

# Product data sheet

## Characteristics

# SH31001M12F2200

servo motor SH3 100

3,3Nm,key,multi,brake,90°conn.IP65/IP67,6k RPM



### Main

Range compatibility	PacDrive 3
Product or component type	Servo motor
Device short name	SH3.....M

### Complementary

Maximum mechanical speed	6000 rpm
[Us] rated supply voltage	115...480 V
Phase	Three phase
Continuous stall current	1.8 A
Continuous stall torque	29.2 lbf.in (3.3 N.m) at 115...480 V three phase
Peak stall torque	84.96 lbf.in (9.6 N.m) at 115...480 V three phase
Nominal output power	410 W at 230 V three phase 790 W at 400 V three phase 210 W at 115 V three phase 930 W at 480 V three phase
Nominal torque	28.32 lbf.in (3.2 N.m) at 115 V three phase 27.88 lbf.in (3.15 N.m) at 230 V three phase 26.55 lbf.in (3 N.m) at 400 V three phase 26.11 lbf.in (2.95 N.m) at 480 V three phase
Nominal speed	625 rpm at 115 V three phase 1250 rpm at 230 V three phase 2500 rpm at 400 V three phase 3000 rpm at 480 V three phase
Maximum current Irms	6.3 A
Shaft end	Parallel key
Shaft diameter	0.75 in (19 mm)
Shaft length	1.57 in (40 mm)
Key width	0.24 in (6 mm)
IP degree of protection	IP65 (motor) conforming to EN/IEC 60034-5 IP65 (shaft bushing) conforming to EN/IEC 60034-5 IP67 (housing) conforming to EN/IEC 60034-5
Encoder type	Absolute multiturn SinCos Hiperface
Speed feedback resolution	128 periods

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

Holding brake	With
Holding torque	79.65 lbf.in (9 N.m)
Mounting support	International standard flange
Motor flange size	3.94 in (100 mm)
Electrical connection	Rotatable right angled connector
Torque constant	1.83 N.m/A at 248 °F (120 °C)
Back emf constant	115 V/krpm at 68 °F (20 °C)
Number of motor poles	4
Rotor inertia	2.018 kg.cm <sup>2</sup>
Stator resistance	13.9 Ohm
Stator inductance	99.15 mH
Maximum radial force Fr	530 N at 5000 rpm 570 N at 4000 rpm 630 N at 3000 rpm 720 N at 2000 rpm 900 N at 1000 rpm
Maximum axial force Fa	160 N
Type of cooling	Natural convection
Length	7.85 in (199.5 mm)
Centring collar diameter	3.74 in (95 mm)
Centring collar depth	0.14 in (3.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.35 in (9 mm)
Circle diameter of the mounting holes	4.53 in (115 mm)
Product weight	10.58 lb(US) (4.8 kg)

### Contractual warranty

Warranty period	18 months
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