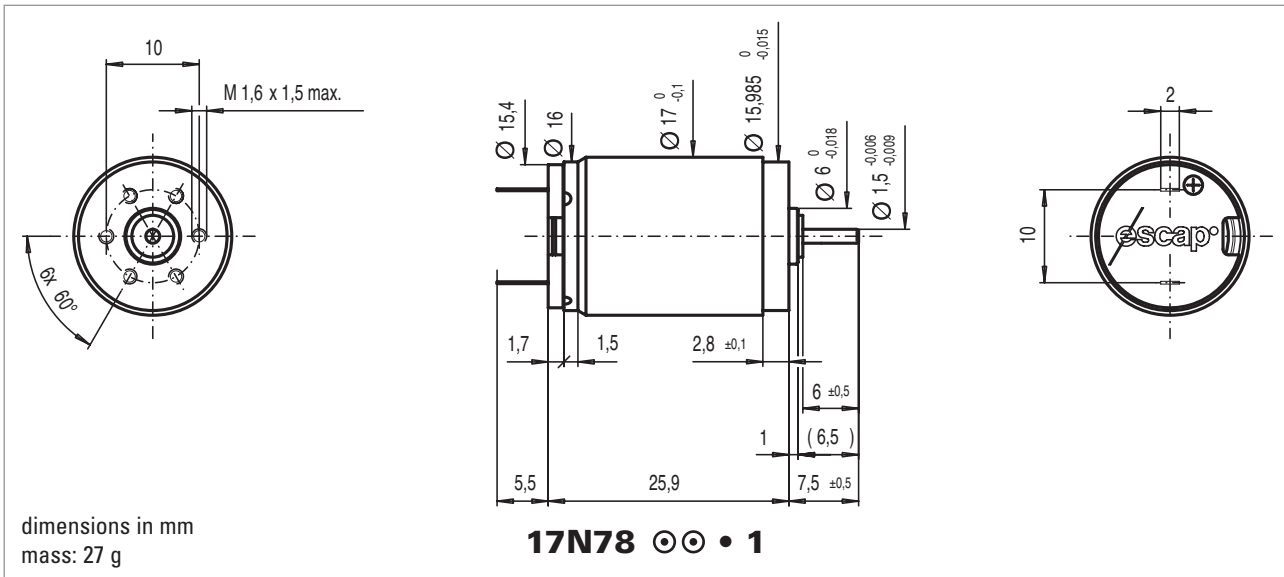


17N78

Precious Metal Commutation System - 9 Segments

3.2 Watt



Winding Type	☉☉	-216E	-122A	-210E	-208E	-207E
Measured Values						
Measuring voltage	V	6.0	2	12.0	18.0	24.0
No-load speed	rpm	8500	7000	8500	8500	8900
Stall torque	mNm (oz-in)	12.5 (1.77)	7.6 (1.08)	9.3 (1.31)	9.4 (1.33)	9.4 (1.33)
Average No-load current	mA	10.5	60	7.7	4.9	3.5
Typical starting voltage	V	0.04	0.02	0.08	0.11	0.16
Max. Recommended Values						
Max. continuous current	A	0.86	1.5	0.37	0.25	0.19
Max. continuous torque	mNm (oz-in)	5.69 (0.81)	3.9 (0.55)	4.85 (0.69)	4.89 (0.69)	4.79 (0.68)
Max. angular acceleration	10 ³ rad/s ²	207	272	243	258	266
Intrinsic Parameters						
Back-EMF constant	V/1000 rpm	0.70	0.28	1.40	2.10	2.67
Torque constant	mNm/A (oz-in/A)	6.7 (0.95)	2.67	13.4 (1.89)	20.1 (2.84)	25.5 (3.61)
Terminal resistance	ohm	3.20	0.7	17.3	38.4	65.0
Motor regulation R/k ²	10 ³ /Nms	72	98	97	95	100
Rotor inductance	mH	0.11		0.40	0.90	1.41
Rotor inertia	kgm ² 10 ⁻⁷	1.10	0.7	0.80	0.76	0.72
Mechanical time constant	ms	8	6.9	8	7	7

Executions			
		Single Shaft	With F16
Gearbox	Page	17N78	17N78
B16	236	5	5
BA16	237	5	5
R16	238	1	1

- Thermal resistance: rotor-body 10°C/W, body-ambient 30°C/W
- Thermal time constant - rotor / stator: 7 s / 400 s
- Max. rated coil temperature: 100°C (210°F)
- Recom. ambient temperature range: -30°C to +85°C (-22°F to +185°F)
- Viscous damping constant: 0.04 x 10⁻⁶ Nms
- Max. axial static force for press-fit: 100 N
- End play: ≤ 150 μm
- Radial play: ≤ 30 μm
- Shaft runout: ≤ 10 μm
- Max. side load at 5 mm from mounting face:
 - sleeve bearings 1.5 N
 - ball bearings 3 N
- Motor fitted with sleeve bearings (ball bearings optional)

