

NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

<https://www.phoenixcontact.com/gb/products/0801762>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

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NS 35/ 7,5 CAP - End cap

1206560

<https://www.phoenixcontact.com/gb/products/1206560>

DIN rail end piece, for DIN rail NS 35/7.5



E/AL-NS 35 - End bracket

1201662

<https://www.phoenixcontact.com/gb/products/1201662>

End clamp, for end support of UKH 50 to UKH 240, is pushed onto DIN rail NS 35 and fixed with 2 screws, width: 10 mm, color: aluminum



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E/AL-NS 32 - End bracket

1201659

<https://www.phoenixcontact.com/gb/products/1201659>



End clamp, for end support of UKH 50 - UKH 240, is pushed onto DIN rail NS 32 and fixed with 2 screws, width: 10 mm, color: Aluminum

SZS 1,2X8,0 VDE - Screwdriver

1205082

<https://www.phoenixcontact.com/gb/products/1205082>



Screwdriver, slot-headed, VDE insulated, size: 1.2 x 8.0 x 175 mm, 2-component grip, with non-slip grip

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