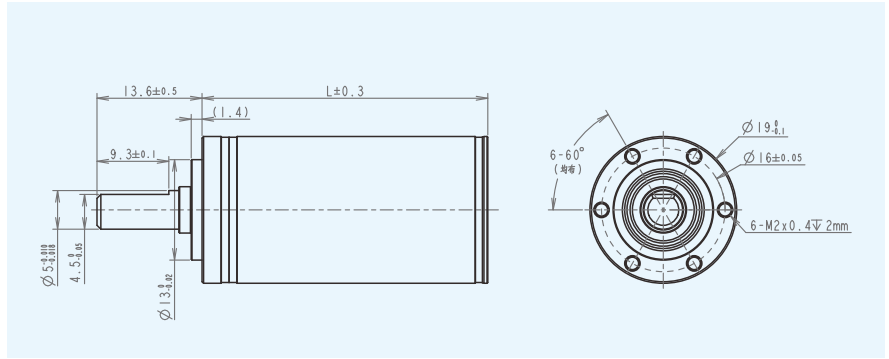


# ZWSMD019019

Φ19mm Planetary Gearbox



## Gearbox Technical Data

	2	3	4
Number of stages	2	3	4
Max. continuous torque (Nm)	0.9	1.6	2
Max. intermittent torque (Nm)	1.15	2	2.5
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)	19	19	19
Gearbox Length L1(mm)	29.9	37	41
Max. efficiency (%)	80	70	60
Recommended temperature range (°C)	-30~+100	-30~+100	-30~+100
Max. Weight (G)	40.2	60.2	62.2
Max. continuous transmittable power (W)	15	7	2
Max. intermittent transmittable power (W)	19	9	3
Average backlash no load (°)	0.7	0.7	0.7
Max. axial load (dynamic) (N)	40	40	40
Max. radial load (4mm from flange) (N)	100	120	120
Bearing at output	ball bearing	ball bearing	ball bearing
Axial play (mm)	0~0.1	0~0.1	0~0.1

\* 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	MP1931 Φ 19mm Graphite brush	60.9	68.0	72.0
	1625 Graphite brush	54.9	62.0	66.0
Brushless Motor	2248 Brushless	77.9	85.0	89.0
Encoder	CB-ST-16	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)					
ZWSMD019019-16	12	513	200	331	1.5	0.126	60.9	0.9	1.15	16	29.9
ZWSMD019019-21	12	390	200	252	1.5	0.165				21	
ZWSMD019019-26	12	315	200	204	1.5	0.204				26	
ZWSMD019019-28	12	293	200	189	1.5	0.220				28	
ZWSMD019019-35	12	234	200	151	1.5	0.275				35	
ZWSMD019019-44	12	186	200	120	1.5	0.345				44	
ZWSMD019019-62	12	132	250	85	1.6	0.426	68	1.6	2	62	37
ZWSMD019019-83	12	99	250	64	1.6	0.570				83	
ZWSMD019019-103	12	80	250	51	1.6	0.707				103	
ZWSMD019019-111	12	74	250	48	1.6	0.762				111	
ZWSMD019019-138	12	59	250	38	1.6	0.948				138	
ZWSMD019019-150	12	55	250	35	1.6	1.030				150	
ZWSMD019019-172	12	48	250	31	1.6	1.181	72	2	2.5	172	41
ZWSMD019019-186	12	44	250	28	1.6	1.277				186	
ZWSMD019019-231	12	35	250	23	1.6	1.586				231	
ZWSMD019019-243	12	34	250	22	1.6	1.600				243	
ZWSMD019019-326	12	25	300	16	1.7	2.500				326	
ZWSMD019019-406	12	20	300	13	1.7	2.500				406	
ZWSMD019019-439	12	19	300	12	1.7	2.500	439				
ZWSMD019019-546	12	15	300	10	1.7	2.500	546				
ZWSMD019019-590	12	14	300	9	1.7	2.500	590				
ZWSMD019019-679	12	12	300	8	1.7	2.500	679				
ZWSMD019019-734	12	11	300	7	1.7	2.500	734				
ZWSMD019019-794	12	10	300	7	1.7	2.500	794				
ZWSMD019019-913	12	9	300	6	1.7	2.500	913				
ZWSMD019019-987	12	8	300	5	1.7	2.500	987				
ZWSMD019019-1135	12	7	300	5	1.7	2.500	1135				
ZWSMD019019-1227	12	7	300	4	1.7	2.500	1227				
ZWSMD019019-1526	12	5	300	3	1.7	2.500	1526				