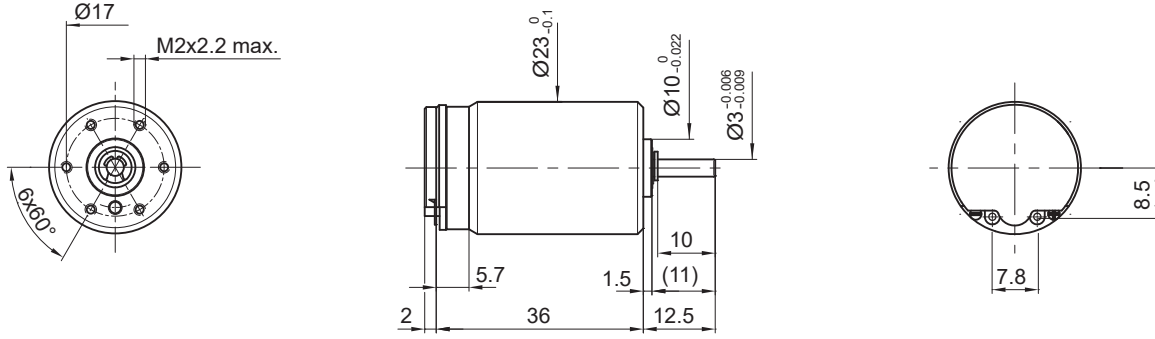


23GST2R82

Ø 23 mm • Graphite-Copper commutation • 22 mNm



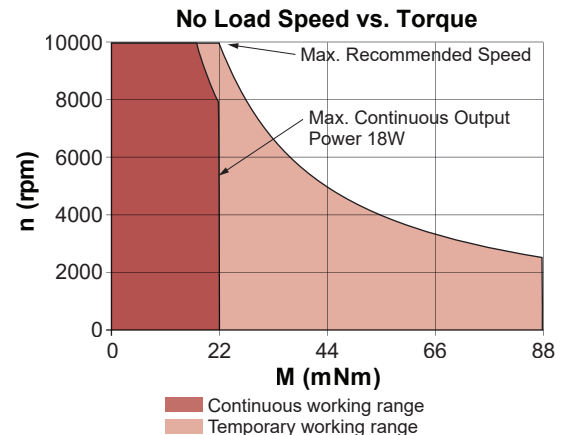
Dimensions in inches [mm]

Electrical Data	Symbol	23GST2R82 1		Unit
		216P	216E	
1 Nominal Voltage	V	12	24	Volt
2 No-Load Speed	n_0	8,690	9,010	rpm
3 No-Load Current	I_0	90.0	60.0	mA
4 Terminal Resistance	R	2.0	6.9	Ω
5 Output Power	P_{2max}	17.2	18.0	W
6 Stall Torque	mNm	80 (11.33)	87 (12.33)	mNm (oz-in)
7 Efficiency	η_{max}	77	76	%
8 Max Continuous Speed	$n_{e max}$	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e max}$	21 (3.12)	22 (3.12)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	1.70	0.90	A
11 Back-EMF Constant	k_E	1.36	2.62	mV/rpm
12 Torque Constant	k_M	13.00	25.00	mNm/A
13 Motor Regulation	R/k^2	12.0	11.0	10 ³ /Nms
14 Friction Torque	T_F	1.17 (0.17)	1.5 (0.22)	mNm (oz-in)
15 Rotor Inductance	L	0.08	0.30	mH
16 Mechanical Time Constant	τ_m	5.6	5.2	ms
17 Rotor Inertia	J	4.70	4.70	g-cm ²

General Data			
18 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	7/16	°C/W
19 Thermal Time Constant (rotor/stator)	t_{w1}/t_{w2}	12/460	S
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)	°C (°F)
	rotor	100°C (212°F)	°C (°F)
21 Shaft Load Max.: (5 mm from bearing)		With ball bearings	
	-radial	6.0 (21.6)	N (oz)
	-axial	250 (899.2)	N (oz)
22 Shaft Play:	-radial	<0.03 (0.0012)	mm (inch)
	-axial	0.15 (0.0059)	mm (inch)
23 Weight	g	80 (2.83)	g (oz)
24 Commutation Segment	-	9	segment

Execution Table

Gearbox	Single Shaft	MR2	E9
R22	2	Upon Request	Upon Request
K27	2	Upon Request	Upon Request
R22HT	11	12	Upon Request



► Motor shaft rotates CW when seen from motor front face when +ve and -ve supply is given to respective terminals.