

507HT



### »» Features

- ☐ Low profile 15.7 mm PCB Power Relay.
- ☐ High rating 17A 277VAC.
- ☐ Design for high temperature 105°C application.
- ☐ Available for 1C/O contact configurations ;  
flux-tight & sealed versions.
- ☐ Comply with RoHS-Directive 2011/65/EU.

### »» Type List

#### ◆ Standard type

| Terminal style | Contact form | UL Insulation system approval | Designation (provided with) |               |                      |
|----------------|--------------|-------------------------------|-----------------------------|---------------|----------------------|
|                |              |                               | Flux tight                  | Sealed type   | Sealed type washable |
| PCB terminal   | 1A (SPNO)    | F                             | 507HT-1AH-F-C               | 507HT-1AH-F-V | 507HT-1AH-F-S        |
|                | 1C (SPDT)    | F                             | 507HT-1CH-F-C               | 507HT-1CH-F-V | 507HT-1CH-F-S        |

#### ◆ High sensitivity type

|              |           |   |                |                |                |
|--------------|-----------|---|----------------|----------------|----------------|
| PCB terminal | 1A (SPNO) | F | 507HTN-1AH-F-C | 507HTN-1AH-F-V | 507HTN-1AH-F-S |
|              | 1C (SPDT) | F | 507HTN-1CH-F-C | 507HTN-1CH-F-V | 507HTN-1CH-F-S |

### »» Ordering Information

507 HT ☐ - 1C H - F - C ☐  
 1 2 3 4 5 6 7 8

- |                                             |                                                                                                         |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1. 507 -- Basic series designation          | 5. H -- Contact material AgSnO                                                                          |
| 2. HT -- High power & high temperature type | 6. F -- Class F                                                                                         |
| 3. Blank -- Standard type (0.53W)           | 7. C -- Flux tight                                                                                      |
| N -- High sensitivity type (0.4W)           | V -- Sealed type                                                                                        |
|                                             | S -- Sealed type washable                                                                               |
| 4. 1A -- Single pole normally open          | 8. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability) |
| 1C -- Single pole double throw              |                                                                                                         |

### »» Contact Rating

|                         |                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated load (resistive)  | NO: 16A 240VAC, 100K ops.<br>16A 240VAC 105°C, 100K ops., frequency 360 ops./hr (B10 value)<br>10A 240VAC 105°C, 300K ops., frequency 360 ops./hr (B10 value) |
| Max. switching current  | 17A                                                                                                                                                           |
| Max. switching voltage  | 277VAC                                                                                                                                                        |
| Max. switching capacity | 4080VA                                                                                                                                                        |

## »» Coil Rating (DC)

### ◆ Standard type

| Rated voltage (V) | Rated current $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ at 23°C ( $\Omega$ ) | Max. continuous voltage at 105°C | Pick up voltage(Max.) at 23°C | Drop out voltage(Min.) at 23°C | Power consumption at rated voltage |
|-------------------|---------------------------------------|-------------------------------------------------|----------------------------------|-------------------------------|--------------------------------|------------------------------------|
| 3                 | 176                                   | 17                                              | 150 % of rated voltage           | 75 % of rated voltage         | 10 % of rated voltage          | approx. 0.53W                      |
| 5                 | 106                                   | 47                                              |                                  |                               |                                |                                    |
| 6                 | 88                                    | 68                                              |                                  |                               |                                |                                    |
| 9                 | 59                                    | 153                                             |                                  |                               |                                |                                    |
| 12                | 44                                    | 272                                             |                                  |                               |                                |                                    |
| 15                | 35                                    | 425                                             |                                  |                               |                                |                                    |
| 18                | 29                                    | 611                                             |                                  |                               |                                |                                    |
| 24                | 22                                    | 1,087                                           |                                  |                               |                                |                                    |
| 36                | 15                                    | 2,445                                           |                                  |                               |                                |                                    |
| 48                | 11                                    | 4,347                                           |                                  |                               |                                |                                    |

### ◆ High sensitivity type (N)

| Rated voltage (V) | Rated current $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ at 23°C ( $\Omega$ ) | Max. continuous voltage at 105°C | Pick up voltage(Max.) at 23°C | Drop out voltage(Min.) at 23°C | Power consumption at rated voltage |
|-------------------|---------------------------------------|-------------------------------------------------|----------------------------------|-------------------------------|--------------------------------|------------------------------------|
| 3                 | 133                                   | 22.5                                            | 150 % of rated voltage           | 70 % of rated voltage         | 10 % of rated voltage          | approx. 0.40W                      |
| 5                 | 80                                    | 62                                              |                                  |                               |                                |                                    |
| 6                 | 67                                    | 90                                              |                                  |                               |                                |                                    |
| 9                 | 44                                    | 203                                             |                                  |                               |                                |                                    |
| 12                | 33                                    | 360                                             |                                  |                               |                                |                                    |
| 18                | 23                                    | 771                                             |                                  |                               |                                |                                    |
| 24                | 17                                    | 1,440                                           |                                  |                               |                                |                                    |
| 36                | 11                                    | 3,240                                           |                                  |                               |                                |                                    |
| 48                | 9                                     | 5,520                                           |                                  |                               |                                |                                    |
| 60                | 6.7                                   | 9,000 $\pm 15\%$                                |                                  |                               |                                |                                    |
| 110               | 3.7                                   | 30,000 $\pm 15\%$                               |                                  |                               |                                |                                    |

## »» Specification

|                                        |                                                          |                                                         |
|----------------------------------------|----------------------------------------------------------|---------------------------------------------------------|
| Contact material                       | AgSnO alloy                                              |                                                         |
| Contact resistance <sup>(1)</sup>      | 100m $\Omega$ Max. (1A/6VDC by 4 pipes m $\Omega$ meter) |                                                         |
| Operate time <sup>(1)</sup>            | 20ms Max.                                                |                                                         |
| Release time <sup>(1)</sup>            | 10ms Max.                                                |                                                         |
| Insulation resistance <sup>(1)</sup>   | 1000M $\Omega$ Min. (DC 500V)                            |                                                         |
| Dielectric strength <sup>(1)</sup>     | Between open contact                                     | : AC 1000V, 50/60Hz 1 min.                              |
|                                        | Between contact and coil                                 | : AC 5000V, 50/60Hz 1 min.                              |
| Surge voltage withstand <sup>(1)</sup> | Between contact and coil                                 | : 10KV (1.2X50) $\mu$ S                                 |
| Vibration resistance                   | Operating extremes                                       | 10~55Hz , amplitude 1.5 mm                              |
|                                        | Damage limits                                            | 10~55Hz , amplitude 1.5 mm                              |
| Shock resistance                       | Operating extremes                                       | 10G                                                     |
|                                        | Damage limits                                            | 100G                                                    |
| Life expectancy                        | Mechanical                                               | 30,000,000 operations (frequency 36,000 operations /hr) |
| Operating ambient temperature          | -40~+105°C (no freezing)                                 |                                                         |
| Weight                                 | Approx. 10 g                                             |                                                         |

Note : (1) initial value

## 507HT

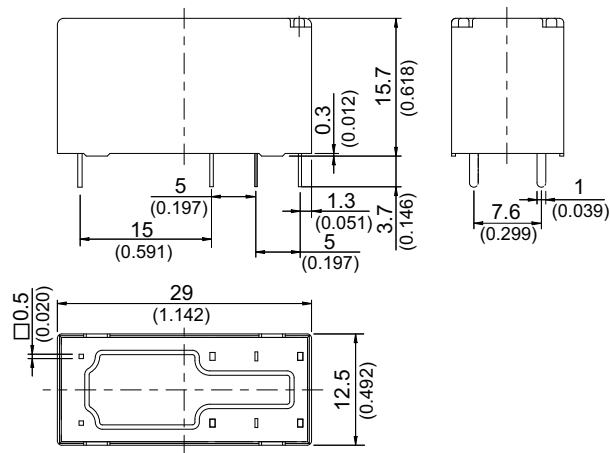
## »» Safety Approval

| Certified | UL / CUL | VDE      |
|-----------|----------|----------|
| File No.  | E88991   | 40006746 |

## »» Safety Approval Rating

| UL/CUL     | VDE             |
|------------|-----------------|
| 17A 277VAC | 17A 250VAC T105 |

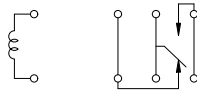
## »» Outline Dimensions



## »» Wiring Diagram

BOTTOM VIEW

1C



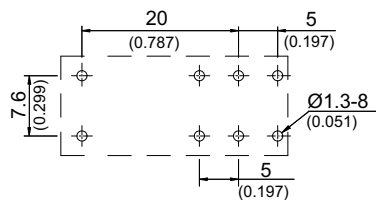
1A



## »» PC Board Layout

BOTTOM VIEW

1C



1A

