


# Technical Specifications

## YGEV 5-2Pin Series Electrical Connectors

### • Product Overview

|   |  |
|---|--|
|  <p><b>Application Scenario</b><br/>Suitable for electrical connection of electric vehicle MCU, battery pack, high-voltage box, etc.</p> | <p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>✓ 360-degree full shielding;</li> <li>✓ Secondary interlocking and unlocking;             <ul style="list-style-type: none"> <li>✓ Anti-misturbance during plug-in and installation;</li> </ul> </li> <li>✓ Lock the handle;</li> <li>✓ Ultrasonic welding of plug terminals.</li> </ul> |
|---|--|

### • Ordering Information













| Ordering Information |  |  |                                       |                                       |
|----------------------|--|--|---------------------------------------|---------------------------------------|
| Key position         | A                                      |  |                                       |                                       |
| Product Name         | YGEV5-P2PWAH plug (70mm <sup>2</sup> ) | YGEV5-P2PWAH plug (50mm <sup>2</sup> ) | YGEV5-P2PHA plug (70mm <sup>2</sup> ) | YGEV5-P2PHA plug (50mm <sup>2</sup> ) |
| Part No.             | 111000405969                           | 111000405970                           | 111000405968                          | 111000405940                          |
| Product Name         | YGEV5-S2RA receptacle                  | YGEV5-S2RA1 receptacle                 | YGEV5-S2RA2 receptacle                |                                       |
| Part No.             | 111000502952                           | 111000502926                           | 111000503005                          |                                       |

**Note: The last letter of the product name represents the anti-mock key position. The last letters of the header models are the same and can be plugged in. The last number represents different copper busbar expansion types and does not affect plugging in.**

| Ordering information (assembly)        |              | Ordering information (parts details, can be purchased separately) |                |     |  |   |
|--|--------------|---|----------------|-----|--|---|
|  |              | Product Name  | Product Number | Qty | Wiring specifications                        | Diagram (reference)   |
| YGEV5-P2PWHA plug (70mm <sup>2</sup> ) | 111000405969 | YGEV5-P2PWHA plug assembly  | 112010106426   | 1   | 70mm <sup>2</sup><br>(LV216)<br>Φ17.8±0.4 mm |    |
|  |              | 20.4×2NA001-070S pin terminal                                     | 114020101327   | 2   |  |    |
|  |              | YGEV5 shielding parts-inside-70                                   | 114029801926   | 2   |  |    |
|  |              | YGEV5 shielding parts-outer-70                                    | 114029801927   | 2   |  |    |
|  |              | Φ18.5×2 gasket  | 114019801819   | 2   |  |    |
|  |              | Cable clamp assembly R9.25  | 113990001736   | 2   |  |   |
|  |              | Φ18.5 tail cover-1-70   | 114060103506   | 2   |  |  |
| YGEV5-P2PWHA plug (50mm <sup>2</sup> ) | 111000405970 | YGEV5-P2PWHA plug assembly  | 112010106426   | 1   | 50mm <sup>2</sup><br>(LV216)<br>Φ15.5±0.3mm  |  |
|  |              | 20.4×2NA001-070S pin terminal                                     | 114020101327   | 2   |  |  |
|  |              | YG196-459 shielding pressure ring-50                              | 114022600329   | 2   |  |  |
|  |              | YGEV5 shielding element-outer-50                                  | 114022600452   | 2   |  |  |
|  |              | Φ16×2 gasket  | 114019801832   | 2   |  |  |
|  |              | Cable clamp assembly R8   | 113990001737   | 2   |  |  |

|  |  |                           |              |   |  |   |
|--|--|---------------------------|--------------|---|--|---|
|  |  | Φ16.1 Tail cover-<br>1-50 | 114060103541 | 2 |  |  |
|--|--|---------------------------|--------------|---|--|---|

| Ordering information (assembly)       |              | Ordering information (parts details, can be purchased separately) |                |     |  |   |
|---------------------------------------|--------------|---|----------------|-----|--|---|
|                                       |              | Product Name  | Product Number | Qty | Wiring specifications                        | Diagram (reference)   |
| YGEV5-P2PHA plug (70mm <sup>2</sup> ) | 111000405968 | YGEV5-P2PHA plug Components                                       | 112010106427   | 1   | 70mm <sup>2</sup><br>(LV216)<br>Φ17.8±0.4 mm |    |
|                                       |              | 20.4×2NA002-070S pin terminal                                     | 114020101376   | 2   |  |    |
|                                       |              | YGEV5 shielding parts-inside-70                                   | 114029801926   | 2   |  |    |
|                                       |              | YGEV5 straight shield-outer-70                                    | 114022600489   | 2   |  |    |
|                                       |              | Φ18.5×2 gasket  | 114019801819   | 2   |  |    |
|                                       |              | Cable clamp assembly R9.25  | 113990001736   | 2   |  |   |
|                                       |              | Φ18.5 tail cover-1-70   | 114060103506   | 2   |  |  |
| YGEV5-P2PHA plug (50mm <sup>2</sup> ) | 111000405940 | YGEV5-P2PHA plug Components                                       | 112010106427   | 1   | 50mm <sup>2</sup><br>(LV216)<br>Φ15.5±0.3mm  |  |
|                                       |              | 20.4×2NA002-070S pin terminal                                     | 114020101376   | 2   |  |  |
|                                       |              | YG196-459 shielding pressure ring-50                              | 114022600329   | 2   |  |  |
|                                       |              | YGEV5 straight shield-outer-50                                    | 114022600490   | 2   |  |  |
|                                       |              | Φ16×2 gasket  | 114019801832   | 2   |  |  |
|                                       |              | Cable clamp assembly R8   | 113990001737   | 2   |  |  |
|                                       |              | Φ16.1 Tail cover-1-50   | 114060103541   | 2   |  |  |

| Ordering information (assembly) |              | Ordering information (parts details, can be purchased separately) |                |     |                           |   |
|---------------------------------|--------------|---|----------------|-----|---------------------------|---|
|                                 |              | Product Name  | Product Number | Qty | Wiring specifications     | Diagram (reference)   |
| YGEV5-S2RA receptacle           | 111000502952 | YGEV5-S2RA receptacle Components                                  | 112020107180   | 1   | Copper busbar with M6 nut |    |
|                                 |              | YGEV5-2 Needle Insulator  | 114060103508   | 1   |                           |    |
|                                 |              | YGEV5-2-0.5 sealing body  | 114050501887   | 1   |                           |    |
|                                 |              | YGEV5 stopper   | 114069805676   | 1   |                           |    |
|                                 |              | 82-0.63×0.63-H25~H35T pin   | 110010401011   | 2   |                           | Φ1.3±0.2mm (0.35mm <sup>2</sup> )   |
| YGEV5-S2RA1 receptacle          | 111000502926 | YGEV5-S2RA1 receptacle Components                                 | 112020107252   | 1   | Copper busbar with M6 nut |    |
|                                 |              | YGEV5-2 Needle Insulator  | 114060103508   | 1   |                           |   |
|                                 |              | YGEV5-2-0.5 sealing body  | 114050501887   | 1   |                           |  |
|                                 |              | YGEV5 stopper A   | 114069805964   | 1   |                           |  |
|                                 |              | 82-0.63×0.63-H25~H35T pin   | 110010401011   | 2   |                           | Φ1.3±0.2mm (0.35mm <sup>2</sup> )   |
| YGEV5-S2RA2 receptacle          | 111000503005 | YGEV5-S2RA2 receptacle Components                                 | 112020107384   | 1   | Copper busbar with M6 nut |  |
|                                 |              | YGEV5-2 Needle Insulator  | 114060103508   | 1   |                           |  |
|                                 |              | YGEV5-2-0.5 sealing body  | 114050501887   | 1   |                           |  |
|                                 |              | YGEV5 stopper   | 114069805676   | 1   |                           |  |
|                                 |              | 82-0.63×0.63-H25~H35T pin   | 110010401011   | 2   |                           | Φ1.3±0.2mm (0.35mm <sup>2</sup> )   |

## • Technical Data

| Basic Information    |  |
|----------------------|--|
| PIN distance         | 26.4mm   |
| Number of cores      | 2pin   |
| Cable specifications | 70mm <sup>2</sup> /outer diameter 17.8±0.4 mm; 50mm <sup>2</sup> /outer diameter 15.5±0.3 mm |
| Outlet direction     | 90°/180°   |

| Electrical properties |  |
|-----------------------|--|
| Rated voltage         | 1000 V (power), 24 V (signal)                        |
| Rated current         | 300A (70mm <sup>2</sup> ), 200A (50mm <sup>2</sup> ) |
| Withstand voltage     | 3000 V (power), 1000 V (signal) (50Hz AC normal)     |
| Insulation resistance | ≥100MΩ (power/signal) (1000V DV)                     |
| HVIL (Y/N)            | Y  |
| Shield (Y/N)          | Y  |

| Mechanical properties |               |
|-----------------------|---------------|
| Mechanical life       | ≥50 times     |
| Vibration level       | V2 (USCAR 37) |

| Environmental resistance |                              |
|--------------------------|------------------------------|
| Operating temperature    | -40°C ~ +125°C               |
| Protection level         | IP67&IP6K9K (header plug-in) |
| Relative humidity        | 95% (at 40°C)                |
| Salt spray level         | 96h                          |
| Altitude                 | ≤4000m                       |

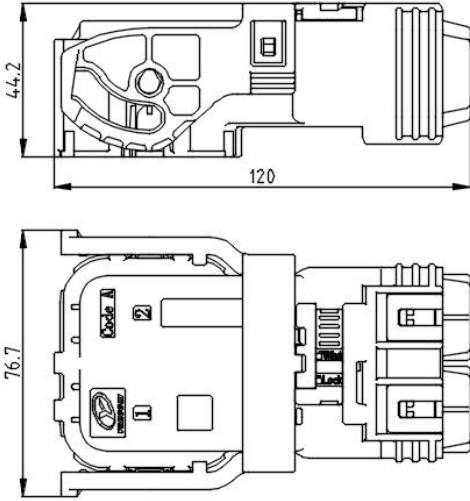
| Material/Coating/Appearance |  |
|-----------------------------|--|
| See Parts Drawing           |  |

| Standards and Certification |                                     |
|-----------------------------|-------------------------------------|
| Flame retardant grade       | UL94 V-0 (plastic), HB (rubber)     |
| Environmental requirements  | RoHS 2.0                            |
| Implementation Standards    | USCAR 37-2008 , USCAR-2, GB/T 30038 |

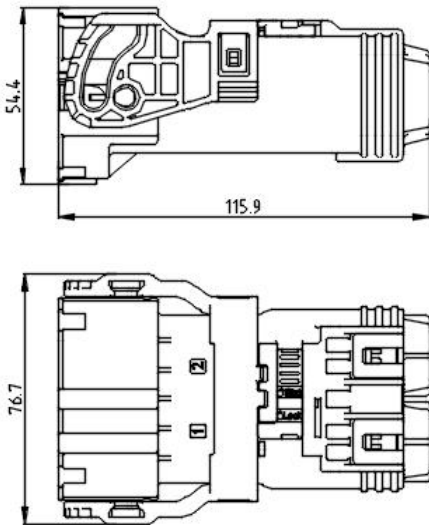
For other technical data, please refer to the DV/PV test report

• Dimensions

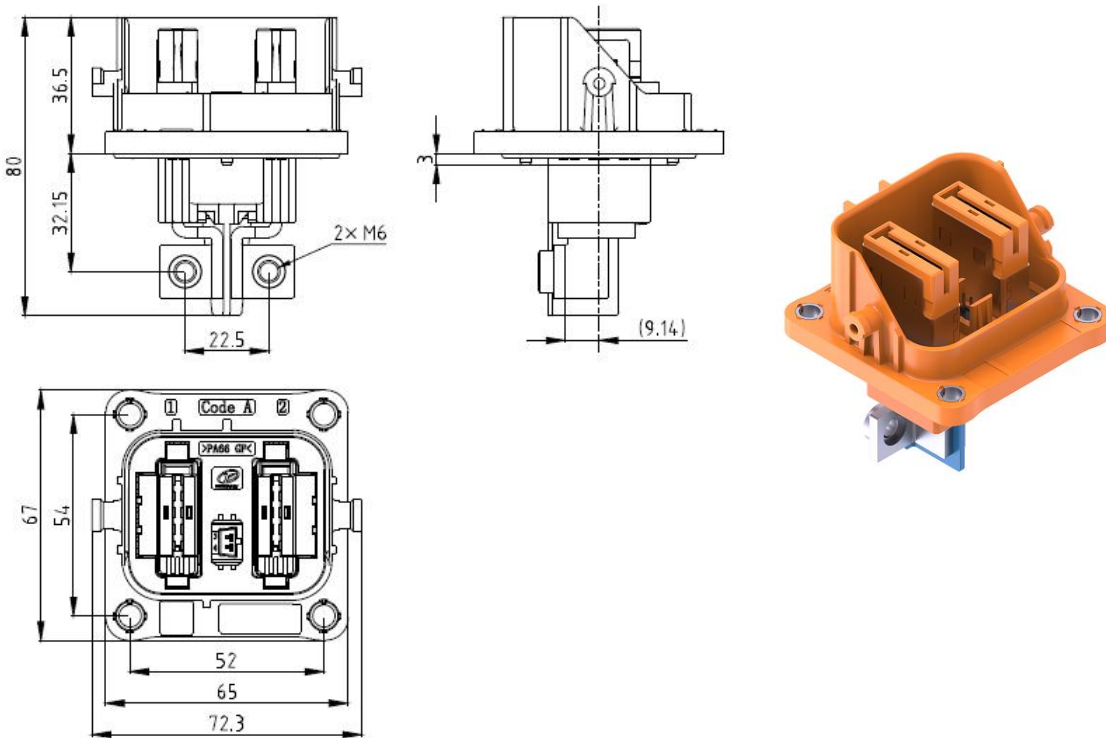
**YGEV5-P2PWH series plug assembly appearance** (tolerance not specified:  $\pm 0.5$ )



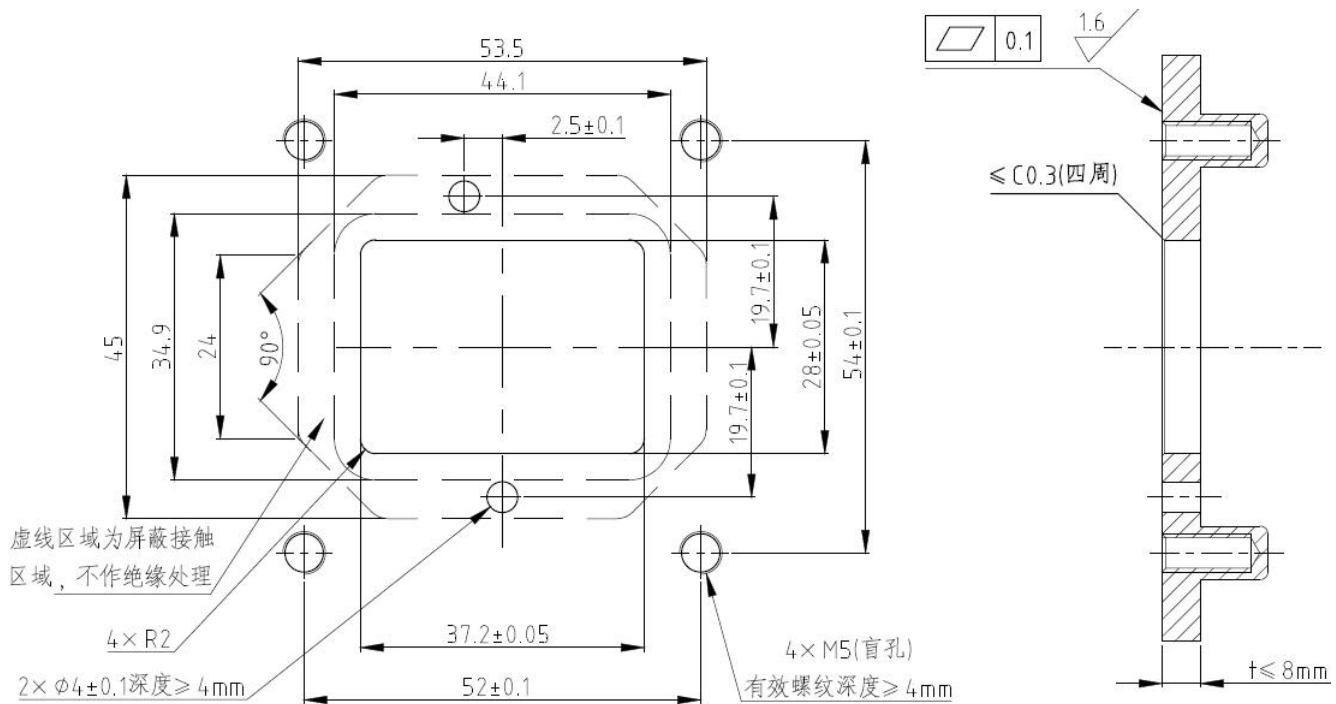
**YGEV5-P2PH series plug assembly appearance** (tolerance not specified:  $\pm 0.5$ )



**YGEV5-S2RA receptacle assembly appearance** (tolerance not specified:  $\pm 0.5$ )

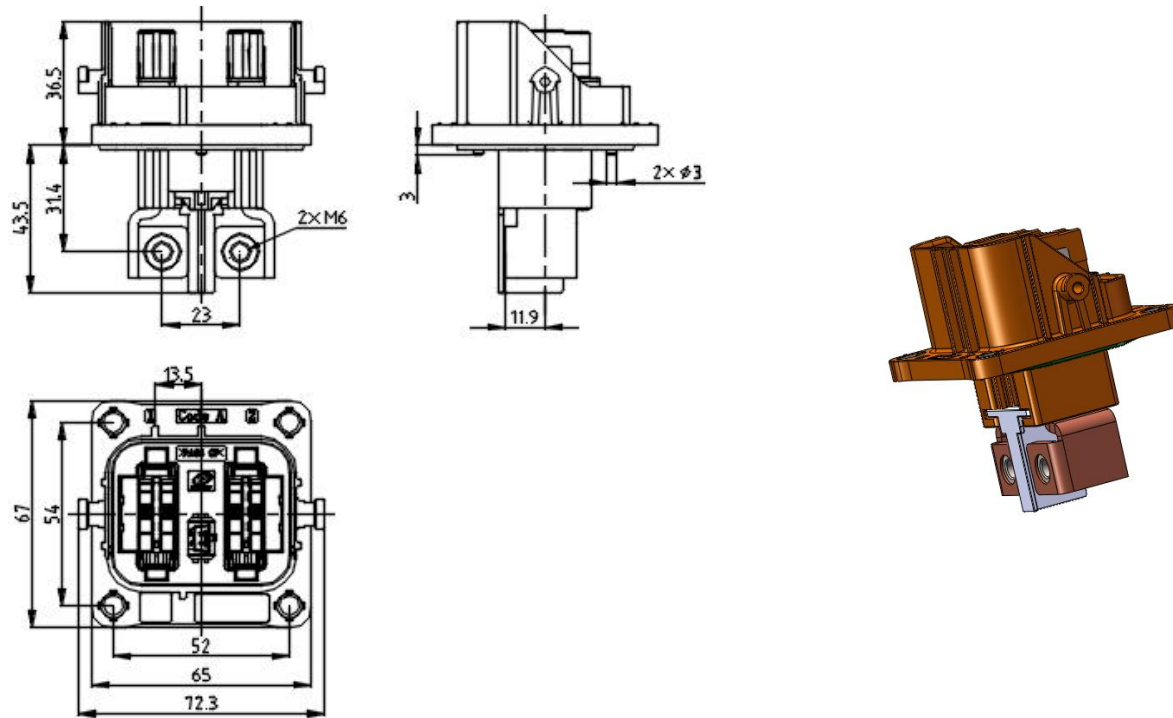


**YGEV5-S2RA receptacle installation hole size** (tolerance not specified:  $\pm 0.1$ )

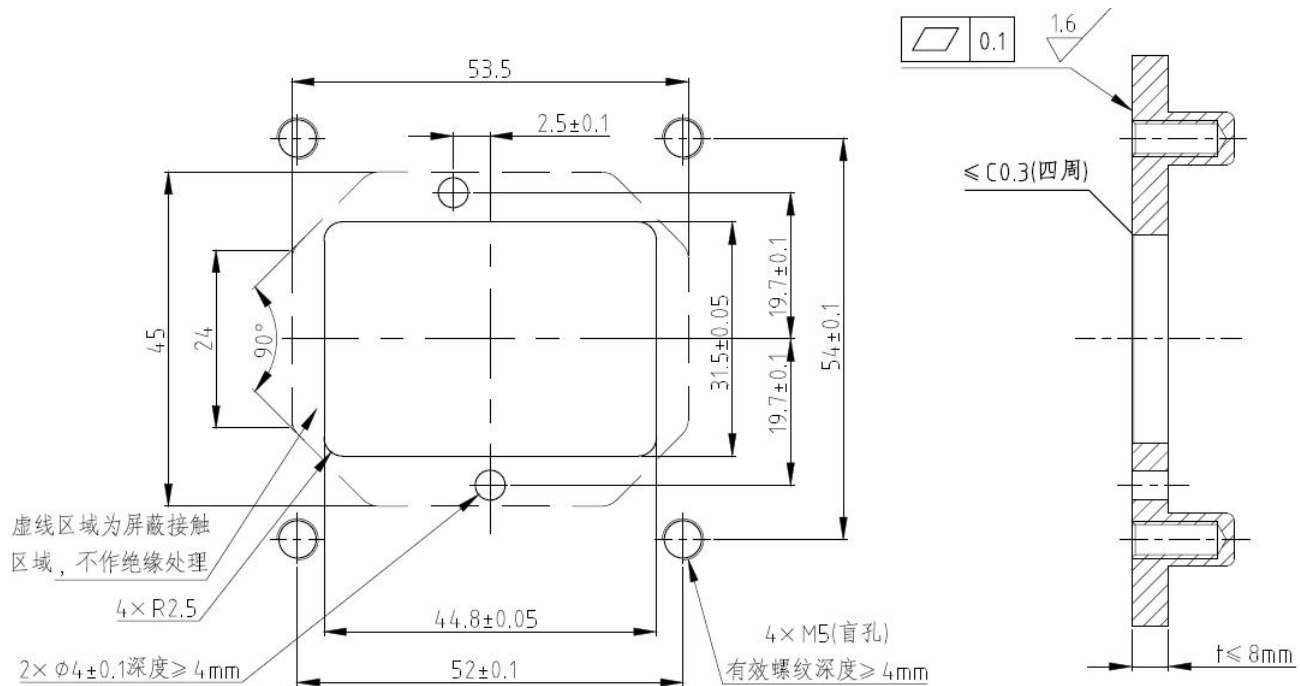




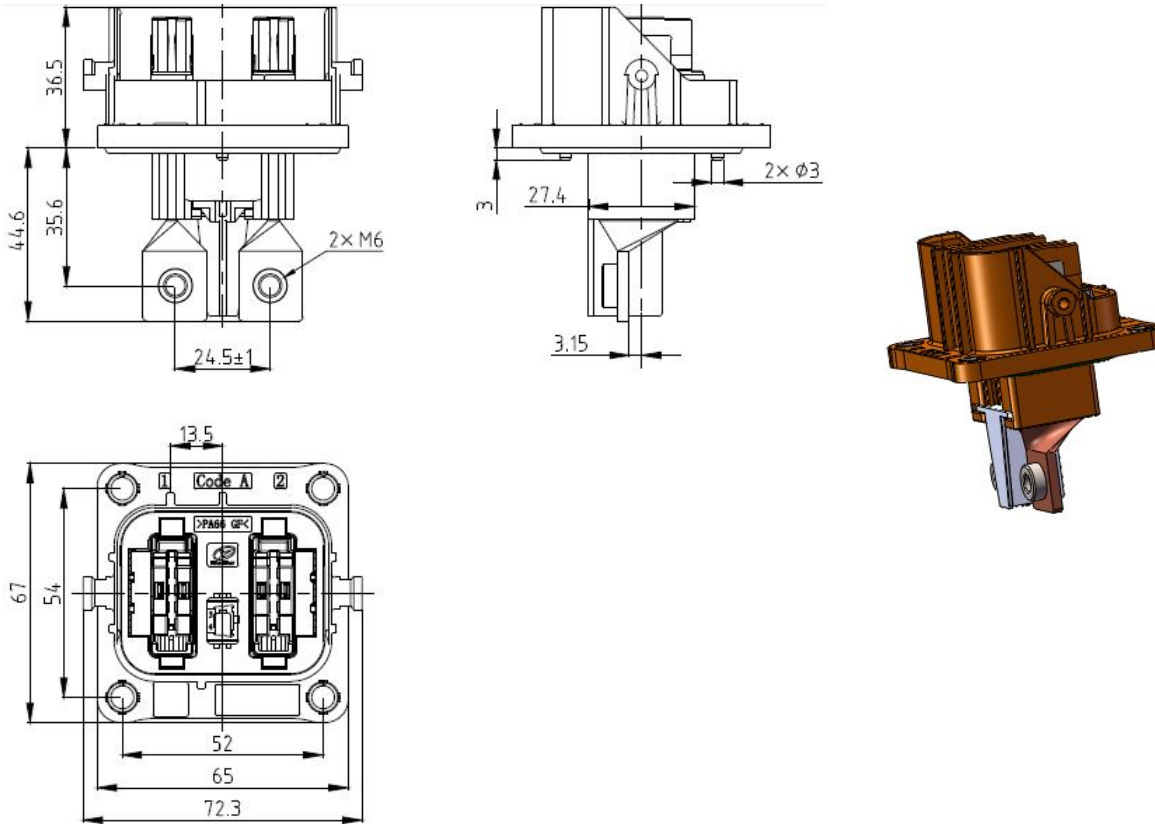
**YGEV5-S2RA1 receptacle assembly appearance (tolerance not specified:  $\pm 0.5$ )**



**YGEV5-S2RA1 receptacle installation hole size (tolerance not specified:  $\pm 0.1$ )**



**YGEV5-S2RA2 receptacle assembly appearance** (tolerance not specified:  $\pm 0.5$ )



**YGEV5-S2RA2 receptacle installation hole size** (tolerance not specified:  $\pm 0.1$ )

- Dimensions

| Special tools       |   |
|---------------------|---|
| Removal tools       | / |
| Needle feeding tool | / |
| Crimping tools      | / |
| Other Tools         | / |

- Store

| Packaging Storage/Transportation Instructions |   |
|---|---|
| Storage requirements                          | Contact parts (gold-plated, silver-plated) must be stored separately, kept neat, clean and ventilated. The storage environment should be controlled at a humidity of $\leq 60\%$ and a temperature of $5 \sim 30^{\circ}\text{C}$ . Reference shelf life 6 months       |
| Transshipment requirements                    | During packaging, transportation, transfer, production and assembly, the terminals should be protected from collision, contact with corrosive gases and liquids, and direct contact with hands, etc., to ensure that the terminal contact surface is in good condition. |