Technical specifications VDHe 050

			1-stage					
Ratio	**i**		**4**	**7**	**10**	**16**	**28**	**40**
n_1=500 rpm	T_{2Max}	Nm	-	102	111	118	128	116
		in.lb		903	982	1044	1133	1027
	T_{2Servo}	Nm	-	62	64	70	78	64
		in.lb		549	566	620	690	566
	η	%	-	89	86	82	72	64
n_1=1000 rpm	T_{2Max}	Nm	-	103	108	114	124	112
		in.lb		912	956	1009	1097	991
	T_{2Servo}	Nm	-	66	70	76	84	70
		in.lb		584	620	673	743	620
	η	%	-	91	89	85	77	69
n_1=2000 rpm	T_{2Max}	Nm	-	92	97	105	117	103
		in.lb		814	858	929	1035	912
	T_{2Servo}	Nm	-	68	71	77	86	72
		in.lb		602	628	681	761	637
	η	%	-	93	91	88	75	75
n_1=3000 rpm	T_{2Max}	Nm	-	82	88	97	105	95
		in.lb		726	779	858	929	841
	T_{2Servo}	Nm	-	67	70	76	84	70
		in.lb		593	620	673	743	620
	η	%	-	94	93	90	83	78
n_1=4000 rpm	T_{2Max}	Nm	-	77	81	90	99	88
		in.lb		681	717	797	876	779
	T_{2Servo}	Nm	-	64	69	75	83	69
		in.lb		566	611	664	735	611
	η	%	-	95	93	91	85	80
Emergency stop tourque	T_{2Not}	Nm	-	242	242	250	262	236
		in.lb		2142	2142	2213	2319	2089
Nominal input speed	n_{1N}	rpm	-	4000	4000	4000	4000	4000
Maximum input speed	n_{1Max}	rpm	6000					
Average no-load running torque (at n_1=3000 rpm and 20°C gearhead temperature) [a]	T_{012}	Nm	-	1,2	1,2	1,1	1	0,9
		in.lb		10,6	10,6	9,7	8,9	8,0
Torsional backlash	j_t	arcmin	≤8					
Torsional rigidity	C_{t12}	Nm/arcmin	8					
		in.lb/arcmin	71					
Max. axial force [b]	F_{2AMax}	N	5000					
		lb_f	1125					
Max. radial force [b]	F_{2RMax}	N	3800					
		lb_f	855					
Max. tilting moment	M_{2KMax}	Nm	409					
		in.lb	3620					
Service Life For calculation see "Technical Basics"	L_h	h	> 20000					
Weight (without motor attechment parts)	m	kg	7,4					
		lb_m	16,4					
Noise level (At n_1=3000 rpm without load)	L_{PA}	dB(A)	< 62					
Max. permissible housing temperature		°C	+90					
		°F	194					
Ambient temperature		°C	-10 bis +40					
		°F	14 to 194					
Lubrication			Synthetic transmission oil					
Paint			None					
Direction of rotation			See drawings					
Type of protection			IP 65					
Mass moment of inertia	J_1	kgcm²	-	2,02	1,93	1,84	1,81	1,86
refering to the drive		10^3 in.lb.s2		1,79	1,71	1,63	1,60	1,64

[a] Decrease in operation

[b] In reference to the center of output flange / shaft

Technical specifications VDHe 063

			1-stage					
Ratio	**i**		**4**	**7**	**10**	**16**	**28**	**40**
n_1=500 rpm	T_{2Max}	Nm	-	264	270	279	301	282
		in.lb		2336	2390	2469	2664	2496
	T_{2Servo}	Nm	-	183	195	198	215	201
		in.lb		1620	1726	1752	1903	1779
	η	%	-	91	88	83	74	68
n_1=1000 rpm	T_{2Max}	Nm	-	256	265	276	299	280
		in.lb		2266	2345	2443	2646	2478
	T_{2Servo}	Nm	-	197	208	212	230	215
		in.lb		1743	1841	1876	2036	1903
	η	%	-	93	91	86	78	73
n_1=2000 rpm	T_{2Max}	Nm	-	234	252	263	277	269
		in.lb		2071	2230	2328	2451	2381
	T_{2Servo}	Nm	-	188	203	212	224	217
		in.lb		1664	1797	1876	1982	1920
	η	%	-	94	93	89	83	78
n_1=3000 rpm	T_{2Max}	Nm	-	183	198	209	230	224
		in.lb		1620	1752	1850	2036	1982
	T_{2Servo}	Nm	-	145	163	181	182	177
		in.lb		1283	1443	1602	1611	1566
	η	%	-	95	94	91	85	81
n_1=4000 rpm	T_{2Max}	Nm	-	146	162	175	196	193
		in.lb		1292	1434	1549	1735	1708
	T_{2Servo}	Nm	-	114	134	152	152	149
		in.lb		1009	1186	1345	1345	1319
	η	%	-	96	94	92	86	83
Emergency stop tourque	T_{2Not}	Nm	-	484	491	494	518	447
		in.lb		4283	4345	4372	4584	3956
Nominal input speed	n_{1N}	rpm	-	4000	4000	4000	4000	4000
Maximum input speed	n_{1Max}	rpm	4500					
Average no-load running torque (at n_1=3000 rpm and 20°C gearhead temperature) [a]	T_{012}	Nm	-	1,9	1,8	1,7	1,6	1,4
		in.lb		16,8	15,9	15,0	14,2	12,4
Torsional backlash	j_t	arcmin	≤8					
Torsional rigidity	C_{t12}	Nm/arcmin	28					
		in.lb/arcmin	248					
Max. axial force [b]	F_{2AMax}	N	8250					
		lb_f	1856					
Max. radial force [b]	F_{2RMax}	N	6000					
		lb_f	1350					
Max. tilting moment	M_{2KMax}	Nm	843					
		in.lb	7461					
Service Life For calculation see "Technical Basics"	L_h	h	> 20000					
Weight (without motor attechment parts)	m	kg	12					
		lb_m	26,5					
Noise level (At n_1=3000 rpm without load)	L_{PA}	dB(A)	< 64					
Max. permissible housing temperature		°C	+90					
		°F	194					
Ambient temperature		°C	-10 bis +40					
		°F	14 to 194					
Lubrication			Synthetic transmission oil					
Paint			None					
Direction of rotation			See drawings					
Type of protection			IP 65					
Mass moment of inertia	J_1	$kgcm^2$	-	5,77	5,53	5,44	5,40	5,35
refering to the drive		10^3 in.lb.s2		5,11	4,89	4,81	4,78	4,74

[a] Decrease in operation

[b] In reference to the center of output flange / shaft