

Premium gear boxes 8GF70

Technical data

Version: **1.2 (2015-04-15)**

Model no.: **TEC DAT GET 8GF70**

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Dokumentversions

Version	Datum	Anmerkungen	Autor
1.0	2015-05-26	first edition	BU DT Doku 1
1.1	2015-03-19	editorial amendments	BU DT Doku 1
1.2	2015-04-15	editorial amendments	BU DT Doku 1

1 8GF70-064

Product ID	8GF70-064hh004klmm	8GF70-064hh005klmm	8GF70-064hh007klmm	8GF70-064hh010klmm
Gearbox				
Number of gear stages	1			
Gear ratio i	4	5	7	10
Nominal output torque T _{2N} [Nm]	39	40	37	28
Max. output torque T _{2max} [Nm]	62	64	59	45
E-stop torque T _{2stop} [Nm]	120	130	80	90
Idle torque [Nm] at 20°C and 3000 rpm	0.65	0.5	0.35	0.25
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	3200	3800	4500	
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	3000	3600	4500	
Max. drive speed n _{1max} [rpm]	14000			
Max. backlash J _t [arcmin]	3			
Reduced backlash J _t [arcmin] less than	2			
Torsional rigidity C _{t21} [Nm/arcmin]	16			
Tilting rigidity C _{2K} [Nm/arcmin]	117			
Max. breakdown torque M _{2Kmax} [Nm]	148			
Max. radial force Fr _{max} [N] for 30,000 h	2100			
Max. radial force Fr _{max} [N] for 20,000 h	2400			
Max. axial force Fa _{max} [N] for 30,000 h	3800			
Max. axial force Fa _{max} [N] for 20,000 h	4300			
Operating noise L _{PA} [dB(A)]	57			
Efficiency at full load η [%]	98			
Min. operating temperature B _{Tempmin} [°C]	-25			
Max. operating temperature B _{Tempmax} [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	1.5			
Moment of inertia J _t [kgcm²]	0.192	0.163	0.138	0.125

Product ID	8GF70-064hh016klmm	8GF70-064hh020klmm	8GF70-064hh025klmm	8GF70-064hh035klmm
Gearbox				
Number of gear stages	2			
Gear ratio i	16	20	25	35
Nominal output torque T _{2N} [Nm]	39		40	
Max. output torque T _{2max} [Nm]	62		64	
E-stop torque T _{2stop} [Nm]	150			
Idle torque [Nm] at 20°C and 3000 rpm	0.45	0.3	0.2	
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	4500			
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	4500			
Max. drive speed n _{1max} [rpm]	14000			
Max. backlash J _t [arcmin]	5			
Reduced backlash J _t [arcmin] less than	2			
Torsional rigidity C _{t21} [Nm/arcmin]	14			
Tilting rigidity C _{2K} [Nm/arcmin]	117			
Max. breakdown torque M _{2Kmax} [Nm]	148			
Max. radial force Fr _{max} [N] for 30,000 h	2100			
Max. radial force Fr _{max} [N] for 20,000 h	2400			
Max. axial force Fa _{max} [N] for 30,000 h	3800			
Max. axial force Fa _{max} [N] for 20,000 h	4300			
Operating noise L _{PA} [dB(A)]	57			
Efficiency at full load η [%]	95			
Min. operating temperature B _{Tempmin} [°C]	-25			
Max. operating temperature B _{Tempmax} [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	2.2			
Moment of inertia J _t [kgcm²]	0.175	0.152	0.151	0.131

Product ID	8GF70-064hh040klmm	8GF70-064hh050klmm	8GF70-064hh070klmm	8GF70-064hh100klmm
Gearbox				
Number of gear stages	2			
Gear ratio i	40	50	70	100
Nominal output torque T_{2N} [Nm]	39	40	37	28
Max. output torque T_{2max} [Nm]	62	64	59	45
E-stop torque T_{2stop} [Nm]	150		80	90
Idle torque [Nm] at 20°C and 3000 rpm	0.15			
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	4500			
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	4500			
Max. drive speed n_{1max} [rpm]	14000			
Max. backlash J_t [arcmin]	5			
Reduced backlash J_t [arcmin] less than	2			
Torsional rigidity C_{t21} [Nm/arcmin]	14			
Tilting rigidity C_{2K} [Nm/arcmin]	117			
Max. breakdown torque M_{2Kmax} [Nm]	148			
Max. radial force F_{rmax} [N] for 30,000 h	2100			
Max. radial force F_{rmax} [N] for 20,000 h	2400			
Max. axial force F_{amax} [N] for 30,000 h	3800			
Max. axial force F_{amax} [N] for 20,000 h	4300			
Operating noise L_{PA} [dB(A)]	57			
Efficiency at full load η [%]	95			
Min. operating temperature $B_{Tempmin}$ [°C]	-25			
Max. operating temperature $B_{Tempmax}$ [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	2.2			
Moment of inertia J_1 [kgcm ²]	0.123	0.122		

2 8GF70-090

Product ID	8GF70-090hh004klmm		8GF70-090hh005klmm		8GF70-090hh007klmm		8GF70-090hh010klmm	
Gearbox								
Number of gear stages	1							
Gear ratio i	4		5		7		10	
Nominal output torque T _{2N} [Nm]	80				78		59	
Max. output torque T _{2max} [Nm]	128				125		94	
E-stop torque T _{2stop} [Nm]	280				175		200	
Idle torque [Nm] at 20°C and 3000 rpm	1.65		1.15		0.75		0.5	
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	2400		2950		3800		4000	
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	2250		2750		3550		4000	
Max. drive speed n _{1max} [rpm]	10000							
Max. backlash J _i [arcmin]	3							
Reduced backlash J _i [arcmin] less than	1							
Torsional rigidity C _{i21} [Nm/arcmin]	35							
Tilting rigidity C _{2K} [Nm/arcmin]	316							
Max. breakdown torque M _{2Kmax} [Nm]	363							
Max. radial force Fr _{max} [N] for 30,000 h	3900							
Max. radial force Fr _{max} [N] for 20,000 h	4400							
Max. axial force Fa _{max} [N] for 30,000 h	7200							
Max. axial force Fa _{max} [N] for 20,000 h	8200							
Operating noise L _{PA} [dB(A)]	58							
Efficiency at full load η [%]	98							
Min. operating temperature B _{Tempmin} [°C]	-25							
Max. operating temperature B _{Tempmax} [°C]	90							
Mounting orientation	Any							
Protection	IP65							
Weight m [kg]	3							
Moment of inertia J ₁ [kgcm²]	0.63		0.484		0.376		0.319	

Product ID	8GF70-090hh016klmm		8GF70-090hh020klmm		8GF70-090hh025klmm		8GF70-090hh035klmm	
Gearbox								
Number of gear stages	2							
Gear ratio i	16		20		25		35	
Nominal output torque T _{2N} [Nm]	80							
Max. output torque T _{2max} [Nm]	128							
E-stop torque T _{2stop} [Nm]	300							
Idle torque [Nm] at 20°C and 3000 rpm	0.6		0.45		0.3			
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	4500							
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	4500							
Max. drive speed n _{1max} [rpm]	10000							
Max. backlash J _i [arcmin]	5							
Reduced backlash J _i [arcmin] less than	1							
Torsional rigidity C _{i21} [Nm/arcmin]	30							
Tilting rigidity C _{2K} [Nm/arcmin]	316							
Max. breakdown torque M _{2Kmax} [Nm]	363							
Max. radial force Fr _{max} [N] for 30,000 h	3900							
Max. radial force Fr _{max} [N] for 20,000 h	4400							
Max. axial force Fa _{max} [N] for 30,000 h	7200							
Max. axial force Fa _{max} [N] for 20,000 h	8200							
Operating noise L _{PA} [dB(A)]	58							
Efficiency at full load η [%]	95							
Min. operating temperature B _{Tempmin} [°C]	-25							
Max. operating temperature B _{Tempmax} [°C]	90							
Mounting orientation	Any							
Protection	IP65							
Weight m [kg]	4							
Moment of inertia J ₁ [kgcm²]	0.195		0.165		0.159		0.136	

Product ID	8GF70-090hh040klmm	8GF70-090hh050klmm	8GF70-090hh070klmm	8GF70-090hh100klmm
Gearbox				
Number of gear stages	2			
Gear ratio i	40	50	70	100
Nominal output torque T_{2N} [Nm]	80		78	59
Max. output torque T_{2max} [Nm]	128		125	94
E-stop torque T_{2stop} [Nm]	300		175	200
Idle torque [Nm] at 20°C and 3000 rpm	0.25			
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	4500			
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	4500			
Max. drive speed n_{1max} [rpm]	10000			
Max. backlash J_t [arcmin]	5			
Reduced backlash J_t [arcmin] less than	1			
Torsional rigidity C_{t21} [Nm/arcmin]	30			
Tilting rigidity C_{2K} [Nm/arcmin]	316			
Max. breakdown torque M_{2Kmax} [Nm]	363			
Max. radial force F_{rmax} [N] for 30,000 h	3900			
Max. radial force F_{rmax} [N] for 20,000 h	4400			
Max. axial force F_{amax} [N] for 30,000 h	7200			
Max. axial force F_{amax} [N] for 20,000 h	8200			
Operating noise L_{PA} [dB(A)]	58			
Efficiency at full load η [%]	95			
Min. operating temperature $B_{Tempmin}$ [°C]	-25			
Max. operating temperature $B_{Tempmax}$ [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	4			
Moment of inertia J_1 [kgcm ²]	0.126	0.124	0.123	

3 8GF70-110

Product ID	8GF70-110hh004klmm	8GF70-110hh005klmm	8GF70-110hh007klmm	8GF70-110hh010klmm
Gearbox				
Number of gear stages	1			
Gear ratio i	4	5	7	10
Nominal output torque T _{2N} [Nm]	180		175	140
Max. output torque T _{2max} [Nm]	288		280	224
E-stop torque T _{2stop} [Nm]	650		340	480
Idle torque [Nm] at 20°C and 3000 rpm	3.8	2.6	1.6	1
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	1800	2250	2950	3500
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	1700	2050	2750	3500
Max. drive speed n _{1max} [rpm]	8500			
Max. backlash J _i [arcmin]	3			
Reduced backlash J _i [arcmin] less than	1			
Torsional rigidity C _{i21} [Nm/arcmin]	90			
Tilting rigidity C _{2K} [Nm/arcmin]	590			
Max. breakdown torque M _{2Kmax} [Nm]	534			
Max. radial force Fr _{max} [N] for 30,000 h	4800			
Max. radial force Fr _{max} [N] for 20,000 h	5500			
Max. axial force Fa _{max} [N] for 30,000 h	8400			
Max. axial force Fa _{max} [N] for 20,000 h	9500			
Operating noise L _{PA} [dB(A)]	63			
Efficiency at full load η [%]	98			
Min. operating temperature B _{Tempmin} [°C]	-25			
Max. operating temperature B _{Tempmax} [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	6.5			
Moment of inertia J ₁ [kgcm²]	1.811	1.347	1.044	0.862

Product ID	8GF70-110hh016klmm	8GF70-110hh020klmm	8GF70-110hh025klmm	8GF70-110hh035klmm
Gearbox				
Number of gear stages	2			
Gear ratio i	16	20	25	35
Nominal output torque T _{2N} [Nm]	180		175	
Max. output torque T _{2max} [Nm]	288		280	
E-stop torque T _{2stop} [Nm]	650			
Idle torque [Nm] at 20°C and 3000 rpm	1.45	1.05	0.95	0.65
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	3800	4000		
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	3550	4000		
Max. drive speed n _{1max} [rpm]	8500			
Max. backlash J _i [arcmin]	5			
Reduced backlash J _i [arcmin] less than	1			
Torsional rigidity C _{i21} [Nm/arcmin]	80			
Tilting rigidity C _{2K} [Nm/arcmin]	590			
Max. breakdown torque M _{2Kmax} [Nm]	534			
Max. radial force Fr _{max} [N] for 30,000 h	4800			
Max. radial force Fr _{max} [N] for 20,000 h	5500			
Max. axial force Fa _{max} [N] for 30,000 h	8400			
Max. axial force Fa _{max} [N] for 20,000 h	9500			
Operating noise L _{PA} [dB(A)]	63			
Efficiency at full load η [%]	95			
Min. operating temperature B _{Tempmin} [°C]	-25			
Max. operating temperature B _{Tempmax} [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	8			
Moment of inertia J ₁ [kgcm²]	0.581	0.453	0.434	0.35

Product ID	8GF70-110hh040klmm	8GF70-110hh050klmm	8GF70-110hh070klmm	8GF70-110hh100klmm
Gearbox				
Number of gear stages	2			
Gear ratio i	40	50	70	100
Nominal output torque T_{2N} [Nm]	180	175		140
Max. output torque T_{2max} [Nm]	288	280		224
E-stop torque T_{2stop} [Nm]	650	340		480
Idle torque [Nm] at 20°C and 3000 rpm	0.5	0.45		
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	4000			
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	4000			
Max. drive speed n_{1max} [rpm]	8500			
Max. backlash J_t [arcmin]	5			
Reduced backlash J_t [arcmin] less than	1			
Torsional rigidity C_{t21} [Nm/arcmin]	80			
Tilting rigidity C_{2K} [Nm/arcmin]	590			
Max. breakdown torque M_{2Kmax} [Nm]	534			
Max. radial force F_{rmax} [N] for 30,000 h	4800			
Max. radial force F_{rmax} [N] for 20,000 h	5500			
Max. axial force F_{amax} [N] for 30,000 h	8400			
Max. axial force F_{amax} [N] for 20,000 h	9500			
Operating noise L_{PA} [dB(A)]	63			
Efficiency at full load η [%]	95			
Min. operating temperature $B_{Tempmin}$ [°C]	-25			
Max. operating temperature $B_{Tempmax}$ [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	8			
Moment of inertia J_1 [kgcm ²]	0.311	0.307	0.304	0.302

4 8GF70-140

Product ID	8GF70-140HH004KLMM	8GF70-140HH005KLMM	8GF70-140HH007KLMM	8GF70-140HH010KLMM
Gearbox				
Number of gear stages	1			
Gear ratio i	4	5	7	10
Nominal output torque T _{2N} [Nm]	470	405	355	305
Max. output torque T _{2max} [Nm]	752	648	568	488
E-stop torque T _{2stop} [Nm]	1650		1300	600
Idle torque [Nm] at 20°C and 3000 rpm	9.1	6.3	3.95	2.6
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	1100	1350	1800	2300
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	1000	1250	1650	2150
Max. drive speed n _{1max} [rpm]	6500			
Max. backlash J _t [arcmin]	3			
Reduced backlash J _t [arcmin] less than	1			
Torsional rigidity C _{t21} [Nm/arcmin]	200			
Tilting rigidity C _{2K} [Nm/arcmin]	621			
Max. breakdown torque M _{2Kmax} [Nm]	1018			
Max. radial force Fr _{max} [N] for 30,000 h	11000			
Max. radial force Fr _{max} [N] for 20,000 h	12000			
Max. axial force Fa _{max} [N] for 30,000 h	7500			
Max. axial force Fa _{max} [N] for 20,000 h	8500			
Operating noise L _{PA} [dB(A)]	66			
Efficiency at full load η [%]	98			
Min. operating temperature B _{Tempmin} [°C]	-25			
Max. operating temperature B _{Tempmax} [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	12			
Moment of inertia J ₁ [kgcm²]	10.647	9.063	7.733	7.048

Product ID	8GF70-140HH016KLMM	8GF70-140HH020KLMM	8GF70-140HH025KLMM	8GF70-140HH035KLMM
Gearbox				
Number of gear stages	2			
Gear ratio i	16	20	25	35
Nominal output torque T _{2N} [Nm]	450		405	
Max. output torque T _{2max} [Nm]	720		648	
E-stop torque T _{2stop} [Nm]	1650			
Idle torque [Nm] at 20°C and 3000 rpm	3.35	2.25	2.05	1.25
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	2450	3050	3350	3500
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	2250	2750	3100	3500
Max. drive speed n _{1max} [rpm]	8500			
Max. backlash J _t [arcmin]	5			
Reduced backlash J _t [arcmin] less than	1			
Torsional rigidity C _{t21} [Nm/arcmin]	180			
Tilting rigidity C _{2K} [Nm/arcmin]	621			
Max. breakdown torque M _{2Kmax} [Nm]	1018			
Max. radial force Fr _{max} [N] for 30,000 h	11000			
Max. radial force Fr _{max} [N] for 20,000 h	12000			
Max. axial force Fa _{max} [N] for 30,000 h	7500			
Max. axial force Fa _{max} [N] for 20,000 h	8500			
Operating noise L _{PA} [dB(A)]	66			
Efficiency at full load η [%]	95			
Min. operating temperature B _{Tempmin} [°C]	-25			
Max. operating temperature B _{Tempmax} [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	13.5			
Moment of inertia J ₁ [kgcm²]	1.913	1.437	1.348	1.058

Product ID	8GF70-140HH040KLMM	8GF70-140HH050KLMM	8GF70-140HH070KLMM	8GF70-140HH100KLMM
Gearbox				
Number of gear stages	2			
Gear ratio i	40	50	70	100
Nominal output torque T_{2N} [Nm]	470	405	355	305
Max. output torque T_{2max} [Nm]	752	648	568	488
E-stop torque T_{2stop} [Nm]	1650		1300	600
Idle torque [Nm] at 20°C and 3000 rpm	0.9	0.85	0.75	
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	3500			
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	3500			
Max. drive speed n_{1max} [rpm]	8500			
Max. backlash J_t [arcmin]	5			
Reduced backlash J_t [arcmin] less than	1			
Torsional rigidity C_{t21} [Nm/arcmin]	180			
Tilting rigidity C_{2K} [Nm/arcmin]	621			
Max. breakdown torque M_{2Kmax} [Nm]	1018			
Max. radial force F_{rmax} [N] for 30,000 h	11000			
Max. radial force F_{rmax} [N] for 20,000 h	12000			
Max. axial force F_{amax} [N] for 30,000 h	7500			
Max. axial force F_{amax} [N] for 20,000 h	8500			
Operating noise L_{PA} [dB(A)]	66			
Efficiency at full load η [%]	95			
Min. operating temperature $B_{Tempmin}$ [°C]	-25			
Max. operating temperature $B_{Tempmax}$ [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	13.5			
Moment of inertia J_1 [kgcm²]	0.911	0.892	0.891	0.884

5 8GF70-200

Product ID	8GF70-200HH004KLMM	8GF70-200HH005KLMM	8GF70-200HH007KLMM	8GF70-200HH010KLMM
Gearbox				
Number of gear stages	1			
Gear ratio i	4	5	7	10
Nominal output torque T_{2N} [Nm]	950		900	750
Max. output torque T_{2max} [Nm]	1520		1440	1200
E-stop torque T_{2stop} [Nm]	3200			1700
Idle torque [Nm] at 20°C and 3000 rpm	26.85	18.05	10.7	6.65
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	750	950	1250	1700
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	700	850	1150	1550
Max. drive speed n_{1max} [rpm]	6000			
Max. backlash J_t [arcmin]	3			
Reduced backlash J_t [arcmin] less than	1			
Torsional rigidity C_{t21} [Nm/arcmin]	650			
Tilting rigidity C_{2K} [Nm/arcmin]	1150			
Max. breakdown torque M_{2Kmax} [Nm]	2475			
Max. radial force F_{rmax} [N] for 30,000 h	21000			
Max. radial force F_{rmax} [N] for 20,000 h	23000			
Max. axial force F_{amax} [N] for 30,000 h	14000			
Max. axial force F_{amax} [N] for 20,000 h	16000			
Operating noise L_{PA} [dB(A)]	68			
Efficiency at full load η [%]	98			
Min. operating temperature $B_{Tempmin}$ [°C]	-25			
Max. operating temperature $B_{Tempmax}$ [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	28.3			
Moment of inertia J_1 [kgcm ²]	45.173	36.268	28.706	24.718

Product ID	8GF70-200HH016KLMM	8GF70-200HH020KLMM	8GF70-200HH025KLMM	8GF70-200HH035KLMM
Gearbox				
Number of gear stages	2			
Gear ratio i	16	20	25	35
Nominal output torque T_{2N} [Nm]	950			
Max. output torque T_{2max} [Nm]	1520			
E-stop torque T_{2stop} [Nm]	3200			
Idle torque [Nm] at 20°C and 3000 rpm	7.95	5.5	4.85	3.05
Max. average drive speed $n_{1N50\%}$ [rpm] at 50% T_{2N} and S1	1550	1900	2050	2650
Max. average drive speed $n_{1N100\%}$ [rpm] at 100% T_{2N} and S1	1400	1700	1900	2450
Max. drive speed n_{1max} [rpm]	6500			
Max. backlash J_t [arcmin]	5			
Reduced backlash J_t [arcmin] less than	1			
Torsional rigidity C_{t21} [Nm/arcmin]	550			
Tilting rigidity C_{2K} [Nm/arcmin]	1150			
Max. breakdown torque M_{2Kmax} [Nm]	2475			
Max. radial force F_{rmax} [N] for 30,000 h	21000			
Max. radial force F_{rmax} [N] for 20,000 h	23000			
Max. axial force F_{amax} [N] for 30,000 h	14000			
Max. axial force F_{amax} [N] for 20,000 h	16000			
Operating noise L_{PA} [dB(A)]	68			
Efficiency at full load η [%]	95			
Min. operating temperature $B_{Tempmin}$ [°C]	-25			
Max. operating temperature $B_{Tempmax}$ [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	32			
Moment of inertia J_1 [kgcm ²]	10.876	9.208	8.852	7.652

Product ID	8GF70-200HH040KLMM	8GF70-200HH050KLMM	8GF70-200HH100KLMM	8GF70-200HH070KLMM
Gearbox				
Number of gear stages	2			
Gear ratio i	40	50	100	70
Nominal output torque T _{2N} [Nm]	950		750	900
Max. output torque T _{2max} [Nm]	1520		1200	1440
E-stop torque T _{2stop} [Nm]	3200		1700	3200
Idle torque [Nm] at 20°C and 3000 rpm	2.3	2.1	1.8	1.9
Max. average drive speed n _{1N50%} [rpm] at 50% T _{2N} and S1	3000			
Max. average drive speed n _{1N100%} [rpm] at 100% T _{2N} and S1	2800	3000		
Max. drive speed n _{1max} [rpm]	6500			
Max. backlash J _t [arcmin]	5			
Reduced backlash J _t [arcmin] less than	1			
Torsional rigidity C _{t21} [Nm/arcmin]	550			
Tilting rigidity C _{2K} [Nm/arcmin]	1150			
Max. breakdown torque M _{2Kmax} [Nm]	2475			
Max. radial force F _{rmax} [N] for 30,000 h	21000			
Max. radial force F _{rmax} [N] for 20,000 h	23000			
Max. axial force F _{a_max} [N] for 30,000 h	14000			
Max. axial force F _{a_max} [N] for 20,000 h	16000			
Operating noise L _{PA} [dB(A)]	68			
Efficiency at full load η [%]	95			
Min. operating temperature B _{Tempmin} [°C]	-25			
Max. operating temperature B _{Tempmax} [°C]	90			
Mounting orientation	Any			
Protection	IP65			
Weight m [kg]	32			
Moment of inertia J ₁ [kgcm²]	7.084	6.995	6.88	6.922