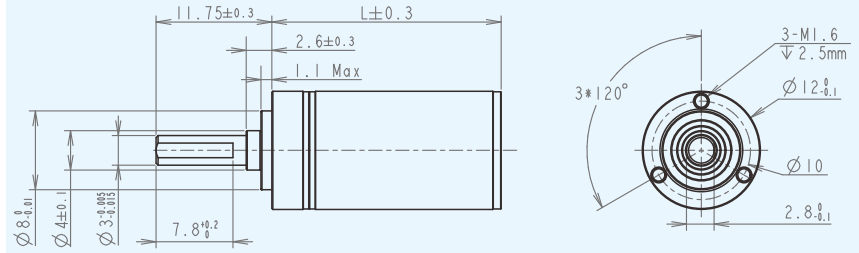


# ZWSMD012012

## Φ12mm Planetary Gearbox



### Gearbox Technical Data

	2	3	4
Number of stages	2	3	4
Max. continuous torque (Nm)	0.25	0.3	0.35
Max. intermittent torque (Nm)	0.3	0.38	0.41
Reduction Ratio	16, 21, 26, 28, 35	62, 83, 103, 111, 138, 150, 172, 186, 231	243, 326, 406, 439, 546, 590, 679, 734, 794, 913, 987, 1135, 1227, 1526
Outer Diameter (mm)	12	12	12
Gearbox Length L1(mm)	17.5	23.3	27.8
Max. efficiency (%)	75	65	55
Recommended temperature range (°C)	-40~+100	-40~+100	-40~+100
Max. Weight (G)	12.4	15.5	18.6
Max. continuous transmittable power (W)	2.2	1.1	0.6
Max. intermittent transmittable power (W)	2.8	1.4	0.8
Average backlash no load (°)	1.5	1.8	2.1
Max. axial load (dynamic) (N)	20	20	20
Max. radial load (4mm from flange) (N)	45	60	60
Bearing at output	ball bearing	ball bearing	ball bearing
Axial play (mm)	< 0.1	< 0.1	< 0.1

\* Note: Data above does not include the motor. Specifications can be customized per customer requirements.

### Modular assembly

Integrated Product	Part No.	Number of stages		
		2	3	4
		Length(mm)		
DC Motor	1220 Φ12mm graphite brush	37.5	43.3	47.8
	1228 Φ12mm graphite brush	45.7	51.5	56.0
Brushless Motor	1226 Φ12mm coreless brushless motor	43.6	49.4	53.9
	1232 Φ12mm coreless brushless motor	49.5	55.3	59.8
Encoder	CB-ST-8	Magnetic Encoder		

### Product Specifications

PART NO.	Rated Voltage (V)	No-Load Data		Load Data			Overall Length (mm)	Gearbox Rated Allowable Torque (NM)	Gearbox Intermittent Allowable Torque (NM)	Reduction Ratio	Gearbox Length L1(mm)
		No-Load Speed (rpm)	No-Load Current (mA max)	Load Speed (rpm)	Load Current (A Max)	Torque (N.m)					
ZWSMD012012-16-X	12	1836	117	1284	1	0.034	43.5	0.25	0.3	16	17.5
ZWSMD012012-21-X	12	1365	117	955	1	0.042				21	
ZWSMD012012-26-X	12	1098	117	768	1	0.052				26	
ZWSMD012012-28-X	12	1015	117	710	1	0.056				28	
ZWSMD012012-35-X	12	816	117	571	1	0.070				35	
ZWSMD012012-62-X	12	465	117	325	1	0.100	49.3	0.3	0.38	62	23.3
ZWSMD012012-83-X	12	346	117	242	1	0.134				83	
ZWSMD012012-103-X	12	278	117	195	1	0.167				103	
ZWSMD012012-111-X	12	257	117	180	1	0.181				111	
ZWSMD012012-138-X	12	207	117	145	1	0.225				138	
ZWSMD012012-150-X	12	191	117	134	1	0.243	53.8	0.35	0.35	150	27.8
ZWSMD012012-172-X	12	166	117	116	1	0.279				172	
ZWSMD012012-186-X	12	154	117	108	1	0.302				186	
ZWSMD012012-231-X	12	124	117	89	1	0.350				231	
ZWSMD012012-243-X	12	118	117	80	0.8	0.350				243	
ZWSMD012012-326-X	12	88	117	67	0.8	0.350				326	
ZWSMD012012-406-X	12	70	117	57	0.8	0.350				406	
ZWSMD012012-439-X	12	65	117	54	0.8	0.350				439	
ZWSMD012012-546-X	12	52	117	45	0.8	0.350				546	
ZWSMD012012-590-X	12	48	117	42	0.8	0.350				590	
ZWSMD012012-679-X	12	42	117	38	0.8	0.350				679	
ZWSMD012012-734-X	12	39	117	35	0.8	0.350				734	
ZWSMD012012-794-X	12	36	117	33	0.8	0.350				794	
ZWSMD012012-913-X	12	31	117	29	0.8	0.350				913	
ZWSMD012012-987-X	12	29	117	27	0.8	0.350				987	
ZWSMD012012-1135-X	12	25	117	23	0.8	0.350	1135				
ZWSMD012012-1227-X	12	23	117	21	0.8	0.350	1227				
ZWSMD012012-1526-X	12	19	117	18	0.8	0.350	1526				

\*The specifications above are for reference only. Changes may occur without prior notice. For specific requirements, please contact customer service.