



RPS080 Planetary Gear

Dimensions with gear stages	a	Weight
1-stage	75 mm	1,9 kg
2-stage	104 mm	2,6 kg
3-stage	133 mm	3,4 kg

RPS080 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} [kgcm ²]
3	1	3500	6000	70	140	190	<= 7	> 97	5,8	0,7
4	1	3500	6000	92	184	236	<= 7	> 97	6	0,53
5	1	3500	6000	67	134	181	<= 7	> 97	5,6	0,44
7	1	3500	6000	65	130	175	<= 7	> 97	5,5	0,39
8	1	3500	6000	64	128	172	<= 7	> 97	5,5	0,37
12	2	3500	6000	70	140	190	<= 9	> 94	6	0,7
15	2	3500	6000	70	140	190	<= 9	> 94	5,8	0,45
16	2	3500	6000	92	184	236	<= 9	> 94	6	0,53
20	2	3500	6000	92	184	236	<= 9	> 94	6	0,44
25	2	3500	6000	67	134	181	<= 9	> 94	5,6	0,44
32	2	3500	6000	92	184	236	<= 9	> 94	6	0,37
40	2	3500	6000	67	134	181	<= 9	> 94	5,6	0,37
49	2	3500	6000	65	130	175	<= 9	> 94	5,5	0,39
56	2	3500	6000	65	130	175	<= 9	> 94	5,5	0,39
64	2	3500	6000	64	128	172	<= 9	> 94	5,5	0,37
80	3	3500	6000	92	184	236	<= 11	> 91	6	0,45
100	3	3500	6000	92	184	236	<= 11	> 91	6	0,44
125	3	3500	6000	67	134	181	<= 11	> 91	5,6	0,44
160	3	3500	6000	92	184	236	<= 11	> 91	6	0,37
200	3	3500	6000	67	134	181	<= 11	> 91	5,6	0,37
256	3	3500	6000	92	184	236	<= 11	> 91	6	0,37
512	3	3500	6000	64	128	172	<= 11	> 91	5,5	0,37

*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 < 65 db(A)

Max. axial force relative to the centre of the output shaft: 1000 N, $n_2 = 100$ rpm

Max. radial force relative to the centre of the output shaft: 750 N, $n_2 = 100$ rpm

Temperature range: -25 °C to +90 °C



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