

# CSS 1.5-1/3-EMC - Speed starter



1201642

<https://www.phoenixcontact.com/us/products/1201642>

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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, STO function up to SIL 3 / PL e, Push-in connection, single-phase load input, with integrated EMC filter

## Commercial data

Item number	1201642
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C473
Product key	CK7312
GTIN	4063151264994
Weight per piece (including packing)	1,499.7 g
Weight per piece (excluding packing)	1,499.7 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

### Insulation characteristics

Pollution degree	2
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### Electrical properties

Number of phases	1
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### Input data

#### Mains

Number of phases	1
Input voltage	230 V AC
	240 V AC
Input voltage range	110 V AC ... 240 V AC -15 % ... +10 %
Frequency range	47 Hz ... 63 Hz
Nominal current	15.8 A (no line reactor)
	14.5 A (with line reactor)

### Output data

#### Analog

Nominal motor power	1.5 kW
Apparent power	3 kVA
Nominal output current ( $I_N$ )	7.5 A (4 kHz)
	6.2 A (8 kHz)
	4.1 A (16 kHz)
Output frequency	0 Hz ... 500 Hz
Power dissipation	69 W (2 kHz)
	75 W (4 kHz)
	71 W (8 kHz)
	67 W (16 kHz)
	9 W (stand by)
Output current	≤ 11.25 A (180 s)
	≤ 5.625 A (180 s, during recovery time)
	≤ 13.5 A (15 s)
	≤ 3.75 A (15 s, during recovery time)
Recovery time	150 s (180 s)
	12 s (15 s)

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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 <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup> (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 <sup>2</sup> ... 1.5 mm <sup>2</sup> (with ferrule)
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16

## Dimensions

### Drill hole

Diameter	5.5 mm
Width	45 mm
Height	210 mm
Depth	210 mm
Length	≤ 20 m (Motor cable length (EMC compliance category C2))
	≤ 20 m (Motor cable length (EMC compliance category C3))
	≤ 50 m (Motor cable length (no EMC compliance))

## 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)

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	-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/1201642>

 **UL Listed**  
Approval ID: FILE E 322526

 **cUL Listed**  
Approval ID: FILE E 322526

**cULus Listed**

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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC000256
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### UNSPSC

UNSPSC 21.0	26111500
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## Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 25; For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"
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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



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### 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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## EM-CPS-225 - Power distribution board

1002634

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



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

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## 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 mm<sup>2</sup>, 3-pos., maximum 63 A

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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 mm<sup>2</sup>, 3-pos., maximum 125 A

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## 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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