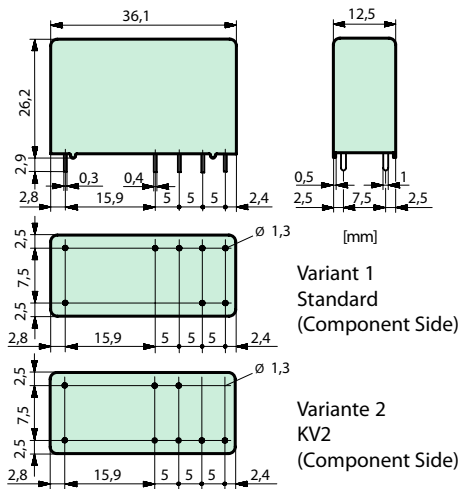


SIM 3 Series

Relay Key Data

- PCB Relay with forcibly guided Contacts
- Protective separation between Coil and Contacts (Air and Creepage Distance >14mm); Protective separation between left and right Contact Side (Air and Creepage Distance >5.5mm)
- EN50205 Type A
- Contact Mounting: SIM212 2NO / 1NC
- Small external Dimensions
- Mean Coil Power 0.75W
- Holding Power 0.21W

Dimensions



Contact Data

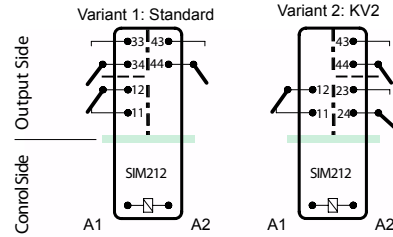
Contact Material	AgSnO ₂ +0.2 μ m Au
Type of Contact	Crest Contact
Rated Switching Capacity	250VAC 8A AC1 2'000VA
Electr. life AC1(360 cycles/h)	approx. 100'000
Inrush Current max.	20A for 20ms
Switching Voltage Range	5 to 250 VDC/VAC
Switching Current Range*	10mA to 8A
Switching Capacity Range*	60mW to 2'000W(VA)
Contact resistance (as delivered)	$\leq 100\text{m}\Omega/6\text{V}/100\text{mA}$

*Guided Values

Standard Coils for direct current (other voltages on request)

Nominal Voltage VDC	Min. Pick-Up Voltage at 20°C	Drop-Out Voltage at 20°C	Nominal Current in mA	Resistance in Ohm at 20°C
5	3.75	≥ 0.5	151.0	33 \pm 10%
6	4.5	≥ 0.6	125.0	48 \pm 10%
12	9.0	≥ 1.2	63.1	190 \pm 10%
21	15.75	≥ 2.1	35.5	590 \pm 10%
24	18.0	≥ 2.4	30.0	800 \pm 10%
48	36.0	≥ 4.8	15.4	3'100 \pm 10%
60	45.0	≥ 6.0	12.5	4'800 \pm 13%
110	82.5	≥ 11.0	6.8	16'000 \pm 15%

Circuit Diagram (Topview)



Insulation Data

- Basic Insulation at 250 VAC
- Air and Creepage Dis. >4mm
- Test Voltage 2'500V/50Hz/1min
- Double or Reinforced Insulation at 250VAC
- Air and Creepage Distance >5.5mm
- Test Voltage 4'000V/50Hz/1min
- Double or Reinforced Insulation at 250VAC
- Air and Creepage Distance >14mm
- Test Voltage 5'000V/50Hz/1min

Test Voltage contacts open	1'500V/50Hz/1min
Creepage Resistance	CTI 250
Pollution Degree	2
Overvoltage Category	III
Insulation Resistance at U _p 500VDC	>100 M Ω

Additional Relay Data

Mechanical life	>10x10 ⁶ operations
Switching frequency, mechanical	15Hz
Response Time (all NO closed)	typ. 10ms
Drop-Out Time** (all NC closed)	typ. 4ms
Bounce Time of NO Contact	typ. 6ms
Bounce Time of NC Contact	typ. 12ms
Shock Resistance	16ms
	NO > 10g
	NC > 2.5g
Vibration Resistance	NO > 10g
(10-200Hz)	NC > 1g
Resistance to short circuiting output contacts	1'000A SCPD 10A qG/qL (pre-fuse)
Ambient Temperature	-40°C to +70°C
Thermal Resistance	50 K/W
Temperature Limit for Coil	120°C
Weight	approx. 25g
Mounting Position	any
Type of Protection	RT II
Solder bath Temperature	270°C/5s

**without spark suppression

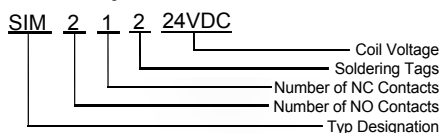
Tests, Regulations Approvals

UL File E188953	Sec. 3
Insulation class (IEC 60664-1)	250VAC
Protection class II	VDE 0106
Fire Protection requirements	UL 94 / V0

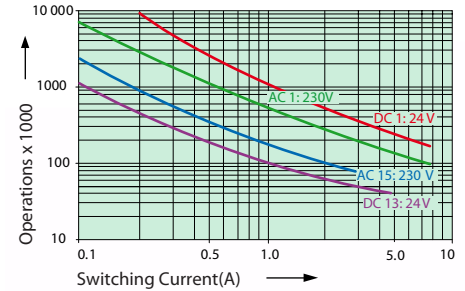
Options, Accessories

PCB Socket, DIN Rail Socket see Page 28

Product Key



Contact Lifetime

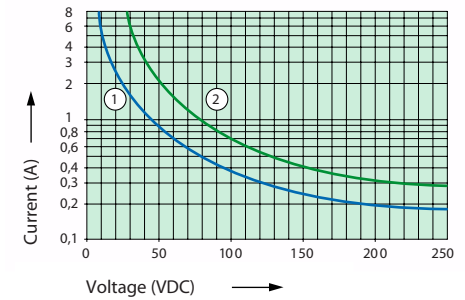


Max. Switching Characteristics (DIN EN60947-5-1, Tab.C2):

- AC1: 250V / 8A
- AC15: 230V / 3A
- DC1: 24V / 8A
- DC13: 24V / 6A / 0.1Hz
- UL 508: C150 / R300

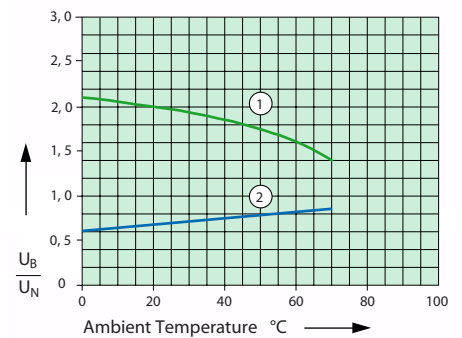
Maximal Contact Load at AC1 with 230V: 2 Contacts with 8A each

Load Limit Curve Direct Current



- 1) Inductive Load L/R 40ms
- 2) Resistive Load

Excitation Voltage Range



- 1) Max. excitation Voltage with Contact Load: <6A
- 2) Min. excitation Voltage (guaranteed Values) without previous operation.

No heat accumulation due to intrinsic heating of other components. Continuous Duty 100%.