

# Printed-circuit board connector - FRONT-MC 1,5/ 6-ST-3,81 - 1850709

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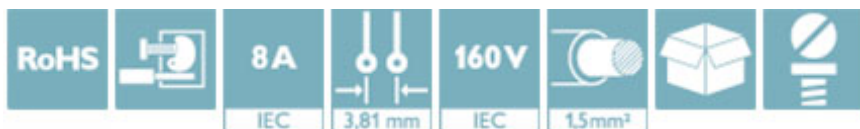
Plug component, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Connection method: Front screw connection, Color: green, Contact surface: Tin




The figure shows a 10-position version of the product

## Why buy this product

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Optimized for tight installation situations: operation and conductor connection from one direction



## Key Commercial Data

Packing unit	50 STK
GTIN	 4 017918 109837
GTIN	4017918109837
Weight per Piece (excluding packing)	7.500 g
Custom tariff number	85366990
Country of origin	Germany

## Technical data

### Dimensions

Length	21.7 mm
Height	12.3 mm
Width	23.65 mm
Pitch	3.81 mm
Dimension a	19.05 mm

### General

Range of articles	FRONT-MC 1,5/...-ST
Type of contact	Female connector

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## Technical data

### General

Number of positions	6
Connection method	Front screw connection
Insulating material group	I
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV
Rated voltage (III/3)	160 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	320 V
Connection in acc. with standard	EN-VDE
Nominal current $I_N$	8 A
Nominal cross section	1.5 mm <sup>2</sup>
Maximum load current	8 A (with 1.5 mm <sup>2</sup> conductor cross section)
Insulating material	PA
Flammability rating according to UL 94	V0
Internal cylindrical gage	A1
Stripping length	9 mm
Screw thread	M2
Tightening torque, min	0.22 Nm
Tightening torque max	0.25 Nm

### Connection data

Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.25 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.25 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	0.5 mm <sup>2</sup>
Conductor cross section AWG min.	28
Conductor cross section AWG max.	16
2 conductors with same cross section, solid min.	0.14 mm <sup>2</sup>
2 conductors with same cross section, solid max.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	0.14 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	0.75 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	0.25 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	0.34 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min.	0.5 mm <sup>2</sup>

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## Technical data

### Connection data

2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm <sup>2</sup>
Minimum AWG according to UL/CUL	30
Maximum AWG according to UL/CUL	16

### Standards and Regulations

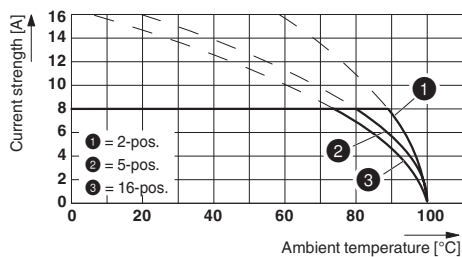
Connection in acc. with standard	EN-VDE
	CSA
Flammability rating according to UL 94	V0

### Environmental Product Compliance

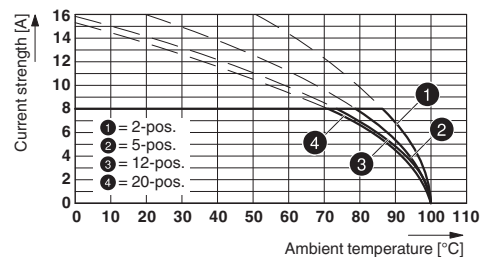
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Diagram



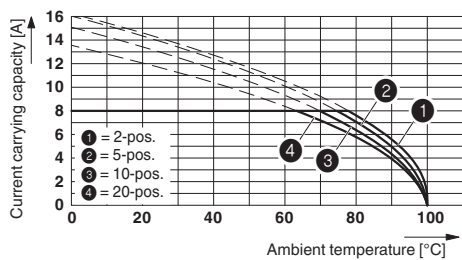
Diagram



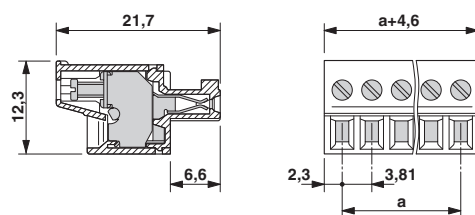
Type: FRONT-MC 1,5/...-ST-3,81 with SMC 1,5/...-G-3,81

Type: FRONT-MC 1,5/...-ST-3,81 with MCV 1,5/...-G-3,81

Diagram



Dimensional drawing



## Classifications

eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701

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## Classifications

### eCl@ss

eCl@ss 5.1	27260701
eCl@ss 6.0	27260704
eCl@ss 7.0	27440402
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

### ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638

### UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409

## Approvals

### Approvals

#### Approvals

CSA / VDE Gutachten mit Fertigungsüberwachung / IECCEB CB Scheme / CCA / cULus Recognized / EAC

#### Ex Approvals

### Approval details

CSA		<a href="http://www.csagroup.org/services/testing-and-certification/certified-product-listing/">http://www.csagroup.org/services/testing-and-certification/certified-product-listing/</a>	13631
	B	D	
mm <sup>2</sup> /AWG/kcmil	28-16	28-16	
Nominal current I <sub>N</sub>	8 A	8 A	
Nominal voltage U <sub>N</sub>	300 V	300 V	

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## Approvals

VDE Gutachten mit Fertigungsüberwachung		<a href="http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx">http://www.vde.com/en/Institute/OnlineService/ VDE-approved-products/Pages/Online-Search.aspx</a>	40011723
mm <sup>2</sup> /AWG/kcmil	0.2-1.5		
Nominal current IN	8 A		
Nominal voltage UN	160 V		

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-56063-B1B2
mm <sup>2</sup> /AWG/kcmil	0.2-1.5		
Nominal current IN	8 A		
Nominal voltage UN	160 V		

CCA	CCA/ DE1 34219		
mm <sup>2</sup> /AWG/kcmil	0.2-1.5		
Nominal current IN	8 A		
Nominal voltage UN	160 V		

cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20110128
	B	D	
mm <sup>2</sup> /AWG/kcmil	30-16	30-16	
Nominal current IN	8 A	8 A	
Nominal voltage UN	300 V	300 V	

EAC		B.01742
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## Accessories

Accessories

Bridge

## Printed-circuit board connector - FRONT-MC 1,5/ 6-ST-3,81 - 1850709

### Accessories

Insertion bridge - EBPL 2-3,81 - 1733495



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

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Insertion bridge - EBPL 3-3,81 - 1733505



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

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Insertion bridge - EBPL 4-3,81 - 1733518



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

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### Labeled terminal marker

Marker card - SK 3,81/2,8:FORTL.ZAHLEN - 0804109



Marker card, Card, white, labeled, Horizontal: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - (99)100, Mounting type: Adhesive, for terminal block width: 3.81 mm, Lettering field: 3.81 x 2.8 mm

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### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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### Screwdriver tools

## Printed-circuit board connector - FRONT-MC 1,5/ 6-ST-3,81 - 1850709

### Accessories

Screwdriver - SZS 0,4X2,5 VDE - 1205037



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

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### Terminal marking

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883



Marker card, Sheet, white, unlabeled, can be labeled with: Plotter, Office printing systems, Mounting type: Adhesive, Lettering field: 186 x 2.8 mm

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### Additional products

Base strip - MCV 1,5/ 6-G-3,81 P14 THR - 1707049



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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Base strip - MCV 1,5/ 6-G-3,81 P26 THR - 1707463



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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Base strip - MCV 1,5/ 6-G-3,81 P26 THRR56 - 1712911



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

## Printed-circuit board connector - FRONT-MC 1,5/ 6-ST-3,81 - 1850709

### Accessories

Printed-circuit board connector - MC 1,5/ 6-G-3,81 P20 THRR56 - 1782611

Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering



Base strip - MC 1,5/ 6-G-3,81 - 1803316

Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering



Base strip - MCV 1,5/ 6-G-3,81 - 1803468

Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering



Base strip - SMC 1,5/ 6-G-3,81 - 1827318

Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering



Base strip - MCD 1,5/ 6-G-3,81 - 1829992

Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.





## Printed-circuit board connector - FRONT-MC 1,5/ 6-ST-3,81 - 1850709

### Accessories

Base strip - MCDV 1,5/ 6-G-3,81 - 1830444



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

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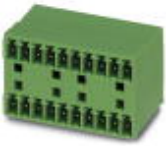
Base strip - MCVDU 1,5/ 6-G-3,81 - 1837476



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering

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Base strip - MCD 1,5/ 6-G1-3,81 - 1843114



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

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Base strip - MCDV 1,5/ 6-G1-3,81 - 1847767



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

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Base strip - EMCV 1,5/ 6-G-3,81 - 1860689



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Press-in technology

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## Printed-circuit board connector - FRONT-MC 1,5/ 6-ST-3,81 - 1850709

### Accessories

Base strip - MCO 1,5/ 6-GR-3,81 - 1861688



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering

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Base strip - MCO 1,5/ 6-GL-3,81 - 1861769



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering

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Base strip - EMC 1,5/ 6-G-3,81 - 1897843



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Press-in technology

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Base strip - MC 1,5/ 6-G-3,81 THT - 1908800



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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Base strip - MC 1,5/ 6-G-3,81 THT-R56 - 1943797



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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## Printed-circuit board connector - FRONT-MC 1,5/ 6-ST-3,81 - 1850709

### Accessories

Base strip - MCD 1,5/ 6-G1-3,81 HT BK - 1958368



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 6, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, Standard component made of highly temperature resistant plastic; suitable for reflow process. User information and design recommendations on Through Hole Reflow Technology can be found at: "Downloads".