



19,5 x 15,6 x 15,3 RoHS compliant

# NF8

UL<sup>®</sup> E352915 40034617 1300209951

Features	Application Examples
<ul style="list-style-type: none"> <li>● Sugar cube relay with universal terminal footprint</li> <li>● 10A switching capacity</li> <li>● Max. ambient temperature 105°C</li> <li>● UL insulation system: class F</li> <li>● Accordance with IEC60335-1</li> <li>● Accordance with IEC60079-15:22.4</li> </ul>	<ul style="list-style-type: none"> <li>● Household electrical appliances</li> <li>● Building automation</li> <li>● Machinery electrical facilities</li> </ul>

Ordering Information					
<u>NF8</u> 1	<u>100</u> 2	<u>E</u> 3	<u>24</u> 4	<u>S</u> 5	<u>XXXX</u> 6
1. Type:	NF8				
2. Contact configuration:	100 = 1NO (1 form A) 001 = 1CO (1 form C)				
3. Contact material:	E = Ag alloy				
4. Coil voltage:	5 = 5VDC; 6 = 6VDC; 9 = 9VDC; 12 = 12VDC; 24 = 24VDC; 48 = 48VDC;				
			5. Protection:		Nil = Flux tight S = Sealed washable
			6. Special code:		XXXX = Letters and / or number for special customer design

## Contact Data

Contact Arrangement	1 form C (CO) or 1 form A (1NO)
Contact Material	Ag alloy (Cd free)
Contact Rating	10A, 250VAC by 85°C
Max. Switching Voltage	400VAC, 110VDC
Max. Switching Current	10A
Min. Switching Capacity	100mA, 6VDC
Contact Resistance	≤ 100mΩ (by voltage drop 6VDC/1A)
Electrical endurance	10 <sup>5</sup>
Mechanical endurance	10 <sup>7</sup>

## 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.75% of nominal voltage (Initial)	Min.10% of nominal voltage (Initial)	360	Max.170% of nominal voltage (Initial)
6	100				
9	225				
12	400				
24	1600				
48	6400				

## Specification

Creepage / Clearance Distance	Min. 1.8mm / Min. 1.5mm
Initial Dielectric Strength	between open contacts 750Vrms, 50/60Hz for 1 min
	between contact and coil 1000Vrms, 50/60Hz for 1 min
Impulse withstand voltage	between contact and coil 4.0kV (1.2 x 50 μs)
Material Group of Insulation Parts	IIIa
Over Voltage Category	II
Tracking Index	CTI 250V min.

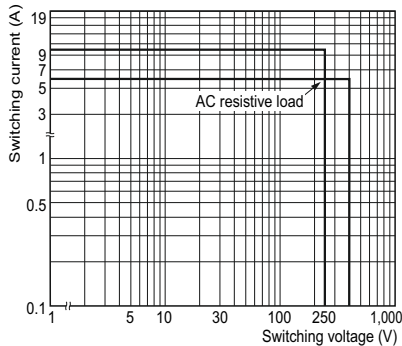
## Specification (continued)

Glow wire according to IEC60335-1	GWFI 850°C, GWIT 775°C / GWEPT 750°C
Environmental Protection	RTII (Flux tight) / RTIII (Sealed)
Operate Time / Release Time	Max. 10ms / Max. 5ms
Frequency of Operation	450 / 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 <sup>2</sup> , De-energized 100m/s <sup>2</sup>
Ambient Operating Temperature*1	-40 to +105°C
Ambient Operating Humidity*1	5% to 85%
Weight	Approx. 9.4g
Packing Unit	34 pcs / tube; 1700 pcs / box;

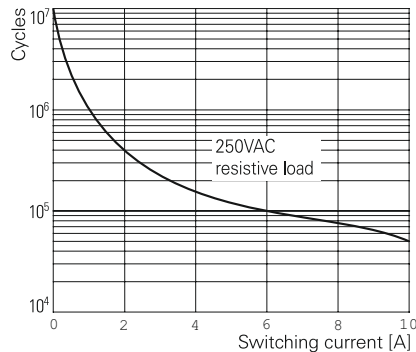
\*1. Without icing or condensation

## Engineering Data

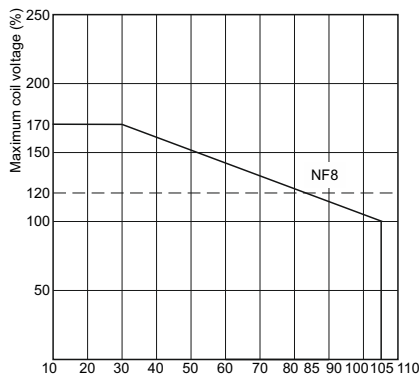
### Max. switching capacity



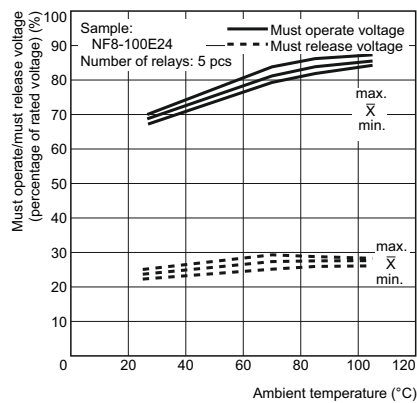
### Electrical Endurance



### Ambient Temperature vs. Maximum Coil Voltage



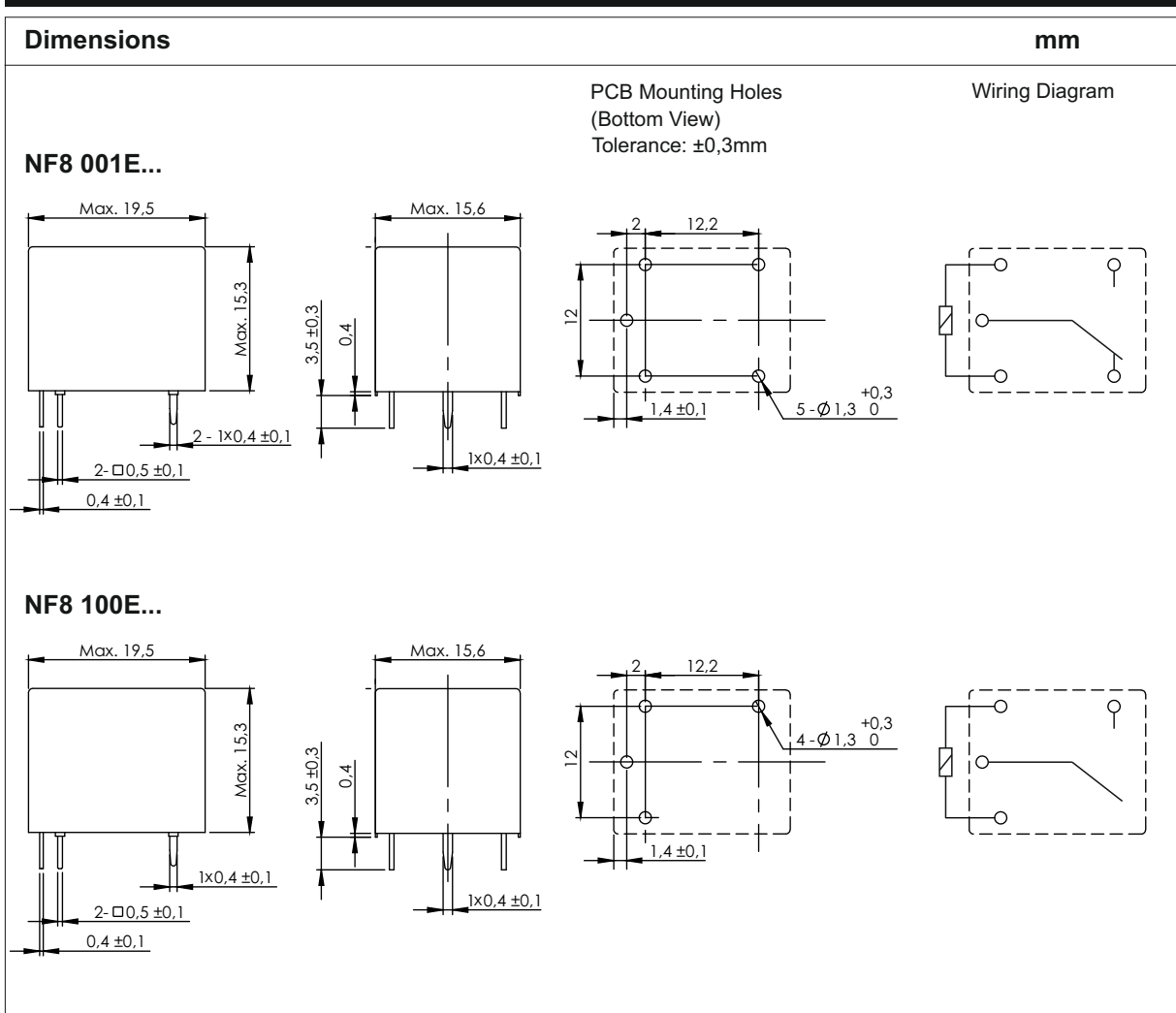
### Ambient Temperature vs. Must Operate and Must Release Voltages



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

## Safety approvals

Approvals	VDE File No. 40034617	UL File No. E352915	CQC File No. CQC1300209951
NF8	10A, 250VAC, 85°C, 50k cycles; 6A, 250VAC, 105°C, 100k cycles; 6A, 400VAC, 85°C, 50k cycles;	10A, 250VAC, 85°C, 100k cycles; 1/3 HP, 125 / 277VAC 4 FLA, 24VDC	7A, 250VAC, 85°C, 100k cycles;



**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.