

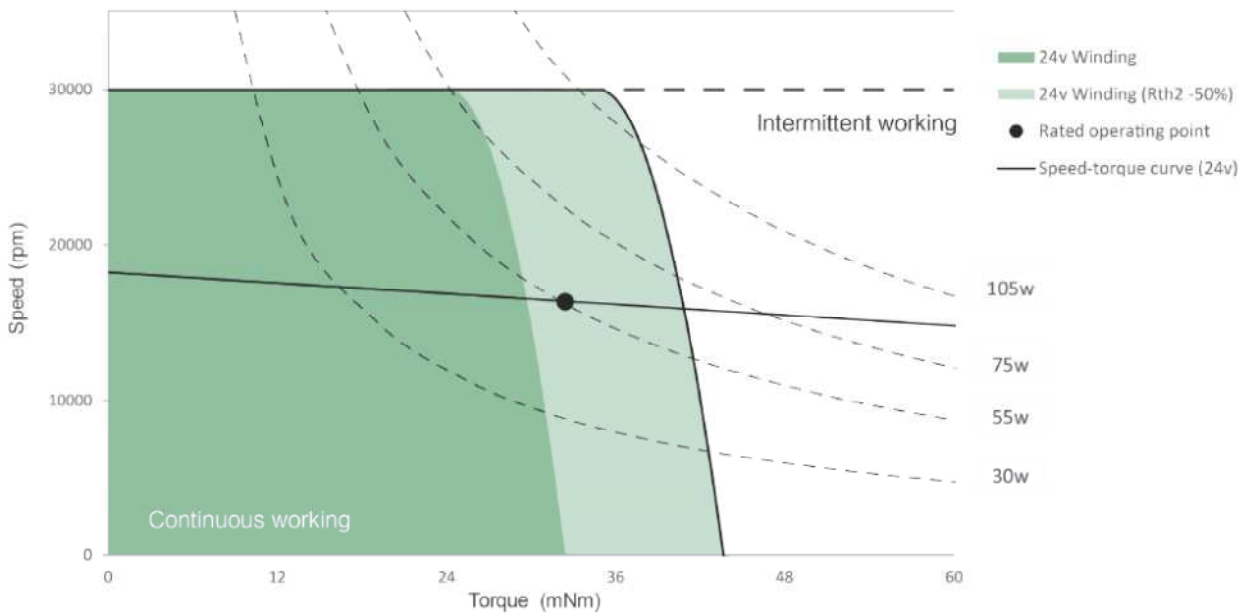
TSU22048 \varnothing 22mm 55/75W

Motor Data		Part Numbers			
		TSU22048H18	TSU22048H24	TSU22048H36	TSU22048H48
Nominal voltage	V	18	24	36	48
No load speed	rpm	19500	19200	19400	19900
No load current	mA	342	326	295	253
Nominal speed	rpm	17000	16400	16600	17100
Max. continuous torque	mNm	33.1	32.5	31.6	31.1
Max. continuous current	A	4.04	2.94	2.01	1.56
Stall torque	mNm	322.8	316.6	328.9	341.0
Stall current	A	36.00	25.53	17.91	14.29
Max efficiency	%	86	86	86	85
Resistance (phase-phase)	Ohm	0.50	0.94	2.01	3.36
Inductance (phase-phase)	mH	0.052	0.104	0.230	0.391
Torque constant	mNm / A	8.97	12.40	18.36	23.87
Speed constant	rpm / V	1065	770	520	400
Speed/torque gradient	rpm / mNm	59	58	57	56
Mechanical time constant	ms	2.40	2.36	2.30	2.28
Rotor inertia	gcm ²	3.86	3.86	3.86	3.86

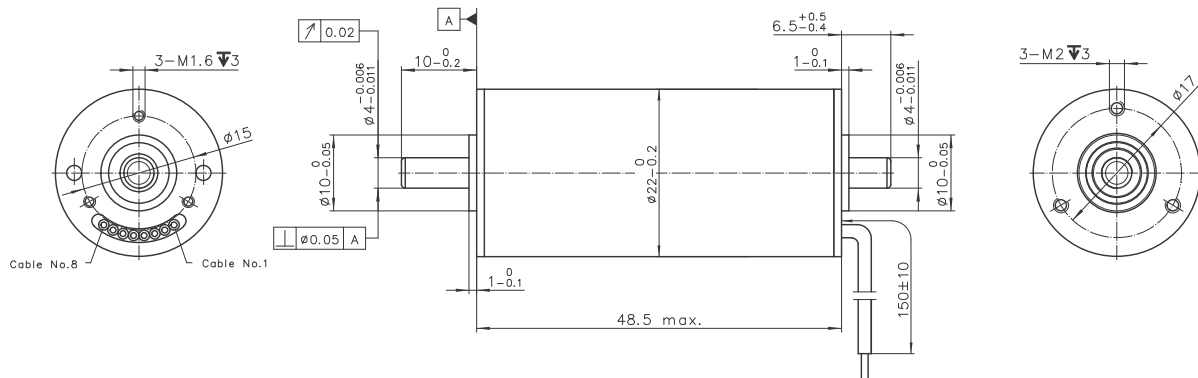
Specification		
Bearing		Ball bearing
Max speed	rpm	30000
Axial play	mm	0..0.14
Radial play		Preloaded
Max axial load (dynamic)	N	3.5
Max. force for press fits (static)	N	60
Max radial load (5mm from flange)	N	15
Ambient temperature	° C	-40~+100
Max winding temperature	° C	155
Thermal resistance		
Housing - Ambient	° C / W	9.0
Winding - Housing	° C / W	1.75
Thermal time constant		
Motor	s	510
Winding	s	1.59
Number of pole pairs		1
Number of phases		3
Weight	g	110

Combination
Gearbox PG22C Ø22mm 0.8Nm 4:1-509:1 Page 45
Encoder U22 Ø22mm 256 Lines 2 Channels Page 51
Option With hall sensor / Sensorless

Operating Range



Dimension



Connection (Cable AWG 24)

Cable No.	Signal	Color
1	Motor winding 1	brown
2	Motor winding 2	red
3	Motor winding 3	orange
4	V _{bat} 3...24VDC	yellow
5	GND	green
6	Hall IC 1	blue
7	Hall IC 2	violet
8	Hall IC 3	grey

TSU22048Hxx-S101