

## HDC insert HDC HQ 4/2 FC

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The HQ series - big features in a compact design. The electrical characteristics speak for themselves. You can also use the proven HD and HX crimp contacts here. The wire connection level is designed for crimp contacts. The proven crimp connection has been in standard use for decades.

Crimp contacts are not included in the scope of delivery of inserts.

Pole count: **4/2 (+PE)**

Rated current: **40/10 A**

Rated voltage: **690 / 250 V**

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

Crimp connection

### General ordering data

Type	HDC HQ 4/2 FC
Order No.	<a href="#">1003160000</a>
Version	HDC insert, Female, 690 V, 40 A, No. of poles: 6, Crimp connection, Size: HQ
GTIN (EAN)	4032248698158
Qty.	1 pc(s).

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**Technical data****Dimensions and weights**

Length	41.6 mm	Length (inches)	1.638 inch
Width	22.4 mm	Width (inches)	0.882 inch
Height	39.8 mm	Height (inches)	1.567 inch
Net weight	15 g		

**Temperatures**

Limit temperature	-40 °C ... 125 °C
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**Dimensions**

Height of socket	39.8 mm	Total length base	41.6 mm
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**General data**

Insulating material	PC glass-fibre reinforced (UL-listed and railway-certified)	Insulating material group	IIIa
Insulation resistance	$10^{10} \Omega$	Material	Copper alloy
No. of poles	6	No. of power contacts	4
No. of signal contacts	2	Plugging cycles, gold	$\geq 500$
Plugging cycles, silver	$\geq 500$	Pollution severity	3
Power contact, type	HX	Rated current (DIN EN 61984)	40 A
Rated impulse voltage (DIN EN 61984)	6 kV	Rated voltage (DIN EN 61984)	690 V
Rated voltage according to UL/CSA	600 V AC/DC	Series	HQ
Signal contact, type	HD	Size	HQ
Surface finish	Silver passivated, gold	Type	Female
UL 94 flammability rating	V-0	Volume resistance	$\leq 1 \text{ m}\Omega, \leq 4 \text{ m}\Omega$

**Connection data PE**

Connection type PE	Crimp connection	Rated cross-section	6 mm <sup>2</sup>
Stripping length PE connection	9 mm	Wire connection cross section, finely stranded, max.	6 mm <sup>2</sup>
Wire connection cross-section, finely stranded, min.	1.5 mm <sup>2</sup>	Wire cross section, AWG (PE), max.	AWG 10
Wire cross section, AWG (PE), min.	AWG 16		

**Power contact**

Clamping range, power contact, max.	6 mm <sup>2</sup>	Clamping range, power contact, min.	1.5 mm <sup>2</sup>
No. of poles, performance contact	4	Rated current (DIN EN 61984), power contact	40 A
Rated impulse voltage (DIN EN 61984), power contact	6 kV	Rated voltage (DIN EN 61984), power contact	690 V
Stripping length, performance contact	9 mm	Type of connection, power contact	Crimp connection

**Signal contact**

Clamping range, signal contact, max.	2.5 mm <sup>2</sup>	Clamping range, signal contact, min.	0.14 mm <sup>2</sup>
No. of poles, signal	2	Rated current (DIN EN 61984), signal	10 A
Rated impulse voltage (DIN EN 61984), signal	4 kV	Rated voltage (DIN EN 61984), signal contact	250 V
Stripping length, signal	8 mm	Type of connection, signal	Crimp connection

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**Technical data****Version**

Conductor cross-section, max.	6 mm <sup>2</sup>	Conductor cross-section, min.	1.5 mm <sup>2</sup>
Material	Copper alloy	Size	HQ
Stripping length, rated connection	9 mm	Surface finish	Silver passivated, gold
Type of connection	Crimp connection	Volume resistance	≤ 1 mΩ, ≤ 4mΩ
Wire connection cross section AWG, max.	AWG 10	Wire connection cross section AWG, min.	AWG 16
Wire connection cross section, finely stranded, max.	6 mm <sup>2</sup>	Wire connection cross-section, finely stranded, min.	1.5 mm <sup>2</sup>

**Classifications**

ETIM 3.0	EC001121	ETIM 4.0	EC001121
ETIM 5.0	EC001121	ETIM 6.0	EC000438
UNSPSC	30-21-18-01	eClass 5.1	27-14-34-19
eClass 6.2	27-14-34-19	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 ordering data	For complete assembly you need four HX contacts and two HD contacts
Descriptive text technical data	Rated voltage 1000 V/8 kV (power contacts) and 400 V/6 kV (signal contacts) according to pollution severity level 2. Rated voltage via Pol/PE 250 V. Earthing via an additional HX crimp contact.
Descriptive text accessories	Accessories, see chapter J - Tools, see chapter K

**Approvals**

Approvals



ROHS Conform

**Downloads**

Brochure/Catalogue	<a href="#">CAT 3 HDC 17/18 EN</a> <a href="#">FL FIELDWIRING EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>

# Tightening torques and screwing tools

Screw size	Connector type	Dia. tightening torque in Nm	Recommended blade inserts and AF size for hexagon socket
<b>M 2.5</b>	<b>Signal contacts</b>		
	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
<b>M 2.9 x 0.5</b>	<b>Fastening screws</b>		
	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
<b>M 3</b>	<b>Contact screws</b>		
	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
	<b>Signal contacts:</b>		
	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
	<b>PE connection via female contact</b>		
	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
	<b>PE terminal</b>		
	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
	<b>Fastening screws</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	<b>Guide pin</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	<b>Guide bush</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	<b>Coding pins</b>	0.5 - 0.55	SD 0.6 x 3.5 mm or PZ0
	<b>M 4</b>	<b>Contact screws</b>	
HSB		1.2 - 1.5	SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1
<b>PE connection via male contact</b>			
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
<b>PE terminal</b>			
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
<b>M 5</b>		<b>PE terminal</b>	
	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
	<b>M 6</b>	<b>Power contacts</b>	
S 4/0 (Screw connection)		1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
S 4/2		1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
S 4/8		1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> )	SD 0.8 x 4 mm
<b>M 7 x 0.75</b>	<b>Power contacts</b>		
	S 4	1.1 - 1.7	SW 2
	S 6/6 (+ PE)	6 - 8	SW 4
<b>M 8 x 0.75</b>	<b>Power contacts</b>		
	S 6/12	1.1 - 1.7	SW 2
	S 8/0 (+ PE)	6 (10-16 mm <sup>2</sup> ) - 7 (25 mm <sup>2</sup> )	SW 4
<b>M10 x 1</b>	<b>Power contacts</b>		
	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.