

» Features

- Sugar cube relay with universal terminal footprint
- 16A switching capacity
- Ambient temperature 105°C
- UL insulation system: class F
- Coil power consumption 360mW
- Accordance with IEC60335-1 Ed. 5
- Accordance with IEC60079-15:2010, clause 22.4

» Application Examples

- Household electrical appliances
- Building automation
- Machinery electrical facilities

» Ordering Information



21.3 x 16.2 x 20.9

NF7 **100** **E** **7** **24** **S** **XXXX**
 1 2 3 4 5 6 7

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| <ol style="list-style-type: none"> Type: NF7 Contact configuration: 100 = 1NO (1 form A)
001 = 1CO (1 form C) Contact material: E = AgSnO₂ Pin layout: Nil = Standard
7 = Double NO pin | <ol style="list-style-type: none"> Coil voltage : 5 = 5VDC; 6 = 6VDC;
9 = 9VDC; 12 = 12VDC;
24 = 24VDC; 48 = 48VDC; Protection: Nil = Flux tight
S = Sealed washable Compliance: Nil = Standard
0335 = IEC60335-1 (GWT)
0335 = IEC60335-1 (GWT) |
|--|--|

» Contact Data

Contact Arrangement	1 form C (CO) or 1 form A (NO)
Contact Material	AgSnO ₂
Contact Rating (Resistive Load)	16A, 250VAC by 105°C
Max. Switching Voltage	400VAC, 110VDC
Max. Switching Current	16A
Min. Switching Capacity	100mA, 6VDC
Contact Resistance	≤ 100mΩ (by voltage drop 6VDC/1A)
Electrical endurance	100 x 10 ³
Mechanical endurance	10 x 10 ⁶

» Coil Rating (at 23°C)

Rated Coil Voltage [VDC]	Coil Resistance R[Ω] ± 10%	Pull-in Voltage [VDC]	Drop-out Voltage [VDC]	Coil Power [mW]	Max. Applied Voltage [VDC]
5	70	Max. 70% rated coil voltage (Initial)	Min. 10% rated coil voltage (Initial)	360	Max. 170% rated coil voltage (Initial)
6	100				
9	225				
12	400				
24	1600				
48	6400				

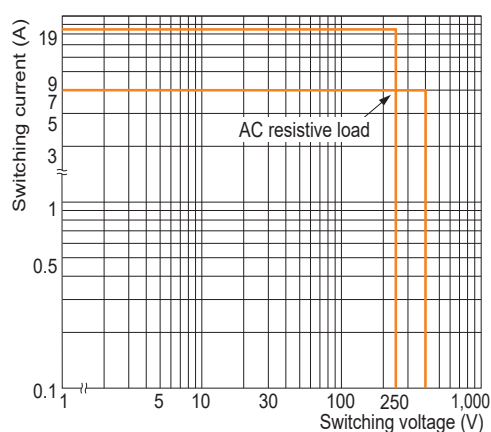
» Specification

Insulation resistance	100MΩ min. (at 500VDC)
Creepage / Clearance Distance	Min. 4mm / Min. 3mm
Initial Dielectric Strength	between open contacts 1000Vrms, 50/60Hz for 1 min
	between contact and coil 2500Vrms, 50/60Hz for 1 min
Impulse withstand voltage	4.5kV (1.2 x 50 μs)
Material Group of Insulation Parts	IIIa
Over Voltage Category	III
Tracking Index	CTI 250V min.
Glow wire according to IEC60335-1	GWFI 850°C and GWIT 775°C
Environmental Protection	RTII (Flux tight) / RTIII (Sealed)
Operate Time / Release Time	Max. 15ms / Max. 5ms
Frequency of Operation	360 / hour (With load)
	18000 / hour (Without load)
Vibration Resistance (Malfunction)	10 to 55 to 10 Hz, 1.5mm double amplitude
Shock Resistance (Malfunction)	Energized 100m/s ² , De-energized 100m/s ²
Ambient Operating Temperature ¹⁾	-40 to +105°C
Ambient Operating Humidity ¹⁾	5% to 85%
Weight	Approx. 14g
Packing Unit	25 pcs / tube; 1000 pcs / box;

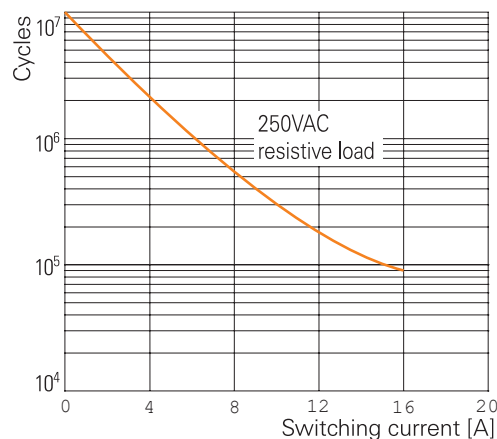
1) Without icing or condensation

» Engineering Data

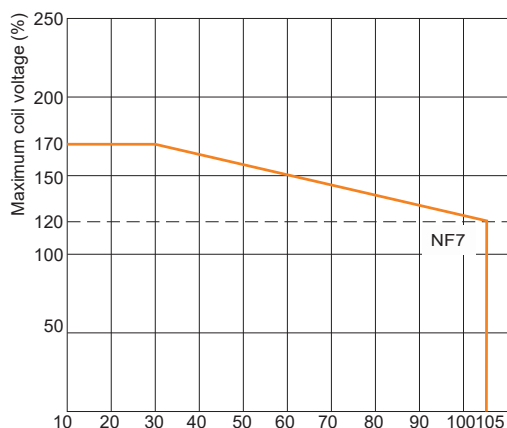
Max. switching capacity



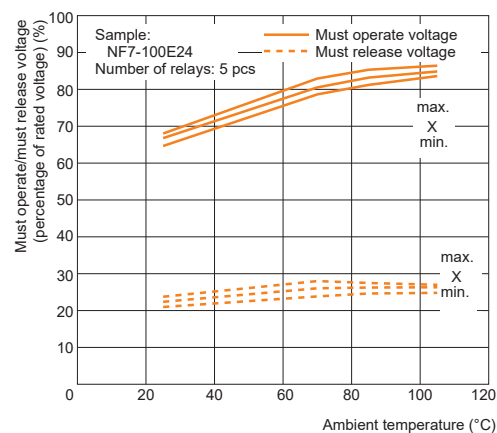
Electrical Endurance



Ambient Temperature vs. Maximum Coil Voltage



Ambient Temperature vs. Must Operate and Must Release Voltages



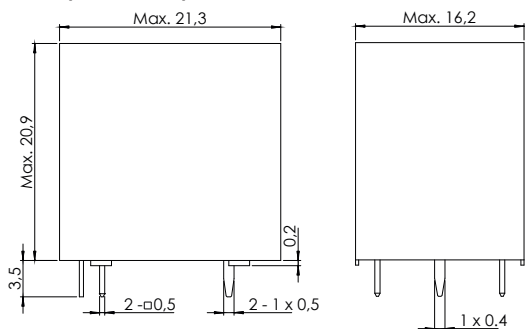
Note: The max. coil voltage refers to the max. value in a varying range of operating power voltage, not a continuous voltage.

» Safety approvals

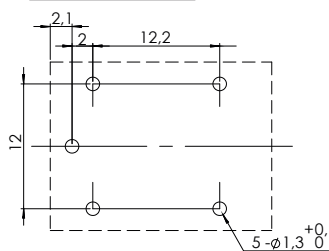
Model	VDE	UL	CQC
File No.	40034616	E352916	CQC08001023385
Ratings	16A, 250VAC, 105°C, 90k cycles; 10A, 250VAC, 105°C, 300k cycles; 7A, 400VAC, 105°C, 100k cycles;	16A, 250VAC, 105°C, 100k cycles; TV-8, 125VAC 1HP (16FLA), 125VAC 1HP (8FLA), 250VAC	10A, 250VAC, 85°C, 100k cycles

» Dimensions

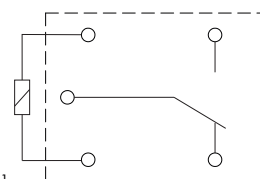
1CO (1 form C)



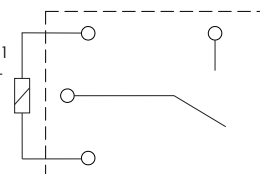
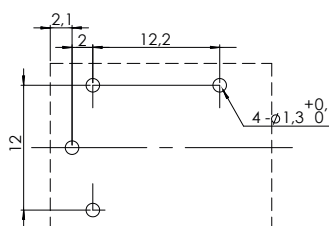
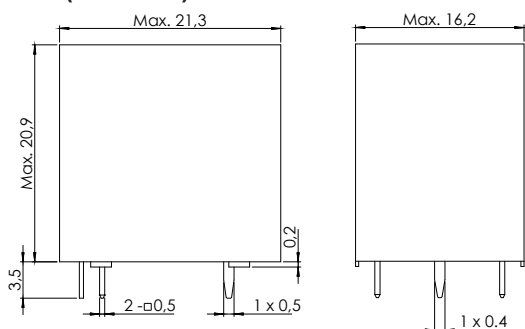
PCB Mounting Holes (Bottom View) Tolerance: ±0,3mm



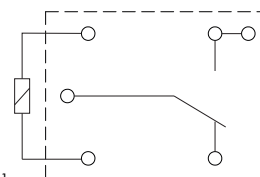
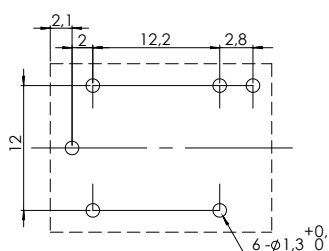
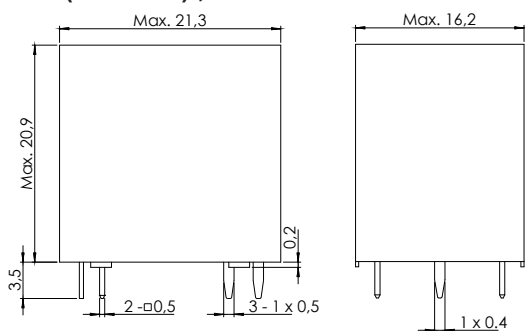
Wiring Diagram (Bottom View)



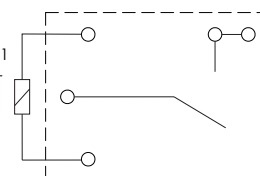
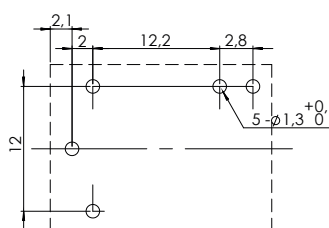
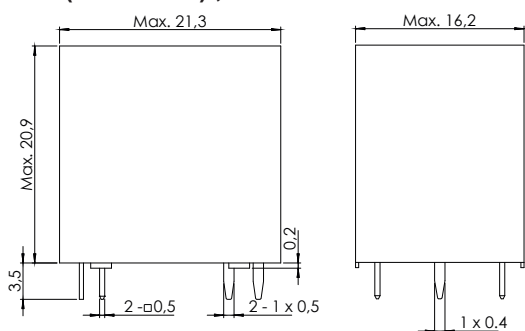
1NO (1 form A)



1CO (1 form C) , Double NO Pin



1NO (1 form AS) , Double NO Pin



Disclaimer

All technical performance data apply to the relay as such, specific conditions of the individual application are not considered. Please always check the suitability of the relay for your intended purpose. We do not assume any responsibility or liability for not complying herewith. We recommend to complete our questionnaire and to request our technical service. Any responsibility for the application of the product remains with the customer only. All specifications are subject to change without notification. All rights of NF Forward GmbH & NF Forward USA Inc. are reserved.