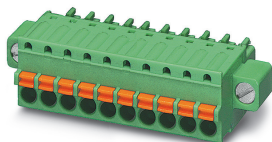


PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

PCB connector, nominal cross section: 1.5 mm², color: blue grey, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 6, Number of rows: 1, Number of positions per row: 6, number of connections: 6, product range: FK-MCP 1,5/...-STF, pitch: 3.81 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: MINI COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



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
- ✓ Screwable flange for superior mechanical stability
- ✓ Quick and convenient testing using integrated test option



Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356783705

Technical data

Item properties

Brief article description	PCB connector
Plug-in system	MINI COMBICON
Type of contact	Female connector
Range of articles	FK-MCP 1,5/...-STF
Pitch	3.81 mm
Number of positions	6
Locking	Screw flange
Number of levels	1
Number of connections	6
Number of potentials	6

PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

Technical data

Electrical parameters

Nominal current	8 A
Nom. voltage	160 V
Rated voltage (III/3)	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	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG / kcmil	26 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 0.75 mm ²
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / -
Stripping length	9 mm

Specifications for ferrules

Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.25 mm ² ; Length: 7 mm
	Cross section: 0.34 mm ² ; Length: 7 mm
	Cross section: 0.5 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 1 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 1.5 mm ² ; Length: 10 mm
Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.14 mm ² ; Length: 8 mm
	Cross section: 0.25 mm ² ; Length: 8 mm
	Cross section: 0.34 mm ² ; Length: 8 mm
	Cross section: 0.5 mm ² ; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm ² ; Length: 10 mm

Flange specifications

Type of locking	Screw locking
Mounting flange	Screw flange
Torque	0.3 Nm

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
------	---

PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

Technical data

Material data - contact

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

Housing color	blue grey (7031)
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	POM
CTI according to IEC 60112	600
Flammability rating according to UL 94	HB

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	20.8 mm
Width [w]	33.25 mm
Height [h]	12.4 mm
Pitch	3.81 mm
Height (without solder pin)	12.4 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

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed

PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

Technical data

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
Conductor cross section / conductor type / tensile force	0.14 mm ² / solid / > 10 N
	0.14 mm ² / flexible / > 10 N
	1.5 mm ² / solid / > 40 N
	1.5 mm ² / flexible / > 40 N

Mechanical tests according to standard

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	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	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	25 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

Electrical tests - Function

Specification	IEC 60999-1:1999-11
---------------	---------------------

Temperature cycles

Specification	IEC 60999-1:1999-11
---------------	---------------------

Current carrying capacity / derating curves

Caption	Type: FK-MCP 1,5/...-STF-3,81 with MC 1,5/...-GF-3,81 P... THR
---------	--

Mechanical tests (A)

PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

Technical data

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	1.4 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	1.5 mΩ
Impulse withstand voltage at sea level	2.95 kV

Thermal tests (C)

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

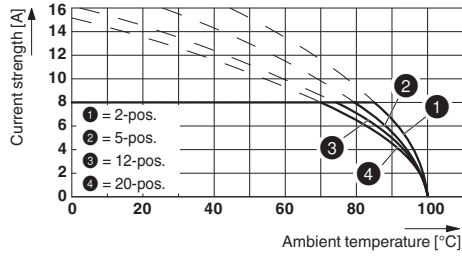
Environmental Product Compliance

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

Drawings

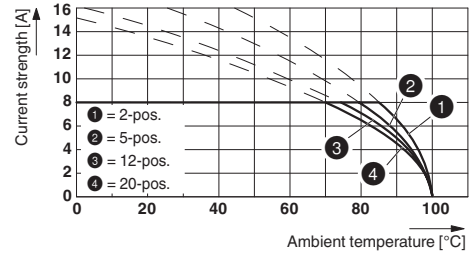
PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

Diagram



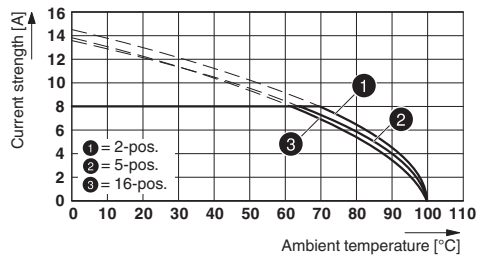
Type: FK-MCP 1,5/...-STF-3,81 with MC 1,5/...-GF-3,81 P... THR

Diagram



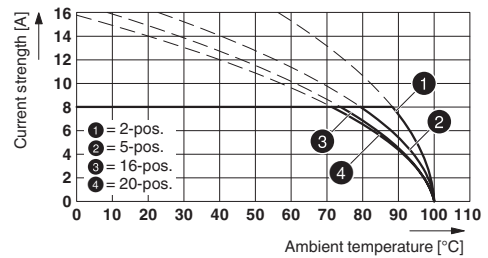
Type: FK-MCP 1,5/...-STF-3,81 with MC 1,5/...-GF-3,81 P... THRR...

Diagram



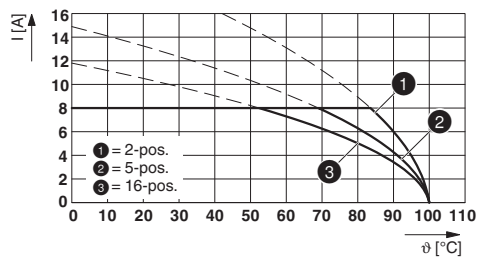
Type: FK-MCP 1,5/...-STF-3,81 with DFK-MC 1,5/...-GF-3,81

Diagram



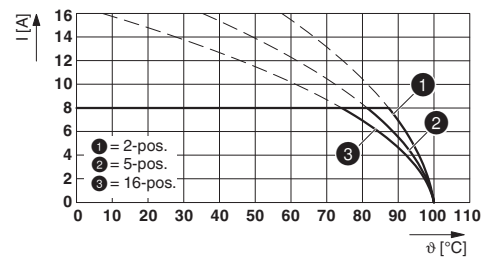
Type: FK-MCP 1,5/...-STF-3,81 with MCV 1,5/...-GF-3,81 P...THR

Diagram



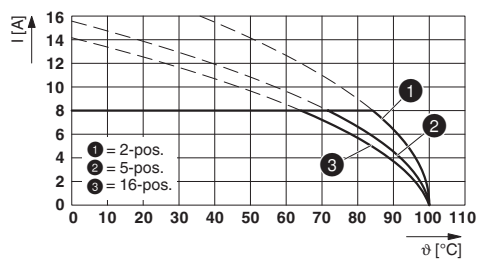
Type: FK-MCP 1,5/...-STF-3,81 with MCD 1,5/...-G1F-3,81

Diagram



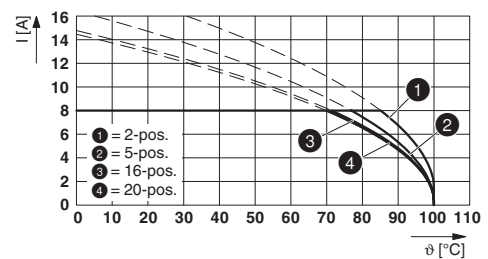
Type: FK-MCP 1,5/...-STF-3,81 with SMC 1,5/...-GF-3,81

Diagram



Type: FK-MCP 1,5/...-STF-3,81 with MCDV 1,5/...-GF-3,81

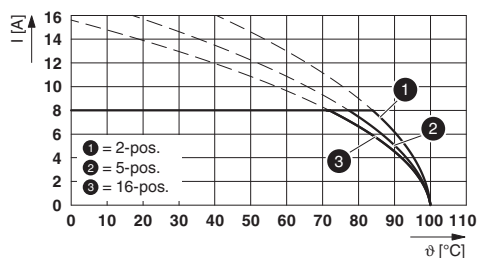
Diagram



Type: FK-MCP 1,5/...-STF-3,81 with MC 1,5/...-GF-3,81

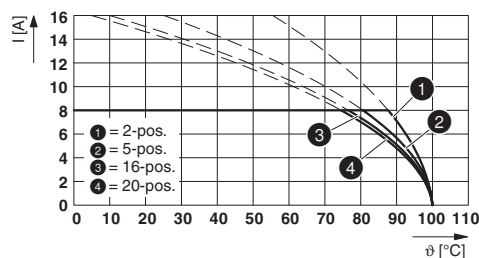
PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

Diagram



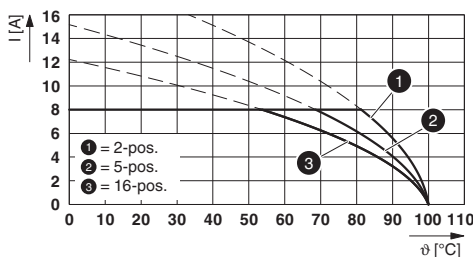
Type: FK-MCP 1,5/...-STF-3,81 with IMC 1,5/...-STGF-3,81

Diagram



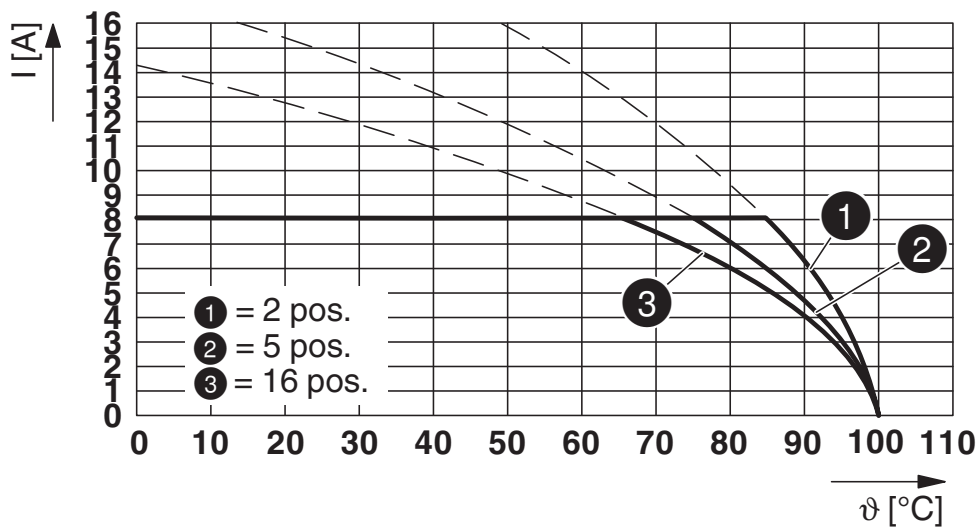
Type: FK-MCP 1,5/...-STF-3,81 with MCV 1,5/...-GF-3,81

Diagram



Type: FK-MCP 1,5/...-STF-3,81 with MCD 1,5/...-GF-3,81

Diagram



Type: FK-MCP 1,5/...-STF-3,81 with MCDV 1,5/...-G1F-3,81

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
---------------	----------

PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000

Classifications

eCl@ss

eCl@ss 11.0	27460202
eCl@ss 4.0	27260700
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 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals


VDE Gutachten mit Fertigungsüberwachung / CSA / IEC CB Scheme / EAC / cULus Recognized


Ex Approvals


Approval details

PCB connector - FK-MCP 1,5/ 6-STF-3,81 GY7031 - 1820000


Approvals

VDE Gutachten mit Fertigungsüberwachung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40011723
		B	
Nominal voltage UN	160 V		
Nominal current IN	8 A		
mm ² /AWG/kcmil	0.2-1.5		

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
		B	
Nominal voltage UN	300 V		
Nominal current IN	8 A		
mm ² /AWG/kcmil	28-16		

IECEE CB Scheme		http://www.iecee.org/	DE1-60987-B1B2
		B	
Nominal voltage UN	160 V		
Nominal current IN	8 A		
mm ² /AWG/kcmil	0.2-1.5		

EAC			B.01687
-----	---	--	---------

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19920306
		B	
Nominal voltage UN	300 V		
Nominal current IN	8 A		
mm ² /AWG/kcmil	28-16		

Phoenix Contact 2021 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>