Product data sheet

Specifications



SH3 servomotor, 140mm, 2 stacks, keyed Shaft, SinCos Multiturn 128, no Brake, angular, IP54/65

SH31402P12A2000

Product availability: Non-Stock - Not normally stocked in distribution facility

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	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	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
Holding brake	Without
Mounting Support	International standard flange
Motor flange size	5.5 in (140 mm)

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

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	12.68 kg.cm²
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	10.7 in (272.5 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)
Product Weight	36.6 lb(US) (16.6 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	0.0 kg.cm² of brake 12.68 kg.cm² of motor

Ordering and shipping details

Category	US1PC5218359
Discount Schedule	PC52
GTIN	3606485297811
Returnability	Yes
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	8.228 in (20.900 cm)
Package 1 Width	10.433 in (26.500 cm)
Package 1 Length	23.740 in (60.300 cm)
Package weight(Lbs)	38.537 lb(US) (17.480 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	**9 121 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**76 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	**551bda90-6344-4885-ae10-ff30060ba035**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**
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**