

Bulletin 152 & 153 Enclosed Smart Motor Controllers



Featuring the SMC™ Flex & SMC™-3

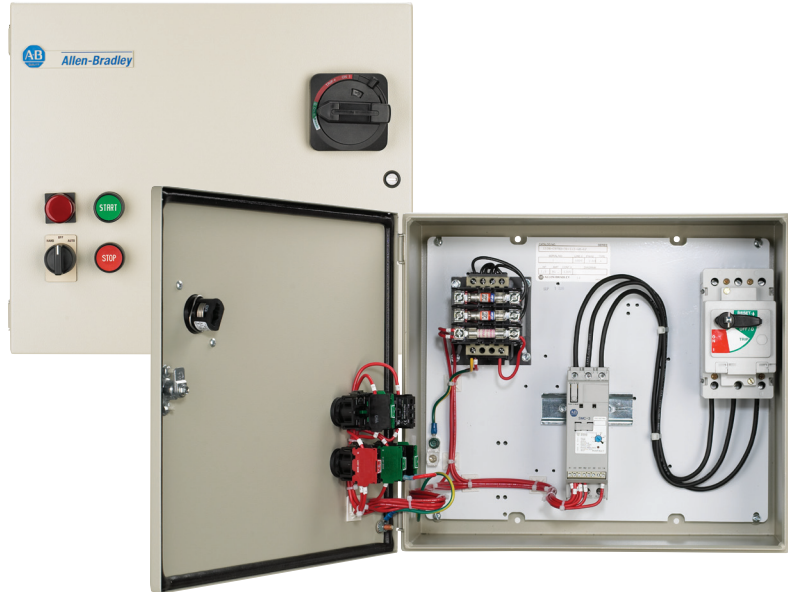
Advantages

- Provides smooth motor starting and stopping of pumps
- Reduced current surges on weak electrical systems
- Reduced starting torque of the motor helps to reduce mechanical stress on system components
- Helps meet both local and regional electrical codes when reduced voltage starting is a requirement
- The elimination of the voltage and current spikes associated with traditional wye-delta (star-delta) starters
- Maximize the life of the motor with reduced electrical strain
- Reduces general system maintenance requirements for improved uptime

Functionality

- Current limit motor starting
 - Adjustable current limit 100% to 600%
- Soft start/voltage ramp starting
 - Adjustable torque 0% to 100%
- Adjustable starting time
 - 0 sec to 30 sec
- Motor deceleration options
 - Coast to stop
 - Soft stop
 - Slow speed
 - Braking

Configurations are available in NEMA Type 4/12 or NEMA Type 3R solutions.



Overview

Manufacturers need to get their product to market faster, more efficiently, and with a higher degree of consistency. The Allen-Bradley® Enclosed SMC Soft Starters from Rockwell Automation are designed to provide integrated features and functionality to help you conserve power and minimize manufacturing risks while reaping the most productivity from your environment.

The flexibility and capabilities of the enclosed SMC Flex and SMC-3 make them ideal for virtually any application. They can minimize mechanical wear resulting from full-voltage starting of AC induction motors, enabling longer system life as well as limit line disturbances from inrush currents, resulting in reduced downtime. With the available options, functionality, and application capabilities, they are unmatched in the industry.

LISTEN.
THINK.
SOLVE.™

AB Parts

Allen-Bradley • Rockwell Software

Rockwell Automation

SMC™ Flex Smart Motor Controllers

152H – F480 F BD B 59 – 8B
a b c d e f g

a

Bulletin Number	
Code	Description
150B	Solid-State Controller with MCS Isolation Contactor
152B	Solid-State Controller with MCS Isolation Contactor & Fusible Disconnect
153B	Solid-State Controller with MCS Isolation Contactor & Circuit Breaker
152H	Solid-State Controller with Fusible Disconnect
153H	Solid-State Controller with Circuit Breaker

c

Enclosure Type	
Code	Description
F	NEMA Type 4/12 (IP65) (Non-Combination Only)
J	NEMA Type 12 (IP54)

e

Control Options	
Code	Description
Blank	Standard
B	Pump Control
D	Braking Control

d

Line Voltage, 120V AC Control Voltage	
Code	Description
HD	200...208V AC, 3-phase, 50 and 60 Hz
AD	230V AC, 3-phase, 50 and 60 Hz
BD	400...460V AC, 3-phase, 50 and 60 Hz
CD	500...575V AC, 3-phase, 50 and 60 Hz

g

Options (see catalog for a full listing)	
Code	Description
8L	Line-Mounted Protective Module (enclosed only)
8M	Load-Mounted Protective Module (enclosed only)
8B	Line- and Load-Mounted Protective Modules (enclosed only)

Load-side MOVs are not available with Pump and Braking options, or when used with inside-the-delta connection.

b

Controller Ratings	
Code	Description
F5	5 A, 3 Hp @ 460V AC
F25	25 A, 15 Hp @ 460V AC
F43	43 A, 30 Hp @ 460V AC
F60	60 A, 40 Hp @ 460V AC
F85	85 A, 60 Hp @ 460V AC
F108	108 A, 75 Hp @ 460V AC
F135	135 A, 100 Hp @ 460V AC
F201	201 A, 150 Hp @ 460V AC
F251	251 A, 200 Hp @ 460V AC
F317	317 A, 250 Hp @ 460V AC
F361	361 A, 300 Hp @ 460V AC
F480	480 A, 400 Hp @ 460V AC
F625	625 A, 500 Hp @ 460V AC
F780	780 A, 600 Hp @ 460V AC

Horsepower

Cat. No	Hp Rating	Cat. No	Hp Rating	Cat. No	Hp Rating	Cat. No	Hp Rating	Cat. No	Hp Rating
33	0.5	39	5	46	40	52	150	60	450
34	0.75	40	7.5	47	50	54	200	61	500
35	1	41	10	48	60	56	250	62	600
36	1.5	42	15	49	75	57	300	63	700
37	2	43	20	50	100	58	350	65	800
38	3	44	25	51	125	59	400	67	1000
-	-	45	30	-	-	-	-	-	-

SMC™-3 Smart Motor Controllers

152H – C 30 F BD 43 – 8L
a b c d e f g

a

Bulletin Number	
Code	Description
150B	Solid-State Controller with MCS Isolation Contactor
152B	Solid-State Controller with MCS Isolation Contactor & Fusible Disconnect
153B	Solid-State Controller with MCS Isolation Contactor & Circuit Breaker
152H	Solid-State Controller with Fusible Disconnect
153H	Solid-State Controller with Circuit Breaker

c

Ampere Ratings	
Code	Description
3	3 A
9	9 A
16	16 A
19	19 A
25	25 A
30	30 A
37	37 A
43	43 A
60	60 A
85	85 A
108	108 A
135	135 A
201	201 A
251	251 A
317	317 A
361	361 A
480	480 A

d

Enclosure Type	
Code	Description
F	NEMA Type 4/12 (IP65)
X	NEMA Type 3R (IP44)

e

Input Line Voltage - Open Type	
Code	Description
HD	200...208V AC, 3-phase, 50 and 60 Hz
AD	230V AC, 3-phase, 50 and 60 Hz
BD	400...460V AC, 3-phase, 50 and 60 Hz
CD	500...575V AC, 3-phase, 50 and 60 Hz

g

Options (see catalog for a full listing)	
Code	Description
8L	Line-Mounted Protective Module
8M	Load-Mounted Protective Module
8B	Line- and Load-Mounted Protective Modules

Load-side MOVs are not available with Pump and Braking options, or when used with inside-the-delta connection.

b

Controller Type	
Code	Description
C	SMC-3

f

Horsepower									
Cat. No	Hp Rating	Cat. No	Hp Rating	Cat. No	Hp Rating	Cat. No	Hp Rating	Cat. No	Hp Rating
33	0.5	39	5	46	40	52	150	60	450
34	0.75	40	7.5	47	50	54	200	61	500
35	1	41	10	48	60	56	250	62	600
36	1.5	42	15	49	75	57	300	63	700
37	2	43	20	50	100	58	350	65	800
38	3	44	25	51	125	59	400	67	1000
-	-	45	30	-	-	-	-	-	-

* Pump Panel only available for highlighted configuration. Start push button, external reset, HOA, and transformer are included as standard.

Allen-Bradley, Rockwell Software, SMC Flex, and SMC-3 are trademarks of Rockwell Automation, Inc.

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
 Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
 Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846