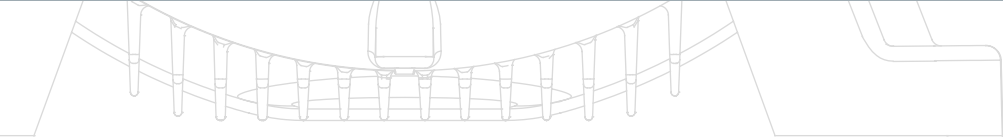
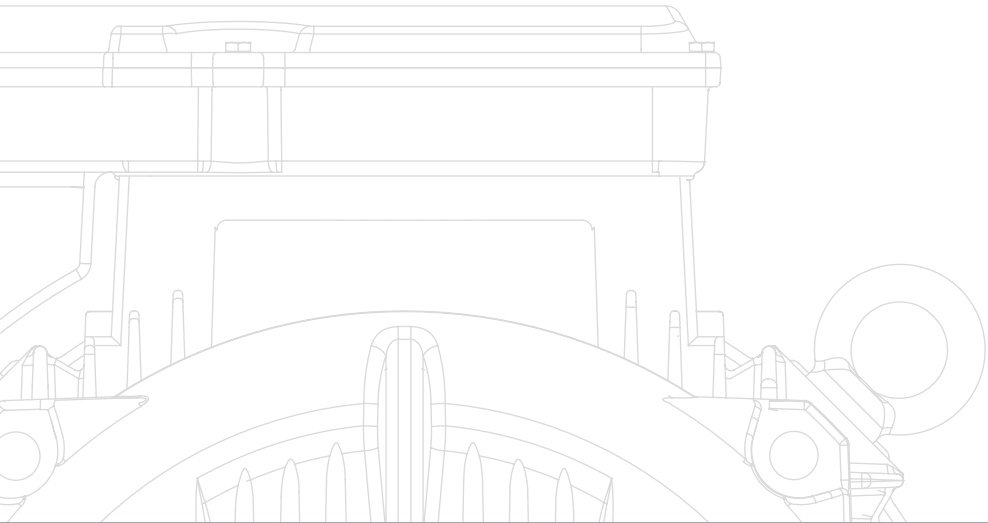


Slip ring motors



Antriebstechnik **KATT** Hessen
AKH
WEG Group



WEG Group

WEG is a leading global solutions provider for drive technology, energy generation and distribution, as well as for automation technology and panel building. Founded in 1961 in Brazil by three entrepreneurs of German ancestry, WEG has evolved into one of the most important manufacturers of electric motors worldwide. WEG has more than 30,000 employees, of which 360 are based in Germany. An annual revenue of approx. 3 billion Euros demonstrates WEG's growing success. WEG global presence is supported through its branches established in 29 countries, manufacturing plants and a network of distributors and agents in five continents.



At AKH, diversity says it all

We have been developing innovative electric motors since 1924 and for the most diverse industry branches and applications. And this is why we can offer you today an extremely broad spectrum of products that is as diverse as our customers themselves. This also includes the development of new motors on short call that are specially tailored to your requirements.

Due to our extraordinary degree of vertical integration and highly experienced development team, from an engineering point of view, the sky is the limit. Whether you require motors for the toughest operating conditions such as underwater, vibrating, or sawmill motors or machines of the highest performance for sophisticated tasks such as development test benches in the automotive industry: It is your choice – and we have matching motor. We guarantee it.

What we can do for you:

- Determining the exact requirements and professional advice for selecting your drive
- Design and construction of special motors in close corporation with your responsible engineers
- Production and comprehensive testing, including documentation
- Construction of prototypes
- Production of cost-optimizing special motors for medium quantities
- On-site service or at our factory provided by an highly experienced service team (including 24-hour Service Hotline)

As part of the Brazilian WEG Group, we extend the latter's product range with high-class special motors since 2014.

Slip ring motors according to IEC - usable in many industrial areas

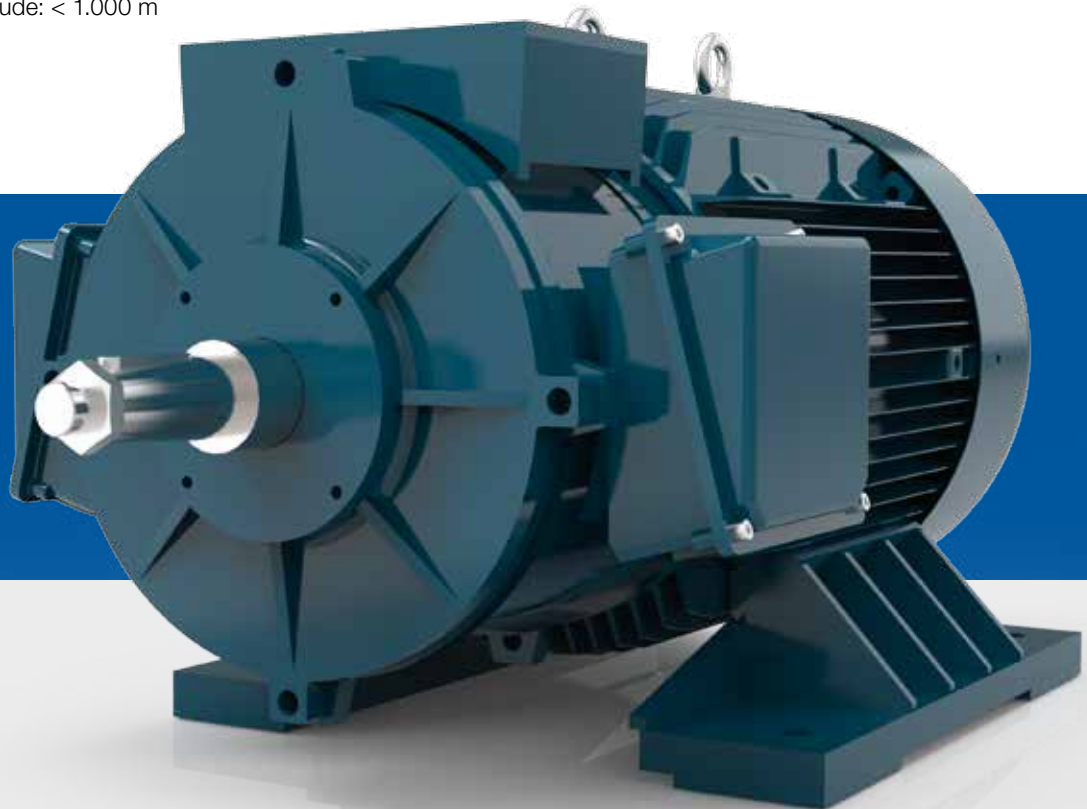
With their solid construction and special design in cast iron or steel AKH slip ring motors still have a big resonance in numerous industry sectors. We develop appropriate solution with characteristic lines that match precisely your specifications and demands for your application.

Technical Data

- Frame size: 100 to 400
- Power range: 1 to 430 kW
- Voltage: 400 V
- Frequency: 50 Hz
- Degree of protection: IP23 to IP56
- Ambient temperature: -20 °C to +40 °C
- Installation altitude: < 1.000 m

Options

- Forced ventilation
- Relubrication automatically or manual
- Additional service and holding brake possible
- Solid construction with eddy current brake



Technical Data - 4 poles

Frame size	Rated power P_n [kW]	Duty cycle % ED	Rated speed n_n [min ⁻¹]	Stator current I_1 [A]	Rotor voltage u_2 [V]	Rotor current I_2 [A]
3EN100LG - 04	1.5	100	1360	4.3	85	12.5
	1.8	60	1320	4.8		16.0
	2	40	1290	5.3		18.5
	2.3	25	1245	6.2		22.0
3EN112MG - 04	2.2	100	1425	7.4	110	14.0
	2.6	60	1410	7.8		15.8
	3	40	1390	8.5		20.0
	3.3	25	1380	8.9		22.0
3EN112MG - 04	3	100	1390	8.3	140	14.3
	3.5	60	1375	8.8		16.7
	4	40	1350	9.8		19.0
	4.5	25	1325	10.5		23.0
3EN132MG - 04	4	100	1410	10.8	140	19.0
	4.5	60	1400	11.5		22.0
	5	40	1390	12.5		25.0
	5.7	25	1370	13.5		29.0
3EN132MG - 04	4.8	100	1430	11.6	170	18.0
	5.3	60	1425	12.5		19.0
	6.3	40	1410	14.2		23.0
	7	25	1400	15.3		26.0
3EN132MG - 04	5.5	100	1420	13.7	180	20.4
	6.6	60	1410	15.5		24.4
	7.5	40	1390	17.4		27.8
	8.7	25	1370	20		33.0
3EN160MG - 04	7.5	100	1440	18.2	180	27.0
	8.5	60	1435	19.2		31.5
	10	40	1425	22		37.0
	11	25	1410	23.8		40.7
3EN160LG - 04	11	100	1450	26	260	27.0
	12.5	60	1445	28.8		30.0
	14.5	40	1435	31.5		36.0
	16.5	25	1425	34.5		40.0
3EN180LG - 04	15	100	1460	33	270	35.0
	17.5	60	1450	37		40.5
	20	40	1440	41		46.0
	23	25	1430	46		54.0
3EN200LG - 04	18.5	100	1460	39	230	51.0
	21	60	1450	43		57.0
	24	40	1445	47		66.0
	28	25	1435	54		76.0
3EN200LG - 04	22	100	1465	44.7	270	51.0
	25	60	1455	49.4		58.0
	29	40	1445	55.1		67.0
	34	25	1435	63.7		79.0
3EN225MG - 04	30	100	1465	59.9	325	58.0
	34	60	1460	65.6		65.0
	39	40	1455	73.2		75.0
	45	25	1450	83.6		86.0
3EN250MG - 04	37	100	1465	72.2	190	121.0
	42	60	1460	78.9		137.0
	48	40	1455	88.4		157.0
	55	25	1450	101		179.0
3EN250MG - 04	45	100	1468	86.5	230	121.0
	51	60	1465	95		137.0
	58	40	1460	106		155.0
	68	25	1455	124		180.0
3EN280SG - 04	60	100	1470	112	240	153.0
	68	60	1468	124		173.0
	75	40	1465	135		191.0
	90	25	1460	160		231.0
3EN280MG - 04	75	100	1475	141	310	147.0
	85	60	1473	156		167.0
	95	40	1470	171		187.0
	110	25	1465	195		216.0

Technical Data - 4 poles (cont.)

Frame size	Rated power P_n [kW]	Duty cycle % ED	Rated speed n_n [min ⁻¹]	Stator current I_1 [A]	Rotor voltage u_2 [V]	Rotor current I_2 [A]
3EN315SG - 04	90	100	1478	171	310	177.0
	100	60	1475	184		197.0
	115	40	1473	209		226.0
	132	25	1470	240		257.0
3EN315MG - 04	110	100	1480	204	375	180.0
	125	60	1478	223		202.0
	140	40	1475	247		227.0
	160	25	1470	280		262.0
3EN315MG - 04	132	100	1480	238	450	180.0
	150	60	1478	266		206.0
	165	40	1476	290		227.0
	190	25	1474	333		262.0
3EN355SG - 04	160	100	1482	285	550	180.0
	180	60	1480	318		202.0
	200	40	1478	352		226.0
	230	25	1476	399		259.0
3EN355LG - 04	200	100	1485	356	475	261.0
	225	60	1483	390		298.0
	260	40	1482	440		349.0
	290	25	1480	494		382.0
3EN355LG - 04	250	100	1486	437	585	273.0
	280	60	1484	485		300.0
	315	40	1483	532		338.0
	360	25	1482	608		388.0

Note: Binding specifications to T_k/T_n , moment of inertia J and weight on request



Technical Data - 6 poles

Frame size	Rated power P_n [kW]	Duty cycle % ED	Rated speed n_n [min ⁻¹]	Stator current I_1 [A]	Rotor voltage u_2 [V]	Rotor current I_2 [A]
3EN100LG - 06	1.1	100	910	4.6	80	10
	1.3	60	890	4.8		11
	1.5	40	870	5.1		13
	1.7	25	835	5.4		16
3EN112MG - 06	1.5	100	920	5.1	90	13
	1.8	60	900	5.9		15
	2	40	880	6.4		16
	2.3	25	860	6.7		20
3EN112MG - 06	2.2	100	940	8	115	13
	2.6	60	925	8.5		15
	3	40	910	9.1		18
	3.3	25	890	9.7		20
3EN132MG - 06	3	100	920	9.3	110	18
	3.6	60	910	10.5		23
	4	40	900	11.4		26
	4.7	25	875	12.7		32
3EN132MG - 06	3.5	100	940	9.8	130	17
	4.1	60	930	10.8		21
	4.5	40	920	11.6		24
	5.2	25	900	13.1		28
3EN132MG - 06	4	100	930	11.4	140	19
	4.8	60	915	12.8		23
	5.5	40	895	13.8		27
	6.5	25	895	16.3		34
3EN160MG - 06	5.5	100	960	18	180	20
	6	60	950	18.5		21
	7	40	940	20		26
	8	25	930	21		29
3EN160LG - 06	7.5	100	960	20	260	21
	8.5	60	950	21.4		23
	10	40	940	23.8		27
	11.5	25	930	27.1		32
3EN180LG - 06	11	100	960	26.6	230	30
	13	60	955	29.9		35
	15	40	950	33.3		41
	17.5	25	940	37.5		48
3EN200LG - 06	15	100	965	34.2	255	36
	17.5	60	960	37.5		42
	20	40	955	41.8		49
	24	25	950	48.5		59
3EN225MG - 06	18.5	100	970	41.3	250	46
	22	60	965	46.1		54
	25	40	960	51.3		62
	30	25	955	60.8		75
3EN225MG - 06	22	100	970	48.5	295	46
	26	60	968	54.2		54
	30	40	965	60.8		63
	35	25	960	69.4		73
3EN250MG - 06	30	100	970	62.7	145	128
	34	60	968	68.4		146
	40	40	965	78.9		172
	48	25	960	93.1		210
3EN250MG - 06	37	100	975	75	185	120
	42	60	970	83.6		138
	50	40	965	96.9		164
	60	25	960	114		198
3EN280SG - 06	45	100	978	93.1	195	140
	53	60	975	105		166
	63	40	973	120		198
	72	25	970	133		225
3EN280MG - 06	55	100	980	110	235	144
	65	60	978	125		170
	75	40	975	139		196
	90	25	970	163		235

Technical Data - 6 poles (cont.)

Frame size	Rated power P_n [kW]	Duty cycle % ED	Rated speed n_n [min ⁻¹]	Stator current I_1 [A]	Rotor voltage u_2 [V]	Rotor current I_2 [A]
3EN315SG - 06	75	100	982	146	255	178
	87	60	980	163		205
	100	40	978	182		240
	115	25	975	209		275
3EN315MG - 06	90	100	982	173	305	178
	105	60	981	195		205
	120	40	980	219		235
	140	25	978	252		275
3EN315MG - 06	110	100	985	214	365	180
	125	60	983	233		205
	140	40	982	257		230
	160	25	980	285		265
3EN315MG - 06	132	100	986	252	440	180
	150	60	985	276		205
	170	40	984	304		230
	195	25	982	342		265
3EN355LG - 06	160	100	986	290	515	186
	185	60	984	328		215
	210	40	982	366		245
	240	25	980	413		280
3EN355LG - 06	200	100	988	361	630	190
	230	60	986	404		220
	260	40	984	451		250
	300	25	982	513		285
3EN400LG - 06	250	100	990	442	690	215
	280	60	989	485		240
	320	40	988	542		275
	370	25	986	618		320
3EN400LG - 06	280	100	990	494	800	210
	320	60	989	551		240
	370	40	988	627		275
	430	25	987	722		320

Note: Binding specifications to T_k/T_n , moment of inertia J and weight on request



Technical Data - 8 poles

Frame size	Rated power P_n [kW]	Duty cycle % ED	Rated speed n_n [min ⁻¹]	Stator current I_1 [A]	Rotor voltage u_2 [V]	Rotor current I_2 [A]
3EN160LG - 08	5.5	100	715	19	200	17
	6	60	710	20		19
	7	40	700	20.9		22
	8	25	690	21.9		26
3EN180LG - 08	7.5	100	715	21.4	210	22
	9	60	710	23.3		27
	10.5	40	705	25.7		32
	12.5	25	695	29.5		38
3EN200LG - 08	11	100	720	29.9	250	28
	13	60	715	33.3		33
	15	40	710	36.6		38
	18	25	705	41.8		46
3EN225MG - 08	15	100	725	39	225	42
	18	60	720	43.7		50
	20	40	715	46.6		56
	25	25	710	56		70
3EN225MG - 08	18.5	100	725	45.6	275	42
	22	60	720	50.4		50
	25	40	715	55.1		57
	30	25	710	64.6		68
3EN250MG - 08	22	100	725	52.3	155	88
	26	60	723	57		104
	30	40	720	63.7		120
	35	25	715	72.2		140
3EN250MG - 08	29	100	730	66.5	195	85
	32	60	728	73.2		100
	40	40	725	85.5		126
	48	25	720	98.8		152
3EN280SG - 08	37	100	732	84.6	200	112
	44	60	730	93.1		132
	50	40	728	105		150
	60	25	725	122		182
3EN280MG - 08	47	100	735	101	250	114
	55	60	732	114		134
	63	40	730	127		154
	75	25	725	146		184
3EN315SG - 08	60	100	735	131	270	134
	70	60	734	144		156
	80	40	732	160		180
	93	25	730	181		210
3EN315MG - 08	75	100	738	160	340	134
	88	60	736	179		156
	100	40	735	195		178
	115	25	732	219		205
3EN355LG - 08	95	100	738	198	355	164
	110	60	736	219		188
	125	40	735	242		215
	150	25	732	285		260
3EN355LG - 08	120	100	738	242	435	168
	140	60	736	271		196
	160	40	735	299		225
	190	25	732	347		265
3EN400LG - 08	145	100	740	276	455	192
	170	60	738	314		225
	200	40	736	361		265
	240	25	735	428		320
3EN400LG - 08	180	100	741	352	440	245
	210	60	740	394		285
	250	40	738	451		345
	300	25	736	532		410

Note: Binding specifications to Tk/Tn, moment of inertia J and weight on request

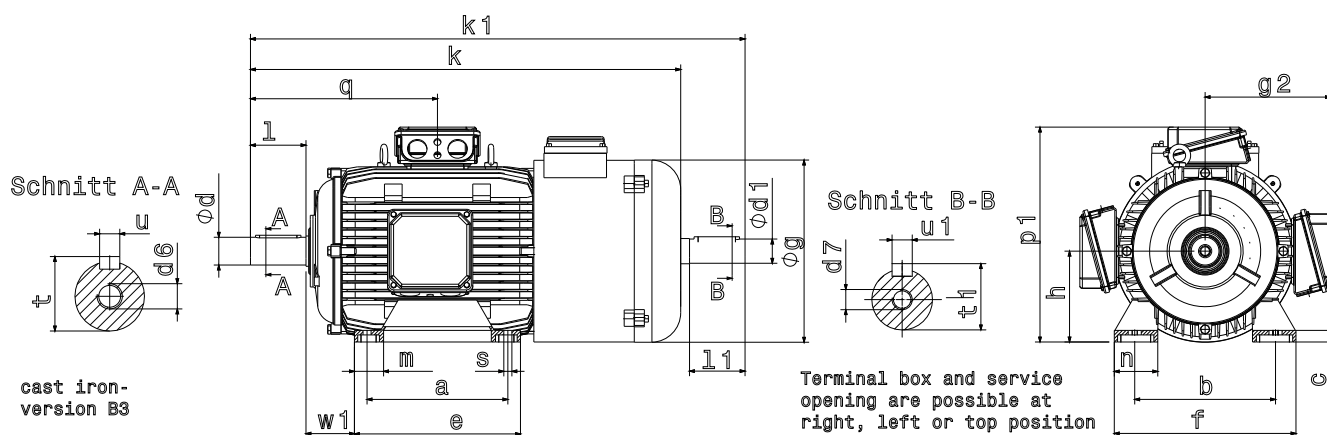
Technical Data - 10 poles

Frame size	Rated power P_n [kW]	Duty cycle % ED	Rated speed n_n [min ⁻¹]	Stator current I_1 [A]	Rotor voltage u_2 [V]	Rotor current I_2 [A]
3EN250MG - 10	16.5	100	580	49.4	125	83
	20	60	575	55.1		100
	25	40	570	62.7		126
	30	25	565	71.3		152
3EN250MG - 10	20	100	580	58	150	83
	25	60	575	65.6		104
	30	40	570	73.2		126
	35	25	565	81.7		146
3EN280SG - 10	27	100	582	73.2	155	106
	32	60	580	79.8		126
	40	40	575	93.1		158
	48	25	570	106.4		190
3EN280MG - 10	35	100	582	88.4	190	112
	42	60	580	98.8		136
	50	40	578	110		162
	60	25	575	129		196
3EN315SG - 10	44	100	585	106	235	114
	53	60	582	118		138
	63	40	580	135		164
	75	25	575	154		196
3EN315MG - 10	55	100	588	129	295	112
	65	60	585	144		134
	80	40	582	165		164
	90	25	580	182		186
3EN355LG - 10	73	100	585	165	295	150
	86	60	582	184		178
	100	40	580	204		205
	120	25	578	238		250
3EN355LG - 10	92	100	586	204	370	150
	108	60	585	228		176
	125	40	582	252		205
	150	25	580	295		245
3EN400LG - 10	115	100	590	242	405	170
	135	60	588	271		200
	160	40	586	309		240
	190	25	585	361		285
3EN400LG - 10	145	100	590	295	495	174
	170	60	588	333		205
	200	40	586	380		240
	240	25	585	447		290

Note: Binding specifications to T_k/T_n , moment of inertia J and weight on request



Drawings



Frame size	a	b	c	e	f	g	g2
100L	140	160	14	175	200	194	160
112M	140	190	14	175	235	218	164
132S	140	216	16	180	260	267	206
132M	178	216	16	218	260	267	206
160M	210	254	22	260	318	320	226
160L	254	254	22	304	318	320	226
180M	241	279	23	291	360	348	246
180L	279	279	23	329	360	348	246
200L	305	318	26	365	390	385	298
225S	286	356	30	345	435	433	318
225M	311	356	30	371	435	433	318
250M	349	406	35	410	485	480	346
280S	368	457	38	439	540	536	387
280M	419	457	38	490	540	536	387
315S	406	508	46	500	620	600	441
315M	457	508	46	550	620	600	441
355S	500	610	45	670	710	695	529
355L	630	610	45	800	710	695	529
400L	710	686	50	896	812	784	656

Frame size	h	k	k1	m	n	p1	q
100L	100	471	541	38	47	260	193
112M	112	520	590	34	50	276	200
132S	132	579	669	40	55	338	239
132M	132	617	707	40	55	338	258
160M	160	740	865	58	75	386	323
160L	160	784	909	58	75	408	345
180M	180	815	933	58	86	395	352
180L	180	853	971	58	86	395	371
200L	200	921	1039	65	86	455	396
225S	225	1029	1122	80	92	504	431
225M	225	1029	1147	80	92	504	443
250M	250	1088	1236	75	104	577	483
280S	280	1238	1386	93	120	614	514
280M	280	1289	1437	93	120	614	540
315S	315	1363	1511	100	132	707	589
315M	315	1414	1562	100	132	707	615
355S	355	1566	1744	170	144	842	714
355L	355	1696	1874	170	144	842	780
400L	400	1835	2013	186	162	985	845

Frame size	s	s2	w1	dxl	d1x1	t	u
100L	11	21	63	28x60	28x60	31	8
112M	13	13	70	28x60	28x60	31	8
132S	12	22	89	38x80	38x80	41	10
132M	12	22	89	38x80	38x80	41	10
160M	14	24	108	42x110	42x110	45	12
160L	14	24	108	42x110	42x110	45	12
180M	16	26	121	48x110	48x110	51,5	14
180L	16	26	121	48x110	48x110	51,5	14
200L	18	33	133	55x110	55x110	59	16
225S	18	33	149	60x140	55x110	64	18
225M	18	33	149	60x140	55x110	64	18
250M	22	40	168	70x140	60x140	74,5	20
280S	25	40	190	80x170	65x140	85	22
280M	25	40	190	80x170	65x140	85	22
315S	27	45	216	90x170	70x140	95	25
315M	27	45	216	90x140	70x140	95	25
355S	35	55	254	100x210	80x170	106	28
355L	35	55	254	100x210	80x170	106	28
400L	35	61	280	110x210	90x170	116	28

Frame size	d6	t1	u1	d7
100L	M10	31	8	M10
112M	M10	31	8	M10
132S	M12	41	10	M12
132M	M12	41	10	M12
160M	M16	45	12	M16
160L	M16	45	12	M16
180M	M16	51,5	14	M16
180L	M16	51,5	14	M16
200L	M20	59	16	M20
225S	M20	59	16	M20
225M	M20	59	16	M20
250M	M20	64	18	M20
280S	M20	69	18	M20
280M	M20	69	18	M20
315S	M24	74,5	20	M20
315M	M24	74,5	20	M20
355S	M24	85	22	M20
355L	M24	85	22	M20
400L	M24	95	25	M24

Note: Customized modifications regarding electrical design, motor layout and executions according to specific standards (e.g. steel industry) on request.





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