

C31D/R DC12V

3 pole | Changeover contact | Power relay | Railway



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	$0.7 U_N \dots 1.25 U_N$
Pick-up voltage	$0.7 U_N$
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
Railway & Free wheeling diode	C31D/R DC...V	✓
Other voltages on request. Please contact support@comatreleco.com.		
«...» List coil voltage to complete product references		

Accessories

Socket	S3-MR, S3-M0R, S3-M1R
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fig. 1. Wiring diagram

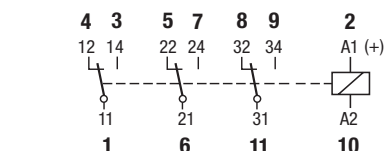


fig. 2. AC voltage endurance

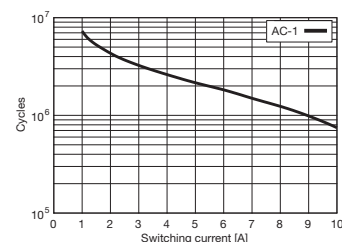


fig. 3. DC load limit curve

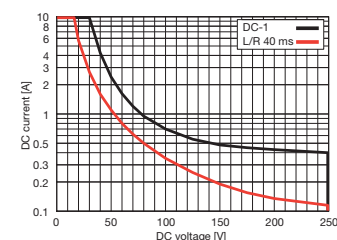
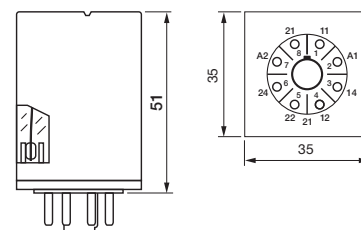


fig. 4. Dimensions (mm)



Technical approvals, conformities

Standards IEC/EN 61810; IEC/EN 60947

Railway EN 50155; EN 45545-2

