

Industrial electrical
equipment solutions

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EUROPEAN
SPECIALIST
SINCE 1892



Squirrel cage asynchronous motor

LV LOW VOLTAGE – FONTE

IE4-IP55



Motors – rotating machinery



2EC



We transform and adapt motors and other equipment in order to fulfill specific requests.

About the company

Since its creation in 1892, our company has been offering a service in the broadest sense of the term.

As an SME operating in all sectors involving industrial electrical power equipment, we have been producing and delivering the equipment listed below without delay, for over 130 years.

Five sectors are at the heart of our activities :

- Drive units and all types of electrical motors,
- Electrical transformers,
- Power electronics and
- Industrial pumps
- Gearmotors



Motors products
& services

- Asynchronous cage motors, low-power up to 1400kW
- Asynchronous slip-ring motors, low-power up to 630kW
- Asynchronous cage motors, medium-power up to 1250kW
- Asynchronous cage motors, IP23, low-power up to 710kW
- Direct current motors, up to 800kW

Who are we ?

Our activities within these different sectors revolve mainly around the buying, reconditioning, selling, and renting of equipment.

Our considerable stock enables us to quickly meet your needs, with both new and second-hand equipment. Indeed, we have a wide range of both new electrical motors marked 2EC/FOCQUET as well as second-hand motors.

In addition, our workshops allow us to provide excellent service when it comes to customising motors, thus meeting our clients' every need.

A department specialising in pumps, including their repair, was created in 2005 and employs people who are highly experienced in this field.

In March 2011, we launched a new department called " Power Electronics ".

In order to meet a growing demand for equipment with variable speed, we can now offer direct current variable speed drives of several kA in 2Q and 4Q, static variable frequency drives (low-power up to 3MW), as well as low power and medium-power soft starters.

CARACTÉRISTIQUES TECHNIQUES

Les moteurs FOCQUET **2EC** sont conçus et fabriqués selon les normes IEC/EN 60034-1, IEC/EN 60034-2-1, IEC/EN 60034-30, IEC 60034-8, IEC 60034-12, IEC 60072, IEC/EN 60034-5, IEC/EN 600346, IEC/EN 60034-7, IEC/EN 60034-9, IEC 60034-14.

RENDEMENT ELEVE

Tous les moteurs FOCQUET **2EC** sont prévus pour un service S1 et sont conformes à la classe IE4 de la norme en vigueur, ils permettent d'économiser de l'énergie et de diminuer les coûts opérationnels.

GAMME DE TENSION

Une large gamme de tension jusqu'à 690V est disponible pour 50Hz et 60Hz.

BOBINAGES FIABLES

Afin d'assurer une longue durée de vie, les bobinages sont réalisés avec des composants d'isolation de classe F de dernière génération, les moteurs ont une élévation de température limitée à la classe B en standard.

PROTECTION ANTI-CORROSION

Les moteurs peuvent être utilisés dans des environnements sévères et agressifs, ils sont développés pour une utilisation longue et intense. Ils possèdent une protection effective contre la corrosion.

ROULEMENTS A CAPACITE DE CHARGE ELEVEE

Tous les moteurs sont livrés avec des roulements à billes calculés pour des durées de vie importantes. Les moteurs à carcasse fonte des tailles 80-132 sont graissés à vie, ceux des tailles 160-560 possèdent des graisseurs en standard.

NIVEAU DE BRUIT

La gamme FOCQUET **2EC** a été conçue pour minimiser le niveau sonore, en améliorant la conception des circuits magnétiques et électriques, la ventilation et la technologie de structure.

PROTECTION DES BOBINAGES

Des thermistances PTC sont en standard à partir de la taille 80 et des résistances de réchauffages (Pt100...) sont disponibles sur demande.

TEFC – IP55

Conçu pour des applications sévères, fabriqué avec des qualités de fonte utilisables dans tous types d'environnements.

FLEXIBILITE DE CABLAGE

La boîte à bornes est montée sur le dessus du moteur. La boîte à bornes des tailles 80-132 peut tourner de 4 x 90°, et celle des tailles 160-355 peut tourner de 2 x 180°.

VERSATILITE DE LA GAMME

Les Moteurs conviennent à une large gamme d'applications et d'environnements. Ils peuvent disposer d'options telles que : protection renforcée, isolation de classe supérieure, système de graissage, bague d'étanchéité, capot parapluie, roulement isolé, ventilation forcée, ...

TECHNICAL CHARACTERISTICS

FOCQUET **2EC** motors are designed and manufactured according to the standards IEC/EN 60034-1, IEC/EN 60034-2-1, IEC/EN 60034-30, IEC 60034-8, IEC 6003412, IEC 60072, IEC/EN 60034-5, IEC/EN 60034-6, IEC/EN 60034-7, IEC/EN 600349, IEC 60034-14.

HIGH EFFICIENCY

All FOCQUET **2EC** motors are built for S1 service and comply with Class IE4 of the actual standard, saving energy and reducing operating costs.

VOLTAGE RANGE

A wide range of voltages up to 690V is available for 50Hz and 60Hz.

RELIABLE WINDINGS

To ensure long life, the windings are made with the latest generation of Class F insulation components, and the motors have temperature rises limited to Class B as standard.

ANTI-CORROSION PROTECTION

The motors can be used in severe and aggressive environments as they have been developed for long and intensive use. They have effective protection against corrosion.

HIGH LOAD CAPACITY BEARINGS

All motors are delivered with bearings calculated for a long operating life. Enclosed frame motors in sizes 80-132 are lubricated for life, and sizes 160-560 have lubrication points (grease nipples) as standard.

NOISE LEVELS

The FOCQUET **2EC** range has been designed to minimize noise levels by improving the design of the magnetic and electrical circuits, ventilation and structure technology.

WINDING PROTECTION

PTC sensors are factory fitted as from size 80, other heating elements are available on request (Pt100...).

TEFC – IP55

Designed for severe applications and manufactured using cast steel that can be used in all types of environments.

FLEXIBILITY FOR WIRING

The connection box is fitted on the top of the motor. The connection box for sizes 80-132 can be turned 4 x 90° and for sizes 160-355 can be turned 2 x 180°.

VERSATILITY OF THE RANGE

The Motors are suitable for a wide range of applications and environments. They can have options such as: increased protection, higher insulation class, lubrication system, sealing ring, rain canopy, insulated bearings, forced coolings, etc...

Squirrel cage asynchronous motor IP55 – IE4

FONCTIONNEMENT À 60HZ

OPERATION AT 60HZ

Les Moteurs bobinés pour une tension donnée à 50Hz peuvent fonctionner à 60Hz sans modifications, sous réserve de correction des valeurs caractéristiques comme indiqué dans le tableau suivant.

Motors with windings rated for 50Hz can operate at 60Hz without modifications. Please take care of the corrections of the characteristics as shown in the table below.

Motor winding for 50Hz	Connected to a 60Hz circuit	Power	Values at 60Hz as a % of the values at 50Hz			
Power supply voltage			Cn	Cmax/Cn	Cd/Cn	Speed
			%			
220 V	220 V	100	83	85	70	120
	255 V	115	96	98	95	120
380 V	380 V	100	83	85	70	120
	415 V	110	91	93	85	120
	440 V	115	96	98	95	120
	460 V	120	100	103	100	120
400 V	380 V	100	83	80	66	120
	400 V	100	83	85	70	120
	415 V	105	86	88	78	120
	440 V	110	91	93	85	120
	460 V	115	96	98	95	120
	480 V	120	100	100	100	120
415 V	415 V	100	83	85	70	120
	460 V	110	91	94	85	120
	480 V	115	96	98	95	120
500 V	500 V	100	83	85	70	120
	550 V	110	91	94	85	120
	575 V	115	96	98	95	120
	600 V	120	100	103	100	120

- Cn Couple nominal à 60Hz
 - Cmax/Cn Couple maximum/Couple nominal
 - Cd/Cn Couple de démarrage/ Couple nominal
- Nominal torque at 60Hz

Maximum torque/Nominal Torque

Start-up torque/Nominal torque

ROULEMENTS

BEARINGS

B3,B35,B5				
Size	Driving End		Non-driving End	
	2(pole)	4.6.8.(pole)	2(pole)	4.6.8.(pole)
80	6204ZZ	6204ZZ	6204ZZ	6204ZZ
90	6205ZZ	6205ZZ	6205ZZ	6205ZZ
100	6206 ZZ	6206 ZZ	6206ZZ	6206ZZ
112	6306ZZ	6306ZZ	6306ZZ	6306ZZ
132	6308ZZ	6308ZZ	6308ZZ	6308ZZ
160	6309ZZ	6309ZZ	6309ZZ	6309ZZ
180	6311 C3	6311 C3	6311 C3	6311 C3
200	6312 C3	6312 C3	6312 C3	6312 C3
225	6313 C3	6313 C3	6313 C3	6313 C3
250	6314 C3	6314 C3	6314 C3	6314 C3
280	6314 C3	6317 C3	6314 C3	6317 C3
315	6317 C3	NU319 C3 / 6319 C3	6317 C3	6319 C3
355	6319 C3	NU322 C3 / 6322 C3	6319 C3	6322 C3

VIBRATION

Size	<= 132		>132-225		>225-400	
Synchronous speed r/min	600-1800	>1800-3600	600-1800	>1800-3600	600-1800	>1800-3600
Vibration Class	Effective Value of speed mm/s					
N	1.8	1.8	2.8	2.8	3.5	-
R	0.71	1.12	1.12	1.8	1.8	2.8
S	0.45	0.71	0.71	1.12	1.12	1.8

ISOLATION ET CLASSE D’ECHAUFFEMENT

INSULATION AND WARMING CLASS

Les isolants sont, d’après IEC85, répartis en différentes classes. Pour chacune de ces classes est définie une température. Celle-ci fixe la limite supérieure du domaine d’emploi des isolants de la classe considérée leur garantissant une durée de vie acceptable dans les conditions normales de service. Un dépassement de cette limite de 8 à 10K réduira de moitié à peu près la durée de vie des isolants.

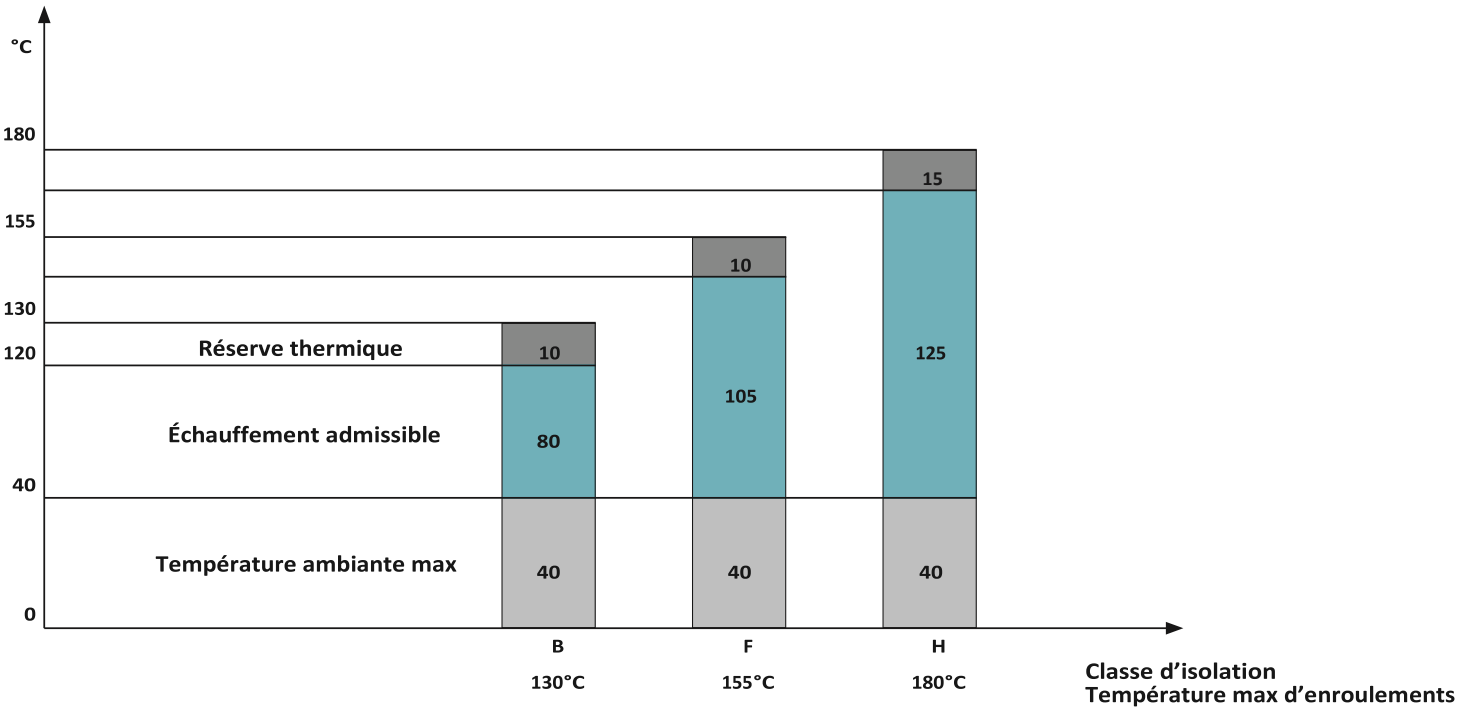
L’isolation de l’enroulement d’un moteur fixe l’échauffement aux points les plus chauds de ce dernier par rapport à la température ambiante à 40°C maximum.

En cas de fonctionnement à une température ambiante supérieure, la puissance nominale d’utilisation doit être réduite. Les moteurs FOCQUET **2EC** sont isolés classe F avec un échauffement limité à la classe B, ce qui leur confère une réserve thermique d’environ 25%. Si un échauffement correspondant à la classe F est autorisé, les puissances énoncées dans les tableaux peuvent être augmentées de 12%.

Insulation is divided into different classes according to IEC85. A temperature is defined for each of these classes. This sets the upper limit of the operating range for the insulators in the class concerned, guaranteeing an acceptable lifespan under normal operating conditions. Exceeding these limits by 8 to 10K will reduce by almost half the life of the insulation.

The insulation of the motor winding sets the heating at the hottest points of the motor compared to the ambient temperature with a maximum of 40°C.

In the case of operating at a higher ambient temperature, the nominal operating power rating must be reduced. FOCQUET **2EC** motors have Class F insulation with heating limited to Class B, which gives them a thermal reserve of around 25%. If heating to Class F is allowed, the power ratings given in the tables can be increased by 12%.



BRUIT

NOISE

Output (kW)	Synchronous speed r/min			
	3000	1500	1000	750
	Lp dB(A) Sound pressure level in dB (A) at 1m			
	no load	no load	no load	No load
0.75	62	56	57	59
1.1	62	59	57	59
1.5	67	59	61	61
2.2	67	64	65	64
3	74	64	69	64
4	77	65	69	68
5.5	79	71	69	68
7.5	79	71	73	68
11	81	73	73	70
15	81	73	73	73
18,5	81	76	73	73
22	83	76	74	73
30	84	76	76	75
37	84	78	78	76
45	86	78	78	76
55	89	79	78	82
75	91	80	83	82
90	91	80	83	82
110	92	88	83	82
132	92	88	83	89
160	92	88	85	89
200	92	88	85	89
250	97	92	85	
315	97	92		
355				

Squirrel cage asynchronous motor IP55 – IE4

FORMES DE MONTAGE

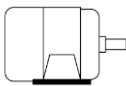
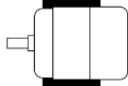
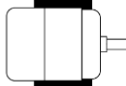
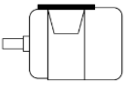
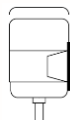
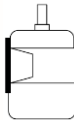
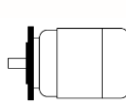


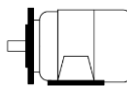
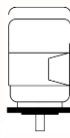
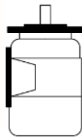
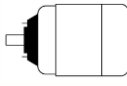
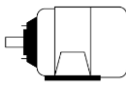


Les formes de montage des moteurs sont conformes à la recommandation IEC34-7.

Il y a quatre arrangements de base présentés dans les tableaux et figures suivantes

MOUNTING ARRANGEMENTS

The mounting arrangements of the motors comply with IEC34-7 recommendation.

There are four basic arrangements shown in the following tables and figures.

Fundamental arrangement	B3					
Mounting arrangement	B3/IM1001	B6/IM1051	B7/IM1061	B8/IM1071	V5/IM1011	V6/IM1031
Diagram						
Range of manufacture (Frame size)	1000	80-355				
Fundamental arrangement	B5			B35		
Mounting arrangement	B5/IM3001	V1/IM3011	V3/IM3031	B35/IM2001	V15/IM2011	V36/IM2031
Diagram						
Range of manufacture (Frame-size)	80-280	80-355	80-160	80-355	80-160	
Fundamental arrangement	B14					
Mounting arrangement	B14/IM3601	B34/IM2101	V18/IM3611	V19/IM3631		
Diagram						
Range of manufacture (Frame size)	80-132					

DÉCLASSEMENT

DERATING

Ambient temperature	Altitude						
	1000	1500	2000	2500	3000	3500	4000
10°C	1.16	1.13	1.11	1.08	1.04	1.01	0.97
15°C	1.13	1.11	1.08	1.06	1.02	0.98	0.94
20°C	1.11	1.08	1.06	1.03	1.00	0.95	0.91
25°C	1.08	1.06	1.03	1.00	0.95	0.93	0.89
30°C	1.06	1.03	1.00	0.96	0.92	0.90	0.86
35°C	1.03	1.00	0.95	0.93	0.90	0.88	0.84
40°C	1.00	0.97	0.94	0.90	0.86	0.82	0.80
45°C	0.95	0.92	0.90	0.88	0.85	0.82	0.78
50°C	0.92	0.90	0.87	0.85	0.82	0.80	0.77
55°C	0.88	0.85	0.83	0.81	0.78	0.76	0.73
60°C	0.83	0.82	0.80	0.77	0.75	0.73	0.70

Les puissances des moteurs de ce catalogue sont données pour une utilisation à température ambiante de +40°C et 1000m d'altitude. Dans le cas d'une utilisation d'un moteur à une température ambiante ou une altitude différente, il faut multiplier la puissance moteur par le coefficient du tableau ci-dessus.

Exemple:

Pour un moteur d'une puissance de 2,2kW à une température ambiante de 45°C et une altitude de 2000mètres. La puissance du moteur sera donc:

$$P=2,2\text{kW} \times \text{coef } 0,90 = 1,98\text{kW}$$

The motor's powers in this catalog are given to use at an ambient temperature of +40°C and 1000 m altitude. In case of a different ambient temperature or altitude, it's necessary to multiply the power motor by the coefficient given in the table above.

Example:

For a motor with a power of 2,2kW at an ambient temperature of 45°C and an altitude of 2000m. The power of the motor will be:

$$P=2,2\text{kW} \times \text{coef } 0,90 = 1,98\text{kW}$$

Squirrel cage asynchronous motor IP55 – IE4

IE4 - 400V IP55 3000RPM/2P

Motor Type	Rated Power	Current	Rated Speed	Efficiency	Power Factor	Locked Current	Locked Torque	Maximum Torque	Moment of inertia	Weight
	kW	A	r/min	$\eta\%$	$\cos \phi$	Rated Current	Rated Torque	Rated Torque	J kgm2	kg
IE4-80M1-2	0.75	1.6	2910	83.5	0.83	8.5	2.2	2.3	0.00111	24
IE4-80M2-2	1.1	2.2	2920	85.2	0.83	8.5	2.2	2.3	0.00145	25
IE4-90S-2	1.5	3	2930	86.5	0.85	9	2.2	2.3	0.00221	27
IE4-90L-2	2.2	4.2	2930	88	0.86	9	2.2	2.3	0.00288	32
IE4-100L-2	3	5.6	2935	89.1	0.87	9.5	2.2	2.3	0.00466	40
IE4-112M-2	4	7.3	2940	90	0.88	9.5	2.2	2.3	0.00644	63
IE4-132S1-2	5.5	9.9	2945	90.9	0.88	9.5	2	2.3	0.0142	75
IE4-132S2-2	7.5	13.4	2950	91.7	0.89	9.5	2	2.3	0.01675	81
IE4-160M1-2	11	9.3	2960	92.6	0.89	9.5	2	2.3	0.05506	129
IE4-160M2-2	15	26.1	2960	93.3	0.89	9.5	2	2.3	0.06299	139
IE4-160L2	18.5	32	2960	93.7	0.89	9.5	2	2.3	0.07305	165
IE4-180M-2	22	38	2965	94	0.89	9.5	2	2.3	0.09103	206
IE4-200L1-2	30	51.5	2970	94.5	0.89	9	2	2.3	0.18362	264
IE4-200L2-2	37	63.3	2970	94.8	0.89	9	2	2.3	0.19378	282
IE4-225M-2	45	76	2975	95	0.89	9	2	2.3	0.34021	366
IE4-250M-2	55	92.6	2975	95.3	0.89	9	2	2.3	0.47312	401
IE4-280S-2	75	126	2980	95.6	0.89	8.5	1.8	2.3	1.11065	548
IE4-280M-2	90	151	2982	95.8	0.89	8.5	1.8	2.3	1.17163	595
IE4-315S-2	110	184	2980	96	0.89	8.5	1.8	2.3	1.52512	878
IE4-315M-2	132	220	2980	96.2	0.89	8.5	1.8	2.3	2.15291	967
IE4-315L1-2	160	264	2980	96.3	0.89	8.5	1.8	2.2	2.44178	1040
IE4-315L2-2	200	329	2980	96.5	0.89	8.5	1.8	2.2	2.70677	1134
IE4-355M-2	250	411	2985	96.5	0.91	8.5	1.6	2.2	3.4119	1683
IE4-355L-2	315	518	2982	96.5	0.91	8.5	1.6	2.2	3.98055	1880

Squirrel cage asynchronous motor IP55 – IE4

IE4 - 400V IP55 1500RPM/4P

Motor Type	Rated Power	Current	Rated Speed	Efficiency	Power Factor	Locked Current	Locked Torque	Maximum Torque	Moment of inertia	Weight
	kW	A	r/min	$\eta\%$	$\cos \phi$	Rated Current	Rated Torque	Rated Torque	J kgm2	kg
IE4 - 80M2 - 4	0.75	1.7	1430	85.7	0.74	8.5	2.3	2.3	0.00275	26
IE4-90S -4	1.1	2.4	1445	87.2	0.75	8.5	2.3	2.3	0.00333	27
IE4-90L-4	1.5	3.2	1450	88.2	0.76	9	2.3	2.3	0.00422	30
IE4-100L1 -4	2.2	4.4	1455	89.5	0.79	9	2.3	2.3	0.00854	41
IE4-100L2-4	3	5.8	1455	90.4	0.8	9.5	2.3	2.3	0.01032	46
IE4-112M-4	4	7.7	1460	91.1	0.8	9.5	2.3	2.3	0.0142	62
IE4-132S-4	5.5	10.4	1470	91.9	0.8	9.5	2	2.3	0.03162	86
IE4-132M-4	7.5	13.9	1470	92.6	0.81	9.5	2	2.3	0.04061	96
IE4-160M-4	11	20	1475	93.3	0.83	9.5	2	2.3	0.08689	139
IE4-160L-4	15	26.8	1475	93.9	0.84	9.5	2	2.3	0.11381	163
IE4-180M-4	18.5	33	1480	94.2	0.85	9.5	2	2.3	0.17122	199
IE4-180L-4	22	39.1	1480	94.5	0.85	9.5	2	2.3	0.21065	224
IE4-200L-4	30	53.1	1480	94.9	0.85	9	2	2.3	0.321	284
IE4-225S-4	37	65.2	1485	95.2	0.85	9	2	2.3	0.53287	350
IE4-225M-4	45	79.2	1485	95.4	0.85	9	2	2.3	0.62401	380
IE4-250M-4	55	96.5	1485	95.7	0.86	9	2	2.3	0.84594	442
IE4-280S-4	75	128	1490	96	0.87	8.5	2	2.3	2.16232	612
IE4-280M-4	90	154	1490	96.1	0.88	8.5	2	2.3	2.61466	697
IE4-315S-4	110	185	1490	96.3	0.89	8.5	1.8	2.2	3.6985	940
IE4-315M-4	132	222	1490	96.4	0.89	8.5	1.8	2.2	4.29444	1040
IE4-315L1 -4	160	269	1490	96.6	0.9	8.5	1.8	2.2	4.69705	1142
IE4-315L2-4	200	339	1490	96.7	0.9	8.5	1.8	2.2	5.37943	1218
IE4-355M-4	250	424	1490	96.7	0.9	8.5	1.8	2.2	7.39245	1663
IE4-355L-4	315	534	1490	96.7	0.9	8.5	1.8	2.2	9.32586	1816

Squirrel cage asynchronous motor IP55 – IE4

IE4 - 400V IP55 1000RPM/6P

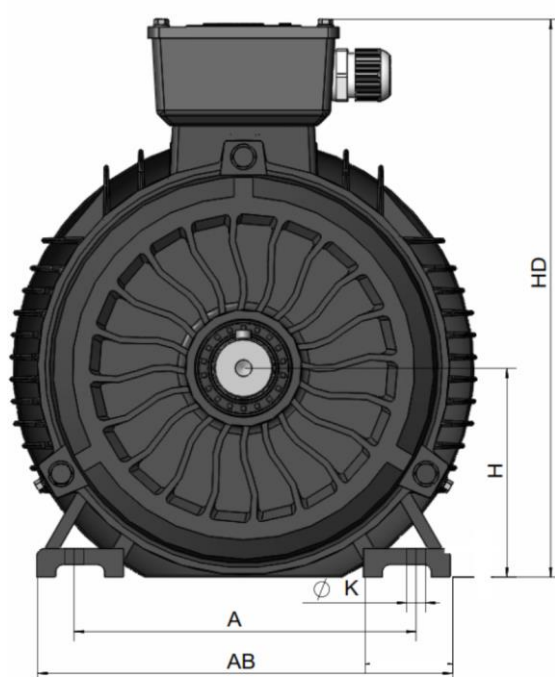
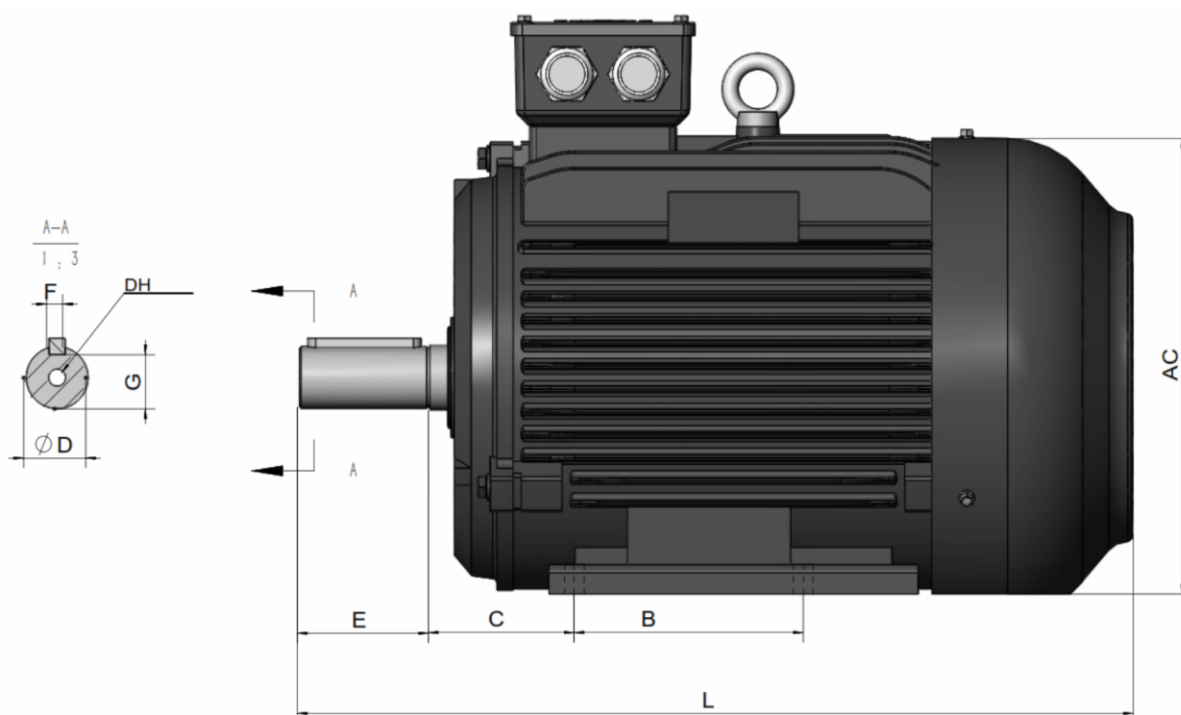
Motor Type	Rated Power	Current	Rated Speed	Efficiency	Power Factor	Locked Current	Locked Torque	Maximum Torque	Moment of inertia	Weight
	kW	A	r/min	$\eta\%$	$\cos \phi$	Rated Current	Rated Torque	Rated Torque	J kgm2	kg
IE4-90S-6	0.75	1.8	950	82.7	0.7	7.5	2.1	2.1	0.00422	26
IE4-90L-6	1.1	2.6	955	84.5	0.7	7.5	2.1	2.1	0.00588	32
IE4-100L-6	1.5	3.5	960	85.9	0.71	7.5	2.1	2.1	0.01188	40
IE4-112M-6	2.2	4.9	965	87.4	0.71	7.5	2.1	2.1	0.01675	50
IE4-132S-6	3	6.6	970	88.6	0.71	7.5	2	2.1	0.03529	66
IE4-132M1-6	4	8.6	975	89.5	0.72	8.0	2	2.1	0.04372	75
IE4-132M2-6	5.5	11.5	975	90.5	0.72	8.0	2	2.1	0.05481	83
IE4-160M-6	7.5	15	980	91.3	0.76	8.0	2	2.1	0.10856	126
IE4-160L-6	11	21.5	980	92.3	0.77	8.5	2	2.1	0.14307	163
IE4-180L-6	15	28.8	985	92.9	0.8	8.5	2	2.1	0.25544	215
IE4-200L1-6	18.5	35.3	985	93.4	0.8	8.5	2	2.1	0.37729	265
IE4-200L2-6	22	41.8	985	93.7	0.81	8.5	2	2.1	0.42911	288
IE4-225M-6	30	55.4	990	94.2	0.82	8.3	2	2.1	0.63607	400
IE4-250M-6	37	67.3	990	94.5	0.83	8.3	2	2.1	0.9879	424
IE4-280S-6	45	80.6	990	94.8	0.83	8.5	2	2	1.95011	532
IE4-280M-6	55	97	990	95.1	0.84	8.5	2	2	2.38793	597
IE4-315S-6	75	132	990	95.4	0.84	8.0	1.6	2	4.6743	807
IE4-315M-6	90	158	990	95.6	0.85	8.0	1.6	2	5.43629	919
IE4-315L1-6	110	193	990	95.8	0.85	8.0	1.6	2	6.19829	1029
IE4-315L2-6	132	231	990	96	0.86	8.0	1.6	20	6.96028	1]24
IE4-355M1-6	160	279	990	95.2	0.86	8.0	1.6	2	10.80435	1522
IE4-355M2-6	200	345	990	96.3	0.86	8.0	1.6	2	11.82792	1663
IE4-355L-6	250	430	990	96.5	0.86	8.0	1.6	2	14.10252	1846

Squirrel cage asynchronous motor IP55 – IE4

IE4 - 400V IP55 750RPM/8P

Motor Type	Rated Power	Current	Rated Speed	Efficiency	Power Factor	Locked Current	Locked Torque	Maximum Torque	Moment of inertia	Weight
	kW	A	r/min	$\eta\%$	$\cos \phi$	Rated Current	Rated Torque	Rated Torque	J kgm2	kg
IE4-100L1-8	0.75	2	700	78.4	0.66	7	2	2	0.01037	34
IE4-100L2-8	1.1	2.8	700	80.8	0.67	7	2	2	0.01268	36
IE4-112M-8	1.5	3.7	710	82.6	0.69	7	2	2	0.02824	48
IE4-132S-8	2.2	5.2	720	84.5	0.7	7.5	1.8	2	0.03619	72
IE4-132M-8	3	6.8	720	85.9	0.7	7.8	1.8	2	0.04553	87
IE4-160M1-8	4	9	730	87.1	0.71	7.9	1.8	2	0.08679	122
IE4-160M2-8	5.5	12	730	88.3	0.72	8.1	1.8	2	0.10731	137
IE4-160L-8	7.5	16	730	89.3	0.74	7.8	1.8	2	0.14523	163
IE4-180L-8	11	22.9	735	90.4	0.74	7.9	1.8	2	0.23398	216
IE4-200L-8	15	30.9	735	91.2	0.75	8	1.8	2	0.39073	277
IE4-225S-8	18.5	37.4	735	91.7	0.75	8.1	1.8	2	0.56593	321
IE4-225M-8	22	43.8	735	92.1	0.76	8.3	1.8	2	0.63047	341
IE4-250M-8	30	58.5	735	92.7	0.77	7.9	1.8	2	0.96127	435
IE4-280S-8	37	71.8	740	93.1	0.78	7.9	1.8	2	1.90179	572
IE4-280M-8	45	87.1	740	93.4	0.78	7.9	1.8	2	2.22452	661
IE4-315S-8	55	103	740	93.7	0.8	8.2	1.6	2	5.52095	1000
IE4-315M-8	75	140	740	94.2	0.8	7.6	1.6	2	6.43151	1094
IE4-315L1-8	90	166	740	94.4	0.81	7.7	1.6	2	7.34206	1206
IE&315L2-8	110	202	740	94.7	0.81	7.7	1.6	2	8.3333	1311
IE4-355M1-8	132	242	740	94.9	0.81	7.7	1.6	2	9.10554	2346
IE4-355M2-8	160	293	740	95.1	0.82	7.7	1.6	2	11.87178	2522
IE4-355L-8	200	373	740	95.4	0.82	7.8	1.6	2	14.17698	2640

Frame size	Mounting dimensions (in mm)												
	A	A/2	B	D	F	G	H	K	AB	AC	AD	HD	L
80M1	125	62.5	100	19	6	15.5	80	10	165	158	140	220	300
80M2	125	62.5	100	19	6	15.5	80	10	165	158	140	220	300
90S	140	70	100	24	8	20	90	10	180	177	160	255	350
90L	140	70	125	24	8	20	90	10	180	177	160	255	385
100L	160	80	140	28	8	24	100	12	205	198	172	270	400
112M	190	95	140	28	8	24	112	12	226	235	193	300	425
132S1	216	108	140	38	10	33	132	12	262	293	225	349	502
132S2	216	108	140	38	10	33	132	12	262	293	225	349	502
160M1	254	127	210	42	12	37	160	15	320	315	255	420	660
160M2	254	127	210	42	12	37	160	15	320	315	255	420	660
160L2	254	127	254	42	12	37	160	15	320	315	255	420	730
180M	279	139.5	241	48	14	42.5	180	15	355	355	280	455	740
200L1	318	159	305	55	16	49	200	19	395	397	305	505	852
200L2	318	159	305	55	16	49	200	19	395	397	305	505	852
225M	356	178	311	55	16	49	225	19	435	445	335	560	890
250M	406	203	349	60	18	53	250	24	490	485	370	615	985
280S	457	228.5	368	65	18	58	280	24	550	547	410	680	1045
280M	457	228.5	419	65	18	58	280	24	550	547	410	680	1095
315S	508	254	406	65	18	58	315	28	635	620	530	845	1185
315M	508	254	457	65	18	58	315	28	635	620	530	845	1290
315L1	508	254	508	65	18	58	315	28	635	620	530	845	1290
315L2	508	254	508	65	18	58	315	28	635	620	530	845	1290
355M	610	305	560	80	20	67.5	355	28	730	698	655	1010	1500

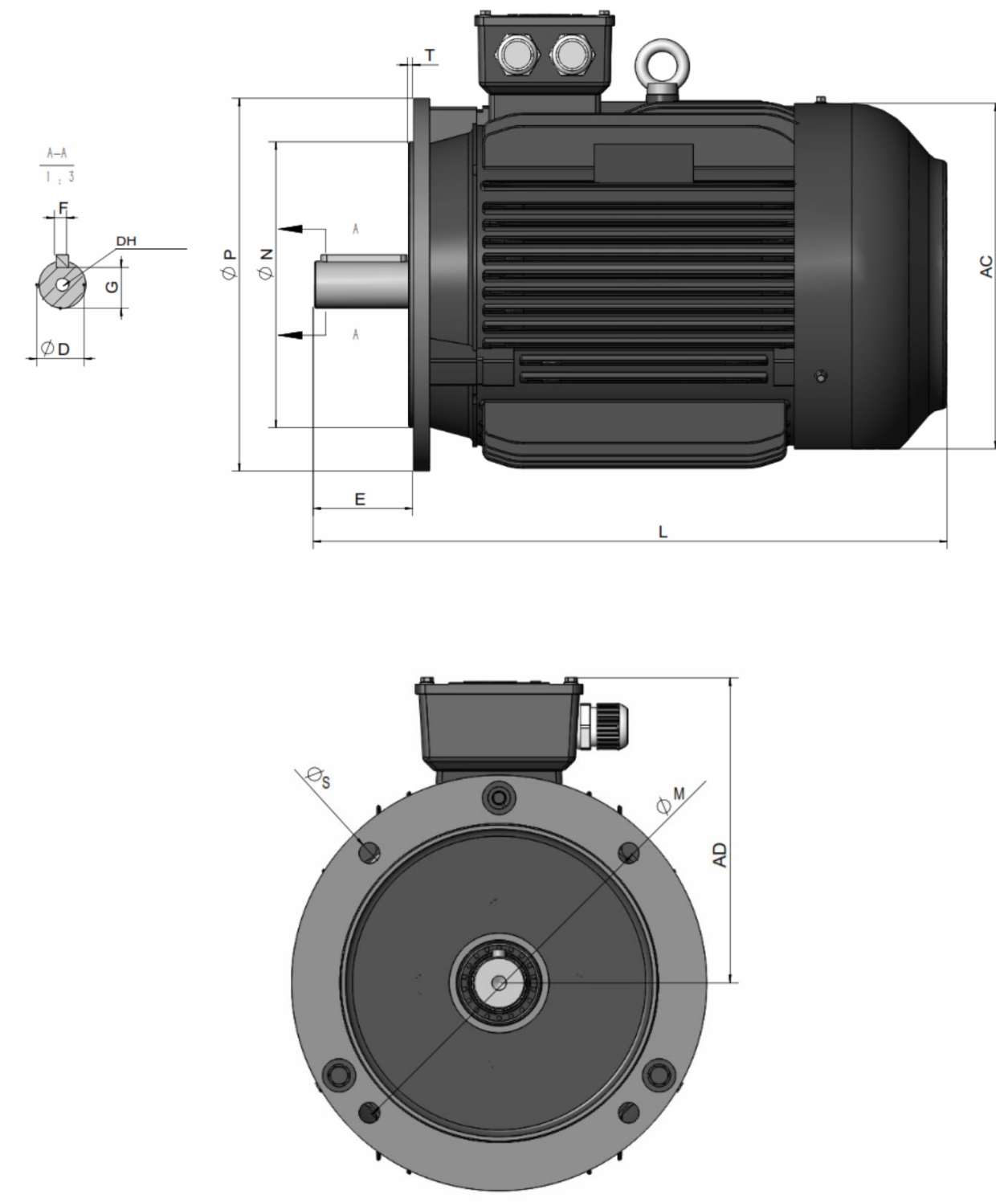


Squirrel cage asynchronous motor IP55 – IE4

B5/V1

Frame size	Mounting dimensions (in mm)														
	POLES	D	E	F	G	M	N	P	S	T	HOLES	AC	AD	L	DH
80M	2 4 6 8	19	40	6	15.5	165	130	200	12	3.5	4	158	140	300	M6X16
90S	2 4 6 8	24	50	8	20	165	130	200	12	3.5	4	177	160	350	M8X19
90L	2 4 6 8	24	50	8	20	165	130	200	12	3.5	4	177	160	385	MBX19
100L	2 4 6 8	28	60	8	24	215	180	250	15	4	4	198	172	425	M10X22
112M	2 4 6 8	28	60	8	24	215	180	250	15	4	4	235	193	502	M10X22
132S	2 4 6 8	38	80	10	33	265	230	300	15	4	4	293	225	533	M12X28
132M	2 4 6 8	38	80	10	33	265	230	300	15	4	4	293	225	660	M12X28
160M	2 4 6 8	42	110	12	37	300	250	350	19	5	4	315	255	730	M16X36
160L	2 4 6 8	42	110	12	37	300	250	350	19	5	4	315	255	740	M16X36
180M	2 4 6 8	48	110	14	42.5	300	250	350	19	5	4	355	280	810	M16X36
180L	2 4 6 8	48	110	14	42.5	300	250	350	19	5	4	355	280	852	M16X36
200L	2 4 6 8	55	110	16	49	350	300	400	19	5	4	397	305	874	M20X42
225S	4 8	60	140	18	53	400	350	450	19	5	8	445	335	890	M20X42
225M	2	55	110	16	49	400	350	450	19	5	8	445	335	915	M20X42
	4 6 8	60	140	18	53	400	350	450	19	5	8	445	335	985	M20X42
250M	2	60	140	18	53	500	450	550	19	5	8	485	370	985	M20X42
	4 6 8	65	140	18	58	500	450	550	19	5	8	485	370	1045	M20X42
280S	2	65	140	18	58	500	450	550	19	5	8	547	410	1045	M20X42
	4 6 8	75	140	20	67.5	500	450	550	19	5	8	547	410	1095	M20X42
280M	2	65	140	18	58	500	450	550	19	5	8	547	410	1095	M20X42
	4 6 8	75	140	20	67.5	500	450	550	19	5	8	547	410	1400	M20X42
315S	2	65	140	18	58	600	550	660	24	6	8	620	530	845	1185
	4 6 8	80	170	22	71	600	550	660	24	6	8	620	530	845	1220
315M	2	65	140	18	58	600	550	660	24	6	8	620	530	845	1290
	4 6 8	80	170	22	71	600	550	660	24	6	8	620	530	845	1325
315L	2	65	140	18	58	600	550	660	24	6	8	620	530	845	1290
	4 6 8	80	170	22	71	600	550	660	24	6	8	620	530	845	1325
355M	2	75	140	20	67.5	740	680	800	24	6	8	698	655	1010	1500
	4 6 8	95	170	25	86	740	680	800	24	6	8	698	655	1010	1530
355L	2	75	140	20	67.5	740	680	800	24	6	8	698	655	1010	1500
	4 6 8	95	170	25	86	740	680	800	24	6	8	698	655	1010	1530

B5/V1

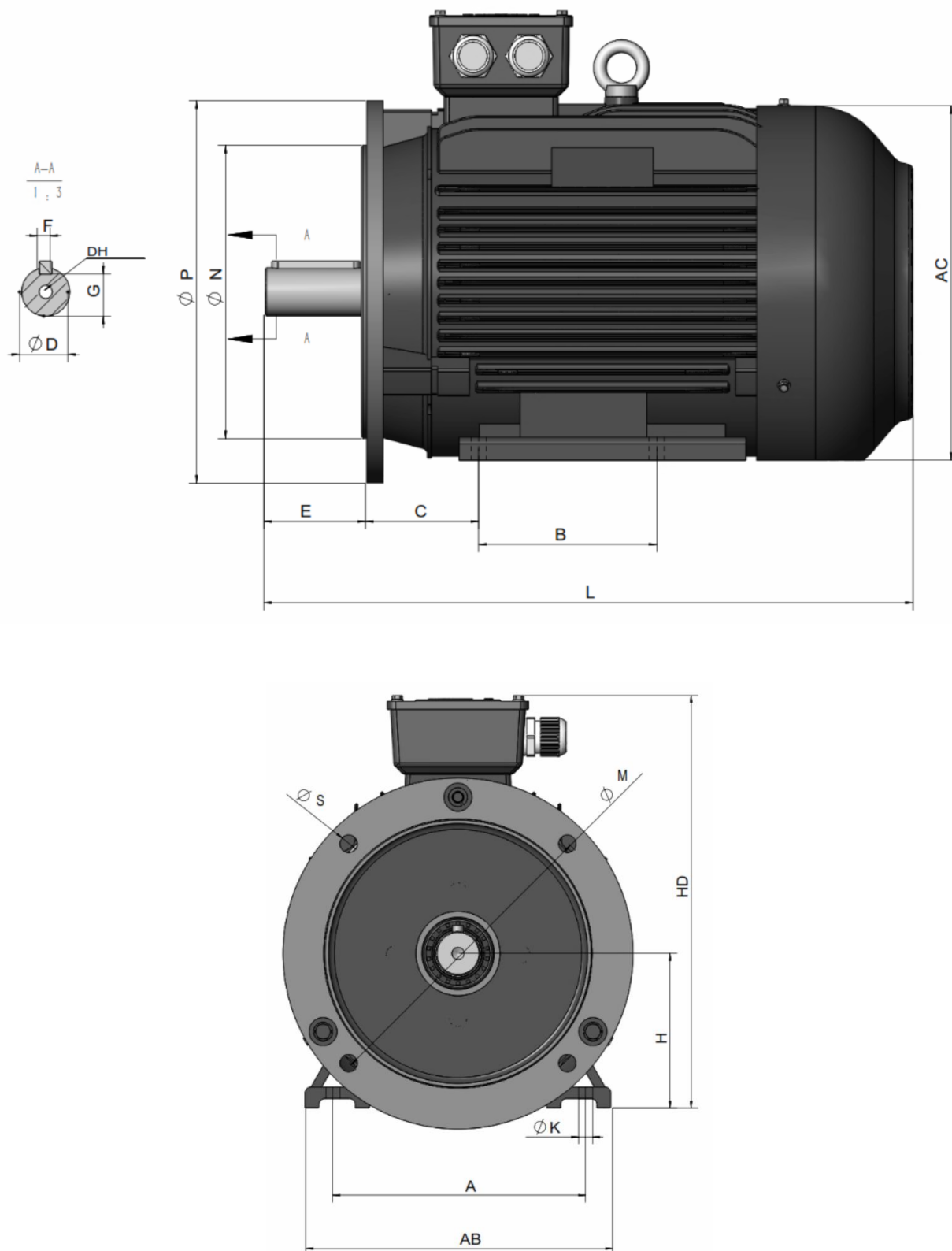


Squirrel cage asynchronous motor IP55 – IE4

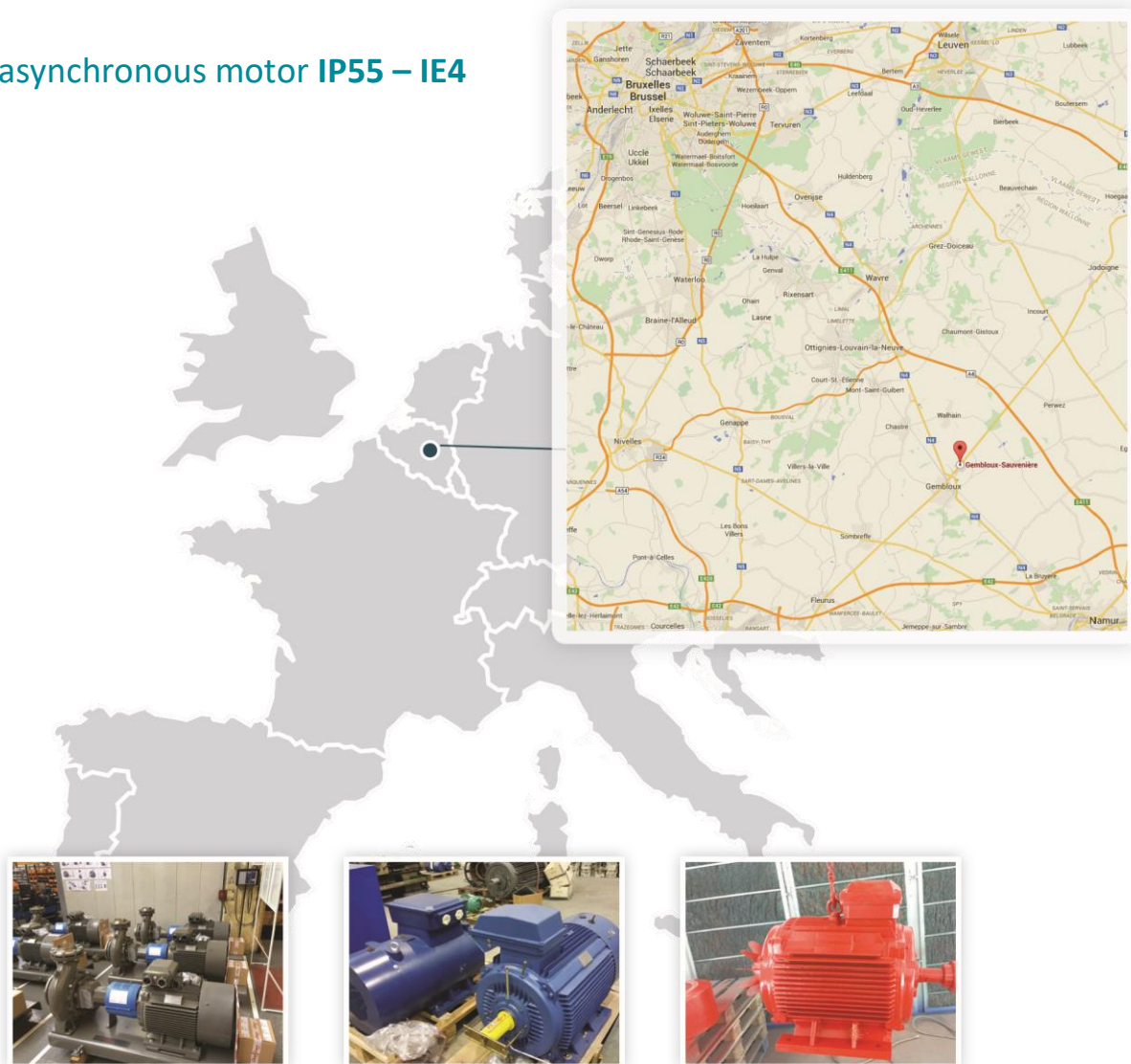
B35

MOUNTING DIMENSIONS (in mm)																							
SIZE	POLES	A	A/2	B	C	D	E	F	G	H	K	M	N	P	S	T	HOLES	AB	AC	AD	HD	L	DH
56	2 4 6 8	90	45	71	36	9	20	3	7.2	56	5.8	100	80	120	7	3	4	115	110	100	156	199	M4X12
63	2 4 6 8	100	50	80	40	11	23	4	8.5	63	7	115	95	140	10	3	4	137	123	111	174	221	M4X12
71	2 4 6 8	112	56	90	45	14	30	5	11	71	7	130	110	160	10	3.5	4	133	137	127	198	247	M4X12
80M	2 4 6 8	125	62.5	100	50	19	40	60	15.5	80	10	165	130	200	12	3.5	4	165	158	140	220	300	M6X16
90S	2 4 6 8	140	70	100	56	24	50	8	20	90	10	165	130	200	12	3.5	4	180	177	160	255	350	M8X19
90L	2 4 6 8	140	70	125	56	24	50	8	20	90	10	165	130	200	12	3.5	4	180	177	160	255	385	M8X19
100L	2 4 6 8	160	80	140	63	28	60	8	24	100	12	215	180	250	15	4	4	205	198	172	270	400	M 10X22
112M	2 4 6 8	190	95	140	70	28	60	8	24	112	12	215	180	250	15	4	4	226	235	193	300	425	M 10X22
132S	2 4 6 8	216	108	140	89	38	80	10	33	132	12	265	230	300	15	4	4	262	293	225	349	502	M 12X28
132M	2 4 6 8	216	108	178	89	38	80	10	33	132	12	265	230	300	15	4	4	262	293	225	349	533	M 12X28
160M	2 4 6 8	254	127	210	108	42	110	12	37	160	15	300	250	350	19	5	4	320	315	255	420	660	M16X36
160L	2 4 6 8	254	127	254	108	42	110	12	37	160	15	300	250	350	19	5	4	320	315	255	420	730	M 16X36
180M	2 4 6 8	279	140	241	121	48	110	14	42.5	180	15	300	250	350	19	5	4	355	355	280	455	740	M16X36
180L	2 4 6 8	279	140	279	121	48	110	14	42.5	180	15	300	250	350	19	5	4	355	355	280	455	810	M16X36
200L	2 4 6 8	318	159	305	133	55	110	16	49	200	19	350	300	400	19	5	4	395	397	305	505	852	M20X42
225S	4 8	356	178	286	149	60	140	18	53	225	19	400	350	450	19	5	8	435	445	335	560	874	M20X42
225M	2	356	178	311	149	55	110	16	49	225	19	400	350	450	19	5	8	435	445	335	560	890	M20X42
	4 6 8	356	178	311	149	60	140	18	53	225	19	400	350	450	19	5	8	435	445	335	560	915	M20X42
250M	2	406	203	349	168	60	140	18	53	250	24	500	450	550	19	5	8	490	485	370	615	985	M20X42
	4 6 8	406	203	349	168	65	140	18	58	250	24	500	450	550	19	5	8	490	485	370	615	985	M 20X42
280S	2	457	229	368	190	65	140	18	58	280	24	500	450	550	19	5	8	550	547	410	680	1045	M20X42
	4 6 8	457	229	368	190	75	140	20	67.5	280	24	500	450	550	19	5	8	550	547	410	680	1045	M20X42
280M	2	457	229	419	190	65	140	18	58	280	24	500	450	550	19	5	8	550	547	410	680	1095	M20X42
	4 6 8	457	229	419	190	75	140	20	67.5	280	24	500	450	550	19	5	8	550	547	410	680	1095	M20X42
315S	2	508	254	406	216	65	140	18	58	315	28	600	550	660	24	6	8	635	620	530	845	1185	M20X42
	4 6 8	508	254	406	216	80	170	22	71	315	28	600	550	660	24	6	8	635	620	530	845	1220	M20X42
315M	2	508	254	457	216	65	140	18	58	315	28	600	550	660	24	6	8	635	620	530	845	1290	M20X42
	4 6 8	508	254	457	216	80	170	22	71	315	28	600	550	660	24	6	8	635	620	530	845	1325	M20X42
315L	2	508	254	508	216	65	140	18	58	315	28	600	550	660	24	6	8	635	620	530	845	1290	M20X42
	4 6 8	508	254	508	216	80	170	22	71	315	28	600	550	660	24	6	8	635	620	530	845	1325	M20X42
355M	2	610	305	560	254	75	140	20	67.5	355	28	740	680	800	24	6	8	730	698	655	1010	1500	M20X42
	4 6 8	610	305	560	254	95	170	25	86	355	28	740	680	800	24	6	8	730	698	655	1010	1530	M20X42
355L	2	610	305	630	254	75	140	20	67.5	355	28	740	680	800	24	6	8	730	698	655	1010	1500	M20X42
	4 6 8	610	305	630	254	95	170	25	86	355	28	740	680	800	24	6	8	730	698	655	1010	1530	M20X42

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Squirrel cage asynchronous motor IP55 – IE4



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