

|  |                 |
|--|-----------------|
|  | <b>HJR4102E</b> |
|--|-----------------|

- Small size and low cost
- DIP standard terminals
- Surge Strength 1500V FCC68
- Sealed type available
- Conform to RoHS,ELV directive



10002048745  
 US E173485  
 R50056406

**ORDERING CODE**

|   |                            |   |                         |   |          |   |          |            |
|---|----------------------------|---|-------------------------|---|----------|---|----------|------------|
| <u>HJR4102E</u>                           | D                          | — | <u>12VDC</u>            | — | <u>S</u> | — | <u>Z</u> | <u>***</u> |
| 1   | 2                          | 3 | 4                       | 5 | 6        |   |          |            |
| 1. Relay Model                            | 3. Coil Nominal Voltage    |   | 5. Z: Form C; H: Form A |   |          |   |          |            |
| 2. Coil Power<br>N=0.45W, D=0.36W, L=0.2W | 3, 5, 6, 9, 12, 24, 48 VDC |   | 4. Sealed               |   |          |   |          |            |

**COIL DATA (at 20°C)**

|                                       |                      |      |      |      |      |      |      |       |
|---------------------------------------|----------------------|------|------|------|------|------|------|-------|
| Nominal Voltage (VDC)                 | 3                    | 5    | 6    | 9    | 12   | 24   | 48   | 0.45W |
| Coil Resistance ( $\Omega \pm 10\%$ ) | 20                   | 56   | 80   | 180  | 320  | 1280 | 5120 |       |
| Rated Current (mA)                    | 150                  | 90   | 75   | 50   | 37.5 | 18.7 | 9    |       |
| Max Operate Voltage (VDC)             | 2.25                 | 3.75 | 4.5  | 6.75 | 9    | 18   | 36   |       |
| Min Release Voltage (VDC)             | 0.3                  | 0.5  | 0.6  | 0.9  | 1.2  | 2.4  | 4.8  | 0.36W |
| Coil Resistance ( $\Omega \pm 10\%$ ) | 25                   | 69   | 100  | 225  | 400  | 1600 | 6400 |       |
| Rated Current (mA)                    | 120                  | 71.4 | 60   | 40   | 30   | 15   | 7.5  |       |
| Max Operate Voltage (VDC)             | 2.25                 | 3.75 | 4.5  | 6.75 | 9    | 18   | 36   |       |
| Min Release Voltage (VDC)             | 0.3                  | 0.5  | 0.6  | 0.9  | 1.2  | 2.4  | 4.8  | 0.2W  |
| Coil Resistance ( $\Omega \pm 10\%$ ) | 45                   | 125  | 180  | 105  | 720  | 2880 | /    |       |
| Rated Current (mA)                    | 66.7                 | 40   | 33.3 | 22.2 | 16.7 | 8.3  | /    |       |
| Max Operate Voltage (VDC)             | 2.25                 | 3.75 | 4.5  | 6.75 | 9    | 18   | /    |       |
| Min Release Voltage (VDC)             | 0.3                  | 0.5  | 0.6  | 0.9  | 1.2  | 2.4  | /    |       |
| Max Applicable Voltage                | 70°C 130%, 23°C 170% |      |      |      |      |      |      |       |

**CONTACT DATA**

|                       |  |
|-----------------------|--|
| Contact Form          | 1H/1Z  |
| Contact Material      | Silver Alloy   |
| Load                  | Resistive load(COS $\Phi$ =1)                              |
| Contact Ratings       | 3A 120VAC/24VDC      1A250VAC(TUV)                         |
| Minimum load          | 1mA 5VDC   |
| Max Switching Voltage | 240VAC/60VDC   |
| Max Switching Current | 5A   |
| Max Switching Power   | 360VA/90W  |
| Contact Resistance    | 100m $\Omega$ Max      at 6VDC 1A                          |
| Life Expectancy       | Electrical : 100,000 Operations(at30Operations/minute)     |
|                       | Mechanical : 10,000,000 Operations(at300Operations/minute) |

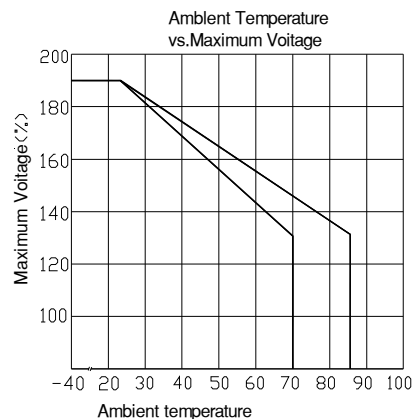
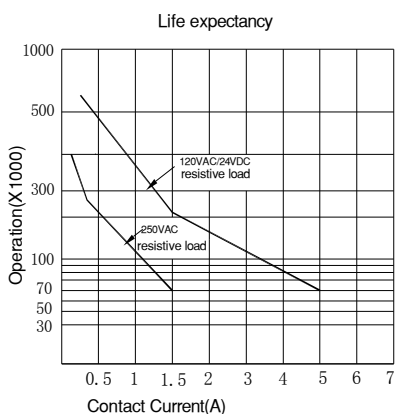
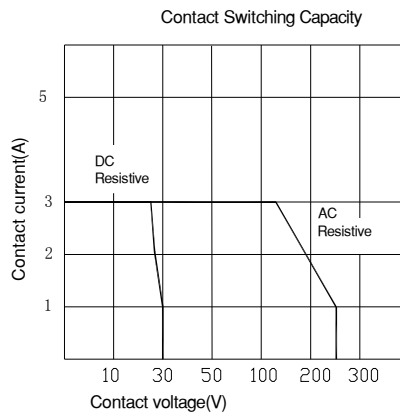
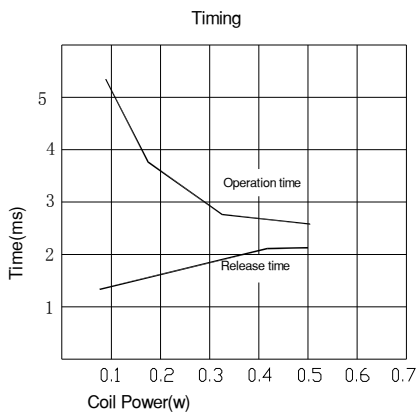
## ■ CHARACTERISTICS DATA

|   |  |
|---|--|
| Insulation Resistance                     | 100M $\Omega$ Min at 500VDC                        |
| Dielectric Strength Between Open Contacts | 500VAC(for one minute)                             |
| Between Contacts and coil                 | 1000VAC(for one minute) or 1500VAC(for one minute) |
| Operate Time                              | 5ms  |
| Release Time                              | 5ms  |
| Temperature Range                         | -30°C to +85°C                                     |
| Shock Resistance                          | Operating Extremes : 10G                           |
|   | Damage Limits : 50G                                |
| Vibration Resistance                      | 10-55Hz, 1.5mm                                     |
| Max. switching frequency                  | Mechanical: 18,000operations/hr                    |
|   | Electrical: 1,800operations/hr                     |
| Humidity                                  | 40-85%   |
| Weight                                    | Approx 3.5g  |
| Safety Standard                           | UL cUL TÜV CQC                                     |

## ■ APPROVED STANDARDS

| Model    | Coiling rating | Safety Standard | Contact rating                     |
|----------|----------------|-----------------|------------------------------------|
| HJR4102E | 3 to 48VDC     | TÜV             | 3A 120VAC<br>3A 24VDC<br>1A 250VAC |
|          |                | UL/cUL          | 3A 120VAC<br>3A 24VDC              |
|          |                | CQC             | 1A 250VAC<br>3A 120VAC             |

## ■ ENGINEERING DATA



### Indian Technological Products Private Limited

## ■ OVERALL AND MOUNTING DIMENSIONS

