

Heavy Duty Power Relay MGN

30 Amp Heavy Duty Relay

- Class F coil insulation system for 155°C (311°F)
- Coil molded in DuPont Rynite® for environmental protection
- Rugged construction rivets terminals to base
- cUL_{US} Listed
- Short Circuit Current Rating (SCCR) of 5kA, 600VAC



Ordering Information

To Order: Select part number and add the desired coil voltage rating (e.g. MGN1C-AC24)

| Base size | Contact Form | Model |
|----------------------|--------------|-------------------|
| Short | SPDT | MGN1C |
| | SPST-NO | MGN1A |
| | SPST-NO-DM | MGN1X |
| | SPST-NO | MGN1AM (see note) |
| | SPST-NC | MGN1B |
| | DPST-NO | MGN2A |
| Long | DPDT | MGN2C |
| | DPDT | MGN2CM (see note) |
| MG series dust cover | | MGCOV |

Note: Magnetic blow-out version

Specifications

■ Contact Data

| Materials | All versions 5/16" diameter Ag-Alloy |
|--------------------|--|
| Contact UL ratings | 30 amp or 1-1/2 hp @ 120 or 240 VAC, 2 hp @ 240 VAC, 3,600w @ 120 or 240 VAC (ballast), 30 amp @ 240 VAC, 100,000 cycle (resistive), 20 amp @ 600 VAC, 30 amp @ 28 VDC |
| UL file number | E41643 |

Note: Magnetic Blow-out versions also have a 20 amp @ 125 VDC (resistive) load rating.

■ Coil Data

AC

| Nominal voltage | Resistance in Ohms $\pm 10\%$ | Nominal coil power | Coil voltages | Coil treatment | Insulation resistance | Pick up voltage at 25°C (77°F) |
|-----------------|-------------------------------|--------------------|-----------------------|--------------------------------|-----------------------|--------------------------------|
| 6 VAC | 0.85 | 9.5 VA | Up to 600 volts/60 Hz | Molded Rynite® Std. Class F | 100 megohms min. | 85% or less of nominal |
| 12 VAC | 2.85 | | | | | |
| 24 VAC | 11.5 | | | | | |
| 120 VAC | 295 | | | | | |
| 240 VAC | 1,170 | | | | | |
| 480 VAC | 4,860 | | | | | |

DC

| Nominal voltage | Resistance in Ohms $\pm 10\%$ | Nominal coil power | Coil voltages | Coil treatment | Insulation resistance | Pick up voltage at 25°C (77°F) |
|-----------------|-------------------------------|--------------------|-----------------|--------------------------------|-----------------------|--------------------------------|
| 6 VDC | 18 | 2W | Up to 125 volts | Molded Rynite® Std. Class F | 100 megohms min. | 75% or less of nominal |
| 12 VDC | 72 | | | | | |
| 24 VDC | 290 | | | | | |
| 48 VDC | 1,150 | | | | | |
| 110 VDC | 6,050 | | | | | |

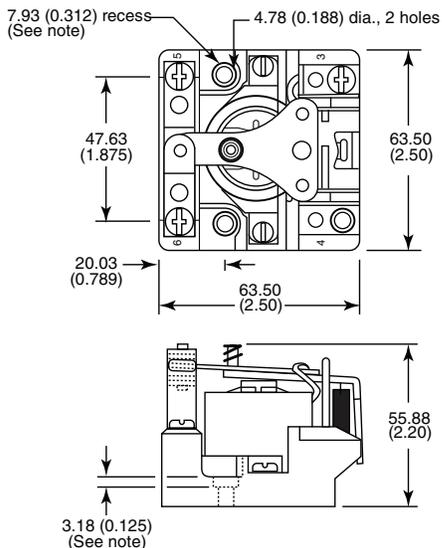
■ Characteristics

| | | |
|-------------------------------|--------------------------|--|
| Operate time | | Approximately 30 ms |
| Release time | | Approximately 30 ms |
| Operating ambient temperature | | AC: -45° to 80°C (-49° to 176°F) @ 30 amps DC: -45° to 115°C (-49° to 239°F) @ 30 amps |
| Coil temperature rise | | 25°C ambient-continuous duty AC: 70°C (158°F) approx. @ 60 Hz (use at 50 Hz will cause slight increase in coil rise) DC: 35°C (95°F) approx. |
| Life expectancy | Electrical at rated load | 100,000 operations (minimum) |
| | Mechanical | 1,000,000 operations |
| Dielectric strength | | 2,200 VRMS, 60 Hz between contacts 2,200 VRMS, 60 Hz between other elements |
| Terminals | | Screw type |
| Weight | | Short base version: approx 227 g (8 oz) Long base version: approx 283 g (10 oz) |

Dimensions

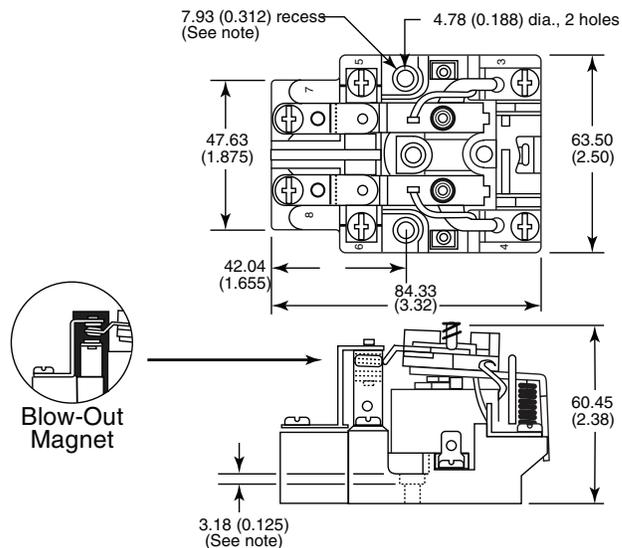
Unit: mm (inch)

■ MGN (Short Base)



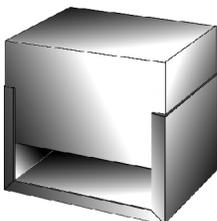
Note: Recess for screw mounting on units with 300-600 VAC coils

■ MGN (Long Base)



Note: Recess for screw mounting on units with 300-600 VAC coils

■ MG Series Dust Cover (Optional)



Sealed knock-out holes for standard conduit fittings. Relay mounts on pre-drilled base. Constructed of Aluminum. Snap-action cover release.

127W x 76.2H x 101.6D mm (5W x 3H x 4D in)

All sales are subject to Omron Electronic Components LLC standard terms and conditions of sale, which can be found at http://www.components.omron.com/components/web/webfiles.nsf/sales_terms.html

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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