Potential collective terminal - UKH 70/4X10 - 3213142

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Potential collective terminal, nom. voltage: 1500 V DC / 1000 V AC, 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

Your advantages

- 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

Key Commercial Data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	4 046356 813334
GTIN	4046356813334
Weight per Piece (excluding packing)	125.200 g
Custom tariff number	85369010
Country of origin	China

Technical data

General

Number of positions	1
Number of levels	1
Number of connections	5
Potentials	1
Nominal cross section	70 mm²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV

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Technical data

General

Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	6.27 W
Ambient temperature (operation)	-40 °C ... 120 °C
Maximum load current	192 A (in case of a 70 mm² 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 mm² / 4.5 kg
	70 mm²/10.4 kg
	95 mm²/14 kg
Tensile test result	Test passed
Conductor cross section tensile test	25 mm²
Tractive force setpoint	135 N
Conductor cross section tensile test	70 mm²
Tractive force setpoint	285 N
Conductor cross section tensile test	95 mm²
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

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General

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 mm²
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 Hz to f_2 = 250 Hz
ASD level	6.12 $(m/s^2)^2$/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

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Technical data

Dimensions

Length	88.5 mm
Height	79.4 mm
Height NS 35/7,5	80 mm
Height NS 35/15	87.5 mm
Height NS 32	85 mm

Connection data

Connection method	Screw connection
Screw thread	M8
Stripping length	24 mm
Tightening torque, min	8 Nm
Tightening torque max	10 Nm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	16 mm²
Conductor cross section solid max.	95 mm²
Conductor cross section AWG min.	4
Conductor cross section AWG max.	3/0
Conductor cross section flexible min.	25 mm²
Conductor cross section flexible max.	70 mm²
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 mm²
Conductor cross section flexible, with ferrule without plastic sleeve max.	70 mm²
Conductor cross section flexible, with ferrule with plastic sleeve min.	16 mm²
Conductor cross section flexible, with ferrule with plastic sleeve max.	70 mm²
2 conductors with same cross section, solid min.	16 mm²
2 conductors with same cross section, solid max.	25 mm²
2 conductors with same cross section, stranded min.	16 mm²
2 conductors with same cross section, stranded max.	25 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	16 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	25 mm²
Internal cylindrical gage	A11
Connection method	Screw connection
Screw thread	M4
Stripping length	10 mm
Tightening torque, min	1.4 Nm
Tightening torque max	1.5 Nm
Conductor cross section solid min.	1.5 mm²
Conductor cross section solid max.	16 mm²
Conductor cross section AWG min.	16

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Technical data

Connection data

Conductor cross section AWG max.	6
Conductor cross section flexible min.	1.5 mm²
Conductor cross section flexible max.	10 mm²
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 mm²
Conductor cross section flexible, with ferrule without plastic sleeve max.	10 mm²
Conductor cross section flexible, with ferrule with plastic sleeve min.	1.5 mm²
Conductor cross section flexible, with ferrule with plastic sleeve max.	6 mm²
2 conductors with same cross section, solid min.	1.5 mm²
2 conductors with same cross section, solid max.	2.5 mm²
2 conductors with same cross section, stranded min.	1.5 mm²
2 conductors with same cross section, stranded max.	2.5 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	1.5 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	2.5 mm²
Internal cylindrical gage	A5

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
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

Environmental Product Compliance

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

Drawings

Circuit diagram

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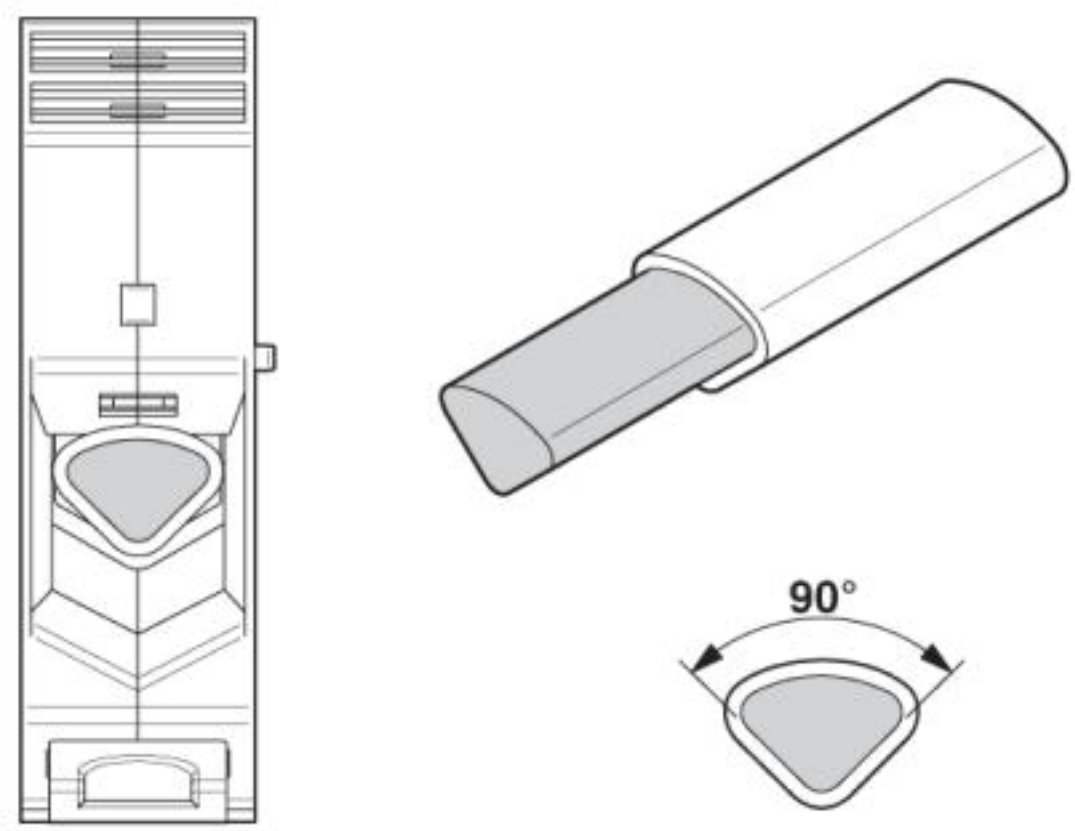
Schematic diagram



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

Classifications

eCl@ss

eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

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Classifications

UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

Approvals

Approvals

Approvals

CSA / UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631

	C
Nominal voltage UN	1000 V
Nominal current IN	176 A
mm²/AWG/kcmil	4

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425

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
mm²/AWG/kcmil	4

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Approvals

EAC		RU C-DE.AI30.B.01102

cULus Recognized	

Accessories

Accessories

DIN rail

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733

DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119

DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM - 1204122

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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Accessories

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421

DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

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End cap - NS 35/ 7,5 CAP - 1206560

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

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Accessories

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730

DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602

DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM - 1204135

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

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Accessories

DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599

DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

End cap - NS 35/15 CAP - 1206573

DIN rail end piece, for DIN rail NS 35/15

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798

DIN rail, unperforated, Standard profile 2.3 mm, width: 35 mm, height: 15 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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Accessories

DIN rail perforated - NS 32 PERF 2000MM - 1201002

DIN rail perforated, G profile, width: 32 mm, height: 15 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 32 UNPERF 2000MM - 1201015

DIN rail, unperforated, G profile, width: 32 mm, height: 15 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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End block

End clamp - E/AL-NS 32 - 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

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End clamp - E/AL-NS 35 - 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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Mounting material

Insertion profile - UKH 50 EP - 3009228

Insertion profile, color: silver

Pick-off terminal block

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Accessories

Pick-off terminal block - AGK 10-UKH 50 - 3001763

Pick-off terminal block, nom. voltage: 1000 V, nominal current: 57 A, connection method: Screw connection, number of connections: 1, cross section: 0.5 mm² - 10 mm², AWG: 20 - 8, width: 10.2 mm, height: 34.7 mm, color: gray

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Screw bridge

Fixed bridge - FBI 2-20 N - 3213195

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

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Fixed bridge - FBI 3-20 N - 3213205

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

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Fixed bridge - FBI 2-20 N EX - 3213210

Fixed bridge, number of positions: 2, color: silver

Fixed bridge - FBI 3-20 N EX - 3213211

Fixed bridge, number of positions: 3, color: silver

Socket spanner

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Accessories

Screwdriver - SF-THEX 6-200 - 1212642

T-handle screwdriver, for Allen screws, hexagonal (with chamfer), size: hex 6 x 200 mm, ergonomically shaped handle, matt chrome-plated

Terminal marking

Zack marker strip - ZB 18:UNBEDRUCKT - 0811833

Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 10.5 x 17.4 mm, Number of individual labels: 5