



## RPS040 Planetary Gear

| Dimensions with gear stages | a       | Weight |
|-----------------------------|---------|--------|
| 1-stage                     | 45,5 mm | 0,3 kg |
| 2-stage                     | 67 mm   | 0,4 kg |

### RPS040 Performance Data

| i tot. | Stages | Nominal drive speed<br>$n_1$<br>[rpm] | Max. drive speed<br>$n_1$ max.<br>[rpm] | Nominal torque<br>$T_{2N}^{*1}$<br>[Nm] | Max. acceleration torque<br>$T_{2B}^{*2}$<br>[Nm] | Emergency stop torque<br>$T_{2EMG}^{*3}$<br>[Nm] | Circumferential backlash<br>jt<br>[arcmin] | Efficiency level<br>$\eta$<br>[%] | Torsional stiffness<br>$c_t$<br>[Nm/arcmin] | Mass moment of inertia<br>$J_1^{*4}$<br>[kgcm <sup>2</sup> ] |
|--------|--------|---------------------------------------|---|---|---|--|--|-----------------------------------|---|--|
| 4      | 1      | 4500                                  | 8000                                    | 16                                      | 25  | 36   | $\leq 15$                                  | $> 97$                            | 1   | 0,022  |
| 5      | 1      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 15$                                  | $> 97$                            | 1   | 0,019  |
| 7      | 1      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 15$                                  | $> 97$                            | 1   | 0,018  |
| 8      | 1      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 15$                                  | $> 97$                            | 1   | 0,017  |
| 16     | 2      | 4500                                  | 8000                                    | 16                                      | 25  | 36   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,022  |
| 20     | 2      | 4500                                  | 8000                                    | 16                                      | 25  | 36   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,019  |
| 25     | 2      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,019  |
| 28     | 2      | 4500                                  | 8000                                    | 16                                      | 25  | 36   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,017  |
| 32     | 2      | 4500                                  | 8000                                    | 16                                      | 25  | 36   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,017  |
| 35     | 2      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,017  |
| 40     | 2      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,016  |
| 49     | 2      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,018  |
| 56     | 2      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,017  |
| 64     | 2      | 4500                                  | 8000                                    | 14                                      | 23  | 34   | $\leq 19$                                  | $> 94$                            | 1,1   | 0,016  |

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

\*2 ( max. 1000 cycles an hour.  $T_{2B}$  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: 200 N,  $n_2 = 100$  rpm

Max. radial force relative to the centre of the output shaft: 200 N,  $n_2 = 100$  rpm

Temperature range:  $-25^\circ\text{C}$  to  $+90^\circ\text{C}$



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