



NVF4-3 & NVF4-4

NVF4-3 29×29×26.5
 NVF4-4 29×29×26.5(+16)

Features

- Small size.
- Contact load capacity up to 80A.
- Suitable for automobile.
- PC board mounting and direct insert mounting available.
- 24V versions with contact gap >0.8mm.

Ordering Information

NVF4-3 C Z 50 b DC12V 1.8 C D
 1 2 3 4 5 6 7 8 9

1 Part number: NVF4-3, NVF4-4 (Insulation Bracket), NVF4-4a (Metal Bracket)	6 Coil rated voltage (V): DC: 6, 12, 24
2 Contact arrangement: A: 1A; B: 1B; C: 1C; U: 1U	7 Coil power consumption: 1.8: 1.8W; 2.3: 2.3W; 2.6: 2.6W
3 Enclosure: S: Sealed type; Z: Dust cover;	8 Contact material: C: AgCdO; N: AgNi; NIL: AgSnO ₂
4 Contact current: A Form: 25A, 40A, 50A, 80A; B Form: 25A, 40A, 70A; C Form: 25A, 40A, 50A, 70A, 80A; U Form: 2×15A, 2×25A	9 Coil transient suppression: D: with diode; 2D: with two diodes; R: with resistance; DR: with diode and resistance; NIL: standard
5 Terminals: b: PCB type; a: plug in type	

Contact Data

Contact Arrangement	1A (SPSTNO), 1B (SPSTNC), 1C (SPDT(B-M)), 1U (SPSTNODM)			
Contact Material	AgSnO ₂ , AgNi, AgCdO			
Contact Rating (resistive)	1A	1B	1C	1U
	50A, 80A/14VDC 25A, 40A/24VDC	40A, 70A/14VDC 25A, 40A/24VDC	NO: 50A, 80A/14VDC NC: 40A, 70A/14VDC 25A, 40A/24VDC	2×25A/14VDC 2×15A/24VDC
Max. Switching Power	1120W			
Max. Switching Voltage	75VDC			
Max. Switching Current	80A			
Contact Resistance or Voltage drop	≤30mΩ			
Operation life	Electrical	10 ⁵		
	Mechanical	10 ⁷		

NOTE: Special high performance 24V version with contact gap >0.8mm; Limiting continuous current at 125°C: NC/NO: 10A/15A, 1U: 2×11A.

Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance Ω ±10%	Pickup voltage VDC(max) (65% of rated voltage)	Release voltage VDC(min) (10% of rated voltage)	Coil power consumption W	Operate Time ms	Release Time ms
	Rated	Max.						
006-1800	6	7.8	20	3.9	0.6	1.8	≤7	≤5
012-1800	12	15.6	80	7.8	1.2			
024-1800	24	31.2	320	15.6	2.4			
006-2300	6	7.8	15.6	3.9	0.6	2.3	≤7	≤5
012-2300	12	15.6	62.6	7.8	1.2			
024-2300	24	31.2	250.4	15.6	2.4			
006-2600	6	7.8	13.8	3.9	0.6	2.6	≤7	≤5
012-2600	12	15.6	55.4	7.8	1.2			
024-2600	24	31.2	221.5	15.6	2.4			

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
 2. Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Operation condition

Insulation Resistance ¹⁾	100MΩ min (at 500VDC)	Item 7 of IEC 60255-5
Dielectric Strength ¹⁾	Between contacts	50Hz 500V
	Between contact and coil	50Hz 500V
Shock resistance	147m/s ² 11ms	IEC 68-2-27 Test Ea
Vibration resistance	10Hz~40Hz double amplitude 1.5mm	IEC 68-2-6 Test Fc
Terminals strength	8N 4N(PC type)	IEC 68-2-21 Test Ua 2
Solderability	235°C ±2°C 3s ±0.5s	IEC 68-2-20 Test Tamethod 1
Ambient Temperature	-40°C ~ 125°C	
Relative Humidity	85% (at 40°C)	IEC 68-2-3 Test Ca
Mass	46g(NVF4-3); 48g(NVF4-4)	

Note: 1). When testing, coil terminals should be connected, if coil transient suppression is installed in relay.

Dimensions

mm / inch

NVF4-3&NVF4-4(40A, 50A) NVF4-3&NVF4-4(70A, 80A)

40A, 50A PCB mode 70A, 80A PCB type

Note: Terminals as shown above are also available.

Dimensions

Plug in type 40A, 50A PCB type 70A, 80A PCB type

Mounting (Bottom view)

Wiring diagram (Bottom view)

1A 1B 1C 1U

NOTES 1). Dimensions are in millimeters.
 2). Inch equivalents are given for general information only.

Reference Data

