



Dimensions in mm.

Electrical Data	Symbol	22S28 1		Unit
		208E	205E	
1 Nominal Voltage	V	15	24	Volt
2 No-Load Speed	n_0	9,600	7,940	rpm
3 No-Load Current	I_0	6.0	2.8	mA
4 Terminal Resistance	R	35.0	140.0	Ω
5 Output Power	$P_{2max.}$	2.5	2.4	W
6 Stall Torque	mNm	6.3 (0.9)	4.9 (0.7)	mNm (oz-in)
7 Efficiency	$\eta_{max.}$	78	76	%
8 Max Continuous Speed	$n_{e max.}$	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e max.}$	4.1 (0.56)	3.9 (0.56)	mNm (oz-in)
10 Max Continuous Current	$I_{e max.}$	0.29	0.15	A
11 Back-EMF Constant	k_E	1.54	2.97	mV/rpm
12 Torque Constant	k_M	14.70	28.40	mNm/A
13 Motor Regulation	R/k^2	160.0	170.0	$10^3/Nms$
14 Friction Torque	T_F	0.09 (0.02)	0.08 (0.02)	mNm (oz-in)
15 Rotor Inductance	L	0.92	3.60	mH
16 Mechanical Time Constant	τ_m	25.6	25.5	ms
17 Rotor Inertia	J	1.60	1.50	$g\text{-cm}^2$
General Data				
18 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	5/30		$^\circ\text{C/W}$
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)		$^\circ\text{C}$ ($^\circ\text{F}$)
	rotor	100°C (212°F)		$^\circ\text{C}$ ($^\circ\text{F}$)
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	49 (1.73)		g (oz)

Execution Table

Gearbox	Single Shaft	MR2
R22	Upon Request	Upon Request
K24	Upon Request	Upon Request
K27	Upon Request	Upon Request

