# Product data sheet
## Characteristics

# SH31001P02F2000
SH3 servomotor, 100mm, 1 stack, smooth Shaft, SinCos Multiturn 128, Brake, angular, IP54/65



## 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 | 3.5 A |
| Continuous stall torque | 2.94 N.M at 115...480 V three phase |
| Continuous power | 1190 W |
| Peak stall torque | 9.6 N.M at 115...480 V three phase |
| Nominal output power | 410 W at 115 V single phase<br>790 W at 230 V single phase<br>1410 W at 400 V three phase<br>1630 W at 480 V three phase |
| Nominal torque | 2.91 N.M at 115 V single phase<br>2.64 N.M at 230 V single phase<br>2.27 N.M at 400 V three phase<br>2.27 N.M at 480 V three phase |
| Nominal speed | 1250 rpm at 115 V single phase<br>2500 rpm at 230 V single phase<br>5000 rpm at 400 V three phase<br>6000 rpm at 480 V three phase |
| Maximum current Irms | 12.0 A |
| Shaft end | Smooth shaft |
| Shaft diameter | 19 Mm |
| Shaft length | 40 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 | With |
| Holding torque | 9 N.M |
| Mounting support | International standard flange |
| Motor flange size | 100 Mm |
| Electrical connection | Rotatable right angled connector |
| Torque constant | 0.84 N.M/A at 120 °C |

| | |
|---|---|
| Back emf constant | 60 V/Krpm at 20 °C |
| Number of motor poles | 4.0 |
| Rotor inertia | 2.018 Kg.Cm² |
| Stator resistance | 3.8 Ohm |
| Stator inductance | 9.5 MH |
| Maximum radial force Fr | 900 N at 1000 rpm<br>720 N at 2000 rpm<br>630 N at 3000 rpm<br>570 N at 4000 rpm<br>530 N at 5000 rpm |
| Maximum axial force Fa | 160 N |
| Type of cooling | Natural convection |
| Length | 199.5 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 | 4.8 Kg |
| Sizing reference | SH31001P |
| Network number of phases | 3 |
| Temperature copper hot | 130 °C |
| Electrical connection | Rotatable right angled connector |
| Output current 3s peak | 12.0 A |
| Inertia | 0.618 Kg.Cm² of brake<br>1.4 Kg.Cm² of motor |

## Packing Units

| | |
|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 22.2 Cm |
| Package 1 Width | 40.0 Cm |
| Package 1 Length | 19.4 Cm |
| Package 1 Weight | 5.94 Kg |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 6 |
| Package 2 Height | 77.0 Cm |
| Package 2 Width | 60.0 Cm |
| Package 2 Length | 80.0 Cm |
| Package 2 Weight | 44.26 Kg |

## Offer Sustainability

| | |
|---|---|
| Recyclability potential, in % | 87 |
| Total lifecycle Carbon footprint | 0 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 0 |
| Carbon footprint of the manufacturing phase [A1 to A3] | 0 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 0 |
| Carbon footprint of the distribution phase [A4] | 0 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0 |
| Carbon footprint of the installation phase [A5] | 0 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 0 |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 0 kg CO2 eq. |
| Mercury free | Yes |
| Sustainable packaging | No |
| Carbon footprint of the end-of-life phase [C1 to C4] | 0 |
| Carbon footprint of the end-of-life phase [C1 to C4] | 0 kg CO2 eq. |
| Total lifecycle Carbon footprint | 1 |

| | |
|---|---|
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | No |
| SCIP Number | Ead0850d-370a-47c5-8cf7-1d93c2c974a4 |
| REACh Regulation | Reference contains Substances of Very High Concern above the threshold |
| EU RoHS Directive | Compliant By Exemption |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, wh |
| PVC free | Yes |
| End of life manual availability | No need of specific recycling operations |
| Take-back | No |

## Contractual warranty

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

Product Life Status : Commercialised