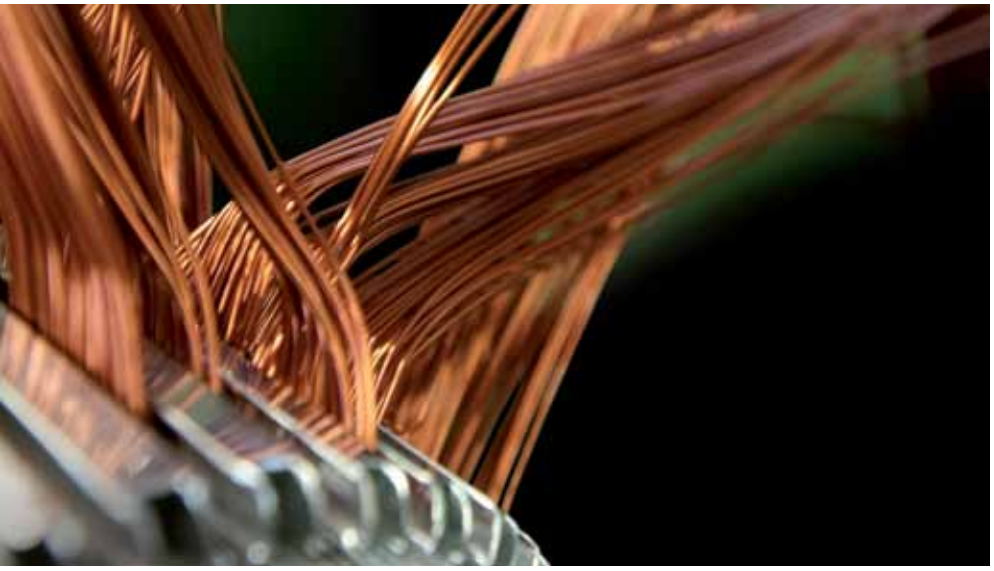
ABM Greiffenberger
We put ideas into gear

member of senata - group

Compactness Meets High Power Density



Angular Geared Motors
for Industrial Applications

www.abm-drives.com

Modern and Efficient Drive Technology
Angular Geared Motors

Advantages

- High overall efficiency and energy efficient option to worm gearboxes ⇨ energy savings
- Compact design ⇨ small space requirement
- Aluminium housing ⇨ low weight (assembly friendly) and corrosion resistance (painting not required)
- Variable installation options with different flanges ⇨ optimum integration in customer machine and reduced installation effort
- High quality helical gearing ⇨ long life and quiet operation
- Solid and hollow shaft ⇨ variable output side options
- Robust and virtually maintenance free
- Flexibility ⇨ All ABM motors can be delivered with motor-mounted inverters

Maximum Energy Efficiency

Motors and geared motors use approximately two-thirds of the energy consumed in manufacturing. Installing energy-saving geared motors provides companies considerable potentials for cost savings and positively impact their bottom.

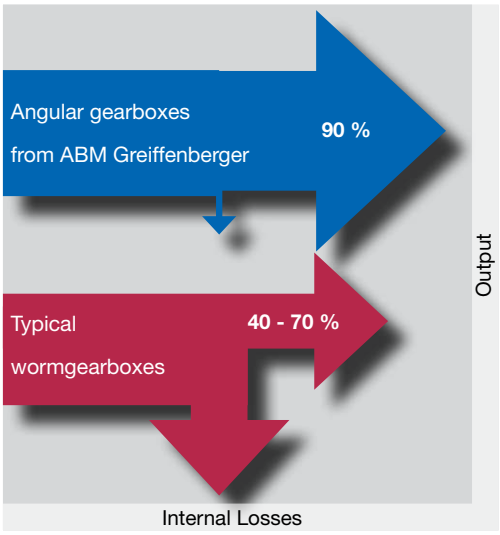
Sample Calculation:

	Helical wormgearboxes	Angular Gearbox
Efficiency	65 %	90 %
Torque	60 Nm	
Output Speed	40 rpm	
Power Consumption	420 Watt	250 Watt
Annual energy cost*	403 €	240 €

* Calculation Base: *16 hours operation per day, 300 days per Year ⇨ 0,2 € / kWh

Efficiency Comparison

The energy efficiency of ABM angular gearboxes are – depending on the gear ratio – approximately 90 %. The energy efficiency of typical wormgearboxes especially with high gear ratios ranges from 40 % to 70 %; e.g. the majority of the consumed electricity is converted to heat and not kinetic energy.

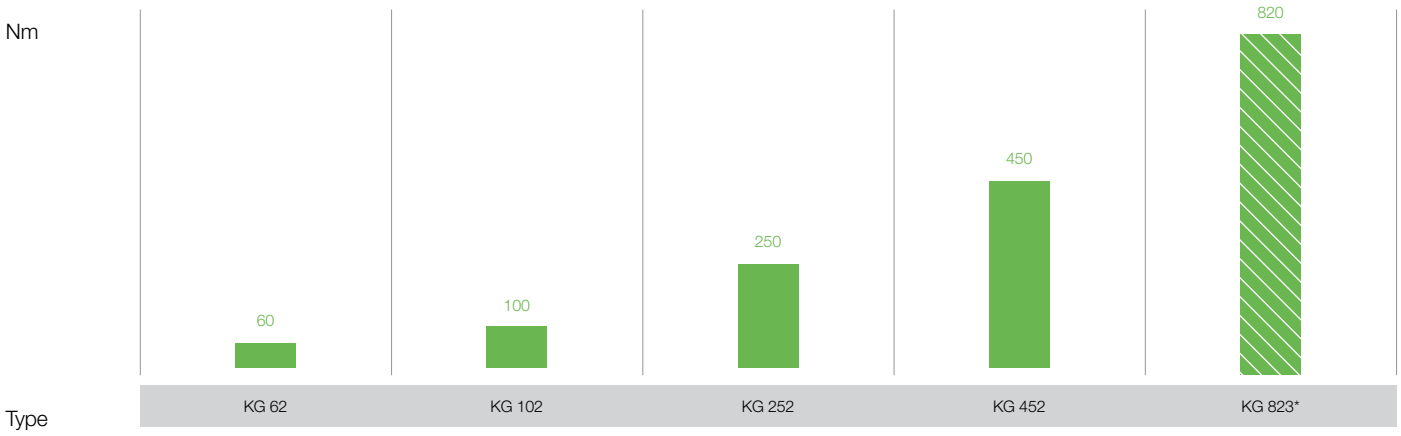


Modern and Efficient Drive Technology
Angular Geared Motors

General Technical Data


		MEDIUM-LINE	PREMIUM-LINE
Motor Type	AC Induction Motors	✓	✓
	Single Phase Motors		✓
	Sinochron® Motors		✓
	Two speed motors		✓
	Number of Poles	4-pole	2-, 4-, 6- and 8-pole
Motor Housing		Die Cast	Extruded Aluminium Profile
Output Range		0.18 up to 7.5 kW	
Torque Range		60 up to 450 Nm	
Cooling	Self-ventilated	✓	✓
	Forced Ventilation		✓
	Non-ventilated		✓
Efficiency Class		IE3	Up to IE4
Brake (Holding or Operating Brake)			✓
Mains Operation		✓	✓
Inverter Operation		✓	✓
Inverter	Integrated (motor mounted)	✓	✓
	Stand alone (electrical panel mounted)	✓	✓
Protection Class		IP55 (Standard)	Up to IP66
Options	Encoder		✓
	X-class category 3 G+D		✓
	CCC, UL/CSA	✓	✓

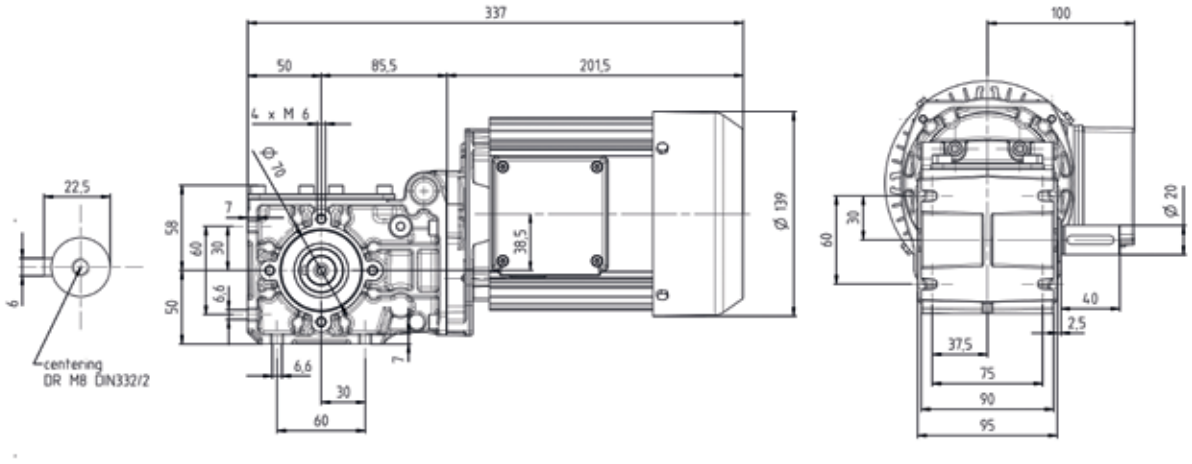
Output Torque Angular Gearbox



*Product is under development

Output Torque up to 60 Nm
Angular Gearbox KG 62

Dimensions: KG62 / 4D71



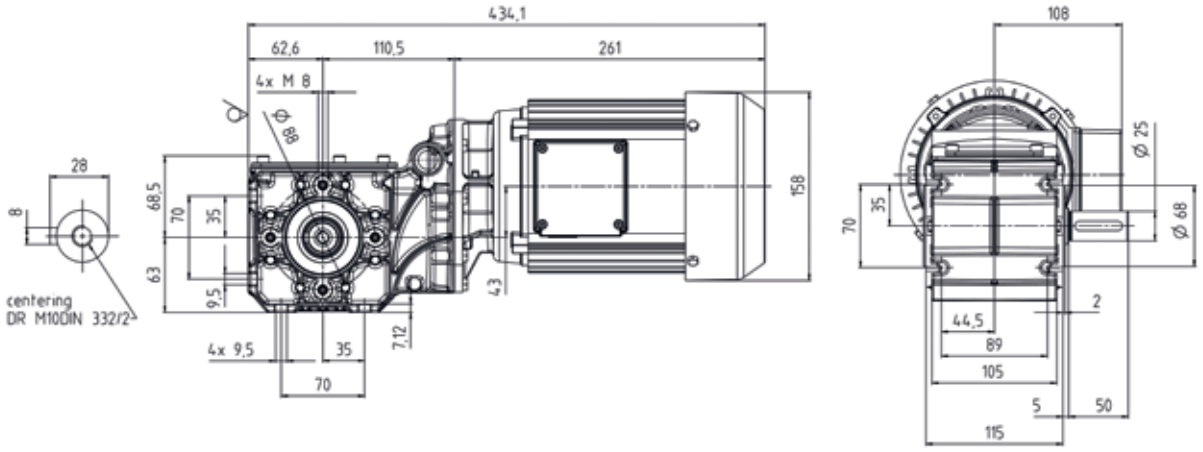
	MEDIUM-LINE	PREMIUM-LINE
Motor Frame Size	63 - 80	63 - 80
Power	0.12 - 0.75 kW	0.12 - 1.1 kW
Output Torque	T_{max} 60 Nm	
Output Speed	Asynchronous: 15 – 300 rpm; VFD: variable up to 300 rpm	
Available Shafts	Solid shaft Ø 20 x 40 mm; Hollow shaft Ø 20 mm; Special shaft design upon request	
Mounting Options	Flange mounting (Standard B5 Ø 120), Foot mounting and Slip on mechanism	

i*	**n_2** [rpm]	**n_1** [rpm]	**P_{max}** [kW]
48.600	28.8	1400	0.12
43.770	32.0	1400	0.18
39.750	34.0	1400	0.18
32.850	41.0	1400	0.18
26.630	51.0	1400	0.25
23.320	58.0	1400	0.25
19.040	71.0	1400	0.37
17.360	78.0	1400	0.37
13.500	100.0	1400	0.37
11.100	122.0	1400	0.37
10.130	133.0	1400	0.55
9.260	146.0	1400	0.55
8.500	159.0	1400	0.55
7.820	173.0	1400	0.55
5.670	238.0	1400	0.75

* More gear ratios available upon request

Output Torque up to 100 Nm
Angular Gearbox KG 102

Dimensions: KG102 / 4D80



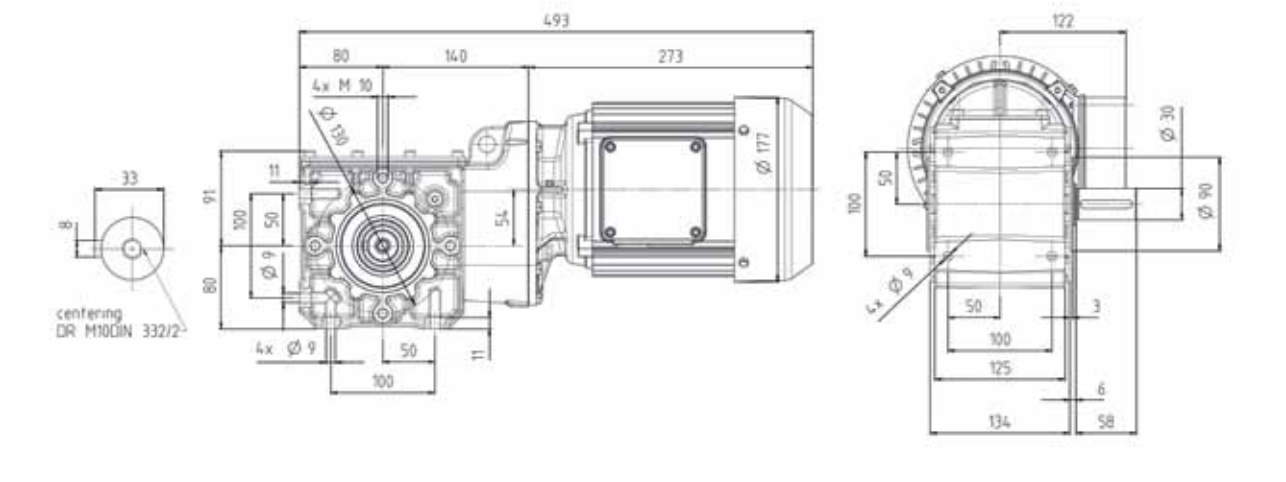
	MEDIUM-LINE	PREMIUM-LINE
Motor Frame Size	71 - 90	63 - 90
Power	0.25 - 1.5 kW	0.18 - 2.2 kW
Output Torque	T_{max} 100 Nm	
Output Speed	Asynchronous: 15 – 300 rpm; VFD: variable up to 300 rpm	
Available Shafts	Solid shaft Ø 25 x 50 mm; Hollow shaft Ø 25 mm; Special shaft design upon request	
Mounting Options	Flange mounting (Standard B5 Ø 120), Foot mounting and Slip on mechanism	

i*	n_2 [rpm]	n_1 [rpm]	P_{max} [rpm]
47.780	29.0	1400	0.25
38.180	37.0	1400	0.37
29.090	48.0	1400	0.55
26.250	53.0	1400	0.55
23.850	59.0	1400	0.55
21.790	64.0	1400	0.55
18.460	76.0	1400	0.75
14.740	95.0	1400	0.75
12.860	109.0	1400	1.10
11.670	120.0	1400	1.10
10.250	137.0	1400	1.50
8.890	157.0	1400	1.50
8.160	172.0	1400	1.50
4.840	289.0	1400	2.20

* More gear ratios available upon request

Output Torque up to 250 Nm
Angular Gearbox KG 252

Dimensions: KG252 / 4D90S



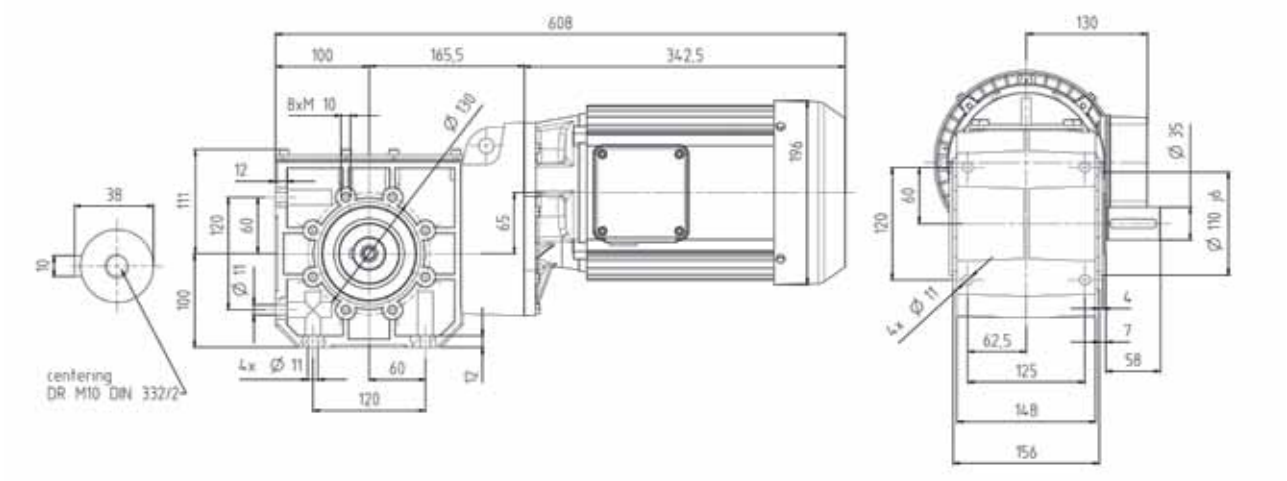
	MEDIUM-LINE	PREMIUM-LINE
Motor Frame Size	80 - 100	71 - 112
Power	0.55 - 3.0 kW	0.55 - 4.0 kW
Output Torque	T_{max} 250 Nm	
Output Speed	Asynchronous: 15 – 300 rpm; VFD: variable up to 300 rpm	
Available Shafts	Solid shaft Ø 30 x 58 mm; Hollow shaft Ø 35 mm; Special shaft design upon request	
Mounting Options	Flange mounting (Standard B5 Ø 160), Foot mounting and Slip on mechanism	

i*	n_2 [rpm]	n_1 [rpm]	P_{max} [kW]
48.825	30.0	1400	0.55
39.813	36.0	1400	0.75
30.545	47.0	1400	1.10
25.038	58.0	1400	1.50
20.192	72.0	1400	1.50
16.800	86.0	1400	2.20
14.206	102.0	1400	2.20
12.141	119.0	1400	3.00
9.784	148.0	1400	3.00
8.000	181.0	1400	4.00
6.848	212.0	1400	4.00

* More gear ratios available upon request

Output Torque up to 450 Nm
Angular Gearbox KG 452

Dimensions: KG452 / 4D100L



	MEDIUM-LINE	PREMIUM-LINE
Motor Frame Size	90 - 132	80 - 132
Power	1.1 - 7.5 kW	0.75 - 7.5 kW
Output Torque	T_{max} 450 Nm	
Output Speed	Asynchronous: 15 – 300 rpm; VFD: variable up to 300 rpm	
Available Shafts	Solid shaft Ø 35 x 58 mm; Hollow shaft Ø 45 mm; Special shaft design upon request	
Mounting Options	Flange mounting (Standard B5 Ø 200), Foot mounting and Slip on mechanism	

i*	**n_2** [rpm]	**n_1** [rpm]	**P_{max}** [kW]
70.440	20.0	1400	0.75
58.290	24.0	1400	1.10
45.260	31.0	1400	1.50
40.520	35.0	1400	1.50
33.230	42.0	1400	1.50
28.680	49.0	1400	2.20
23.800	59.0	1400	2.20
20.570	68.0	1400	3.00
16.240	86.0	1400	4.00
14.040	100.0	1400	4.00
11.430	122.0	1400	5.50
10.640	132.0	1400	5.50
9.200	152.0	1400	7.50
7.260	192	1400	7.50
6.280	223	1400	7.50
5.110	274	1400	7.50
4.200	333	1400	7.50

* More gear ratios available upon request

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