Planetary Helical Square Frame Gearbox

Specification	Unit	Stage	Ratio	PHS042	PHS060	PHS090	PHS115	PHS140	PHS180	PHS220
Rated output torque T_{2N}	Nm	1	3	19	50	130	208	342	588	1140
			4	20	55	140	290	542	1050	1700
			5	22	60	160	330	650	1200	2000
			6	20	55	150	310	600	1100	1900
			7	19	50	140	300	550	1100	1800
			8	17	45	120	260	500	1000	1600
			10	14	40	100	230	450	900	1500
		2	15	20	55	130	208	342	588	1140
			20	19	50	140	290	542	1050	1700
			25	22	60	160	330	650	1200	2000
			30	20	55	150	310	600	1100	1900
			35	19	50	140	300	550	1100	1800
			40	17	45	120	260	500	1000	1600
			50	22	60	160	330	650	1200	2000
			60	20	55	150	310	600	1100	1900
			70	19	50	140	300	550	1100	1800
			80	17	45	120	260	500	1000	1600
			100	14	40	100	230	450	900	1500
Emergency stop torque	Nm	1,2	3-100	Triple rated output torque						
Rated input PHSed	rpm	1,2	3-100	5000	5000	4000	4000	3000	3000	2000
Maximum input PHSed	rpm	1,2	3-100	10000	10000	8000	8000	6000	6000	4000
Standard backlash P0	arcmin	1	3-10	<1	<1	<1	<1	<1	<1	<1
	arcmin	2	15-100	<2	<2	<2	<2	<2	<2	<2
Standard backlash P1	arcmin	1	3-10	<3	<3	<3	<3	<3	<3	<3
	arcmin	2	15-100	<5	<5	<5	<5	<5	<5	<5
Standard backlash P2	arcmin	1	3-10	≤12	≤5	≤5	≤5	≤5	≤5	≤5
	arcmin	2	15-100	≤16	≤8	≤8	≤8	≤8	≤8	≤8
Torsional rigidity	Nm/arcmin	1,2	3-100	3	7	14	25	50	145	225
Allowable radial force	N	1,2	3-100	780	1530	3250	6700	9400	14500	50000
Allowable axial force	N	1,2	3-100	390	765	1625	3350	4700	7250	25000
Lifespan	hr	1,2	3-100	20,000 hours on nominal output torque						
Efficiency	%	1	3-10	≥97%						
Efficiency	%	2	15-100	≥94%						
Weight	kg	1	3-10	0.6	1.5	3.7	7.8	16	36	53
Weight	kg	2	15-100	0.7	1.6	4.2	11	17	37	54
Working temperature	°C	1,2	3-100	-20°C~90°C						
Lubricating		1,2	3-100	Syenthetic Lubrication						
IP Grade		1,2	3-100	IP65						
Installation direction		1,2	3-100	In any direction						
Noise level (η1=3000rpm,off load)	dB(A)	1,2	3-100	≤56	≤58	≤60	≤63	≤65	≤67	≤70