

# Product data sheet

## LP+Gen3

### Low backlash planetary gearhead



Gearhead data	
Designation: LP120S-MF1-3-111-3S	
Gear type	LP+Gen3
Gear size	120
Design keyword	Standard
Gear variation	Motor attachment gearhead
Gear stages	1
Gear ratio i	3
Output design	Key
Clamping hub diameter	32 mm
Gear backlash	Standard
Gear material number	10026211

Technical specifications		
Max. acceleration torque (max. 1000 cycles per hour)	T <sub>2B</sub>	305 Nm
Nominal output torque (with n <sub>1N</sub> )	T <sub>2N</sub>	155 Nm
Emergency stop torque (permitted 1000 times during the service life of the gearhead)	T <sub>2Not</sub>	400 Nm
Nominal input speed (with T <sub>2N</sub> and 20°C ambient temperature) <sup>a)</sup>	n <sub>1N</sub>	2600 min <sup>-1</sup>
Max. input speed	n <sub>1Max</sub>	4800 min <sup>-1</sup>
Mean no load running torque (with n <sub>1</sub> =3000 min <sup>-1</sup> and 20°C gearhead temp.)	T <sub>012</sub>	1.1 Nm
Max. torsional backlash	j <sub>t</sub>	≤ 8 arcmin
Torsional rigidity	C <sub>t21</sub>	30 Nm/arcmin
Max. axial force <sup>b)</sup>	F <sub>2AMax</sub>	4000 N
Max. radial force <sup>b)</sup>	F <sub>2RMax</sub>	4600 N
Max. tilting moment	M <sub>2KMax</sub>	317.4 Nm
Efficiency at full load	η	97 %
Service life (for calculation, see the Chapter "Information" in our product catalogue)	L <sub>h</sub>	> 20000 h
Weight incl. standard adapter plate	m	8.6 kg
Operation noise (with n <sub>1</sub> =3000 min <sup>-1</sup> no load)	L <sub>PA</sub>	≤ 68 dB(A)
Max. permitted housing temperature		90 °C
Ambient temperature		-15 °C to 40 °C
Lubrication		lubricated for life
Paint		Blue RAL 5002
Protection class		IP 64
Inertia (relates to the drive)	J <sub>1</sub>	6.9 kgcm <sup>2</sup>

a) For higher ambient temperatures, please reduce input speed  
 b) Refers to center of the output shaft or flange, with n<sub>2</sub> = 100 min<sup>-1</sup>