



20.3 x 7 x 15.3

RoHS compliant

# NF10

UL E352915 40049402 18002189716

Features	Application Examples
<ul style="list-style-type: none"> <li>● Slim type: width 7mm</li> <li>● 5A switching capability</li> <li>● High sensitive coil 200mW</li> <li>● 10kV impulse withstand voltage</li> <li>● Ambient temperature 105°C</li> <li>● Accordance with IEC60335-1</li> <li>● Accordance with IEC60079-15</li> </ul>	<ul style="list-style-type: none"> <li>● Household electrical appliances</li> <li>● Building automation</li> <li>● Refrigerators</li> <li>● Air conditioners</li> <li>● Water heaters</li> </ul>

Ordering Information					
NF10	100	D	24	S	XXXX
1	2	3	4	5	6
1. Type:	NF10				
2. Contact configuration:	100 = 1NO (1 form A)				
3. Contact material:	D = Ag alloy				
4. Coil code:	5 = 5VDC; 12 = 12VDC; 18 = 18VDC; 24 = 24VDC;				
5. Protection:					Nil = Flux tight S = Sealed washable
6. Special number:					XXXX = Letters and / or number for special customer design

## Contact Data

Contact Arrangement	1 form A (1NO)
Contact Material	Ag alloy
Contact Rating	5A, 250VAC by 105°C
Max. Switching Voltage	250VAC, 30VDC
Max. Switching Current	5A
Min. Switching Capacity	100mA, 6VDC
Contact Resistance	≤ 100mΩ (by voltage drop 6VDC/1A)
Electrical endurance	10 <sup>5</sup>
Mechanical endurance	5 x 10 <sup>5</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	125	Max. 75% rated coil voltage (Initial)	Max. 10% rated coil voltage (Initial)	200	Max. 180% rated coil voltage (Initial)
12	720				
18	1620				
24	2880				

## Specification

Creepage / Clearance Distance	Min. 8mm / Min. 8mm
Initial Dielectric Strength	between open contacts 750Vrms, 50/60Hz for 1 min
	between contact and coil 4000Vrms, 50/60Hz for 1 min
Impulse withstand voltage	10kV (1.2 x 50 μs)
Material Group of Insulation Parts	IIIa
Over Voltage Category	III
Tracking Index of Relay Base	PTI 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. 10ms / Max. 10ms

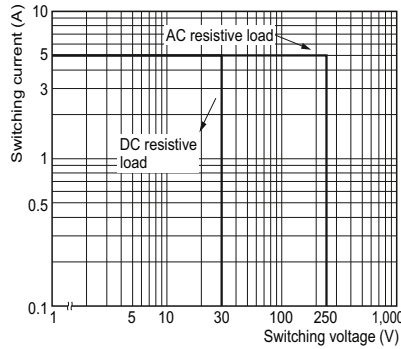
## Specification (continued)

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 <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. 4g
Packing Unit	20 pcs / tube; 1000 pcs / box;

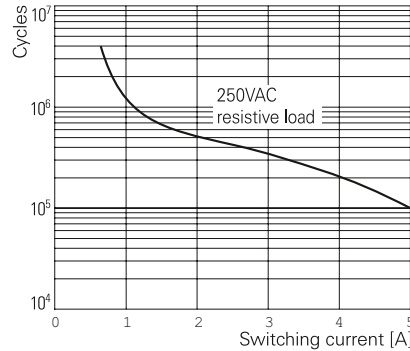
\*1. Without icing or condensation

## Engineering Data

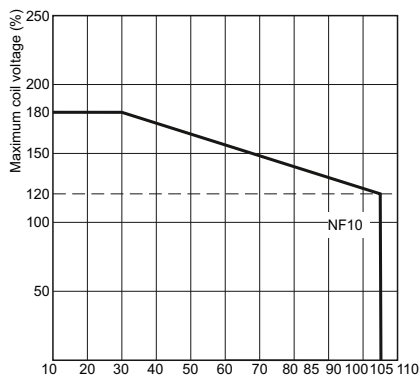
### Max. switching capacity



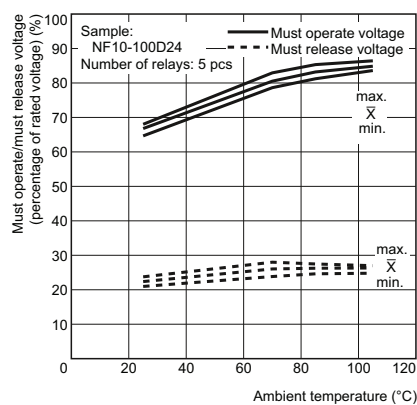
### Electrical Endurance



### Ambient Temperature vs. Maximum Coil Voltage



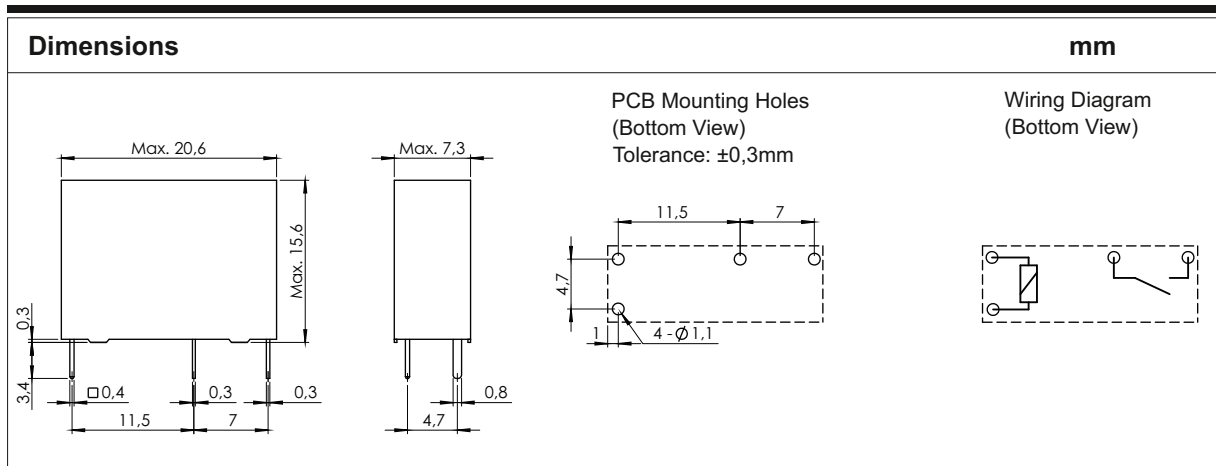
### Ambient Temperature vs. Must Operate and Must Release Voltages



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

## Safety approvals

Approvals	VDE File No. 40049402	UL File No. E352915	CQC File No. CQC18002189716
NF10-100D...	5A, 250VAC, 105°C	5A, 250VAC / 30VDC, 85°C	5A, 250VAC, 85°C



### 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 are reserved.