



## Features

- Large switching capacity up to 80A
- PCB pin and quick connect mounting available
- Suitable for automobile and lamp accessories
- QS-9000, ISO-9002 Certified Manufacturing

## Contact Data

|                     |                                                                               |                                      |
|---------------------|-------------------------------------------------------------------------------|--------------------------------------|
| Contact Arrangement | 1A = SPST N.O.<br>1B = SPST N.C.<br>1C = SPDT<br>1U = SPST N.O. (2 terminals) |                                      |
| Contact Rating      | Standard                                                                      | Heavy Duty                           |
| 1A                  | 60A @ 14VDC                                                                   | 80A @ 14VDC                          |
| 1B                  | 40A @ 14VDC                                                                   | 70A @ 14VDC                          |
| 1C                  | 60A @ 14VDC N.O.<br>40A @ 14VDC N.C.                                          | 80A @ 14VDC N.O.<br>70A @ 14VDC N.C. |
| 1U                  | 2x25A @ 14VDC                                                                 | 2x25@ 14VDC                          |

|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Contact Resistance    | < 30 milliohms initial                            |
| Contact Material      | AgSnO <sub>2</sub> In <sub>2</sub> O <sub>3</sub> |
| Max Switching Power   | 1120W                                             |
| Max Switching Voltage | 75VDC                                             |
| Max Switching Current | 80A                                               |

## Coil Data

| Coil Voltage VDC |      | Coil Resistance $\Omega$ +/- 10% | Pick Up Voltage VDC (max) | Release Voltage VDC (min) | Coil Power W | Operate Time ms | Release Time ms |
|------------------|------|----------------------------------|---------------------------|---------------------------|--------------|-----------------|-----------------|
| Rated            | Max  | 1.8W                             | 70% of rated voltage      | 10% of rated voltage      | 1.80         | 7               | 5               |
| 6                | 7.8  | 20                               | 4.20                      | .6                        |              |                 |                 |
| 12               | 15.6 | 80                               | 8.40                      | 1.2                       |              |                 |                 |
| 24               | 31.2 | 320                              | 16.80                     | 2.4                       |              |                 |                 |

## General Data

|                                                            |                                                        |
|------------------------------------------------------------|--------------------------------------------------------|
| Electrical Life @ rated load                               | 100K cycles, typical                                   |
| Mechanical Life                                            | 10M cycles, typical                                    |
| Insulation Resistance                                      | 100M $\Omega$ min. @ 500VDC                            |
| Dielectric Strength, Coil to Contact<br>Contact to Contact | 500V rms min. @ sea level<br>500V rms min. @ sea level |
| Shock Resistance                                           | 147m/s <sup>2</sup> for 11 ms                          |
| Vibration Resistance                                       | 1.5mm double amplitude 10~40Hz                         |
| Terminal (Copper Alloy) Strength                           | 8N (quick connect), 4N (PCB pins)                      |
| Operating Temperature                                      | -40°C to +125°C                                        |
| Storage Temperature                                        | -40°C to +155°C                                        |
| Solderability                                              | 260°C for 5 s                                          |
| Weight                                                     | 46g                                                    |

### Caution

1. The use of any coil voltage less than the rated coil voltage may compromise the operation of the relay.

Dimensions shown in mm. Dimensions are shown for reference purposes only.

Specifications and availability subject to change without notice.

[查询"A3MIUCQ24VDC1R"供应商](#)

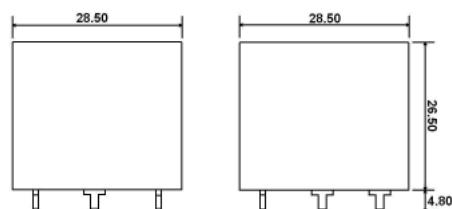
## Ordering Information

|                                                                                                                                                                                                                                                                                                                                              |     |    |   |   |       |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|---|---|-------|---|
| 1. Series                                                                                                                                                                                                                                                                                                                                    | A3F | 1C | S | Q | 24VDC | 2 |
| A3 standard<br>A3F with mounting flange<br>A3M with metal bracket                                                                                                                                                                                                                                                                            |     |    |   |   |       |   |
| 2. Contact Arrangement<br>1A = SPST N.O.<br>1B = SPST N.C.<br>1C = SPDT<br>1U = SPST N.O. *only available with standard contacts                                                                                                                                                                                                             |     |    |   |   |       |   |
| 3. Sealing Option<br>S = Sealed *Sealing only available with heavy duty contacts<br>C = Dust Cover                                                                                                                                                                                                                                           |     |    |   |   |       |   |
| 4. Termination<br>P = PCB Pins<br>Q = Quick Connect                                                                                                                                                                                                                                                                                          |     |    |   |   |       |   |
| 5. Coil Voltage<br>6VDC<br>12VDC<br>24VDC                                                                                                                                                                                                                                                                                                    |     |    |   |   |       |   |
| 6. Contacts<br>1 = Standard *Sockets for these models can be found on the CIT Relay Socket catalog page<br>2 = Heavy Duty *We recommend the PR series socket from Custom Connector Corporation                                                                                                                                               |     |    |   |   |       |   |
| 7. Coil Suppression<br>Blank = Standard<br>D = Diode (1N4005) Cathode on "86" terminal<br>R = Resistor (180Ω for 6VDC; 680Ω for 12VDC; 2700Ω for 2VDC)<br>2D = 2 Diodes (1N4005)<br>DR = Diode & Resistor Cathode on "86" terminal (1N4005 & 180Ω for 6VDC; 680Ω for 12VDC; 2700Ω for 2VDC)<br>** Consult factory if other values are needed |     |    |   |   |       |   |

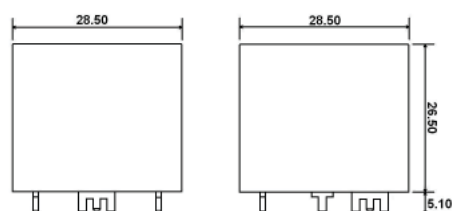
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## Dimensions A3

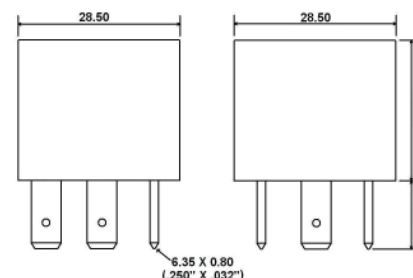
Units = mm



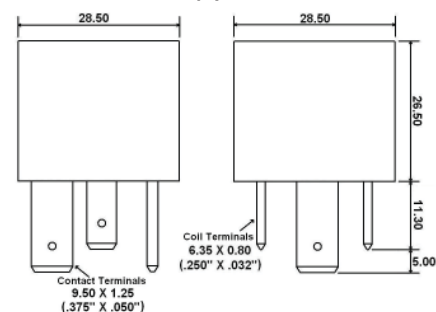
**Standard contacts (1) with PC Pin**



**Heavy Duty contacts (2) with PC Pins**



**Standard contacts (1) with Quick Connect**

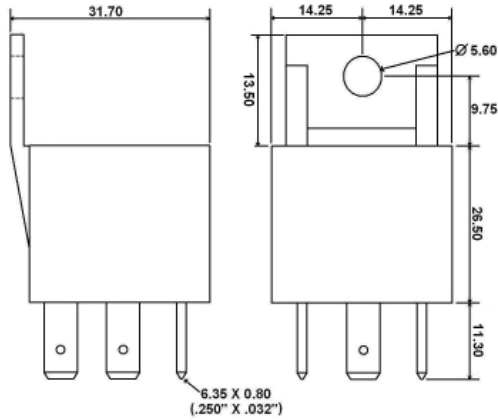


**Heavy Duty contacts (2) with Quick Connects**

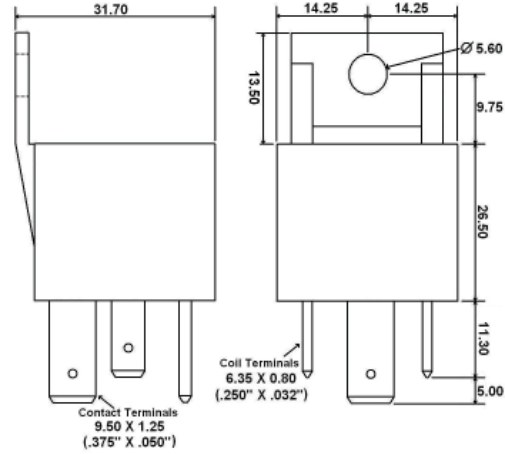
Dimensions shown in mm. Dimensions are shown for reference purposes only.

## Dimensions A3F

Units = mm



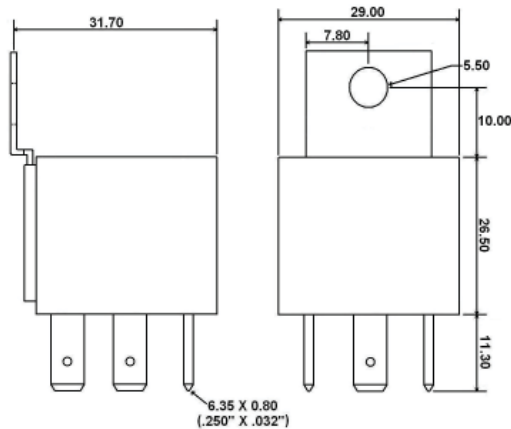
Standard contacts (1) with Quick Connect



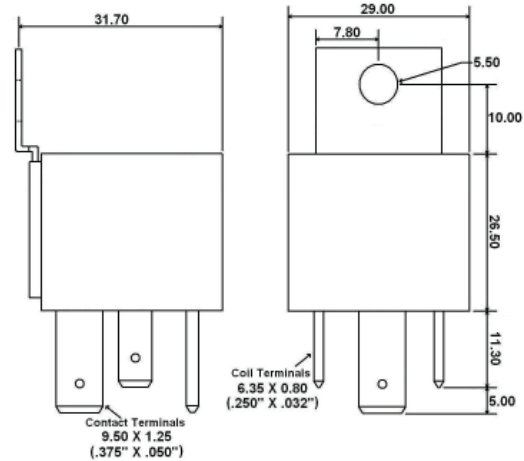
Heavy Duty contacts (2) with Quick Connects

## Dimensions A3M

Units = mm



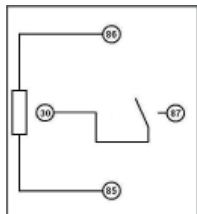
Standard contacts (1) with Quick Connect



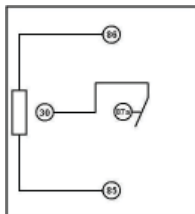
Heavy Duty contacts (2) with Quick Connects

## Schematics, PC Pin Dimensions & PC Layouts

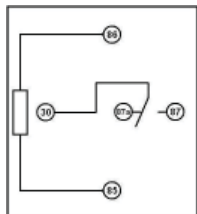
### Bottom Views



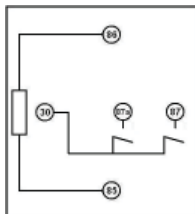
1A



1B



1C



1U

