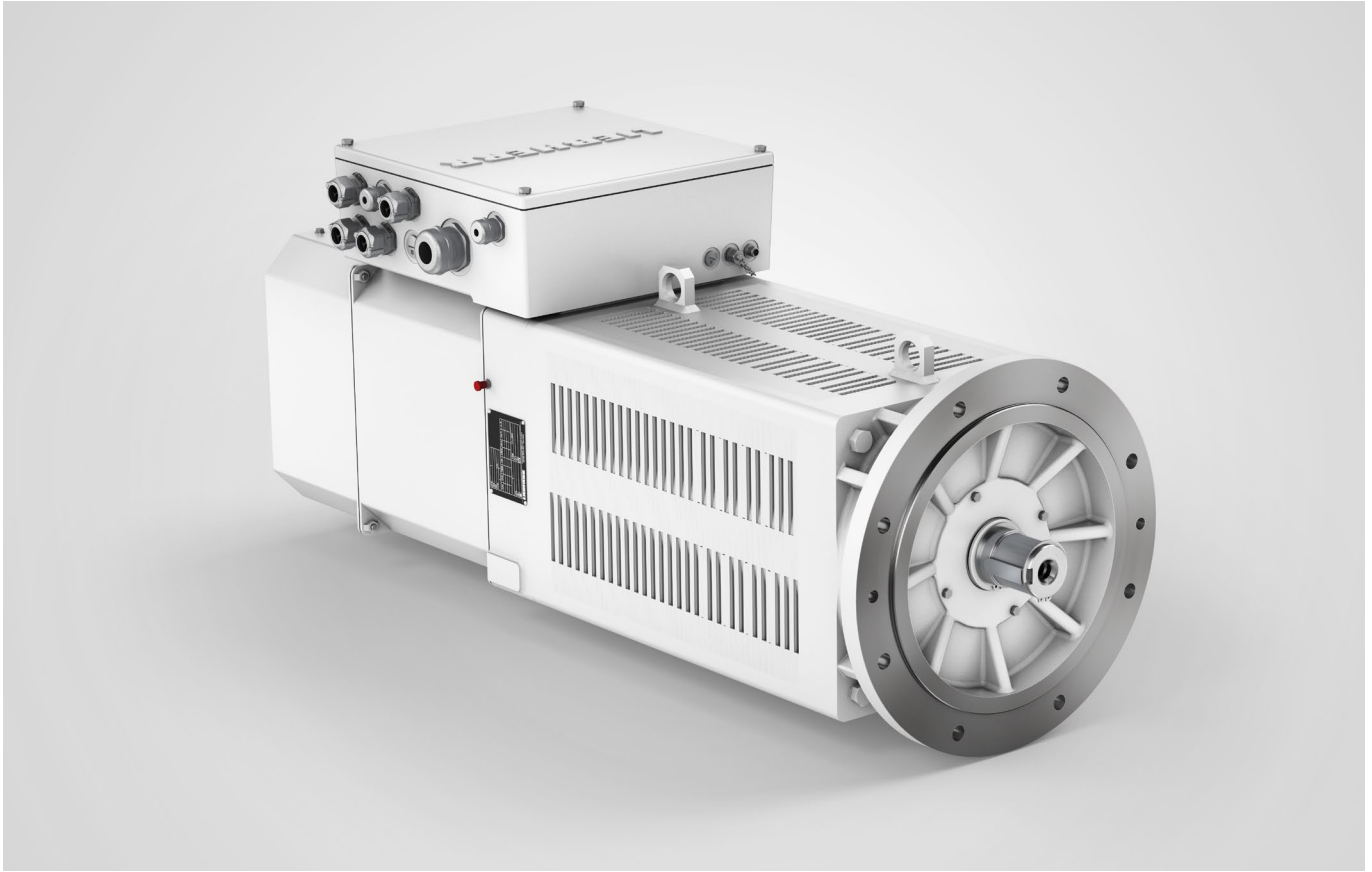


Short description

Electric motor series KGF 800



For decades now, special squirrel cage motors from Liebherr have been used reliably and successfully in numerous applications, especially in the naval field.

In consequences of the housing-free design and hence compact dimensions, applications are even possible when installation space is extremely restricted.

Size 180 currently covers the performance spectrum from 30 kW to 60 kW at 1,800 rpm. The high short-term overload capacity of the machines means 2.5 times the rated power can be attained rapidly at twice the rated speed.

Liebherr also offers comparable functionality in sizes 132 and 225.

Features:

- Adjustment range from 1,800 to 4,250 rpm at constant power density
- High dynamics owing to low moment of inertia
- High power density
- Very compact dimensions thanks to housing-free design

Date: 24/11/2017

Version: 01

Technical data

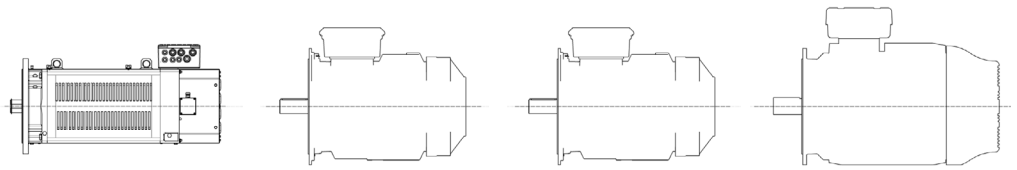
Electric motor series KGF 800

Technical data

Type		KGF 86x/4	KGF 87x/4	KGF 88x/4	KGF 89x/4
Rated power	[kW]	30	37	45	60
Rated speed	[rpm]	1,785	1,785	1,785	1,787
Rated torque	[Nm]	161	198	241	321
Breakdown torque	[Nm]	964	1,206	1,410	2,114
Rated voltage	[V]	690			
Rated current	[A]	34	42	49	62
Rated frequency	[Hz]	60			
cos ϕ		0.78	0.79	0.82	0.85
Mounting		IM B5			
Design size		BG 180			
Degree of protection		IP 55			
Insulation class		F			
Ambient temperature		-20° C ... +45° C			
Approval		CE			
Efficiency		IE2			
Weight	[kg]	378	414	447	528
Moment of inertia	[kgm ²]	0.360	0.441	0.512	0.659

Options

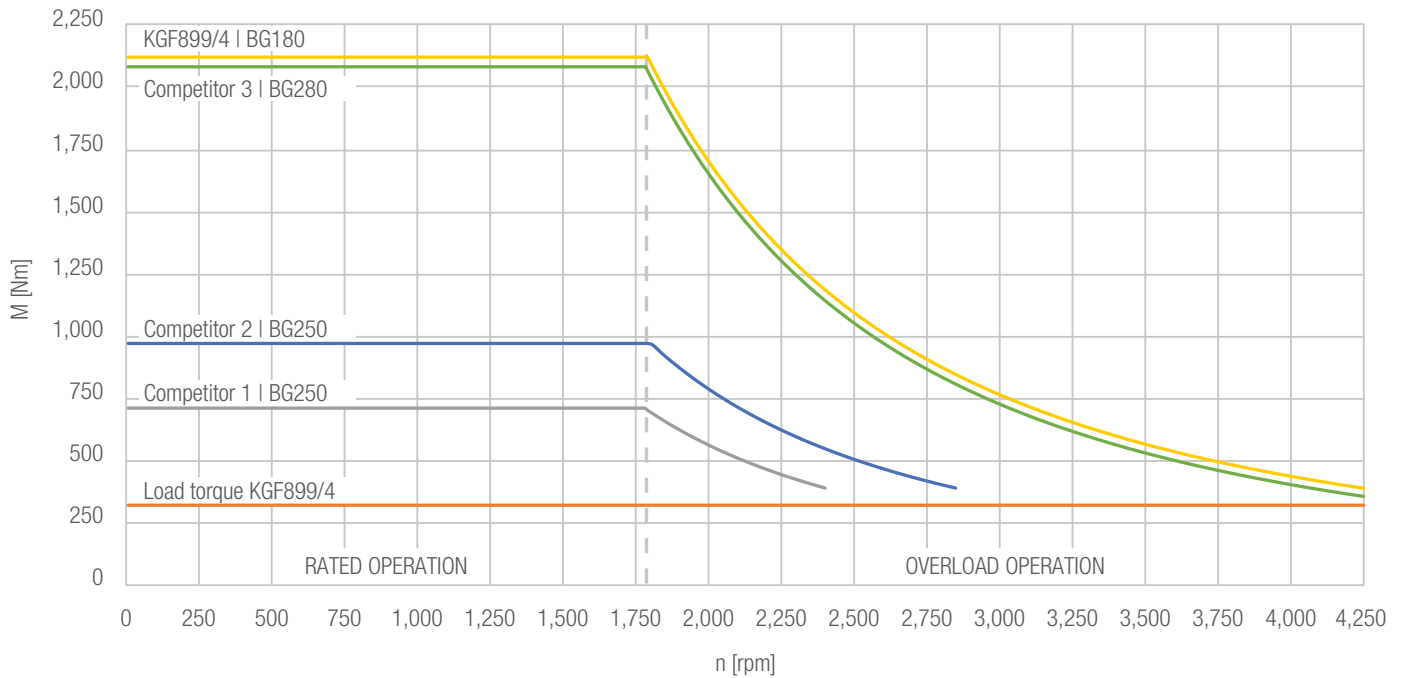
- Heavy-duty incremental encoder
- Electrically released safety brake
- Anti-condensation heating
- Relubrication option
- Sensor for bearing temperature monitoring
- SPM port for bearing vibration measuring instrumentation
- Paintwork corresponding to corrosion protection category C5



Comparison with the competition

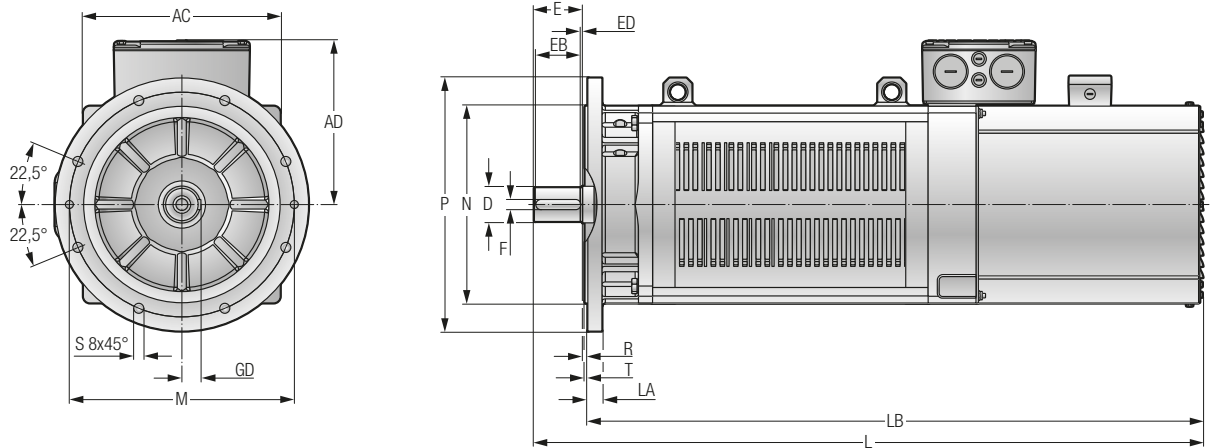
Model		KGF 899/4*	Competitor 1*	Competitor 2*	Competitor 3*
Cooling		IC416	IC411	IC411	IC411
Rated power (S1)	[kW]	60	63	63	150
Rated speed	[rpm]	1,787	1,778	1,800	1,780
Rated torque	[Nm]	321	337	334	805
Breakdown torque	[Nm]	2,114	708	969	2,093
Rated voltage	[V]	690	690	460	690
Rated frequency	[Hz]	60	60	60	60
Rated current	[A]	62	65	97	153
Moment of inertia	[kgm ²]	0.676	0.765	0.85	2.487
Design size		BG 180	BG 250	BG 250	BG 280

*The motors are shown without brake and encoder.



Electric motor series KGF 800

Overview of dimensions



Type		KGF 86x/4	KGF 87x/4	KGF 88x/4	KGF 89x/4
AC	[mm]			350	
AD	[mm]			332	
D	[mm]			60 m6	
E	[mm]			60	
EB	[mm]			60	
ED	[mm]			0	
F	[mm]			18	
GD	[mm]			34	
L	[mm]	783	833	883	998
LA	[mm]			25	
LB	[mm]	723	773	823	938
M	[mm]			400	
N	[mm]			350 h6	
P	[mm]			450	
R	[mm]			0	
S	[mm]			18	
T	[mm]			5	