Product data sheet

Specifications

SH3 servomotor, 100mm, 3 stacks, smooth Shaft, SinCos Multiturn 128, Brake, angular, IP65/67

SH31003P02F2200

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	6.6 A
Continuous stall torque	70.8 lbf.in (8 N.m) 115...480 V three phase
Continuous power	2400 W
Peak stall torque	250.5 lbf.in (28.3 N.m) 115...480 V three phase
Nominal output power	790 W 115 V single phase 1470 W 230 V single phase 2390 W 400 V three phase 2560 W 480 V three phase
Nominal torque	45.1 lbf.in (5.1 N.m) 480 V three phase 66.4 lbf.in (7.5 N.m) 115 V single phase 62.0 lbf.in (7 N.m) 230 V single phase 50.4 lbf.in (5.7 N.m) 400 V three phase
Nominal speed	1000 rpm 115 V single phase 2000 rpm 230 V single phase 4000 rpm 400 V three phase 4800 rpm 480 V three phase
Maximum current Irms	28.3 A
Shaft end	Smooth shaft
Shaft diameter	0.7 in (19 mm)
Shaft length	1.6 in (40 mm)
IP degree of protection	IP65 motor: conforming to IEC 60034-5 IP65 shaft bushing: conforming to IEC 60034-5 IP67 housing: conforming to IEC 60034-5
Encoder type	Absolute multiturn SinCos Hiperface
Speed feedback resolution	128 periods
Holding brake	With
Holding torque	79.7 lbf.in (9 N.m)
Mounting support	International standard flange
Motor flange size	3.9 in (100 mm)

Electrical connection	Rotatable right angled connector
Torque constant	1.22 N.m/A 248 °F (120 °C)
Back emf constant	77 V/krpm 68 °F (20 °C)
Number of motor poles	4.0
Rotor inertia	3.838 kg.cm²
Stator resistance	1.43 Ohm
Stator inductance	4.7 mH
Maximum radial force Fr	1050 N 1000 rpm 830 N 2000 rpm 730 N 3000 rpm 660 N 4000 rpm
Maximum axial force Fa	160 N
Type of cooling	Natural convection
Length	10.7 in (271.5 mm)
Centring collar diameter	3.7 in (95 mm)
Centring collar depth	0.1 in (3.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.4 in (9.0 mm)
Circle diameter of the mounting holes	4.5 in (115 mm)
Net weight	17.6 lb(US) (8 kg)
Sizing reference	SH31003P
Network number of phases	3
Temperature copper hot	266 °F (130 °C)
Electrical connection	rotatable right angled connector
Output current 3s peak	28.3 A
Inertia	0.618 kg.cm² of brake 3.22 kg.cm² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	10.2 in (26.0 cm)
Package 1 Width	7.9 in (20.0 cm)
Package 1 Length	23.2 in (59.0 cm)
Package 1 Weight	19.4 lb(US) (8.8 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	**5 645 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**39 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**1 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.1 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**5 605 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.8 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**