



Patent: ZL 2010 2 0625647.0



Contact Rating

- Nominal Load(Resistive Load Cos $\phi = 1$)
Contact Capacity
BT91-D.....20A/10A at 250VAC
BT91-DM/DB.....30A at 250VAC
- Max. Allowable Current
BT91-D.....20A
BT91-DM/DB.....30A
- Max. Allowable Voltage
BT91-D/DM/DB.....AC250V
- Max. Allowable Power Force
BT91-D.....5,000VA
BT91-DM/DB.....7,500VA
- Contact Material.....Ag Alloy
- Contact Form.....SPDT&SPST

Performance (at Initial Value)

- Contact Resistance..... $\leq 100m\Omega$ at 6VDC/1A
- Operate Time.....10ms. Max
- Release Time.....5ms. Max
- Dielectric Strength:
Between Coil & Contact.....2,500VAC at 50/60 Hz
for one minute
Between Contacts.....1,500VAC at 50/60 Hz
for one minute
- Surge Resistance.....10,000V (between Coil
& Contact 1.2x50 μ s)

Main Feature

1. Small size (32.2x27.5x28 in mm) produces a switching capacity up to 30A for high density P.C.Boardmounting technique.
2. The contact form construction is 1A/1B/1C
3. The Surge Resistance of BT91 series is 10,000V
4. Sealing Construction (Free from dust and solder flux):
BT91-SS: Plastic Sealed Type.
5. The selection of plastic insulation material is designed for high temperature and provides better chemical solution performance.
6. RoHS Compliant.

Application

Air Conditioning, Fridge, Washing Machine, etc Household Appliances

- Insulation Resistance.....1,000 Mega Ω Min. at
500VDC
- Max. On/Off Switching:
Electrical.....30 Ops per minute
Mechanical.....300 Ops per minute
- Temperature Range.....-40~85 $^{\circ}$ C
- Humidity Range.....5%~85% RH
- Coil Temperature Rise.....35 $^{\circ}$ C Maximum
- Vibration:
Endurance.....10 to 55 Hz dual
amplitude width 1.5mm
Error Operation.....10 to 55 Hz dual
amplitude width 1.5mm
- Shock:
Endurance.....981m/s² Min
Error Operation.....98.1m/s² Min
- Life Expectancy:
Electrical.....10⁵ Operations at
Rated Resistive
load
Mechanical.....10⁷ Operations at
No load condition
- Weight.....about 32g

Safety Standard & Its File Number

- UL.....E333244
- TUV.....R50267516
- CQC.....CQC11002061851

| Coil Sensitivity | Nominal Voltage (VDC) | Nominal Current (mA) | Coil Resistance ($\Omega \pm 8\%$) | Power Consumption (W) | Pull-In Voltage (VDC) | Drop-Out Voltage (VDC) | Maximum Allowable Voltage (VDC) |
|------------------|-----------------------|----------------------|--------------------------------------|-----------------------|-----------------------|------------------------|---------------------------------|
| BT91-D/DM/DB | 5 | 178.6 | 28 | Abt. 0.9 | 75% Maximum | 10% Minimum | 130% |
| | 6 | 150 | 40 | | | | |
| | 9 | 100 | 90 | | | | |
| | 12 | 75 | 160 | | | | |
| | 24 | 37.5 | 640 | | | | |
| | 48 | 18.8 | 2560 | | | | |

Coil Specification (at 20 °C)

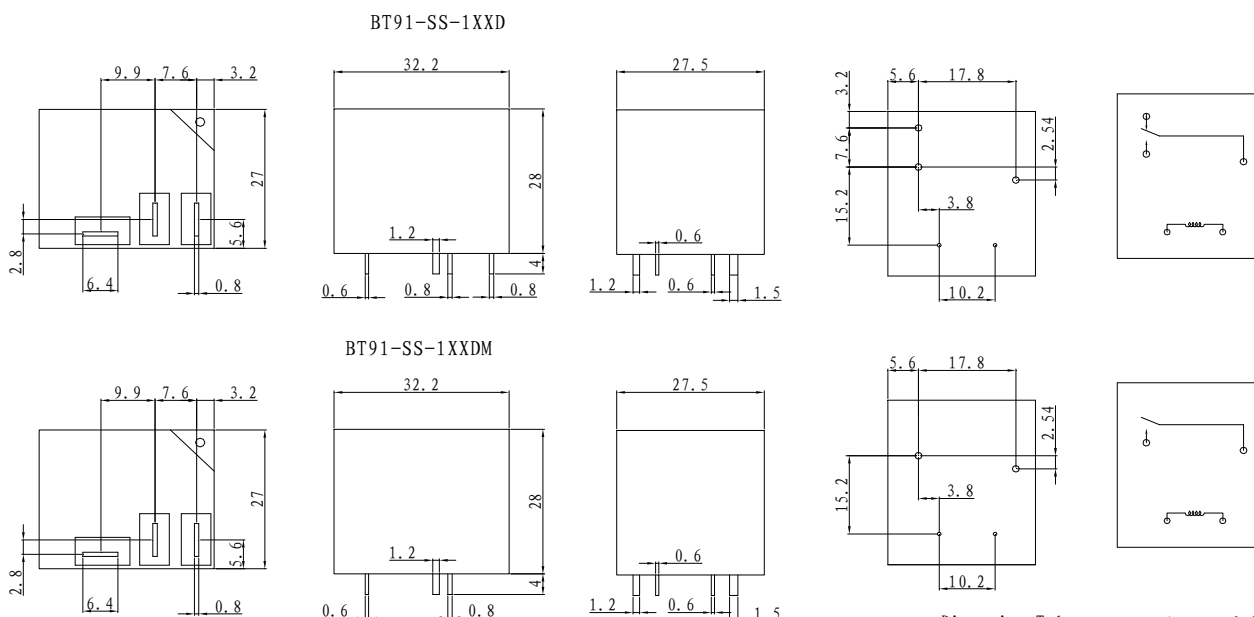
| | | | | | | |
|-------------|-------------|------------|-----------|----------|----------|--|
| BT91 | - SS | - 1 | 12 | D | M | Contact Form: Nil:One form C M:One form A B:One form B |
| | | | | | | Coil Type: D:Standard DC Coil |
| | | | | | | Coil Voltage: 03:3V, 05:5V,06:6V,09:9V 12:12V,24:24V.48:48V |
| | | | | | | Number of Pole: 1:One Pole |
| | | | | | | Type of Sealing: SS:Half a seal |
| | | | | | | Type: BT91 |

Ordering Information

| Model | BT91 | | |
|---------------------|------------------|---------------|--------------|
| Coil Sensitivity | Standard DC Coil | | |
| | 1A | 1B | 1C |
| Plastic Sealed Type | BT91-SS-1□□DM | BT91-SS-1□□DB | BT91-SS-1□□D |

Classificatio

Dimension



Dimension Tolerance: < 1mm: ± 0.2 mm
1--5mm: ± 0.3 mm
> 5mm: ± 0.5 mm