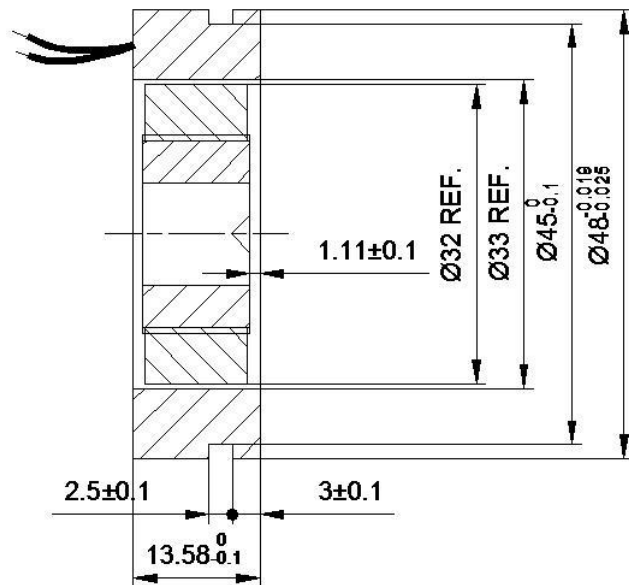




# DC Brushless Torque Motor type : TQR-19/4-0.53

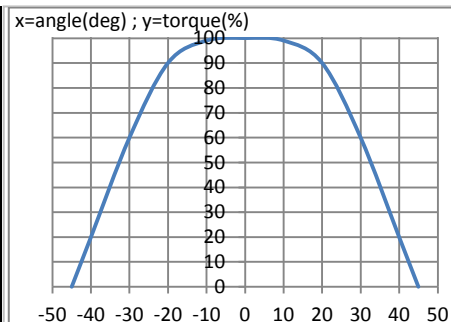


## Performance Data

Parameter	Symbol	Units	Value
Peak Torque, stalled @Vp	Tp	Nm	0.12
Power Input @Tp	P	W	34.3
Motor Constant	Km	mNm/ $\sqrt{W}$	20.5
Electrical Time Constant	Te	ms	0.343
Rotor Inertia	Jm	Kg m <sup>2</sup>	7*10 <sup>-6</sup>
Angular Excursion		deg	±45
Total Break Away Torque	Tf	mNm	3
Maximum Allowable Temperature	Temp.	°C (at winding)	155
Number of poles			4
Weight	WT	g	126

## Winding Constants

Parameter	Symbol	Units	Tol.	Value
D.C. Resistance	R	Ω	±12.5%	17.5
Inductance	L	mH	±30%	6
Torque Sensitivity	Kt	mNm/A	±10%	85.7
Back EMF Constant	Kb	V/(rad/sec)	±10%	0.0857
Peak Voltage @ Tp	Vp	V	Nominal	24.5
Peak Current @ Tp	Ip	A	Nominal	1.4



Leads AWG 24 teflon coated; 300 mm minimum length.

Direction of rotation viewed from lead side, CW when a positive voltage is applied to the red lead relative to the black.

Insulation resistance @ 500 V D.C., min 100 MΩ.

Dielectric withstanding voltage - withstand at 500 V rms; 50 Hz ; between winding and housing.

All measurements are made at 25 °C ambient temperature.

Mounting dimensions and color of wires can be changed in conformity with customer requirement.

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