Printed-circuit board connector - FMC 1,5/ 7-ST-3,5 BK - 1826745

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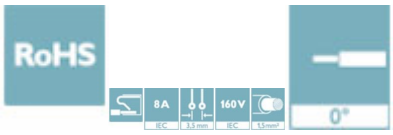
PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 7, pitch: 3.5 mm, connection method: Push-in spring connection, color: black, contact surface: Tin



The figure shows a 10-position version of the product

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive use through colour coded actuation lever
- Operation and conductor connection from one direction enable integration into front of device



Key Commercial Data

Packing unit	50 pc
GTIN	4 046356 862141
GTIN	4046356862141

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	MINI COMBICON
Type of contact	Female connector
Range of articles	FMC 1,5/..-ST
Pitch	3.5 mm
Number of positions	7
Connection method	Push-in spring connection
Locking	without
Number of levels	1
Number of connections	7
Number of potentials	7

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Electrical parameters

Nominal current	8 A
Nom. voltage	160 V
Rated voltage	160 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	320 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

Connection capacity

Connection method	Push-in spring connection
pluggable	Yes
Conductor cross section solid	0.2 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG / kcmil	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 0.75 mm²
Stripping length	10 mm

Specifications for ferrules

Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.25 mm²; Length: 7 mm
	Cross section: 0.34 mm²; Length: 7 mm
	Cross section: 0.5 mm²; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm²; Length: 8 mm ... 10 mm
	Cross section: 1 mm²; Length: 8 mm ... 10 mm
	Cross section: 1.5 mm²; Length: 10 mm
Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.14 mm²; Length: 8 mm
	Cross section: 0.25 mm²; Length: 8 mm ... 10 mm
	Cross section: 0.34 mm²; Length: 8 mm ... 10 mm
	Cross section: 0.5 mm²; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm²; Length: 10 mm

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

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Material data - housing

Housing color	black (9005)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

Material data – actuating element

Color of the actuating lever	orange (2003)
Insulating material	PBT
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Length [l]	22.9 mm
Width [w]	25.25 mm
Height [h]	7.75 mm
Pitch	3.5 mm
Height (without solder pin)	7.75 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

Termination and connection method

Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	1.5 mm² / solid / > 40 N

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Pull-out test

	1.5 mm² / flexible / > 40 N

Mechanical tests according to standard

Test specification	IEC 61984
Visual examination	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed
Specification	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02
Result	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	27 N

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2 mm
Minimum creepage distance value (III/2)	1.5 mm
Minimum creepage distance value (II/2)	1.6 mm

Current carrying capacity / derating curves

Specification	IEC 61984

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R_1	1.5 mΩ
Insertion/withdrawal cycles	25
Contact resistance R_2	1.6 mΩ
Impulse withstand voltage at sea level	2.95 kV

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Durability tests (B)

Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	> 0.2 TΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	20
Conductor cross section	1.5 mm²
Test current	8 A
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

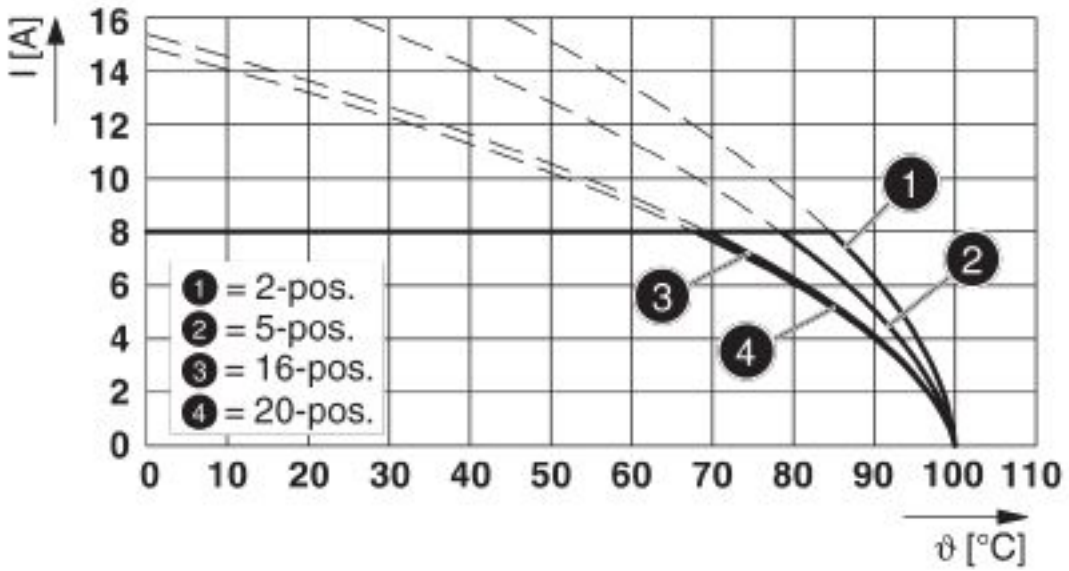
Environmental Product Compliance

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

Drawings

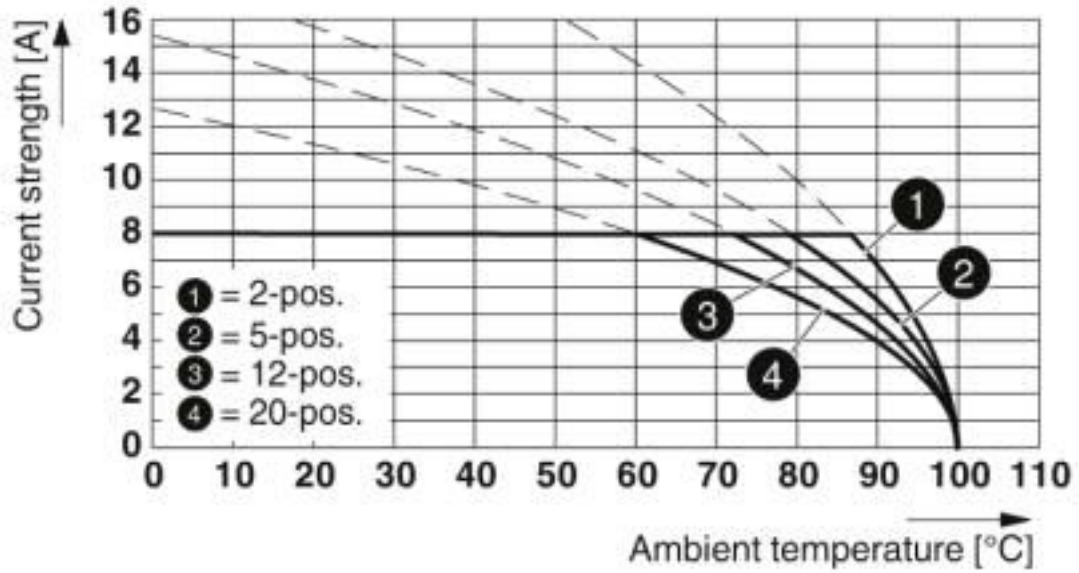
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Diagram



Type: FMC 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5

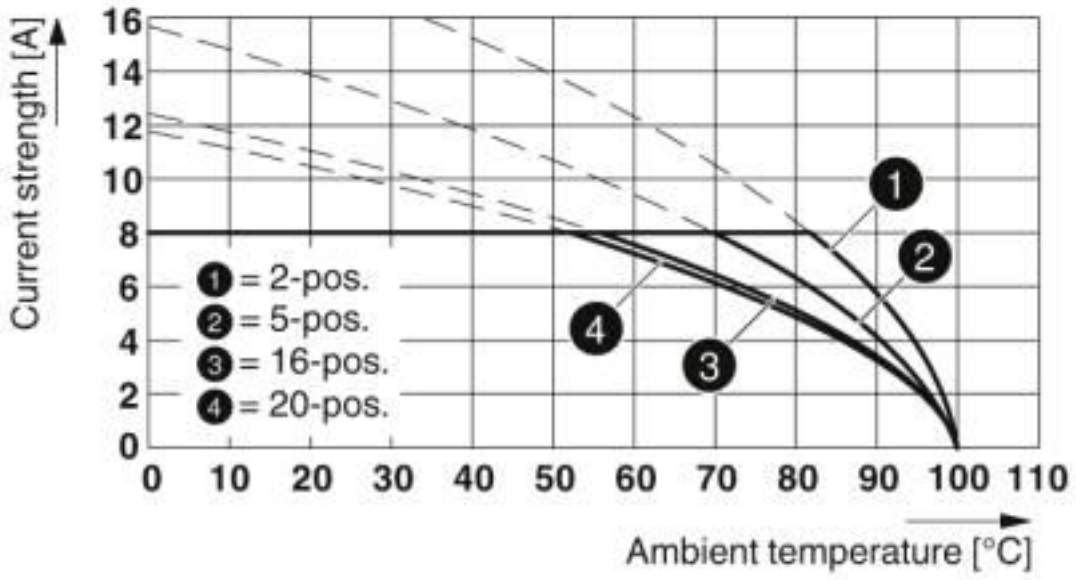
Diagram



Type: FMC 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5 P... THR

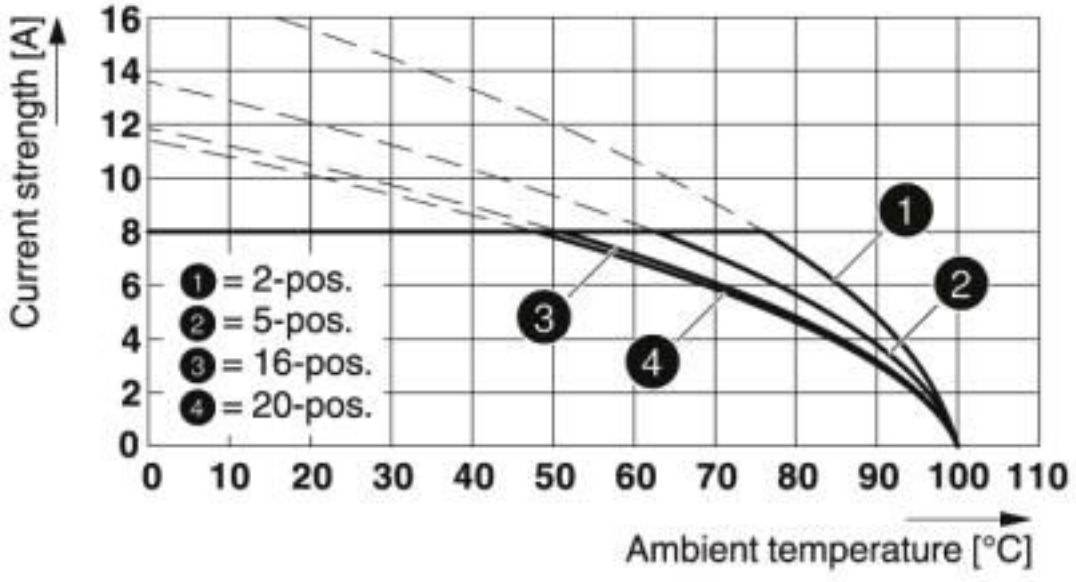
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Diagram



Typ: FMC 1,5/...-ST-3,5 with MCDNV 1,5/...-G1-3,5 P...THR

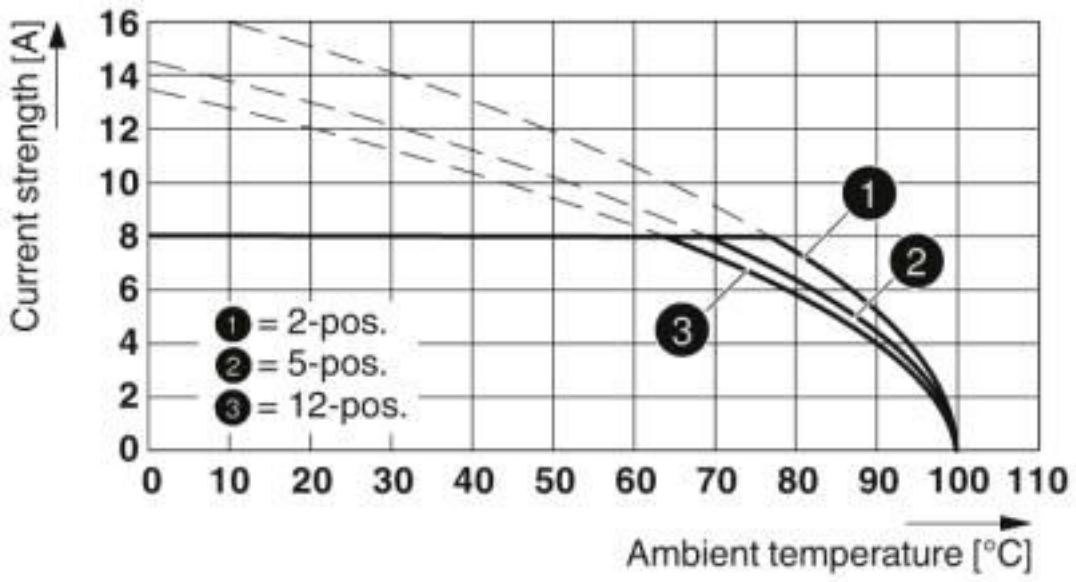
Diagram



Type: FMC 1,5/...-ST-3,5 with MCDN 1,5/...-G1-3,5 P26THR

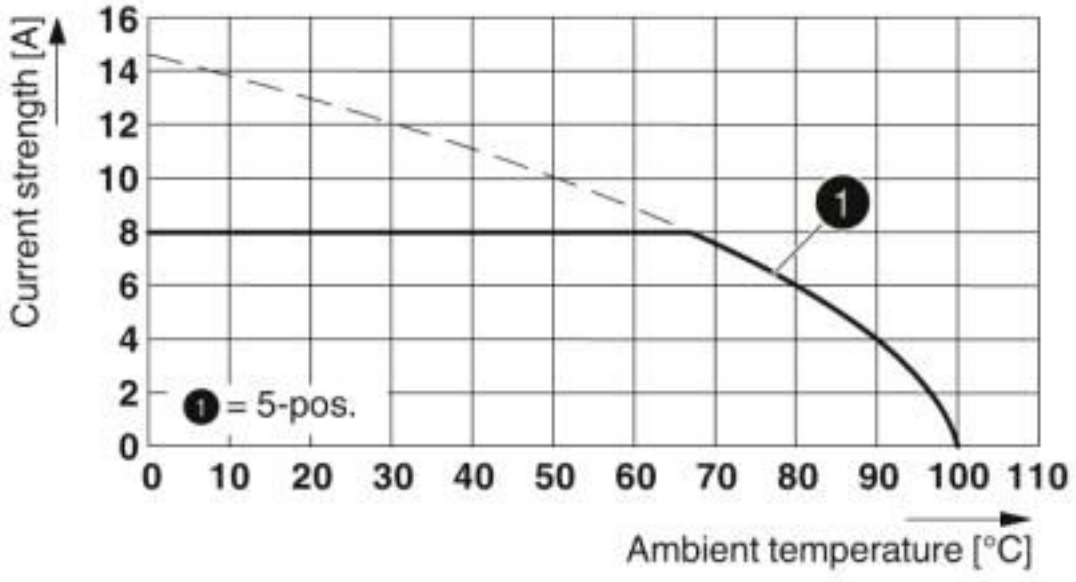
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Diagram



Type: FMC 1,5/...-ST-3,5 with IFMC 1,5/...-ST-3,5

Diagram



Type: FMC 1,5/...-ST-3,5 with MCD 1,5/...-G3-3,5 P26 THR MAG

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 4.0	27260700

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Classifications

eCl@ss

eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 4.0	EC002643
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	39121432
UNSPSC 12.01	39121432
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

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IECEE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

Printed-circuit board connector - FMC 1,5/ 7-ST-3,5 BK - 1826745

Approvals

IECEE CB Scheme	CB scheme	http://www.iecee.org/	DE1-60987-B1B2

Nominal voltage UN	160 V
Nominal current IN	8 A
mm²/AWG/kcmil	0.2-1.5

VDE Gutachten mit Fertigungsüberwachung	VDE	http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40011723

Nominal voltage UN	160 V
Nominal current IN	8 A
mm²/AWG/kcmil	0.2-1.5

EAC	EAC	B.01687

cULus Recognized	c UL us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19920306

	B	C
Nominal voltage UN	150 V	50 V
Nominal current IN	8 A	8 A
mm²/AWG/kcmil	24-16	24-16

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