

CSS 1.5-3/3 - Speed starter



1201650

<https://www.phoenixcontact.com/us/products/1201650>

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Speed starter with soft start and configurable speed for starting and reversing motors up to 480 V AC and 1.5 kW, configurable motor protection, analog input, STO function up to SIL 3/PL e, three-phase load input

Commercial data

Item number	1201650
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C473
Product key	CK7322
GTIN	4063151266011
Weight per piece (including packing)	1,283 g
Weight per piece (excluding packing)	1,283 g
Customs tariff number	85371098
Country of origin	CN

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Technical data

Product properties

Product type	Speed starter
Product family	CONTACTRON
Operating elements	Push button
	Rotary switch

Data management status

Article revision	03
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Insulation characteristics

Pollution degree	2
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Electrical properties

Number of phases	3
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Input data

Mains

Number of phases	3
Input voltage	380 V AC
	400 V AC
	480 V AC
Input voltage range	220 V AC ... 480 V AC -15 % ... +10 %
Frequency range	47 Hz ... 63 Hz
Nominal current	4.2 A (no line reactor)
	3.8 A (with line reactor)

Output data

Nominal motor power	1.5 kW
Apparent power	2.7 kVA
Nominal output current (I_N)	3.9 A (4 kHz)
	2.8 A (8 kHz)
	1.6 A (16 kHz)
Output frequency	0 Hz ... 500 Hz
Power dissipation	50 W (2 kHz)
	58 W (4 kHz)
	55 W (8 kHz)
	53 W (16 kHz)
	9 W (stand by)
Output current	≤ 5.85 A (180 s)
	≤ 2.925 A (180 s, during recovery time)
	≤ 7.02 A (15 s)
	≤ 1.95 A (15 s, during recovery time)

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1201650

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Recovery time	150 s (180 s)
	12 s (15 s)
Overload time	30 s (180 s)
	3 s (15 s)
Discharge time	3 min. (Intermediate circuit capacitors)

Switching

Output name	Relay output
Contact switching type	1 changeover contact
Maximum switching voltage	125 V AC
	30 V DC
Maximum inrush current	3 A
Inrush current, minimum	10 mA (5 V DC)

Connection data

Power-level terminals

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	0.2 mm ² ... 6 mm ²
Conductor cross section flexible	0.2 mm ² ... 6 mm ²
	0.2 mm ² ... 4 mm ² (with ferrule)
Conductor cross section AWG	24 ... 10

Control terminals

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	0.2 mm ² ... 1.5 mm ² (with ferrule)
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
	0.2 mm ² ... 0.75 mm ²
Conductor cross section AWG	24 ... 16

Dimensions

Drill hole

Diameter	5.5 mm
Width	45 mm
Height	210 mm
Depth	190 mm
Length	≤ 50 m (Motor cable length (EMC compliance category C2))
	≤ 50 m (Motor cable length (EMC compliance category C3))
	≤ 50 m (Motor cable length (no EMC compliance))

Material specifications

Color	gray (RAL 7042)
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Environmental and real-life conditions

Ambient conditions

Degree of protection (IP)	IP20
Degree of protection (NEMA)	NEMA 1
Ambient temperature (operation)	-20 °C ... 55 °C (without current derating)
	-20 °C ... 60 °C (with linear current derating)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Altitude	≤ 2000 m
	> 2000 m (with derating)
Permissible humidity (operation)	90 % (non-condensing)
Permissible humidity (storage/transport)	95 % (non-condensing)
Shock (operation)	15g, 11 ms
Vibration (operation)	0,075 mm / 1g
Air pressure (operation)	86 kPa ... 106 kPa
Air pressure (storage/transport)	70 kPa ... 106 kPa

Approvals

Safety Integrity Level (SIL, IEC 61800-5-2)

Identification	3
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Performance Level (EN ISO 13849)

Identification	e
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Category (ISO 13849)

Identification	4
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Standards and regulations

Standards/regulations	IEC 61800-5-1
	IEC 61800-3

Mounting

Mounting type	DIN rail mounting
	Wall mounting

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1201650>



UL Listed
Approval ID: FILE E 322526



cUL Listed
Approval ID: FILE E 322526



Functional Safety
Approval ID: 01/205/5866.01/23



Functional Safety
Approval ID: 01/205/5866.01/23



Functional Safety
Approval ID: Reg01/205/5866.01/23

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27142320
ECLASS-13.0	27142320
ECLASS-12.0	27142320

ETIM

ETIM 9.0	EC000256
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UNSPSC

UNSPSC 21.0	26111500
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
	Bis(2-(2-methoxyethoxy)ethyl)ether(CAS: 143-24-8)
SCIP	153543d4-18ac-437a-9f95-4787af252e64

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Accessories

EM-CSS-MOTORSHIELD-45 - Shield connection

1276916

<https://www.phoenixcontact.com/us/products/1276916>

Shroud for motor lines for 45 mm wide CONTACTRON Speed Starters



EM-CPS-DA-45C-CSS - Adapter

1282859

<https://www.phoenixcontact.com/us/products/1282859>



Adapter for CONTACTRON Speed Starter for direct mounting on the CrossPowerSystem power distribution board

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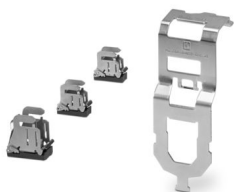
<https://www.phoenixcontact.com/us/products/1201650>



EM-CSS-SHIELDING-SET-SCC-45 - Shield connection

1451208

<https://www.phoenixcontact.com/us/products/1451208>

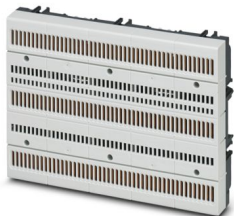


Accessories set for simple and reliable connection of cable shields to the CONTACTRON Speed Starter, consisting of a 45 mm shroud, 2 shield connection terminal blocks for the signal lines, and one shield connection terminal block for the motor cable.

EM-CPS-225 - Power distribution board

1002634

<https://www.phoenixcontact.com/us/products/1002634>



Modular power distribution board with CrossLink® interface, 125 A, 3-pos., touch-proof and protection against polarity reversal, width: 225 mm

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EM-CPS-405 - Power distribution board

1002635

<https://www.phoenixcontact.com/us/products/1002635>

Modular power distribution board with CrossLink® interface, 125 A, 3-pos., touch-proof and protection against polarity reversal, width: 405 mm



EM-CPS-TB3/63A - Connection module

1002633

<https://www.phoenixcontact.com/us/products/1002633>

Connection module with integrated spring-loaded terminals for cables from 1.5 to 16 mm², 3-pos., maximum 63 A



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1201650

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EM-CPS-TB3/125A - Connection module

1070299

<https://www.phoenixcontact.com/us/products/1070299>



Connection module with box terminals for conductors from 6 to 50 mm², 3-pos., maximum 125 A

EM-CSS-CONTROLSHIELD-45 - Shield connection

1276909

<https://www.phoenixcontact.com/us/products/1276909>

Shroud for control lines for 45 mm wide CONTACTRON Speed Starters



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EM-CSS-FAN-45 - Fan

1276912

<https://www.phoenixcontact.com/us/products/1276912>

Replaceable fan for 45 mm wide CONTACTRON Speed Starters



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