



29×21.5×15.3

NT99-1

UL E160644 R50597348

Features

- 50A switching capability.
- Pin width: 1.5mm, 3.3mm.
- Max. switching power can achieve 13850VA.
- Size decreased of 1/3 compared with the same pin relay.
- PC board mounting and QC mounting available. New energy relay.
- Operated in machine tool electric appliance, electric equipment, air conditioner and various household appliances.

Ordering Information

NT99-1 W A E S 0.9 DC12V

1 2 3 4 5 6 7

1 Part number: NT99-1
2 Common pin width: Nil:standard; W:3.3mm
3 Contact arrangement: A:1A; C:1C
4 Enclosure: S:Wash tight; E:Flux proof

5 Contact material: S:AgSnO₂
6 Coil power: 0.9:0.9W; 1.2:1.2W
7 Coil rated voltage(V): DC:5,6,9,12,24,48

Contact Data

Contact Arrangement	1A(SPSTNO) 1C(SPDT(B-M))	
Contact Material	AgSnO ₂	
Contact Rating ¹⁾	0.9W	1.2W
	NO:30A,40A/277VAC NC:20A,30A/277VAC NO:30A/30VDC NC:20A/30VDC	NO:50A/277VAC NC:35A/277VAC NO:35A/30VDC NC:25A/30VDC
	Motor load:NO:2HP 250VAC NC:1½HP 250VAC TV-8 250VAC	
Max. Switching Power	1050W 13850VA	
Max. Switching Voltage	30VDC 280VAC	Max. Switching Current:50A
Contact Resistance	≤ 30mΩ	Item 4.12 of IEC 61810-7
Electrical Endurance	NO:50A/277VAC 40℃ 1×10 ⁴ NC:35A/277VAC 40℃ 1×10 ⁴ NO:30A,40A/277VAC 40℃ 3×10 ⁴ NC:20A,30A/277VAC 40℃ 3×10 ⁴ NO: 2HP 250VAC 3×10 ⁴ NC: 1½HP 250VAC 3×10 ⁴ TV-8 250VAC 2.5×10 ⁴ Item 4.30 of IEC 61810-7	
Mechanical Endurance	1×10 ⁷	Item 4.31 of IEC 61810-7

Notes: 1)The vent hole should be opened when testing enclosed relay.

Coil Parameter

DC Coil Parameter							
Coil voltage VDC		Coil resistance Ω ± 10%	Pick-up voltage VDC(max) (75%of rated voltage)	Drop-out voltage VDC(min) (10%of rated voltage)	Coil power W	Operate time ms	Release time ms
Rated	Max.						
5	6.5	20.8	3.75	0.5	1.2	≤15	≤10
6	7.8	30	4.50	0.6			
9	11.7	67.5	6.75	0.9			
12	15.6	120	9.00	1.2			
24	31.2	480	18.00	2.4			
48	62.4	1920	36.00	4.8			

Coil Parameter

DC Coil Parameter							
Coil voltage VDC		Coil resistance $\Omega \pm 10\%$	Pick-up voltage VDC(max) (75%of rated voltage)	Drop-out voltage VDC(min) (10%of rated voltage)	Coil power W	Operate time ms	Release time ms
Rated	Max.						
5	6.5	28	3.75	0.5	0.9	≤ 15	≤ 10
6	7.8	40	4.50	0.6			
9	11.7	90	6.75	0.9			
12	15.6	160	9.00	1.2			
24	31.2	640	18.00	2.4			
48	62.4	2560	36.00	4.8			

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	1000M Ω min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Open Contacts Between Contact and Coil	1500VAC 1min 4000VAC 1min	Item 4.9 of IEC 61810-7
Shock Resistance	Functional: 98m/s ² 11ms	Item 4.26 of IEC 61810-7
	Destructive: 980m/s ² 11ms	Item 4.26 of IEC 61810-7
Vibration Resistance	10Hz~55Hz Double amplitude 1.5mm	Item 4.28 of IEC 61810-7
Terminals Strength	10N	Item 4.24 of IEC 61810-7
Ambient Temperature	-40℃~85℃	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Weight (Approx.)	25g	Item 4.7 of IEC 61810-7

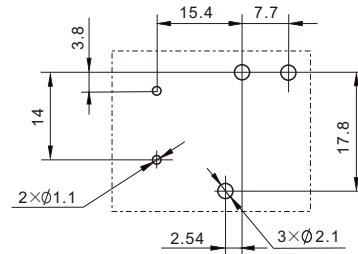
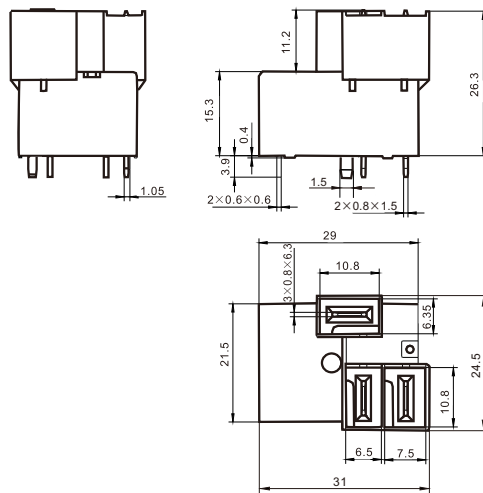
Safety Approvals

Safety approval	UL&CUR	TüV	CQC
Load	NO:50A/277VAC NC:35A/277VAC NO:40A/277VAC NC:30A/277VAC HP NO: 2HP 250VAC NC: 1½HP 250VAC TV-8 250VAC	NO:50A/277VAC NC:35A/277VAC NO:40A/277VAC NC:30A/277VAC	NO:50A/277VAC NC:35A/277VAC NO:40A/277VAC NC:30A/277VAC

Dimensions

mm

30A&40A:

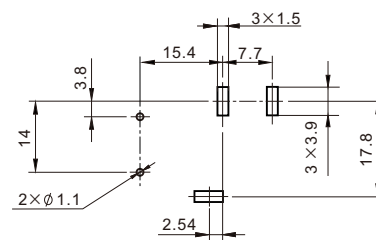
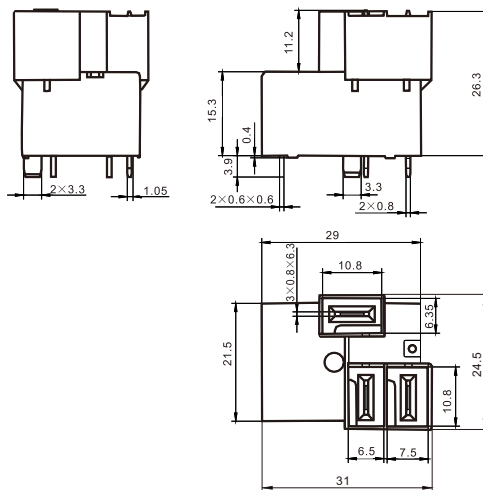


Mounting (Bottom view)

Dimensions

Common pin width: Standard

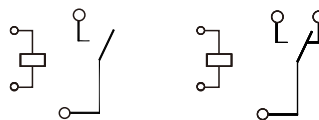
50A:



Mounting (Bottom view)

Dimensions

Common pin width: 3.3mm



1A

1C

Wiring diagram(Bottom view)

Remark: In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.