HC-M-06-CT-M - Contact insert module

1414366

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Contact insert module, number of positions: 6, power contacts: 6, control contacts: 0, Pin, Crimp connection, 500 V, 16 A, 0.14 mm^2 ... 4 mm^2, application: Power

Commercial data

Item number	1414366
Packing unit	5 pc
Minimum order quantity	1 pc
Sales key	BF62
Product key	AF7ACE
GTIN	4055626025094
Weight per piece (including packing)	9.2 g
Weight per piece (excluding packing)	9.196 g
Customs tariff number	85389099
Country of origin	PL

Technical data

Notes

General	For HEAVYCON housing type B6 to B48, HC-M-B...MF-... hinged module carrier frame required, CK2,5-ED... imp contacts, crimp contacts not supplied as standard.
General	Connectors may be operated only when there is no load/voltage.

Mounting

Assembly note	To ensure correct use, installation in housing with IP54 protection or better is required

Product properties

Product type	Modular contact insert
Series	HC-M-06
Application	Power
Number of positions	6
Connection profile	6
Contact numbering	1 - 6
Number of module slots	1
No. of power contacts	6
No. of control contacts	0
Contact material type	turned

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Connection data

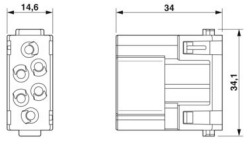
Connection technology

Connection technology	Crimp connection

Conductor connection

Conductor cross-section	0.14 mm² ... 4 mm²
Connection cross section AWG	26 ... 12
Stripping length of the individual wire	7.5 mm

Dimensions

Dimensional drawing	
Width	34.2 mm
Height	34 mm

Length	14.6 mm

Mechanical characteristics

Minimum housing height	52 mm
Contact diameter	2.5 mm

Electrical properties

Rated voltage (III/2) contacts	830 V
Rated voltage (III/3)	500 V
Rated surge voltage (III/2)	8 kV
Rated surge voltage (III/3)	6 kV
Rated surge voltage	6 kV
Rated current	16 A
SCCR	5 kA (UL 2237)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 500

Material specifications

Flammability rating according to UL 94	V0
Contact material	Copper alloy
Contact surface material	Ag (alternatively Au)
Contact carrier material	PC

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 125 °C

Service life test group

Specification	IEC 60512-1-1:2002-02
	IEC 60512-2-1:2002-02
	IEC 60512-2-2:2003-05
	IEC 60512-4-1:2003-05
	IEC 60512-9-1:2010-03
Requirements, dielectric strength	There must be no electrical flashovers or disruptive charges for the duration of the test. The maximum permissible leakage current must not be exceeded.
Requirements, visual check	No damage that can affect the intended use.
Rated surge voltage	6 kV
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV
No. of cycles	500

Temperature rise

Specification	IEC 60512-5-1:2002-02
Requirements	The specified upper limiting temperature must not be exceeded.
Upper limiting temperature	125 °C

Climatic test group

Specification	IEC 61984:2008-10
	IEC 60512-11-10:2002-02
	IEC 60512-11-9:2002-02
	IEC 60512-11-7:2003-05
	IEC 60512-4-1:2003-05
Requirements, dielectric strength	There must be no electrical flashovers or disruptive charges for the duration of the test. The maximum permissible leakage current must not be exceeded.
Requirements, visual check	No defects that impair normal functionality.
Rated surge voltage	6 kV
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV
Cold stress	-40 °C/2 h
Thermal stress	125 °C/168 h
Corrosive stress	0,2 dm^3 SO_2 / 40 °C ±□ °C / 24 h / 2 cycles

Shock

Specification	IEC 60068-2-27:2008-02
Contact disturbance requirement	Duration of the disturbance: max. 1 µs
Requirements, visual check	No defects that impair normal functionality.
Acceleration	30g
Test directions	X-, Y- and Z-axis (pos. and neg.)
Pulse shape	Half-sine
Number of shocks per direction	3
Shock duration	18 ms

Vibration, broadband noise

Specification	IEC 61373:2010-05
Contact disturbance requirement	Duration of the disturbance: max. 1 µs
Requirements, Contact resistance	The contact resistance must not increase by more than 50% of the reference value or ≤ 5 mΩ. The higher value applies.
Requirements, visual check	No damage that can affect the intended use.
Test duration	5 h per axis
Lowest frequency	5 Hz
Highest frequency	150 Hz
Test directions	X-, Y- and Z-axis
Category	1
Class	B

Standards and regulations

Standards/regulations	PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)

Mechanical tests

Specification	IEC 60512-1-1:2002-02
Requirements, visual check	No defects that impair normal functionality.
Additional text	The values specified apply to all repetitions of the same test within the normative test sequence.

Dimensional examination

Specification	IEC 60512-1-2:2002-02
Requirements	All individual parts have been approved for the current revision status.

Durability of marking

Specification	IEC 60068-2-70:1995-12
Requirements	Inscriptions must be legible after the test.

Polarization and coding

Specification	IEC 61984:2008-10
Requirements	No damage that can impair normal functionality. Connectors must only be able to be plugged in when they are in the correct position and combination. The design must prevent mismatching. Polarization prevents incorrect electrical contact.
Test force	140 N

Contact retention in insert

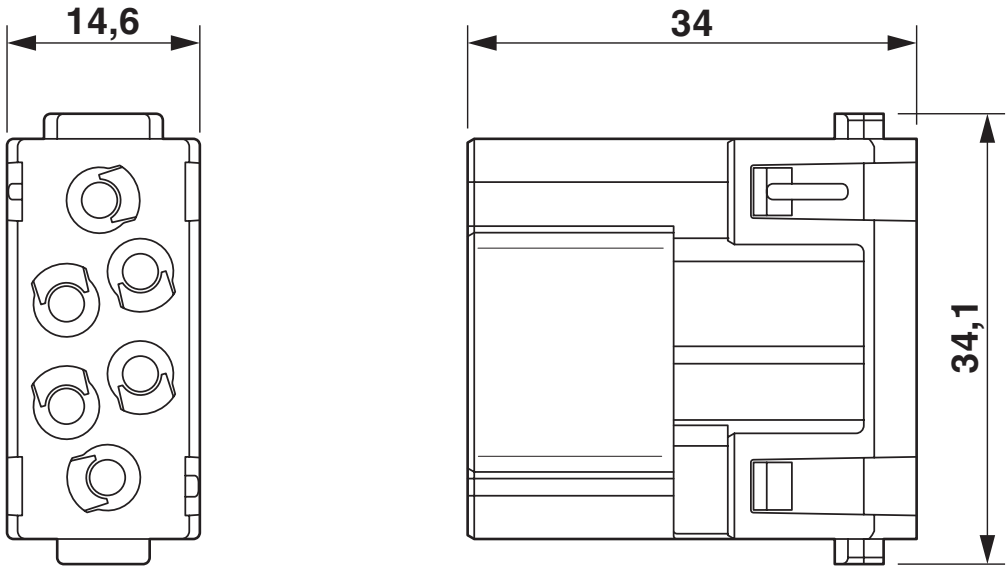
Specification	IEC 60512-15-1:2008-05
Requirements	No axial offset should occur that can affect functions.

Protection against electric shock

Specification	IEC 61984:2008-10
Requirements	Unencapsulated connectors: It must not be possible to touch live parts. Encapsulated connectors: The required air clearances and creepage distances must be maintained between the live parts and the test finger.
Test force	20 N

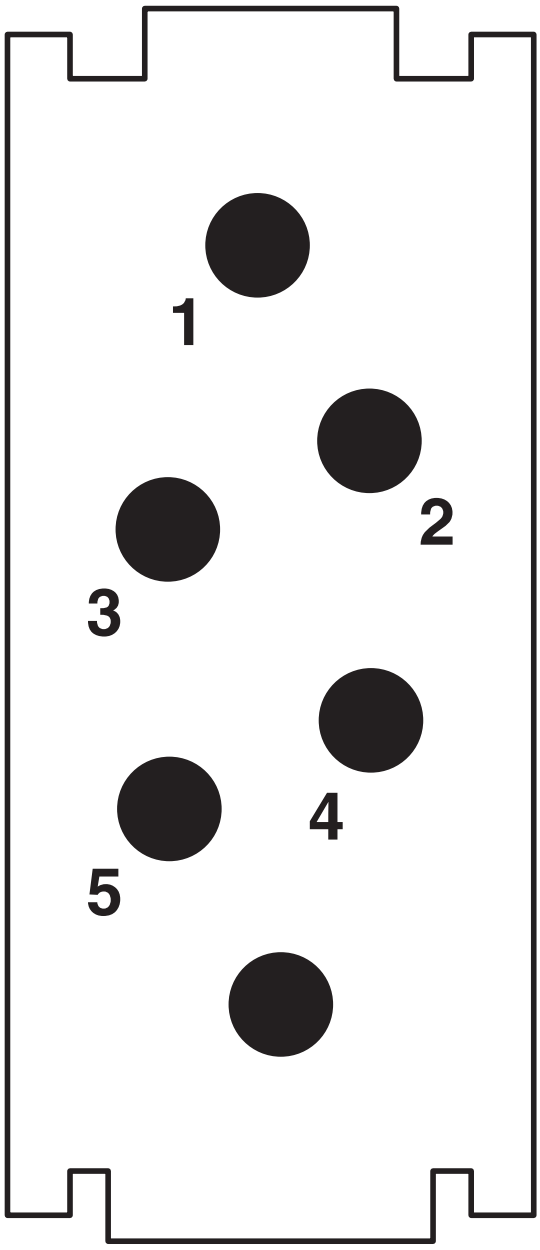
Drawings

Dimensional drawing



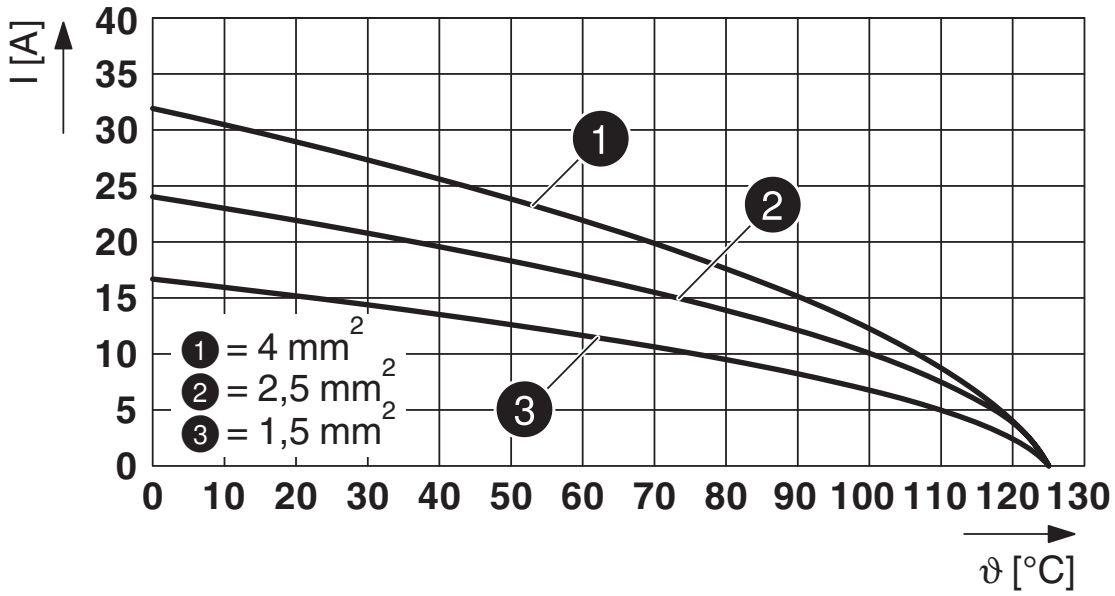
Dimensional drawing

Schematic diagram



Connector pin assignment, connection side

Diagram



Derating diagram

Approvals

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UL Recognized
Approval ID: E468743

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	600 V	24 A	-	-

CSA
Approval ID: 158887

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	600 V	18 A	- 12	-

UL Recognized
Approval ID: E118976

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	600 V	24 A	-	-

DNV
Approval ID: TAE000037S

Classifications

ECLASS

ECLASS-13.0	27440217
ECLASS-15.0	27440217

ETIM

ETIM 10.0	EC000438

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

EF3.1 Climate Change

CO2e kg	0.055 kg CO2e

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