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# POWER COMBICON spring-cage connector

## 7.62 mm pitch

### SPC 5/...-ST(F)-7,62

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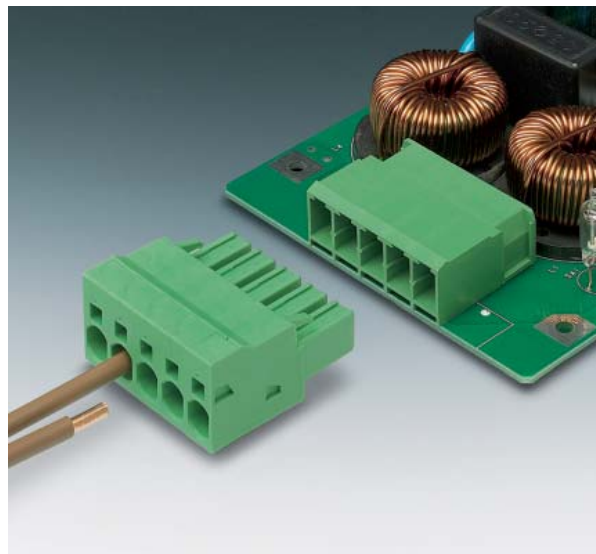
Especially in the high current range, the following is true for conductor connection: Time is money. The new spring-cage plug SPC 5 saves both, as due to the quick spring-cage connection, it reduces wiring and mounting work. With the innovative SPC 5-COMBI springs, large conductor cross sections up to 10 mm<sup>2</sup> solid or 6 mm<sup>2</sup> stranded with ferrule can be plugged in with moderate force, contacting without any tools. This means extremely fast conductor connection according to the direct plug-in principle together with high ergonomics and high performance.

The nominal current is 41 A and the unlimited UL voltage of 600 V allows for problem-free equipment certification in the industrial Use Group C. As in all COMBICON power products, the integrated double steel spring provides maximum contact safety even at high power and temperature fluctuations.

The SPC 5 plug is compatible with the PC 4 header

As is normal in the COMBICON power range, the SPC 5 as STF-SH version likewise offers a professional shield connection with strain relief for the cable harness. In the compact pitch of 7.62 mm, the plug connector is available in 2 to 12 number of positions.

Versions with screw flange (-STF) increase the contact safety especially during vibrations. The keying profile that is inserted in the slot on the connector and in the PC 4 header, is reliable polarity protection especially for applications where several headers are placed next to each other.



#### COMBICON Select

The COMBICON search engine with CAD downloading



COMBICON Select – the printed circuit board connection software supports your workflow from the PCB and housing layout to the ordering process with:

- Systematic and fast selection of products
- Universal Internet aided engineering with extensive CAD downloading
- Easy-to-use e-shopping functions.

**Note:**

In compliance with DIN EN 61984, COMBICON plug connectors come without switching capacity. During designated use, they must not be plugged in or disconnected when carrying voltage or under load.

[select.phoenixcontact.com/combicon](http://select.phoenixcontact.com/combicon)

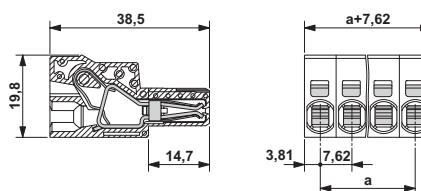


**POWER COMBICON**  
**Spring-cage connector**  
**SPC 5/...-ST-7,62**  
**7.62 mm pitch**



Description	No. of pos.	Dim. a [mm]	Type	Order No.	Pcs./Pkt.
<b>POWER COMBICON spring-cage plugs, 7.62 mm pitch, color: green</b>					
	2	7.62	SPC 5/ 2-ST-7,62	1996016	50
	3	15.24	SPC 5/ 3-ST-7,62	1996029	50
	4	22.86	SPC 5/ 4-ST-7,62	1996032	50
	5	30.48	SPC 5/ 5-ST-7,62	1996045	50
	6	38.10	SPC 5/ 6-ST-7,62	1996058	50
	7	45.72	SPC 5/ 7-ST-7,62	1996061	50
	8	53.34	SPC 5/ 8-ST-7,62	1996074	50
	9	60.96	SPC 5/ 9-ST-7,62	1996087	50
	10	68.58	SPC 5/10-ST-7,62	1996090	50
	11	76.20	SPC 5/11-ST-7,62	1996100	50
	12	83.82	SPC 5/12-ST-7,62	1996113	50
<b>Keying profile</b> , is inserted into the slot on the plug and header, red insulating material					
<b>Screwdriver</b> , to actuate the COMBI spring					
<b>Marker card</b> , with 12 pcs., 10-section marker strips, white, self-adhesive, for 120 terminal blocks					
<b>Technical data</b>					
Dimensions			see description		
Pitch [mm]			7.62		
<b>Technical data in accordance with IEC/ DIN VDE</b>					
Insulating material group			I		
Surge voltage category / contamination class			III / 3    III / 2    II / 2		
Rated voltage [V]			1000    1000    1000		
Rated surge voltage [kV]			8    8    6		
Nominal current / cross section [A] / [mm <sup>2</sup> ]			32 <sup>1)</sup> / 6		
Maximum load current / cross section [A] / [mm <sup>2</sup> ]			41 <sup>1)</sup> / 10		
<b>Connection capacity</b>					
Solid / stranded / conductor sizes [mm <sup>2</sup> ] / [mm <sup>2</sup> ] / AWG			0.2 - 10 / 0.2 - 6 / 24 - 8		
Stranded with ferrule without / with plastic sleeve [mm <sup>2</sup> ]			0.25 - 6 / 0.25 - 4		
<b>Multiple connection (2 conductors with same cross section)</b>					
Solid / stranded [mm <sup>2</sup> ]			- / -		
Stranded with ferrules without plastic sleeve [mm <sup>2</sup> ]			-		
Stranded with TWIN ferrule with plastic sleeve [mm <sup>2</sup> ]			0.25 - 1.5		
<b>Stripping length</b> [mm]			15		
<b>Internal cylindrical gage (IEC 60947-1), a x b / diameter</b> [mm]			4.3 x 4.0 / 4.0		
<b>Screw thread</b>			-		
<b>Tightening torque</b> [Nm]			-		
<b>Insulation material</b>			PA		
Inflammability class acc. to UL 94			V0		
<b>Approval data (UL/CUL and CSA)</b>					
Usegroup B [V] / [A] / AWG			on request		
Usegroup C [V] / [A] / AWG			on request		
Usegroup D [V] / [A] / AWG			on request		

<sup>1)</sup> Observe derating curve

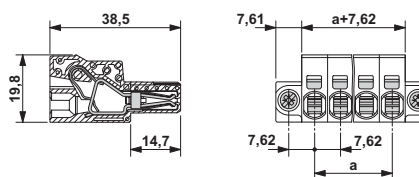


**POWER COMBICON**  
**Spring-cage connector**  
**SPC 5/...-STF-7,62**  
**7.62 mm pitch**

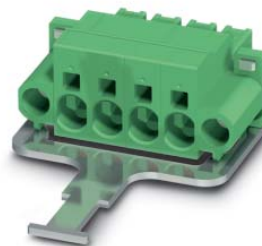


Description	No. of pos.	Dim. a [mm]	Type	Order No.	Pcs./Pkt.
<b>POWER COMBICON spring-cage plugs, 7.62 mm pitch, color: green</b>	2	7.62	<b>SPC 5/ 2-STF-7,62</b>	<b>1996126</b>	50
	3	15.24	<b>SPC 5/ 3-STF-7,62</b>	<b>1996139</b>	50
	4	22.86	<b>SPC 5/ 4-STF-7,62</b>	<b>1996142</b>	50
	5	30.48	<b>SPC 5/ 5-STF-7,62</b>	<b>1996155</b>	50
	6	38.10	<b>SPC 5/ 6-STF-7,62</b>	<b>1996168</b>	50
	7	45.72	<b>SPC 5/ 7-STF-7,62</b>	<b>1996171</b>	50
	8	53.34	<b>SPC 5/ 8-STF-7,62</b>	<b>1996184</b>	50
	9	60.96	<b>SPC 5/ 9-STF-7,62</b>	<b>1996197</b>	50
	10	68.58	<b>SPC 5/10-STF-7,62</b>	<b>1996207</b>	50
	11	76.20	<b>SPC 5/11-STF-7,62</b>	<b>1996210</b>	50
	12	83.82	<b>SPC 5/12-STF-7,62</b>	<b>1996223</b>	50
<b>Keying profile</b> , is inserted into the slot on the plug and header, red insulating material			<b>CP-HCC 4</b>	<b>1600027</b>	100
<b>Screwdriver</b> , to actuate the COMBI spring			<b>SZF 1 - 0,6 x 3,5</b>	<b>1204517</b>	10
<b>Marker card</b> , with 12 pcs., 10-section marker strips, white, self-adhesive, for 120 terminal blocks			<b>SK 7,62/3,8</b> (see COMBICON catalog)		
<b>Technical data</b>					
Dimensions			see description		
Pitch		[mm]	7.62		
<b>Technical data in accordance with IEC/ DIN VDE</b>					
Insulating material group		-		I	
Surge voltage category / contamination class		- / -	III / 3	III / 2	II / 2
Rated voltage		[V]	1000	1000	1000
Rated surge voltage		[kV]	8	8	6
Nominal current / cross section		[A] / [mm <sup>2</sup> ]		32 <sup>1)</sup> / 6	
Maximum load current / cross section		[A] / [mm <sup>2</sup> ]		41 <sup>1)</sup> / 10	
<b>Connection capacity</b>					
Solid / stranded / conductor sizes		[mm <sup>2</sup> ] / [mm <sup>2</sup> ] / AWG	0.2 - 10 / 0.2 - 6 / 24 - 8		
Stranded with ferrule without / with plastic sleeve		[mm <sup>2</sup> ]	0.25 - 6 / 0.25 - 4		
<b>Multiple connection (2 conductors with same cross section)</b>					
Solid / stranded		[mm <sup>2</sup> ]	- / -		
Stranded with ferrules without plastic sleeve		[mm <sup>2</sup> ]	-		
Stranded with TWIN ferrule with plastic sleeve		[mm <sup>2</sup> ]	0.25 - 1.5		
<b>Stripping length</b>		[mm]	15		
<b>Internal cylindrical gage (IEC 60947-1), a x b / diameter</b>		[mm]	4.3 x 4.0 / 4.0		
<b>Screw thread</b>		-	-		
<b>Tightening torque</b>		[Nm]	-		
<b>Insulation material</b>			PA		
Inflammability class acc. to UL 94			V0		
<b>Approval data (UL/CUL and CSA)</b>					
Usegroup B		[V] / [A] / AWG	on request		
Usegroup C		[V] / [A] / AWG	on request		
Usegroup D		[V] / [A] / AWG	on request		

<sup>1)</sup> Observe derating curve



**POWER COMBICON**  
**Spring-cage connector**  
**SPC 5/...-STF-SH-7,62**  
**7.62 mm pitch**



Description	No. of pos.	Dim. a [mm]
<b>POWER COMBICON spring-cage plugs, 7.62 mm pitch, color: green</b>	2	7.62
	3	15.24
	4	22.86
	5	30.48
	6	38.10
	7	45.72
	8	53.34
	9	60.96
	10	68.58
	11	76.20
	12	83.82

**Keying profile**, is inserted into the slot on the plug and header, red insulating material

**Screwdriver**, to actuate the COMBI spring

**Marker card**, with 12 pcs., 10-section marker strips, white, self-adhesive, for 120 terminal blocks

**Technical data**

Dimensions  
 Pitch [mm]

**Technical data in accordance with IEC/ DIN VDE**

Insulating material group -  
 Surge voltage category / contamination class - / -  
 Rated voltage [V]  
 Rated surge voltage [kV]  
 Nominal current / cross section [A] / [mm<sup>2</sup>]  
 Maximum load current / cross section [A] / [mm<sup>2</sup>]

**Connection capacity**

Solid / stranded / conductor sizes [mm<sup>2</sup>] / [mm<sup>2</sup>] / AWG  
 Stranded with ferrule without / with plastic sleeve [mm<sup>2</sup>]

**Multiple connection (2 conductors with same cross section)**

Solid / stranded [mm<sup>2</sup>]  
 Stranded with ferrules without plastic sleeve [mm<sup>2</sup>]  
 Stranded with TWIN ferrule with plastic sleeve [mm<sup>2</sup>]

**Stripping length**

Internal cylindrical gage (IEC 60947-1), a x b / diameter [mm]

**Screw thread**

**Tightening torque** [Nm]

**Insulation material**

Inflammability class acc. to UL 94

**Approval data (UL/CUL and CSA)**

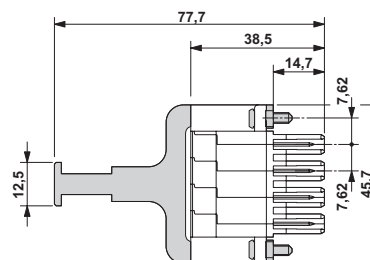
Usegroup B [V] / [A] / AWG  
 Usegroup C [V] / [A] / AWG  
 Usegroup D [V] / [A] / AWG

Type	Order No.	Pcs./Pkt.
<b>SPC 5/ 4-STF-SH-7,62</b>	<b>1704071</b>	50
<b>CP-HCC 4</b>	<b>1600027</b>	100
<b>SZF 1 - 0,6 x 3,5</b>	<b>1204517</b>	10
<b>SK 7,62/3,8</b> (see COMBICON catalog)		

see description  
 7.62

III / 3	I	III / 2	II / 2
1000	1000	1000	1000
8	8	6	6
	32 <sup>1)</sup> / 6		
	41 <sup>1)</sup> / 10		
	0.2 - 10 / 0.2 - 6 / 24 - 8		
	0.25 - 6 / 0.25 - 4		
	- / -		
	-		
	0.25 - 1.5		
	15		
	4.3 x 4.0 / 4.0		
	-		
	-		
	PA		
	V0		
	on request		
	on request		
	on request		

<sup>1)</sup> Observe derating curve



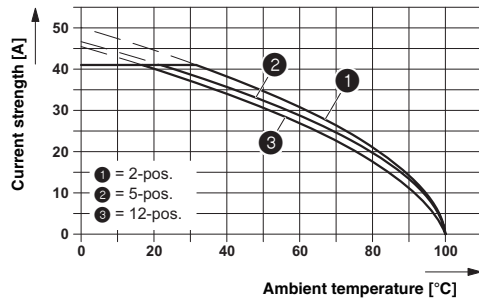
**Derating curve**

Type: SPC 5/...-ST-7,62 with PC 4/...-G-7,62

Connected conductor cross section = 10 mm<sup>2</sup>

Reduction factor = 0.8

Number of positions = see diagram



**Derating curve**

Type: SPC 5/...-ST-7,62 with PC 4/...-G-7,62

Connected conductor cross section = 6 mm<sup>2</sup>

Reduction factor = 0.8

Number of positions = see diagram

