



EFF 1

EFF 2

MG Model B, C & D 3 phase 0.25 - 11 kW

# Grundfos motors in a class of their own

Grundfos is one of the world's leading manufacturers of pumps and pumping equipment. Therefore, high-quality electrical motors are a natural priority for us. For decades, we have been manufacturing our own motors that match the very high standard of our pumps for application in building services, industry and water supply.

Grundfos manufactured motors are available in different sizes. Two-pole versions are available from 0.37 to 11 kW, and four-pole versions are available from 0.25 to 5.5 kW.



## UNIQUE FEATURES

Grundfos motors distinguish themselves from standard motors in the market in several ways. Grundfos motors are equipped with a reinforced bearing system with locked bearings at the drive end. All models from 3 kW and up have a built in PTC sensor arrangement. The motors are so-called cold motors, which means class B temperature rise and insulation class F.

Both two-pole and four-pole versions are available in a range of different voltages.

## Environmentally friendly

High-efficiency motors are far more energy friendly than conventional motors. This means reduced energy consumption and, thus, reduction of harmful emissions from the power sources. At Grundfos, the environmental issue is of great importance and, consequently, we supply only motors, which are in compliance with the CEMEP agreement. Our range comprises EFF1 designated models for every application.

High-efficiency motors mean reduced energy consumption and, consequently, reduced harmful influence on the environment. Obviously, reduced energy consumption also means reduced operating costs, which is a vital consideration for modern industry everywhere.

## Designations

Grundfos uses the following designations:

EFF1 motors are designated **High-efficiency/EFF1 motors**.

EFF2 motors are designated **Standard/EFF2 motors**.

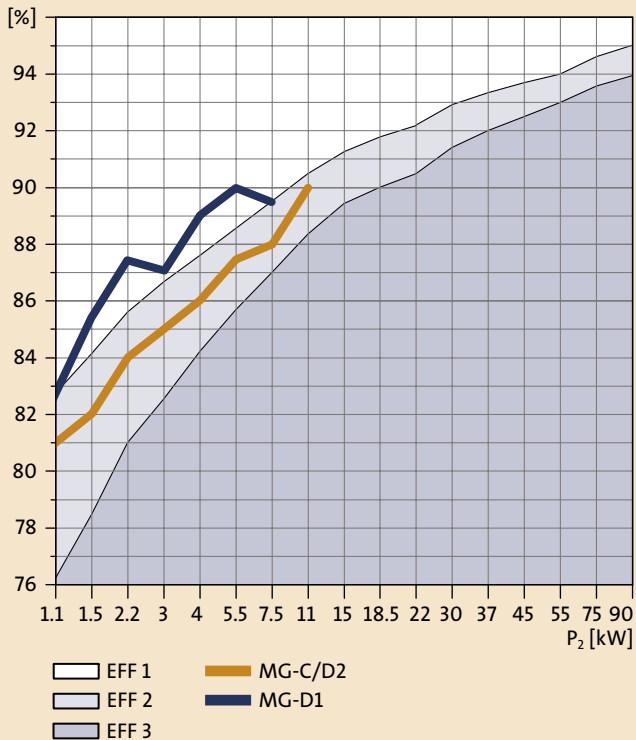
EFF3 motors are not available from Grundfos.

Grundfos CR pumps require motors with smooth shaft ends. The MG motors are ideal for this purpose. Motors equipped with shafts with keyway and key are suitable for the Grundfos TP, NK and NB pump ranges.

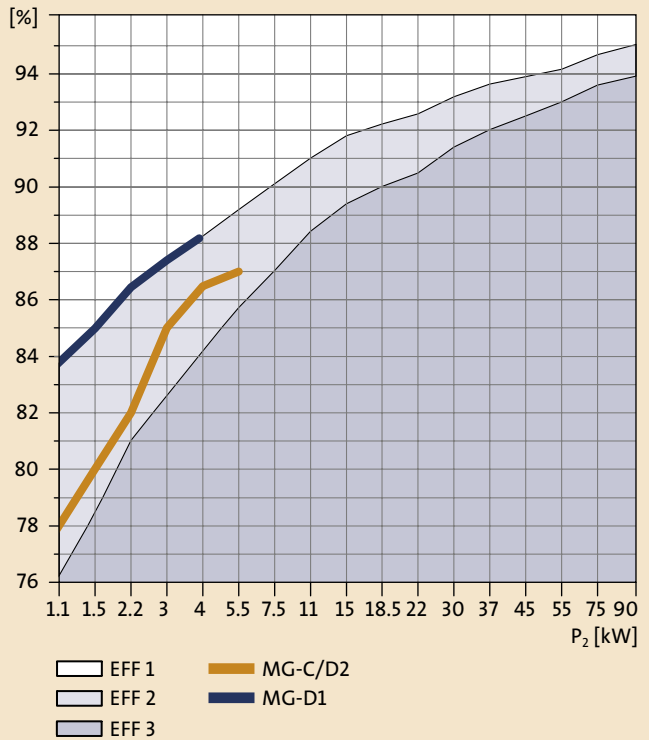
As a standard, all models are fitted with drain holes, closed at delivery and motors of frame size 160 can be relubricated. These features contribute to providing trouble-free operation and increase the operating lifetime of the motor.



## Motor efficiency, 2-pole motors



## Motor efficiency, 4-pole motors



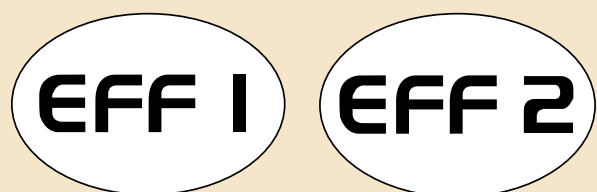
### Efficiency curves

The curves show efficiency of the Grundfos EFF1 and EFF2 MG motors. Motors with efficiency on or above the line between the EFF1 and EFF2 bands are classified as EFF1 motors. Motors with efficiency on or above the line between the EFF2 and EFF3 bands are classified as EFF2 motors.

### EFF1 and EFF2 designated motors

Some motor manufacturers have indiscriminately used the term “high efficiency” for years. In order to counteract this, a definition of what constitutes a high-efficiency motor was laid down in the “Energy Policy Act (EPACT)” instituted by the U.S. Congress effective of October 1997. The EU has agreed upon an almost identical definition. The so-called CEMEP list defines the minimum features of high-efficiency motors in the range from 1.1 to 90 kW, 2- and 4-pole.

The rules defined by the CEMEP and EPACT have subsequently been adopted as the world standard for high-efficiency motors.



# MG motor range

## Customised versions

The Grundfos manufactured motors have been designed specially for use with Grundfos pumps.

The motors meet international design standards, and within each motor type we offer a number of different variants. If you do not find the specific motor variant that you require among the ones listed in our product overview, customised motors are available upon request. Please contact your local Grundfos representative for further details.

## Voltage range

Frequency	Voltage
50	220-240Δ/380-415Y
60	220-255Δ/380-440Y <sup>1</sup>
	220-277Δ/380-480Y <sup>2</sup>
50	380-415Δ
60	380-440Δ <sup>1</sup>
	380-480Δ <sup>2</sup>

<sup>1)</sup> MG 71/80 <sup>2)</sup> MG 90 - 160

In general, “low voltage range” and “high voltage range” are used to describe the following:

Low voltage range	
220-240 Δ/380-415 Y, 50 Hz	220-277 Δ/380-480 Y, 60 Hz
High voltage range	
380-415 Δ, 50 Hz	380-480 Δ, 60 Hz

The technical data for the motors cover both 50 and 60 Hz versions. Contrary to most other motor makes, the Grundfos MG model B, C and D 3-phase motors offer the same power output in 50 and 60 Hz versions.

## Standards

The Grundfos motors are designed, manufactured and tested according to the internationally recognised standards for electrical motors: IEC60034-1 and IEC60072-1/EN50347

### Standard configuration of Grundfos motors

Mountings: V18/B14, V1/B5, B3, B34 and B35.  
IP55 with drain plugs closed.

## Range overview

Standard range of 3-phase MG motors.

Model	Phases	Power	2-pole		4-pole	
			Type designation	Efficiency class 1-2-3	Type designation	Efficiency class 1-2-3
B/C	3	0.25	-	Not defined for three-phase below 1.1 kW	MG71A4-B	Not defined for three-phase below 1.1 kW
	3	0.37	MG71A2-C		MG71B4-B	
	3	0.55	MG71B2-C		MG80A4-C	
	3	0.75	MG80A2-C		MG80B4-C	
	3	1.10	MG80B2-C2	2	MG90SA4-C2	2
	3	1.50	MG90SA2-C2	2	MG90LA4-C2	2
	3	2.20	MG90LA2-C2	2	MG100LB4-C2	2
	3	3.00	MG100LB2-C2	2	MG112MA4-C2	2
	3	4.00	MG112MB2-C2	2	MG112MB4-C2	2
	3	5.50	MG132SB2-C2	2	MG132SC4-C2	2
	3	7.50	MG132SC2-C2	2	-	-
3	11.0	MG160MB2-C2	2	-	-	

Model	Phases	Power	2-pole		4-pole	
			Type designation	Efficiency class 1-2-3	Type designation	Efficiency class 1-2-3
D	3	1.1	MG80B2-D1	1	-	-
	3	1.5	MG90SB2-D1	1	MG90LC4-D1	1
	3	2.2	MG90LC2-D1	1	MG100LB4-D1	1
	3	2.2	-	-	MG100LA4-D2	2
	3	3.0	MG100LC2-D1	1	MG100LC4-D1	1
	3	3.0	MG100LA2-D2	2	MG100LB4-D2	2
	3	3.0	MG112MB2-D1	1	-	-
	3	4.0	MG112MC2-D1	1	MG112MC4-D1	1
	3	5.5	MG132SC2-D1	1	-	-
	3	11	MG160MC2-D1	1	-	-

Note: MG 112 MB2-D1 does not follow the IEC 60072-1 standard for the foot-mounted version.

Duty cycle: S1.

Insulation class F with class B temperature rise according to IEC 62114.

PTC sensors according to DIN 44082 from 3.0 kW and up.  
Maximum ambient temperature for EFF1 motors = 60°C.  
EFF2 motors = 40°C.

TP211 according to IEC 60034-11.

Stainless steel screws.

Electro coating provides high corrosion resistance.

# Bearings

The Grundfos MG motors are fitted with locked bearings at the drive end, either a deep-groove ball bearing or an angular-contact bearing depending on the motor model. At the non-drive end, the motors are fitted with bearings with axial clearance. Axial clearance is required in order to meet production tolerances while allowing for thermal expansion during motor operation. This ensures trouble-free operation and a long life.

On standard models, a wave spring washer at the non-drive end holds the motor bearings in place.

Grundfos uses only high-quality bearings from the world's leading manufacturers. These include:

- SKF AB (Sweden)
- NSK Corporation (Japan)
- NTN Bearing Corporation (Japan)
- FAG Kugelfischer AG & Co KG (Germany)
- INA Schäffler KG (Germany)

These manufacturers all comply with international standards, which means that replacement bearings are readily available throughout the world and the bearings are fully interchangeable regardless of make.

## Bearing size overview

Frame size	2-pole	4-pole	Bearing sizes	
	Power	Power	Drive end	Non-drive end
71	0.37	0.25	6204.2Z.C3 <sup>1)</sup>	6201.2Z.C3
	0.55	0.37		
80	0.75	0.55	6305.2Z.C4	6205.2Z.C3
	1.10	0.75		
90	1.50	1.10	6306.2Z.C4 <sup>3)</sup>	6206.2Z.C3
	2.20	1.50		
100	3.00	2.20	6308.2Z.C4 <sup>3)</sup>	6209.Z.C4
112	4.00	3.00	6309.C4 <sup>4)</sup>	6209.Z.C4
	-	4.00		
132	5.50	5.50	6309.C4 <sup>4)</sup>	6209.Z.C4
	7.50	-		
160	11.0	-	6309.C4 <sup>4)</sup>	6209.Z.C4

<sup>1)</sup> CR15 motors: 6304.2Z.C3  
<sup>2)</sup> CR motors: 7306BE.2CS

<sup>3)</sup> CR motors: 7308BE.2CS  
<sup>4)</sup> CR motors: 7309BE

# Noise

In electrical motors, the cooling fan is normally the main source of noise. With EFF1 and EFF2 designated motors, because of the higher efficiency, less cooling air is needed to maintain the motor temperature. This allows for a smaller cooling fan, which in turn produces less noise.

## Sound pressure levels

Grundfos complies with the following rules relating to sound pressure:

- The sound power is measured according to EN ISO 3743-2.
- The sound power is converted to a mean sound pressure at 1 m distance from the test object by means of EN ISO 11203 – method Q2.
- The values for both 50 and 60 Hz have a tolerance of 3 dB[A] according to EN ISO 4871, which is not added to the values in these tables.

Sound pressure MG model D					
Motors	Phases	Power	Type designation	50 Hz Sound pressure level dB(A)	60 Hz Sound pressure level dB(A)
2-pole	3	1.5	MG90S82-D1	56.0	62.0
	3	2.2	MG90LC2-D1	58.0	63.0
	3	3.0	MG100LC2-D1	55.0	60.0
	3	3.0	MG100LA2-D2	56.0	61.0
	3	3.0	MG112MB2-D1	58.0	62.0
	3	4.0	MG112MC2-D1	62.0	66.0
	3	5.5	MG132SC2-D1	60.0	65.0
	3	7.5	MG132SD2-D1	65.0	70.0
4-pole	3	1.1	MG90S84-D1	46.5	47.5
	3	1.5	MG90LC4-D1	47.0	48.5
	3	2.2	MG100LB4-D1	48.0	51.5
	3	2.2	MG100LA4-D2	50.0	52.0
	3	3.0	MG100LC4-D1	50.0	54.0
	3	3.0	MG100LB4-D2	52.0	57.0
	3	4.0	MG112MC4-D1	48.0	53.0
	Sound pressure MG model B and C				
2-pole	3	0.37	MG71A2-C	50.0	55.0
	3	0.55	MG71B2-C	50.0	53.0
	3	0.75	MG80A2-C	50.0	54.0
	3	1.1	MG80B2-C2	52.0	57.0
	3	1.5	MG90SA2-C2	55.0	60.0
	3	2.2	MG90LA2-C2	55.0	61.0
	3	3.0	MG100LB2-C2	56.0	62.0
	3	4.0	MG112MB2-C2	63.0	68.0
	3	5.5	MG132SB2-C2	60.0	70.0
	3	7.5	MG132SC2-C2	70.0	75.0
	3	11.0	MG160 MB2-C2	72.0	76.0
	4-pole	3	0.25	MG71A4-B	40.0
3		0.37	MG71B4-B	40.0	42.0
3		0.55	MG80A4-C	40.0	43.0
3		0.75	MG80B4-C	45.0	46.0
3		1.1	MG90SA4-C2	48.0	52.0
3		1.5	MG90LA4-C2	50.0	52.0
3		2.2	MG100LB4-C2	49.0	51.0
3		3.0	MG112MA4-C2	54.0	56.0
3		4.0	MG112MB4-C2	56.0	58.0
3		5.5	MG132SC4-C2	60.0	66.0



# Electrical data

## MG Model D 2-pole · low voltage · 50/60 Hz

MG D		Low voltage · 2-pole motors 50 Hz 220 V Δ/380 V Y												
Short type designation	Efficiency class	Shaft power P <sub>2</sub>	Full load current I <sub>N</sub>	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M <sub>N</sub>	LRC I <sub>g</sub> /I <sub>N</sub>	LRT M <sub>g</sub> /M <sub>N</sub>	BT M <sub>Br</sub> /M <sub>N</sub>
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min <sup>-1</sup> ]	[Nm]	[%]	[%]	[%]
MG80B2-D1	1	1.10	4.45 / 2.55	0.64	0.77	0.84	84.5	84.5	82.8	2820	3.75	640	300	340
MG90SB2-D1	1	1.50	5.45 / 3.15	0.73	0.82	0.87	83.0	85.0	85.5	2890	5.00	850	320	370
MG90LC2-D1	1	2.20	7.70 / 4.45	0.79	0.87	0.89	85.0	86.0	87.5	2890	7.25	850	330	370
MG100LC2-D1	1	3.00	11.0 / 6.30	0.74	0.83	0.87	85.5	86.0	87.5	2900	9.90	840	320	410
MG112MB2-D1	1	3.00	10.4 / 5.95	0.76	0.85	0.88	88.0	88.5	88.0	2910	9.80	970	330	410
MG112MC2-D1	1	4.00	13.8 / 8.00	0.74	0.84	0.88	87.0	89.0	89.0	2910	13.0	1120	380	460
MG132SC2-D1	1	5.50	19.4 / 11.2	0.73	0.83	0.88	88.0	90.0	90.0	2910	18.0	1070	400	480
MG132SD2-D1	1	7.50	26.5 / 15.2	0.71	0.82	0.87	87.5	89.0	89.5	2900	24.5	1000	340	430
MG160MC2-D1	1	11	37.0 / 21.4	0.82	0.88	0.90	92.5	92.0	91.4	2920	36.0	730	240	320
Low voltage · 2-pole motors 50 Hz 240 V Δ/415 V Y														
MG80B2-D1	1	1.10	4.45 / 2.55	0.52	0.66	0.76	81.0	82.5	82.8	2860	3.65	700	360	410
MG90SB2-D1	1	1.50	5.45 / 3.15	0.64	0.75	0.82	82.0	84.5	85.5	2910	5.00	930	390	440
MG90LC2-D1	1	2.20	7.70 / 4.45	0.73	0.82	0.87	83.0	86.5	87.5	2910	7.25	950	390	440
MG100LC2-D1	1	3.00	11.0 / 6.30	0.63	0.75	0.82	84.0	86.0	87.5	2920	9.90	920	390	460
MG112MB2-D1	1	3.00	10.4 / 5.95	0.69	0.80	0.85	86.0	88.5	88.0	2930	9.80	1070	390	490
MG112MC2-D1	1	4.00	13.8 / 8.00	0.67	0.78	0.84	86.0	88.0	89.0	2930	13.0	1230	460	550
MG132SC2-D1	1	5.50	19.4 / 11.2	0.64	0.75	0.84	87.0	89.5	90.0	2930	18.0	1170	470	570
MG132SD2-D1	1	7.50	26.5 / 15.2	0.58	0.72	0.80	86.0	88.0	89.5	2920	24.5	1110	380	520
MG160MC2-D1	1	11	37.0 / 21.4	0.77	0.85	0.90	93.0	93.0	91.4	2930	36.0	800	300	390
Low voltage · 2-pole motors 60 Hz 220 V Δ/380 V Y														
MG80B2-D1	1	1.10	4.20 / 2.45	0.75	0.84	0.88	84.5	85.0	82.0	3390	3.10	610	280	310
MG90SB2-D1	1	1.50	5.35 / 3.10	0.80	0.86	0.90	83.0	85.0	84.0	3470	4.10	780	270	330
MG90LC2-D1	1	2.20	7.70 / 4.45	0.85	0.89	0.91	84.5	85.5	84.0	3470	6.00	780	280	330
MG100LC2-D1	1	3.00	10.8 / 6.20	0.80	0.88	0.89	85.0	85.0	84.0	3430	8.10	800	280	370
MG112MB2-D1	1	3.00	10.2 / 5.90	0.82	0.88	0.91	87.5	88.0	87.5	3490	8.10	860	280	370
MG112MC2-D1	1	4.00	13.6 / 7.80	0.80	0.87	0.90	87.0	88.5	88.0	3510	10.8	1020	330	420
MG132SC2-D1	1	5.50	18.8 / 10.8	0.80	0.87	0.90	89.0	90.0	89.0	3510	15.0	1000	310	420
MG132SD2-D1	1	7.50	25.5 / 14.8	0.80	0.87	0.90	89.5	90.0	89.0	3490	20.5	930	280	390
MG160MC2-D1	1	11	37.0 / 21.4	0.86	0.90	0.92	92.5	92.5	90.0	3490	30.0	620	210	290
Low voltage · 2-pole motors 60 Hz 255 V Δ/440 V Y														
MG80B2-D1	1	1.10	3.85 / 2.22	0.62	0.74	0.82	83.5	85.0	84.5	3460	3.06	790	380	420
Low voltage · 2-pole motors 60 Hz 277 V Δ/480 V Y														
MG90SB2-D1	1	1.50	4.70 / 2.70	0.63	0.74	0.81	80.0	84.0	85.0	3530	4.10	1050	430	530
MG90LC2-D1	1	2.20	6.35 / 3.70	0.71	0.80	0.85	84.0	86.0	87.0	3530	6.00	1100	450	530
MG100LC2-D1	1	3.00	9.80 / 5.65	0.60	0.73	0.84	83.0	86.0	87.5	3530	8.10	1100	450	540
MG112MB2-D1	1	3.00	8.65 / 5.00	0.66	0.78	0.84	86.0	88.0	88.5	3540	8.10	1300	450	590
MG112MC2-D1	1	4.00	11.8 / 6.80	0.65	0.76	0.82	84.0	87.5	89.0	3540	10.8	1500	530	670
MG132SC2-D1	1	5.50	16.4 / 9.45	0.62	0.74	0.82	86.5	89.0	89.0	3540	15.0	1460	500	670
MG132SD2-D1	1	7.50	23.2 / 13.4	0.57	0.72	0.79	87.0	89.0	89.5	3530	20.5	1300	440	620
MG160MC2-D1	1	11	29.5 / 17.2	0.75	0.83	0.88	92.5	93.5	93.0	3540	30.0	970	350	460

The data shows the value for the lower as well as the upper interval voltage.



MG Model D 2-pole · high voltage · 50/60 Hz

MG D		High voltage · 2-pole motors 50 Hz 380 V Δ												
Short type designation	Efficiency class	Shaft power P <sub>2</sub>	Full load current I <sub>N</sub>	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M <sub>N</sub>	LRC I <sub>g</sub> /I <sub>N</sub>	LRT M <sub>g</sub> /M <sub>N</sub>	BT M <sub>BT</sub> /M <sub>N</sub>
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min <sup>-1</sup> ]	[Nm]	[%]	[%]	[%]
MG80B2-D1	1	1.10	2.60	0.64	0.77	0.84	84.5	84.5	82.8	2820	3.75	640	300	340
MG90SB2-D1	1	1.50	3.15	0.73	0.82	0.87	83.0	85.0	85.5	2890	5.00	850	320	370
MG90LC2-D1	1	2.20	4.45	0.79	0.87	0.89	85.0	86.0	87.5	2890	7.25	850	330	370
MG100LC2-D1	1	3.00	6.30	0.74	0.83	0.87	85.5	86.0	87.5	2900	9.90	840	320	410
MG112MB2-D1	1	3.00	5.95	0.76	0.85	0.88	88.0	88.5	88.0	2910	9.80	970	330	410
MG112MC2-D1	1	4.00	8.00	0.74	0.84	0.88	87.0	89.0	89.0	2910	13.0	1120	380	460
MG132SC2-D1	1	5.50	11.2	0.73	0.83	0.88	88.0	90.0	90.0	2910	18.0	1070	400	480
MG132SD2-D1	1	7.50	15.2	0.71	0.82	0.87	87.5	89.0	89.5	2900	24.5	1000	340	430
MG160MC2-D1	1	11	21.4	0.82	0.88	0.90	92.5	0.92	91.4	2920	36.0	730	240	320
High voltage · 2-pole motors 50 Hz 415t V Δ														
MG80B2-D1	1	1.10	2.60	0.52	0.66	0.76	81.0	82.5	82.8	2860	3.65	700	360	410
MG90SB2-D1	1	1.50	3.15	0.64	0.75	0.82	82.0	84.5	85.5	2910	5.00	930	390	440
MG90LC2-D1	1	2.20	4.45	0.73	0.82	0.87	83.0	86.5	87.5	2910	7.25	950	390	440
MG100LC2-D1	1	3.00	6.30	0.63	0.75	0.82	84.0	86.0	87.5	2920	9.90	920	390	460
MG112MB2-D1	1	3.00	5.95	0.69	0.80	0.85	86.0	88.5	88.0	2930	9.80	1070	390	490
MG112MC2-D1	1	4.00	8.00	0.67	0.78	0.84	86.0	88.0	89.0	2930	13.0	1230	460	550
MG132SC2-D1	1	5.50	11.2	0.64	0.75	0.84	87.0	89.5	90.0	2930	18.0	1170	470	570
MG132SD2-D1	1	7.50	15.2	0.58	0.72	0.80	86.0	88.0	89.5	2920	24.5	1110	690	520
MG160MC2-D1	1	11	21.4	0.77	0.85	0.90	93.0	93.0	91.4	2930	36.0	800	300	390
High voltage · 2-pole motors 60 Hz 380 V Δ														
MG80B2-D1	1	1.10	2.40	0.75	0.84	0.88	84.5	0.85	0.82	3390	3.10	610	280	310
MG90SB2-D1	1	1.50	3.10	0.80	0.86	0.90	83.0	85.0	84.0	3470	4.10	780	270	330
MG90LC2-D1	1	2.20	4.45	0.85	0.89	0.91	84.5	85.5	84.0	3470	6.00	780	280	330
MG100LC2-D1	1	3.00	6.20	0.80	0.88	0.89	85.0	85.0	84.0	3430	8.10	800	280	370
MG112MB2-D1	1	3.00	5.90	0.82	0.88	0.91	87.5	88.0	87.5	3490	8.10	860	280	370
MG112MC2-D1	1	4.00	7.80	0.80	0.87	0.90	87.0	88.5	88.0	3510	10.8	1020	330	420
MG132SC2-D1	1	5.50	10.8	0.80	0.87	0.90	89.0	90.0	89.0	3510	15.0	1000	310	420
MG132SD2-D1	1	7.50	14.8	0.80	0.87	0.90	89.5	90.0	89.0	3490	20.5	930	280	390
MG160MC2-D1	1	11	21.4	0.86	0.90	0.92	92.5	92.5	90.0	3490	30.0	620	210	290
High voltage · 2-pole motors 60 Hz 440 V Δ														
MG80B2-D1	1	1.10	2.20	0.62	0.74	0.82	83.5	0.85	84.5	3460	3.06	790	380	420
High voltage · 2-pole motors 60 Hz 480 V Δ														
MG90SB2-D1	1	1.50	2.70	0.63	0.74	0.81	80.0	84.0	85.0	3530	4.10	1050	430	530
MG90LC2-D1	1	2.20	3.70	0.71	0.80	0.85	84.0	86.0	87.0	3530	6.00	1100	450	530
MG100LC2-D1	1	3.00	5.65	0.60	0.73	0.84	83.0	86.0	87.5	3530	8.10	1100	450	540
MG112MB2-D1	1	3.00	5.00	0.66	0.78	0.84	86.0	88.0	88.5	3540	8.10	1300	450	590
MG112MC2-D1	1	4.00	6.80	0.65	0.76	0.82	84.0	87.5	89.0	3540	10.8	1500	530	670
MG132SC2-D1	1	5.50	9.45	0.62	0.74	0.82	86.5	89.0	89.0	3540	15.0	1460	500	670
MG132SD2-D1	1	7.50	13.4	0.57	0.72	0.79	87.0	89.0	89.5	3530	20.5	1300	440	620
MG160MC2-D1	1	11	17.2	0.75	0.83	0.88	92.5	93.5	93.0	3540	30.0	970	350	460

The data shows the value for the lower as well as the upper interval voltage.

# Electrical data

## MG Model D 4-pole · low voltage · 50/60 Hz

MG D		Low voltage · 4-pole motors 50 Hz 220 V Δ/380 V Y												
Short type designation	Efficiency class	Shaft power $P_2$	Full load current $I_N$	Power factor $\cos \varphi$ at % load			Efficiency $\eta$ at % load			Speed $n$	Torque at 400 V $M_N$	LRC $I_f/I_N$	LRT $M_f/M_N$	BT $M_{Br}/M_N$
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min <sup>-1</sup> ]	[Nm]	[%]	[%]	[%]
MG90SB4-D1	1	1.10	4.70 / 2.70	0.62	0.74	0.78	80.0	82.0	83.8	1440	7.35	700	290	350
MG90LC4-D1	1	1.50	6.20 / 3.60	0.58	0.72	0.77	82.0	84.0	85.0	1440	9.90	600	290	350
MG100LB4-D1	1	2.20	9.25 / 5.35	0.58	0.70	0.77	84.0	85.5	86.4	1440	14.5	620	240	270
MG100LC4-D1	1	3.00	12.5 / 7.20	0.61	0.71	0.77	84.5	86.0	87.4	1440	19.9	610	190	240
MG112MC4-D1	1	4.00	15.4 / 8.90	0.69	0.79	0.81	87.0	89.0	88.3	1450	26.3	730	250	310
		Low voltage · 4-pole motors 50 Hz 240 V Δ/415 V Y												
MG90SB4-D1	1	1.10	4.70 / 2.70	0.51	0.65	0.72	78.0	82.0	83.8	1445	7.35	760	340	410
MG90LC4-D1	1	1.50	6.20 / 3.60	0.51	0.65	0.72	81.0	84.0	85.0	1450	9.90	660	340	410
MG100LB4-D1	1	2.20	9.25 / 5.35	0.49	0.61	0.70	82.0	85.0	86.4	1450	14.5	670	280	320
MG100LC4-D1	1	3.00	12.5 / 7.20	0.50	0.62	0.70	83.0	86.0	87.4	1450	19.9	670	230	290
MG112MC4-D1	1	4.00	15.4 / 8.90	0.55	0.69	0.75	87.0	89.0	88.3	1455	26.3	800	300	370
		Low voltage · 4-pole motors 60 Hz 220 V Δ/380 V Y												
MG90SB4-D1	1	1.10	4.50 / 2.60	0.69	0.79	0.82	79.0	81.0	81.0	1720	6.10	650	250	310
MG90LC4-D1	1	1.50	5.70 / 3.30	0.71	0.82	0.86	82.0	83.0	84.0	1720	8.40	530	260	280
MG100LB4-D1	1	2.20	8.90 / 5.15	0.69	0.76	0.80	85.0	85.5	85.0	1720	12.0	660	210	230
MG100LC4-D1	1	3.00	12.0 / 6.95	0.70	0.77	0.80	86.0	86.0	86.0	1720	16.5	540	180	220
MG112MC4-D1	1	4.00	14.2 / 8.20	0.76	0.84	0.86	87.0	87.0	88.0	1740	19.9	660	240	290
		Low voltage · 4-pole motors 60 Hz 277 V Δ/480 V Y												
MG90SB4-D1	1	1.10	4.00 / 2.30	0.50	0.63	0.72	75.0	80.0	82.0	1750	6.10	990	400	490
MG90LC4-D1	1	1.50	9.80 / 2.95	0.52	0.65	0.75	80.0	83.0	85.0	1750	8.40	780	410	440
MG100LB4-D1	1	2.20	8.15 / 4.70	0.50	0.61	0.70	81.0	85.0	86.0	1750	12.0	920	340	360
MG100LC4-D1	1	3.00	10.9 / 6.30	0.50	0.61	0.70	82.0	85.0	86.5	1750	16.5	750	250	330
MG112MC4-D1	1	4.00	12.6 / 7.30	0.56	0.70	0.77	87.0	88.0	89.0	1755	19.9	1000	380	460

The data shows the value for the lower as well as the upper interval voltage.







### MG Model D 4-pole · high voltage · 50/60 Hz

MG D		High voltage · 4-pole motors 50 Hz 380 V Δ												
Short type designation	Efficiency class	Shaft power P <sub>2</sub>	Full load current I <sub>N</sub>	Power factor Cos φ at % load			Efficiency η at % load			Speed n	Torque at 400 V M <sub>N</sub>	LRC I <sub>g</sub> /I <sub>N</sub>	LRT M <sub>g</sub> /M <sub>N</sub>	BT M <sub>Br</sub> /M <sub>N</sub>
		[kW]	[A]	50 %	75 %	100 %	50 %	75 %	100 %	[min <sup>-1</sup> ]	[Nm]	[%]	[%]	[%]
MG90SB4-D1	1	1.10	2.70	0.62	0.74	0.78	80.0	82.0	83.8	1440	7.35	700	290	350
MG90LC4-D1	1	1.50	3.60	0.58	0.72	0.77	82.0	84.0	85.0	1440	9.90	600	290	350
MG100LB4-D1	1	2.20	5.35	0.58	0.70	0.77	84.0	85.5	86.4	1440	14.5	620	240	270
MG100LC4-D1	1	3.00	7.20	0.61	0.71	0.77	84.5	86.0	87.4	1440	19.9	610	190	240
MG112MC4-D1	1	4.00	8.90	0.69	0.79	0.81	87.0	89.0	88.3	1450	26.3	730	250	310
		High voltage · 4-pole motors 50 Hz 415 V Δ												
MG90SB4-D1	1	1.10	2.70	0.51	0.65	0.72	78.0	82.0	83.8	1445	7.35	760	340	410
MG90LC4-D1	1	1.50	3.60	0.51	0.65	0.72	81.0	84.0	85.0	1450	9.90	660	340	410
MG100LB4-D1	1	2.20	5.35	0.49	0.61	0.70	82.0	85.0	86.4	1450	14.5	670	280	320
MG100LC4-D1	1	3.00	7.20	0.50	0.62	0.70	83.0	86.0	87.4	1450	19.9	670	230	290
MG112MC4-D1	1	4.00	8.90	0.55	0.69	0.75	87.0	89.0	88.3	1455	26.3	800	300	370
		High voltage · 4-pole motors 60 Hz 380 V Δ												
MG 90SB4-D1	1	1.10	2.60	0.69	0.79	0.82	79.0	81.0	81.0	1720	6.10	650	250	310
MG90LC4-D1	1	1.50	3.30	0.71	0.82	0.86	82.0	83.0	84.0	1720	8.40	530	260	280
MG100LB4-D1	1	2.20	5.15	0.69	0.76	0.80	85.0	85.5	85.0	1720	12.0	660	210	230
MG100LC4-D1	1	3.00	6.95	0.70	0.77	0.80	86.0	86.0	86.0	1720	16.5	540	180	220
MG112MC4-D1	1	4.00	8.20	0.76	0.84	0.86	87.0	87.0	88.0	1740	19.9	660	240	290
		High voltage · 4-pole motors 60 Hz 480 V Δ												
MG90SB4-D1	1	1.10	2.30	0.50	0.63	0.72	75.0	80.0	82.0	1750	6.10	990	400	490
MG90LC4-D1	1	1.50	2.95	0.52	0.65	0.75	80.0	83.0	85.0	1750	8.40	780	410	440
MG100LB4-D1	1	2.20	4.70	0.50	0.61	0.70	81.0	85.0	86.0	1750	12.0	920	340	360
MG100LC4-D1	1	3.00	6.30	0.50	0.61	0.70	82.0	85.0	86.5	1750	16.5	750	250	330
MG112MC4-D1	1	4.00	7.30	0.56	0.70	0.77	87.0	88.0	89.0	1755	19.9	1000	380	460

The data shows the value for the lower as well as the upper interval voltage.





# Electrical data

## MG Model C and D 2-pole · low voltage · 50/60 Hz

MG C		Low voltage · 2-pole motors 50 Hz 220 V Δ/380 V Y												
Short type designation	Efficiency class	Shaft power P <sub>2</sub> [kW]	Full load current I <sub>N</sub> [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min <sup>-1</sup> ]	Torque at 400 V M <sub>N</sub> [Nm]	LRC I <sub>y</sub> /I <sub>N</sub> [%]	LRT M <sub>y</sub> /M <sub>N</sub> [%]	BT M <sub>BT</sub> /M <sub>N</sub> [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MG71A2-C	-	0.37	1.74 / 1.00	0.57	0.70	0.80	75.5	79.0	78.5	2850	1.26	490	300	330
MG71B2-C	-	0.55	2.50 / 1.44	0.56	0.70	0.80	79.5	81.5	80.0	2830	1.86	480	330	350
MG80A2-C	-	0.75	3.30 / 1.90	0.60	0.72	0.81	82.0	83.5	81.0	2840	2.50	580	330	370
MG80A2-C2	2	1.10	4.50 / 2.60	0.63	0.75	0.81	84.5	84.5	81.0	2820	3.70	580	310	330
MG90SA2-C2	2	1.50	5.90 / 3.40	0.71	0.81	0.85	81.0	83.0	82.0	2860	5.00	630	240	300
MG90LA2-C2	2	2.20	8.25 / 4.75	0.74	0.84	0.87	84.0	85.0	84.0	2860	7.30	700	290	350
MG100LA2-D2	2	3.00	11.0 / 6.40	0.72	0.82	0.87	84.0	85.0	85.0	2900	9.90	800	300	400
MG100LB2-C2	2	3.00	10.8 / 6.25	0.76	0.85	0.88	86.5	87.0	85.0	2880	9.90	780	270	320
MG112MB2-C2	2	4.00	13.8 / 8.00	0.77	0.86	0.90	87.5	88.0	86.0	2900	13.2	870	280	370
MG132SB2-C2	2	5.50	19.0 / 11.0	0.78	0.86	0.89	88.0	89.0	87.5	2890	18.2	890	290	370
MG132SC2-C2	2	7.50	26.5 / 15.2	0.73	0.83	0.87	90.0	90.5	88.0	2890	24.8	910	310	390
MG160MB2-C2	2	11.0	37.0 / 21.4	-	-	0.89	-	-	90.0	2920	36.0	730	260	330
Low voltage · 2-pole motors 50 Hz 240 V Δ/415 V Y														
MG71A2-C	-	0.37	1.74 / 1.00	0.46	0.59	0.70	71.5	76.5	78.5	2880	1.26	530	360	400
MG71B2-C	-	0.55	2.50 / 1.44	0.44	0.58	0.70	74.5	78.5	80.0	2850	1.86	520	390	420
MG80A2-C	-	0.75	3.30 / 1.90	0.46	0.60	0.71	78.5	81.5	81.0	2870	2.50	620	390	440
MG80A2-C2	2	1.10	4.50 / 2.60	0.49	0.64	0.75	80.5	83.0	81.0	2850	3.70	630	370	400
MG90SA2-C2	2	1.50	5.90 / 3.40	0.58	0.70	0.79	79.0	81.0	82.0	2890	5.00	630	240	300
MG90LA2-C2	2	2.20	8.25 / 4.75	0.62	0.74	0.82	82.0	84.0	84.0	2890	7.30	700	290	350
MG100LA2-D2	2	3.00	11.0 / 6.40	0.60	0.72	0.80	81.0	84.0	85.0	2920	9.90	880	360	480
MG100LB2-C2	2	3.00	10.8 / 6.25	0.63	0.75	0.82	85.0	86.0	85.0	2910	9.90	780	270	320
MG112MB2-C2	2	4.00	13.8 / 8.00	0.68	0.80	0.87	86.5	88.0	86.0	2910	13.2	870	280	370
MG132SB2-C2	2	5.50	19.0 / 11.0	0.69	0.80	0.86	87.5	89.0	87.5	2910	18.2	890	290	370
MG132SC2-C2	2	7.50	26.5 / 15.2	0.60	0.73	0.81	87.5	89.0	88.0	2910	24.8	910	310	390
MG160MB2-C2	2	11.0	37.0 / 21.4	-	-	0.87	-	-	90.0	2930	36.0	730	260	330
Low voltage · 2-pole motors 60 Hz 220 V Δ/380 V Y														
MG71A2-C	-	0.37	1.50 / 0.87	0.67	0.78	0.85	77.5	80.0	79.0	3410	1.04	550	260	300
MG71B2-C	-	0.55	2.15 / 1.25	0.68	0.78	0.85	82.5	83.0	81.5	3390	1.54	500	290	320
MG80A2-C	-	0.75	2.85 / 1.65	0.69	0.80	0.86	85.0	85.5	83.0	3400	2.10	600	280	330
MG80B2-C2	2	1.10	4.15 / 2.40	0.73	0.82	0.86	86.0	86.5	82.0	3370	3.15	590	280	300
MG90SA2-C2	2	1.50	5.70 / 3.30	0.79	0.86	0.89	79.5	82.0	80.5	3440	4.10	590	210	280
MG90LA2-C2	2	2.20	8.05 / 4.65	0.83	0.88	0.90	84.0	84.0	83.0	3440	6.00	650	240	300
MG100LA2-D2	2	3.00	10.8 / 6.25	0.84	0.88	0.90	84.0	84.5	83.0	3470	8.20	750	270	360
MG100LB2-C2	2	3.00	10.6 / 6.10	0.85	0.89	0.90	87.0	86.5	85.0	3450	8.20	740	230	290
MG112MB2-C2	2	4.00	13.6 / 7.85	0.83	0.90	0.92	88.0	88.5	86.0	3480	11.0	800	240	340
MG132SB2-C2	2	5.50	18.8 / 10.8	0.84	0.89	0.92	88.0	89.0	86.5	3480	15.0	820	260	340
MG132SC2-C2	2	7.50	25.5 / 14.6	0.82	0.89	0.92	90.0	89.5	87.5	3480	20.4	950	280	360
MG160MB2-C2	2	11.0	37.0 / 21.4	-	-	0.90	-	-	89.0	3480	30.0	660	210	280
Low voltage · 2-pole motors 60 Hz 255 V Δ/440 V Y														
MG71A2-C	-	0.37	1.44 / 0.83	0.55	0.67	0.76	75.0	79.0	80.0	3470	1.04	650	350	400
MG71B2-C	-	0.55	2.05 / 1.20	0.53	0.67	0.76	79.5	83.0	83.0	3460	1.54	600	390	430
MG80A2-C	-	0.75	2.70 / 1.55	0.57	0.69	0.78	83.0	85.0	85.0	3470	2.10	740	380	440
MG80B2-C2	2	1.10	3.80 / 2.20	0.60	0.72	0.80	86.0	86.5	85.0	3450	3.15	730	370	400
Low voltage · 2-pole motors 60 Hz 277 V Δ/480 V Y														
MG90SA2-C2	2	1.50	5.00 / 2.90	0.57	0.70	0.78	76.5	81.5	82.0	3500	4.10	840	350	430
MG90LA2-C2	2	2.20	6.95 / 4.00	0.62	0.74	0.81	80.5	84.0	84.5	3500	6.00	950	390	490
MG100LA2-D2	2	3.00	9.45 / 5.45	0.60	0.72	0.79	81.0	84.0	85.0	3520	8.20	1100	440	580
MG100LB2-C2	2	3.00	9.00 / 5.20	0.63	0.75	0.83	85.0	88.0	86.0	3520	8.20	1100	380	470
MG112MB2-C2	2	4.00	11.4 / 6.60	0.68	0.79	0.85	85.0	87.0	87.0	3520	11.0	1200	380	540
MG132SB2-C2	2	5.50	15.6 / 9.00	0.68	0.80	0.85	87.5	89.0	88.5	3520	15.0	1240	410	550
MG132SC2-C2	2	7.50	22.6 / 13.0	0.59	0.72	0.80	87.5	89.5	89.0	3520	20.4	1160	440	580
MG160MB2-C2	2	11.0	30.2 / 17.4	-	-	0.86	-	-	91.0	3530	30.0	960	330	440

The data shows the value for the lower as well as the upper interval voltage.



### MG Model C and D 2-pole · high voltage · 50/60 Hz

MG C		High voltage · 2-pole motors 50 Hz 380 V Δ												
Short type designation	Efficiency class	Shaft power P <sub>2</sub> [kW]	Full load current I <sub>N</sub> [A]	Power factor Cos φ at % load			Efficiency η <sub>1</sub> at % load			Speed n [min <sup>-1</sup> ]	Torque at 400 V M <sub>N</sub> [Nm]	LRC I <sub>g</sub> /I <sub>N</sub> [%]	LRT M <sub>g</sub> /M <sub>N</sub> [%]	BT M <sub>BT</sub> /M <sub>N</sub> [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MG90SA2-C2	2	1.50	3.40	0.71	0.81	0.85	81.0	83.0	82.0	2860	5.00	630	240	300
MG90LA2-C2	2	2.20	4.75	0.74	0.84	0.87	84.0	85.0	84.0	2860	7.30	700	290	350
MG100LA2-D2	2	3.00	6.40	0.72	0.82	0.87	84.0	85.0	85.0	2900	9.90	800	300	400
MG100LB2-C2	2	3.00	6.25	0.76	0.85	0.88	86.5	87.0	85.0	2880	9.90	780	270	320
MG112MB2-C2	2	4.00	8.00	0.77	0.86	0.90	87.5	88.0	86.0	2900	13.2	870	280	370
MG132SB2-C2	2	5.50	11.0	0.78	0.86	0.89	88.0	89.0	87.5	2890	18.2	890	290	370
MG132SC2-C2	2	7.50	15.2	0.73	0.83	0.87	90.0	90.5	88.0	2890	24.8	910	310	390
MG160MB2-C2	2	11.0	21.4	-	-	0.89	-	-	90.0	2920	36.0	730	260	330
High voltage · 2-pole motors 50 Hz 415 V Δ														
MG90SA2-C2	2	1.50	3.40	0.58	0.70	0.79	79.0	81.0	82.0	2890	5.00	690	290	360
MG90LA2-C2	2	2.20	4.75	0.62	0.74	0.82	82.0	84.0	84.0	2890	7.30	760	350	420
MG100LA2-D2	2	3.00	6.40	0.60	0.72	0.80	81.0	84.0	85.0	2920	9.90	880	360	480
MG100LB2-C2	2	3.00	6.25	0.63	0.75	0.82	85.0	86.0	85.0	2910	9.90	850	330	380
MG112MB2-C2	2	4.00	8.00	0.68	0.80	0.87	86.5	88.0	86.0	2910	13.2	950	330	440
MG132SB2-C2	2	5.50	11.0	0.69	0.80	0.86	87.5	89.0	87.5	2910	18.2	970	350	440
MG132SC2-C2	2	7.50	15.2	0.60	0.73	0.81	87.5	89.0	88.0	2910	24.8	990	370	460
MG160MB2-C2	2	11.0	21.4	-	-	0.87	-	-	90.0	2930	36.0	810	300	390
High voltage · 2-pole motors 60 Hz 380 V Δ														
MG90SA2-C2	2	1.50	3.30	0.79	0.86	0.89	79.5	82.0	80.5	3440	4.10	590	210	280
MG90LA2-C2	2	2.20	4.65	0.83	0.88	0.90	84.0	84.0	83.0	3440	6.00	650	240	300
MG100LA2-D2	2	3.00	6.25	0.84	0.88	0.90	84.0	84.5	83.0	3470	8.20	750	270	360
MG100LB2-C2	2	3.00	6.10	0.85	0.89	0.90	87.0	86.5	85.0	3450	8.20	740	230	290
MG112MB2-C2	2	4.00	7.85	0.83	0.90	0.92	88.0	88.5	86.0	3480	11.0	800	240	340
MG132SB2-C2	2	5.50	10.8	0.84	0.89	0.92	88.0	89.0	86.5	3480	15.0	820	260	340
MG132SC2-C2	2	7.50	14.6	0.82	0.89	0.92	90.0	89.5	87.5	3480	20.4	950	280	360
MG160MB2-C2	2	11.0	21.4	-	-	0.90	-	-	89.0	3480	30.0	660	210	280
High voltage · 2-pole motors 60 Hz 480 V Δ														
MG90SA2-C2	2	1.50	2.90	0.57	0.70	0.78	76.5	81.5	82.0	3500	4.10	840	350	430
MG90LA2-C2	2	2.20	4.00	0.62	0.74	0.81	80.5	84.0	84.5	3500	6.00	950	390	490
MG100LA2-D2	2	3.00	5.45	0.68	0.72	0.79	81.0	84.0	85.0	3520	8.20	1100	440	580
MG100LB2-C2	2	3.00	5.20	0.63	0.75	0.83	85.0	88.0	86.0	3520	8.20	1100	380	470
MG112MB2-C2	2	4.00	6.60	0.68	0.79	0.85	85.0	87.0	87.0	3520	11.0	1200	380	540
MG132SB2-C2	2	5.50	9.00	0.68	0.80	0.85	87.5	89.0	88.5	3520	15.0	1240	410	550
MG132SC2-C2	2	7.50	13.0	0.59	0.72	0.80	87.5	89.5	89.0	3520	20.4	1160	440	580
MG160MB2-C2	2	11.0	17.4	-	-	0.86	-	-	91.0	3530	30.0	960	330	440

The data shows the value for the lower as well as the upper interval voltage.



# Electrical data

## MG Model B, C and D 4-pole · low voltage · 50/60 Hz

MG B, C and D														
Low voltage · 4-pole motors 50 Hz 220 V Δ/380 V Y														
Short type designation	Efficiency class	Shaft power P <sub>2</sub> [kW]	Full load current I <sub>N</sub> [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min <sup>-1</sup> ]	Torque at 400 V M <sub>N</sub> [Nm]	LRC I <sub>s</sub> /I <sub>N</sub> [%]	LRT M <sub>s</sub> /M <sub>N</sub> [%]	BT M <sub>Br</sub> /M <sub>N</sub> [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MG71A4-B	-	0.25	1.48 / 0.85	0.44	0.58	0.75	64.0	70.0	69.0	1400	1.70	400	180	230
MG71B4-B	-	0.37	1.90 / 1.00	0.47	0.61	0.77	67.5	72.0	71.0	1400	2.55	400	180	230
MG80A4-C	-	0.55	2.60 / 1.50	0.56	0.70	0.79	78.0	79.0	77.0	1390	3.75	430	200	230
MG80B4-C	-	0.75	3.30 / 1.90	0.58	0.71	0.79	79.0	80.0	78.0	1390	5.00	430	210	240
MG90SA4-C2	2	1.10	5.00 / 2.90	0.58	0.70	0.78	77.0	78.5	78.0	1420	7.35	430	230	270
MG90LA4-C2	2	1.50	6.40 / 3.70	0.63	0.74	0.80	78.0	80.0	80.0	1420	10.0	500	230	270
MG100LA4-D2	2	2.20	9.20 / 5.30	0.62	0.72	0.79	83.0	84.0	83.5	1430	14.8	540	200	230
MG100LB4-D2	2	3.00	12.8 / 7.40	0.59	0.72	0.79	83.0	84.0	85.0	1430	19.8	580	210	240
MG100LB4-C2	2	2.20	9.20 / 5.30	0.61	0.73	0.80	80.0	81.5	82.0	1420	14.8	520	240	270
MG112MA4-C2	2	3.00	12.0 / 6.90	0.63	0.74	0.80	86.5	86.5	85.0	1440	19.8	620	210	270
MG112MB4-C2	2	4.00	15.4 / 8.90	0.65	0.76	0.82	88.0	88.0	86.5	1440	26.5	660	210	280
MG132SC4-C2	2	5.50	22.0 / 12.6	0.67	0.77	0.80	88.0	87.5	87.0	1430	36.5	630	230	300
Low voltage · 4-pole motors 50 Hz 240 V Δ/415 V Y														
MG71A4-B	-	0.25	1.48 / 0.85	0.38	0.48	0.65	53.0	62.0	69.0	1420	1.70	440	200	280
MG71B4-B	-	0.37	1.90 / 1.00	0.39	0.51	0.67	56.5	65.0	71.0	1420	2.55	440	200	280
MG80A4-C	-	0.55	2.60 / 1.50	0.46	0.59	0.70	73.0	77.0	77.0	1410	3.75	470	240	280
MG80B4-C	-	0.75	3.30 / 1.90	0.47	0.62	0.70	75.5	78.5	78.0	1410	5.00	470	250	290
MG90SA4-C2	2	1.10	5.00 / 2.90	0.48	0.61	0.71	72.5	76.0	78.0	1440	7.35	470	270	320
MG90LA4-C2	2	1.50	6.40 / 3.70	0.53	0.65	0.74	76.0	79.0	80.0	1430	10.0	550	270	320
MG100LA4-D2	2	2.20	9.20 / 5.30	0.53	0.67	0.76	83.0	84.0	84.0	1440	14.8	590	240	270
MG100LB4-D2	2	3.00	12.8 / 7.40	0.48	0.60	0.69	83.0	84.0	85.0	1440	19.8	630	250	280
MG100LB4-C2	2	2.20	9.20 / 5.30	0.51	0.64	0.73	77.5	80.0	82.0	1440	14.8	570	290	320
MG112MA4-C2	2	3.00	12.0 / 6.90	0.52	0.65	0.74	84.0	86.0	85.0	1450	19.8	670	250	320
MG112MB4-C2	2	4.00	15.4 / 8.90	0.54	0.68	0.76	86.5	88.0	87.0	1450	26.5	720	250	330
MG132SC4-C2	2	5.50	22.0 / 12.6	0.55	0.68	0.74	85.5	87.0	87.0	1450	36.5	690	280	360
Low voltage · 4-pole motors 60 Hz 220 V Δ/380 V Y														
MG71A4-B	-	0.25	1.21 / 0.70	0.54	0.66	0.80	72.0	75.0	71.0	1680	1.42	400	160	210
MG71B4-B	-	0.37	1.72 / 0.99	-	-	0.82	-	-	73.0	1680	2.10	400	160	210
MG80A4-C	-	0.55	2.40 / 1.40	0.65	0.76	0.83	81.0	81.0	77.0	1660	3.10	390	170	210
MG80B4-C	-	0.75	3.10 / 1.80	0.67	0.78	0.84	82.0	82.0	77.0	1660	4.25	390	200	230
MG90SA4-C2	2	1.10	4.75 / 2.75	0.67	0.77	0.82	79.5	80.0	78.0	1700	6.10	420	170	200
MG90LA4-C2	2	1.50	6.30 / 3.65	0.70	0.80	0.83	79.5	80.5	79.0	1700	8.40	440	200	240
MG100LA4-D2	2	2.20	9.00 / 5.20	0.70	0.77	0.80	84.0	84.0	83.0	1710	12.2	470	180	210
MG100LB4-D2	2	3.00	12.5 / 7.10	0.69	0.76	0.80	85.0	85.0	84.0	1710	16.4	520	180	240
MG100LB4-C2	2	2.20	9.00 / 5.20	0.61	0.73	0.83	80.0	81.5	81.0	1700	12.2	500	210	240
MG112MA4-C2	2	3.00	11.4 / 6.60	0.71	0.80	0.84	87.5	87.5	86.0	1730	16.4	540	190	240
MG112MB4-C2	2	4.00	14.8 / 8.60	0.73	0.82	0.85	89.0	88.5	87.0	1730	22.0	600	180	240
MG132SC4-C2	2	5.50	21.0 / 12.2	0.75	0.83	0.83	89.5	88.0	87.0	1730	30.2	580	200	250
Low voltage · 4-pole motors 60 Hz 255 V Δ/440 V Y														
MG71A4-B	-	0.25	1.21 / 0.70	0.41	0.53	0.69	65.5	71.5	72.0	1720	1.42	470	220	280
MG71B4-B	-	0.37	1.72 / 0.99	0.45	0.57	0.72	67.5	72.5	74.0	1720	2.10	470	220	280
MG80A4-C	-	0.55	2.40 / 1.40	0.52	0.65	0.75	79.0	81.0	80.0	1710	3.10	470	230	260
MG80B4-C	-	0.75	3.10 / 1.80	0.53	0.67	0.76	80.0	82.5	81.0	1710	4.25	450	260	300
Low voltage · 4-pole motors 60 Hz 277 V Δ/480 V Y														
MG90SA4-C2	2	1.10	4.50/2.60	0.45	0.58	0.67	73.5	77.5	80.0	1750	6.10	550	270	310
MG90LA4-C2	2	1.50	5.70/3.30	0.50	0.63	0.73	75.5	79.5	81.0	1750	8.40	600	320	380
MG100LB4-C2	2	2.20	8.30/4.80	0.49	0.62	0.70	77.5	81.0	82.0	1750	12.2	700	330	380
MG100LA4-D2	2	2.20	7.80/4.50	0.50	0.63	0.70	81.0	84.0	85.0	1750	12.2	680	280	330
MG100LB4-D2	2	3.00	11.5/6.75	0.50	0.60	0.70	80.0	84.0	85.0	1750	16.4	680	280	330
MG112MA4-C2	2	3.00	10.4/6.00	0.50	0.63	0.71	84.5	87.0	87.0	1760	16.4	750	300	380
MG112MB4-C2	2	4.00	13.4/7.70	0.53	0.65	0.73	86.5	88.5	89.0	1760	22.0	840	280	380
MG132SC4-C2	2	5.50	19.2/11.0	0.54	0.66	0.72	86.5	88.0	88.0	1750	30.2	800	310	400

The data shows the value for the lower as well as the upper interval voltage.



### MG Model B, C and D 4-pole · high voltage · 50/60 Hz

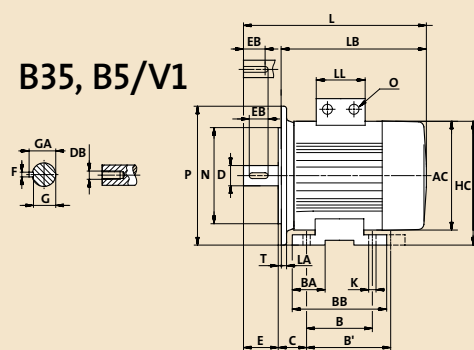
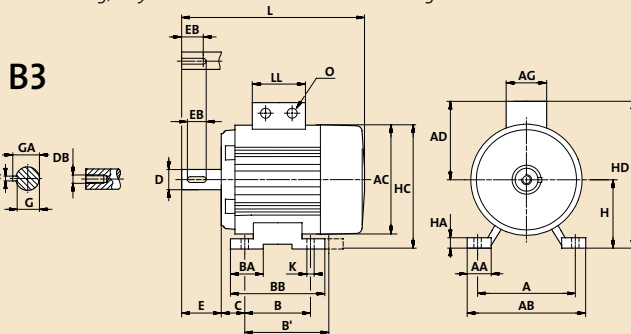
MG B, C and D		High voltage · 4-pole motors 50 Hz 380 V Δ												
Short type designation	Efficiency class	Shaft power P <sub>2</sub> [kW]	Full load current I <sub>N</sub> [A]	Power factor Cos φ at % load			Efficiency η at % load			Speed n [min <sup>-1</sup> ]	Torque at 400 V M <sub>N</sub> [Nm]	LRC I <sub>g</sub> /I <sub>N</sub> [%]	LRT M <sub>g</sub> /M <sub>N</sub> [%]	BT M <sub>Br</sub> /M <sub>N</sub> [%]
				50 %	75 %	100 %	50 %	75 %	100 %					
MG90SA4-C2	2	1.10	2.90	0.58	0.70	0.78	77.0	78.5	78.0	1420	7.35	430	230	270
MG90LA4-C2	2	1.50	3.70	0.63	0.74	0.80	78.0	80.0	80.0	1420	10.0	500	230	270
MG100LB4-C2	2	2.20	5.30	0.61	0.73	0.80	80.0	81.5	82.0	1420	14.8	520	240	270
MG100LA4-D2	2	2.20	5.30	0.62	0.72	0.79	83.0	84.0	83.5	1430	14.8	540	200	230
MG100LB4-D2	2	3.00	7.40	0.59	0.72	0.79	83.0	84.0	85.0	1430	19.8	580	210	240
MG112MA4-C2	2	3.00	6.90	0.63	0.74	0.80	86.5	86.5	85.0	1440	19.8	620	210	270
MG112MB4-C2	2	4.00	8.90	0.65	0.76	0.82	88.0	88.0	86.5	1440	26.5	660	210	280
MG132SC4-C2	2	5.50	12.6	0.67	0.77	0.80	88.0	87.5	87.0	1430	36.5	630	230	300
High voltage · 4-pole motors 50 Hz 415 V Δ														
MG90SA4-C2	2	1.10	2.90	0.48	0.61	0.71	72.5	76.0	78.0	1440	7.35	470	270	320
MG90LA4-C2	2	1.50	3.70	0.53	0.65	0.74	76.0	79.0	80.0	1430	10.0	550	270	320
MG100LB4-C2	2	2.20	5.30	0.51	0.64	0.73	77.5	80.0	82.0	1440	14.8	570	290	320
MG100LA4-D2	2	2.20	5.30	0.53	0.67	0.76	83.0	84.0	84.0	1440	14.8	590	240	270
MG100LB4-D2	2	3.00	7.40	0.48	0.60	0.69	83.0	84.0	85.0	1440	19.8	630	250	280
MG112MA4-C2	2	3.00	6.90	0.52	0.65	0.74	84.0	86.0	85.0	1450	19.8	670	250	320
MG112MB4-C2	2	4.00	8.90	0.54	0.68	0.76	86.5	88.0	87.0	1450	26.5	720	250	330
MG132SC4-C2	2	5.50	12.6	0.55	0.68	0.74	85.5	87.0	87.0	1450	36.5	690	280	360
High voltage · 4-pole motors 50 Hz 380 V Δ														
MG90SA4-C2	2	1.10	2.75	0.67	0.77	0.82	79.5	80.0	78.0	1700	6.10	420	170	200
MG90LA4-C2	2	1.50	3.65	0.70	0.80	0.83	79.5	80.5	79.0	1700	8.40	440	200	240
MG100LB4-C2	2	2.20	5.20	0.61	0.73	0.83	80.0	81.5	81.0	1700	12.2	500	210	240
MG100LA4-D2	2	2.20	5.20	0.70	0.77	0.80	84.0	84.0	83.0	1710	12.2	470	180	210
MG100LB4-D2	2	3.00	7.10	0.69	0.76	0.80	85.0	85.0	84.0	1710	16.4	520	180	240
MG112MA4-C2	2	3.00	6.60	0.71	0.80	0.84	87.5	87.5	86.0	1730	16.4	540	190	240
MG112MB4-C2	2	4.00	8.60	0.73	0.82	0.85	89.0	88.5	87.0	1730	22.0	600	180	240
MG132SC4-C2	2	5.50	12.2	0.75	0.83	0.83	89.5	88.0	87.0	1730	30.2	580	200	250
High voltage · 4-pole motors 50 Hz 415 V Δ														
MG90SA4-C2	2	1.10	2.60	0.45	0.58	0.67	73.5	77.5	80.0	1750	6.10	550	270	310
MG90LA4-C2	2	1.50	3.30	0.50	0.63	0.73	75.5	79.5	81.0	1750	8.40	600	320	380
MG100LB4-C2	2	2.20	4.80	0.49	0.62	0.70	77.5	81.0	82.0	1750	12.2	700	330	380
MG100LA4-D2	2	2.20	4.50	0.50	0.63	0.70	81.0	84.0	85.0	1750	12.2	680	280	330
MG100LB4-D2	2	3.00	6.75	0.50	0.60	0.70	80.0	84.0	85.0	1750	16.4	680	280	330
MG112MA4-C2	2	3.00	6.00	0.50	0.63	0.71	84.5	87.0	87.0	1760	16.4	750	300	380
MG112MB4-C2	2	4.00	7.70	0.53	0.65	0.73	86.5	88.5	89.0	1760	22.0	840	280	380
MG132SC4-C2	2	5.50	11.0	0.54	0.66	0.72	86.5	88.0	88.0	1750	30.2	800	310	400

The data shows the value for the lower as well as the upper interval voltage.

# Dimensions

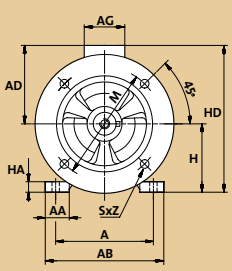
Frame size	Short type designation	[kW]	Stator housing						Shaft end						Feet										
			IEC: AC	AD	AG	L	LB	LL	D	DB	E	EB	F	G	GA	A	AA	AB	B	B'	BA	BB	C	H	HA
			DIN: g	p1		k			d	d6	l		u		t	b	n	f	a	a	m	e	w1	h	c
71	A2-C	0.37	141	109	82	221	191	82	14 (j6)	M5	30	22	5	11.0	16.0	112	27	139	90	-	20	110	45	71	3
	B2-C	0.55																							
	A4-B	0.25																							
	B4-B	0.37																							
80	A2-C	0.75	141	109	82	271	231	82	19 (j6)	M6	40	32	6	15.5	21.5	125	37	159	100	-	25	125	50	80	3
	B2-C2	1.10																							
	B2-D1	1.10																							
	A4-C	0.55																							
100	SA2-C2	1.50	178	110	162	331	281	103	24 (j6)	M8	50	40	8	20.0	27.0	140	-	178	100	125	-	155	56	90	3
	SA4-C2	1.10																							
	SB2-D1	1.50																							
	SB4-D1	1.10																							
	LA2-C2	2.20																							
	LA4-C2	1.50																							
	LC2-D1	2.20																							
LC4-D1	1.50																								
100	LB2-C2	3.00	178	110	162	395	335	103	28 (j6)	M10	60	50	8	24.0	31.0	160	-	178	140	-	-	170	63	100	3
	LB4-C2	2.20																							
	LC2-D1	3.00																							
	LA2-D2	3.00																							
	LB4-D1	2.20																							
	LC4-D1	3.00																							
	LA4-D2	2.20																							
LB4-D2	3.00																								
112	MB2-C2	4.00	220	134	202	432	372	103	28 (j6)	M10	60	50	8	24.0	31.0	190	-	228	140	-	-	172	70	112	4
	MA4-C2	3.00																							
	MB4-C2	4.00																							
	MB2-D1	3.00																							
	MC2-D1	4.00																							
MC4-D1	4.00																								
132	SB2-C2	5.50	220	134	202	471	391	103	38 (k6)	M12	80	70	10	33.0	41.0	216	-	255	140	-	-	172	89	132	5
	SC2-C2	7.50																							
	SC4-C2	5.50																							
	SD2-D1	7.50																							
160	MB2-C2	11.0	260	172	146	574	464	170	42 (k6)	M16	110	82	12	37.0	45.0	254	80	302	210	-	45	253	108	160	15
	MC2-C1	11.0																							

<sup>1)</sup> When fitting a component on the motor flange, check that the through-going screws do not penetrate deeper into the flange than the dimension LA. If the screws are too long, they can be screwed into the stator windings.

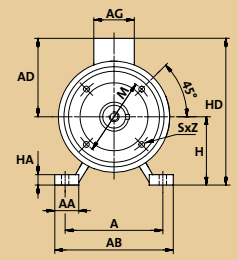
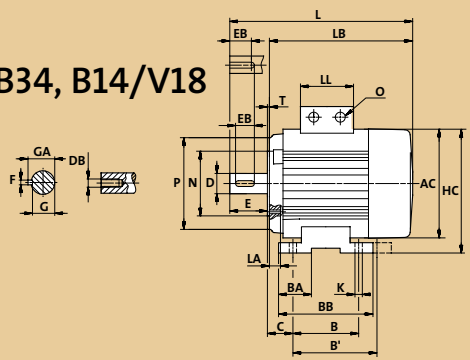




			Flange B35, B5/V1						Flange B34, B14/V18						Cable entry	
HC	HD	K	LA	M	N	P	SxZ	T	LA	M	N	P	SxZ	T	O	
	p	s	c1	e1	b1	a1	s1	f1	c1	e1	b1	a1	s1	f1		
142	180	7 (M6)	10	130	110	160	M6 x 4	3.50	12 <sup>1)</sup>	85	70	105	M6x4	2.50	2 x M20 x 1.5	 MG 80
151	189	10 (M8)	10	165	130	200	M6 x 4	3.50	12 <sup>1)</sup>	100	80	120	M6x4	3.00	2 x M20 x 1.5	 MG 90
179	200	10 (M8)	18	165	130	200	M8 x 4	3.50	13 <sup>1)</sup>	115	95	135	M8 x 4	3.00	4 x M20	 MG 90
179	200	10 (M8)	18	165	130	200	M8 x 4	3.50	13 <sup>1)</sup>	115	95	135	M8 x 4	3.00	4 x M20	 MG 90
179	200	10 (M8)	18	165	130	200	M8 x 4	3.50	13 <sup>1)</sup>	115	95	135	M8 x 4	3.00	4 x M20	 MG 90
189	210	12 (M10)	10	215	180	250	M8 x 4	4.00	14 <sup>1)</sup>	130	110	145	M8 x 4	3.50	4 x M20	 MG 80
199	220	12 (M10)	10	215	180	250	∅15 x 4 (M12)	4.00	14 <sup>1)</sup>	130	110	160	M8 x 4	3.50	4 x M20	 MG 160
222	246	12 (M10)	10	215	180	250	M8 x 4	4.00	14 <sup>1)</sup>	130	110	160	M8 x 4	3.50	4 x M25	 MG 160
242	266	12 (M10)	12	265	230	300	M10 x 4	4.00	28 <sup>1)</sup>	165	130	200	M10 x 4	3.50	4 x M25	 MG 100
290	332	15 (M12)	13	300	250	350	M16 x 4	5.00	-	-	-	-	-	-	2 x M32 / 4 x M40	
290	332	15 (M12)	13	300	250	350	M16 x 4	5.00	-	-	-	-	-	-	2 x M32 / 4 x M40	



**B34, B14/V18**



### Doing business with Grundfos

Grundfos has been manufacturing high-quality electrical motors for more than 30 years, and as one of the world's leading pump manufacturers, we know better than anyone what is required of a reliable electrical motor.

Cost of Ownership is an important consideration when choosing a motor for a specific task. At Grundfos we define Cost of Ownership as the total sum of both the costs and benefits of having a business relationship with us. An important element of this is how Grundfos can assist in reducing operation costs through technical advice, customer training, service, and reliable logistics.