

Potential collective terminal - UKH 70/4X10 - 3213142

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Potential collective terminal, nom. voltage: 1500 V, nominal current: 192 A, connection method: Screw connection, Screw connection, number of connections: 5, number of positions: 1, cross section: 16 mm² - 95 mm², AWG: 4 - 3/0, width: 20.3 mm, height: 79.4 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 35/15-2,3, NS 32

Why buy this product

- Reliable cable connection is ensured by three-point centering of the conductor in the prismatic sleeve base
- Low contact resistance of the contact surface due to ribbing
- Screw locking by means of spring-loaded elements in the clamping part

RoHS

Key Commercial Data

Packing unit	10 STK
GTIN	
GTIN	4046356813334

Technical data

General

Number of positions	1
Number of levels	1
Number of connections	5
Potentials	1
Nominal cross section	70 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	I
Maximum power dissipation for nominal condition	6.27 W

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Technical data

General

Ambient temperature (operation)	-40 °C ... 120 °C
Maximum load current	192 A (in case of a 70 mm ² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal current I _N	192 A
Nominal voltage U _N	1500 V DC
	1000 V AC
Nominal current I _N	57 A
Nominal voltage U _N	1500 V DC
	1000 V AC
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 AC
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	25 mm ² / 4.5 kg
	70 mm ² /10.4 kg
	95 mm ² /14 kg
Tensile test result	Test passed
Conductor cross section tensile test	25 mm ²
Tractive force setpoint	135 N
Conductor cross section tensile test	70 mm ²
Tractive force setpoint	285 N
Conductor cross section tensile test	95 mm ²
Tractive force setpoint	351 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35/NS 32
Setpoint	10 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 1.6 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	70 mm ²

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General

Short-time current	1.2 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
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
Test directions	X-, Y- and Z-axis (pos. and neg.)
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	20.3 mm
Length	88.5 mm
Height	79.4 mm
Height NS 35/7,5	80 mm
Height NS 35/15	87.5 mm

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Technical data

Dimensions

Height NS 32	85 mm
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Connection data

Connection method	Screw connection
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	16 mm ²
Conductor cross section solid max.	95 mm ²
Conductor cross section AWG min.	4
Conductor cross section AWG max.	3/0
Conductor cross section flexible min.	25 mm ²
Conductor cross section flexible max.	70 mm ²
Min. AWG conductor cross section, flexible	3
Max. AWG conductor cross section, flexible	2/0
Conductor cross section flexible, with ferrule without plastic sleeve min.	16 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	70 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	16 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	70 mm ²
2 conductors with same cross section, solid min.	16 mm ²
2 conductors with same cross section, solid max.	25 mm ²
2 conductors with same cross section, stranded min.	16 mm ²
2 conductors with same cross section, stranded max.	25 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	16 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	25 mm ²
Stripping length	24 mm
Internal cylindrical gage	A11
Screw thread	M8
Tightening torque, min	8 Nm
Tightening torque max	10 Nm
Connection method	Screw connection
Conductor cross section solid min.	1.5 mm ²
Conductor cross section solid max.	16 mm ²
Conductor cross section AWG min.	16
Conductor cross section AWG max.	6
Conductor cross section flexible min.	1.5 mm ²
Conductor cross section flexible max.	10 mm ²
Min. AWG conductor cross section, flexible	16
Max. AWG conductor cross section, flexible	6
Conductor cross section flexible, with ferrule without plastic sleeve min.	1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	10 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	1.5 mm ²

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Technical data

Connection data

Conductor cross section flexible, with ferrule with plastic sleeve max.	6 mm ²
2 conductors with same cross section, solid min.	1.5 mm ²
2 conductors with same cross section, solid max.	2.5 mm ²
2 conductors with same cross section, stranded min.	1.5 mm ²
2 conductors with same cross section, stranded max.	2.5 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	1.5 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	2.5 mm ²
Stripping length	10 mm
Internal cylindrical gage	A5
Screw thread	M4
Tightening torque, min	1.4 Nm
Tightening torque max	1.5 Nm

Standards and Regulations

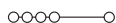
Connection in acc. with standard	IEC 60947-7-1
Flammability rating according to UL 94	V0
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection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

Environmental Product Compliance

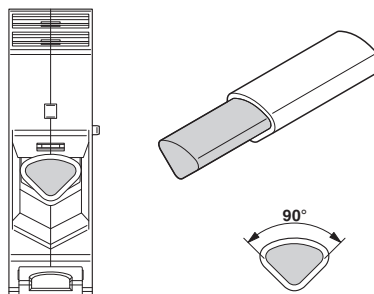
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Circuit diagram



Schematic diagram



Connecting aluminum cables. Further notes can be found in the download area

Approvals

Approvals

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Approvals

Approvals

UL Recognized / cUL Recognized / CSA / cULus Recognized

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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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
		C	
Nominal voltage UN			1000 V
Nominal current IN			176 A
mm ² /AWG/kcmil			4-3/0

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
		C	
Nominal voltage UN			1000 V
Nominal current IN			176 A
mm ² /AWG/kcmil			4-3/0

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm
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