



Patent: ZL 2010 2 0625647.0



ISO9001、ISO14001 Certification Enterprises

Main Feature

Small size (31.9x27.5x19.6 in mm) produces a switching capacity up to 30A for high density P.C.Board mounting technique.

The contact form construction is 1A/1B/1C

The Surge Resistance of BT90 series is 10,000V

Sealing Construction (Free from dust and solder flux):
BT90-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

Contact Rating

Nominal Load(Resistive Load $\cos \phi = 1$)

Contact Capacity

BT90- D.....20A/10A at 250VAC

BT90-DM/DB.....30A at 250VAC

Max. Allowable Current

BT90-D.....20A

BT90-DM/DB.....30A

Max. Allowable Voltage

BT90-D/DM/DB.....AC250V

Max. Allowable Power Force

BT90-D.....5,000VA

BT90-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 μs)

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°C
- Humidity Range.....5%~85% RH
- Coil Temperature Rise..... 35°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 23g

Safety Standard & Its File Number

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

Coil Specification (at 20 °C)

| 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) |
|------------------|-----------------------|----------------------|--------------------------------------|-----------------------|-----------------------|------------------------|---------------------------------|
| BT90-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 | | | | |

Ordering Information

BT90 - 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: BT90

Classification

| Model | BT90 | | |
|---------------------|------------------|---------------|--------------|
| Coil Sensitivity | Standard DC Coil | | |
| Plastic Sealed Type | 1A | 1B | 1C |
| | BT90-SS-1□□DM | BT90-SS-1□□DB | BT90-SS-1□□D |

Dimension

