



# The ABC Series Specifications

Stop AC motor loads  
quickly & safely... as easy as A-B-C

by  **MOTORTRONICS**

## Voltage Rating

Selected voltage ratings + 10%  
Selectable for 50/60Hz + 2 Hz

## Current Ratings

10 - 1000A in 10 sizes:  
10, 24, 50, 100, 200, 300, 400, 550, 800, 1000A

## Output Capacity

25% duty cycle at 100% unit rating (model dependant above 200 Amps)

## Power Circuit

Full wave bridge, 4 SCRs, designed for use without isolation contactors

## Transient Protection

RC snubber dv/dt circuit on each SCR device

## Fusing

Approved for use with existing motor starter fusing when unit is sized for motor FLA. Consult NEC for any other fusing requirements.

## Control Circuit

Self-powered directly from line terminals. No separate control voltage required.

## Control Method

Microprocessor unit controls sequencing. I/O monitoring and status annunciation. Braking current is adjustable via true RMS regulated control using phase angle firing of SCRs.

## Operator Adjustments

Brake Time and Jog Time = 7 position binary dipswitch  
Brake Current = potentiometer

## Adjustment Ranges

Brake Jog Times = 0 - 127 seconds in 1 second increments  
Brake Current = Up to 100% unit rating

## Inputs

Starter Monitor = Dry input for auxiliary contact from motor starter. Jumper selectable for N.O. or N.C. contact.  
Brake Disable = Dry input for N.O. contact to disable braking before or during operation. Can be wired to the starter thermal overload N.O. auxiliary contact to prevent braking of overloaded motor.  
Motor Power Sensor (T3) = voltage input used for sensing motor power presence in sequencing/status circuit and for zero speed sensing during braking.

## Outputs

Starter Coil Interlock Two sets of FORM "C" relay contacts for use in interlocking the starter coil and/or other devices to prevent energizing while the braking power is applied.  
Mechanical Brake Release N.O. relay contact for use in controlling electro-mechanical brake as a holding brake. When the ABC is "disabled," this circuit controls the mechanical brake normally as if it were the only brake in the system.

## Aux Contact Ratings

5 amps, 250VAC max

## LED Status Indicators

Large LEDs: Braking = green; Fault = red  
Small LEDs: Power On, Jog/Armed, Brake Off, Disabled, Over Temp, and Wiring Error

## Operating Design Temperature

0 - 50°C (32-122°F) open  
0 - 40°C (32 - 104°) enclosed

## Ambient Conditions

0 - 95% relative humidity  
0 - 3300ft (1000M) elevation

## Approvals UL, cUL Listed