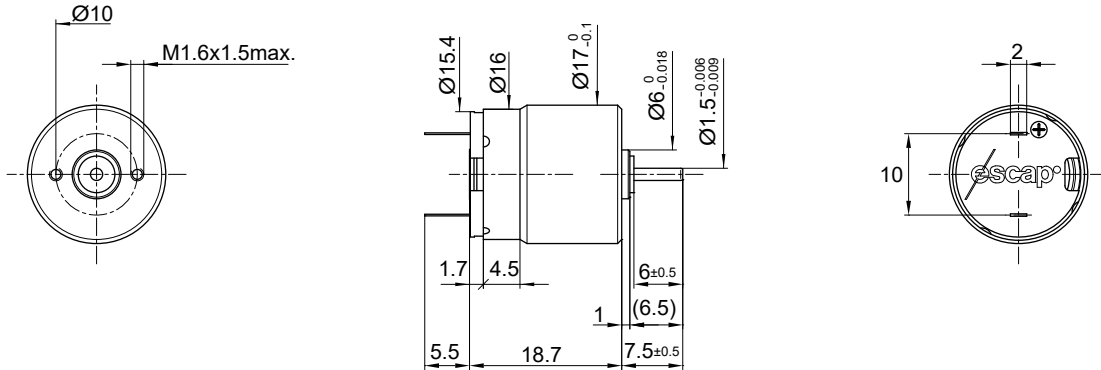


17S78

Ø 17 mm • Precious metal commutation • 2.8 mNm



Dimensions in mm.

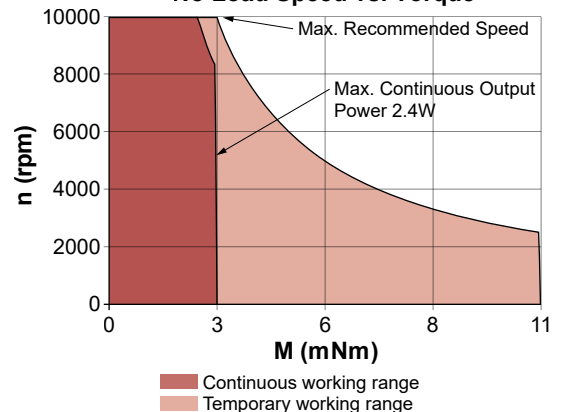
Electrical Data	Symbol	208P	17S78 1 210E	209E	Unit
1 Nominal Voltage	V	6	7.5	12	Volt
2 No-Load Speed	n_0	10,280	10,865	12,430	rpm
3 No-Load Current	I_0	25.0	18.0	8.4	mA
4 Terminal Resistance	R	7.5	12.2	18.6	Ω
5 Output Power	$P_{2max.}$	1.7	1.6	1.8	W
6 Stall Torque	mNm	4.3 (0.61)	3.9 (0.56)	5.9 (0.84)	mNm (oz-in)
7 Efficiency	$\eta_{max.}$	68	69	78	%
8 Max Continuous Speed	$n_{e max.}$	10,000	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e max.}$	2.6 (0.34)	2.4 (0.34)	2.8 (0.4)	mNm (oz-in)
10 Max Continuous Current	$I_{e max.}$	0.50	0.38	0.32	A
11 Back-EMF Constant	k_E	0.57	0.67	0.95	mV/rpm
12 Torque Constant	k_M	5.40	6.40	9.10	mNm/A
13 Motor Regulation	R/k^2	255.0	300.0	225.0	$10^3/Nms$
14 Friction Torque	T_F	0.12 (0.02)	0.12 (0.02)	0.08 (0.02)	mNm (oz-in)
15 Rotor Inductance	L	0.15	0.23	0.35	mH
16 Mechanical Time Constant	τ_m	12.8	15.0	11.3	ms
17 Rotor Inertia	J	0.50	0.50	0.50	g-cm ²

General Data					
18 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	13/38			°C/W
19 Thermal Time Constant (rotor/stator)	t_{W1}/t_{W2}	7/400			S
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)			°C (°F)
	rotor	100°C (212°F)			°C (°F)
21 Shaft Load Max.: (5 mm. from bearing)		With sleeve bearings			
	-radial	1.5 (5.4)			N (oz)
	-axial	100 (359.6)			N (oz)
22 Shaft Play:	-radial	<0.03 (0.0012)			mm (inch)
	-axial	0.15 (0.0059)			mm (inch)
23 Weight	g	19 (0.68)			g (oz)
24 Commutation Segment	-	9			segment

Execution Table

Gearbox	Single Shaft	F16	MR2
B16	5	5	Upon Request
BA16	5	5	Upon Request
R16	1	1	96

No Load Speed vs. Torque



► Motor shaft rotates CW when seen from motor front face when +ve and -ve supply is given to respective terminals.