Performance table/Technical data

DYNA GEAR

DynaGear

Size		D37	D55	D75	D90	D115	D130	D140	D160	D190
Ratio	**i**	**3/4/5/6/8/10**								
Output torque										
Nominal torque	T_{2N} [Nm]	22	35	70	140	260	430	720	1100	1440
Maximum acceleration ④	T_{2B} [Nm]	33	53	105	210	390	645	1080	1650	2160
Emergency stop torque ③	T_{2Not} [Nm]	44	70	140	280	520	860	1440	2200	2880
Maximum input speed	n_{1max} [min^{-1}]	8000	8000	8000	7000	6000	5000	5000	4500	4500
Nominal input speed i = 3/4/5	n_{1N} [min^{-1}]	2300	2100	1800	1500	1150	1000	700	600	550
Nominal input speed i = 6/8/10	n_{1N} [min^{-1}]	3700	3200	2700	2200	1800	1500	1200	1100	1000
Standard backlash ①	j_t [arcmin]	< 6	< 5	< 5	< 4	< 4	< 4	< 4	< 4	< 4
Reduced backlash ①	j_t [arcmin]	< 4	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2
Backlash stiffness at the output ⑤	C_{t21} [Nm/arcmin]	1,3	2.1	4.2	10.5	23.4	39.6	61.8	90.0	126.0
Radial force ②	F_{2Rmax} [N]	2200	3300	4900	7200	10000	12600	15000	18000	22500
Axial force ②	F_{2Amax} [N]	1100	1650	2450	3600	5000	6300	7500	9000	11250
Efficiency rating at full load	η [%]	> 96	> 96	> 96	> 96	> 96	> 96	> 96	> 96	> 96
Noise level (n_1=3000 min^{-1})	L_{pA} [dB(A)]	< 65	< 66	< 66	< 68	< 68	< 70	< 70	< 72	< 72
Weight approx.	m [kg]	1,9	3.5	5.5	9.5	15.5	23.5	32.5	46.5	60

Size		D37	D55	D75	D90	D115	D130	D140	D160	D190
Ratio	**i**	**12/15**								
Output torque										
Nominal torque	T_{2N} [Nm]	15	25	50	95	180	300	510	815	1020
Maximum acceleration ④	T_{2B} [Nm]	22	38	75	143	270	450	765	1223	1530
Emergency stop torque ③	T_{2Not} [Nm]	30	50	100	190	360	600	1020	1630	2040
Maximum input speed	n_{1max} [min^{-1}]	8000	8000	8000	7000	6000	5000	5000	4500	4500
Nominal input speed	n_{1N} [min^{-1}]	4500	3900	3300	2800	2300	2000	1600	1350	1300
Standard backlash ①	j_t [arcmin]	< 6	< 5	< 5	< 4	< 4	< 4	< 4	< 4	< 4
Reduced backlash ①	j_t [arcmin]	< 4	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 2
Backlash stiffness at the output ⑤	C_{t21} [Nm/arcmin]	1,3	2.1	4.2	10.5	23.4	39.6	61.8	90.0	126.0
Radial force ②	F_{2Rmax} [N]	2200	3300	4900	7200	10000	12600	15000	18000	22500
Axial force ②	F_{2Amax} [N]	1100	1650	2450	3600	5000	6300	7500	9000	11250
Efficiency rating at full load	η [%]	> 93	> 93	> 93	> 93	> 93	> 93	> 93	> 93	> 93
Noise level (n_1=3000 min^{-1})	L_{pA} [dB(A)]	< 65	< 66	< 66	< 68	< 68	< 70	< 70	< 72	< 72
Weight approx	m [kg]	1,9	3.5	5.5	9.5	15.5	23.5	32.5	46.5	60

Size			D55HR	D75HR	D90HR	D115HR	D130HR	D140HR	D160HR	D190HR
Ratio	**i ⑥**	**16/18/24/30/32/40/50/60/80/100**								
Output torque										
Nominal torque	T_{2N} [Nm]		35	70	140	260	430	720	1100	1440
Maximum acceleration ④	T_{2B} [Nm]		53	105	210	390	645	1080	1650	2160
Emergency stop torque ③	T_{2Not} [Nm]		70	140	280	520	860	1440	2200	2880
Maximum input speed	n_{1max} [min^{-1}]		6000	6000	6000	6000	5000	5000	4500	4500
Nominal input speed	n_{1N} [min^{-1}]		3500	3000	3000	2500	2500	2500	2500	2500
Standard backlash ①	j_t [arcmin]		< 7	< 7	< 6	< 6	< 6	< 6	< 6	< 6
Reduced backlash ①	j_t [arcmin]		< 5	< 5	< 3	< 3	< 3	< 3	< 3	< 3
Backlash stiffness at the output ⑤	C_{t21} [Nm/arcmin]		2.1	4.1	10.2	22.8	37.8	60.1	86.5	119.2
Radial force ②	F_{2Rmax} [N]		3300	4900	7200	10000	12600	15000	18000	22500
Axial force ②	F_{2Amax} [N]		1650	2450	3600	5000	6300	7500	9000	11250
Efficiency rating at full load	η [%]		> 92	> 92	> 92	> 92	> 92	> 92	> 92	> 92
Noise level (n_1=3000 min^{-1})	L_{pA} [dB(A)]		< 66	< 66	< 68	< 68	< 70	< 70	< 72	< 72
Weight approx	m [kg]		4.0	6.5	12.5	19.5	27	36	49	61.5

Service life (SL) [h]: > 30.000 based operation mode S5

Lubrication: see "Technical service and maintenance" page 10

Mounting positions: Any

Operating temperature: -10 °C to 90 °C

Paint: Primary coated RAL 9005 – black

Ex-protection: Explosion-proof gearboxes available on request

type of protection: IP 64

① At the output, at 2 % load and max. 10 Nm

② Resulting force centre of output shaft at output speed 400 min^{-1}

③ Max 1000 times during the service life of the gearbox

④ At max 1000 cycles per hour, please consider reducing factor in other cases (see page 9

⑤ At nominal torque (DynaGear without coupling)

⑥ Ratios 120:1 and 150:1 on request

Symbols and units, see page 5