Product data sheet

Specifications

Control relay,Easy TeSys Control,CAE,3NO+1NC,<=690V, 415V AC 50Hz coil

CAE31N5

Main

Range	Easy TeSys
Range of product	Easy TeSys Control Relay
Product or component type	Control relay
Device short name	CAE
Contactor application	Control circuit
Colour	Grey (RAL 7011)

Complementary

Utilisation category	AC-15 AC-14
Pole contact composition	3 NO + 1 NC
[Ue] rated operational voltage	<= 690 V AC
Control circuit type	AC at 50 Hz
[Uc] control circuit voltage	415 V AC 50 Hz
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
[Ith] conventional free air thermal current	10 A (at 40 °C)
Irms rated making capacity	140 A at 690 V AC conforming to IEC 60947-5-1
[Icw] rated short-time withstand current	120 A - 500 ms 140 A - 100 ms
Associated fuse rating	10 A gG at 690 V conforming to IEC 60947-5-1
[Ui] rated insulation voltage	690 V conforming to IEC 60947-5-1
Mounting support	Rail Plate
Connections - terminals	Screw clamp terminals 1 1…2.5 mm² - cable stiffness: flexible without cable end Screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible without cable end Screw clamp terminals 1 1…2.5 mm² - cable stiffness: flexible with cable end Screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Screw clamp terminals 1 1…2.5 mm² - cable stiffness: solid without cable end Screw clamp terminals 2 1…2.5 mm² - cable stiffness: solid without cable end
Recommended tightening torque	1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2
Control circuit voltage limits	Operational: 0.85...1.1 Uc at 50 Hz Drop-out: 0.3...0.6 Uc
Operating time	4...19 ms coil energisation and NC opening 12...22 ms coil energisation and NO closing 4...12 ms coil de-energisation and NC opening 6...17 ms coil de-energisation and NO closing
Mechanical durability	10 Mcycles

Maximum operating rate	180 cyc/mn
Inrush power in VA	70 VA 50 Hz (at 20 °C)
Hold-in power consumption in VA	8 VA 50 Hz (at 20 °C)
Minimum switching voltage	17 V
Minimum switching current	5 mA
Non-overlap time	1.5 ms on energisation between NC and NO contact 1.5 ms on de-energisation between NC and NO contact
Insulation resistance	> 10 MOhm
Mechanical robustness	Shocks control relay open: 7 Gn for 11 ms Shocks control relay closed: 10 Gn for 11 ms Vibrations control relay open: 1.5 Gn, 5...300 Hz Vibrations control relay closed: 3 Gn, 5...300 Hz
Height	74 mm
Width	45 mm
Depth	80 mm
Net weight	0.28 kg

Environment

Standards	EN/IEC 60947-1 EN/IEC 60947-5-1 GB/T 14048.1 GB/T 14048.5
Product certifications	CB Scheme CCC CE EAC
IP degree of protection	IP2X conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068
Ambient air temperature for operation	-20…70 °C
Ambient air temperature for storage	-60…80 °C
Operating altitude	3000 m without derating

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.7 cm
Package 1 Width	5.2 cm
Package 1 Length	7.5 cm
Package 1 Weight	305.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	36
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	11.435 kg

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**320 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**
Carbon footprint of the manufacturing phase [A1 to A3]	**3 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.3 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**316 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.5 kg CO2 eq.**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**

Use Longer

Lifetime extension

Repair	**No**

Use Again

Repack and remanufacture

Recyclability potential, in %	**14**
End of life manual availability	**End of Life Information**
Take-back	**No**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**

Offer Marketing Illustration

Product benefits / Features

Offer Marketing Illustration

Product benefits / Features

Offer Marketing Illustration

Product benefits / Features

Technical Illustration

Assembly's dimensions