

Product datasheet

Specifications



SH3 servomotor, 100mm, 2 stacks,
keyed Shaft, SinCos Multiturn 128,
Brake, straight, IP65/67

SH31002P12F1200

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	4.8 A
Continuous stall torque	5.8 N.m at 115...480 V three phase
Continuous power	1900 W
Peak stall torque	18.3 N.m at 115...480 V three phase
Nominal output power	580 W at 115 V single phase 1090 W at 230 V single phase 1930 W at 400 V three phase 2210 W at 480 V three phase
Nominal torque	5.5 N.m at 115 V single phase 5.2 N.m at 230 V single phase 4.6 N.m at 400 V three phase 4.4 N.m at 480 V three phase
Nominal speed	1000 rpm at 115 V single phase 2000 rpm at 230 V single phase 4000 rpm at 400 V three phase 4800 rpm at 480 V three phase
Maximum current Irms	17.1 A
Shaft end	Parallel key
Shaft diameter	19 mm
Shaft length	40 mm
Key width	6 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	9 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	100 mm
Electrical connection	Rotatable right angled connector
Torque constant	1.21 N.m/A at 120 °C
Back emf constant	77 V/krpm at 20 °C
Number of motor poles	4.0
Rotor inertia	2.928 kg.cm²
Stator resistance	2.4 Ohm
Stator inductance	6.75 mH
Maximum radial force Fr	990 N at 1000 rpm 790 N at 2000 rpm 690 N at 3000 rpm 620 N at 4000 rpm
Maximum axial force Fa	160 N
Type of cooling	Natural convection
Length	234.5 mm
Centring collar diameter	95 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	9.0 mm
Circle diameter of the mounting holes	115 mm
Net weight	6.3 kg
Sizing reference	SH31002P
Network number of phases	3
Temperature copper hot	130 °C
Electrical connection	straight connector
Output current 3s peak	17.1 A
Inertia	0.618 kg.cm² of brake 2.31 kg.cm² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	35.6 cm
Package 1 Width	18 cm
Package 1 Length	21 cm
Package 1 Weight	7.37 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 >](#)

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	
End of life manual availability	No need of specific recycling operations
Take-back	Yes