

# Bulletin 156-B



Solid-State Contactors  
Available from 20...90 A

## Advantages

- Compact solid-state design
  - Reduce general system maintenance requirements to help improve uptime
  - High resistance to shock/vibration, contamination, and mechanical wear
  - Built-in varistor protection for a greater degree of over-voltage protection
  - Zero cross switching to help reduce EMC emissions
  - LED status indication provides visual verification of operating status
- Flexible configuration options
  - DIN Rail and panel mounting for quick and easy installation
  - 1, 2, or 3-phase capable
  - Wide range of AC, DC, and analog control input options
- Optimized to help reduce electrical costs and needs
  - Low electrical and acoustical noise
  - Low input power
  - Operational current up to 90 A (AC-1), 32 A (AC-3)
  - Line voltage ratings up to 600V
  - UL/cUL as a motor controller
  - IEC AC51/AC53 resistive/inductive rated

*Solid-state contactors are ideal for high duty cycle applications.*



## Overview

If your application demands low maintenance, fast switching, or operation in harsh environmental conditions, consider a solid-state control solution. The Allen-Bradley® Bulletin 156-B line of solid-state contactors from Rockwell Automation complements our existing line of Bulletin 700 solid-state relays to provide you with a complete line of solid-state solutions. Designed without moving parts or contacts that can wear out, solid-state solutions can help reduce or eliminate the cost associated with maintenance, part replacement, and downtime.

Flexible in configuration and design, these devices can be panel or DIN Rail mounted complete with the integrated heatsink and do not require additional components or assembly. This integrated contactor solution provides both standard ON/OFF operation and special functionality devices like analog controlled and current monitoring. Microprocessor and PLC compatible, the solid-state contactors can be used in applications that range from heaters to small motors and valves.

Solid-state contactors are also an ideal replacement for mercury wetted relays and contactors. Mercury type relays introduce environmental complications that may lead to additional problems and expenses. A solid-state contactor can help eliminate these issues, while delivering the same type of performance at a lower total cost.



# AB Drives

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# Product Selection

## Solid-State Power Contactors

### Single-Phase

Current Rating (A)	Control Voltage	Rated Hp @ 40°C (104°F)				Cat. No.	
		115V	230V	480V*	600V*	Operational Voltage @ 24...265V AC	Operational Voltage @ 42...660V AC
20	24...275V AC/DC, 24...48V DC	1/6	1/2	1	2	156-B20AA1	156-B20CA1
	5...24V DC					156-B20AB1	156-B20CB1
30	24...275V AC/DC, 24...48V DC	1/2	11/2	3	5	156-B30AA1	156-B30CA1
	5...24V DC					156-B30AB1	156-B30CB1
45	24...275V AC/DC, 24...48V DC	1	2	5	7 1/2	156-B45AA1	156-B45CA1
	5...24V DC					156-B45AB1	156-B45CB1
50	24...275V AC/DC, 24...48V DC	1	2	5	7 1/2	156-B50AA1	156-B50CA1
	5...24V DC					156-B50AB1	156-B50CB1
70	24...275V AC/DC, 24...48V DC	1 1/2	3	5	10	156-B70AA1	156-B70CA1
	5...24V DC					156-B70AB1	156-B70CB1
75	24...275V AC/DC, 24...48V DC	1 1/2	3	5	10	156-B75AA1	156-B75CA1
	5...24V DC					156-B75AB1	156-B75CB1
90	24...275V AC/DC, 24...48V DC	1 1/2	3	5	10	156-B90AA1	156-B90CA1
	5...24V DC					156-B90AB1	156-B90CB1

### Dual-Phase

Current Rating (A)	Control Voltage	Rated Hp @ 40°C (104°F)				Cat. No.	
		115V	230V	480V*	600V*	Operational Voltage @ 24...280V AC	Operational Voltage @ 48...660V AC
25	24...275V AC/DC, 24...48V DC	1	3	5	7 1/2	156-B25AA2	156-B25CA2
	5...24V DC					156-B25AB2	156-B25CB2
32	24...275V AC/DC, 24...48V DC	1	3	7 1/2	10	156-B32AA2	156-B32CA2
	5...24V DC					156-B32AB2	156-B32CB2

### Three-Phase

Current Rating (A)	Control Voltage	Rated Hp @ 40°C (104°F)				Cat. No.	
		115V	230V	480V*	600V*	Operational Voltage @ 24...280V AC	Operational Voltage @ 48...660V AC
20	24...275V AC/DC, 24...48V DC	1	3	5	7 1/2	156-B20AA3	156-B20CA3
	5...24V DC					156-B20AB3	156-B20CB3
25	24...275V AC/DC, 24...48V DC	1	3	7 1/2	10	156-B25AA3	156-B25CA3
	5...24V DC					156-B25AB3	156-B25CB3
32	24...275V AC/DC, 24...48V DC	1	3	7 1/2	10	156-B32AA3	156-B32CA3
	5...24V DC					156-B32AB3	156-B32CB3

\*These Hp ratings only apply to units with operational voltage ranges of 48...660V AC.

## Solid-State Specialty Contactors

### Single-Phase with Current Monitoring

Current Rating (A)	Supply Voltage	Control Voltage	Rated Hp @ 40°C (104°F), 50/60 Hz				Alarm Type	Cat. No.	
			115V AC	230V AC	480V AC	600V AC		Operational Voltage @ 24...280V AC	Operational Voltage @ 48...660V AC
30	24V DC	4...32V DC	3/4	2	5	5	PNP, N.O.	156-B30ABP	156-B30CBP
			3/4	2	5	5	NPN, N.O.	156-B30ABN	156-B30CBN
1			2	5	7 1/2	PNP, N.O.	156-B50ABP	156-B50CBP	
1			2	5	7 1/2	NPN, N.O.	156-B50ABN	156-B50CBN	

\*These Hp ratings only apply to units with operational voltage ranges of 48...660V AC.

### Single-Phase, Single-Pole, Multi-Function Analog

Current Rating (A)	Control Input	Cat. No.		
		Operational Voltage @ 90...265V AC	Operational Voltage @ 200...550V AC	Operational Voltage @ 410...660V AC
30	0...10V DC*	156-B30AV1	156-B30BV1	156-B30CV1
	4...20 mA	156-B30AC1	156-B30BC1	156-B30CC1
50	0...10V DC*	156-B50AV1	156-B50BV1	156-B50CV1
	4...20 mA	156-B50AC1	156-B50BC1	156-B50CC1

\*Requires a 24V AC/DC supply to power the control circuitry of the solid-state contactor.

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