

HDC insert HDC HA 3 FS

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The small and slim HA series can be used wherever space is limited.

The wire connection level is designed for screw connections.

Pole count: 3 - 4

Rated current: 16 A

Rated voltage: 400 V

Rated voltage acc. to UL/CSA: 600 V AC/DC

TOP screw connection

General ordering data

Type	HDC HA 3 FS
Order No.	1498200000
Version	HDC insert, Female, 400 V, 16 A, No. of poles: 3, Screw connection, Size: 1
GTIN (EAN)	4008190176556
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Length	21 mm	Length (inches)	0.827 inch
Width	21 mm	Width (inches)	0.827 inch
Height	36.5 mm	Height (inches)	1.437 inch
Net weight	21 g		

Temperatures

Limit temperature	-40 °C ... 125 °C
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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General data

Conductor cross-section	2.5 mm ²	Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)
Insulating material group	IIIa	Insulation strength	10 ¹⁰ Ω
Material	Copper alloy	Max. torque for main contact	0.5 Nm
No. of poles	3	Plugging cycles, silver	≥ 500
Pollution severity	3	Rated current (DIN EN 61984)	16 A
Rated impulse voltage (DIN EN 61984)	4 kV	Rated voltage (DIN EN 61984)	400 V
Rated voltage according to UL/CSA	600 V AC/DC	Series	HA
Size	1	Surface finish	Silver passivated
Type	Female	UL 94 flammability rating	V-0
Volume resistance	≤ 2mΩ		

Connection data PE

Blade size, slotted (PE connection)	SD 0.6 x 3.5	Connection type PE	Screw connection
Fixing screw	M 3	Rated cross-section	2.5 mm ²
Stripping length PE connection	15 mm	Tightening torque, max. PE connection	0.5 Nm
Wire connection cross section, finely stranded, max.	2.5 mm ²	Wire connection cross-section, finely stranded, min.	0.5 mm ²
Wire cross section, AWG (PE), max.	AWG 14	Wire cross section, AWG (PE), min.	AWG 20
Wire cross-section, solid, max.	2.5 mm ²	Wire cross-section, solid, min.	0.5 mm ²

Version

Blade size, slotted (screw connection)	SD 0.6 x 3.5	Clamping screw	M 3
Conductor cross-section, max.	2.5 mm ²	Conductor cross-section, min.	0.5 mm ²
Material	Copper alloy	Max. torque for main contact	0.5 Nm
Size	1	Stripping length, rated connection	15 mm
Surface finish	Silver passivated	Type of connection	Screw connection
Volume resistance	≤ 2mΩ	Wire connection cross section AWG, max.	AWG 14
Wire connection cross section AWG, min.	AWG 20	Wire connection cross section, finely stranded, max.	2.5 mm ²
Wire connection cross-section, finely stranded, min.	0.5 mm ²	Wire cross-section, solid, max.	2.5 mm ²
Wire cross-section, solid, min.	0.5 mm ²		

Data sheet

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Technical data

Classifications

ETIM 3.0	EC001121	ETIM 4.0	EC000438
ETIM 5.0	EC000438	ETIM 6.0	EC000438
UNSPSC	30-21-18-01	eClass 5.1	27-14-34-19
eClass 6.2	27-26-12-04	eClass 7.1	27-44-02-05
eClass 8.1	27-44-02-05	eClass 9.0	27-44-02-05
eClass 9.1	27-44-02-05		

Product information

Descriptive text technical data	Rated voltage line-to-earth: 230 V Rated voltage from conductor to conductor: 400 V. Only wire-end ferrules without a plastic clamp may be used.
Instructions for accessories	Accessories, see chapter J - Tools, see chapter K

Approvals

Approvals



ROHS	Conform
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Downloads

Brochure/Catalogue	CAT 3 HDC 17/18 EN FL FIELDWIRING EN
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Engineering Data	STEP

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Accessories

Slotted screwdriver

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip



General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
SDS 0.8X4.0X100	9008340000	Screwdriver, Blade width (B): 4 mm, Blade length: 100 mm, Blade thickness (A): 0.8 mm	4032248056293	1 pc(s).

Combined screwing and cutting tool "Swifty®"

Combined cutting/screwing tool: Swifty® and Swifty® set for clean cutting of copper cables up to 1.5 mm² (solid) and 2.5 mm² (flexible)



General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
SWIFTY SET	9006060000	Cutting and screwing-tool, Cutting tool for one-hand operation	4032248257638	1 pc(s).

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Accessories

Tools



Tools for removing the sheathing of uncut power cables and outgoing feeders, plus screwdrivers for installing FieldPower components.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
SDS 0.5X3.0X80	9008320000	Screwdriver, Blade width (B): 3 mm, Blade length: 80 mm, Blade thickness (A): 0.5 mm	4032248056262	1 pc(s).
SDS 0.6X3.5X100	9008330000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm	4032248056286	1 pc(s).

Slotted screwdriver

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip



General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.
SDIS 0.5X3.0X100	9008380000	Screwdriver, Blade width (B): 3 mm, Blade length: 100 mm, Blade thickness (A): 0.5 mm	4032248056347	1 pc(s).
SDIS 0.8X4.0X100	9008400000	Screwdriver, Blade width (B): 4 mm, Blade length: 100 mm, Blade thickness (A): 0.8 mm	4032248056361	1 pc(s).
SDIS 0.6X3.5X100	9008390000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm	4032248056354	1 pc(s).

Tightening torques and screwing tools

Screw size	Connector type	Dia. tightening torque in Nm	Recommended blade inserts and AF size for hexagon socket	
M 2.5	Signal contacts			
	S 6/6	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	S 6/12	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
M 2.9 x 0.5	Fastening screws			
	HQ 4/2	0.8 (plastic) / 1.1 (metal)	SD 0.6 x 3.5 mm or PH0	
	HQ 8	0.8 (plastic) / 1.1 (metal)	SD 0.6 x 3.5 mm or PH0	
	HQ 17	0.8 (plastic) / 1.1 (metal)	SD 0.6 x 3.5 mm or PH0	
M 3	Contact screws			
	HA 3	0.5 - 0.55	SD 0.5 x 3.0 mm	
	HA 4	0.5 - 0.55	SD 0.5 x 3.0 mm	
	HA 10 bis HA 48	0.5 - 0.55	SD 0.6 x 3.5 mm or PH0	
	HE	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	HVE	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	Signal contacts:			
	S 4/2	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	S 4/8	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	PE connection via female contact			
	S 4	0.5 - 0.8	SD 0.6 x 3.5 mm	
	ConCept modular frame, metal	0.5 - 0.55	SD 0.6 x 3.5 mm	
	PE terminal			
	HQ 5	0.5 - 0.55	SD 0.6 x 3.5 or 0.8 x 4 mm	
	HQ 7	0.5 - 0.55	SD 0.6 x 3.5 or 0.8 x 4 mm	
	Fastening screws	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	Guide pin	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	Guide bush	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	Coding pins	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0	
	M 4	Contact screws		
		HSB	1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1
PE connection via male contact				
S 4		0.5 - 0.8	SD 0.6 x 3.5 mm	
ConCept modular frame, metal		1.2 - 1.5	SD 0.6 x 3.5 mm	
PE terminal				
HA		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1	
HE		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1	
HEE		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1	
HVE		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PH1	
HD		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1	
HDD		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1	
S 6/6 (for signal contacts)		1.2 - 1.5	0.8 x 4 mm or PZ1	
ConCept modular frame, plastic		1.2 - 1.5	0.8 x 4 mm or PZ1	
M 5		PE terminal		
		HSB	2 - 2.5	SD 1 x 5.5 mm or PZ2
		S 4/0 (Screw connection)	2 - 2.5	SD 1.2 x 6.5 mm or PH2
	S 4/0 (Axial screw connection)	2 - 2.5	SD 0.8 x 4 mm or PZ 2	
	S 4/2	2 - 2.5	SD 1.2 x 6.5 mm or PH2	
	S 4/8	2 - 2.5	SD 1.2 x 6.5 mm or PH2	
	S 6/12	2 - 2.5	SD 0.8 x 4 mm or PZ 2	
	S 6/36	2 - 2.5	SD 1.2 x 6.5 mm or PH2	
	S 8/24	2 - 2.5	SD 1.2 x 6.5 mm or PH2	
	S 12/2	2 - 2.5	SD 1.2 x 6.5 mm or PH2	
	M 6	Power contacts		
S 4/0 (Screw connection)		1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²)	SD 0.8 x 4 mm	
S 4/2		1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²)	SD 0.8 x 4 mm	
S 4/8		1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²)	SD 0.8 x 4 mm	
M 7 x 0.75	Power contacts			
	S 4	1.1 - 1.7	SW 2	
	S 6/6 (+ PE)	6 - 8	SW 4	
M 8 x 0.75	Power contacts			
	S 6/12	1.1 - 1.7	SW 2	
	S 8/0 (+ PE)	6 (10-16 mm ²) - 7 (25 mm ²)	SW 4	
M10 x 1	Power contacts			
	S 4/0 (Axial connection)	2 - 3	SW 3	

Increasing the tightening torque does not improve the contact resistance. The stated torque settings offer optimal mechanical, thermal and electrical conditions. Exceeding the recommended values may even damage the conductor and terminal.