

FORWARD RELAYS



NVF7

Features

- Small size, light weight.
- Heavy contact load(80A) .
- Contact arrangement Form A .
- Insert mounting, with metal frame.
- Diode or Resistor assembled available.
- PC board mounting and QC mounting available.

Ordering Information

NVF7 A Z 70 a R DC12V

1 Part number: NVF7 NVF7-2(Plastic Bracket) NVF7-2a(Metal Bracket)	5 Terminals: a: QC type; b:PCB type 6 Coil transient suppression: D:with diode R:with resistor NIL:standard
2 Contact arrangement: A:1A	7 Coil rated voltage(V): DC:12,24
3 Enclosure: S:Wash tight; Z:Flux proof	
4 Contact rating: 70:70A; 80:80A	

Contact Data

Contact Arrangement	1A(SPSTNO)	
Contact Material	AgSnO ₂	
Contact Rating	70A,80A/14VDC 25A/28VDC	
Max. Switching Power	1120W	
Max. Switching Voltage	75VDC	Max. Switching Current: 80A
Voltage Drop(Initial)	Typ.: 50mV(at 10A)	Item 4.12 of IEC 61810-7
Electrical Endurance	80A/14VDC 85℃ 5×10 ⁴ 70A/14VDC,25A/28VDC 105℃ 1×10 ⁵	Item 4.30 of IEC 61810-7
Mechanical Endurance	1×10 ⁷	Item 4.31 of IEC 61810-7

Coil Parameter

Coil voltage VDC		Coil resistance Ω ± 10%		Pick-up voltage VDC(max) (65%of rated voltage)	Drop-out voltage VDC(min) (10% of rated voltage)	Coil power W		Operate time ms	Release time ms
Rated	Max.	Without resistor	With resistor			Without resistor	With resistor		
12	15.6	90	80	7.8	1.2	Approx. 1.6	Approx. 1.8	≤10	≤10
24	31.2	360	320	15.6	2.4				

- Notes:** 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pick-up and drop-out voltage are for test purposes only and are not to be used as design criteria.

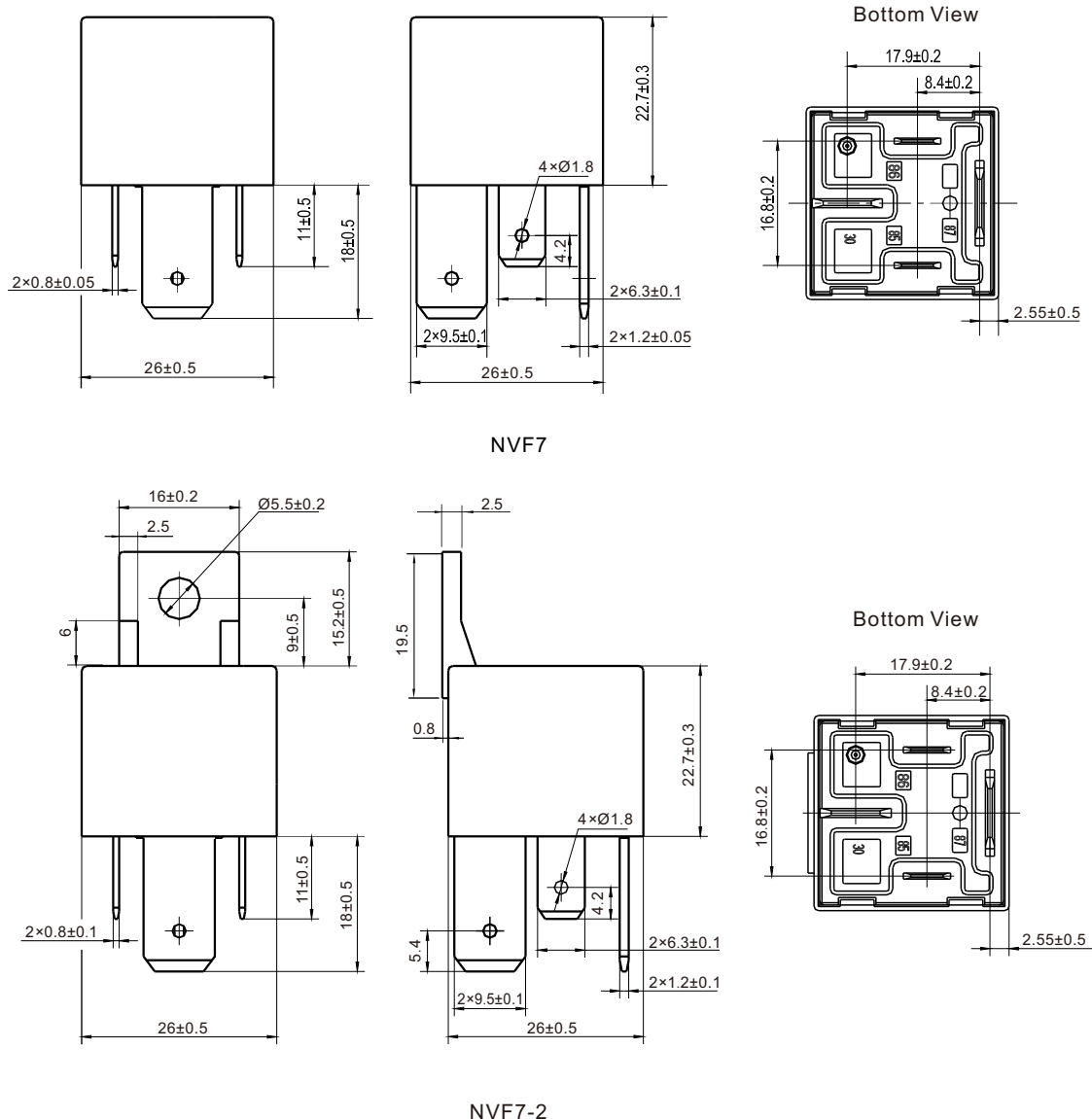
Characteristics

Insulation Resistance ¹⁾	100MΩ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength ¹⁾ Between Open Contacts Between Contact and Coil	500VAC 1min 500VAC 1min	Item 4.9 of IEC 61810-7
Shock Resistance	294m/s ²	Item 4.26 of IEC 61810-7
Vibration Resistance	10~22.3Hz Double amplitude 10mm 22.3~500Hz 98m/s ²	Item 4.28 of IEC 61810-7
Terminals Strength	Terminal retention(pull and push):≥100N Terminal resistance to bending (front & side):≥10N	Item 4.24 of IEC 61810-7
Ambient Temperature	-40℃~125℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Weight (Approx.)	38g	Item 4.7 of IEC 61810-7

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

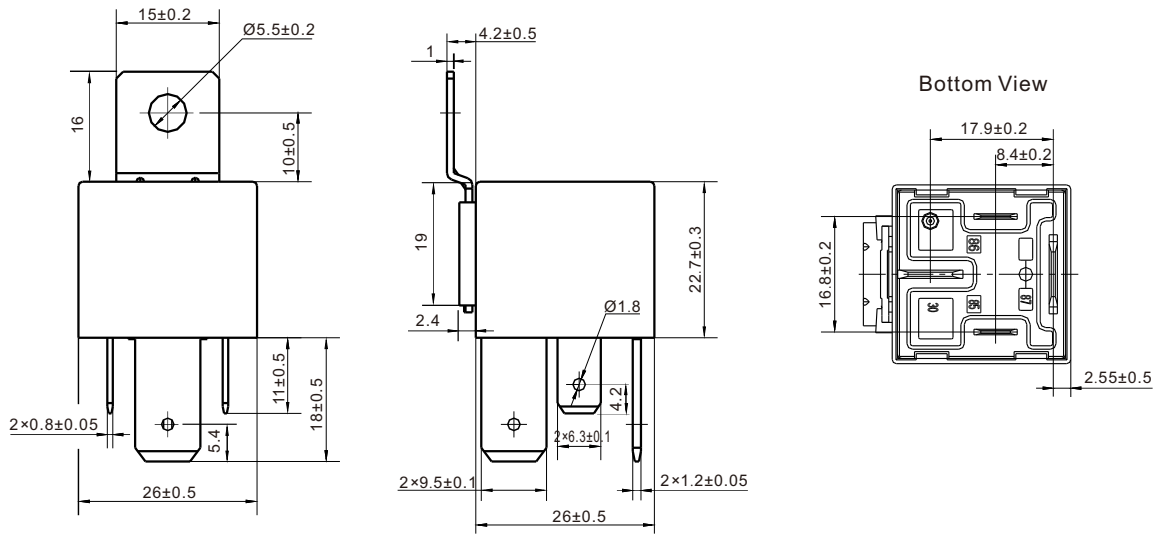
Dimensions

mm

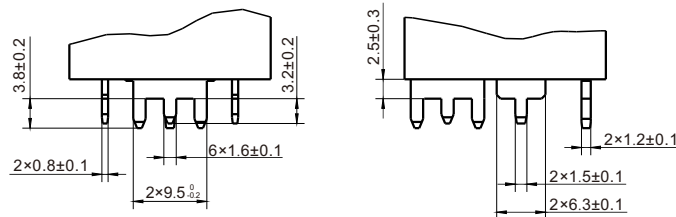


Dimensions

mm

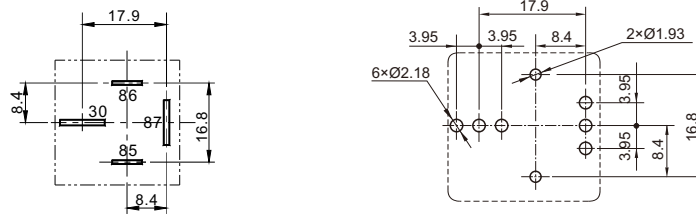


NVF7-2a



PCB type terminals

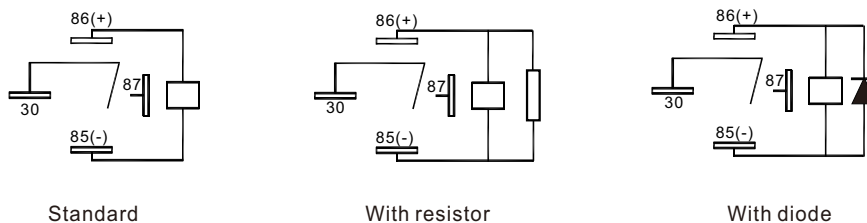
Dimensions



QC type

PCB type

Mounting (Bottom view)



Standard

With resistor

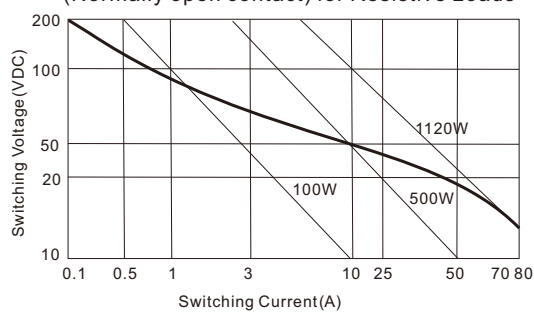
With diode

Wiring diagram (Bottom view)

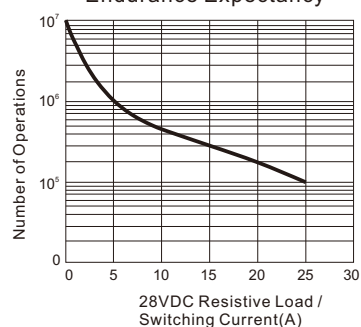
Remark: In case of no tolerance shown in outline dimension: outline dimensions ≤ 1mm, tolerance should be ±0.2mm ;
outline dimension > 1mm and ≤ 5mm, tolerance should be ±0.3mm; outline dimension > 5mm, tolerance should be ±0.4mm.

Reference Date

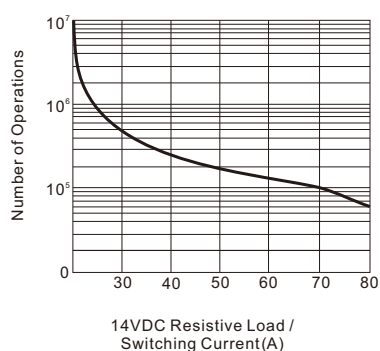
Safe Breaking, arc Extinguished
(Normally open contact) for Resistive Loads



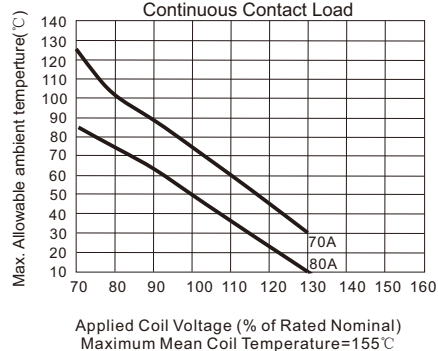
Endurance Expectancy



Endurance Expectancy



Ambient Temperature vs Coil Voltage for
Continuous Contact Load



Operate Time/Release Time

