

dimensions in mm  
mass: 13 g

16C18  $\odot\odot \cdot 30$

16C18  $\odot\odot \cdot 67$

**Winding Type**

$\odot\odot$

-115

-210

-207

-205

-204

**Measured Values**

Measured Values	$\odot\odot$	-115	-210	-207	-205	-204
Measuring voltage	V	1.5	4.0	6.0	12.0	15.0
No-load speed	rpm	15300	14700	15700	16200	16000
Stall torque	mNm (oz-in)	1.1 (0.16)	1.3 (0.19)	1.1 (0.16)	1.2 (0.17)	0.8 (0.11)
Average No-load current	mA	74.8	23.0	18.4	10.4	6.9
Typical starting voltage	V	0.04	0.05	0.10	0.15	0.25

**Max. Recommended Values**

Max. continuous current	A	1.19	0.48	0.31	0.16	0.10
Max. continuous torque	mNm (oz-in)	0.98 (0.14)	1.13 (0.16)	1.0 (0.14)	1.0 (0.14)	0.79 (0.11)
Max. angular acceleration	$10^3 \text{ rad/s}^2$	127	110	148	99	117

**Intrinsic Parameters**

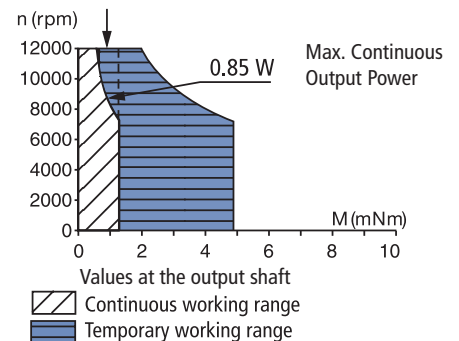
Back-EMF constant	V/1000 rpm	0.092	0.26	0.36	0.70	0.87
Torque constant	mNm/A (oz-in/A)	0.88 (0.12)	2.48 (0.35)	3.44 (0.49)	6.68 (0.95)	8.3 (1.18)
Terminal resistance	ohm	1.20	7.5	18.0	65.0	162
Motor regulation $R/k^2$	$10^3/\text{Nms}$	1555	1217	1523	1455	2347
Rotor inductance	mH	0.02	0.15	0.25	1.00	2.00
Rotor inertia	$\text{kgm}^2 \cdot 10^{-7}$	0.31	0.41	0.27	0.41	0.27
Mechanical time constant	ms	48	50	41	60	63

**Executions**

		Single Shaft	With F16
Gearbox	Page	16C18	16C18
B16	102	67	76
BA16	103	67	76
R16	104	30	76

- Thermal resistance: rotor-body 15°C/W, body-ambient 40°C/W
- Thermal time constant - rotor / stator: 4 s / 230 s
- Max. rated coil temperature: 100°C (210°F)
- Recom. ambient temperature range: -30°C to +85°C (-22°F to +185°F)
- Viscous damping constant: 0.04 x 10<sup>-6</sup> Nms
- Max. axial static force for press-fit: 150 N
- End play: 150 µm
- Radial play: 30 µm
- Shaft runout: 10 µm
- Max. side load at 5 mm from mounting face:
  - sleeve bearings 0.5 N
  - ball bearings 3 N
- Motor fitted with sleeve bearings (ball bearings optional)

**Max. Recommended Speed**



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