

# LP+ 050 MF 1/2-stage

			1-stage				2-stage							
Ratio <sup>a)</sup>	<i>i</i>		4	5	7	10	16	20	25	35	50	70	100	
Max. acceleration torque (max. 1000 cycles per hour)	$T_{2B}$	Nm	13	14	14	13	13	13	14	14	14	14	13	
		in.lb	120	120	120	120	120	120	120	120	120	120	120	
Nominal output torque (with $n_{1N}$ )	$T_{2N}$	Nm	6	6.5	6.5	6	6	6	6.5	6.5	6.5	6.5	6	
		in.lb	53	58	58	53	53	53	58	58	58	58	53	
Emergency stop torque (permitted 1000 times during the service life of the gearhead)	$T_{2Not}$	Nm	26	26	26	26	26	26	26	26	26	26	26	
		in.lb	230	230	230	230	230	230	230	230	230	230	230	
Nominal input speed (with $T_{2N}$ and 20°C ambient temperature <sup>b)</sup> )	$n_{1N}$	rpm	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	
Max. input speed	$n_{1Max}$	rpm	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	
Mean no load running torque (with $n_1 = 3000$ rpm and 20°C gearhead temperature)	$T_{012}$	Nm	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
		in.lb	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Max. torsional backlash	$j_t$	arcmin	≤ 10				≤ 13							
Torsional rigidity	$C_{t21}$	Nm/arcmin	1.5	1.2	1.2	0.9	1.5	1.5	1.2	1.2	1.2	1.2	0.9	
		in.lb/arcmin	13	11	11	8	13	13	11	11	11	11	8	
Max. axial force <sup>c)</sup>	$F_{2AMax}$	N	700				700							
		lb <sub>f</sub>	160				160							
Max. radial force <sup>c)</sup>	$F_{2RMMax}$	N	650				650							
		lb <sub>f</sub>	150				150							
Efficiency at full load	$\eta$	%	97				95							
Service life (For calculation, see the Chapter "Information")	$L_h$	h	> 20000				> 20000							
Weight incl. standard adapter plate	<i>m</i>	kg	0.75				0.95							
		lb <sub>m</sub>	1.7				2.1							
Operating noise for $i=10$ and $n_1 = 3000$ rpm without load	$L_{PA}$	dB(A)	≤ 62											
Max. permitted housing temperature			°C											
			F											
Ambient temperature			°C											
			F											
Lubrication	Lubricated for life													
Paint	Blue RAL 5002													
Direction of rotation	Motor and gearhead same direction													
Protection class	IP 64													
Moment of inertia (relates to the drive)	B	11	$J_f$	kgcm <sup>2</sup>	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
				10 <sup>-2</sup> in.lb.s <sup>2</sup>	0.05	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04
Clamping hub diameter (mm)	C	14	$J_f$	kgcm <sup>2</sup>	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
				10 <sup>-2</sup> in.lb.s <sup>2</sup>	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

<sup>a)</sup> Other ratios are available on request:  $i = 40$

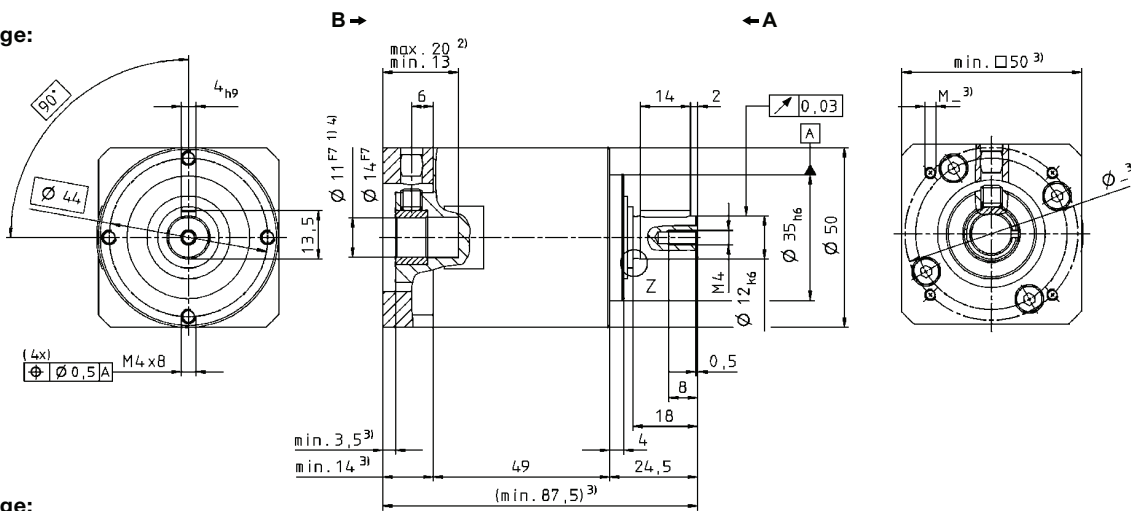
<sup>b)</sup> For higher ambient temperatures, please reduce input speed

<sup>c)</sup> Refers to center of the output shaft, if  $n_2 = 100$  rpm

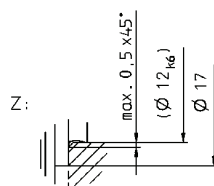
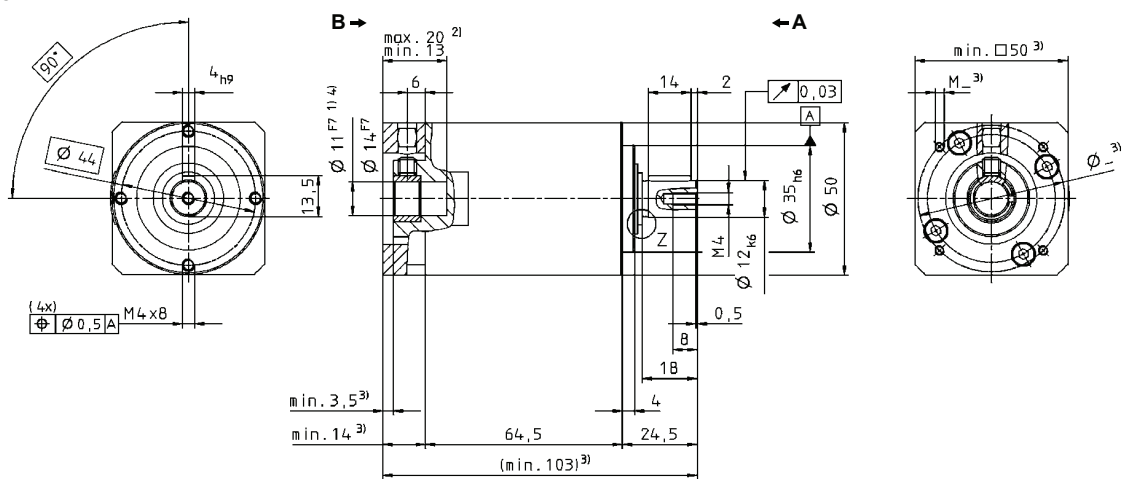
View A

View B

**LP+ 1-stage:**



**LP+ 2-stage:**



Non-tolerated dimensions ±1mm

- 1) Check motor shaft fit.
- 2) Min./Max. permissible motor shaft length. Longer motor shafts are adaptable, please contact us.
- 3) The dimensions depend on the motor.
- 4) Smaller motor shaft diameter is compensated by a bushing. Motor shaft diameters up to 14mm available – please contact WITTENSTEIN alpha

CAD data is available under [www.wittenstein-alpha.com](http://www.wittenstein-alpha.com)

Motor mounting according to operating manual