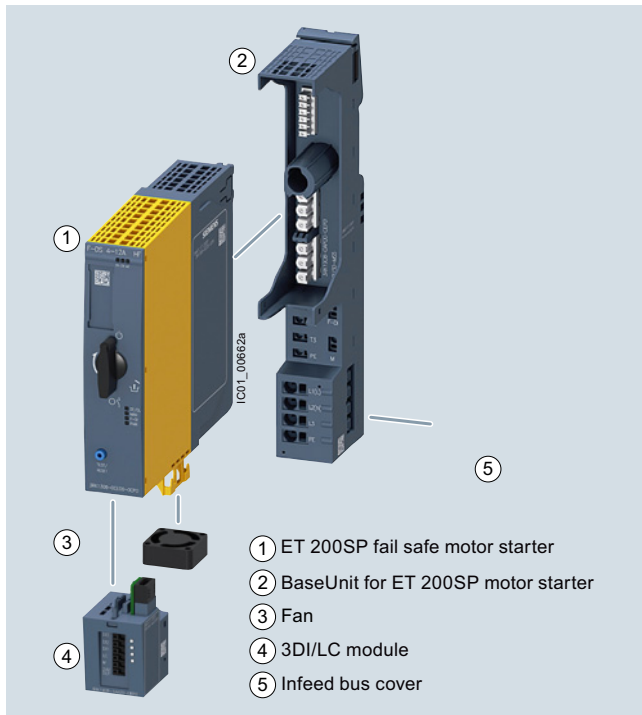
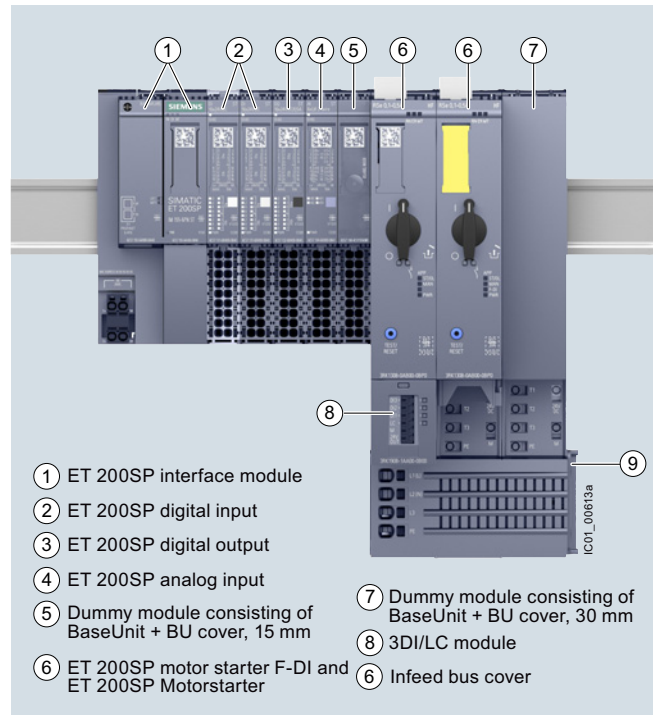


## Overview



Motor starter, BaseUnit, fan and 3DI/LC control module



3RK1308 motor starter in the ET 200SP I/O system

## More information

Homepage, see [www.siemens.com/ET200SP-motorstarter](http://www.siemens.com/ET200SP-motorstarter)  
Industry Mall, see [www.siemens.com/product?3RK1308](http://www.siemens.com/product?3RK1308)  
For the TIA Selection Tool, see [www.siemens.com/TST](http://www.siemens.com/TST)

Further components in the ET 200SP distributed I/O system:

- Catalog ST 70, see <https://www.automation.siemens.com/salesmaterial-as/catalog/en/simatic-st70-chap09-english-2017.pdf>
- Industry Mall, see [www.siemens.com/product?ET200SP](http://www.siemens.com/product?ET200SP)

## ET 200SP motor starters

ET 200SP is a scalable and extremely flexible modular I/O system with IP20 degree of protection.

As I/O modules, the ET 200SP motor starters are an integral part of this I/O system. They are switching and protection devices for single and three-phase loads and are available as direct-on-line or reversing starters.

## Basic functionality

All versions of the ET 200SP motor starter feature the following functionality:

- Fully pre-wired motor starters for switching and protecting any AC loads up to 5.5 kW from 48 V AC to 500 V AC
- Disconnection possible via fail-safe motor starters up to SIL 3 and PL e Cat. 4
- With self-assembling 32 A power bus, i.e. the load voltage is only fed in once for a group of motor starters
- All control supply voltages connected only once, i.e. when modules are added they are automatically connected to the next module
- Hot swapping is permissible
- Digital inputs can optionally be used via a 3DI/LC module
- Control of the motor starter from the control system and extensive diagnostics status via the cyclic process image
- Diagnostics capability for active monitoring of the switching and protection functions

- The signal states in the process image of the motor starter provide information about protective devices (short circuit or overload), the switching states of the motor starter, and system faults.

## Use of fan

For motor starters with a 12 A rated current, the 3RW4928-8VB00 fan is included in the scope of delivery.

This fan can also be ordered as an option for motor starters with lower rated currents, if the boundary conditions demand this. For information on the ambient conditions for the use of motor starters, see chapter "Product overview" in the Manual.

## Designing interference-free motor starters

For interference-free operation of the ET 200SP station in accordance with IEC 60947-4-2 standard, use a dummy module before the first motor starter. The dummy module consists of the 6ES7193-6BP00-0BA0 or 6ES7193-6BP00-0DA0 BaseUnit and the 6ES7133-6CV15-1AM0 BU cover 15 mm.

The 15 mm BU cover protects the plug contacts of the BaseUnit against dirt.

Both can be ordered as accessories, see also [Catalog ST 70](#).

# Load Feeders and Motor Starters for Use in the Control Cabinet

## ET 200SP motor starters

Article No. scheme

Product versions		Article number	
<b>Motor starters</b>		<b>3RK1308</b>	<b>- 0</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>0 0 - 0 C P 0</b>
Product function	Direct-on-line starter	<b>A</b>	for motor standard output 0.12 ... 5.5 kW <sup>1)</sup>
	Reversing starters	<b>B</b>	for motor standard output 0.12 ... 5.5 kW <sup>1)</sup>
	Fail-safe direct-on-line starters	<b>C</b>	for motor standard output 0.12 ... 5.5 kW <sup>1)</sup>
	Fail-safe reversing starters	<b>D</b>	for motor standard output 0.12 ... 5.5 kW <sup>1)</sup>
Current range	0.3 ... 1 A	<b>B</b>	
	0.9 ... 3 A	<b>C</b>	
	2.8 ... 9 A	<b>D</b>	
	4 ... 12 A	<b>E</b>	including fan (3RW4928-8VB00)
Example		<b>3RK1308</b>	<b>- 0 A D 0 0 - 0 C P 0</b>

<sup>1)</sup> For standard motors: Single- or three-phase asynchronous motors, single-phase AC motors, single-phase asynchronous motors, at 400 V AC and 500 V AC; the actual startup characteristics of the motor as well as its rated data are important factors here.

### Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

### BaseUnits for motor starters

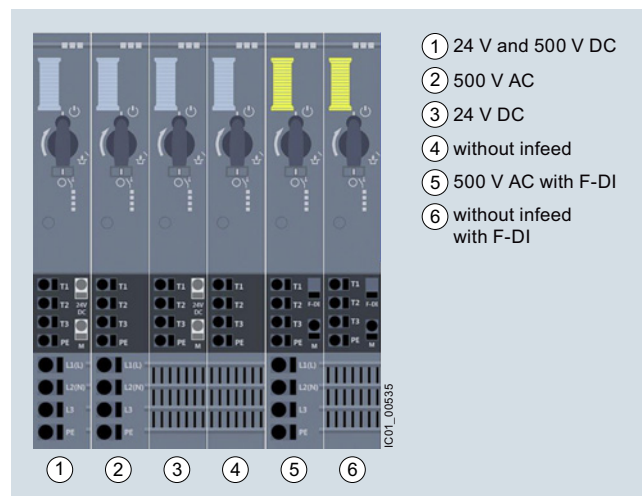
BaseUnits are components for accommodating the ET 200SP I/O modules.

The self-assembling voltage buses integrated into the BaseUnits reduce wiring outlay to the single infeed (both of auxiliary and load voltage).

All modules following on the right are automatically supplied upon plugging the BaseUnits together, if BaseUnits are inserted with routing.

The rugged design and keyed connection technology enables use in harsh industrial conditions.

The BaseUnits are available with various infeeds for the motor starters.



View of the BaseUnit infeeds for the motor starter

Article No. scheme

Product versions		Article number	
<b>BaseUnit</b>		<b>3RK1908</b>	<b>- 0 A P 0 0 - 0</b> <input type="checkbox"/> <b>P 0</b>
BU infeed	24 V and 500 V AC	<b>A</b>	
	24 V DC	<b>B</b>	
	500 V AC	<b>C</b>	
	without infeed	<b>D</b>	
	500 V AC	<b>E</b>	with F-DI for fail-safe motor starters
	without infeed	<b>F</b>	with F-DI for fail-safe motor starters
Example		<b>3RK1908</b>	<b>- 0 A P 0 0 - 0 A P 0</b>

### Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

### 3DI/LC control module

This is a digital input module with three inputs for local motor starter functions such as "manual local control", implementation of fast inputs or "end position disconnection". For a list of all the functions permitted by the 3DI/LC module, see Manual "ET 200SP Motorstarter", "Function overview" section.

<https://support.industry.siemens.com/cs/ww/en/view/109479973>.

The module is plugged into the front of the motor starter from which it is supplied with a 24 V DC operating voltage.

## Benefits

### Product advantages

The ET 200SP motor starters offer a number of advantages:

- Fully integrated into the ET 200SP I/O system (including TIA Selection Tool and TIA Portal)
- High degree of flexibility when it comes to safety applications via SIMATIC F-CPU or SIRIUS 3SK safety relays up to SIL 3 and PL e Cat. 4.
- Simple, integrated current value transmission
- Extensive parameterization by means of TIA Portal
- Increase of plant availability through fast replacement of units (easy mounting and plug-in technology)
- Greater endurance and reduced heat losses thanks to hybrid technology
- Less space required in the control cabinet (20 to 80%) as a result of greater functional density (direct-on-line and reversing starters in same width)
- Extensive diagnostics and information for preventive maintenance
- Parameterizable inputs via 3DI/LC control module
- Less wiring and testing required as a result of integrating several functions into a single device
- Lower overheads for stock keeping and configuration as a result of the wide setting range of the electronic overload release (up to 1:3)
- Technology-reduced inherent power loss as speed-controlled drive systems, enabling also lower cooling effort required (and enabling a more compact design)

The ET 200SP motor starters can be used with highly energy-efficient IE3/IE4 motors.

For more information on IE3/IE4, [see the page 1/7](#).

### Standards and approvals

- IEC/EN 60947-4-2
- UL 60947-4-2
- CSA
- ATEX
- IEC 61508-1: SIL 3
- ISO 13849: PL e
- CCC approval for China

## Application

The ET 200SP motor starters are suitable for the following applications:

- Switching and monitoring of
  - three-phase motors with overload and short-circuit protection (e.g. 400 V asynchronous motors for secondary drives in conveyor systems)
  - single-phase motors with overload and short-circuit protection (e.g. 230 V motors for pump applications)
  - resistive loads by means of current value and diagnosis via the maintenance function (e.g. for heaters)
- Plant monitoring and energy management in conveyor systems:
  - By means of the phase asymmetry and zero current detection during current measurement, for example, drive belt monitoring and blocking monitoring are possible.
- Track switching and lifting table control in conveyor systems:
  - Track switches can be implemented using the quick stop function and lifting table controls by means of the "immediate end position disconnection" function without any laborious programming.
- Safe isolation of the drive from main power supply:
  - The isolating functions according to IEC 60947-1 offer protection against inadvertent activation during plant maintenance.

# Load Feeders and Motor Starters for Use in the Control Cabinet

## ET 200SP motor starters

### Technical specifications

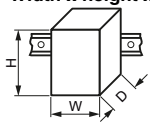
#### More information

Industry Mall, see [www.siemens.com/product?3RK1308](http://www.siemens.com/product?3RK1308)

FAQs, see <https://support.industry.siemens.com/cs/ww/en/ps/21800/faq>

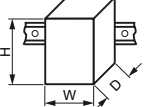
Manual, see <https://support.industry.siemens.com/cs/ww/en/view/109479973>

#### ET 200SP motor starters

Article number		3RK1308-0AB00-0CP0	3RK1308-0AC00-0CP0	3RK1308-0AD00-0CP0	3RK1308-0AE00-0CP0
		3RK1308-0BB00-0CP0	3RK1308-0BC00-0CP0	3RK1308-0BD00-0CP0	3RK1308-0BE00-0CP0
<b>Product designation</b>		<b>Motor starters</b>			
<b>General technical specifications:</b>					
<b>Width x height x depth</b>	mm	30 × 142 × 150			
					
<b>Design of the switch contact</b>		Hybrid			
<b>Design of the motor protection</b>		Electronic			
<b>Installation altitude at height above sea level maximum</b>	m	4 000			
<b>Mounting position</b>		Vertical, horizontal, flat (observe derating)			
<b>Type of mounting</b>		Can be plugged into BaseUnit			
<b>Ambient temperature</b>					
• During operation	°C	-25 ... +60			
• During transport	°C	-40 ... +70			
• During storage	°C	-40 ... +70			
<b>Relative humidity during operation</b>	%	10 ... 95			
<b>Vibration resistance</b>		15 mm up to 6 Hz; 2 g up to 500 Hz			
<b>Shock resistance</b>		6 g / 11 ms			
<b>Degree of protection</b>		IP20			
<b>Type of coordination</b>		1			
<b>Electrical data:</b>					
<b>Supply voltage at DC rated value</b>	V	24			
<b>Operational power for AC-53a at 400 V rated value</b>	kW	0.25	1.1	4	5.5
<b>Operating frequency, rated value</b>	Hz	50 ... 60			
<b>Ultimate short-circuit current breaking capacity (<math>I_{cu}</math>)</b>					
• at 400 V rated value	kA	55			
• at 500 V rated value	kA	55			
<b>Adjustable current response value of the inverse-time delayed overload release</b>	A	0.3 ... 1	0.9 ... 3	2.8 ... 9	4 ... 12
<b>Max. current carrying capacity at startup</b>	A	10	30	90	100
<b>Max. permissible voltage for protective separation between main and auxiliary circuit</b>	V	500			
<b>Insulation voltage, rated value</b>	V	500			
<b>Trip class</b>		CLASS 5 and 10 adjustable			

## Load Feeders and Motor Starters for Use in the Control Cabinet

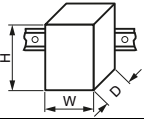
## ET 200SP motor starters

Article number	3RK1308-0CB00-0CP0	3RK1308-0CC00-0CP0	3RK1308-0CD00-0CP0	3RK1308-0CE00-0CP0	
	3RK1308-0DB00-0CP0	3RK1308-0DC00-0CP0	3RK1308-0DD00-0CP0	3RK1308-0DE00-0CP0	
<b>Product designation</b>	<b>Fail-safe motor starter</b>				
<b>General technical specifications:</b>					
<b>Width x height x depth</b>	mm	30 × 142 × 150			
					
<b>Design of the switch contact</b>		Hybrid			
<b>Design of the motor protection</b>		Electronic			
<b>Installation altitude at height above sea level maximum</b>	m	2 000			
<b>Mounting position</b>		Vertical, horizontal, flat (observe derating)			
<b>Type of mounting</b>		Can be plugged into BaseUnit			
<b>Ambient temperature</b>					
• During operation	°C	-25 ... +60			
• During transport	°C	-40 ... +70			
• During storage	°C	-40 ... +70			
<b>Relative humidity during operation</b>	%	10 ... 95			
<b>Vibration resistance</b>		15 mm up to 6 Hz; 2 g up to 500 Hz			
<b>Shock resistance</b>		6 g / 11 ms			
<b>Degree of protection</b>		IP20			
<b>Type of coordination</b>		1			
<b>Electrical data:</b>					
<b>Supply voltage at DC rated value</b>	V	24			
<b>Operational power for AC-53a at 400 V rated value</b>	kW	0.25	1.1	4	5.5
<b>Operating frequency, rated value</b>	Hz	50 ... 60			
<b>Ultimate short-circuit current breaking capacity (<math>I_{cu}</math>)</b>					
• at 400 V rated value	kA	55			
• at 500 V rated value	kA	55			
<b>Adjustable current response value of the inverse-time delayed overload release</b>	A	0.3 ... 1	0.9 ... 3	2.8 ... 9	4 ... 12
<b>Max. current carrying capacity at startup</b>	A	10	30	90	100
<b>Max. permissible voltage for protective separation between main and auxiliary circuit</b>	V	500			
<b>Insulation voltage, rated value</b>	V	500			
<b>Trip class</b>		CLASS 5 and 10 adjustable			

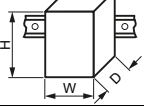
# Load Feeders and Motor Starters for Use in the Control Cabinet

## ET 200SP motor starters

### BaseUnits for motor starters

Article number	3RK1908-0AP00-0AP0	3RK1908-0AP00-0BP0	3RK1908-0AP00-0CP0	3RK1908-0AP00-0DP0	3RK1908-0AP00-0EP0	3RK1908-0AP00-0FP0
<b>Product designation</b>	<b>BaseUnit</b>					
<b>General technical specifications:</b>						
<b>Width x height x depth</b>	mm	30 × 215 × 75				
						
<b>Ambient temperature</b>		IP20				
• During operation	°C	-25 ... +60				
• During transport	°C	-40 ... +70				
• During storage	°C	-40 ... +70				
<b>Degree of protection</b>		Finger-safe				
<b>Touch protection against electric shock</b>		Finger-safe				
<b>Connections / terminals:</b>						
<b>Type of connectable conductor cross-sections</b>						
• At the inputs for supply voltage						
- Solid		1x0.5 ... 2.5 mm <sup>2</sup>	--	--	--	--
- Finely stranded with end sleeve		1x0.5 ... 2.5 mm <sup>2</sup>	--	--	--	--
- Finely stranded without end sleeve		1x0.5 ... 2.5 mm <sup>2</sup>	--	--	--	--
- Solid for AWG cables		1x20 ... 12	--	--	--	--
• For infeed						
- Solid		1x1 ... 6 mm <sup>2</sup>	--	1x1 ... 6 mm <sup>2</sup>	--	1x1 ... 6 mm <sup>2</sup> --
- Finely stranded with end sleeve		1x1 ... 6 mm <sup>2</sup>	--	1x1 ... 6 mm <sup>2</sup>	--	1x1 ... 6 mm <sup>2</sup> --
- Finely stranded without end sleeve		1x1 ... 6 mm <sup>2</sup>	--	1x1 ... 6 mm <sup>2</sup>	--	1x1 ... 6 mm <sup>2</sup> --
- Solid for AWG cables		1x18 ... 10	--	1x18 ... 10	--	1x18 ... 10 --
• For load-side outgoing feeder						
- Solid		1x0.5 ... 2.5 mm <sup>2</sup>	--	--	--	--
- Finely stranded with end sleeve		1x0.5 ... 2.5 mm <sup>2</sup>	--	--	--	--
- Finely stranded without end sleeve		1x0.5 ... 2.5 mm <sup>2</sup>	--	--	--	--
- Solid for AWG cables		1x20 ... 12	--	--	--	--
<b>Type of electrical connection for auxiliary and control circuits</b>		Spring-type terminals (push-in)				
<b>Miscellaneous:</b>						
<b>Type of screwdriver tip</b>		Slotted				
<b>Size of screwdriver tip</b>		Standard screwdriver 0.6 mm x 3.5 mm				

**3DI/LC control module**

Article number	<b>3RK1908-1AA00-0BP0</b>	
Product designation	<b>3DI/LC control module</b>	
<b>General technical specifications:</b>		
Width x height x depth	mm	30 × 54.5 × 42.3
		
Type of product	Accessories	
Number of digital inputs	4	
Installation altitude at height above sea level maximum	m	2000
Mounting position	Vertical, horizontal, flat	
Type of mounting	Can be plugged onto motor starter	
Ambient temperature		
• During operation	°C	-25 ... +60
• During transport	°C	-40 ... +70
• During storage	°C	-40 ... +70
<b>Connections / terminals:</b>		
Connectable conductor cross-section for auxiliary contacts		
• Solid or stranded	mm <sup>2</sup>	0.2 ... 1.5
• Finely stranded with end sleeve	mm <sup>2</sup>	0.25 ... 1.5
• Finely stranded without end sleeve	mm <sup>2</sup>	0.2 ... 1.5
AWG number as coded connectable conductor cross-section	24 ... 16	
Type of electrical connection for auxiliary and control circuits	Spring-type terminals (push-in)	
<b>Electrical data:</b>		
Type of voltage of the control supply voltage	DC	
Control supply voltage at DC rated value	V	20.4 ... 28.8
<b>Miscellaneous:</b>		
Type of screwdriver tip	Slotted	
Size of screwdriver tip	Standard screwdriver 0.6 mm x 3.5 mm	

## Load Feeders and Motor Starters for Use in the Control Cabinet

ET 200SP motor starters **IE3/IE4 ready**

## Selection and ordering data

	Adjustable current response value of the inverse-time delayed overload release	Max. current carrying capacity at startup	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	A	A	d					
<b>Motor starters</b>								
<b>Direct-on-line starters</b>								
	0.3 ... 1	10	2	<b>3RK1308-0AB00-0CP0</b>		1	1 unit	42D
	0.9 ... 3	30	2	<b>3RK1308-0AC00-0CP0</b>		1	1 unit	42D
	2.8 ... 9	90	2	<b>3RK1308-0AD00-0CP0</b>		1	1 unit	42D
	4 ... 12	100	<b>NEW</b> 2	<b>3RK1308-0AE00-0CP0</b>		1	1 unit	42D
<b>Reversing starters</b>								
	0.3 ... 1	10	2	<b>3RK1308-0BB00-0CP0</b>		1	1 unit	42D
	0.9 ... 3	30	2	<b>3RK1308-0BC00-0CP0</b>		1	1 unit	42D
	2.8 ... 9	90	2	<b>3RK1308-0BD00-0CP0</b>		1	1 unit	42D
	4 ... 12	100	<b>NEW</b> 2	<b>3RK1308-0BE00-0CP0</b>		1	1 unit	42D
<b>Fail-safe direct-on-line starters</b>								
	0.3 ... 1	10	<b>NEW</b> 2	<b>3RK1308-0CB00-0CP0</b>		1	1 unit	42D
	0.9 ... 3	30	<b>NEW</b> 2	<b>3RK1308-0CC00-0CP0</b>		1	1 unit	42D
	2.8 ... 9	90	<b>NEW</b> 2	<b>3RK1308-0CD00-0CP0</b>		1	1 unit	42D
	4 ... 12	100	<b>NEW</b> 2	<b>3RK1308-0CE00-0CP0</b>		1	1 unit	42D
<b>Fail-safe reversing starters</b>								
	0.3 ... 1	10	<b>NEW</b> 2	<b>3RK1308-0DB00-0CP0</b>		1	1 unit	42D
	0.9 ... 3	30	<b>NEW</b> 2	<b>3RK1308-0DC00-0CP0</b>		1	1 unit	42D
	2.8 ... 9	90	<b>NEW</b> 2	<b>3RK1308-0DD00-0CP0</b>		1	1 unit	42D
	4 ... 12	100	<b>NEW</b> 2	<b>3RK1308-0DE00-0CP0</b>		1	1 unit	42D

## Load Feeders and Motor Starters for Use in the Control Cabinet

## ET 200SP motor starters

Type of product	Operational voltage of the AC infeed	Supply voltage of the DC infeed	SD	Push-in terminals	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V	V	d	Article No.				

BaseUnit<sup>1)</sup>

3RK1908-0AP00-0AP0

**For motor starters**

with AC/DC infeed	500	24	2	<b>3RK1908-0AP00-0AP0</b>		1	1 unit	42D
with DC infeed	--	24	2	<b>3RK1908-0AP00-0BPO</b>		1	1 unit	42D
with AC infeed	500	--	2	<b>3RK1908-0AP00-0CP0</b>		1	1 unit	42D
without infeed	--	--	2	<b>3RK1908-0AP00-0DP0</b>		1	1 unit	42D
with AC infeed, with F-DI for fail-safe motor starters	500	--	<b>NEW</b> 2	<b>3RK1908-0AP00-0EP0</b>		1	1 unit	42D
without AC infeed, with F-DI for fail-safe motor starters	--	--	<b>NEW</b> 2	<b>3RK1908-0AP00-0FP0</b>		1	1 unit	42D

<sup>1)</sup> The voltage is looped-through from BaseUnits with infeed to subsequent BaseUnits.

Type of product	Supply voltage at DC rated value	Loop through the potential group from the left	SD	Push-in terminals	Price per PU	PU (UNIT, SET, M)	PS*	PG
	V		d	Article No.				

## BaseUnit



6ES7193-6BP00-0BA0

**For dummy modules**

dark, looping through the potential group	24	Yes	1	<b>6ES7193-6BP00-0BA0</b>		1	1 unit	255
light, opening a new potential group	24	No	1	<b>6ES7193-6BP00-0DA0</b>		1	1 unit	255

Control supply voltage at DC rated value	Product function	SD	Push-in terminals	Price per PU	PU (UNIT, SET, M)	PS*	PG
V	Local control	Digital inputs parameterizable	d	Article No.			

## 3DI/LC control module








3RK1908-1AA00-0BP0

20.4 ... 28.8	Yes	Yes	2	<b>3RK1908-1AA00-0BP0</b>		1	1 unit	42D
---------------	-----	-----	---	---------------------------	--	---	--------	-----

## Load Feeders and Motor Starters for Use in the Control Cabinet

### ET 200SP motor starters

	Product designation	Type of product	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
<b>Accessories</b>								
	<b>BU cover 15 mm</b>	for BaseUnits Type A0 or A1	1	<b>6ES7133-6CV15-1AM0</b>		1	5 units	255
6ES7133-6CV15-1AM0								
	<b>BU cover 30 mm</b>	For protection of empty slots, 30 mm	2	<b>3RK1908-1CA00-0BP0</b>		1	1 unit	42D
3RK1908-1CA00-0BP0								
	<b>Infeed bus cover</b> (1 bag containing 10 covers)	For ET 200SP	2	<b>3RK1908-1DA00-2BP0</b>		1	1 unit	42D
3RK1908-1DA00-2BP0								
	<b>Mechanical bracket</b> (1 bag containing 5 mechanical brackets)	Mechanical, for ET 200SP	2	<b>3RK1908-1EA00-1BP0</b>		1	1 unit	42D
3RK1908-1EA00-1BP0								
	<b>Fan</b>	Can be used for 3RK1308	▶	<b>3RW4928-8VB00</b>		1	1 unit	42G
3RW4928-8VB00								