

Product datasheet

Specifications



SH3 servomotor, 100mm, 4 stacks, keyed Shaft, SinCos Multiturn 128, Brake, angular, IP54/65

SH31004P12F2000

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	6.2 A
Continuous stall torque	10 N.m at 115...480 V three phase
Continuous power	2500 W
Peak stall torque	40.5 N.m at 115...480 V three phase
Nominal output power	780 W at 115 V single phase 1490 W at 230 V single phase 2480 W at 400 V three phase 2600 W at 480 V three phase
Nominal torque	9.9 N.m at 115 V single phase 9.5 N.m at 230 V single phase 7.9 N.m at 400 V three phase 6.9 N.m at 480 V three phase
Nominal speed	750 rpm at 115 V single phase 1500 rpm at 230 V single phase 3000 rpm at 400 V three phase 3600 rpm at 480 V three phase
Maximum current Irms	32.3 A
Shaft end	Parallel key
Shaft diameter	24 mm
Shaft length	50 mm
Key width	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	With
Holding torque	12 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	Straight connector
Torque constant	1.62 N.m/A at 120 °C
Back emf constant	103 V/krpm at 20 °C
Number of motor poles	4.0
Rotor inertia	5.245 kg.cm²
Stator resistance	1.81 Ohm
Stator inductance	6.5 mH
Maximum radial force Fr	1070 N at 1000 rpm 850 N at 2000 rpm 740 N at 3000 rpm
Maximum axial force Fa	160 N
Type of cooling	Natural convection
Length	307.5 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	9.9 kg
Sizing reference	SH31004P
Network number of phases	3
Temperature copper hot	130 °C
Electrical connection	rotatable right angled connector
Output current 3s peak	32.3 A
Inertia	1.025 kg.cm² of brake 4.22 kg.cm² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	20.000 cm
Package 1 Width	26.000 cm
Package 1 Length	59.500 cm
Package 1 Weight	11.000 kg
Unit Type of Package 2	P06
Number of Units in Package 2	4
Package 2 Height	75.000 cm
Package 2 Width	80.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	52.000 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	5 866 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	49 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	5 815 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	1 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
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

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