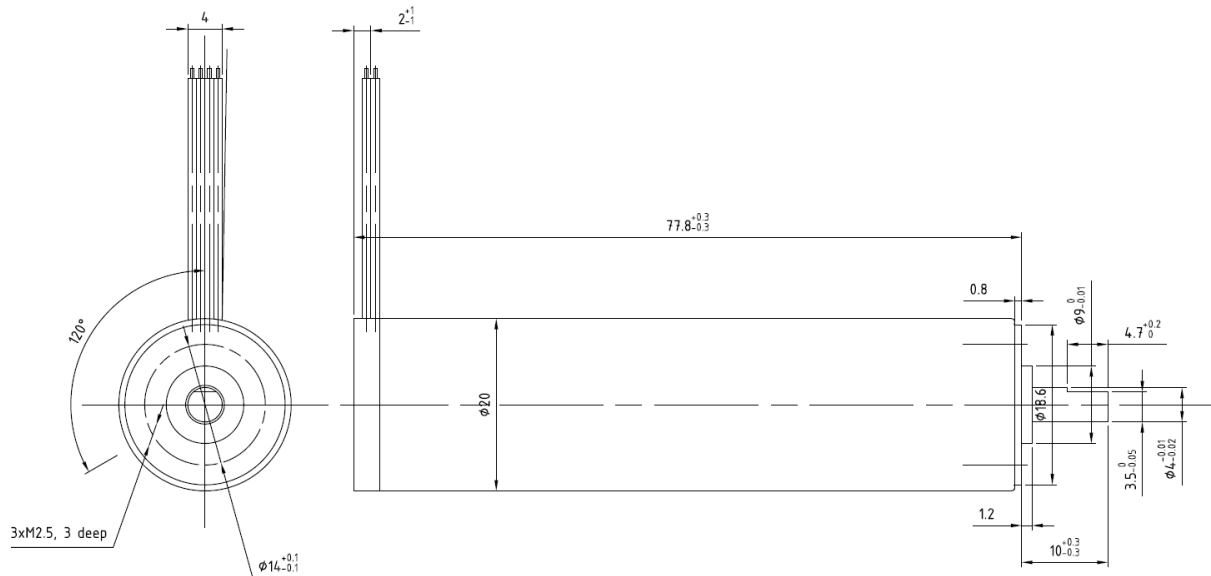


Brushless motor type BSM020-78-24

Features:

- 4 poles rotor with NdFeB magnets
- 3 phase winding
- stainless steel housing



	Units	Value
Voltage	V_{DC}	24
Stall torque ¹	N·m	0.04
Nominal torque ²	N·m	0.038
Nominal speed	rpm	5900
Nominal output power	W	24
Efficiency	%	>70
Torque constant (K_T)	$N\cdot m/A_{rms}$	0.022
Back EMF constant (K_E)	$V_{rms}/Krpm$	1.4
Line-to-line resistance	Ω	1.3
Line-to-line inductance	mH	0.3
Inertia	$Kg\cdot cm^2$	0.0052
Poles		4
Cogging torque	N·m	0
Weight	Kg	0.14
Phase connection		Δ
Insulation class		F
Ambient temperature	$^{\circ}C$	-30 $^{\circ}C$ to +40 $^{\circ}C$
Protection grade		IP 50
Sensors		3 HALL sensors

¹ δW winding temperature: 20 $^{\circ}C$

² continuous torque (S1), δW winding temperature: 130 $^{\circ}C$



		Motor excitation sequence and Hall						
		(Definitions are for Clockwise rotation)						
	Step	1	2	3	4	5	6	1
Stator Leads	A (RED)	+	+		-	-		+
	B (WHT)	-		+	+		-	-
	C (BLK)		-	-		+	+	
Hall Sensors Leads	A (BRN)	1	1	0	0	0	1	1
	B (ORG)	0	1	1	1	0	0	0
	C (YEL)	0	0	0	1	1	1	0
	+ (BLUE)	+	+	+	+	+	+	+
	- (GREEN)	-	-	-	-	-	-	-

Motor BEMF, Hall Sensors orientation definitions for CW rotation viewing leads end

