

# Product datasheet

Specifications



servo motor SH3 100  
5,8Nm,key,multi,brake,  
90°conn.IP65/IP67,6k RPM

SH31002P12F2200

⚠ Discontinued on: 9 Feb 2023

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EAN Code: 3606485296852

## Main

|                           |             |
|---------------------------|-------------|
| Range compatibility       | PacDrive 3  |
| Device short name         | SH3         |
| Product or component type | Servo motor |

## Complementary

|                           |                                                                                                                                    |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Maximum mechanical speed  | 6000 rpm                                                                                                                           |
| [Us] rated supply voltage | 115...480 V                                                                                                                        |
| Network number of phases  | Three phase                                                                                                                        |
| Continuous stall current  | 4.8 A                                                                                                                              |
| Continuous stall torque   | 5.8 N.m at 115...480 V three phase                                                                                                 |
| Continuous power          | 1900 W                                                                                                                             |
| Peak stall torque         | 18.3 N.m at 115...480 V three phase                                                                                                |
| Nominal output power      | 580 W at 115 V single phase<br>1090 W at 230 V single phase<br>1930 W at 400 V three phase<br>2210 W at 480 V three phase          |
| Nominal torque            | 5.5 N.m at 115 V single phase<br>5.2 N.m at 230 V single phase<br>4.6 N.m at 400 V three phase<br>4.4 N.m at 480 V three phase     |
| Nominal speed             | 1000 rpm at 115 V single phase<br>2000 rpm at 230 V single phase<br>4000 rpm at 400 V three phase<br>4800 rpm at 480 V three phase |
| Maximum current Irms      | 17.1 A                                                                                                                             |
| Shaft end                 | Parallel key                                                                                                                       |
| Shaft diameter            | 19 mm                                                                                                                              |
| Shaft length              | 40 mm                                                                                                                              |
| key width                 | 6 mm                                                                                                                               |
| IP degree of protection   | IP65 motor: conforming to IEC 60034-5<br>IP65 shaft bushing: conforming to IEC 60034-5<br>IP67 housing: conforming to IEC 60034-5  |
| Encoder type              | Absolute multiturn SinCos Hiperface                                                                                                |
| Speed feedback resolution | 128 periods                                                                                                                        |
| Holding brake             | With                                                                                                                               |
| Holding torque            | 9 N.m                                                                                                                              |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                           |                                                                                  |
|-------------------------------------------|----------------------------------------------------------------------------------|
| Mounting support                          | International standard flange                                                    |
| Motor flange size                         | 100 mm                                                                           |
| Electrical connection                     | Straight connector                                                               |
| Torque constant                           | 1.21 N.m/A at 120 °C                                                             |
| Back emf constant                         | 77 V/krpm at 20 °C                                                               |
| Number of motor poles                     | 4.0                                                                              |
| Rotor inertia                             | 2.928 kg.cm²                                                                     |
| Stator resistance                         | 2.4 Ohm                                                                          |
| Stator inductance                         | 6.75 mH                                                                          |
| Maximum radial force Fr                   | 990 N at 1000 rpm<br>790 N at 2000 rpm<br>690 N at 3000 rpm<br>620 N at 4000 rpm |
| Maximum axial force Fa                    | 160 N                                                                            |
| type of cooling                           | Natural convection                                                               |
| Length                                    | 234.5 mm                                                                         |
| Centring collar diameter                  | 95 mm                                                                            |
| centring collar depth                     | 3.5 mm                                                                           |
| Number of mounting holes                  | 4                                                                                |
| Mounting holes diameter                   | 9.0 mm                                                                           |
| Circle diameter of the mounting holes     | 115 mm                                                                           |
| Net weight                                | 6.3 kg                                                                           |
| Sizing reference                          | SH31002P                                                                         |
| Network number of phases                  | 3                                                                                |
| Temperature copper hot                    | 130 °C                                                                           |
| compatible drive output current 3s peak 2 | 15 A                                                                             |
| Electrical connection                     | rotatable right angled connector                                                 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 21.0 cm |
| Package 1 Width              | 18.0 cm |
| Package 1 Length             | 35.6 cm |
| Package 1 Weight             | 7.4 kg  |

## Logistical informations

|                   |    |
|-------------------|----|
| Country of origin | DE |
|-------------------|----|

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

| Environmental footprint                               |                                               |
|-------------------------------------------------------|-----------------------------------------------|
| Carbon footprint (kg.eq.CO2 per CR, Total Life cycle) | 4497                                          |
| Environmental Disclosure                              | <a href="#">Product Environmental Profile</a> |

Use Better

| Materials and Substances               |                                                            |
|----------------------------------------|------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                        |
| Packaging without single use plastic   | No                                                         |
| <a href="#">EU RoHS Directive</a>      | Pro-active compliance (Product out of EU RoHS legal scope) |
| SCIP Number                            | Ead0850d-370a-47c5-8cf7-1d93c2c974a4                       |
| REACH Regulation                       | <a href="#">REACH Declaration</a>                          |
| PVC free                               | Yes                                                        |

Use Again

| Repack and remanufacture |                                                                                                                                                                                                                 |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Circularity Profile      | No need of specific recycling operations                                                                                                                                                                        |
| Take-back                | No                                                                                                                                                                                                              |
| WEEE                     |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |