

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 (see note) |
| | DPST-NO | MGN2A |
| Long | DPDT | MGN2C |
| | DPDT | MGN2CM (see note) |
| MG series dust cover | | MGCOV |

Note 1: MGN2CM is magnetic blow-out type. Available in following coil voltages:
 AC: 120, 240
 DC: 12, 24, 48

Note 2: MGN1X is available in following coil voltages:
 AC: 12, 24, 120
 DC: 12, 24

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 | E323870 |

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

■ Coil Data

AC

| Nominal voltage | Resistance in Ohms ± 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 ± 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 | | | | | |

Note: All rated coil voltages denoted by * will be manufactured upon special request. Please consult with an Omron Representative for more details.

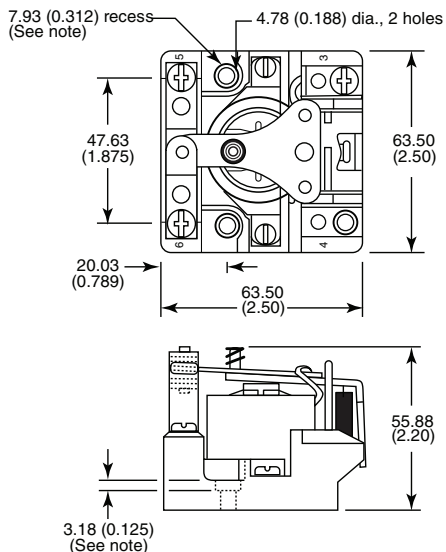
■ Characteristics

| | | |
|-------------------------------|-----------------------------------------------------------------------------------------|------------------------------|
| 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

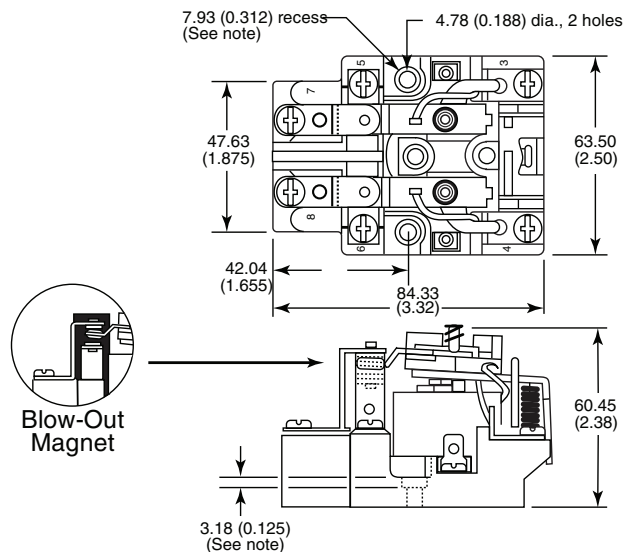
Unit: mm (inch)

■ MGN (Short Base)



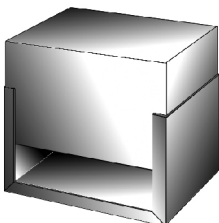
Note: Recess for screw mounting on units with 300-600 VAC coils

■ 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 DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

MEMO

A large grid of dashed lines for taking notes, consisting of 20 columns and 30 rows of small squares.

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