

# TB 6 RTK RD - Test disconnect terminal block



3000949

<https://www.phoenixcontact.com/sg/products/3000949>

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Test disconnect terminal block, with two test sockets for 4 mm test plugs, or for receiving bridge bars or screw bridges, nom. voltage: 400 V, nominal current: 41 A, connection method: Screw connection, Rated cross section: 6 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 10 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, NS 32, color: red

## Commercial data

Item number	3000949
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	*****
Product key	BEK233
GTIN	4046356763240
Weight per piece (including packing)	34 g
Weight per piece (excluding packing)	34 g
Customs tariff number	85369010
Country of origin	CN

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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
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### Connection data

Number of connections per level	2
Nominal cross section	6 mm <sup>2</sup>
Screw thread	M4
Tightening torque	1.2 ... 1.5 Nm
Stripping length	13 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> ... 4 mm <sup>2</sup>
2 conductors with same cross section, solid	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Nominal current	41 A
Maximum load current	55 A (with 10 mm <sup>2</sup> conductor cross section)
Nominal voltage	400 V
Nominal cross section	6 mm <sup>2</sup>

### Dimensions

Width	8.2 mm
End cover width	2.2 mm
Height	72 mm
Depth on NS 32	56.5 mm

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Depth on NS 35/7,5	51.5 mm
Depth on NS 35/15	59 mm

## Material specifications

Color	red
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-40 °C
Relative insulation material temperature index (Elec., UL 746 B)	125 °C

## 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 6 mm <sup>2</sup>	0.72 kA
Short-time withstand current 10 mm <sup>2</sup>	1.2 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	Yes
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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	5 N
Result	Test passed

### Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross section/weight	0.5 mm <sup>2</sup> / 0.3 kg
	6 mm <sup>2</sup> / 1.4 kg

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	10 mm <sup>2</sup> / 2 kg
Result	Test passed

## Environmental and real-life conditions

### Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Spectrum	Service 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

### Shocks

Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)

### 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
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## Mounting

Mounting type	NS 35/7,5
	NS 35/15
	NS 32
Screw thread	M3

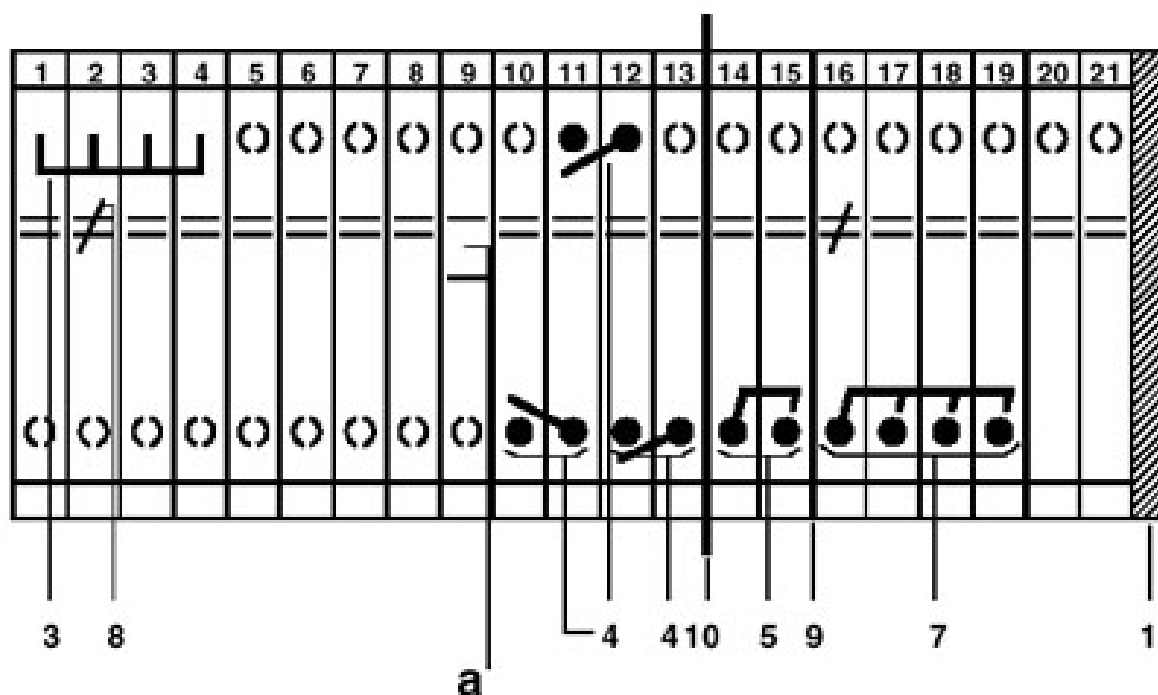
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## Drawings

Circuit diagram



a = open

1 = cover

3 = fixed bridge

4 = switch bar, for 2 terminal blocks, useable on both sides of the disconnect point, inward switching motion

5 = switch bar, for 2 terminal blocks, useable on both sides of the disconnect point, outward switching motion

7 = switch bar, for 3-phase short-circuiting of linked current transformer sets, only on the right

8 = switching lock, prevents disconnect slide from being actuated

9 = separating plate, for electrical separation of neighboring bridges in terminal center

10 = partition plate

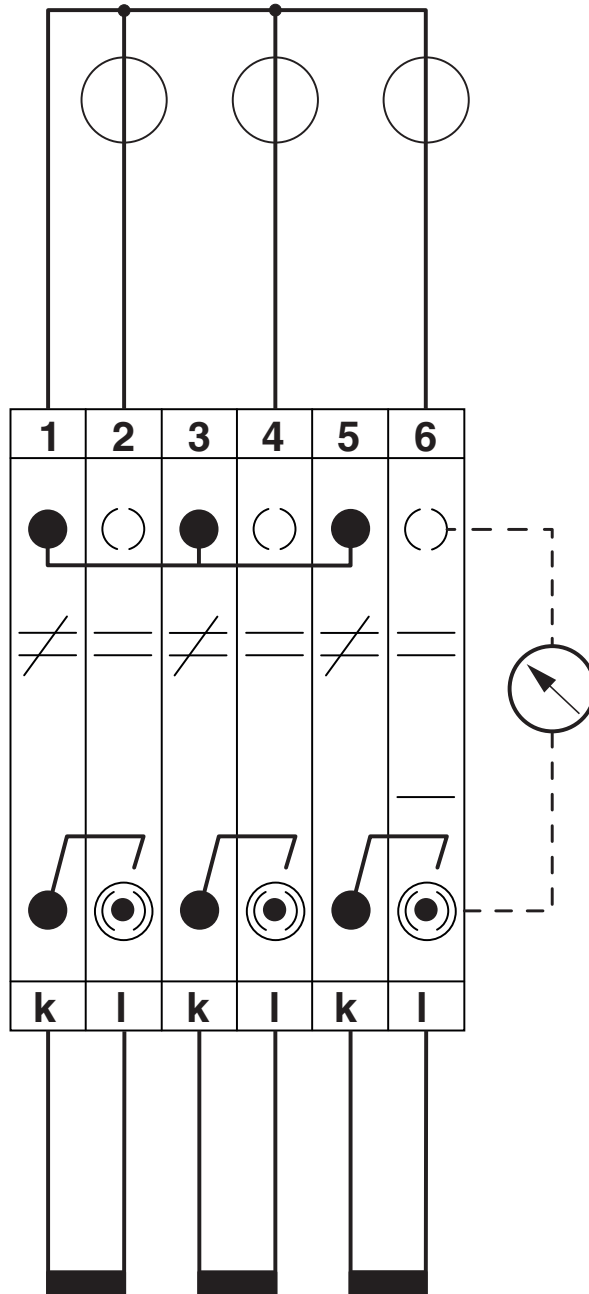
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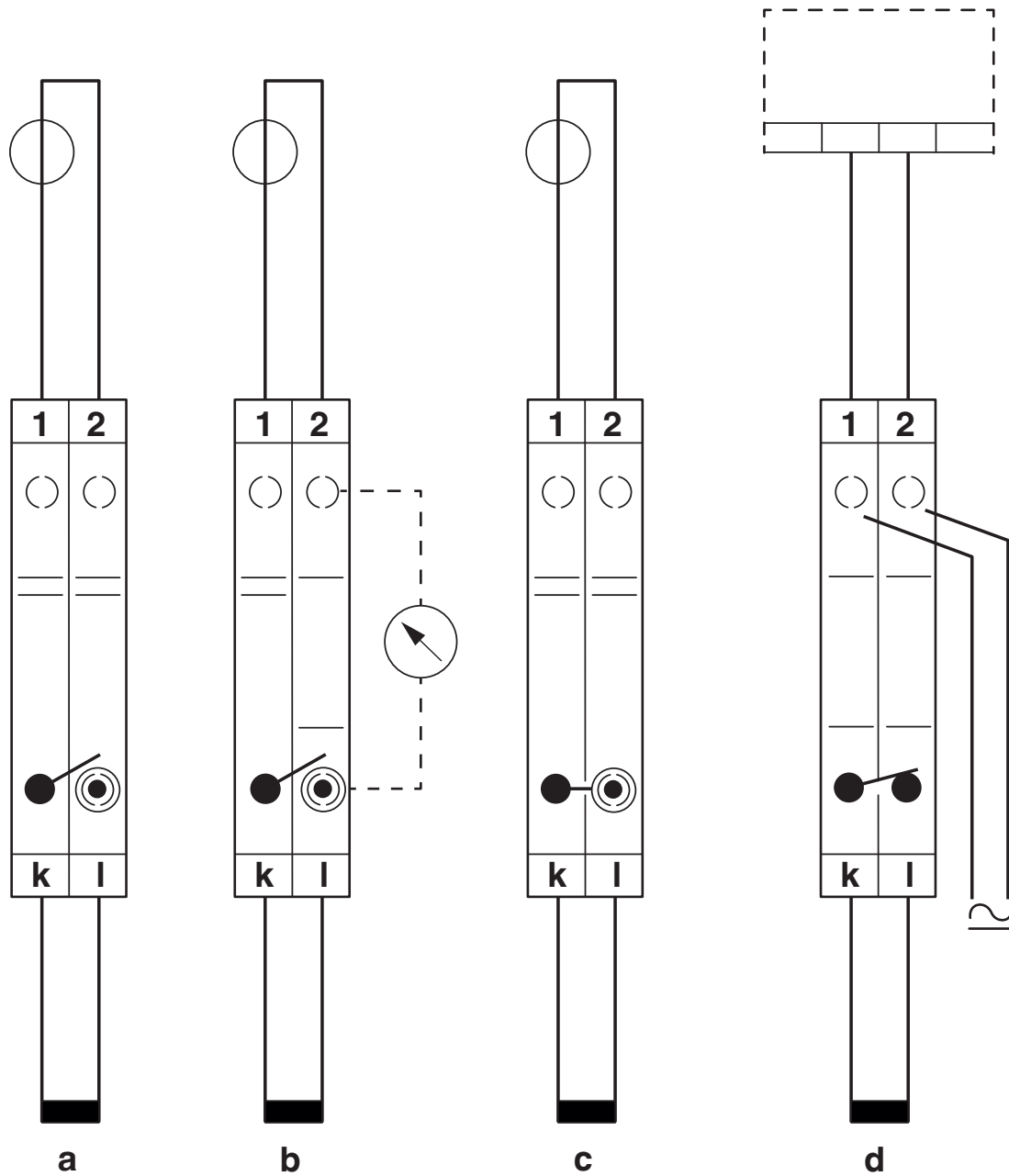


### Schematic diagram



### Three-phase transducer test set

Schematic diagram



Simple current transformer test circuit

a = normal operation

b = measured value testing

c = transformer short-circuit

d = relay testing

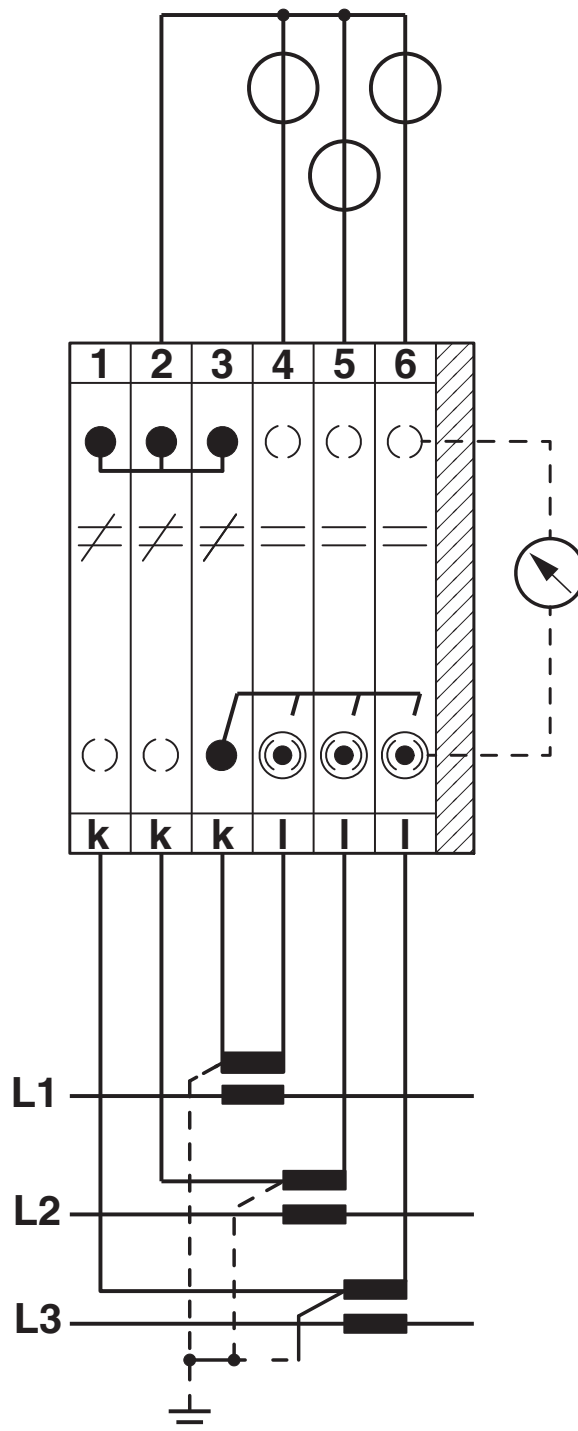
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Schematic diagram



Three-phase linked transducer test set



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Circuit diagram



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## Approvals

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**EAC**

Approval ID: RU C-DE.A\*30.B.01742



**cULus Recognized**

Approval ID: E60425

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
	300 V	50 A	16 - 8	-
Use group C				
	300 V	50 A	16 - 8	-

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## Classifications

### ECLASS

ECLASS-11.0	27141126
ECLASS-12.0	27141126
ECLASS-13.0	27250108

### ETIM

ETIM 9.0	EC000902
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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
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### 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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