

Product data sheet

Specifications



SH3 servomotor, 100mm, 2 stacks, high Torque, keyed Shaft, SinCos Multiturn 128, Brake, straight, IP54/65

SH31002M12F1000

! Discontinued

! Discontinued on: Jul 23, 2025

! End-of-service on: Dec 31, 2025

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	2.5 A
Continuous stall torque	51.3 lbf.in (5.8 N.m) 115...480 V three phase
Continuous power	1100 W
Peak stall torque	162.0 lbf.in (18.3 N.m) 115...480 V three phase
Nominal output power	300 W 115 V single phase 580 W 230 V single phase 1090 W 400 V three phase 1280 W 480 V three phase
Nominal torque	49.74 lbf.in (5.62 N.m) 115 V single phase 48.7 lbf.in (5.5 N.m) 230 V single phase 46.73 lbf.in (5.28 N.m) 400 V three phase 46.73 lbf.in (5.28 N.m) 480 V three phase
Nominal speed	500 rpm 115 V single phase 1000 rpm 230 V single phase 2000 rpm 400 V three phase 2400 rpm 480 V three phase
Maximum current Irms	9.0 A
Shaft end	Parallel key
Shaft diameter	0.7 in (19 mm)
Shaft length	1.6 in (40 mm)
Key width	0.2 in (6 mm)
IP degree of protection	IP54 shaft bushing without shaft seal ring: conforming to IEC 60034-5 IP65 motor: conforming to IEC 60034-5 IP65 shaft bushing: conforming to IEC 60034-5
Encoder type	Absolute multiturn SinCos Hiperface
Speed feedback resolution	128 periods

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

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	Straight connector
Torque constant	2.32 N.m/A 248 °F (120 °C)
Back emf constant	146 V/krpm 68 °F (20 °C)
Number of motor poles	4
Rotor inertia	2.928 kg.cm ²
Stator resistance	8.6 Ohm
Stator inductance	24.3 mH
Maximum radial force Fr	990 N 1000 rpm 790 N 2000 rpm 690 N 3000 rpm 620 N 4000 rpm
Maximum axial force Fa	160 N
Type of cooling	Natural convection
Length	9.3 in (235.5 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	13.9 lb(US) (6.3 kg)
Sizing reference	SH31002M
Network number of phases	3
Temperature copper hot	266 °F (130 °C)
Electrical connection	straight connector
Output current 3s peak	9.0 A
Inertia	0.618 kg.cm ² of brake 2.31 kg.cm ² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1

Contractual warranty

Warranty (in months)	18
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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 >](#)

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No

Use Longer

Lifetime extension	
Repair	No

Use Again

Repack and remanufacture	
Take-back	No