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## Feed-through terminal block - QTCU 2,5 BU - 3206542

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Feed-through terminal block, connection method: Quick connection, Screw connection, cross section: 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, AWG: 20 - 14, width: 6.2 mm, color: blue, mounting: NS 35/7,5, NS 35/15

### Why buy this product

- The hybrid versions combine the advantages of the different connection technologies
- The time-saving QUICKON fast connection is used on the control cabinet side
- The screw connection is used on the connection side



### Key Commercial Data

Packing unit	50 STK
GTIN	 4 046356 057721
GTIN	4046356057721

### Technical data

#### General

Number of levels	1
Number of connections	2
Nominal cross section	2.5 mm <sup>2</sup>
Color	blue
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	I
Maximum power dissipation for nominal condition	0.77 W
Ambient temperature (actuation)	-10 °C ... 90 °C
Connection method	Quick connection

# Feed-through terminal block - QTCU 2,5 BU - 3206542

## Technical data

### General

Connection in acc. with standard	IEC 60947-7-1
Maximum load current	24 A (with a 2.5 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	800 V
Connection method	Screw connection
Connection in acc. with standard	IEC 60947-7-1
Maximum load current	24 A (with 2.5 mm <sup>2</sup> conductor connection cross section)
Nominal current I <sub>N</sub>	24 A
Nominal voltage U <sub>N</sub>	800 V
Open side panel	Yes
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 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	0.5 mm <sup>2</sup> / 0.3 kg
	2.5 mm <sup>2</sup> / 0.7 kg
	0.14 mm <sup>2</sup> / 0.2 kg
	4 mm <sup>2</sup> / 0.9 kg
	6 mm <sup>2</sup> / 1.4 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.5 mm <sup>2</sup>
Tractive force setpoint	20 N
Conductor cross section tensile test	2.5 mm <sup>2</sup>
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm <sup>2</sup>
Tractive force setpoint	60 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



# Feed-through terminal block - QTCU 2,5 BU - 3206542

## Technical data

### General

Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Result of aging test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Static insulating material application in cold	-60 °C
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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

### Dimensions

Width	6.2 mm
Length	62.6 mm
Height NS 35/7,5	42.8 mm
Height NS 35/15	50.3 mm
End cover width	2.2 mm

### Connection data

Connection method	Quick connection
Connection in acc. with standard	IEC 60947-7-1
Max. wire diameter incl. insulation	3.8 mm
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	20

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## Technical data

### Connection data

Max. AWG conductor cross section, flexible	14
Connection in acc. with standard	IEC/EN 60079-7
Test certificate name	KEMA 05ATEX2148 U
Material wire insulation	PVC / PE
Connection method	Screw connection
Connection in acc. with standard	IEC 60947-7-1
Screw thread	M3
Tightening torque, min	0.6 Nm
Tightening torque max	0.8 Nm
Stripping length	9 mm
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	10
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	4 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	4 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	4 mm <sup>2</sup>
2 conductors with same cross section, solid min.	0.14 mm <sup>2</sup>
2 conductors with same cross section, solid max.	1.5 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	0.14 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	1.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	0.14 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	1.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	2.5 mm <sup>2</sup>

### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
	IEC 60947-7-1
Flammability rating according to UL 94	V0
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3

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## Technical data

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

### Circuit diagram



## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

IECEX / ATEX / EAC Ex

### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	15 A	15 A	
mm <sup>2</sup> /AWG/kcmil	20-14	20-14	

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
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	15 A	15 A	
mm <sup>2</sup> /AWG/kcmil	20-14	20-14	

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## Approvals

cUL 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
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	15 A	15 A	
mm <sup>2</sup> /AWG/kcmil	20-14	20-14	

LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	15/20023
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DNV GL	<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAE000014H
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cULus 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>
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