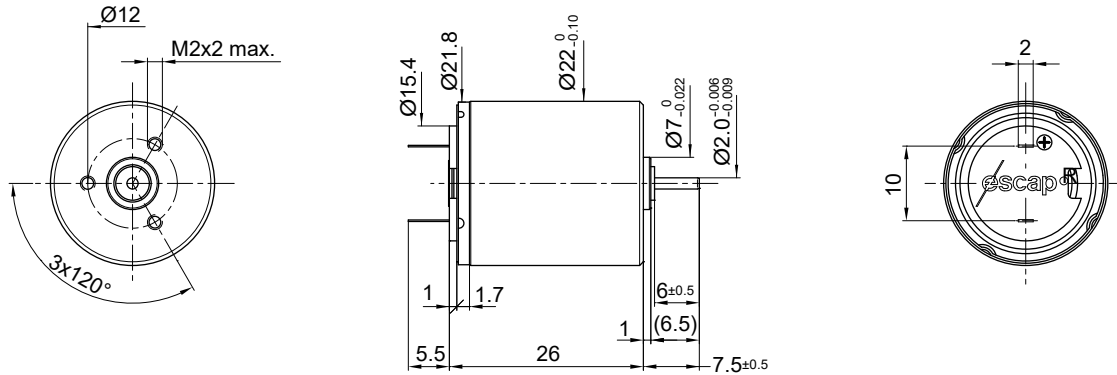


22S78

Ø 22 mm • Precious metal commutation • 8.9 mNm



Dimensions in mm.

Electrical Data	Symbol	22S78 .... 1		Unit
		210E	208E	
1 Nominal Voltage	V	18	24	Volt
2 No-Load Speed	$n_0$	7,780	8,550	rpm
3 No-Load Current	$I_0$	4.5	3.3	mA
4 Terminal Resistance	R	18.0	35.0	Ω
5 Output Power	$P_{2max}$	5.5	4.6	W
6 Stall Torque	mNm	22 (3.12)	18.3 (2.6)	mNm (oz-in)
7 Efficiency	$\eta_{max}$	87	87	%
8 Max Continuous Speed	$n_{e max}$	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e max}$	8.9 (1.1)	7.7 (1.1)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	0.41	0.29	A
11 Back-EMF Constant	$k_E$	2.30	2.80	mV/rpm
12 Torque Constant	$k_M$	22.00	26.70	mNm/A
13 Motor Regulation	$R/k^2$	37.0	49.0	10 <sup>3</sup> /Nms
14 Friction Torque	$T_F$	0.09 (0.02)	0.09 (0.02)	mNm (oz-in)
15 Rotor Inductance	L	0.50	0.92	mH
16 Mechanical Time Constant	$\tau_m$	7.0	7.8	ms
17 Rotor Inertia	J	1.90	1.60	g-cm <sup>2</sup>
<b>General Data</b>				
18 Thermal Resistance (rotor/body)	$R_{th1}/R_{th2}$	5/30		°C/W
19 Thermal Time Constant (rotor/stator)	$t_{w1}/t_{w2}$	5/480		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)	-radial	With sleeve bearings 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	49 (1.73)		g (oz)

Execution Table

Gearbox	Single Shaft
R22	1

