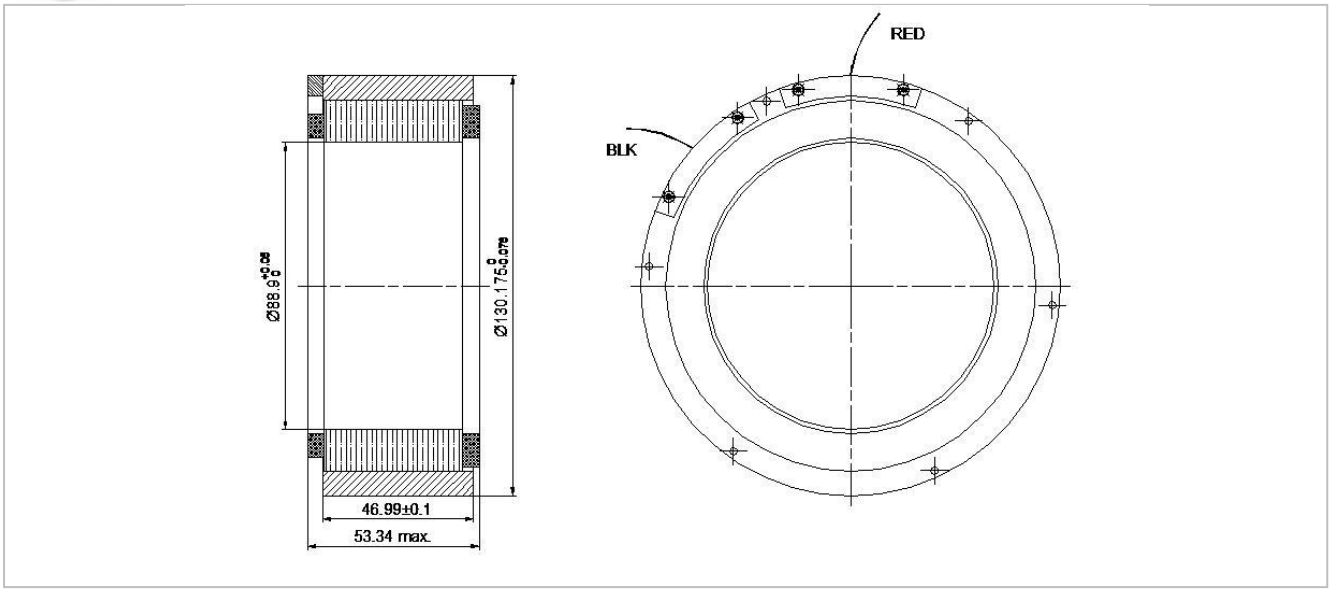
DC Brushed Torque Motor type : TQRB-51-2.1



Performance Data			
Parameter	Simbol	Units	Value
Peak Torque, stalled @Vp	Tp	Nm	10
Power Input @Tp	P	W	195
Motor Constant	Km	$Nm/\sqrt{W}$	0.716
Electrical Time Constant	Te	ms	1.07
No Load Speed Theoretical @ Vp	ω_{NLT}	rpm	186
Break Away Torque	Tf	mNm	310
Ripple Torque	T_R	% (avg to peak)	6
Maximum Allowable Temperature	Temp.	°C (at winding)	180
Thermal Resistence	tpr	°C/W	0.8
Weight	WT	g	2050
Rotor Inertia	Jm	Kg m^2	$3.18*10^{-3}$

Winding Constants				
Parameter	Simbol	Units	Tolerance	Value
D.C. Resistance	R	Ω	±12.5%	4.47
Inductance	L	mH	±30%	4.8
Torque Sensitivity	Kt	Nm/A	±10%	1.515
Back EMF Constant	Kb	V/(rad/sec)	±10%	1.515
Peak Voltage @ Tp	Vp	V	Nominal	29.5
Peak Current @ Tp	Ip	A	Nominal	6.6

Leads AWG 22 teflon coated; 300 mm minimum length.
Direction of rotation viewed from brush end, CW when a positive voltage is applied to the red lead relative to the black.
Insulation resistance @ 500 V D.C. ± 10 V, min 100 MΩ.
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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