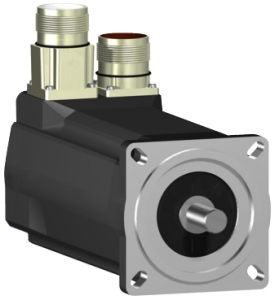
# Product data sheet

Specifications



## SH3 servomotor, 70mm, 1 stack, smooth Shaft, SinCos Multiturn 128, no Brake, straight, IP54/65

SH30701P02A1000

## Main

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

## Complementary

| | |
|---|---|
| **Maximum mechanical speed** | 8000 rpm |
| **[Us] rated supply voltage** | 115...480 V |
| **Network number of phases** | Three phase |
| **Continuous stall current** | 1.8 A |
| **Continuous stall torque** | 11.06 lbf.in (1.25 N.m) 115...480 V three phase |
| **Continuous power** | 690 W |
| **Peak stall torque** | 31.0 lbf.in (3.5 N.m) 115...480 V three phase |
| **Nominal output power** | 220 W 115 V single phase<br>440 W 230 V single phase<br>820 W 400 V three phase<br>950 W 480 V three phase |
| **Nominal torque** | 12.4 lbf.in (1.4 N.m) 115 V single phase<br>12.4 lbf.in (1.4 N.m) 230 V single phase<br>9.7 lbf.in (1.1 N.m) 400 V three phase<br>9.7 lbf.in (1.1 N.m) 480 V three phase |
| **Nominal speed** | 1500 rpm 115 V single phase<br>3000 rpm 230 V single phase<br>6000 rpm 400 V three phase<br>7200 rpm 480 V three phase |
| **Maximum current Irms** | 5.7 A |
| **Shaft end** | Smooth shaft |
| **Shaft diameter** | 0.4 in (11 mm) |
| **Shaft length** | 0.9 in (23 mm) |
| **IP degree of protection** | IP54 shaft bushing without shaft seal ring: conforming to IEC 60034-5<br>IP65 motor: conforming to IEC 60034-5<br>IP65 shaft bushing: conforming to IEC 60034-5 |
| **Encoder type** | Absolute multiturn SinCos Hiperface |
| **Speed feedback resolution** | 128 periods |
| **Holding brake** | Without |
| **Mounting support** | International standard flange |
| **Motor flange size** | 2.8 in (70 mm) |
| **Electrical connection** | Rotatable right angled connector |

| | |
|---|---|
| **Torque constant** | 0.69 N.m/A 248 °F (120 °C) |
| **Back emf constant** | 46 V/krpm 68 °F (20 °C) |
| **Number of motor poles** | 3.0 |
| **Rotor inertia** | 0.25 kg.cm² |
| **Stator resistance** | 10.4 Ohm |
| **Stator inductance** | 21.3 mH |
| **Maximum radial force Fr** | 660 N 1000 rpm<br>520 N 2000 rpm<br>460 N 3000 rpm<br>410 N 4000 rpm<br>380 N 5000 rpm<br>360 N 6000 rpm |
| **Maximum axial force Fa** | 80 N |
| **Type of cooling** | Natural convection |
| **Length** | 6.06 in (154 mm) |
| **Centring collar diameter** | 2.4 in (60 mm) |
| **Centring collar depth** | 0.10 in (2.5 mm) |
| **Number of mounting holes** | 4 |
| **Mounting holes diameter** | 0.2 in (5.5 mm) |
| **Circle diameter of the mounting holes** | 3.2 in (82 mm) |
| **Net weight** | 4.6 lb(US) (2.1 kg) |
| **Sizing reference** | SH30701P |
| **Network number of phases** | 3 |
| **Temperature copper hot** | 266 °F (130 °C) |
| **Electrical connection** | straight connector |
| **Output current 3s peak** | 5.7 A |
| **Inertia** | 0.0 kg.cm² of brake<br>0.25 kg.cm² of motor |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 4.646 in (11.800 cm) |
| **Package 1 Width** | 7.638 in (19.400 cm) |
| **Package 1 Length** | 15.709 in (39.900 cm) |
| **Package 1 Weight** | 5.168 lb(US) (2.344 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## 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

| | |
|---|---|
| Total lifecycle Carbon footprint | **1 947 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **12 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.3 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **1 934 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.3 kg CO2 eq.** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **No** |
| SCIP Number | **Ead0850d-370a-47c5-8cf7-1d93c2c974a4** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| PVC free | **Yes** |

## Use Longer

### Lifetime extension

| | |
|---|---|
| Repair | **No** |

## Use Again

### Repack and remanufacture

| | |
|---|---|
| Circularity Profile | **No need of specific recycling operations** |
| Take-back | **No** |