

BR7 Brushless Motor Data

Date: 5/6/2024

CHARACTERISTICS	SYMBOL	UNITS	BR-07
Voltage supply	V	VDC	48
Max. Speed at voltage supply ($\pm 10\%$)	nm	rpm	1500
Stall Torque ($\pm 10\%$)	Ms	Nm	6.6
Stall Current ($\pm 10\%$)	Is	A	47.48
Nominal Torque at 1500rpm	Mn	Nm	5.8
Peak Torque ($\pm 10\%$)	Mj	Nm	13.1
EMF Constant ($\pm 5\%$)	Ke	Vs/rad	0.08
Torque Constant ($\pm 5\%$)	Kt	Nm/A	0.139
Reluctance Torque	Ct	Nm	100
Winding Resistance ($\pm 5\%$)	R	W	0.055
Winding Inductance ($\pm 5\%$)	L	mH	0.075
Rotor Inertia	J	kgm ² 10 ⁻³	1.01
Mechanical Time Constant	Tm	ms	5
Electrical Time Constant	Te	ms	1.36
Thermal Time Constant (5)	Tth	s	833
Thermal Resistance	Rth	°C/W	0.46
Insulation	Class	-	F
Max. winding temperature		°C	155
N° of poles		-	20
Axial force	Fa	N	254
Radial force	Fr	N	492
Weight	M	kg	4.6
Temperature sensor type		-	PTC155°
With an Aluminium heat sink plate (4)		mm	400x400x10

