

Product data sheet

Specifications



SH3 servomotor, 140mm, 2 stacks,
keyed Shaft, SinCos Multiturn 128,
Brake, angular, IP65/65

SH31402P12F2100

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
Network number of phases	Three phase
Continuous stall current	13.2 A
Continuous stall torque	172.6 lbf.in (19.5 N.m) 115...480 V three phase
Continuous power	3900 W
Peak stall torque	531.9 lbf.in (60.1 N.m) 115...480 V three phase
Nominal output power	1460 W 115 V single phase 2690 W 230 V single phase 3860 W 400 V three phase 3660 W 480 V three phase
Nominal torque	164.6 lbf.in (18.6 N.m) 115 V single phase 151.3 lbf.in (17.1 N.m) 230 V single phase 108.9 lbf.in (12.3 N.m) 400 V three phase 85.9 lbf.in (9.7 N.m) 480 V three phase
Nominal speed	750 rpm 115 V single phase 1500 rpm 230 V single phase 3000 rpm 400 V three phase 3600 rpm 480 V three phase
Maximum current Irms	44.1 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	With
Holding torque	203.6 lbf.in (23 N.m)
Mounting support	International standard flange

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	Rotatable right angled connector
Torque constant	1.47 N.m/A 248 °F (120 °C)
Back emf constant	101 V/krpm 68 °F (20 °C)
Number of motor poles	5.0
Rotor inertia	14.48 kg.cm ²
Stator resistance	0.6 Ohm
Stator inductance	3.855 mH
Maximum radial force Fr	2240 N 1000 rpm 1780 N 2000 rpm 1550 N 3000 rpm
Maximum axial force Fa	300 N
Type of cooling	Natural convection
Length	12.2 in (310.5 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	39.02 lb(US) (17.7 kg)
Sizing reference	SH31402P
Network number of phases	3
Temperature copper hot	266 °F (130 °C)
Electrical connection	rotatable right angled connector
Output current 3s peak	44.1 A
Inertia	1.8 kg.cm ² of brake 12.68 kg.cm ² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.150 in (20.700 cm)
Package 1 Width	23.701 in (60.200 cm)
Package 1 Length	10.354 in (26.300 cm)
Package 1 Weight	41.822 lb(US) (18.970 kg)

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 >](#)



Environmental footprint

Total lifecycle Carbon footprint	9 128 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	82 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	9 042 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	2 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
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Use Again



Repack and remanufacture

Circularity Profile	No need of specific recycling operations
Take-back	Nej