



RPL090 Planetary Gear

Dimensions with gear stages	a	Weight
1-stage	84 mm	3,7 kg
2-stage	110 mm	4,6 kg

RPL090 Performance Data

i tot.	Stages	Nominal drive speed n_1 [rpm]	Max. drive speed n_1 max. [rpm]	Nominal torque T_{2N}^{-1} [Nm]	Max. acceleration torque T_{2B}^{-2} [Nm]	Emergency stop torque T_{2EMG}^{-3} [Nm]	Circumferential backlash jt [arcmin]	Efficiency level η [%]	Torsional stiffness c_t [Nm/arcmin]	Mass moment of inertia J_1^{-4} [kg cm ²]
3	1	3400	6000	60	120	180	≤ 8	> 97	9,00	1,73
5	1	3400	6000	50	100	150	≤ 8	> 97	9,00	1,73
7	1	3400	6000	50	100	150	≤ 8	> 97	9,00	1,73
10	1	3400	6000	37	74	111	≤ 8	> 97	7,50	1,73
15	2	3400	6000	60	120	180	≤ 11	> 95	9,00	1,48
25	2	3400	6000	50	100	150	≤ 11	> 95	9,00	1,48
30	2	3400	6000	60	120	180	≤ 11	> 95	9,00	1,48
35	2	3400	6000	50	100	150	≤ 11	> 95	9,00	1,48
50	2	3400	6000	50	100	150	≤ 11	> 95	9,00	1,48
70	2	3400	6000	50	100	150	≤ 11	> 95	9,00	1,48
100	2	3400	6000	37	74	111	≤ 11	> 95	7,50	1,48

*1 Service life 20,000 h, $n_2 = 100$ rpm

*2 (max 1000 cycles an hour. T2B share <5% of the total running time)

*3 (max. 1000 cycles during the lifetime of the gears)

*4 relative to the drive shaft

Fluid grease lubrication (lifetime-lubricated)

Any installation position

Sound pressure level at a distance of 1 m, measured at a drive speed of 3000 rpm < 72 db(A)

Max. axial force relative to the centre of the output shaft: 1900 N, $n_2 = 100$ rpm

Max. radial force relative to the centre of the output shaft: 2400 N, $n_2 = 100$ rpm

Temperature range: -25 °C to +90 °C



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