

Product datasheet

Specifications



SH3 servomotor, 100mm, 3 stacks,
keyed Shaft, Multiturn DSL 18bit,
Brake, OneMotorCable angular
M23, IP65/65

SH31003P1BF4100

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	6.6 A
Continuous stall torque	8 N.m at 115...480 V three phase
Continuous power	2400 W
Peak stall torque	28.3 N.m at 115...480 V three phase
Nominal output power	1470 W at 230 V single phase 2390 W at 400 V three phase 2390 W at 480 V three phase
Nominal torque	7 N.m at 230 V single phase 5.7 N.m at 400 V three phase 5.1 N.m at 480 V three phase
Nominal speed	2000 rpm at 230 V single phase 4000 rpm at 400 V three phase 4800 rpm at 480 V three phase
Maximum current Irms	28.3 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
Encoder type	Absolute multiturn Hiperface DSL
Speed feedback resolution	262144 points/turn x 4096 turns
Holding brake	With
Holding torque	9 N.m
Mounting support	International standard flange
Motor flange size	100 mm
Electrical connection	Rotatable right angled connector

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

Torque constant	1.22 N.m/A at 120 °C
Back emf constant	77 V/krpm at 20 °C
Number of motor poles	4.0
Rotor inertia	3.838 kg.cm²
Stator resistance	1.43 Ohm
Stator inductance	9.4 mH
Maximum radial force Fr	105 N at 2000 rpm 90 N at 3000 rpm 130 N at 1000 rpm
Maximum axial force Fa	20 N
Brake pull-in power	18 W
Type of cooling	Natural convection
Length	271.5 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	8.2 kg
Sizing reference	SH31003P
Network number of phases	3
Temperature copper hot	130 °C
Electrical connection	quicklock rotatable right angled connector
Output current 3s peak	28.3 A
Inertia	0.618 kg.cm² of brake 0.0 kg.cm² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	26.0 cm
Package 1 Width	20.0 cm
Package 1 Length	59.0 cm
Package 1 Weight	8.9 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	5 646 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	39 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]	5 605 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.8 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

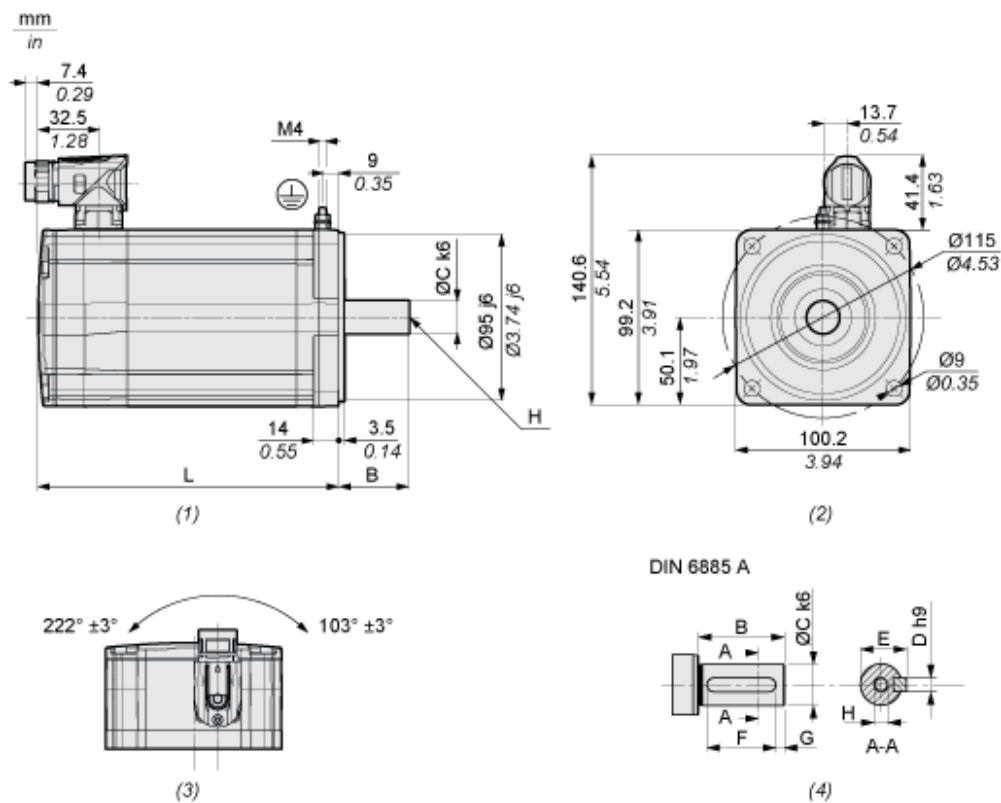


Repack and remanufacture

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

Dimensions Drawings

Dimensions



- (1) : Side view
- (2) : Mounting
- (3) : Rotating area
- (4) : Feather key

Characteristic		Unit	Value
L	Length with holding brake	mm (in)	271.5 (10.69)
B	Shaft length	mm (in)	40 (1.57)
C	Shaft diameter	mm (in)	19 (0.75)
D	Width of parallel key	mm (in)	6 (0.24)
E	Shaft width with parallel key	mm (in)	21.5 (0.85)
F	Length of parallel key	mm (in)	30 (1.18)
G	Distance parallel key to shaft end	mm (in)	5 (0.2)
H	Female thread of shaft		DIN 332-D M6
	Parallel key		DIN 6885-A6x6x30

