

# SHENZHEN SKY STAR TECHNOLOGY CO., LTD

## Data Sheet of S3003 Analog Servo Motor

### Products Specification

**Products Name:**S3003 Analog Servo

**Products No.**

#### 1. Apply Environmental Conditon

| No. | Item                        | Specifcation |
|-----|-----------------------------|--------------|
| 1.1 | Storage Temperature Range   | -30°C~80°C   |
| 1.2 | Operating Temperature Range | -25°C~70°C   |

#### 2.Standard Test Environment

| No. | Item              | Specifcation |
|-----|-------------------|--------------|
| 2.1 | Temperature Range | -25°C~70°C   |
| 2.2 | Humidity Range    | 65%±10%      |

#### 3. Mechanical Specification

| No.  | Item                    | Specifcation              |
|------|-------------------------|---------------------------|
| 3.1  | Size                    | 40.5*20*39.5mm            |
| 3.2  | Weight                  | 45g±5%                    |
| 3.3  | Gear type               | 5 Metal                   |
| 3.4  | Limit angle             | 200°±5°                   |
| 3.5  | Bearing                 | 2BB                       |
| 3.6  | Horn gear spline        | 25T Diameter :6mm         |
| 3.7  | Horn type               | Plastic, POM              |
| 3.8  | Case                    | Engineering plastics(PBT) |
| 3.9  | Connector wire          | 300mm±5mm                 |
| 3.10 | Motor                   | Carbon brush motor        |
| 3.11 | Splash water resistance | No                        |

#### 4. Electrical Specification

| No. | Operat voltage    | 4.8V        | 6.0V        |
|-----|-------------------|-------------|-------------|
| 4.1 | Idle current      | mA          | mA          |
| 4.2 | No load speed     | 0.18sec/60° | 0.15sec/60° |
| 4.3 | Runnig current    | 160mA       | 170mA       |
| 4.4 | Peak stall torque | 4.5kg.cm    | 6.5kg.cm    |
| 4.5 | Stall current     | 1100mA±10%  | 1300mA±10%  |

#### 5.Control Specification

| No. | Item               | Specifcation                          |
|-----|--------------------|---------------------------------------|
| 5.1 | Command signal     | Pulse width modification              |
| 5.2 | Amplifier type     | Analog controller                     |
| 5.3 | Pulse width range  | 500~2500usec                          |
| 5.4 | Neutral position   | 1500usec                              |
| 5.5 | Running degree     | 180°±3°(when 500~2500usec)            |
| 5.6 | Dead band width    | 8 usec                                |
| 5.7 | Rotating direction | Counterclockwise (when 1000~2000usec) |

