



		Samples available	Samples available		
Units		212-108	212-008		
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	5	2.5	
14	Rated Load	mN-m	20	20	
15	Rated Load Speed	rpm	46	42	
16	N/L Speed	rpm	70	73	
17	Max. Start Voltage	V	3.5	1.4	
18	Max. N/L Current	mA	36	60	
19	Max. Operating Voltage	V	6	3	
20	Max. Rated Load Current	mA	91	179	
21	Min. Insulation Resistance	MOhm	1	10	
22	Max. Start Current	mA	260	380	
23	Typical Rated Load Power Consumption	mW	380	375	
24	Typical N/L Current	mA	30	50	
25	Typical Peak Efficiency	%	32	29	
26	Typical Peak Eff. Torque	mN-m	20	18	
27	Typical Peak Eff. Speed	rpm	57	54	
28	Typical Peak Eff. Current	mA	78	139	
29	Typical Peak Eff. Power Out	mW	123	102	

30	Typical Start Current	mA	230	380
31	Typical Max. Output Power	mW	152	133
32	Typical Stall Torque	mN·m	50	48
Gear Characteristics				
33	Gear Ratio	:1	120	120
34	Gearhead Type		Planetary	Planetary
Winding Characteristics				
35	Typical Terminal Resistance	Ohm	20	5.3
36	Typical Terminal Inductance	uH	3,800	970
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. 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
45	Max. Axial Compression	N
46	Max. Radial Load	mN

