

# NVF4-3 & NVF4-4



NVF4-3  
29×29×26.5



NVF4-4  
29×29×26.5(+16)

Features	
<ul style="list-style-type: none"> <li>Miniature.</li> <li>Contact load capacity up to 80A.</li> <li>Suitable for automobile.</li> <li>PC board mounting and direct insert mounting available.</li> </ul>	

Ordering Information	
<p><b>NVF4-3</b>   <b>C</b>   <b>Z</b>   <b>30</b>   <b>b</b>   <b>DC12V</b>   <b>C</b>   <b>D</b></p> <p>1   2   3   4   5   6   7   8</p>	<p>1 Part number: NVF4-3, NVF4-4 (Insulation Bracket), NVF4-4a (Metal Bracket)                  2 Contact arrangement: A:1A; B:1B; C:1C; U:1U                  3 Enclosure: S: Sealed type; Z: Dust cover;                  4 Contact current: A Form:60A,80A; B Form:40A,70A; C Form :60A,7A,80A; U Form:2×25A                  5 Terminals: b: PCB type; a: plug in type                  6 Coil rated voltage(V): DC:6,12,24                  7 Contact material: C:AgCdO; N:AgNi; NIL: AgSnO<sub>2</sub>                  8 Coil transient suppression: D: with diode.; 2D:with two diodes.; R: with resistance.; DR: with diode and resistance; NIL: standard</p>

Contact Data									
Contact Arrangement	1A (SPSTNO) 、1B (SPSTNC) 、1C (SPDT(B-M)) 、1U (SPSTNODM)								
Contact Material	AgSnO <sub>2</sub> , AgNi								
Contact Rating (resistive)	<table border="1"> <tr> <th>1A</th> <th>1B</th> <th>1C</th> <th>1U</th> </tr> <tr> <td>60A,80A/14VDC</td> <td>40A,70A/14VDC</td> <td>NO:60A,70A,80A/14VDC NC:40A,70A,70A/14VDC</td> <td>2×25A/14VDC</td> </tr> </table>	1A	1B	1C	1U	60A,80A/14VDC	40A,70A/14VDC	NO:60A,70A,80A/14VDC NC:40A,70A,70A/14VDC	2×25A/14VDC
1A	1B	1C	1U						
60A,80A/14VDC	40A,70A/14VDC	NO:60A,70A,80A/14VDC NC:40A,70A,70A/14VDC	2×25A/14VDC						
Max. Switching Power	980W								
Max. Switching Voltage	75VDC								
Max. Switching Current	80A								
Contact Resistance or Voltage drop	≤30mΩ								
Operation life	<table border="1"> <tr> <th>Electrical</th> <th>Mechanical</th> </tr> <tr> <td>10<sup>5</sup></td> <td>10<sup>7</sup></td> </tr> </table>	Electrical	Mechanical	10 <sup>5</sup>	10 <sup>7</sup>				
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10 <sup>5</sup>	10 <sup>7</sup>								

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			
012-1800	12	15.6	80	7.8	1.2	1.8	≤7	≤5
024-1800	24	31.2	320	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 <sup>1)</sup>	100MΩ min(at 500VDC)	Item 7 of IEC255-5
Dielectric Strength <sup>1)</sup>		
Between contacts	50Hz 500V	Item 6 of IEC255-5
Between contact and coil	50Hz 500V	Item 6 of IEC255-5
Shock resistance	147m/s <sup>2</sup> 11ms	IEC68-2-27 Test Ea
Vibration resistance	10~40Hz double amplitude 1.5mm	IEC68-2-6 Test Fc
Terminals strength	8N 4N(PC type)	IEC68-2-21 Test Ua 2
Solderability	235°C ±2°C 3±0.5s	IEC68-2-20 Test Tamethod 1
Ambient Temperature	-40~125°C	
Relative Humidity	85% (at 40°C)	IEC68-2-3 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 .

### Qualification inspection:

Perform the qualification test as specified in the table IV of IEC255-19-1 and minimum sample size 24.

### Dimensions

mm / inch

40A, 60A PCB mode

70A, 80A PCB mode

Note: Footprint as shown above is also available.

1A 1B

1C 1U

Mounting (Bottom views)

Wiring diagram (Bottom views)

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

### Reference Data

