

# C31DL/DC12V

3 pole | Changeover contact | Power relay



## Main circuit

|                                                  |                   |
|--------------------------------------------------|-------------------|
| Available contact materials                      | AgCuNi            |
| Recommended minimum contact load                 | 50 mA / 10 V      |
| Maximum contact load AC                          | 10 A / 250 V AC-1 |
| Maximum contact load DC                          | 10 A / 30 V DC-1  |
| Inrush current                                   | 40 A, 20 ms       |
| Rated load AC                                    | 2 500 VA          |
| Rated load DC                                    | fig. 3.           |
| Rated current                                    | 10 A              |
| Mechanical endurance (cycles)                    | ≥ 100 000 000     |
| Electrical endurance at rated load AC-1 (cycles) | ≥ 700 000         |

## Control circuit

|                           |                                         |
|---------------------------|-----------------------------------------|
| Nominal voltage           | see table product references            |
| Operating voltage range   | $0.8 U_N \dots 1.20 U_N$                |
| Pick-up voltage           | $0.8 U_N$                               |
| Release voltage           | $> 0.15 \times U_N / > 0.05 \times U_N$ |
| Power consumption AC / DC | 2.5 VA / 1.2 W                          |

## Coil table

| $U_{DC}(V)$ | $R(\Omega)$ | $I(mA)$ |
|-------------|-------------|---------|
| 12          | 115         | 104     |

Types with LED indicator take additional 5 ... 10 mA @ < 80 V

## Insulation

|                                |                |
|--------------------------------|----------------|
| Test voltage open contact      | 1.5 kV / 1 min |
| Test voltage contact / contact | 1.5 kV / 1 min |
| Test voltage contact / coil    | 2 kV / 1 min   |
| Overvoltage category           | III            |
| Insulation resistance at 500 V | ≥ 1 GΩ         |
| Pollution degree               | 3              |

## General data

|                                           |                               |
|-------------------------------------------|-------------------------------|
| Storage temperature (no ice)              | -40 ... 80 °C                 |
| Operation temperature                     | -40 ... 70 °C                 |
| Pick-up time AC / DC                      | 3 ... 10 ms / ≤ 12 ms         |
| Release time AC / DC                      | 2 ... 15 ms / ≤ 3.5 ms        |
| Bounce time NO contact AC / DC            | 3 ... 6 ms / approx. ≤ 3.5 ms |
| Maximum switching frequency at rated load | 360 / h                       |
| Dimensions                                | fig. 4.                       |
| Weight                                    | 80 g                          |
| Housing material                          | PA / PC                       |

## Product references

| Description               | Type         | 12 |
|---------------------------|--------------|----|
| LED & Free wheeling diode | C31DL/DC...V | ✓  |

Other voltages on request. Please contact support@comatreleco.com.  
«...» List coil voltage to complete product references

## Accessories

|        |                                                       |
|--------|-------------------------------------------------------|
| Socket | S3-B, S3-S, S3-M, S3-M0, S3-M1, EC-11, S3-L (SK-3006) |
|--------|-------------------------------------------------------|



fig. 1. Wiring diagram

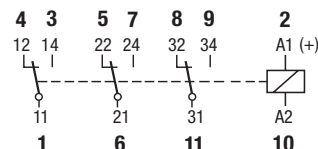


fig. 2. AC voltage endurance

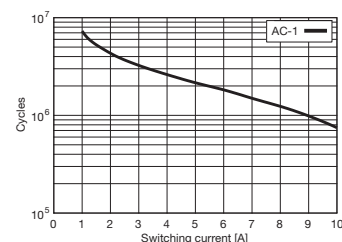


fig. 3. DC load limit curve

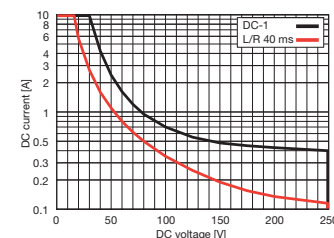
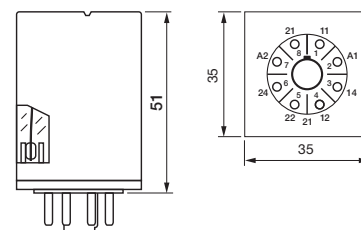


fig. 4. Dimensions (mm)



## Technical approvals, conformities

Standards IEC/EN 61810; IEC/EN 60947

