

dimensions in mm  
mass: 27 g

17N78 • 1

**Winding Type**



-216E

-213E

-210E

-208E

-207E

**Measured Values**

	V	rpm	mNm (oz-in)	mA	V
Measuring voltage	6.0	8500	12.5 (1.77)	10.5	0.04
No-load speed	7.5	8300	10.7 (1.52)	9.1	0.08
Stall torque	12.0	8500	9.3 (1.31)	7.7	0.08
Average No-load current	18.0	8500	9.4 (1.33)	4.9	0.11
Typical starting voltage	24.0	8900	9.4 (1.33)	3.5	0.16

**Max. Recommended Values**

Max. continuous current	0.86	0.63	0.37	0.25	0.19
Max. continuous torque	5.69 (0.81)	5.33 (0.75)	4.85 (0.69)	4.89 (0.69)	4.79 (0.68)
Max. angular acceleration	207	267	243	258	266

**Intrinsic Parameters**

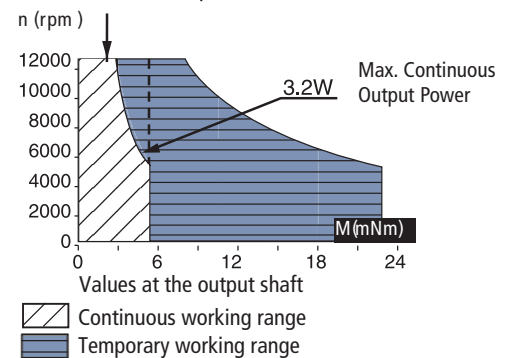
Back-EMF constant	0.70	0.90	1.40	2.10	2.67
Torque constant	6.7 (0.95)	8.6 (1.22)	13.4 (1.89)	20.1 (2.84)	25.5 (3.61)
Terminal resistance	3.20	6.0	17.3	38.4	65.0
Motor regulation R/k <sup>2</sup>	72	81	97	95	100
Rotor inductance	0.11	0.14	0.40	0.90	1.41
Rotor inertia	1.10	0.80	0.80	0.76	0.72
Mechanical time constant	8	7	8	7	7

**Executions**

		Single Shaft	With F16
Gearbox	Page	17N78	17N78
B16	102	5	5
BA16	103	5	5
R16	104	1	1

- Thermal resistance: rotor-body 10°C/W, body-ambient 30°C/W
- Thermal time constant - rotor / stator: 7 s / 400 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: 100 N
- End play: ≤150 μm
- Radial play: ≤30 μm
- Shaft runout: ≤10 μm
- Max. side load at 5 mm from mounting face:
  - sleeve bearings 1.5 N
  - ball bearings 3 N
- Motor fitted with sleeve bearings (ball bearings optional)

**Max. Recommended Speed**



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