



- Up to 40A /240VAC continuous rating
- 110VDC maximum switching voltage
- Industry standard style
- Cost effective

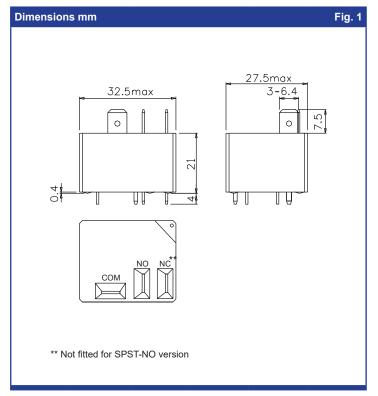
| | | | CACE CENTUS COMPliant | | | |
|------------------------------------|-----------------|--|------------------------------------|--|--|--|
| Contacts | | | Ordering Code | | | |
| Contact arrangement | | SPST-NO (1 NO); SPDT (1 C/O) | | | | |
| Contact material | | AgSnO ₂ | DG38B-3021-30-1012 | | | |
| Max. switching voltage | AC/DC | 250VAC, 110VDC | | | | |
| Min. switching current / voltage | | 500mA / 12VDC | Series Coil code: | | | |
| Max. continuous current | | SPST-NO: 40A / SPDT: 40A (NO), 30A (NC) | See tables | | | |
| Max. switching current | | SPST-NO: 40A / SPDT: 40A (NO), 30A (NC) | Contact material 1 & 2 | | | |
| Max. switching power | | 7200VA / 1100W | 30: AgSnO ₂ (40A/30A) | | | |
| Initial resistance | | ≤100mΩ max. at 0.1A/6VDC | | | | |
| Coil | | | Contact arrangement | | | |
| Nominal voltage | | 3110VDC; 12220VAC | 11: SPDT (1 C/O) | | | |
| Must release voltage | | $DC \ge 0.1U_n : AC \ge 0.3U_n$ | 21: SPST-NO (1 NO) | | | |
| Operating range | | See tables 1 & 2 | | | | |
| Rated power consumption | | 0.93W (DC), 1.2VA (AC) | Environmental protection | | | |
| Insulation | | | 3: In cover, sealed - IP67 | | | |
| Insulation resistance | | >100MΩ at 500VDC, 50%RH | 7: Covered, dust cover | | | |
| Dielectric strength | coil to contact | 4000Vrms, 1min (50Hz) | | | | |
| between open contacts | | 1500Vrms, 1min (50Hz) | Mounting & terminations | | | |
| General Data | | | 0: PCB + QC Terminals for contacts | | | |
| Operating time | typ. | 15ms | | | | |
| Release time | typ. | 10ms | | | | |
| Electrical life | ops. | 1 x 10 ⁵ | | | | |
| Mechanical life (no load) | ops. | 1 x 10 ⁶ | | | | |
| Environmental | | | | | | |
| Ambient temperature | operating | <u>-40 to +125°C</u> | | | | |
| | storage | -40 to +155°C | | | | |
| Shock resistance functional | | 10g 11ms | | | | |
| <u>destructive</u> | | 100g | | | | |
| <u>Vibration resistance</u> | | DA 1.5mm 10-55Hz | | | | |
| <u>Drop resistance</u> | | 1M height drop on to concrete (sealed type only) | | | | |
| <u>Dimensions</u> <u>L x W x H</u> | | 32.5 x 27.6 x 20.2mm (covered) | | | | |
| Weight | approx. | ≤ 36g | | | | |

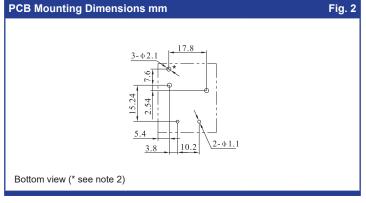


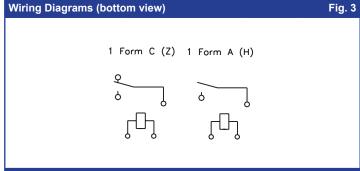
DG38B Series PCB & Industrial Power Relay

| DC Coil Data Table 1 | | | | | | | | |
|---------------------------------|-----------------------------|------------------------------|-------------------------------|---------------------------------------|---------------------------------------|------------------------------------|--|--|
| Coil code | Nominal voltage (VDC) | Coil resistance Ω ±10% | Nominal operating power | Must operate voltage max. (VDC) | Must release voltage min. (VDC) | Max. allowable voltage (VDC) | | |
| 1003 | 3 | 10 | | 2.25 | 0.30 | | | |
| 1005 | 5 | 28 | | 3.75 | 0.50 | | | |
| 1006 | 6 | 40 | | 4.50 | 0.60 | | | |
| 1009 | 9 | 90 | | 6.75 | 0.90 | | | |
| 1012 | 12 | 160 | 0.93W | 9.00 | 1.20 | 130% of nominal | | |
| 1018 | 18 | 360 | | 13.50 | 1.80 | | | |
| 1024 | 24 | 640 | | 18.00 | 2.40 | | | |
| 1048 | 48 | 2,560 | | 36.00 | 4.80 | | | |
| 1110 | 110 | 13,445 | | 82.50 | 11.00 | | | |
| UL Class F insulation standard. | | | | | | | | |

| AC Coil Data | | | | | | Table 2 |
|---------------------------------|-----------------------------|------------------------------|-------------------------------|---------------------------------------|---------------------------------------|------------------------------------|
| Coil code | Nominal voltage (VAC) | Coil resistance Ω ±10% | Nominal operating power | Must operate voltage max. (VAC) | Must release voltage min. (VAC) | Max. allowable voltage (VAC) |
| 5012 | 12 | 27 | 1.2VA | 9.00 | 3.60 | 130% of nominal |
| 5024 | 24 | 120 | | 18.00 | 7.20 | |
| 5110 | 110 | 2,360 | | 82.50 | 33.00 | |
| 5120 | 120 | 3,040 | | 90.00 | 36.00 | |
| 5220 | 220 | 13,490 | | 165.00 | 66.00 | |
| UL Class F insulation standard. | | | | | | |







Notes

- 1) All parameters, unless otherwise specified, are measured at an ambient temperature of 23°C.
- 2) PCB Mounting Holes the " * " hole is not needed for the SPST-NO version.
- 3) At an ambient temperature of 85°C, the maximum allowable coil voltage should be reduced to 72%.
- 4) Electrical life obtained at resistive or inductive load at 30A/15VDC with suitable arc suppression attached and with an operating frequency of 1 op/sec.

Specifications are subject to change without notice. E&OE