

# Product data sheet

Specifications



SH3 servomotor, 100mm, 2 stacks,  
keyed Shaft, Singleturn DSL 18bit,  
Brake, OneMotorCable angular  
M23, IP54/65

SH31002P1AF4000

**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	6000 rpm
[Us] rated supply voltage	115...480 V
Phase	Three phase
Continuous stall current	4.8 A
Continuous stall torque	51.3 lbf.in (5.8 N.m) 115...480 V three phase
Continuous power	1930 W
Peak stall torque	162.0 lbf.in (18.3 N.m) 115...480 V three phase
Nominal output power	1090 W 230 V single phase 1930 W 400 V three phase 1930 W 480 V three phase
Nominal torque	46.02 lbf.in (5.2 N.m) 230 V single phase 40.7 lbf.in (4.6 N.m) 400 V three phase 38.9 lbf.in (4.4 N.m) 480 V three phase
Nominal speed	2000 rpm 230 V single phase 4000 rpm 400 V three phase 4800 rpm 480 V three phase
Maximum current Irms	17.1 A
Shaft end	Parallel key
Shaft diameter	0.7 in (19 mm)
Shaft length	1.6 in (40 mm)
Key width	0.2 in (6 mm)
IP degree of protection	IP65 motor: conforming to IEC 60034-5 IP54 shaft bushing without shaft seal ring: conforming to IEC 60034-5
Encoder type	Absolute single turn Hiperface DSL
Speed feedback resolution	262144 points/turn
Holding brake	With
Holding torque	79.7 lbf.in (9 N.m)
Mounting Support	International standard flange
Motor flange size	3.9 in (100 mm)

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Electrical Connection</b>	Straight connector
<b>Torque constant</b>	1.21 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	77 V/krpm 68 °F (20 °C)
<b>Number of motor poles</b>	4.0
<b>Rotor inertia</b>	2.928 kg.cm <sup>2</sup>
<b>Stator resistance</b>	2.4 Ohm
<b>Stator inductance</b>	13.5 mH
<b>Maximum radial force Fr</b>	2420 N 1000 rpm 1920 N 2000 rpm 1670 N 3000 rpm
<b>Maximum axial force Fa</b>	300 N
<b>Brake pull-in power</b>	12 W
<b>Type of cooling</b>	Natural convection
<b>Length</b>	9.3 in (235.5 mm)
<b>Centring collar diameter</b>	3.7 in (95 mm)
<b>Centring collar depth</b>	0.1 in (3.5 mm)
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	0.4 in (9.0 mm)
<b>Circle diameter of the mounting holes</b>	4.5 in (115 mm)
<b>Net Weight</b>	14.6 lb(US) (6.6 kg)
<b>Sizing reference</b>	SH31002P
<b>Network number of phases</b>	3
<b>Temperature copper hot</b>	266 °F (130 °C)
<b>Electrical connection</b>	quicklock rotatable right angled connector
<b>Output current 3s peak</b>	17.1 A
<b>Inertia</b>	0.618 kg.cm <sup>2</sup> of brake 0.0 kg.cm <sup>2</sup> of motor

## Ordering and shipping details

<b>Category</b>	US1PC5218359
<b>Discount Schedule</b>	PC52
<b>GTIN</b>	3606481804211
<b>Returnability</b>	No
<b>Country of origin</b>	DE

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	8.3 in (21.0 cm)
<b>Package 1 Width</b>	7.09 in (18.0 cm)
<b>Package 1 Length</b>	14.02 in (35.6 cm)
<b>Package weight(Lbs)</b>	16.3 lb(US) (7.4 kg)

# Contractual warranty

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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	4 564 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	32 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]	4 529 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.7 kg CO2 eq.

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	Ead0850d-370a-47c5-8cf7-1d93c2c974a4
REACH Regulation	<a href="#">REACH Declaration</a>
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
PVC free	Yes

## Use Longer



### Lifetime extension

Repair	No
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## Use Again

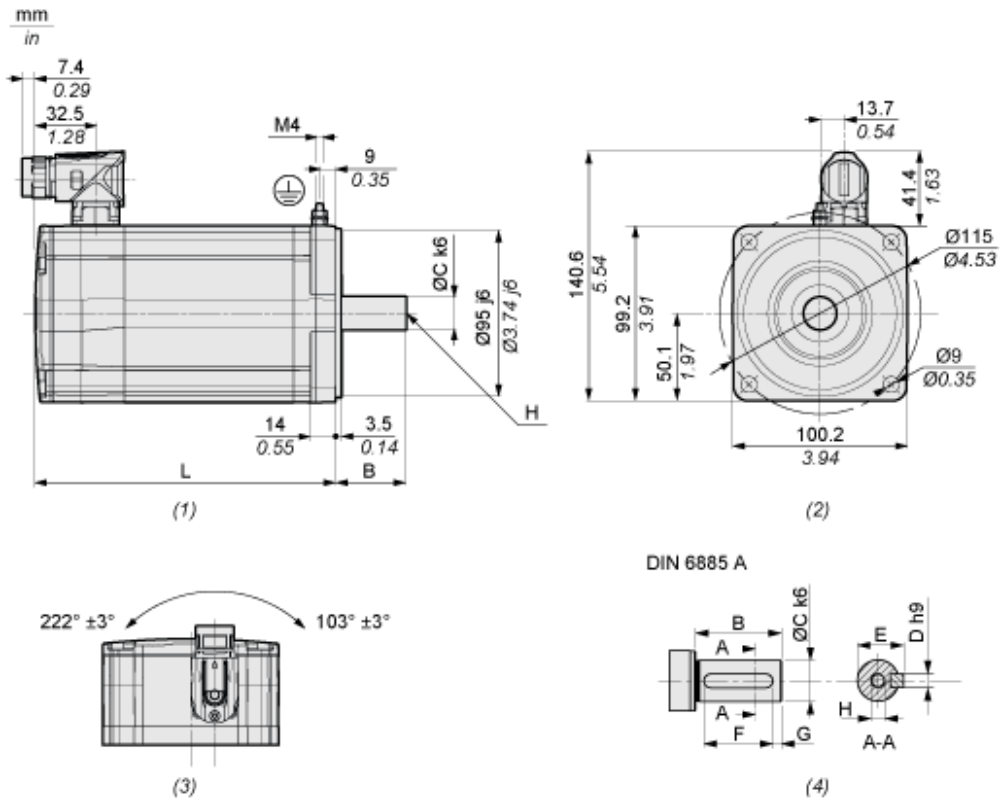


### Repack and remanufacture

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

Dimensions Drawings

Dimensions



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

Characteristic	Unit	Value
L Length with holding brake	mm (in)	235.5 (9.27)
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

