

dimensions in mm  
mass: 3.8 g

**08GS61** ⊙ ⊙ • 3

**Winding Type**

⊙ ⊙

-107

-105

-105C

**Measured Values**

Parameter	Unit	08GS61	-107	-105	-105C
Measuring voltage	V	2	4.5	6	
No-load speed	rpm	7000	10700	11000	
Stall torque	mNm (oz-in)	0.42 (0.06)	0.59 (0.084)	0.64 (0.091)	
Average No-load current	mA	6	4	3	
Typical starting voltage	V	0.2	0.3	0.5	

**Max. Recommended Values**

Parameter	Unit	08GS61	-107	-105	-105C
Max. continuous current	A	0.25	0.168	0.133	
Max. continuous torque	mNm (oz-in)	0.64 (0.09)	0.64 (0.091)	0.66 (0.093)	
Max. angular acceleration	10 <sup>3</sup> rad/s <sup>2</sup>	889	859	884	

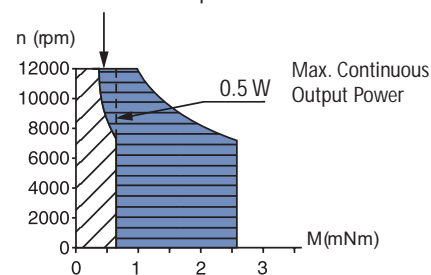
**Intrinsic Parameters**

Parameter	Unit	08GS61	-107	-105	-105C
Back-EMF constant	V/1000 rpm	0.275	0.41	0.53	
Torque constant	mNm/A (oz-in/A)	2.63 (0.372)	3.92 (0.55)	5.1 (0.72)	
Terminal resistance	ohm	12.6	30	48	
Motor regulation R/k <sup>2</sup>	10 <sup>3</sup> /Nms	1800	2000	1900	
Rotor inductance	mH	0.058	0.11	0.2	
Rotor inertia	kgm <sup>2</sup> 10 <sup>-7</sup>	0.03	0.03	0.03	
Mechanical time constant	ms	5.5	5.9	5.6	

Executions		
Gearbox	Page	08GS61
R10	100	7

- Thermal resistance: rotor-body 20°C/W, body-ambient 100°C/W
- Thermal time constant rotor/stator: 5 s/100s
- Max. rated coil temperature: 100°C
- Recom. ambient temperature range: -30°C to +85°C (-22°F to +185°F)
- Max. axial static force: 30 N
- End play: ≤100 μm
- Radial play: ≤15 μm
- Shaft runout: ≤10 μm
- Max. side load at 2 mm from mounting face: sleeve bearings 0.5 N
- Motor fitted with sleeve bearings

**Max. Recommended Speed**



Values at the output shaft  
 ▨ Continuous working range  
 ■ Temporary working range