



# SQUARE D

## Instruction Bulletin

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Raleigh, NC, U.S.A.

### NEMA Size 5 Vacuum Combination Motor Controller w/ MAG-GARD® Instantaneous Trip Magnetic Circuit Breaker, Class 8539

Short Circuit Current Rating: 22,000 rms Symmetrical A, 600 V Max.



#### DANGER

HAZARDOUS VOLTAGE.

Disconnect all power before working on equipment.  
Electrical shock will cause severe injury or death.



#### CAUTION

OVERCURRENT HAZARD.

Follow manufacturer's guidelines for selection of thermal units and circuit breaker setting.  
Inadequate overcurrent protection may result in equipment damage.

**Introduction:** This bulletin contains adjustment information for instantaneous trip magnetic circuit breakers. The choice of circuit breaker and its setting must be verified with motor nameplate full load current. **Instantaneous trip circuit breakers are factory adjusted to their minimum settings. After installation, adjust to the lowest value that will not result in nuisance tripping. Instantaneous trip circuit breaker trip settings may in no case exceed 13 times the motor full load current.** After proper adjustment, the opening of the branch circuit protective device may be an indication that a fault current has been interrupted. To provide continued protection against fire or shock hazard, current carrying parts and other components of the motor controller should be examined and replaced if damaged. If a burnout of a thermal unit in a bimetallic overload relay occurs, the complete relay block must be replaced. Burnout of the thermal unit in a melting alloy overload relay requires only the replacement of the thermal unit.

**Separate Control:** Control circuit conductors require overcurrent protection in accordance with applicable electrical codes.

**Common Control:** Controllers without a factory installed control transformer require additional overcurrent devices rated 20 A or less to protect factory installed control circuit conductors. Control circuit conductors installed by the user may also require additional overcurrent protection to comply with applicable electrical codes. Fuseholder kit Class 9999 Type SFR4 is available to allow compliance.

**Accessories and Replacement Kits:** The tables below list accessories and replacement kits. Class 9999 accessories may be installed on this product. Consult the Square D Digest for Type numbers.

Table 1 NEMA Size 5 Vacuum Contactor

Magnetic Coil		Interlock
Voltage 50/60 Hz	Coil No.	1 N.O. & 1 N.C.
120 V	9998WG120	9999WX11
240 V	9998WG240	
480 V	9998WG480	
600 V	9998WG600	

Table 2 Replacement Parts

Device	Part No.
Control Transformer	9070K150 150 VA, Specify voltages
O.L. Relay Std.	9065SE05
O.L. Relay Form B	9065SE06B
O.L. Relay Form B5	9065SE06B2
Current Transformer (Qty. 3)	26145-21303

Table 3 Replacement MAG-GARD Instantaneous Trip Magnetic Circuit Breakers (3-Pole)

Amp Rating	Part No.	Trip Range
250 A	KAL36250-29M	875 - 1750 A
250 A	KAL36250-30M	1000 - 2000 A
250 A	KAL36250-31M	1125 - 2250 A
400 A	LAL36400-32M	1250 - 2500 A
400 A	LAL36400-33M	1500 - 3000 A
400 A	LAL36400-35M	1750 - 3500 A

For additional information, refer to Instruction Bulletin 30072-005-105 for the Size 5 vacuum contactor. Refer to Service Bulletin 8739-316 for the circuit breakers.

**PLEASE NOTE:** Electrical equipment should be serviced only by qualified electrical maintenance personnel, and this document should not be viewed as sufficient instruction for those who are not otherwise qualified to operate, service or maintain the equipment discussed. Although reasonable care has been taken to provide accurate and authoritative information in this document, no responsibility is assumed by Square D for any consequences arising out of the use of this material.