

DFMC 1,5/ 6-ST-3,5-LR - PCB connector

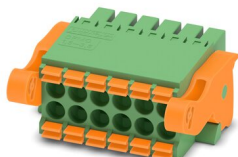


1790522

<https://www.phoenixcontact.com/us/products/1790522>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 6 with 12 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin



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
- Optimized for tight installation situations: operation and conductor connection from one direction
- Automatic locking and intuitive release through Lock and Release operating lever in contrasting color

Commercial data

Item number	1790522
Packing unit	1 pc
Minimum order quantity	50 pc
Sales key	AA02
Product key	AABFJC
Catalog page	Page 185 (C-1-2013)
GTIN	4046356594585
Weight per piece (including packing)	7.635 g
Weight per piece (excluding packing)	7.35 g
Customs tariff number	85366990
Country of origin	DE

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

Technical data

Product properties

Type	Plug component
Product line	COMBICON Connectors S
Product type	PCB connector
Product family	DFMC 1,5/...-ST-LR
Number of positions	6
Pitch	3.5 mm
Number of connections	12
Number of rows	2
Mounting flange	Lock & Release ejector lever
Number of potentials	12

Electrical properties

Nominal current I_N	8 A
Nominal voltage U_N	160 V
Degree of pollution	3
Contact resistance	2 mΩ
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Type	Plug component
Connector system	COMBICON DFMC 1,5
Nominal cross section	1.5 mm ²
Contact connection type	Socket

Interlock

Locking type	Snap-in locking
Mounting flange	Lock & Release ejector lever

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic	0.25 mm ² ... 1.5 mm ²

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

sleeve	
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.14 mm² ... 0.75 mm²
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / 1.6 mm
Stripping length	10 mm

Specifications for ferrules without insulating collar

recommended crimping tool	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

Specifications for ferrules with insulating collar

recommended crimping tool	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 specifications

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

Color (Housing)	green (6021)
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 (Actuating element)	orange (2003)
Insulating material	PBT

DFMC 1,5/ 6-ST-3,5-LR - PCB connector

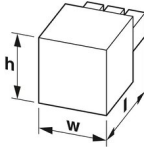


1790522

<https://www.phoenixcontact.com/us/products/1790522>

Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	27.9 mm
Height [h]	13.25 mm
Length [l]	27.79 mm

Mounting

Connection method	Push-in spring connection
-------------------	---------------------------

Mechanical tests

Conductor connection

Specification	IEC 60999-1:1999-11
Result	Test passed

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Repeated connection and disconnection

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	1.5 mm ² / solid / > 40 N
	1.5 mm ² / flexible / > 40 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	2 N

Resistance of inscriptions

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

Specification	IEC 60068-2-70:1995-12
Result	Test passed

Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Sweep speed	50 m/s ² (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R ₁	2 mΩ
Contact resistance R ₂	2.3 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	1.39 kV

Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Electrical tests

Thermal test | Test group C

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

Specification	IEC 60512-5-1:2002-02
Tested number of positions	20

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Temperature cycles

Specification	IEC 60999-1:1999-11
Result	Test passed

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.5 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	1.6 mm

Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

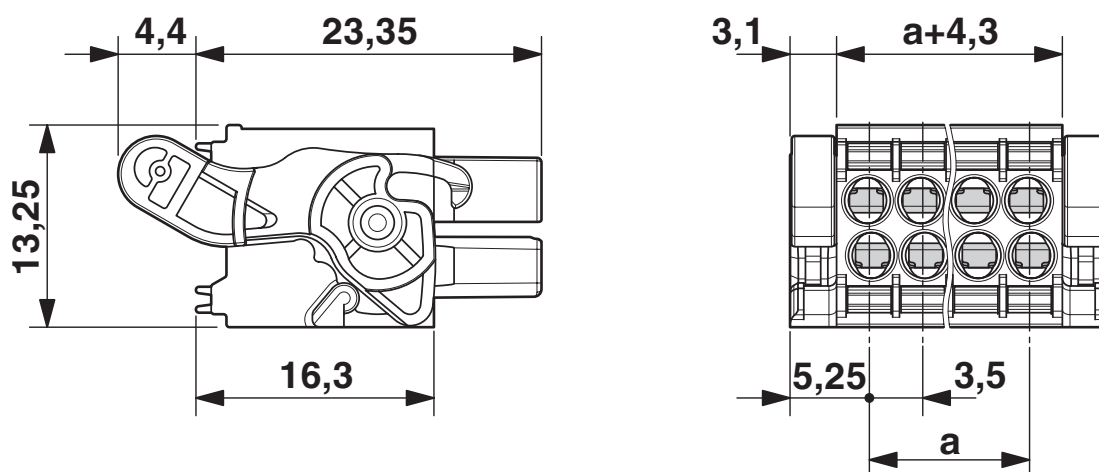
DFMC 1,5/ 6-ST-3,5-LR - PCB connector

1790522

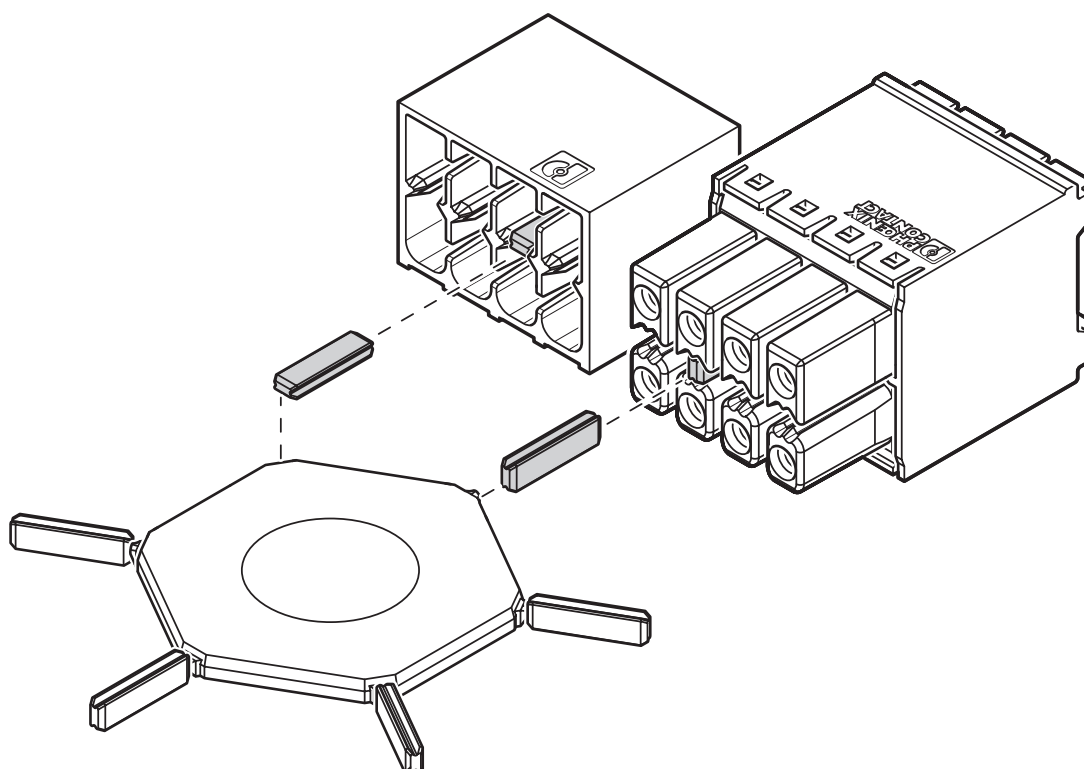
<https://www.phoenixcontact.com/us/products/1790522>

Drawings

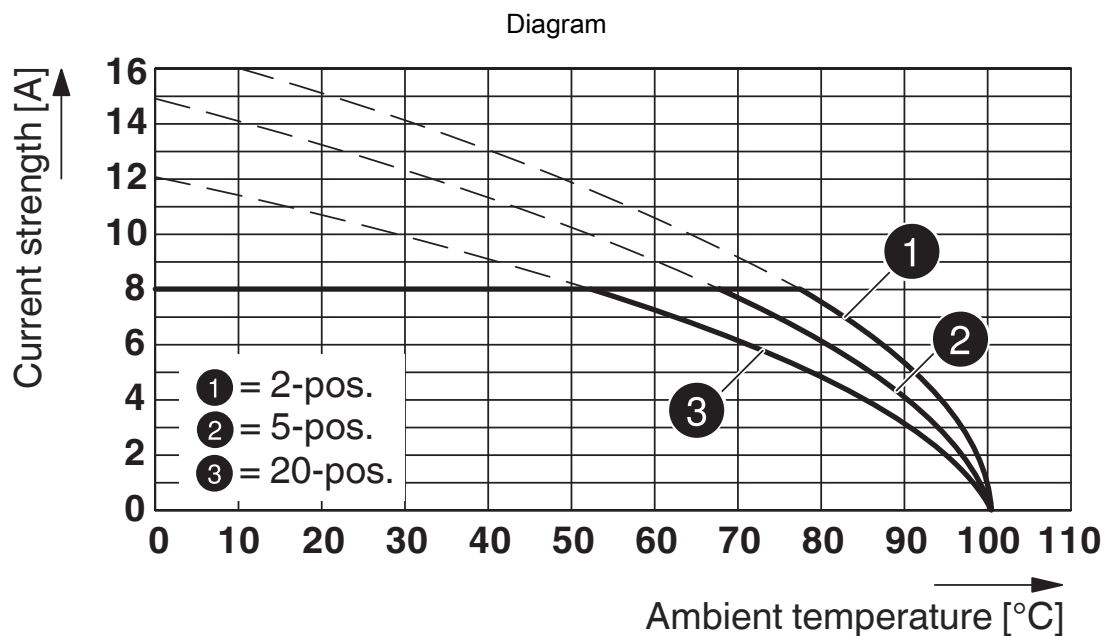
Dimensional drawing



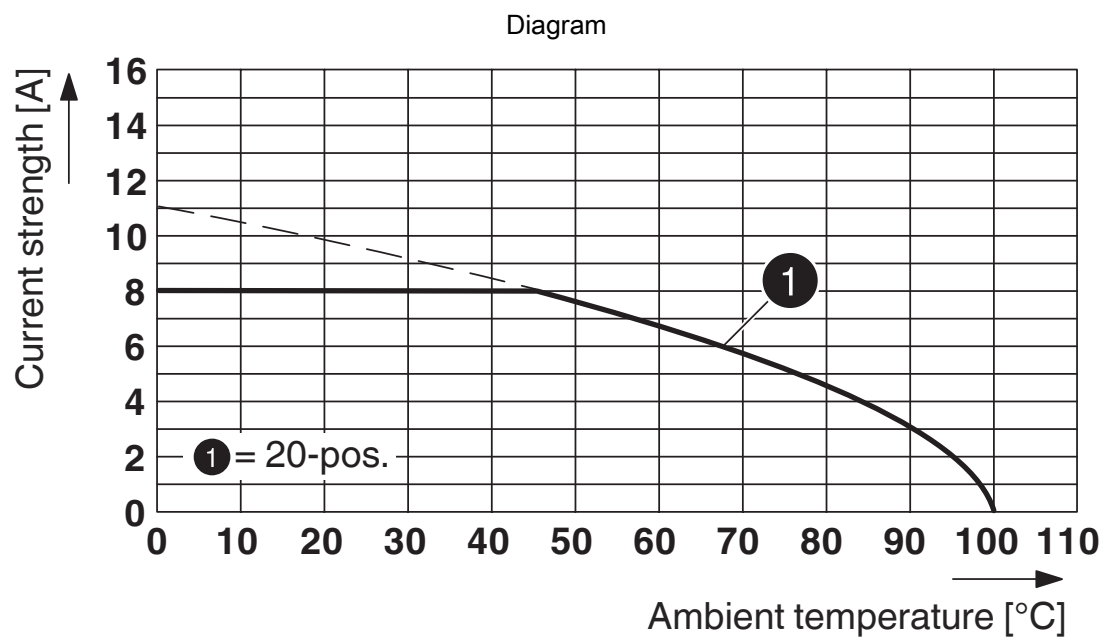
Schematic diagram



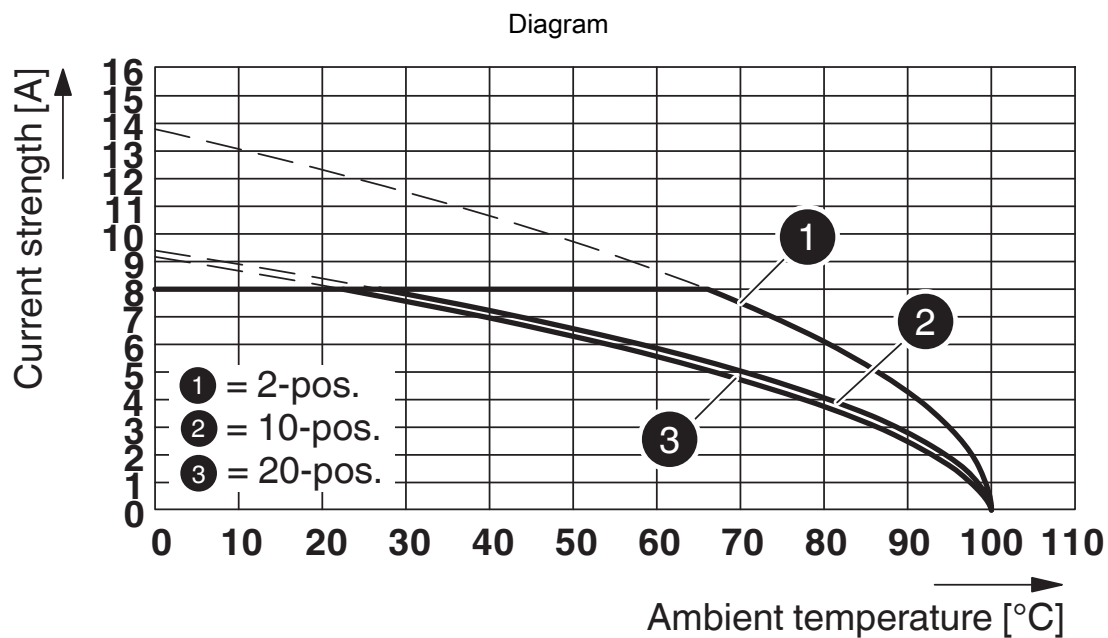
Use of the CP-DMC... coding profile



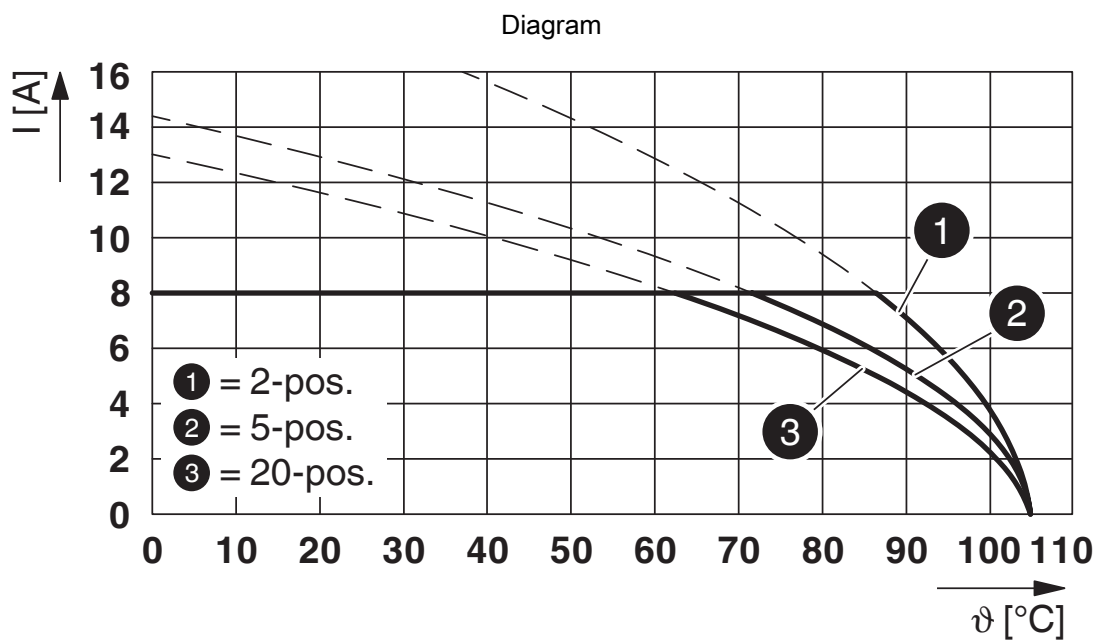
Type: DFMC 1,5/...-ST-3,5-LR with DMCV 1,5/...-G1F-3,5-LR P20THR



Type: DFMC 1,5/...-ST-3,5-LRBKBD with DMC 1,5/...-G1-3,5-LR P26THR



Type: DFMC 1,5/...-ST-3,5-LR with DMC 1,5/...-G1F-3,5-LR P35



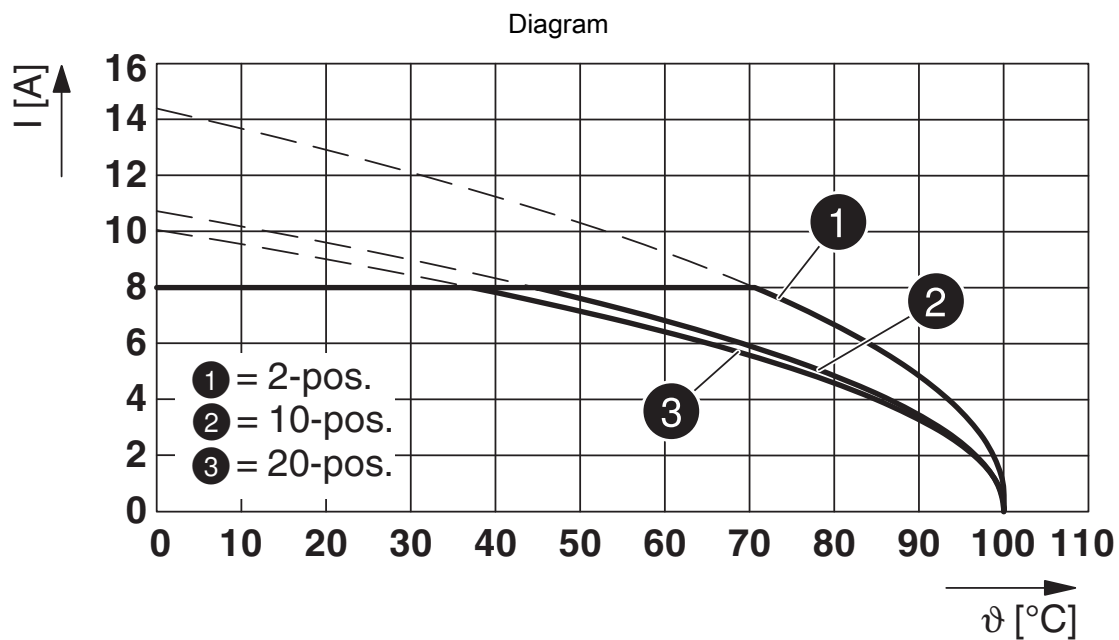
Type: DFMC 1,5/...-ST-3,5-LR with DMC 1,5/...-G1F-3,5-LR P...THR

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>



Type: DFMC 1,5/...-ST-3,5-LR with DMCV 1,5/...-G1F-3,5-LR P35

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1790522>



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-19920306

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
Field wiring	300 V	8 A	24 - 16	-
Use group C				
Factory wiring	50 V	8 A	24 - 16	-
Use group D				
Field wiring	300 V	8 A	24 - 16	-



VDE Gutachten mit Fertigungsüberwachung

Approval ID: 40038423

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	160 V	8 A	-	0.2 - 1.5

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

Classifications

ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

ETIM 8.0	EC002638
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

Environmental product compliance

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

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

Accessories

CP-DMC 1,5 NAT - Coding profile

1790647

<https://www.phoenixcontact.com/us/products/1790647>

Coding profile, for insertion between the coding ribs of the connector and the header following the reflow soldering process, insulating material, color: natural



SZS 0,4X2,5 VDE - Screwdriver

1205037

<https://www.phoenixcontact.com/us/products/1205037>

Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip



DFMC 1,5/ 6-ST-3,5-LR - PCB connector



1790522

<https://www.phoenixcontact.com/us/products/1790522>

CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/us/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

DMC 1,5/ 6-G1F-3,5-LR P20THR - PCB header

1787056

<https://www.phoenixcontact.com/us/products/1787056>



PCB headers, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 12, number of rows: 2, number of positions: 6, number of connections: 12, product range: DMC 1,5/..-G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Lock & release threaded flange, type of packaging: packed in cardboard

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



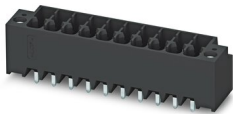
1790522

<https://www.phoenixcontact.com/us/products/1790522>

DMCV 1,5/ 6-G1F-3,5-LR P20THR - PCB header

1787438

<https://www.phoenixcontact.com/us/products/1787438>



PCB headers, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 12, number of rows: 2, number of positions: 6, number of connections: 12, product range: DMCV 1,5/..-G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Lock & release threaded flange, type of packaging: packed in cardboard

DMC 1,5/ 6-G1F-3,5-LRP20THRR56 - PCB header

1818546

<https://www.phoenixcontact.com/us/products/1818546>



PCB headers, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 12, number of rows: 2, number of positions: 6, number of connections: 12, product range: DMC 1,5/..-G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Lock & release threaded flange, type of packaging: 56 mm wide tape

DFMC 1,5/ 6-ST-3,5-LR - PCB connector



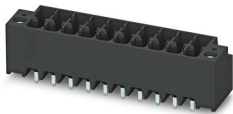
1790522

<https://www.phoenixcontact.com/us/products/1790522>

DMCV 1,5/ 6-G1F-3,5-LRP20THRR56 - PCB header

1818740

<https://www.phoenixcontact.com/us/products/1818740>



PCB headers, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 12, number of rows: 2, number of positions: 6, number of connections: 12, product range: DMCV 1,5/...-G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON DFMC 1,5, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Lock & release threaded flange, type of packaging: 56 mm wide tape

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com