

# SP+ 100 MF 2-stage

			2-stage										
Ratio <sup>a)</sup>	<i>i</i>		16	20	25	28	35	40	50	70	100		
cymex®-optimized acceleration torque (please contact us regarding the design)	$T_{2Bcym}$	Nm	370	370	400	370	400	370	400	330	260		
		in.lb	3275	3275	3540	3275	3540	3275	3540	2921	2301		
Max. acceleration torque (max. 1000 cycles per hour)	$T_{2B}$	Nm	315	315	315	315	315	315	315	315	235		
		in.lb	2788	2788	2788	2788	2788	2788	2788	2788	2080		
Nominal output torque (with $n_n$ )	$T_{2N}$	Nm	180	180	175	180	175	180	175	170	120		
		in.lb	1593	1593	1549	1593	1549	1593	1549	1505	1062		
Emergency stop torque (permitted 1000 times during the service life of the gearhead)	$T_{2Not}$	Nm	625	625	625	625	625	625	625	625	500		
		in.lb	5531	5531	5531	5531	5531	5531	5531	5531	4425		
Nominal input speed (with $T_{2N}$ and 20°C ambient temperature <sup>b)</sup> )	$n_{1N}$	rpm	3100	3100	3100	3100	3100	3100	3500	4200	4200		
Max. input speed	$n_{1Max}$	rpm	4500	4500	4500	4500	4500	4500	4500	4500	4500		
Mean no load running torque (with $n_l = 3000$ rpm and 20°C gearhead temperature <sup>c)</sup> )	$T_{012}$	Nm	1.5	1.2	1.1	0.9	0.8	0.7	0.6	0.5	0.5		
		in.lb	13.3	10.6	9.7	8.8	7.1	6.2	5.3	4.4	4.4		
Max. torsional backlash	$j_t$	arcmin	Standard $\leq 5$ / Reduced $\leq 3$										
Torsional rigidity	$C_{t21}$	Nm/ arcmin	31										
		in.lb/ arcmin	274										
Max. axial force <sup>d)</sup>	$F_{2AMax}$	N	5650										
		lb <sub>f</sub>	1271										
Max. radial force <sup>d)</sup>	$F_{2RMax}$	N	6600										
		lb <sub>f</sub>	1485										
Max. tilting moment	$M_{2KMax}$	Nm	487										
		in.lb	4310										
Efficiency at full load	$\eta$	%	94										
Service life (For calculation, see the Chapter "Information")	$L_h$	h	> 20000										
Weight incl. standard adapter plate	$m$	kg	7.9										
		lb <sub>m</sub>	17.5										
Operating noise (with $i=100$ and $n_l = 3000$ rpm no load)	$L_{PA}$	dB(A)	$\leq 60$										
Max. permitted housing temperature		°C	+90										
		F	194										
Ambient temperature		°C	0 to +40										
		F	32 to 104										
Lubrication	Lubricated for life												
Paint	Blue RAL 5002												
Direction of rotation	Motor and gearhead same direction												
Protection class	IP 65												
Moment of inertia (relates to the drive)	C	14	$J_1$	kgcm <sup>2</sup>	0.64	0.54	0.52	0.43	0.43	0.38	0.38	0.37	0.37
				10 <sup>3</sup> in.lb.s <sup>2</sup>	0.57	0.47	0.46	0.38	0.38	0.34	0.33	0.33	0.33
Clamping hub diameter [mm]	E	19	$J_1$	kgcm <sup>2</sup>	0.81	0.70	0.69	0.60	0.59	0.55	0.54	0.54	0.54
				10 <sup>3</sup> in.lb.s <sup>2</sup>	0.72	0.62	0.61	0.53	0.52	0.48	0.48	0.48	0.47
	G	24	$J_1$	kgcm <sup>2</sup>	2.18	2.07	2.05	1.97	1.96	1.92	1.91	1.91	1.91
				10 <sup>3</sup> in.lb.s <sup>2</sup>	1.93	1.83	1.82	1.74	1.74	1.70	1.69	1.69	1.69

Reduced mass moments of inertia available on request.

<sup>a)</sup> Other ratios available on request

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

<sup>c)</sup> Valid for clamping hub diameter of 19 mm

<sup>d)</sup> Refers to centre of the output shaft or flange