

EDT-B-142

Gear Reducers

PRODUCT

A planetary gear reducer that lowers speed and raises torque at a selected stage and ratio.

TECHNICAL SPECIFICATIONS

Rated output torque T2N By stage and ratio; see table below	342-650 Nm by ratio
Moment of inertia J1 By stage and ratio; see table below	2.57-9.21 kg cm ² by ratio
Standard Backgap P2 Stage 1, ratios 3~10	<=5 arcmin
Standard Backgap P2 Stage 2, ratios 15~100	<=7 arcmin
Torsion rigidity Stages 1,2; ratios 3~100	50 Nm/arcmin
Rated input speed n1N Stages 1,2; ratios 3~100	3,000 rpm
Maximum input speed n1B Stages 1,2; ratios 3~100	6,000 rpm
Noise value Stages 1,2; ratios 3~100; 3000 rpm	<=65 dB
Allowable radial force F2rB Stages 1,2; ratios 3~100; 2. Output speed of 100rpm, acting on the center position of the output shaft.	9,400 N
Allowable axial force F2a1B Stages 1,2; ratios 3~100; 2. Output speed of 100rpm, acting on the center position of the output shaft.	4,000 N
Allowable axial force F2a2B Stages 1,2; ratios 3~100; 2. Output speed of 100rpm, acting on the center position of the output shaft.	4,700 N
weight Stage 1, ratios 3~10	14.5 kg
weight Stage 2, ratios 15~100	17.5 kg

SELECTION

Select the stage and reduction ratio first. Then check torque, inertia, backlash, speed, shaft load, and mounting dimensions for that exact ratio.

TORQUE AND INERTIA BY STAGE AND RATIO

Stage	Ratio	Rated output torque	Moment of inertia
1	3	342 Nm	9.21 kg cm ²
1	4	542 Nm	7.54 kg cm ²
1	5	650 Nm	7.42 kg cm ²
1	6	600 Nm	7.25 kg cm ²



Product illustration

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Stage	Ratio	Rated output torque	Moment of inertia
1	7	550 Nm	7.14 kg cm ²
1	8	500 Nm	7.07 kg cm ²
1	10	450 Nm	7.03 kg cm ²
2	12	342 Nm	2.71 kg cm ²
2	15	342 Nm	2.71 kg cm ²
2	20	542 Nm	2.71 kg cm ²
2	25	650 Nm	2.71 kg cm ²
2	30	342 Nm	2.71 kg cm ²
2	35	650 Nm	2.71 kg cm ²
2	40	542 Nm	2.71 kg cm ²
2	50	650 Nm	2.57 kg cm ²
2	60	600 Nm	2.57 kg cm ²
2	70	550 Nm	2.57 kg cm ²
2	80	500 Nm	2.57 kg cm ²
2	100	450 Nm	2.57 kg cm ²

A ratio group can list more than one installation size. Match each size to the drawing view; do not combine them into one configuration.

RATIOS 3, 4, 5, 6, 7, 8, 10		RATIOS 12, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100	
C1	phi145 mm / phi200 mm	C1	phi145 mm / phi200 mm
C10	19.5 mm / 25 mm	C10	19.5 mm / 28 mm
C2	4-M 8X20 mm / 4-M 12X28 mm	C2	4-M 8X20 mm / 4-M 12X28 mm
C3	phi22,phi24 mm / phi35 mm	C3	phi19,phi22,phi24 mm / phi35 mm
C4	72 mm / 81.5 mm	C4	64 mm / 81 mm
C5	phi110 mm / phi114.3 mm	C5	phi110 mm / phi114.3 mm
C6	11 mm / 8 mm	C6	10 mm
C7	130 mm / 180 mm	C7	130 mm / 180 mm
C8	155 mm / 165 mm	C8	199 mm / 217 mm
C9	252 mm / 262 mm	C9	296 mm / 313.5 mm