

|                                      |                         |                 |              |  |                                      |                               |                               |                                |          |                    |  |     |
|--------------------------------------|-------------------------|-----------------|--------------|--|--------------------------------------|-------------------------------|-------------------------------|--------------------------------|----------|--------------------|--|-----|
| Shenzhen XQPOWER Technology Co., LTD |                         |                 |              |  | DOCUMENT NO                          |                               | N/D.20240801.7.2              |                                |          |                    |  |     |
|                                      |                         |                 |              |  | VER                                  |                               | X9_9450.05                    |                                |          |                    |  |     |
|                                      |                         |                 |              |  | Page.                                |                               | P.1                           |                                |          |                    |  |     |
|                                      |                         |                 |              |  | Prepare Date                         |                               | 20250222                      |                                |          |                    |  |     |
| GSN                                  |                         | XQ-9S           | Product Name |  | XQ-POWER 30V450kg-cm Brushless Servo |                               | Model                         | XQ-S9450D                      | Material | CNC all-metal case |  |     |
| Process flow                         |                         |                 |              |  |                                      | CNC / industry testing torque |                               |                                |          |                    |  |     |
| SIZE OF THE DRAWINGS                 |                         |                 |              |  |                                      | Control Specifications        |                               |                                |          |                    |  | AQL |
|                                      |                         |                 |              |  |                                      | NO.                           | Standard Test Environment     |                                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 1-1                           | Temperature range             | 25°C±5°C                       |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 1-2                           | Humidity range                | 65%±10%                        |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | NO.                           | Apply Environmental Condition |                                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 2-1                           | Storage Temperature Range     | -30°C ~ 70°C                   |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 2-2                           | Operating Temperature Range   | -30°C ~ 60°C                   |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | NO.                           | Mechanical Specification      |                                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-1                           | Servo Dimensions              | 100*50*97 mm                   |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-2                           | Servo Weight                  | 895g                           |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-3                           | Servo Gear                    | Steel Gear                     |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-4                           | Angle of limit                | No Limit                       |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-5                           | Servo Bearing                 | 8 Ball bearings                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-6                           | Output force shaft            | 25T-φ11.98mm                   |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-7                           | Servo arm                     | Metal                          |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-8                           | Case Material                 | Aluminium CNC                  |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 3-9                           | Servo line                    | J30J-15TJL purchase separately |          |                    |  |     |
| 3-10                                 | Built-in motor          | Brushless motor |              |  |                                      |                               |                               |                                |          |                    |  |     |
| 3-11                                 | Splash water resistance | Yes             |              |  |                                      |                               |                               |                                |          |                    |  |     |
| The Drawings                         |                         |                 |              |  |                                      | Electrical Specification      |                               |                                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | NO.                           | Test Operating Voltage Range  |                                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-1                           | Work Voltage                  | 24 V                           |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-2                           | No load speed                 | 0.30 sec/60°                   |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-3                           | Runnig current (no load)      | 400 mA                         |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-4                           | Peak stall torque             | 560 kg.cm                      |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-5                           | Stall current                 | 18 A                           |          |                    |  |     |
|                                      |                         |                 |              |  |                                      |                               | Work Voltage                  | 28 V                           |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-6                           | No load speed                 | 0.25 sec/60°                   |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-7                           | Runnig current (no load)      | 430 mA                         |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-8                           | Peak stall torque             | 650 kg.cm                      |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-9                           | Stall current                 | 21 A                           |          |                    |  |     |
|                                      |                         |                 |              |  |                                      |                               | Work Voltage                  | 30 V                           |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-10                          | No load speed                 | 0.21 sec/60°                   |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-11                          | Runnig current (no load)      | 450 mA                         |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-12                          | Peak stall torque             | 700 kg.cm                      |          |                    |  |     |
|                                      |                         |                 |              |  |                                      | 4-13                          | Stall current                 | 22.5 A                         |          |                    |  |     |
| Photos1                              |                         |                 |              |  |                                      | Make table                    |                               | CHECK                          |          | APPROVE            |  |     |
|                                      |                         |                 |              |  |                                      | MR.ZHONG                      |                               | MR.LIU                         |          | Manager.ZHOU       |  |     |
|                                      |                         |                 |              |  |                                      |                               |                               |                                |          |                    |  |     |
| Photos2                              |                         |                 |              |  |                                      |                               |                               |                                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      |                               |                               |                                |          |                    |  |     |
|                                      |                         |                 |              |  |                                      |                               |                               |                                |          |                    |  |     |

|                                                                                                                          |  |       |  |              |              |                                      |                  |                                                                                                 |                                 |           |                                        |              |     |                    |  |  |
|--------------------------------------------------------------------------------------------------------------------------|--|-------|--|--------------|--------------|--------------------------------------|------------------|-------------------------------------------------------------------------------------------------|---------------------------------|-----------|----------------------------------------|--------------|-----|--------------------|--|--|
| <div>Shenzhen XQPOWER Technology Co., LTD</div> <div><div>XQPOWER</div><div>Product Inspection Specification</div></div> |  |       |  |              | DOCUMENT NO  |                                      | N/D.20240801.7.2 |                                                                                                 |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              | VER          |                                      | X9_9450.05       |                                                                                                 |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              | Page.        |                                      | P.2              |                                                                                                 |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              | Prepare Date |                                      | 20250222         |                                                                                                 |                                 |           |                                        |              |     |                    |  |  |
| GSN                                                                                                                      |  | XQ-9S |  | Product Name |              | XQ-POWER 30V450kg-cm Brushless Servo |                  | Model                                                                                           |                                 | XQ-S9450D |                                        | Material     |     | CNC all-metal case |  |  |
| Control Specification                                                                                                    |  |       |  |              |              |                                      |                  |                                                                                                 |                                 |           |                                        |              |     |                    |  |  |
| Test display diagram                                                                                                     |  |       |  |              |              |                                      |                  | EMPHASIS                                                                                        |                                 |           |                                        |              |     |                    |  |  |
| <div>Photos1</div> <div></div>                                                                                           |  |       |  |              |              |                                      |                  | NO.                                                                                             | Item                            |           | Specification                          |              | AQL |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-1                                                                                             | Command signal                  |           | PWM S-Bus CAN 485                      |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-2                                                                                             | Amplifier type                  |           | Digital Controller                     |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-3                                                                                             | Pulse width range               |           | 500~2500 μsec customizable             |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-4                                                                                             | Neutral position                |           | 1500 μsec customizable                 |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-5                                                                                             | Running degree                  |           | 90° (when 1000~2000 μsec) customizable |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-6                                                                                             | Dead band width                 |           | 3 μsec                                 |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-7                                                                                             | Rotating direction              |           | CCW (when 1000~2000 μsec) customizable |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | Appearance inspection                                                                           |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | NO.                                                                                             | QC details                      |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-7                                                                                             | Material qualified              |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-8                                                                                             | Gear structure qualified        |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-9                                                                                             | Function qualified              |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 5-10                                                                                            | Use data qualified              |           |                                        |              |     |                    |  |  |
| Accessories                                                                                                              |  |       |  |              |              |                                      |                  | 5-11                                                                                            | Pass the test                   |           |                                        |              |     |                    |  |  |
| <div>Photos1</div> <div></div>        |  |       |  |              |              |                                      |                  | NO.                                                                                             | Other                           |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 6-1                                                                                             |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 6-2                                                                                             |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 6-3                                                                                             |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 6-4                                                                                             |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | Other Accessories                                                                               |                                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 7-1                                                                                             | Plastic arm bag                 |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 7-2                                                                                             | Screw                           |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | 7-3                                                                                             | Metal arm (additional purchase) |           |                                        |              |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | <div></div> |                                 |           |                                        |              |     |                    |  |  |
| Reference opinions of all departments: Agree                                                                             |  |       |  |              |              |                                      |                  | Make table                                                                                      |                                 | CHECK     |                                        | APPROVE      |     |                    |  |  |
|                                                                                                                          |  |       |  |              |              |                                      |                  | MR.ZHONG                                                                                        |                                 | MR.LIU    |                                        | Manager.ZHOU |     |                    |  |  |