



29x12.7x15.7

RoHS compliant

# NF75

UL E352915

40043368

COC 10002042304

Features	Application Examples
<ul style="list-style-type: none"> <li>• 1 pole 12/16A, 1 form C (CO) or 1 form A (NO) Contact</li> <li>• DC Coil Power: 410 mW</li> <li>• 5kV/8mm coil-contact, reinforced insulation</li> <li>• Ambient temperature 85°C</li> <li>• Accordance with IEC60335-1 Ed.5 (optional)</li> <li>• Accordance with IEC60079-15</li> </ul>	<ul style="list-style-type: none"> <li>• Household electrical appliances</li> <li>• Building automation</li> <li>• OA equipments</li> <li>• Industrial machinery</li> </ul>

Ordering Information						
<u>NF75</u> 1	<u>100</u> 2	<u>E</u> 3	<u>7</u> 4	<u>12</u> 5	<u>S</u> 6	<u>XXXX</u> 7
1. Type:	NF75			6. Protection:	Nil = Flux tight S = Sealed washable	
2. Contact configuration:	100 = 1NO (1 form A) 001 = 1CO (1 form C)			7. Compliance:	Nil = Standard 0335 = IEC60335-1 (GWT)	
3. Contact material:	E = AgSnO <sub>2</sub>					
4. Contact rating:	Nil = 12A, pinning 3.5mm 7 = 16A, pinning 5mm					
5. Coil code:	5 = 5VDC; 12 = 12VDC; 24 = 24VDC; 48 = 48VDC;					

## Contact Data

Contact Arrangement	1 form C (CO) or 1form A (NO)	
Contact Material	Ag alloy (Cd free)	
Contact Rating	NF75 100E... / NF75 001E...	NF75 100E7... / NF75 001E7...
	12A, 250VAC	16A, 277VAC
Max. Switching Voltage	440VAC, 300VDC	
Max. Switching Current	12A	16A
Min. Switching Capacity	100mA, 6VDC	
Contact Resistance	≤ 100mΩ (by voltage drop 6VDC/1A)	
Electrical endurance	10 <sup>5</sup>	
Mechanical endurance	7.5 x 10 <sup>6</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	61	Max. 70% rated coil voltage (Initial)	Min. 10% rated coil voltage (Initial)	410	Max. 130% rated coil voltage (Initial)
12	351				
24	1405				
48	5620				

## Specification

Creepage / Clearance Distance	Min. 8mm / Min. 8mm
Initial Dielectric Strength	between open contacts 1000 Vrms
	between contact and coil 5000Vrms
Impulse withstand voltage	10kV (1.2 x 50 μs)
Material Group of Insulation Parts	IIIa

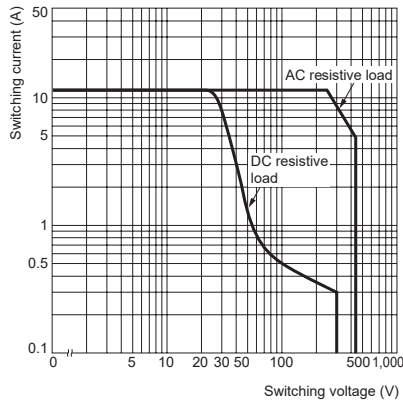
## Specification (continued)

Over Voltage Category	III	
Tracking Index of Relay Base	PTI 250V min.	
Glow wire according to IEC60335-1	GWF1 850°C and GWIT 775°C	
Environmental Protection	RTII (Flux tight) / RTIII (Sealed)	
Operate Time / Release Time	Max. 15ms / Max. 8ms	
Frequency of Operation	360 / hour (With load)	
	72000 / hour (Without load)	
Vibration Resistance (Malfunction)	10 to 55Hz, 1.5mm double amplitude	
Shock Resistance (Malfunction)	Energized 100m/s <sup>2</sup> , De-energized 100m/s <sup>2</sup>	
Ambient Operating Temperature*	NF75 100E... / NF75 001E...	NF75 100E7... / NF75 001E7...
	-40 to +85°C	
Ambient Operating Humidity*	5% to 85%	
Weight	12g	
Packing Unit	20 pcs / tube; 1000 pcs / box;	

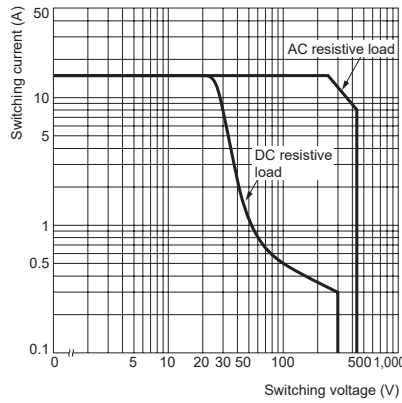
\*1. Without icing or condensation

## Engineering Data

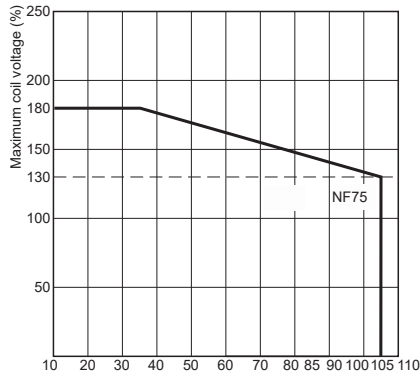
NF75 100E... / NF75 001E...



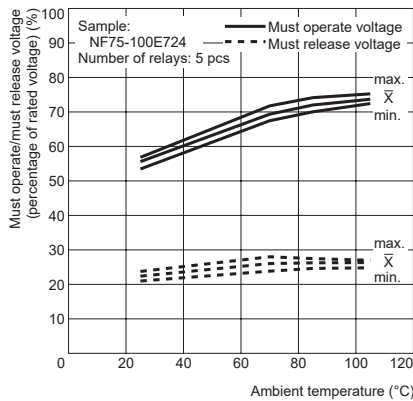
NF75 100E7... / NF75 001E7...



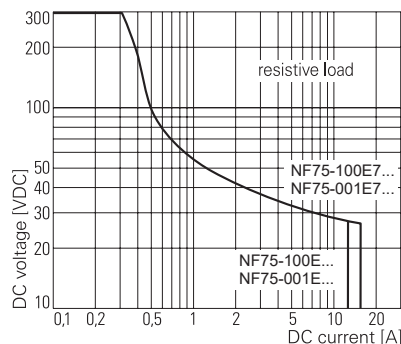
### • Ambient Temperature vs. Maximum Coil Voltage



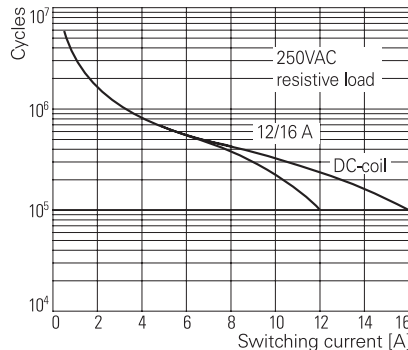
### • Ambient Temperature vs. Must Operate and Must Release Voltages



### • Max. DC Load Breaking Capacity



### • Electrical Endurance



## Safety approvals

Model	VDE File No. 40043368	UL File No. E352915	CQC File No. CQC10002042304
12A Version (no "7")	12A, 250VAC, 85°C	12A, 250VAC, 85°C	12A, 250VAC, 85°C
16A Version (with "7")	16A, 250VAC, 85°C	16A, 277VAC, 105°C	16A, 250VAC, 85°C

Dimensions		mm	
<b>NF75 100E...</b>			
		<b>PCB Mounting Holes (Bottom View)</b> 	<b>Wiring Diagram (Bottom View)</b> 
<b>NF75 001E...</b>			
		<b>PCB Mounting Holes (Bottom View)</b> 	<b>Wiring Diagram (Bottom View)</b> 
<b>NF75 100E7...</b>			
		<b>PCB Mounting Holes (Bottom View)</b> 	<b>Wiring Diagram (Bottom View)</b> 
<b>NF75 001E7...</b>			
		<b>PCB Mounting Holes (Bottom View)</b> 	<b>Wiring Diagram (Bottom View)</b> 

### 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.