



Rockwell Enclosed SMC Flex Controllers Installation Guide

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Rockwell Enclosed SMC Flex Controllers



Product Information

Enclosed SMC-3, SMC Flex, and SMC-50 Smart Motor Controllers

The enclosed SMC-3, SMC Flex, and SMC-50 Smart Motor Controllers are advanced motor control devices designed for efficient and reliable motor operation. They are suitable for controlling motors rated between 90A and 1250A. The controllers are available in various configurations and can be customized using ProposalWorks software.

Catalog Number Explanation:

The catalog number provides information about the specific configuration of the controller. It consists of various codes that represent different parameters such as controller rating, enclosure type, input line voltage, control voltage, fuse clip/circuit breaker, pilot lights, options, and communication interfaces.

Controller Rating:

- D10: 108A
- D13: 135A
- D20: 201A
- D25: 251A
- D31: 317A
- D36: 361A

- D48: 480A
- D62: 625A
- D78: 780A
- D97: 970A
- E12: 1250A

Enclosure Type:

- J: 1/12/3R (3R)

Input Line Voltage:

- H: 200-208V AC, 3-Phase, 50/60Hz
- A: 230V AC, 3-Phase, 50/60Hz
- B: 400-460V AC, 3-Phase, 50/60Hz
- C: 500-575V AC, 3-Phase, 50/60Hz

Control Voltage:

- D: 120V AC
- J: 24V AC
- A: 240V AC
- EJ: 24V DC

Fuse Clip/Circuit Breaker (CB) – Combination Controllers Only:

- J20: 200A, Class J
- D12: 125A, CB
- J40: 400A, Class J
- D17: 175A, CB
- J60: 600A, Class J
- D25: 250A, CB
- L80: 800A, Class L
- D40: 400A, CB
- L12: 1200A, Class L
- D60: 600A, CB
- L16: 1600A, Class L
- D80: 800A, CB
- D16: 160A, DIN
- E12: 1200A, CB
- D25: 250A, DIN
- D40: 400A, DIN
- D63: 630A, DIN
- D80: 800A, DIN

- N12: 1250A, DIN

Pilot Lights:

(1) Pilot Lights require configuration. See Table 8 for available options.

Options:

- 6XP: 1 Factor Additional VA
- 6YP: 2 Factor Additional VA
- 8L: Line-Mounted Protective Module
- 8M: Load-Mounted Protective Module
- 8B: Line- and Load-Mounted Protective Modules
- BP: Bypass Starter
- NB: NEMA Bypass Starter
- IC: Isolation Contactor
- NI: NEMA Isolation Contactor
- 989: 1 N.O 1 N.C Auxiliary Contact on Circuit Breaker or Fusible Disconnect Switch
- HC3: SMC Flex Human Interface Module Door mounted type 4/12
- 20S: Communication – RS-485
- 20D: Communication – DeviceNet
- 20E: Communication – Ethernet/IP
- 20C: Communication – Control Net
- 20P: Communication – ProfiBUS
- PC: Pump Control
- BC: Braking Control
- TB10: 10 Spare Terminal Blocks
- TB20: 20 Spare Terminal Blocks
- P10: 100 mm Mounting foot, sheet metal
- P20: 200 mm Mounting foot, sheet metal
- F10: 100 mm Mounting foot, high-strength plastic
- F20: 200 mm Mounting foot, high-strength plastic
- 416: Plug-in Control Relay 2-pole
- 417: Plug-in Control Relay On Delay
- 418: Plug-in Control Relay Off Delay

Product Usage Instructions

To select the appropriate Smart Motor Controller configuration, please follow these steps:

1. Use ProposalWorks software, available at <http://www.rockwellautomation.com/global/e-tools/overview.page>, to configure the Smart Motor Controller based on your specific requirements.
2. Refer to the catalog number explanation to understand the codes and parameters associated with the controller.

3. Choose the desired controller rating, enclosure type, input line voltage, control voltage, fuse clip/circuit breaker (for combination controllers), pilot lights (if required), and additional options as needed.
4. Once you have determined the appropriate configuration, proceed with the installation and wiring of the Smart Motor Controller according to the provided installation instructions.
5. Ensure that all electrical connections are made correctly and securely.
6. Configure any pilot lights (if applicable) according to Table 8 in the user manual.
7. Test the Smart Motor Controller to ensure proper functionality before operation.
8. Refer to the user manual for additional information on specific features and troubleshooting guidelines.

For further assistance or technical support, please refer to the Rockwell Automation Publication 150-TD010A-EN-P – July 2018 or contact our customer support hotline.

Catalog Number Explanation

Examples given in this section are not intended to be used for product selection. Use ProposalWorks to configure Smart Motor Controllers. ProposalWorks is available from <http://www.rockwellautomation.com/global/e-tools/overview.page>.

Controllers Rated 90...1250 A

152F
a
–
D10
b
–
J
c
–
B
d
–
D
e
–
J20
f
–
3
g

a	
Bulletin Number	
Code	Description
150F	SMC Flex Non-combination
152F	SMC Flex Combination with Fusible Disconnect
153F	SMC Flex Combination with Circuit Breaker

b	
Controller Rating [A]	
Code	Description
D10	108
D13	135
D20	201
D25	251
D31	317
D36	361
D48	480
D62	625
D78	780
D97	970
E12	1250

c	
Enclosure Type	
Code	Description
J	1/12/3R (3R)

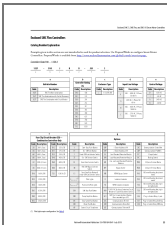
d	
Input Line Voltage	
Code	Description
H	200...208V AC, 3-Phase, 50 /60 Hz
A	230V AC, 3-Phase, 50/ 60 Hz
B	400...460V AC, 3-Phase, 50/60 Hz
C	500...575V AC, 3-Phase, 50/60 Hz

e	
Control Voltage	
Code	Description
D	120V AC
J	24V AC
A	240V AC
EJ	24V DC

f				
Fuse Clip/Circuit Breaker (CB)— Combination Controllers Only				
Code	Description		Code	Description
J20	200 A, Class J		D12	125 A, CB
J40	400 A, Class J		D17	175 A, CB
J60	600 A, Class J		D25	250 A, CB
L80	800 A, Class L		D40	400 A, CB
L12	1200 A, Class L		D60	600 A, CB
L16	1600 A, Class L		D80	800 A, CB
D16	160 A, DIN		E12	1200 A, CB
D25	250 A, DIN			
D40	400 A, DIN			
D63	630 A, DIN			
D80	800 A, DIN			
N12	1250 A, DIN			

g							
Options							
Code	Description		Code	Description		Code	Description
1	Start-Stop Push-Button		6XP	1 Factor Additional VA		20C	Communication: Control Net
1E	On – Off Push-Button		6YP	2 Factor Additional VA		20P	Communication: ProfiBUS
3	Hand-Off-Auto Selector Switch		8L	Line-Mounted Protective Module		PC	Pump Control
3E	On – Off Selector Switch		8M	Load-Mounted Protective Module		BC	Braking Control
3H	Hand-Auto Selector Switch		8B	Line- and Load-Mounted Protective Modules		TB10	10 Spare Terminal Blocks
3B	SMC-Off-Bypass Selector Switch		BP	Bypass Starter		TB20	20 Spare Terminal Blocks
13	Start-Stop Push-Button & Hand-Off-Auto Selector Switch		NB	NEMA Bypass Starter		P10	100 mm Mounting foot, sheet metal
4_ _ _ _ (1)	Pilot Lights		IC	Isolation Contactor		P20	200 mm Mounting foot, sheet metal
5_ _ _ _ (1)	Push to test Pilot Lights		NI	NEMA Isolation Contactor		F10	100 mm Mounting foot, high-strength plastic
1XA	Soft Stop Push Button		989	1 N.O 1 N.C Auxiliary Contact on Circuit Breaker or Fusible Disconnect Switch		F20	200 mm Mounting foot, high-strength plastic
1XB	Pump Stop Push Button		HC3	SMC Flex Human Interface Module- Door mounted type 4/12		416	Plug-in Control Relay 2-pole
1XC	Slow Speed Push Button		20S	Communication: RS-485		417	Plug-in Control Relay On Delay
1XD	Brake Push Button		20D	Communication: DeviceNet		418	Plug-in Control Relay Off Delay
6P	Control Circuit Transformer		20E	Communication: Ethernet/IP			

Documents / Resources



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References

-  [Product Selection and Configuration | Rockwell Automation](#)