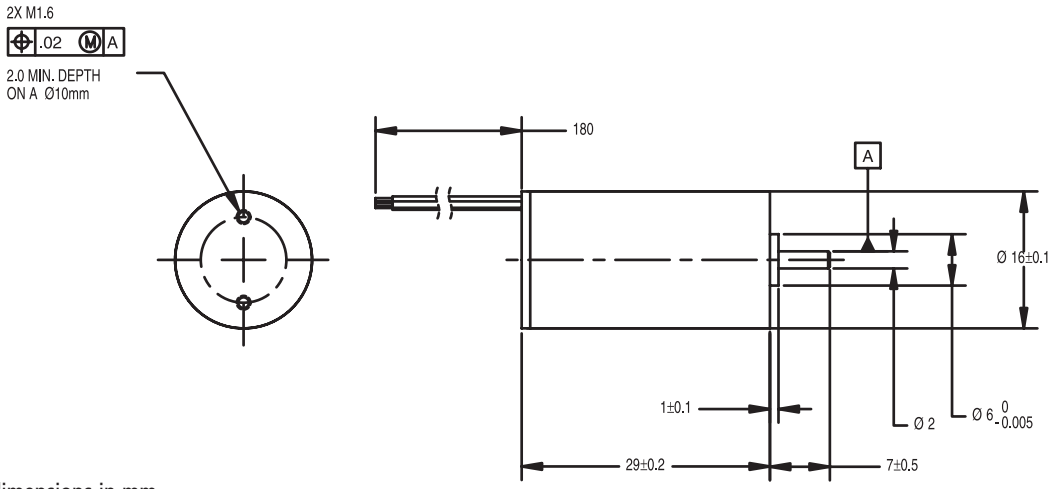


dimensions in mm
mass: 29 g

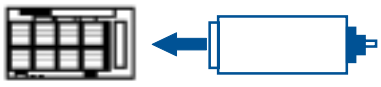
16BS 3C ⊙⊙ • 01

Connections

Color	Designation
grey	phase 1
violet	phase 2
blue	phase 3

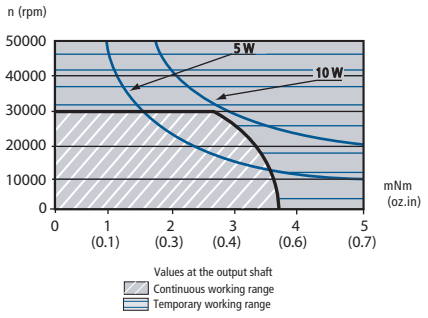
Winding Type	⊙⊙	**-L**
Coil Dependent Parameters		
Phase/phase resistance	ohm	12.6
Phase/phase inductance	mH	0.50
Back-EMF constant	V/1000 rpm	1.00
Torque Constant	mNm/A (oz.-in/A)	9.55 (1.35)
Dynamic Parameters		
Rated Voltage	V	12
No-load Current	A	0.052
No-load Speed	rpm	11300
Max. continuous stall torque	mNm (oz-in)	3.9 (0.55)
Max. continuous stall current	A	0.46
Max. continuous torque at 10 krpm	mNm (oz-in)	3.6 (0.51)
Max. continuous current at 10 krpm	A	0.43
Max. continuous power at 10 krpm	W	3.8
Intrinsic Parameters		
Motor constant	mNm/W½ (oz-in/W½)	2.7 (0.38)
Rotor inertia	kgm² 10^{-7}	0.6
Mechanical time constant	ms	8.3
Electrical time constant	ms	0.04
Thermal resistance	°C/W	26

EBS 485 SI



- Motor with preloaded ball bearings
- Typical preload = 3.5 N
- Maximum external load:
  - axial static 25 N
  - axial dynamic 2 N
  - radial dynamic 5 N
- Operating temperature range: -40°C to 100°C
- Max. rated coil temperature: 125°C

The 16BS-3C is a sensorless motor with a delta-connected winding. It is intended to use with a sensorless driver such as the EBS 485 SI or a driver using, for instance, a chip of the Philips TDA family. If the winding center-point is needed, it can be generated by using three external resistors attached to the motor phases and Y-connected together.



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