

Product data sheet

Specifications



SH3 servomotor, 140mm, 1 stack, high Torque, keyed Shaft, SinCos Multiturn 128, no Brake, angular, IP65/65

SH31401M12A2100

! Discontinued

! Discontinued on: Jun 20, 2025

Main

Range Compatibility	PacDrive 3
Device short name	SH3
Product or Component Type	Servo motor

Complementary

Maximum mechanical speed	4000 rpm
[Us] rated supply voltage	115...480 V
Phase	Three phase
Continuous stall current	4 A
Continuous stall torque	98.2 lbf.in (11.1 N.m) 115...480 V three phase
Continuous power	1700 W
Peak stall torque	239.0 lbf.in (27 N.m) 115...480 V three phase
Nominal output power	430 W 115 V single phase 860 W 230 V single phase 1670 W 400 V three phase 1960 W 480 V three phase
Nominal torque	97.4 lbf.in (11 N.m) 115 V single phase 96.92 lbf.in (10.95 N.m) 230 V single phase 93.8 lbf.in (10.6 N.m) 400 V three phase 92.05 lbf.in (10.4 N.m) 480 V three phase
Nominal speed	375 rpm 115 V single phase 750 rpm 230 V single phase 1500 rpm 400 V three phase 1800 rpm 480 V three phase
Maximum current Irms	10.8 A
Shaft end	Parallel key
Shaft diameter	0.9 in (24 mm)
Shaft length	2.0 in (50 mm)
Key width	0.3 in (8 mm)
IP degree of protection	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
Holding brake	Without
Mounting Support	International standard flange

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

Motor flange size	5.5 in (140 mm)
Electrical Connection	Straight connector
Torque constant	2.78 N.m/A 248 °F (120 °C)
Back emf constant	193 V/krpm 68 °F (20 °C)
Number of motor poles	5
Rotor inertia	7.41 kg.cm²
Stator resistance	5.3 Ohm
Stator inductance	88.55 mH
Maximum radial force Fr	1930 N 1000 rpm 1530 N 2000 rpm 1340 N 3000 rpm
Maximum axial force Fa	300 N
Type of cooling	Natural convection
Length	8.6 in (217.5 mm)
Centring collar diameter	5.1 in (130 mm)
Centring collar depth	0.1 in (3.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.4 in (11 mm)
Circle diameter of the mounting holes	6.5 in (165 mm)
Net Weight	26.2 lb(US) (11.9 kg)
Sizing reference	SH31401M
Network number of phases	3
Temperature copper hot	266 °F (130 °C)
Electrical connection	rotatable right angled connector

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	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