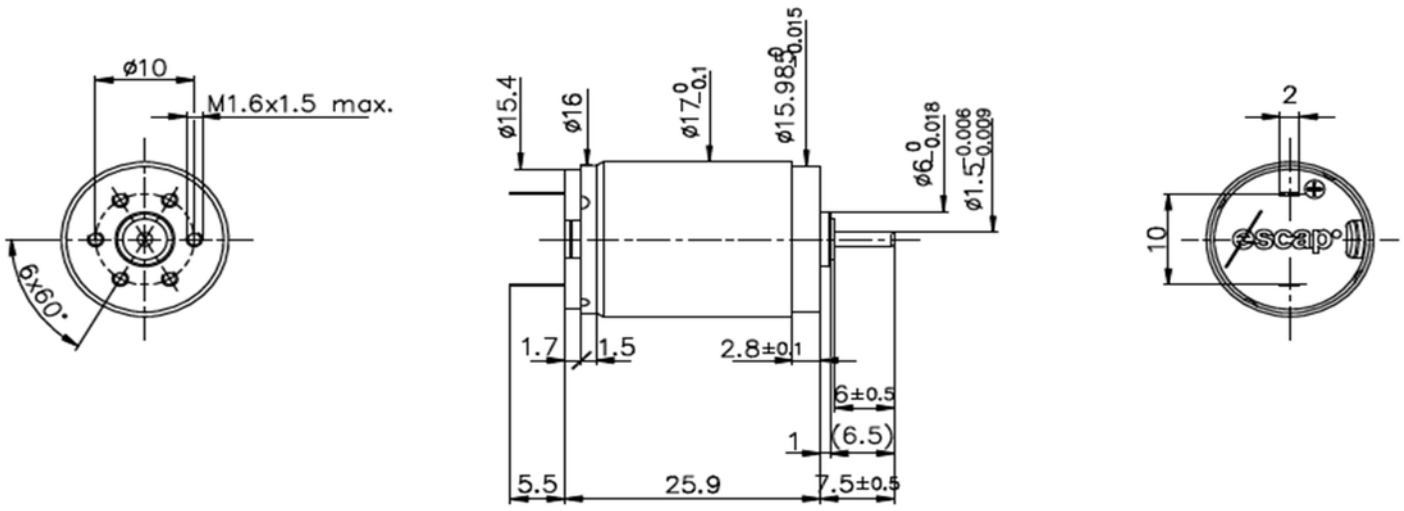
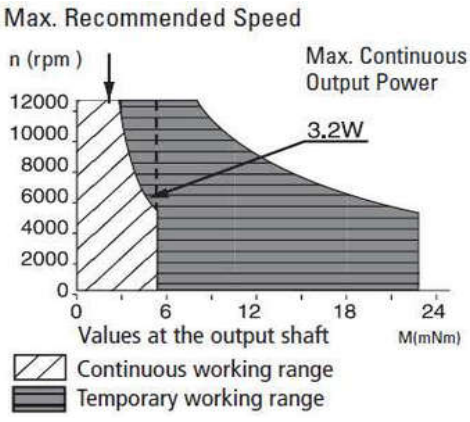
17N78 Precious metal commutation Ø17mm 5.7 mNm



17N78 ** .1**

Electrical Data	****	122A	216E	210E	208E	207E	
1 Nominal Voltage	V	2	6	12	18	24	Volt
2 No-Load Speed	n_0	7,000	8,480	8,460	8,460	8,900	rpm
3 No-Load Current	I_0	60.0	16.0	7.7	4.9	3.5	mA
4 Terminal Resistance	R	0.7	3.2	17.3	38.4	65.0	Ω
5 Output Power	$P_{2max.}$	3.0	3.6	3.1	3.2	3.1	W
6 Stall Torque	mNm	7.6 (1.08)	12.5 (1.78)	9.3 (1.32)	9.4 (1.34)	9.4 (1.34)	mNm (oz-in)
7 Efficiency	$\eta_{max.}$	73	82	80	81	81	%
8 Max continuous speed	$n_{e\ max.}$	12,000	12,000	12,000	12,000	12,000	rpm
9 Max continuous torque	$M_{e\ max.}$	4.8 (0.81)	5.7 (0.81)	4.8 (0.68)	4.9 (0.7)	4.8 (0.68)	mNm (oz-in)
10 Max continuous current	$I_{e\ max.}$	1.84	0.86	0.37	0.25	0.19	A
11 Back-EMF Constant	k_E	0.28	0.70	1.40	2.10	2.67	mV/rpm
12 Torque Constant	k_M	2.67	6.70	13.40	20.10	25.50	mNm/A
13 Motor Regulation	R/k^2	98.2	71.3	96.3	95.05	99.96	10^3/Nms
14 Friction Torque	T_F	0.16 (0.03)	0.1 (0.02)	0.1 (0.02)	0.1 (0.02)	0.09 (0.02)	mNm (oz-in)
15 Rotor Inductance	L	0.10	0.11	0.40	0.90	1.41	mH
16 Mechanical Time Constant	τ_m	6.9	7.8	7.7	7.2	7.2	ms
17 Rotor Inertia	J	0.70	1.10	0.80	0.76	0.72	$g.cm^2$
18 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}	10 / 30	10 / 30	10 / 30	10 / 30	10 / 30	°C/W
19 Thermal Time Constant (rotor/stator)	τ_{w1}/t_{w2}	7 /400	7 /400	7 /400	7 /400	7 /400	°C/W
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.:		With sleeve bearings					
at 3,000 rpm (5mm from bearing)	-radial	1.5 (5.4)					N (oz)
at 3,000 rpm	-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	27 (0.96)					g (oz)

Execution			
Gearbox	**Single Shaft**	**F16**	**MR2**
B16	5	5	Contact Us
BA16	5	5	Contact Us
R16	1	1	96



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