

dimensions in mm
mass: 100 g

23V58 ⊙⊙ • 1

23V48 ⊙⊙ • 9

Winding Type

⊙⊙

-216P

-213P

-216E

-213E

-210E

Measured Values

Measuring voltage	V	6.0	7.5	12.0	15.0	24.0
No-load speed	rpm	4500	4800	4800	5200	6500
Stall torque	mNm (oz-in)	31 (4.4)	27 (3.8)	29 (4.1)	24 (3.4)	23.3 (3.3)
Average No-load current	mA	30.8	27.5	18.7	16.5	13
Typical starting voltage	V	0.05	0.10	0.13	0.15	0.20

Max. Recommended Values

Max. continuous current	A	1.49	1.15	0.75	0.57	0.39
Max. continuous torque	mNm (oz-in)	18.2 (2.6)	16.4 (2.3)	17.2 (2.4)	14.9 (2.1)	13 (1.8)
Max. angular acceleration	10 ³ rad/s ²	123	139	116	127	141

Intrinsic Parameters

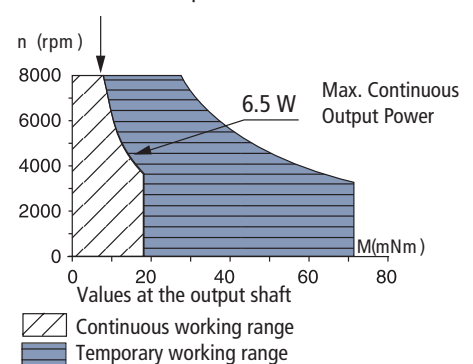
Back-EMF constant	V/1000 rpm	1.31	1.53	2.47	2.82	3.64
Torque constant	mNm/A (oz-in/A)	12.5 (1.7)	14.6 (2.0)	23.5 (3.33)	26.9 (3.8)	34.8 (4.9)
Terminal resistance	ohm	2.45	4.1	9.7	16.6	35.8
Motor regulation R/k ²	10 ³ /Nms	16	19	17	23	30
Rotor inductance	mH	0.20	0.30	0.80	1.10	1.70
Rotor inertia	kgm ² 10 ⁻⁷	5.90	4.70	5.90	4.70	3.70
Mechanical time constant	ms	9	9	10	11	11

Executions

		Single Shaft	For E9
Gearbox	Page	23V58	23V48
R22	105	4	11
M22	106	4	11
K24	107	4	11
K27	108	4	11
RG1/8	111	1	9
RG1/9	112	1	9
K38	110	1	9
L10	115	1	9

- Thermal resistance: rotor-body 5°C/W, body-ambient 12°C/W
- Thermal time constant - rotor / stator: 10 s / 580 s
- Max. rated coil temperature: 100°C
- Recom. ambient temperature range: -30°C to +85°C (-22°F to +185°F)
- Viscous damping constant: 0.45 x 10⁻⁶ Nms
- Max. axial static force for press-fit: 250 N
- End play: ≤150 μm
- Radial play: ≤30 μm
- Shaft runout: ≤10 μm
- Max. side load at 5 mm from mounting face: sleeve bearings 6 N, ball bearings 8 N
- Motor fitted with sleeve bearings (ball bearings optional)
- With rear output shaft, the No-load current is 50% higher

Max. Recommended Speed



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