



	Units	Samples available 212-008	Samples available 212-108	
Design and Accessories				
1 Commutation		Precious Metal Brush	Precious Metal Brush	
2 No. of Output Shafts		1	1	
3 Unit Weight	g	6.5	6.5	
4 Body Diameter	mm	12	12	
5 Body Length	mm	22.15	22.15	
6 Rotation Direction		CW	CW	
7 Bearing Type		Sintered Bronze	Sintered Bronze	
Physical Characteristics				
8 Shaft Diameter	mm	4.5	4.5	
9 Shaft Length	mm	3.8	3.8	
10 Shaft Orientation		Inline	Inline	
11 Motor Construction		Iron Core	Iron Core	
Operational Characteristics				
12 Typical Max. Mech. Noise	dB(A)	60	60	
13 Rated Operating Voltage	V	2.5	5	
14 Rated Load	mN·m	20	20	
15 Rated Load Speed	rpm	42	46	
16 N/L Speed	rpm	73	70	
17 Max. Start Voltage	V	1.4	3.5	
18 Max. N/L Current	mA	60	36	
19 Max. Operating Voltage	V	3	6	
20 Max. Rated Load Current	mA	179	91	
21 Min. Insulation Resistance	MΩ	10	1	
22 Max. Start Current	mA	380	260	
23 Typical Rated Load Power Consumption	mW	375	380	
24 Typical N/L Current	mA	50	30	
25 Typical Peak Efficiency	%	29	32	
26 Typical Peak Eff. Torque	mN·m	18	20	
27 Typical Peak Eff. Speed	rpm	54	57	
28 Typical Peak Eff. Current	mA	139	78	
29 Typical Peak Eff. Power Out	mW	102	123	

30	Typical Start Current	mA	380	230
31	Typical Max. Output Power	mW	133	152
32	Typical Stall Torque	mN·m	48	50
Gear Characteristics				
33	Gear Ratio	:1	120	120
34	Gearhead Type		Planetary	Planetary
Winding Characteristics				
35	Typical Terminal Resistance	Ohm	5.3	20
36	Typical Terminal Inductance	uH	970	3,800
Environmental Characteristics				
37	Max. Operating Temp.	°C	60	60
38	Min. Operating Temp.	°C	-10	-10
39	Max. Storage & Transportation Temp.	°C	70	70
40	Min. Storage & Transportation Temp.	°C	-20	-20
Packaging				
41	No. of Units per Carton	pcs	500	500
42	Carton Type		Boxed Trays	Boxed Trays

Motor Body Characteristics		Performance
43	No. of Poles	
44	Shaft Axial Float	mm

