



QuarryMaster®

Helical-Bevel Geared Motors



It runs and runs and runs and runs...

Are you unearthing large quantities on an ongoing basis?
Do you sometimes move huge masses? Standstill is not part
of your vocabulary? If so, we're on your wavelength.





QuarryMaster® conveyor drives – powerful, robust, flexible

The Stiebel QuarryMaster® is a high-quality and extremely robust geared motor which we developed especially for the requirements of conveyor technology.

The compact casing combines the power Stiebel hightech gear with a high-quality IEC motor to form an impressive, long-lasting power unit. The B5 or B14 motors are directly flanged onto the gear casing. The output of the conveyor drive is between 1.1 and 90 kW.

Combined with the tried-and-tested gear coupling mounted in an oil bath between the gear and the motor, the conveyor drives are designed for the lower and medium load range. Thanks to their highly compact design they can be used in a wide variety of installation situations.



Designed to stand up to the very toughest conditions, QuarryMaster® provides impressive performance and optimum stability even under high loads or frequent load changes. This is especially due to highquality detail solutions such as the integrated torque absorption and the oil-lubricated backstop.

Thanks to the high variety of hollow shaft types the QuarryMaster® can be flexibly adapted to a wide range of different requirement profiles.



The very highest level of technology – based on tradition



Every Stiebel drive has within it the rich experience and intensive practice of six decades. This is expertise you can rely on.

We are well aware that our drives have to function impeccably at all times – under enormous strain, in the roughest surroundings and without a break. Even at the other end of the world. This is why we build them to the very highest technological standards – both robust and reliable. We ensure these high quality standards by continuous control using state-of-the-art measuring and testing equipment.





Application examples



Ideal for rigorous use in quarries, gravel pits, cement factories – and anywhere else where bulk materials are extracted and transported.

Stiebel online

Our constantly updated website provides you with comprehensive and clearly presented information on all news and products from Stiebel. And of course it gives you all information and specifications relating to our QuarryMaster® drives, as well as a direct line to us.



Calculation and construction software

With our QuarryMaster® construction software we support you in the selection of the right geared motor to meet your individual requirements and needs. You will find the relevant link on our homepage: www.stiebel.de.



Performance features at a glance

Feature	QuarryMaster®
Power range, P	1,1 up to 90 kW
Speed, n_2	22 up to 175 min ⁻¹
Torque, T	300 up to 16.000 Nm
Service factor, B_F	≥ 1,3 standard
Housing design	Divided, symmetrical, without rain catcher
Housing material	Grey cast iron
Installation situations	8 different situations
Backstop	Lubricated within an oil bath, subsequently, installable and reversible
Hollow shaft diameter, D	30 up to 120 mm
Hollow shaft – keyway	Standard
Hollow shaft – shrinking disc	Outer shrinking disc additional charge
Rotary shaft seals	Input 1fold Output 1fold
Torque arm	Integrated in the casing, incl. flexible bush as standard
Torque console / clamping linkage	Accessories according to sep. catalogue (additional charge)
Motor	IEC Standard without additional charge
Electric motors – frequency/ supply voltage	50/60 Hz < 3 kW per 230/400 V ≥ 4 kW per 400/690 V
Electric motors – system of protection / ISO	IP 55 / F
Electric motors – thermistors	3 thermistors = for an additional charge
Geared motors	Upon request for an additional charge
Separately driven fan	Upon request for an additional charge

QuarryMaster® geared motors 1.1 - 1.5 kW

Conveyor drives

K011 1,1 kW		Motor flange B5-D200														approx. 74 kg	
Speed																	
175 158 144 128 115 102 88 80 73 64 57 51 46 40 37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
30/35/40	40	634	180	172	240	772	190	90	302	150	90	215	145	154	16,5	60	
	50											218					

K012 1,1 kW		Motor flange B5-D200													approx. 76 kg	
Speed																
30 26 24 22													min ⁻¹			
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
30/35/40	40	634	180	172	240	772	190	90	302	150	90	215	145	154	16,5	60
	50											218				

K015 1,5 kW		Motor flange B5-D200														approx. 78 kg		
Speed																		
175	158	144	128	115	102	88	80	73	64	57	51	46	40	37	33	min ⁻¹		
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P		
30/35/40	40	634	180	172	240	772	190	90	302	150	90	215	145	154	16,5	60		
	50											218						

K016 1,5 kW		Motor flange B14-D200													approx. 81 kg	
Speed																
30															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
30/35/40	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60
	50											218				

K016 1,5 kW		Motor flange B14-D200												approx. 81 kg			
Speed																	
26 24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					



QuarryMaster® geared motors 2.2 kW

Conveyor drives

K022 2,2 kW

Motor flange B14-D200

approx. 83 kg

Speed

175 158 144 128 115 102 88

min⁻¹

D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
30/35/40	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60
	50											218				

K022 2,2 kW

Motor flange B14-D200

approx. 83 kg

Speed

80 73 64 57 51 46 40

min⁻¹

D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60
	50											218				

K022 2,2 kW

Motor flange B14-D200

approx. 83 kg

Speed

37 33

min⁻¹

D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60
	50											218				

K023 2,2 kW

Motor flange B14-D200

approx. 89 kg

Speed

30 26

min⁻¹

D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K023 2,2 kW

Motor flange B14-D200

approx. 89 kg

Speed

24 22

min⁻¹

D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	50	686	180	172	240	824	224	90	302	175	90	218	145	154	16,5	60

QuarryMaster® geared motors 3,0 kW

Conveyor drives

K030 3,0 kW		Motor flange B14-D200													approx. 86 kg	
Speed																
175 158 144 128 115 102 88															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
30/35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60
	50											218				

K030 3,0 kW		Motor flange B14-D200												approx. 86 kg			
Speed																	
80 73 64 57														min ⁻¹			
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K030 3,0 kW		Motor flange B14-D200													approx. 86 kg	
Speed																
51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60
	50											218				

K031 3,0 kW		Motor flange B14-D200													approx. 106 kg		
Speed																	
30 26 24																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	50	726	180	172	240	864	276	90	302	205	90	218	145	154	16,5	60	

K032 3,0 kW		Motor flange B14-D200												approx. 150 kg			
Speed																	
22												min ⁻¹					
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	797	225	219	310	973	276	100	366	205		267	180	192	16,5	60	
	70											273					



QuarryMaster® geared motors 4,0 kW

Conveyor drives

K040 4,0 kW		Motor flange B14-D200													approx. 92 kg	
Speed																
175 158 144 128 115															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
30/35/40/45	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200												approx. 92 kg		
Speed																
102 88												min ⁻¹				
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200													approx. 92 kg	
Speed																
80 73															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45/50	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200												approx. 92 kg		
Speed																
64 57 51 46															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200											approx. 92 kg				
Speed																	
40 37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	50	686	180	172	240	824	224	90	302	175	90	218	145	154	16.5	60	

QuarryMaster® geared motors 4,0 – 5,5 kW

Conveyor drives

K041 4,0 kW		Motor flange B14-D200													approx. 112 kg	
Speed																
30																
min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
45/50	50	760	180	172	240	898	276	90	302	205	90	218	145	154	16,5	60

K042 4,0 kW		Motor flange B14-D200													approx. 157 kg	
Speed																
26 24 22													min ⁻¹			
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	831	225	219	310	1007	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K055 5,5 kW		Motor flange B14-D200													approx. 119 kg	
Speed																
175 158 144 128 115 102															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45/50	40	726	180	172	240	864	276	90	302	205	90	215	145	154	16,5	60
	50											218				

K055 5,5 kW		Motor flange B14-D200													approx. 119 kg	
Speed																
88 80 73 64															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	726	180	172	240	864	276	90	302	205	90	215	145	154	16,5	60
	50											218				

K055 5,5 kW		Motor flange B14-D200													approx. 119 kg	
Speed																
57 51 46															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	50	726	180	172	240	864	276	90	302	205	90	218	145	154	16,5	60



QuarryMaster® geared motors 5,5 – 7,5 kW

Conveyor drives

K056 5,5 kW		Motor flange B14-D200													approx. 154 kg	
Speed																
40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	797	225	219	310	973	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K057 5,5 kW			Motor flange B14-D200													approx. 162 kg			
Speed																			
30 26 24																		min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P			
55/60/70	60	848	225	219	310	1024	276	100	366	205	112,5	267	180	192	16,5	60			
	70											273							

K057 5,5 kW		Motor flange B14-D200													approx. 162 kg	
Speed																
22															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	70	848	225	219	310	1024	276	100	366	205	112,5	273	180	192	16,5	60

K075 7,5 kW		Motor flange B14-D200													approx. 118 kg	
Speed																
175 158 144															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45/50	40	760	180	172	240	898	276	90	302	205	90	215	145	154	16,5	60
	50											218				

K075 7,5 kW		Motor flange B14-D200											approx. 118 kg			
Speed																
128 115 102 88															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	760	180	172	240	898	276	90	302	205	90	215	145	154	16,5	60
	50											218				

QuarryMaster® geared motors 7,5 – 9,2 kW

Conveyor drives

K075 7,5 kW		Motor flange B14-D200													approx. 118 kg		
Speed																	
80 73 64																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	50	760	180	172	240	898	276	90	302	205	90	218	145	154	16,5	60	

K076 7,5 kW		Motor flange B14-D200													approx. 163 kg	
Speed																
57 51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	831	225	219	310	1007	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K077 7,5 kW		Motor flange B5-D350													approx. 191 kg		
Speed																	
30																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	956	225	219	319	1132	335	100	366	205	112,5	267	180	192	16,5	60	
	70											273					

K078 7,5 kW			Motor flange B5-D350												approx. 260 kg		
Speed																	
26 24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
60/70/75/80	70/75	1026	250	244	360		335	132	450	250	125	298	200	217	25	100	
	80											304					

K092 9,2 kW		Motor flange B14-D200													approx. 121 kg		
Speed																	
175 158 144 128 115 102																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	40	777	180	172	240	915	276	90	302	205	90	215	145	154	16,5	60	
	50											218					



QuarryMaster® geared motors 9,2 – 11,0 kW

Conveyor drives

K092 9,2 kW		Motor flange B14-D200													approx. 121 kg	
Speed																
88 80															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	50	777	180	172	240	915	276	90	302	205	90	218	145	154	16,5	60

K093 9,2 kW		Motor flange B14-D200													approx. 166 kg	
Speed																
73 64 57 51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	848	225	219	310	1024	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K110 11,0 kW		Motor flange B14-D200													approx. 128 kg	
Speed																
175 158 144															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	777	180	172	240	915	276	90	302	205	90	215	145	154	16,5	60
	50											218				

K111 11,0 kW		Motor flange B14-D200													approx. 173 kg	
Speed																
128 115 102 88 80 73 64 57 51 46															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	848	225	219	310	1024	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K112 11,0 kW		Motor flange B5-D350													approx. 263 kg	
Speed																
40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1026	250	244	360	1226	335	132	450	250	125	298	200	217	25	100
	80											304				

QuarryMaster® geared motors 11,0 – 15,0 kW

Conveyor drives

K113 11,0 kW			Motor flange B5-D350												approx. 281 kg		
Speed																	
30																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
60/70/75/80	70/75	1070	250	244	360		335	132	450	250	125	298		217	25	100	
	80											304					

K113 11,0 kW		Motor flange B5-D350												approx. 281 kg		
Speed																
26												min ⁻¹				
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	75	1070	250	244	360	1270	335	132	450	250	125	298	200	217	25	100
	80											304				

K114 11,0 kW			Motor flange B5-D350												approx. 395 kg		
Speed																	
24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/ 90/100	80	1165	280	272	450		335	142	540	250	140	334		242	25	100	
	85											341					
	90/95/ 100											345					

K150 15,0 kW		Motor flange B5-D350														approx. 220 kg	
Speed																	
175 158 144 128 115 102 88 80 73 64																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	1000	225	219	310	1176	335	100	366	250	112,5	267	180	192	16,5	60	
	70											273					

K151 15,0 kW		Motor flange B5-D350												approx. 297 kg		
Speed																
57 51 46 40 37												min ⁻¹				
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1070	250	244	360	1270	335	132	450	250	125	298	200	217	25	100
	80											304				



QuarryMaster® geared motors 15,0 kW

Conveyor drives

K152 15,0 kW		Motor flange B5-D350														approx. 393 kg	
Speed																	
33																	min ⁻¹
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90	80	1165	280	272	450	1419	335	142	540	250	140	334		242	25	100	
	85											341					
	90/95/100											345					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
30																	min ⁻¹
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90/100	80	1220	280	272	450	1474	366	142	540	285	140	334		242	25	100	
	85											341					
	90/95/100											345					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
26																	min ⁻¹
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90/100	85	1220	280	272	450		366	142	540	285		341	225	242	25	100	
	90/95/100											341					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
26																	min ⁻¹
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
80/85/90/100	85	1220	280	272	450		366	142	540	285		341	225	242	25	100	
	90/95/100											345					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
22																	min ⁻¹
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
80/85/90/100	90/95/100	1220	280	272	450		366	142	540	285		345	225	242	25	100	

QuarryMaster® geared motors 18,5 kW

Conveyor drives

K185 18,5 kW		Motor flange B5-D350													approx. 238 kg		
Speed																	
175 158 144 128 115 102 88																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	1055	225	219	310	1231	366	100	366	285	112,5	267		192	16,5	60	
	70											273					

K186 18,5 kW		Motor flange B5-D350												approx. 307 kg		
Speed																
80 73 64 57 51 46															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1125	250		360	1325	366	132	450	285	125	298	200	217	25	100
	80											304				

K187 18,5 kW		Motor flange B5-D350													approx. 421 kg		
Speed																	
40 37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90	80	1220	280		450	1474	366	142	540	285	140	334	225	242	25	100	
	85											341					

K188 18,5 kW		Motor flange B5-D350													approx. 501 kg	
Speed																
30 26																min ⁻¹
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/100	85	1287			450				540	341		341		242	25	100
	90/95/100											345				

K188 18,5 kW			Motor flange B5-D350												approx. 501 kg		
Speed																	
24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
80/85/90/100	90/95/100	1287			450				540	341		345		242	25	100	



QuarryMaster® geared motors 22,0 kW

Conveyor drives

K220 22,0 kW

Motor flange B5-D350

approx. 248 kg

Speed																
175 158 144 128 115																min ⁻¹
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	1055	225	219	310	1231	366	100	366	285		267		192	16,5	60
	70											273				

K221 22,0 kW

Motor flange B5-D350

approx. 317 kg

Speed																
102 88 80 73 64 57															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1125	250	244	360	1325	366	132	450	285	125	298		217	25	100
	80											304				

K222 22,0 kW

Motor flange B5-D350

approx. 431 kg

Speed																
51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/90	80	1220	280	272	450	1474	366		540	285		334		242	25	100
	85											341				
	90/95/ 100											345				

K223 22,0 kW

Motor flange B5-D350

approx. 511 kg

Speed																
30																
min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/100	90/95/100	1287		272	450			142	540		140	345		242	25	100

K224 22,0 kW

Motor flange B5-D450

approx. 656 kg

Speed																min ⁻¹		
26	24	22																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P		
100/110/120	100	1460	360	350	544	1770	405		700	341		433		321	38	120		
	120											437						

QuarryMaster® geared motors 30,0 kW

Conveyor drives

K300 30,0 kW				Motor flange B5-D350											approx. 407 kg	
Speed																
115 102 88 80															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1192	250	244	360	1392	405	132	450	341	125	298	200	217	25	100
	80											304				

K301 30,0 kW		Motor flange B5-D350													approx. 521 kg	
Speed																
73 64 57															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/ 90/100	90/95/ 100	1287	280	272	450	1541	405	142	540	341	140	345	225	242	25	100

K301 30,0 kW		Motor flange B5-D350													approx. 521 kg	
Speed																
51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/ 100	90/95/ 100	1287	280	272	450	1541	405	142	540	341	140	345	225	242	25	100

K302 30,0 kW		Motor flange B5-D450													approx. 726 kg	
Speed																
30															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/ 120	100/ 120	1583	360	350	544	1848	485	200	700	360	180	433	300	321	38	120
												437				

K302 30,0 kW		Motor flange B5-D450												approx. 726 kg		
Speed																
26 24 22															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	120	1538	360	350	544	1848	485	200	700	360	180	437	300	321	38	120



QuarryMaster® geared motors 37,0 – 45,0 kW

Conveyor drives

K370 37,0 kW		Motor flange B5-D450												approx. 593 kg		
Speed																
115 102 88 80 73															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/ 90/100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100

K370 37,0 kW		Motor flange B5-D450												approx. 593 kg		
Speed																
64 57 51															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/ 100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100

K371 37,0 kW		Motor flange B5-D450												approx. 726 kg		
Speed																
46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	100	1538	360	350	544	1848	485	200	700	360	180	433	300	321	38	120
	120											437				

K372 37,0 kW			Motor flange B5-D550												approx. 816 kg		
Speed																	
30 26															min ⁻¹		
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
100/110/120	120	1622	360	350	544	1932	520	200	700	430	180	437	300	321	38	120	

K450 45,0 kW		Motor flange B5-D450												approx. 633 kg		
Speed																
115 102 88 80															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/ 90/100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100

QuarryMaster® geared motors 45,0 – 90,0 kW

Conveyor drives

K450 45,0 kW			Motor flange B5-D450												approx. 633 kg		
Speed																	
73 64															min ⁻¹		
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
80/85/ 90/100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100	

K451 45,0 kW		Motor flange B5-D450													approx. 766 kg	
Speed																
57 51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	100	1538	360	350	544	1848	485	200	700	360	180	433	300	321	38	120
	120											437				

K550 55,0 kW				Motor flange B5-D550												approx. 826 kg	
Speed																	
115 102 88 80 73 64 57 51 46 40 37 33															min ⁻¹		
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
100/110/120	100	1622	360	350	544	1932	520	200	700	430	180	433	300	321	38	120	
	120											437					

K750 75,0 kW				Motor flange B5-D550												approx. 996 kg	
Speed																	
115 102 88 80 73 64 57															min ⁻¹		
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
100/110/120	100	1655	360	350	544	1965	575	200	700	455	180	433	300	321	38	120	
	120											437					

K900 90,0 kW			Motor flange B5-D550												approx. 1047 kg		
Speed																	
115 102 88 80 73															min ⁻¹		
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
100/110/120	100	1693	360	350	544	2003	575	200	700	455	180	433	300	321	38	120	
	120											437					



Technical Explanatory Notes

Electric Motors

Motors

All motors comply with existing standards and regulations stipulated by IEC. All motor ratings stated are indicated for the operation mode S1. All motors can also be designed for intermittent operation 60 %, 40 % and 25 % ED.

Stator winding

Standard class is „F“ insulation to VDE 0530. The insulation class is indicated on the name plate. Ambient temperature can be increased from 40 °C to 60 °C using standard motors with class „F“ insulation (use according to ISO „B“) running at not more than nominal capacity. Provided that the ambient temperature does not exceed 40 °C, the nominal capacity in continuous operation can be increased by approximately 10-15 %. This does not apply to standard motors class „F“ insulation (increased power).

Voltage and frequency

< 4 kW (50/ 60 Hz) 230 V Δ / 400 V Y
≥ 4 kW (50/ 60 Hz) 400 V Δ / 690 V Y

Star-delta starting is possible only if the mains voltage corresponds to the delta voltage. Motors wound for 50 Hz can also be operated at 60 Hz.

Changes in the numbers of revolutions, rating and torque resulting from this fact can be taken from the table.

Conversion factors for the rated data listed

Motor winding 50 Hz	Connection to 60 Hz	Rated speed	Rated power	Rated torque	Rated current	Starting torque
230 V	230 V	1,2	1,00	0,83	1,00	0,83
400 V	400 V	1,2	1,00	0,83	1,00	0,83
500 V	500 V	1,2	1,00	0,83	1,00	0,83
400 V	440 V	1,2	1,15	0,96	1,00	0,96
500 V	550 V	1,2	1,10	0,91	1,00	0,91

Permissible supply-voltage variation ± 5% at rated power and frequency (VDE 0530)

Temperature rise

The motor ratings as specified in VDE 0530 are based upon continuous operation, a maximum ambient temperature of 40 °C and site altitudes of up to 1000 metres above sea level. The power obtainable in the case of other conditions is tabulated below.

Ambient temperature in °C	Power obtainable in % of rated value
40	100
45	96
50	92
55	87
60	82

Site altitude above sea level in metres	Power obtainable in % of rated value
1000	100
1500	97
2000	94
2500	90
3000	86
3500	83
4000	80

Type of enclosure according to DIN 40050

	Type of enclosure	Protection against	Protection against	Protection against
Surface cooled	IP54	full protection against contact	against harmful dust accumulation in the interior	against spray water from all directions
	IP55	full protection against contact	against harmful dust accumulation in the interior	against water jets
	IP56	full protection against contact	against harmful dust accumulation in the interior	against heavy seas

Type of enclosure IP55

Standard construction

Terminal box: improved type of enclosure with heat-resistant seals. Condensate drain holes sealed with screws.

Motor protection

Thermistor protection: 3 temperature sensors are incorporated into the motor windings. The sensors are temperature sensitive resistors (thermistors) (PTC) which change value almost instantaneously at their response temperature and in conjunction with tripping devices stop the motor. The thermistors react: blocking or rotor, too high an ambient temperature (for example due to low influx of air) exceeding maximum duty cycles, overloading. The colour coding of the braided insulations is related to the rated cut-off temperatures:

blue-blue	130 °C
white-blue	140 °C
black-black	150 °C
white-green	170 °C

Checking of built-in thermistors – temperature sensors

Continuity checks should be carried out at room temperature with a test voltage < 1.5 V. Measuring bridges available on the market can also be used when the maximum measuring current does not exceed 50 mA.

Separate fan

The separately driven fans used are 1-phase with 230 V at 50 Hz.

Geared brake motors

The brake is fail-safe type, i.e. it is applied by spring action when the electrical supply circuit is interrupted. The d.c. brake coil is supplied from a rectifier. The motor and brake circuits must be energized simultaneously. As standard the brake is not connected. Please submit a detailed enquiry. Unless otherwise agreed upon, the brake motors are adjusted to, and tested for, the maximum braking torque (as listed herein) and for the minimum air gap.

Maintenance

If the maximum air gap is exceeded, the brake must be readjusted and the cone pulley changed.

Braking torque / engine extension

Power [kW]	Motor-Size [acc. to IEC]	Braking torque [Nm]	Extension by attachment of the brake [mm]	Extension by attachment of the separate fan [mm]	Extension by attachment of the canopy [mm]
0,25	80X-4	8	69	not available	not available
0,37	80Y-4	8	69	not available	not available
0,55	80S-4	8	69	not available	not available
0,75	80L-4	8	69	not available	not available
1,1	90S-4	16	79	93	40
1,5	90L-4	16	79	93	40
2,2	100LS-4	32	88	93	39
3,0	100L-4	32	88	93	39
4,0	112M-4	60	96	101	45
5,5	132S-4	60	116	111	50
7,5	132M-4	80	116	111	50
9,2	132Ma-4	80	116	111	50
11	132M-4V	100	116	111	50
11	160M-4	150	127	137	60
15	160L-4	150	127	137	60
18,5	180M-4	240	105	90	85
22	180L-4	240	105	90	85
30	200L-4	360	145	130	91
37	225S-4	360	145	125	100
45	225M-4	360	145	125	100
55	250M-4	360	145	158	100

Mechanical manual release

Mechanical manual release is possible by pulling the hand release lever. The engaged position is secured by spring action. The lever is kept in a pre-determined position during operation by the preload spring.

Electrical release

Each brake can be electrically released independent of the motor by feeding it the specified control voltage.

Special protection against dust, dirt and humidity

Brakes up to protection mode IP65 can be attached for an additional charge. Protective system IP55 is not available with mechanical hand release.

Circuit and connection

In order to protect against the very high transient voltages which occur in many cases, all rectifiers are equipped with a varistor as standard. The braking

system is connected by means of a rectifier fitted in the terminal box according to the circuit diagram provided in each case. The connection voltage to be applied is shown in the circuit diagram. Rapid build up of the braking torque is obtained by switching-off at the d.c. side. If a gradual build-up of braking torque for gentler stopping is required, e.g. crane travelling drives, switch-off at the AC side. This applies in particular for lifting gear and similar applications, in this way, an extremely low degree of over-running is achieved (factor 5-6). The switch contact is generally connected in parallel with the control switch at the motor. Observe protection according to VDE 0580.

Brake voltage

The brake coil voltage is generally designed so that it corresponds to the delta voltage of the motor. Please observe circuit diagram in the terminal box.

System of order numbers

Conveyor drives

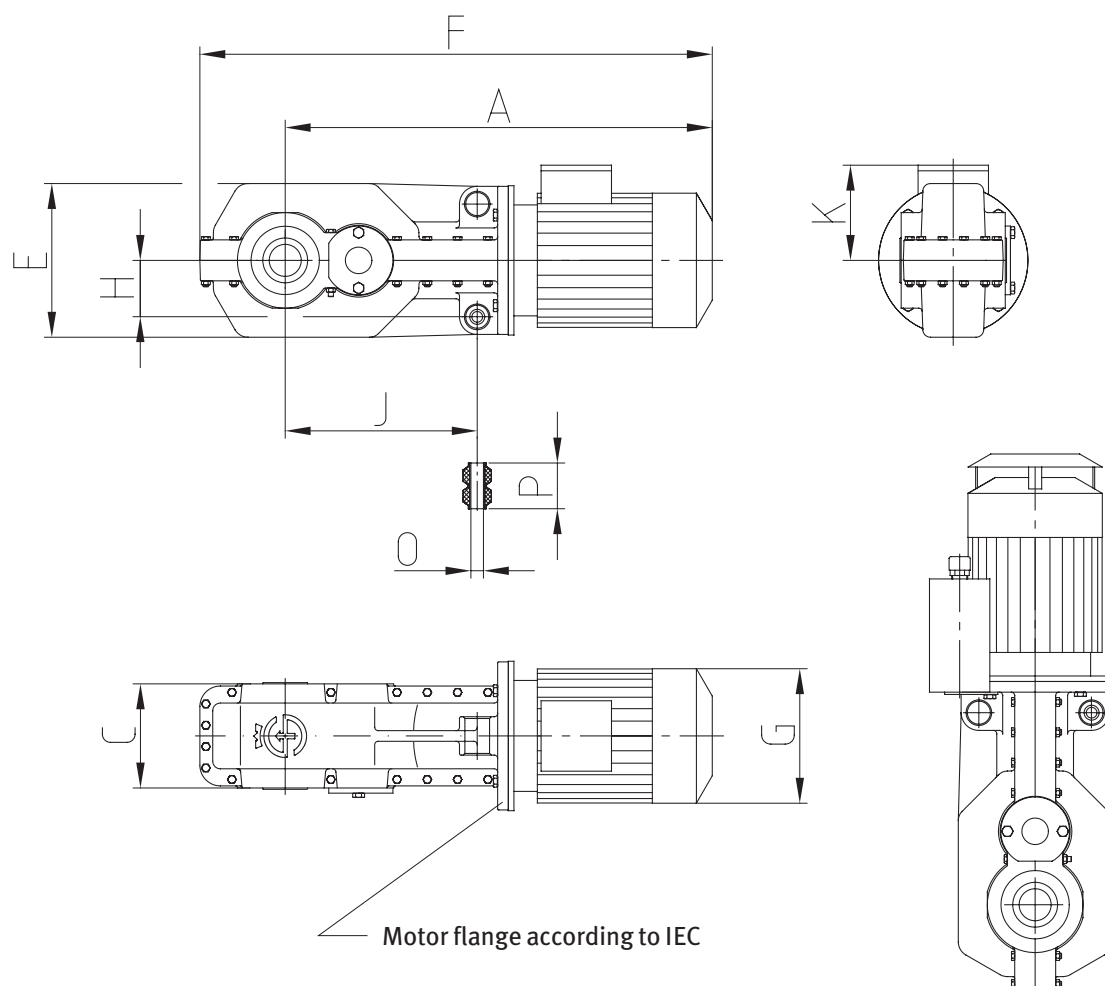
Example: K040.072.040S1000033

Example	Designation	Variants	Explanation
<i>K</i>	Helical-bevel geared motor		
<i>040.</i>	Power	011 - 900	Variations in power (kW) e.g. 040 $\triangleq$ 4kW
<i>072.</i>	Speed	175 - 022	Revolutions (rpm) e.g. 072 $\triangleq$ 72 min ⁻¹
<i>040.</i>	Output Ø	030 - 120	Output diameter (mm) e.g. 040 $\triangleq$ 40 mm
<i>S</i>	Type of output Hollow shaft	P / S	P - Keyway S - Shrinking disc
<i>1</i>	Backstop	0 / 1	0 - without 1 - with
<i>0</i>	Cover	0 / A	0 - without A - with, only for output Shrinking disc
<i>0</i>	Separately driven fan	0 / F	0 - without F - with
<i>0</i>	Brake	0 / 1 / 2 / E	0 - without 1 - with 2 - with manual release E - Energy saving motor
<i>0</i>	Thermistors	0 / K 1 / S	Installation situation 1-4: 0 - without K - with Installation situation 5-8: 1 - without S - with
<i>3</i>	Installation situation	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	For installation situation see page 26
<i>3</i>	Colour index number	0 - 7 / F / S	For choice of colour see page 26

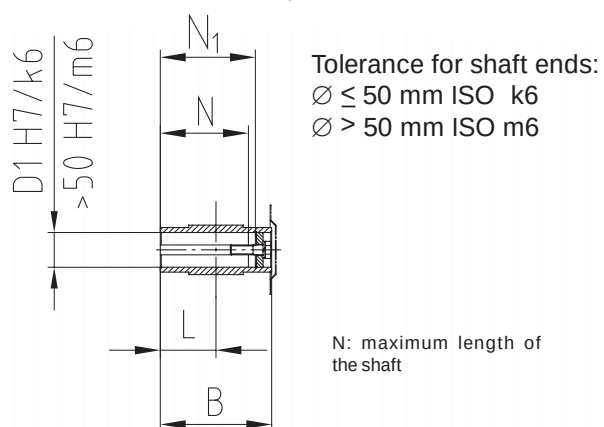


Mounting dimensions (in mm)

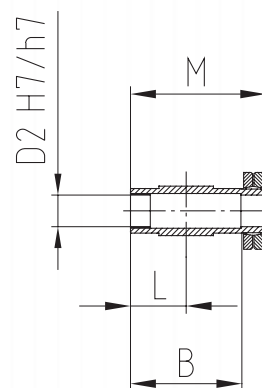
Conveyor drives



Hollow shaft with keyway
according to DIN 6885 page 1



Hollow shaft
with shrinking disc



tolerance for shaft ends: h7
 surface roughness $\leq R_t = 16$
 required yield strength for shaft material
 $R_e \text{ min} = 375 \text{ N/mm}^2$

The dimensional data of the motors varies depending on the make. For technical motor data, see pages 23f. Note: Refer to table page 25 for auxiliary engine equipment

Additional drive solutions

Individual and with outstanding serviceable life

QuarryMaster® HighPower

Rock solid, with many variants and efficient:
Reliable drive groups for the harshest of conditions.
Manufactured by us ready for use.

- Power range: 11 – 710 kW
- Speeds: 28 – 145 rpm



QuarryMaster® slewing conveyor drives

Helical-bevel geared motors designed for slewing conveyors or gantry cranes.

- Power range: 0,25 – 3 kW
- Speeds: 0,9 – 63 rpm
- Service factor Bf $\geq$ 1,0 (full load)
- 2 different installation situations possible



A 2000

The robust construction and very flat mounting form ensure reliable gears for bulk material handling! A wide range of different hollow shaft variants provides for additional flexibility.

- Power range: 0,5 – 168 kW
- Speeds: 16 – 263 rpm
- Torque: 150 – 45.000 Nm
- 6 different installation situations possible



S 2000

Cylinder and helical-bevel gear units capable of bearing high loads with high ratio range and flexible installation possibilities. Developed specially for bucket wheels and log washers.

- Speeds: 0,5 – 250 rpm
- Torque: 20.000 – 240.000 Nm
- 6 different installation situations possible

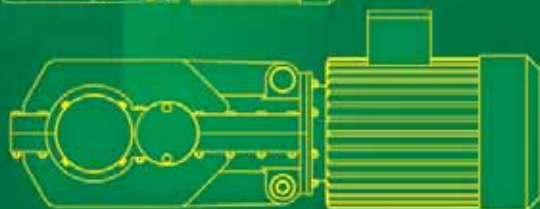
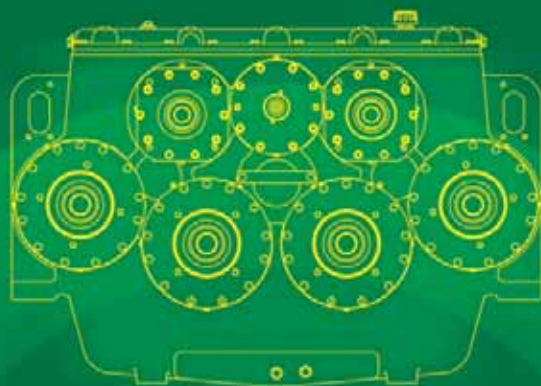


Special gear units - optimal solutions that go beyond the standard

We develop and manufacture custom-made special gear units. Based upon many years of experience and the extensive expertise of our engineers and product managers the implementation times are very short and costs are kept absolutely within the budget. Even small quantities pay off!

Special Gear Units

Custom-made Drive Solutions



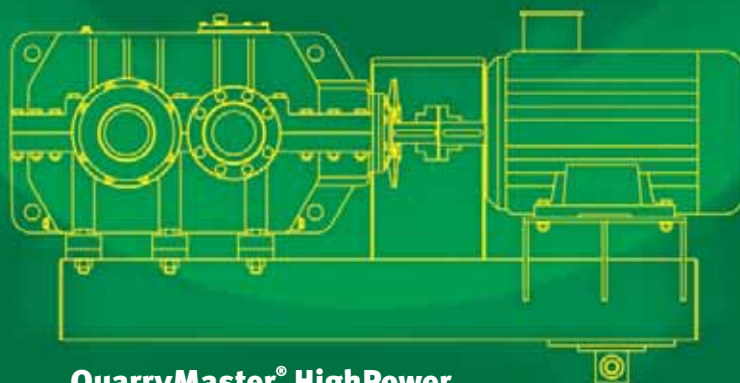
QuarryMaster®

Helical-bevel Geared Motors



P 2000

Pump Drives



QuarryMaster® HighPower

Drive Groups



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