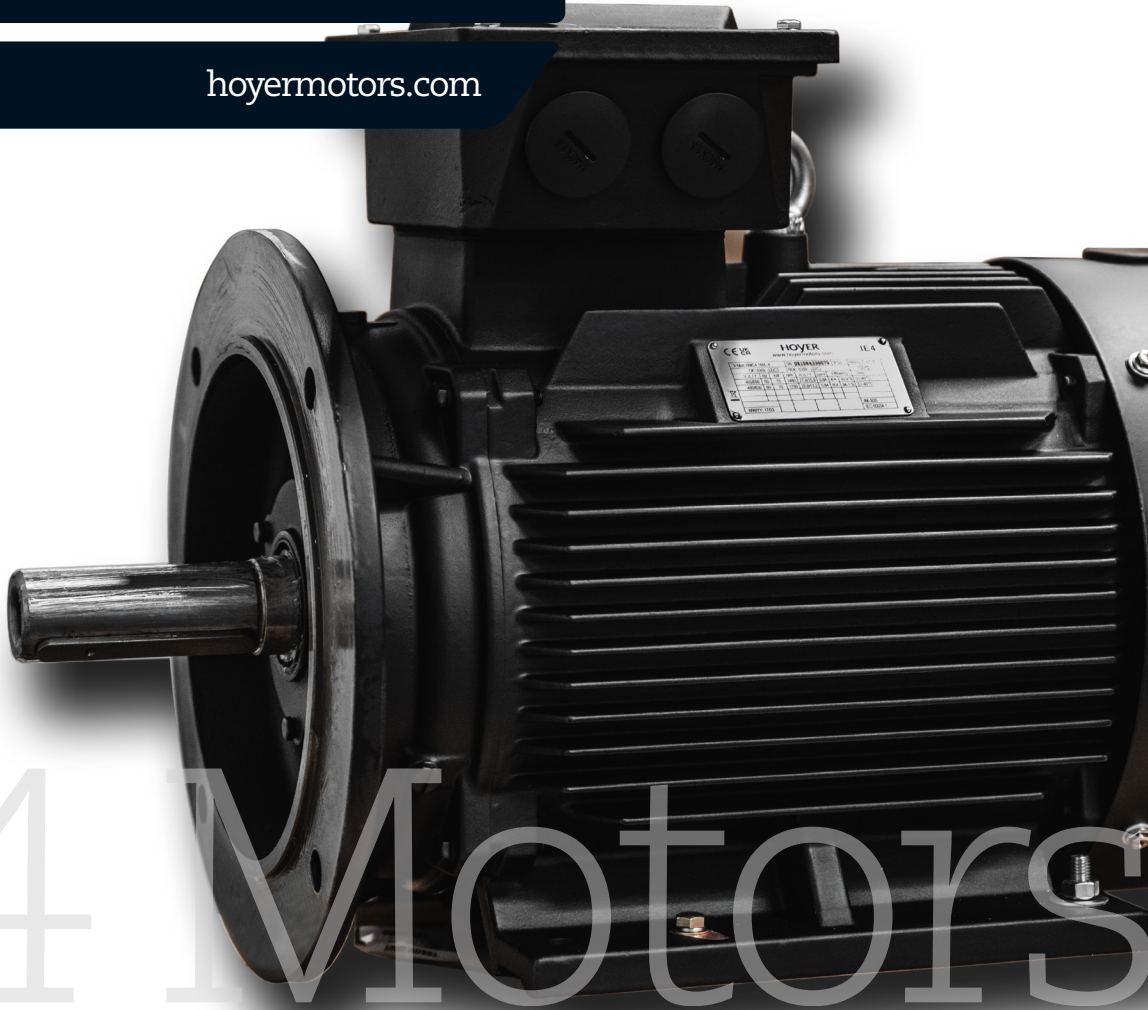


Electric Motors

IE4 Motors

hoyermotors.com



IE4 Motors

HOYER
MOTORS



HOYER

EXCEEDING EXPECTATIONS

Hoyer Motors is an international supplier of high-end electric motors. Headquartered in Denmark and China, we are represented through sales offices and distributors worldwide. We pride ourselves of being an elite manufacturing enterprise with the highest attention to service and flexibility – a company where dedication, competitiveness and reliability are second to none.

We have selected focus on niche segments. Through strong partnerships with market leading industrial OEM's within these segments, we are able to offer a unique setup and industrial insight. We add value by understanding the business and markets of our customers.

At Hoyer Motors, meeting agreements is as natural as breathing air. We believe in trustworthy partnerships with our customers and always meet our obligations on deliveries, documentation and product quality. This is what we mean by Exceeding Expectations.

General information

The Hoyer Motors IE4 range offers excellent efficiency and is manufactured according to international standards under IEC 60034 and IEC 60072. These motors are fulfilling the requirements of Directive 2014/35/EU ('Low-Voltage' Directive), Directive 2009/125/EC (Ecodesign) and Commission Regulation (EU) 2019/1781 (Ecodesign).

Hoyer motors are used across the world and have a proven quality, high reliability and performance.

Product information		Options
Series:	HMA4 / HMC4 IEC size 80-355	Frequency converter (VFD) and other duties
Standards:	IEC 60034 series, IEC60072-1 and EN 50347	Other mountings and terminal box arrangements
Cooling:	IC411 (TEFC)	Other cooling methods
Frame material:	Aluminium (HMA4) or Cast iron (HMC4)	Other direction of rotation
Mounting form:	B3, B5, B14, B34 and B35	Tropical insulation
Terminal box:	On DE-side on the top	Heater in windings
Power range:	0.75-315kW	PT 100 in windings/bearings
Duty:	S1	Special bearing arrangements (other types, current insulated for VFD duty, NDE fixation, etc.)
Ambient temperature:	-20°C to +40°C	Special bearing greases
Altitude:	Up to 1000m above sea level	Harting plug
Voltage:	≤3 kW	Phoenix plug
	>3 kW	Δ/Y Switch
Supply frequency:	50 & 60Hz	PE busbar
Vibration level:	Grade A	'Flying leads' – Extended supply cables mounting
Efficiency:	IE4 according to IEC 60034-30	Special external earthing arrangements
Drain plugs:	Metal bolt	Special keyways
Numbers of poles:	2, 4 and 6	Lifting brackets
Protection class:	IP55	Cable glands
Insulation class / temperature rise:	F / B	Other colors and coating methods
Coating:	C3L	Insulation class H
Color:	RAL 9005 low gloss	Other IP classes
Balancing:	With half key	Other voltage and frequency ranges
Winding protection:	3x PTC 155°C	Special altitudes and temperatures
Blind plugs:	Plastic	Special power outputs out of standard range
Supply:	Direct-on-Line	Other vibration classes
Direction of rotation:	CW	SPM adapter
		VFD adapter plate
		Spare parts
		Additional features under inquiry

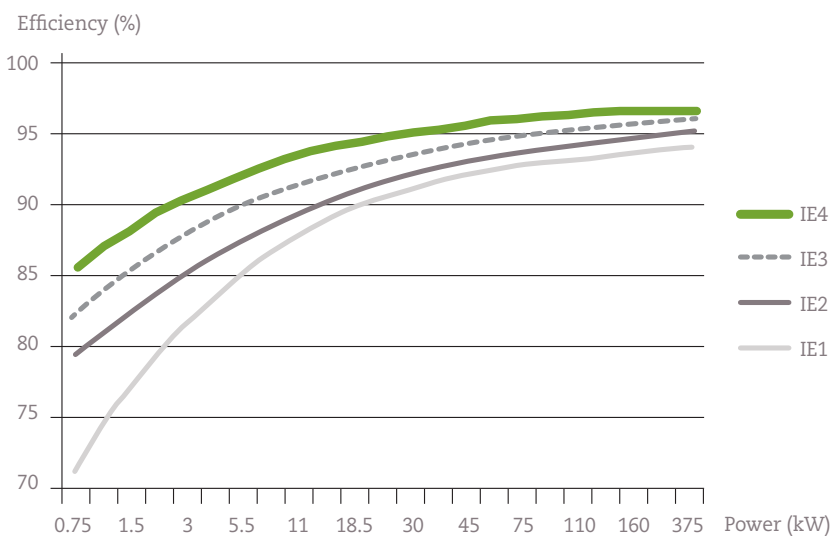
Hoyer IE4 Electric Motors

Energy efficiency and MEPS

Energy efficiency is a main focus area related to CO2 emissions and industrial pollution. Across borders legislation and Minimum Energy Performance Standards (MEPS) are put into force to improve the efficiency of electric motors. The European MEPS are defined in the Ecodesign directive and Hoyer IE4 fulfils these regulations. In theory a higher motor efficiency will always result in electrical energy savings.

In addition to lower emissions the financial return of investment is also considerable. With a service life of 10-15 years the energy consumption of an electric motor often accounts for more than 90% of the total cost of ownership. Therefore, the payback time for an IE4 motor is in many cases less than 2-3 years depending on motor size and operating hours. E.g. a 55kW 4 pole motor operating 4000 hours a year will have a payback time of 2.5 years.

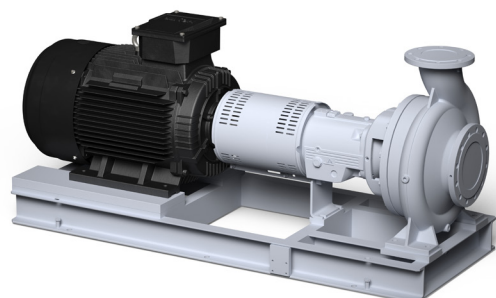
Efficiency curves for IE4, IE3, IE2 and IE1 4 pole 50Hz electric motors



Application information

Hoyer IE4 electric motors are used within a wide variety of applications. Some of the typical applications are:

- Fans and HVAC
- Hydraulics
- Pumps
- Compressors and cooling



Bearings and blind plugs

The Hoyer IE4 range is equipped with premium quality bearings. All motor sizes have fixed bearing in D.E. as standard and oil seal rings in D.E. and N.D.E.

Motors size ≤ 180 comes with closed bearings greased for life.

Motors size >180 comes with re-greaseable open bearings.

Bearing grease in temperature range -40°C/+150°C is used in both closed and open bearings.

As standard all motors are equipped with blind plugs.

Bearings

Motor type	Drive end		Non-drive end	
	2 pole	4,6 pole	2 pole	4,6 pole
Aluminium				
HMA4 80	6204-2Z/C3		6204-2Z/C3	
HMA4 90	6205-2Z/C3		6205-2Z/C3	
HMA4 100	6206-2Z/C3		6206-2Z/C3	
HMA4 112	6306-2Z/C3		6306-2Z/C3	
HMA4 132	6308-2Z/C3		6308-2Z/C3	
HMA4 160	6309-2Z/C3		6309-2Z/C3	
Cast iron				
HMC4 160	6309-2Z/C3		6309-2Z/C3	
HMC4 180	6311-2Z/C3		6311-2Z/C3	
HMC4 200	6312/C3		6312/C3	
HMC4 225	6312/C3	6313/C3	6312/C3	
HMC4 250	6313/C3	6314/C3	6313/C3	
HMC4 280	6314/C3	6317/C3	6314/C3	
HMC4 315	6317/C3	6319/C3 NU319	6317/C3	6319/C3
HMC4 355	6319/C3	6322/C3 NU322	6319/C3	6322/C3

Blind plugs

Motor type	Main Blind plugs	Accessory Blind plugs
Aluminium		
HMA4 80	1xM20x1.5	1xM20x1.5
HMA4 90	1xM20x1.5	1xM20x1.5
HMA4 100	2xM20x1.5	1xM20x1.5
HMA4 112	2xM20x1.5	1xM20x1.5
HMA4 132	2xM25x1.5	1xM20x1.5
HMA4 160	2xM40x1.5	2xM20x1.5
Cast iron		
HMC4 160	2xM40x1.5	2xM20x1.5
HMC4 180	2xM40x1.5	2xM20x1.5
HMC4 200	2xM50x1.5	2xM20x1.5
HMC4 225	2xM50x1.5	2xM20x1.5
HMC4 250	2xM63x1.5	2xM20x1.5
HMC4 280	2xM63x1.5	2xM20x1.5
HMC4 315	2xM63x1.5	2xM20x1.5
HMC4 355	2xM72x2.0	2xM20x1.5

Supply by frequency converter

Hoyer IE4 motors are as standard prepared for frequency converter (VFD) duty.

There are several benefits of using a Hoyer Motors IE4 motor supplied by a premium VFD, including better process control, higher energy savings and a reduced starting current. It can further reduce stress on mechanical equipment and the electrical supply network.

Depending on the customer application Hoyer Motors refer to IEC 60034-17 and IEC TS 60034-25 when operating an electric motor with a VFD. Several parameters are to be considered.


- VFD output voltages spike levels
- VFD filters
- VFD switching frequency
- Motor insulation system
- Motor bearings e.g. current insulated bearings

A switching frequency of 2-8 kHz is recommended to ensure the best motor insulation system lifetime.

Hoyer Drives & Controls offer complete motor and VFD solutions including integrated and stand-alone drives.

Hoyer IE4 Electric Motors

Rating plate

		HOYER www.hoyermotors.com				IE4			
3~Mot: HMC4 250M-4			SN:			IP55		INSCL:F ΔT:B	
DE: 6314-C3			NDE: 6313-C3					492 kg	
V Δ/Y	Hz	kW	rpm	A Δ/Y	cos φ	Efficiency		Duty	
400/690	50	55	1485	96.5/55.9	0.86	IE4	95.7%	S1-40°C	
480/830	60	55	1785	80.3/46.5	0.86	IE4	95.8%	S1-40°C	
WW/YY: XX/XX								IM: B3 IEC 60034-1	

Rating tables

Rating factors for power output (kW) at different ambient temperatures and altitudes are found below.

Ambient temperature

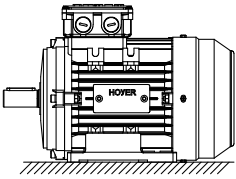
Ambient temperature (°C)	30°	35°	40°	45°	50°	55°	60°
Factor	1,05	1,02	1,00	0,97	0,93	0,87	0,82

Altitude

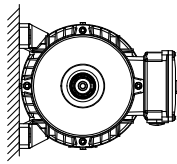
Altitude (m)	1000 m	1500 m	2000 m	2500 m	3000 m	3500 m	4000 m
Factor	1,00	0,98	0,95	0,91	0,87	0,83	0,78

Hoyer IE4 Electric Motors

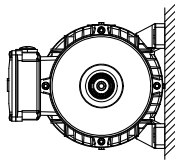
B3



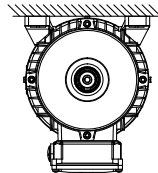
B6



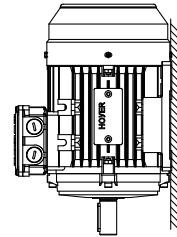
B7



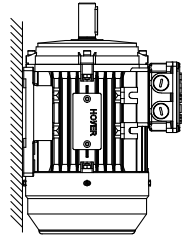
B8



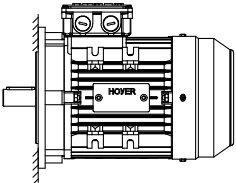
V5



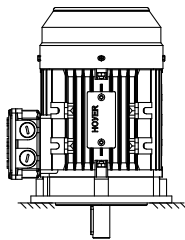
V6



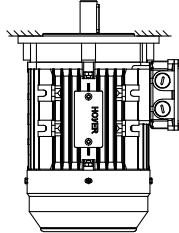
B5



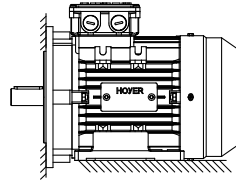
V1



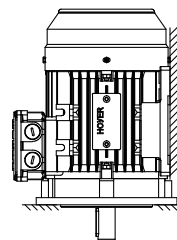
V3



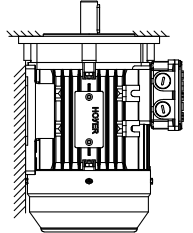
B35



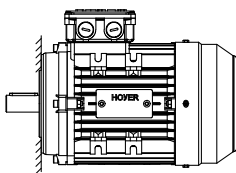
V15



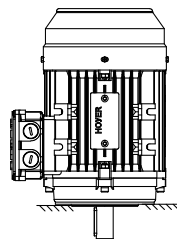
V35



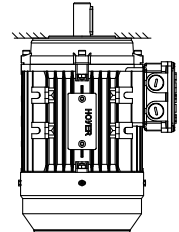
B14



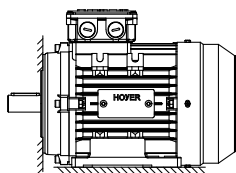
V18



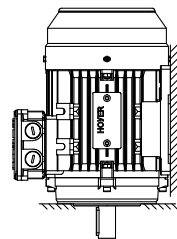
V19



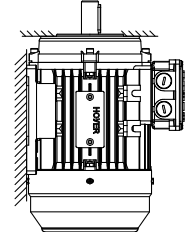
B34



V17



V37



*Important notice: V3 mounting with standard housing only accepted up to frame size 250. Motors frame size 280 and up need special housing and flange.

IE4 / 2 pole

Motor type	Power kW	Speed rpm	Current at 400V		Efficiency (%)			Power factor cos φ	Torque			Moment of Inertia J(kgm ²)	Weight kg
			I _N (A)	I _s /I _N	1/1 load	3/4 load	1/2 load		T _N (Nm)	T _s /T _N	T _M /T _N		

Aluminium motors

HMA4 80 1-2	0.75	2900	1.56	8.26	83.5	85.8	84.8	0.83	2.47	3.19	3.4	0.0012	11,0
HMA4 80 2-2	1.1	2900	2.25	8.24	85.2	86.2	85.3	0.83	3.63	3.24	3.77	0.0016	12,0
HMA4 90S-2	1.5	2910	2.94	9.74	86.5	87.2	85.8	0.85	4.92	3.99	4.26	0.0025	17,0
HMA4 90L-2	2.2	2910	4.2	9.96	88	89.6	89.2	0.86	7.21	3.82	4.19	0.0032	21,0
HMA4 100L-2	3	2910	5.59	11.1	89.1	90.36	89.53	0.87	9.81	3.85	4.28	0.0051	28,0
HMA4 112M-2	4	2920	7.29	10.5	90	90.98	90.2	0.88	13.1	3.36	4.4	0.0095	38,0
HMA4 132S1-2	5.5	2930	9.92	9.06	90.9	91.99	91.43	0.88	17.9	2.79	3.89	0.0167	54,0
HMA4 132S2-2	7.5	2925	13.3	10.8	91.7	92.87	92.36	0.89	24.4	3.31	4.23	0.0227	64,0
HMA4 160M1-2	11	2950	19.3	9.52	92.6	92.99	92.15	0.89	35.4	2.73	3.96	0.0555	99,0
HMA4 160M2-2	15	2950	26.1	9.73	93.3	93.37	92.45	0.89	48.3	2.87	4.15	0.0687	112
HMA4 160L-2	18.5	2950	32	10.3	93.7	94.08	93.46	0.89	59.6	2.96	4.25	0.0822	125

Cast iron motors

HMC4 160M1-2	11	2950	19.3	9.52	92.6	92.99	92.15	0.89	35.4	2.73	3.96	0.0555	115
HMC4 160M2-2	15	2950	26.1	9.73	93.3	93.37	92.45	0.89	48.3	2.87	4.15	0.0687	129
HMC4 160L-2	18.5	2950	32	10.3	93.7	94.08	93.46	0.89	59.6	2.96	4.25	0.0822	151
HMC4 180M-2	22	2960	38	9.82	94	94.55	93.92	0.89	70.6	3.59	3.98	0.1367	192
HMC4 200L1-2	30	2970	51.5	10.4	94.5	94.4	93.39	0.89	96.1	3.39	4.22	0.2154	242
HMC4 200L2-2	37	2970	63.3	10.3	94.8	94.73	93.81	0.89	119	3.43	4.17	0.2411	261
HMC4 225M-2	45	2970	76.8	9.5	95	95.47	95.13	0.89	144	3.02	3.6	0.335	331
HMC4 250M-2	55	2970	93.6	10.3	95.3	95.25	94.44	0.89	176	3.14	3.96	0.5364	420
HMC4 280S-2	75	2975	127	10	95.6	95.67	94.88	0.89	240	3.35	3.74	0.7689	463
HMC4 280M-2	90	2975	152	9.3	95.8	96.21	95.88	0.89	289	3.26	3.68	0.8818	560
HMC4 315S-2	110	2975	186	9	96	95.7	94.61	0.89	352	2.31	2.75	1.5072	830
HMC4 315M-2	132	2975	223	9.44	96.2	96.18	95.4	0.89	423	2.59	2.75	1.6825	949
HMC4 315L1-2	160	2975	269	9	96.3	96.51	95.91	0.89	512	2.35	2.68	1.9231	1015
HMC4 315L2-2	200	2975	336	9	96.5	96.75	96.39	0.89	640	2.42	2.86	2.308	1127
HMC4 355M-2	250	2980	411	7.68	96.5	96.53	96.04	0.91	804	1.81	2.05	2.9884	1706
HMC4 355L-2	315	2980	518	8.67	96.5	96.66	96.38	0.91	1011	2.14	2.56	3.6816	1969

Data at 400V 50Hz

At 230V 50Hz the current is $\sqrt{3}$ x current at 400V and at 690V the current is current at 400V / $\sqrt{3}$. All other data are identical.

IE4 / 4 pole

Motor type	Power kW	Speed rpm	Current at 400V		Efficiency (%)			Power factor cos φ	Torque			Moment of Inertia J(kgm ²)	Weight kg
			I _N (A)	I _s /I _N	1/1 load	3/4 load	1/2 load		T _N (Nm)	T _s /T _N	T _M /T _N		

Aluminium motors

HMA4 80 2-4	0.75	1445	1.71	7.4	85.7	86.04	84.09	0.74	4.95	3.48	3.66	0.0032	15,0
HMA4 90S-4	1.1	1445	2.43	7.57	87.2	87.77	86.34	0.75	7.25	3.76	3.95	0.0045	19,0
HMA4 90L-4	1.5	1450	3.23	8.24	88.2	88.39	87.03	0.76	9.86	3.28	4.24	0.0056	23,0
HMA4 100L1-4	2.2	1455	4.49	8.67	89.5	90.14	88.97	0.79	14.4	3.41	4.15	0.0115	31,0
HMA4 100L2-4	3	1455	5.99	8.9	90.4	90.92	90.17	0.8	19.6	3.35	3.96	0.0138	36,0
HMA4 112M-4	4	1465	7.92	9.13	91.1	91.64	90.75	0.8	26	3.08	4.29	0.0206	47,0
HMA4 132S-4	5.5	1470	10.8	9.86	91.9	92.41	91.67	0.8	35.6	3.12	3.91	0.0478	63,0
HMA4 132M-4	7.5	1475	14.4	11.4	92.6	93.26	92.58	0.81	48.5	3.37	3.99	0.0635	77,0
HMA4 160M-4	11	1475	20.5	9.63	93.3	93.82	93.17	0.83	71.1	2.71	3.95	0.1033	111
HMA4 160L-4	15	1480	27.4	9.94	93.9	94.22	93.76	0.84	96.9	3.08	4.23	0.1289	121

Cast iron motors

HMC4 160M-4	11	1475	20.5	9.63	93.3	93.82	93.17	0.83	71.1	2.71	3.95	0.1033	122
HMC4 160L-4	15	1480	27.4	9.94	93.9	94.22	93.76	0.84	96.9	3.08	4.23	0.1289	147
HMC4 180M-4	18.5	1480	33.3	9.55	94.2	94.34	93.65	0.85	119	2.8	4.07	0.2177	194
HMC4 180L-4	22	1480	39.5	9.77	94.5	94.65	94.03	0.85	141	2.81	3.97	0.2525	217
HMC4 200L-4	30	1480	53.7	9.27	94.9	94.99	94.34	0.85	193	2.8	3.87	0.4285	284
HMC4 225S-4	37	1485	66	8.75	95.2	95.03	94.02	0.85	237	2.45	3.25	0.6887	332
HMC4 225M-4	45	1485	80.1	8.61	95.4	95.33	94.52	0.85	289	2.5	3.16	0.7506	353
HMC4 250M-4	55	1485	96.5	10.5	95.7	95.72	95.09	0.86	353	3.46	3.85	1.2864	500
HMC4 280S-4	75	1485	130	10.9	96	96.04	95.37	0.87	481	3.72	3.89	1.9833	615
HMC4 280M-4	90	1485	154	10.3	96.1	96.29	95.97	0.88	576	3.41	3.98	2.309	700
HMC4 315S-4	110	1485	185	9.73	96.3	96.25	95.61	0.89	706	3.55	3.76	2.8928	876
HMC4 315M-4	132	1485	222	9.32	96.4	96.49	96.09	0.89	849	3.35	3.54	3.354	955
HMC4 315L1-4	160	1485	266	9.9	96.6	96.7	96.29	0.9	1030	3.67	4.11	3.8947	1045
HMC4 315L2-4	200	1485	332	10.2	96.7	97	96.72	0.9	1285	4	4.25	4.7507	1170
HMC4 355M-4	250	1490	415	8.15	96.7	96.77	96.36	0.9	1603	1.92	2.45	8.0109	1708
HMC4 355L-4	315	1490	522	8.97	96.7	96.96	96.73	0.9	2018	2.29	2.65	9.0868	1726

Data at 400V 50Hz

At 230V 50Hz the current is $\sqrt{3}$ x current at 400V and at 690V the current is current at 400V / $\sqrt{3}$. All other data are identical.

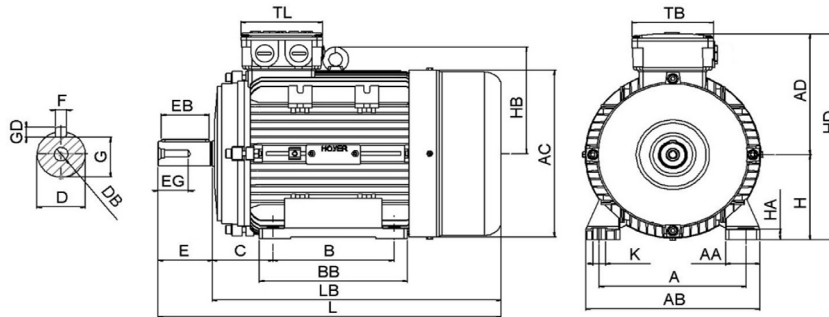
IE4 / 6 pole

Motor type	Power kW	Speed rpm	Current at 400V		Efficiency (%)			Power factor cos φ	Torque			Moment of Inertia J(kgm ²)	Weight kg
			I _N (A)	I _s /I _N	1/1 load	3/4 load	1/2 load		T _N (Nm)	T _s /T _N	T _M /T _N		
Aluminium motors													
HMA4 90S-6	0.75	955	1.87	4.98	82.7	82.07	79.81	0.7	7.48	2.07	2.67	0.0057	17,0
HMA4 90L-6	1.1	955	2.68	6.37	84.5	84.45	82.01	0.7	10.9	3.01	3.4	0.0079	20,0
HMA4 100L-6	1.5	960	3.55	6.67	85.9	85.83	83.67	0.71	14.8	2.45	3.18	0.0152	30,0
HMA4 112M-6	2.2	965	5.12	7.89	87.4	87.89	85.85	0.71	21.5	3.02	4.21	0.0291	45,0
HMA4 132S-6	3	968	6.88	7.89	88.6	90.03	89.06	0.71	29.4	2.59	3.64	0.0524	61,0
HMA4 132M1-6	4	968	8.96	7.69	89.5	91.09	90.6	0.72	39.3	2.48	3.29	0.066	70,0
HMA4 132M2-6	5.5	968	12.2	8.95	90.5	91.75	91.2	0.72	53.7	2.85	3.78	0.093	84,0
HMA4 160M-6	7.5	975	15.6	8.15	91.3	91.35	90.11	0.76	73.2	3.08	3.93	0.109	127
HMA4 160L-6	11	980	22.3	8.8	92.3	92.54	91.71	0.77	107	3	4.07	0.1617	138

Cast iron motors													
HMC4 160M-6	7.5	975	15.6	8.15	91.3	91.35	90.11	0.76	73.2	3.08	3.93	0.109	115
HMC4 160L-6	11	980	22.3	8.8	92.3	92.54	91.71	0.77	107	3	4.07	0.1617	147
HMC4 180L-6	15	980	29.1	9.02	92.9	93.2	92.57	0.8	145	2.68	4.07	0.2554	193
HMC4 200L1-6	18.5	985	35.7	8.88	93.4	93.78	93.31	0.8	179	2.8	3.54	0.3722	231
HMC4 200L2-6	22	985	41.8	9.02	93.7	94.18	93.88	0.81	213	2.68	3.36	0.4252	246
HMC4 225M-6	30	985	56.1	7.24	94.2	94.8	94.74	0.82	290	2.52	2.62	0.7342	309
HMC4 250M-6	37	985	68.1	9.34	94.5	95.06	94.48	0.83	357	3.12	3.74	1.3317	443
HMC4 280S-6	45	985	82.5	7.65	94.8	95.13	94.77	0.83	433	2.34	2.89	1.7283	509
HMC4 280M-6	55	985	99.4	7.83	95.1	95.5	95.3	0.84	530	2.48	2.96	2.0534	556
HMC4 315S-6	75	985	135	7.63	95.4	95.71	95.45	0.84	722	2.84	3.22	3.5152	797
HMC4 315M-6	90	985	160	7.31	95.6	95.85	95.51	0.85	869	2.61	2.99	3.8149	913
HMC4 315L1-6	110	985	195	7.91	95.8	96.03	95.7	0.85	1063	2.89	3.45	4.6192	1011
HMC4 315L2-6	132	985	231	8.62	96	96.29	95.95	0.86	1276	3.18	3.68	5.7105	1099
HMC4 355M1-6	160	990	279	7.44	96.2	96.21	95.59	0.86	1544	2.05	2.46	8.2851	1644
HMC4 355M2-6	200	990	349	7.96	96.3	96.39	95.9	0.86	1930	2.36	2.65	10.0177	1751
HMC4 355L-6	250	990	435	7.29	96.5	96.61	96.19	0.86	2413	2.2	2.66	12.7938	2158

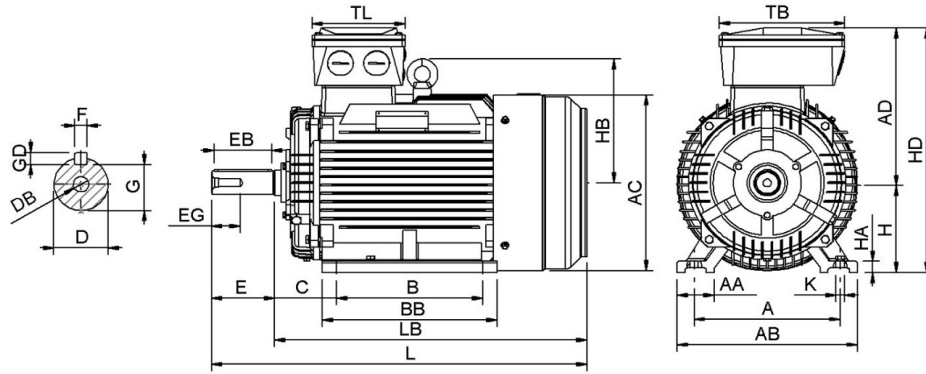
Data at 400V 50Hz

At 230V 50Hz the current is $\sqrt{3}$ x current at 400V and at 690V the current is current at 400V / $\sqrt{3}$. All other data are identical.



Motor type	Pole	A	AA	AB	AC	AD	B	BB	C	D	DB	E	EB	EG	F	G	GD	H	HA	HB	HD	K	L	LB	TB	TL	
Aluminium motors																											
HMA4 80 1	2	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	294	254	100	100	
HMA4 80 2	2	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	294	254	100	100	
HMA4 80 2	4	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	307	267	100	100	
HMA4 90S	2,6	140	35	177	175	132	100	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	328	278	100	100	
HMA4 90S	4	140	35	177	175	132	100	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	337	287	100	100	
HMA4 90L	2	140	44	177	175	132	125	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	363	313	100	100	
HMA4 90L	4,6	140	44	177	175	132	125	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	373	323	100	100	
HMA4 100L	2,6	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	401	341	100	100	
HMA4 100L1	4	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	401	341	100	100	
HMA4 100L2	4	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	427	367	100	100	
HMA4 112M	2	190	45	222	219	169	140	180	70	28	M10	60	50	28	8	24	7	112	13	146	281	12	429	369	120	120	
HMA4 112M	4,6	190	37	222	235	176	140	218	70	28	M10	60	50	28	8	24	7	112	13	152	288	12	456	396	120	120	
HMA4 132S1	2	216	46,5	256	259	188	140	180	89	38	M12	80	70	30	10	33	8	132	15	166	320	12	467	387	120	120	
HMA4 132S2	2	216	46,5	256	259	188	140	180	89	38	M12	80	70	30	10	33	8	132	15	166	320	12	492	412	120	120	
HMA4 132S	4,6	216	46,5	256	293	207	140	180	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	465	385	120	120	
HMA4 132M	4	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	423	120	120	
HMA4 132M1	6	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	423	120	120	
HMA4 132M2	6	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	423	120	120	
HMA4 160M1	2	254	55	302	314	246	210	260	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	619	509	160	150	
HMA4 160M2	2	254	55	302	314	246	210	260	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	619	509	160	150	
HMA4 160M	4,6	254	55	302	314	246	210	260	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	619	509	160	150	
HMA4 160L	2,4,6	254	55	302	314	246	254	304	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	663	553	160	150	

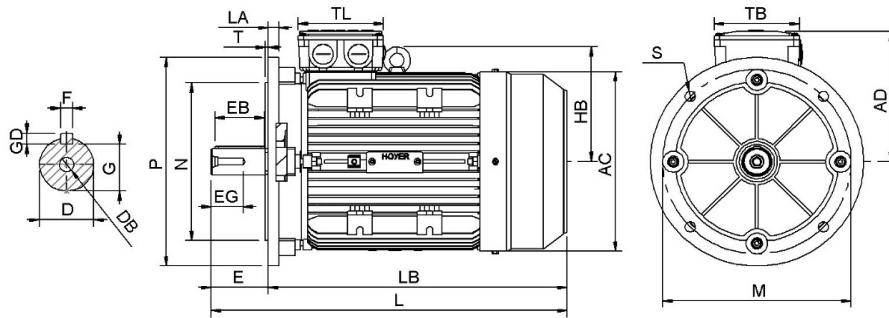
IE4 / B3



Motor type	Pole	A	AA	AB	AC	AD	B	BB	C	D	DB	E	EB	EG	F	G	GD	H	HA	HB	HD	K	L	LB	TB	TL
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Cast iron motors

HMC4 160M1	2	254	65	314	313	276	210	260	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	610	500	218	162
HMC4 160M2	2	254	65	314	313	276	210	260	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	610	500	218	162
HMC4 160M	4,6	254	65	314	313	276	210	260	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	610	500	218	162
HMC4 160L	2,4,6	254	65	314	313	276	254	304	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	654	544	218	162
HMC4 180M	2,4	279	70	349	354	292	241	311	121	48	M16	110	100	40	14	42,5	9	180	22	237	472	14,5	686	576	218	162
HMC4 180L	4,6	279	70	349	354	292	279	349	121	48	M16	110	100	40	14	42,5	9	180	22	237	472	14,5	724	614	218	162
HMC4 200L1	2,6	318	70	388	396	313	305	369	133	55	M20	110	100	50	16	49	10	200	25	264	513	18,5	769	659	260	192
HMC4 200L2	2,6	318	70	388	396	313	305	369	133	55	M20	110	100	50	16	49	10	200	25	264	513	18,5	769	659	260	192
HMC4 200L	4	318	70	388	396	313	305	369	133	55	M20	110	100	50	16	49	10	200	25	264	513	18,5	769	659	260	192
HMC4 225S	4	356	75	431	444	336	286	368	149	60	M20	140	130	56	18	53	11	225	28	286	561	18,5	823	683	260	192
HMC4 225M	2	356	75	431	444	336	311	393	149	55	M20	110	100	56	16	49	10	225	28	286	561	18,5	817	707	260	192
HMC4 225M	4,6	356	75	431	444	336	311	393	149	60	M20	140	130	56	18	53	11	225	28	286	561	18,5	848	708	260	192
HMC4 250M	2	406	80	484	483	374	349	445	168	60	M20	140	130	56	18	53	11	250	30	317	624	24	909	769	305	230
HMC4 250M	4,6	406	80	484	483	374	349	445	168	65	M20	140	130	56	18	58	11	250	30	317	624	24	909	769	305	230
HMC4 280S	2	457	85	542	545	403	368	485	190	65	M20	140	130	56	18	58	11	280	35	362	683	24	959	819	305	230
HMC4 280S	4,6	457	85	542	545	403	368	485	190	75	M20	140	130	56	20	67,5	12	280	35	362	683	24	979	839	305	230
HMC4 280M	2	457	85	542	545	403	419	536	190	65	M20	140	130	56	18	58	11	280	35	362	683	24	1010	870	305	230
HMC4 280M	4,6	457	85	542	545	403	419	536	190	75	M20	140	130	56	20	67,5	12	280	35	362	683	24	1030	890	305	230
HMC4 315S	2	508	120	628	618	546	406	570	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1193	1053	420	299
HMC4 315S	4,6	508	120	628	618	546	406	570	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1223	1053	420	299
HMC4 315M	2	508	120	628	618	546	457	680	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1303	1163	420	299
HMC4 315M	4,6	508	120	628	618	546	457	680	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1333	1163	420	299
HMC4 315L1	2	508	120	628	618	546	508	680	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1303	1163	420	299
HMC4 315L1	4,6	508	120	628	618	546	508	680	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1333	1163	420	299
HMC4 315L2	2	508	120	628	618	546	508	680	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1303	1163	420	299
HMC4 315L2	4,6	508	120	628	618	546	508	680	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1333	1163	420	299
HMC4 355M	2	610	116	726	699	665	560	750	254	75	M20	140	130	56	20	67,5	12	355	52	491,5	1020	28	1507	1367	460	330
HMC4 355M	4	610	116	726	699	665	560	750	254	95	M24	170	160	56	25	86	14	355	52	491,5	1020	28	1537	1367	460	330
HMC4 355M1	6	610	116	726	699	665	560	750	254	95	M24	170	160	56	25	86	14	355	52	491,5	1020	28	1537	1367	460	330
HMC4 355M2	6	610	116	726	699	665	560	750	254	95	M24	170	160	56	25	86	14	355	52	491,5	1020	28	1537	1367	460	330
HMC4 355L	2	610	116	726	699	665	630	750	254	75	M20	140	130	56	20	67,5	12	355	52	491,5	1020	28	1507	1367	460	330
HMC4 355L	4,6	610	116	726	699	665	630	750	254	95	M24	170	160	56	25	86	14	355	52	491,5	1020	28	1537	1367	460	330

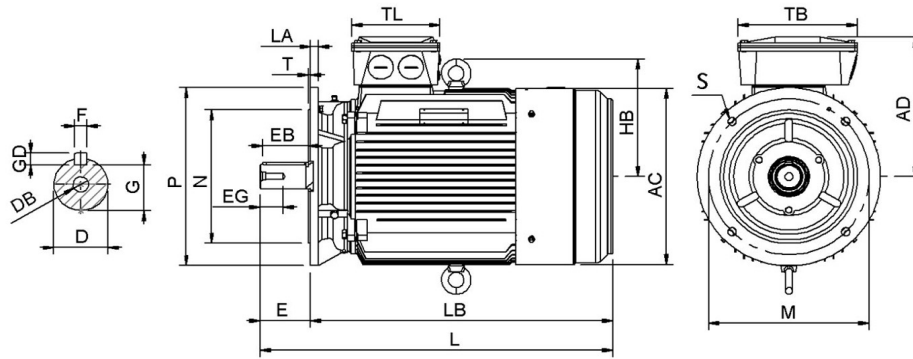


Motor type	Pole	AC	AD	D	DB	E	EB	EG	F	G	GD	HB	L	LA	LB	M	N	P	S	T	TB	TL
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Aluminium motors

HMA4 80 1	2	159	126	19	M6	40	32	16	6	15,5	6	-	294	10	254	165	130	200	4- ϕ 12	3,5	100	100
HMA4 80 2	2	159	126	19	M6	40	32	16	6	15,5	6	-	294	10	254	165	130	200	4- ϕ 12	3,5	100	100
HMA4 80 2	4	159	126	19	M6	40	32	16	6	15,5	6	-	307	10	267	165	130	200	4- ϕ 12	3,5	100	100
HMA4 90S	2,6	175	132	24	M8	50	40	24	8	20	7	-	328	10	278	165	130	200	4- ϕ 12	3,5	100	100
HMA4 90S	4	175	132	24	M8	50	40	24	8	20	7	-	337	10	287	165	130	200	4- ϕ 12	3,5	100	100
HMA4 90L	2	175	132	24	M8	50	40	24	8	20	7	-	363	10	313	165	130	200	4- ϕ 12	3,5	100	100
HMA4 90L	4,6	175	132	24	M8	50	40	24	8	20	7	-	373	10	323	165	130	200	4- ϕ 12	3,5	100	100
HMA4 100L	2,6	199	147	28	M10	60	50	28	8	24	7	136	401	14	341	215	180	250	4- ϕ 14.5	4	100	100
HMA4 100L1	4	199	147	28	M10	60	50	28	8	24	7	136	401	14	341	215	180	250	4- ϕ 14.5	4	100	100
HMA4 100L2	4	199	147	28	M10	60	50	28	8	24	7	136	427	14	367	215	180	250	4- ϕ 14.5	4	100	100
HMA4 112M	2	219	169	28	M10	60	50	28	8	24	7	146	429	14	369	215	180	250	4- ϕ 14.5	4	120	120
HMA4 112M	4,6	235	176	28	M10	60	50	28	8	24	7	152	456	14	396	215	180	250	4- ϕ 14.5	4	120	120
HMA4 132S1	2	259	188	38	M12	80	70	30	10	33	8	166	467	15	387	265	230	300	4- ϕ 14.5	4	120	120
HMA4 132S2	2	259	188	38	M12	80	70	30	10	33	8	166	492	15	412	265	230	300	4- ϕ 14.5	4	120	120
HMA4 132S	4,6	293	207	38	M12	80	70	30	10	33	8	181	465	15	385	265	230	300	4- ϕ 14.5	4	120	120
HMA4 132M	4	293	207	38	M12	80	70	30	10	33	8	181	503	15	423	265	230	300	4- ϕ 14.5	4	120	120
HMA4 132M1	6	293	207	38	M12	80	70	30	10	33	8	181	503	15	423	265	230	300	4- ϕ 14.5	4	120	120
HMA4 132M2	6	293	207	38	M12	80	70	30	10	33	8	181	503	15	423	265	230	300	4- ϕ 14.5	4	120	120
HMA4 160M1	2	314	246	42	M16	110	100	36	12	37	8	146	619	15	509	300	250	350	4- ϕ 18.5	5	160	150
HMA4 160M2	2	314	246	42	M16	110	100	36	12	37	8	146	619	15	509	300	250	350	4- ϕ 18.5	5	160	150
HMA4 160M	4,6	314	246	42	M16	110	100	36	12	37	8	146	619	15	509	300	250	350	4- ϕ 18.5	5	160	150
HMA4 160L	2,4,6	314	246	42	M16	110	100	36	12	37	8	146	663	15	553	300	250	350	4- ϕ 18.5	5	160	150

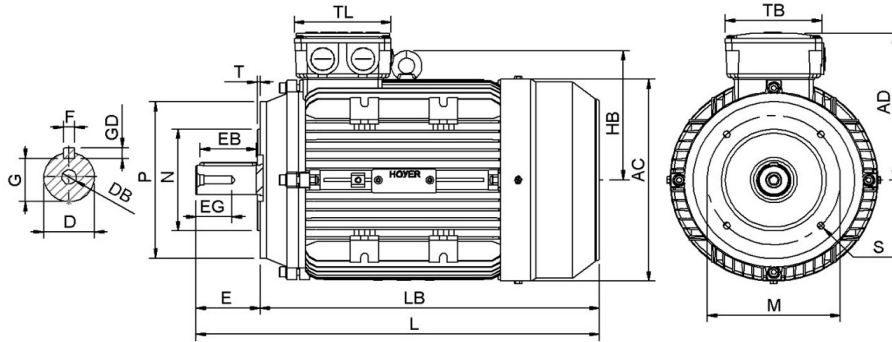
IE4 / B5



Motor type	Pole	AC	AD	D	DB	E	EB	EG	F	G	GD	HB	L	LA	LB	M	N	P	S	T	TB	TL
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Cast iron motors

HMC4 160M1	2	313	276	42	M16	110	100	36	12	37	8	221	610	14	500	300	250	350	4-ø18.5	5	218	162
HMC4 160M2	2	313	276	42	M16	110	100	36	12	37	8	221	610	14	500	300	250	350	4-ø18.5	5	218	162
HMC4 160M	4,6	313	276	42	M16	110	100	36	12	37	8	221	610	14	500	300	250	350	4-ø18.5	5	218	162
HMC4 160L	2,4,6	313	276	42	M16	110	100	36	12	37	8	221	654	14	544	300	250	350	4-ø18.5	5	218	162
HMC4 180M	2,4	354	292	48	M16	110	100	40	14	42,5	9	237	686	15	576	300	250	350	4-ø18.5	5	218	162
HMC4 180L	4,6	354	292	48	M16	110	100	40	14	42,5	9	237	724	15	614	300	250	350	4-ø18.5	5	218	162
HMC4 200L1	2,6	396	313	55	M20	110	100	50	16	49	10	264	769	17	659	350	300	400	4-ø18.5	5	260	192
HMC4 200L2	2,6	396	313	55	M20	110	100	50	16	49	10	264	769	17	659	350	300	400	4-ø18.5	5	260	192
HMC4 200L	4	396	313	55	M20	110	100	50	16	49	10	264	769	17	659	350	300	400	4-ø18.5	5	260	192
HMC4 225S	4	444	336	60	M20	140	130	56	18	53	11	286	823	20	683	400	350	450	8-ø18.5	5	260	192
HMC4 225M	2	444	336	55	M20	110	100	56	16	49	10	286	817	20	707	400	350	450	8-ø18.5	5	260	192
HMC4 225M	4,6	444	336	60	M20	140	130	56	18	53	11	286	848	20	708	400	350	450	8-ø18.5	5	260	192
HMC4 250M	2	483	374	60	M20	140	130	56	18	53	11	317	909	22	769	500	450	550	8-ø18.5	5	305	230
HMC4 250M	4,6	483	374	65	M20	140	130	56	18	58	11	317	909	22	769	500	450	550	8-ø18.5	5	305	230
HMC4 280S	2	545	403	65	M20	140	130	56	18	58	11	362	959	22	819	500	450	550	8-ø18.5	5	305	230
HMC4 280S	4,6	545	403	75	M20	140	130	56	20	67,5	12	362	979	22	839	500	450	550	8-ø18.5	5	305	230
HMC4 280M	2	545	403	65	M20	140	130	56	18	58	11	362	1010	22	870	500	450	550	8-ø18.5	5	305	230
HMC4 280M	4,6	545	403	75	M20	140	130	56	20	67,5	12	362	1030	22	890	500	450	550	8-ø18.5	5	305	230
HMC4 315S	2	618	546	65	M20	140	130	56	18	58	11	432	1193	22	1053	600	550	660	8-ø24	6	420	299
HMC4 315S	4,6	618	546	80	M20	170	160	56	22	71	14	432	1223	22	1053	600	550	660	8-ø24	6	420	299
HMC4 315M	2	618	546	65	M20	140	130	56	18	58	11	432	1303	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315M	4,6	618	546	80	M20	170	160	56	22	71	14	432	1333	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L1	2	618	546	65	M20	140	130	56	18	58	11	432	1303	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L1	4,6	618	546	80	M20	170	160	56	22	71	14	432	1333	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L2	2	618	546	65	M20	140	130	56	18	58	11	432	1303	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L2	4,6	618	546	80	M20	170	160	56	22	71	14	432	1333	22	1163	600	550	660	8-ø24	6	420	299
HMC4 355M	2	699	665	75	M20	140	130	56	20	67,5	12	491,5	1507	25	1367	740	680	800	8-ø24	6	460	330
HMC4 355M	4	699	665	95	M24	170	160	56	25	86	14	491,5	1537	25	1367	740	680	800	8-ø24	6	460	330
HMC4 355M1	6	699	665	95	M24	170	160	56	25	86	14	491,5	1537	25	1367	740	680	800	8-ø24	6	460	330
HMC4 355M2	6	699	665	95	M24	170	160	56	25	86	14	491,5	1537	25	1367	740	680	800	8-ø24	6	460	330
HMC4 355L	2	699	665	75	M20	140	130	56	20	67,5	12	491,5	1507	25	1367	740	680	800	8-ø24	6	460	330
HMC4 355L	4,6	699	665	95	M24	170	160	56	25	86	14	491,5	1537	25	1367	740	680	800	8-ø24	6	460	330

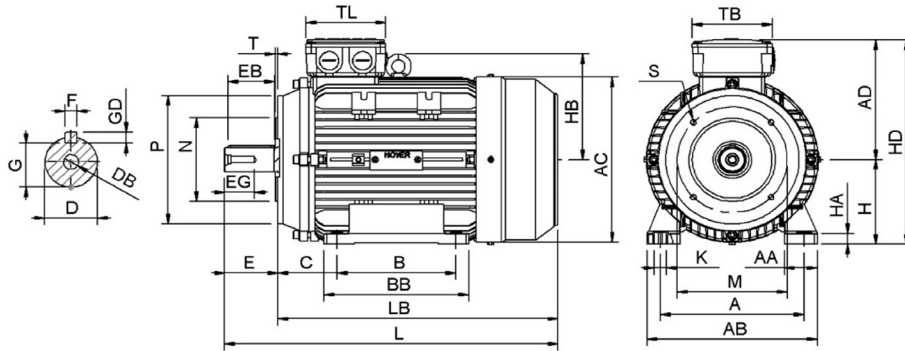


Motor type	Pole	AC	AD	D	DB	E	EB	EG	F	G	GD	HB	L	LB	Flange					Big flange				
															M	N	P	S	T	M	N	P	S	T

Aluminium motors

HMA4 80 1	2	159	126	19	M6	40	32	16	6	15,5	6	-	294	254	100	80	120	4-M6	3	130	110	160	4-M8	3,5	100	100
HMA4 80 2	2	159	126	19	M6	40	32	16	6	15,5	6	-	294	254	100	80	120	4-M6	3	130	110	160	4-M8	3,5	100	100
HMA4 80 2	4	159	126	19	M6	40	32	16	6	15,5	6	-	307	267	100	80	120	4-M6	3	130	110	160	4-M8	3,5	100	100
HMA4 90S	2,6	175	132	24	M8	50	40	24	8	20	7	-	328	278	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 90S	4	175	132	24	M8	50	40	24	8	20	7	-	337	287	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 90L	2	175	132	24	M8	50	40	24	8	20	7	-	363	313	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 90L	4,6	175	132	24	M8	50	40	24	8	20	7	-	373	323	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 100L	2,6	199	147	28	M10	60	50	28	8	24	7	136	401	341	130	110	164	4-M8	3,5	165	130	200	4-M10	3,5	100	100
HMA4 100L1	4	199	147	28	M10	60	50	28	8	24	7	136	401	341	130	110	164	4-M8	3,5	165	130	200	4-M10	3,5	100	100
HMA4 100L2	4	199	147	28	M10	60	50	28	8	24	7	136	427	367	130	110	164	4-M8	3,5	165	130	200	4-M10	3,5	100	100
HMA4 112M	2	219	169	28	M10	60	50	28	8	24	7	146	429	369	130	110	160	4-M8	3,5	165	130	200	4-M10	3,5	120	120
HMA4 112M	4,6	235	176	28	M10	60	50	28	8	24	7	152	456	396	130	110	160	4-M8	3,5	165	130	200	4-M10	3,5	120	120
HMA4 132S1	2	259	188	38	M12	80	70	30	10	33	8	166	467	387	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132S2	2	259	188	38	M12	80	70	30	10	33	8	166	492	412	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132S	4,6	293	207	38	M12	80	70	30	10	33	8	181	465	385	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132M	4	293	207	38	M12	80	70	30	10	33	8	181	503	423	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132M1	6	293	207	38	M12	80	70	30	10	33	8	181	503	423	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132M2	6	293	207	38	M12	80	70	30	10	33	8	181	503	423	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120

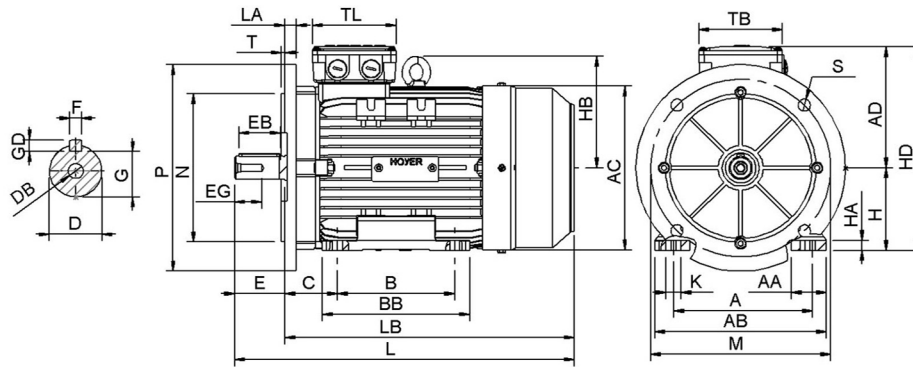
IE4 / B34



Motor type	Pole	Flange																	Big flange															
		A	AA	AB	AC	AD	B	BB	C	D	DB	E	EB	EG	F	G	GD	H	HA	HB	HD	K	L	LB	M	N	P	S	T	M	N	P	S	T

Aluminium motors

HMA4 80 1	2	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	294	254	100	80	120	4-M6	3	130	110	160	4-M8	3,5	100	100
HMA4 80 2	2	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	294	254	100	80	120	4-M6	3	130	110	160	4-M8	3,5	100	100
HMA4 80 2	4	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	307	267	100	80	120	4-M6	3	130	110	160	4-M8	3,5	100	100
HMA4 90S	2,6	140	35	177	175	132	100	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	328	278	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 90S	4	140	35	177	175	132	100	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	337	287	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 90L	2	140	44	177	175	132	125	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	363	313	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 90L	4,6	140	44	177	175	132	125	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	373	323	115	95	136	4-M8	3	130	110	160	4-M8	3,5	100	100
HMA4 100L	2,6	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	401	341	130	110	164	4-M8	3,5	165	130	200	4-M10	3,5	100	100
HMA4 100L1	4	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	401	341	130	110	164	4-M8	3,5	165	130	200	4-M10	3,5	100	100
HMA4 100L2	4	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	427	367	130	110	164	4-M8	3,5	165	130	200	4-M10	3,5	100	100
HMA4 112M	2	190	45	222	219	169	140	180	70	28	M10	60	50	28	8	24	7	112	13	146	281	12	429	369	130	110	160	4-M8	3,5	165	130	200	4-M10	3,5	120	120
HMA4 112M	4,6	190	37	222	235	176	140	218	70	28	M10	60	50	28	8	24	7	112	13	152	288	12	456	396	130	110	160	4-M8	3,5	165	130	200	4-M10	3,5	120	120
HMA4 132S1	2	216	46,5	256	259	188	140	180	89	38	M12	80	70	30	10	33	8	132	15	166	320	12	467	387	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132S2	2	216	46,5	256	259	188	140	180	89	38	M12	80	70	30	10	33	8	132	15	166	320	12	492	412	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132S	4,6	216	46,5	256	293	207	140	180	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	465	385	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132M	4	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	423	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132M1	6	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	423	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120
HMA4 132M2	6	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	423	165	130	200	4-M10	3,5	215	180	250	4-M12	4	120	120

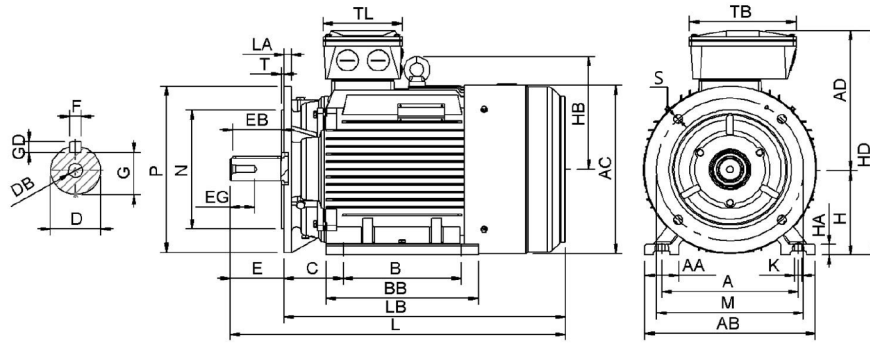


Motor type	Pole	A	AA	AB	AC	AD	B	BB	C	D	DB	E	EB	EG	F	G	GD	H	HA	HB	HD	K	L	LA	LB	M	N	P	S	T	TB	TL
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Aluminium motors

HMA4 80 1	2	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	294	10	254	165	130	200	4-ø12	3,5	100	100
HMA4 80 2	2	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	294	10	254	165	130	200	4-ø12	3,5	100	100
HMA4 80 2	4	125	36	159	159	126	100	122	50	19	M6	40	32	16	6	15,5	6	80	10	-	206	10	307	10	267	165	130	200	4-ø12	3,5	100	100
HMA4 90S	2,6	140	35	177	175	132	100	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	328	10	278	165	130	200	4-ø12	3,5	100	100
HMA4 90S	4	140	35	177	175	132	100	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	337	10	287	165	130	200	4-ø12	3,5	100	100
HMA4 90L	2	140	44	177	175	132	125	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	363	10	313	165	130	200	4-ø12	3,5	100	100
HMA4 90L	4,6	140	44	177	175	132	125	155	56	24	M8	50	40	24	8	20	7	90	12	-	222	10	373	10	323	165	130	200	4-ø12	3,5	100	100
HMA4 100L	2,6	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	401	14	341	215	180	250	4-ø14.5	4	100	100
HMA4 100L1	4	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	401	14	341	215	180	250	4-ø14.5	4	100	100
HMA4 100L2	4	160	42	205	199	147	140	176	63	28	M10	60	50	28	8	24	7	100	12	136	247	12	427	14	367	215	180	250	4-ø14.5	4	100	100
HMA4 112M	2	190	45	222	219	169	140	180	70	28	M10	60	50	28	8	24	7	112	13	146	281	12	429	14	369	215	180	250	4-ø14.5	4	120	120
HMA4 112M	4,6	190	37	222	235	176	140	218	70	28	M10	60	50	28	8	24	7	112	13	152	288	12	456	14	396	215	180	250	4-ø14.5	4	120	120
HMA4 132S1	2	216	46,5	256	259	188	140	180	89	38	M12	80	70	30	10	33	8	132	15	166	320	12	467	15	387	265	230	300	4-ø14.5	4	120	120
HMA4 132S2	2	216	46,5	256	259	188	140	180	89	38	M12	80	70	30	10	33	8	132	15	166	320	12	492	15	412	265	230	300	4-ø14.5	4	120	120
HMA4 132S	4,6	216	46,5	256	293	207	140	180	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	465	15	385	265	230	300	4-ø14.5	4	120	120
HMA4 132M	4	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	15	423	265	230	300	4-ø14.5	4	120	120
HMA4 132M1	6	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	15	423	265	230	300	4-ø14.5	4	120	120
HMA4 132M2	6	216	46,5	256	293	207	178	218	89	38	M12	80	70	30	10	33	8	132	15	181	339	12	503	15	423	265	230	300	4-ø14.5	4	120	120
HMA4 160M1	2	254	55	302	314	246	210	260	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	619	15	509	300	250	350	4-ø18.5	5	160	150
HMA4 160M2	2	254	55	302	314	246	210	260	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	619	15	509	300	250	350	4-ø18.5	5	160	150
HMA4 160M	4,6	254	55	302	314	246	210	260	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	619	15	509	300	250	350	4-ø18.5	5	160	150
HMA4 160L	2,4,6	254	55	302	314	246	254	304	108	42	M16	110	100	36	12	37	8	160	18	146	406	16	663	15	553	300	250	350	4-ø18.5	5	160	150

IE4 / B35



Motor type	Pole	A	AA	AB	AC	AD	B	BB	C	D	DB	E	EB	EG	F	G	GD	H	HA	HB	HD	K	L	LA	LB	M	N	P	S	T	TB	TL
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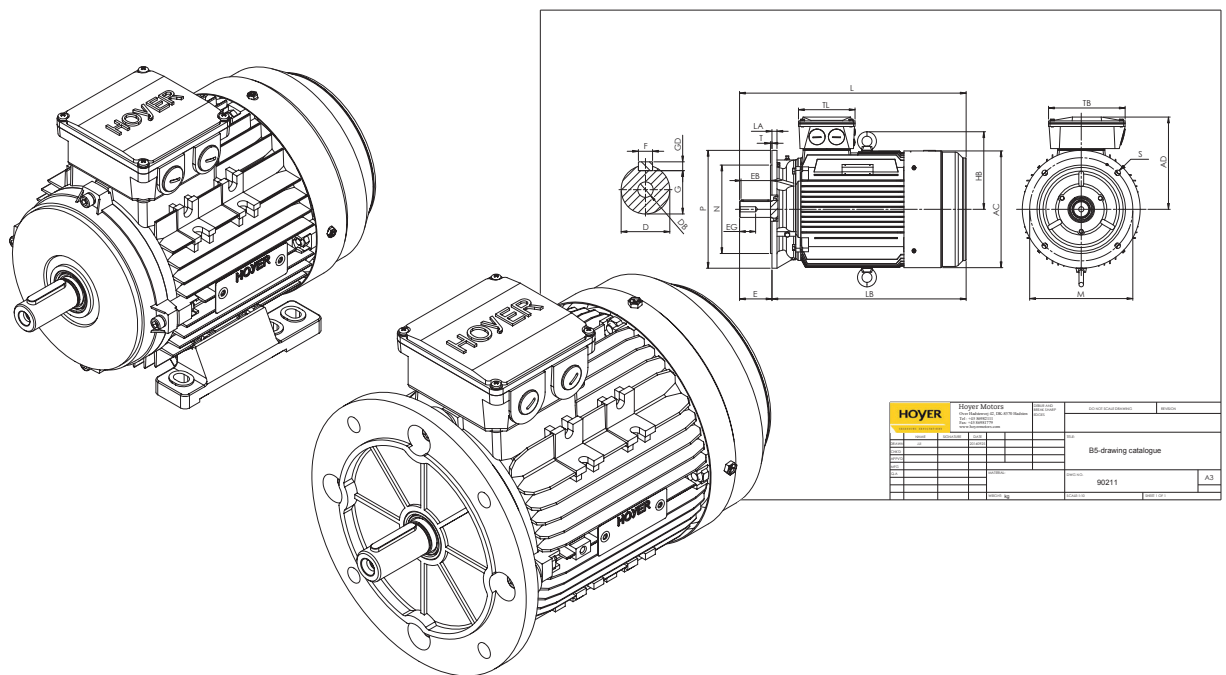
Cast iron motors

HMC4 160M1	2	254	65	314	313	276	210	260	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	610	14	500	300	250	350	4-ø18.5	5	218	162
HMC4 160M2	2	254	65	314	313	276	210	260	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	610	14	500	300	250	350	4-ø18.5	5	218	162
HMC4 160M	4,6	254	65	314	313	276	210	260	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	610	14	500	300	250	350	4-ø18.5	5	218	162
HMC4 160L	2,4,6	254	65	314	313	276	254	304	108	42	M16	110	100	36	12	37	8	160	20	221	436	14,5	654	14	544	300	250	350	4-ø18.5	5	218	162
HMC4 180M	2,4	279	70	349	354	292	241	311	121	48	M16	110	100	40	14	42,5	9	180	22	237	472	14,5	686	15	576	300	250	350	4-ø18.5	5	218	162
HMC4 180L	4,6	279	70	349	354	292	279	349	121	48	M16	110	100	40	14	42,5	9	180	22	237	472	14,5	724	15	614	300	250	350	4-ø18.5	5	218	162
HMC4 200L1	2,6	318	70	388	396	313	305	369	133	55	M20	110	100	50	16	49	10	200	25	264	513	18,5	769	17	659	350	300	400	4-ø18.5	5	260	192
HMC4 200L2	2,6	318	70	388	396	313	305	369	133	55	M20	110	100	50	16	49	10	200	25	264	513	18,5	769	17	659	350	300	400	4-ø18.5	5	260	192
HMC4 200L	4	318	70	388	396	313	305	369	133	55	M20	110	100	50	16	49	10	200	25	264	513	18,5	769	17	659	350	300	400	4-ø18.5	5	260	192
HMC4 225S	4	356	75	431	444	336	286	368	149	60	M20	140	130	56	18	53	11	225	28	286	561	18,5	823	20	683	400	350	450	8-ø18.5	5	260	192
HMC4 225M	2	356	75	431	444	336	311	393	149	55	M20	110	100	56	16	49	10	225	28	286	561	18,5	817	20	707	400	350	450	8-ø18.5	5	260	192
HMC4 225M	4,6	356	75	431	444	336	311	393	149	60	M20	140	130	56	18	53	11	225	28	286	561	18,5	848	20	708	400	350	450	8-ø18.5	5	260	192
HMC4 250M	2	406	80	484	483	374	349	445	168	60	M20	140	130	56	18	53	11	250	30	317	624	24	909	22	769	500	450	550	8-ø18.5	5	305	230
HMC4 250M	4,6	406	80	484	483	374	349	445	168	65	M20	140	130	56	18	58	11	250	30	317	624	24	909	22	769	500	450	550	8-ø18.5	5	305	230
HMC4 280S	2	457	85	542	545	403	368	485	190	65	M20	140	130	56	18	58	11	280	35	362	683	24	959	22	819	500	450	550	8-ø18.5	5	305	230
HMC4 280S	4,6	457	85	542	545	403	368	485	190	75	M20	140	130	56	20	67,5	12	280	35	362	683	24	979	22	839	500	450	550	8-ø18.5	5	305	230
HMC4 280M	2	457	85	542	545	403	419	536	190	65	M20	140	130	56	18	58	11	280	35	362	683	24	1010	22	870	500	450	550	8-ø18.5	5	305	230
HMC4 280M	4,6	457	85	542	545	403	419	536	190	75	M20	140	130	56	20	67,5	12	280	35	362	683	24	1030	22	890	500	450	550	8-ø18.5	5	305	230
HMC4 315S	2	508	120	628	618	546	406	570	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1193	22	1053	600	550	660	8-ø24	6	420	299
HMC4 315S	4,6	508	120	628	618	546	406	570	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1223	22	1053	600	550	660	8-ø24	6	420	299
HMC4 315M	2	508	120	628	618	546	457	680	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1303	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315M	4,6	508	120	628	618	546	457	680	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1333	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L1	2	508	120	628	618	546	508	680	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1303	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L1	4,6	508	120	628	618	546	508	680	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1333	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L2	2	508	120	628	618	546	508	680	216	65	M20	140	130	56	18	58	11	315	45	432	861	28	1303	22	1163	600	550	660	8-ø24	6	420	299
HMC4 315L2	4,6	508	120	628	618	546	508	680	216	80	M20	170	160	56	22	71	14	315	45	432	861	28	1333	22	1163	600	550	660	8-ø24	6	420	299
HMC4 355M	2	610	116	726	699	665	560	750	254	75	M20	140	130	56	20	67,5	12	355	52	491,5	1020	28	1507	25	1367	740	680	800	8-ø24	6	460	330
HMC4 355M	4	610	116	726	699	665	560	750	254	95	M24	170	160	56	25	86	14	355	52	491,5	1020	28	1537	25	1367	740	680	800	8-ø24	6	460	330
HMC4 355M1	6	610	116	726	699	665	560	750	254	95	M24	170	160	56	25	86	14	355	52	491,5	1020	28	1537	25	1367	740	680	800	8-ø24	6	460	330
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HMC4 355L	4,6	610	116	726	699	665	630	750	254	95	M24	170	160	56	25	86	14	355	52	491,5	1020	28	1537	25	1367	740	680	800	8-ø24	6	460	330

Hoyer IE4 Electric Motors

Drawings

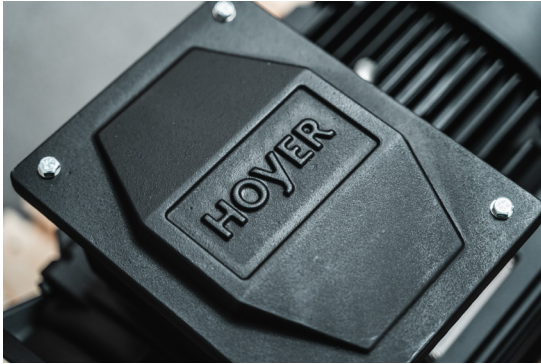
At hoyermotors.com drawings of the IE4 range are available for download.



Website

As well as various drawings you are able to find data sheets, type tests and other relevant documentation and information at hoyermotors.com





HOYER

EXCEEDING EXPECTATIONS

Hoyer Motors, IE4 Motors, October 2023

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