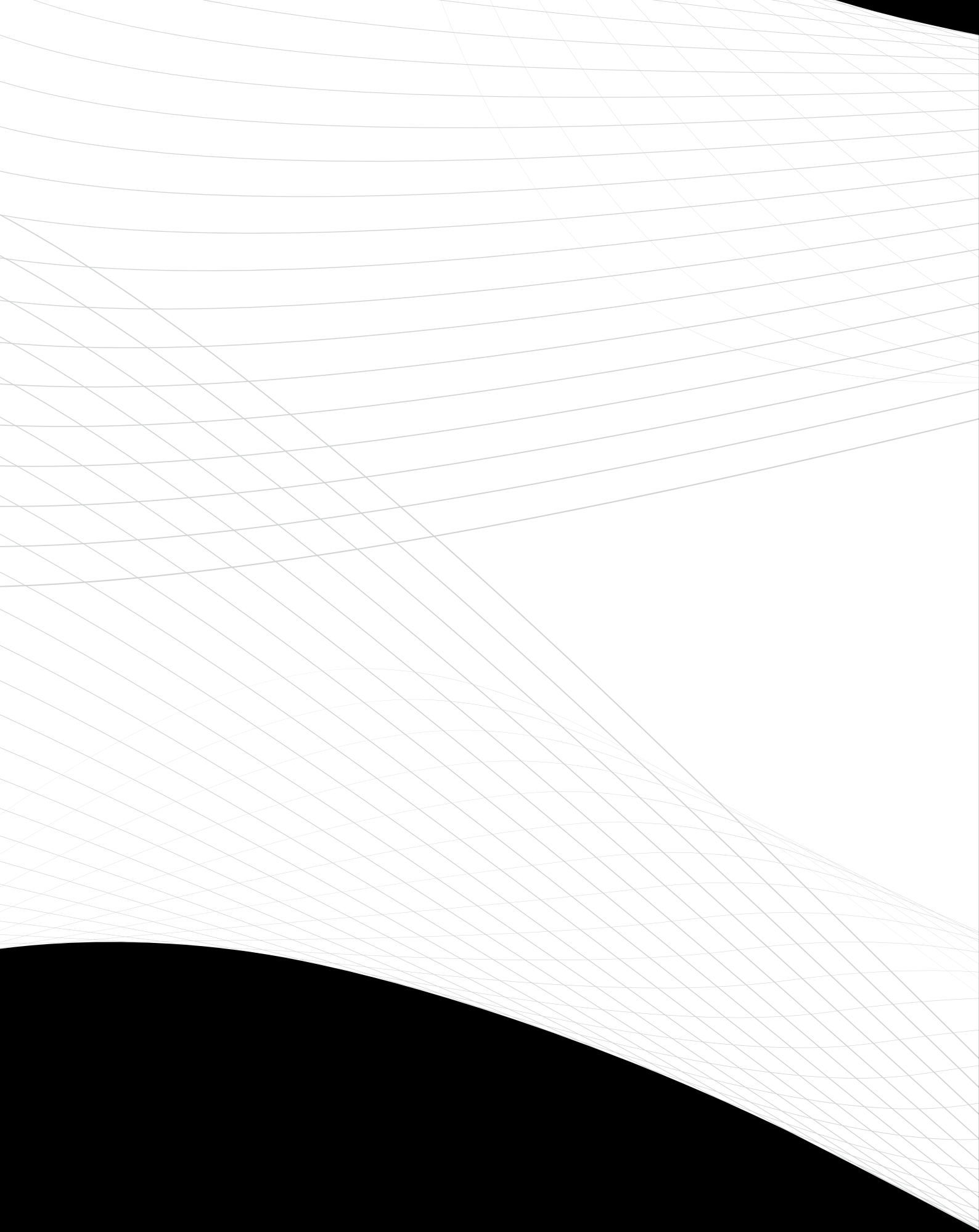




THREE PHASE & SINGLE PHASE

**INDUSTRIAL
MOTORS**





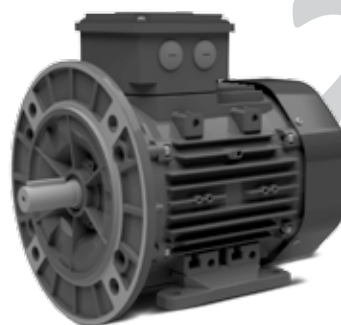


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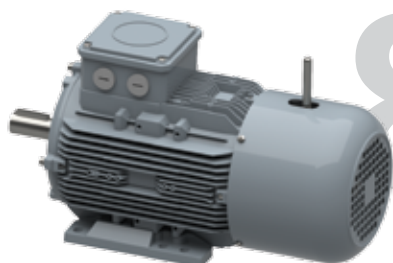
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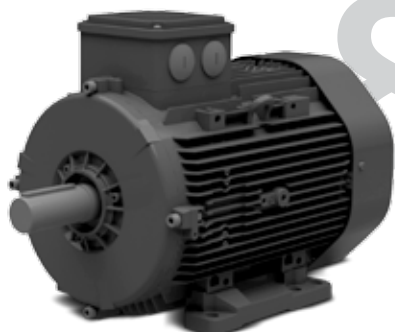
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SPECIAL MOTORS

MOTOR PARTS LIST



PRODUCTION SITE



WAT Motor Sanayi ve Ticaret A.Ş. performs manufacturing operations at its factory in Çerkezköy, Tekirdağ. WAT Motor Sanayi ve Ticaret A.Ş. manufactures various kinds of three phase and single phase motors with up to date technology in a closed area of 20.000m².

With a team of engineers, expert on electrical motors, the plant provides the users with necessary technical consultancy services, and offers a product range including three-phase asynchronous motors in 2000 different versions and single-phase asynchronous motors in 400 different versions.

With the purpose of launching products beyond customer expectations, new technologies are closely followed and adapted in the plant. To convey product design into the production lines more quickly computer assisted production technology and concurrent engineering methods are being used.

WAT Motor Sanayi ve Ticaret A.Ş., exporting more than half of its production and whose products are preferred abroad, expand its customer portfolio via constant and competitive quality policies. Continuous follow-up customer demands and complaints is considered main instrument for product development and customer satisfaction. Thanks to the advantage of long term relationships with customers-producers and dealers, the plant increases competitive power for both itself and the customers.



INTERNATIONAL STANDARDS

Electric motors are manufactured according to the international standards listed below:

IEC 60034-1	Rating and performance
IEC 60034-2-1	Methods for determining losses and efficiency
IEC 60034-5	Classification of degrees of protection
IEC 60034-6	Methods of cooling
IEC 60034-7	Symbols of construction and mounting arrangements
IEC 60034-8	Terminal markings and direction of rotation
IEC 60034-9	Noise limits
IEC 60034-11	Built-in thermal protection
IEC 60034-14	Vibration limits
IEC 60034-18-1	Functional evaluation of insulation system
IEC 60034-30	Efficiency classes (IE-code)
IEC 60038	Standard voltages
IEC 60072	Dimensions and output series for rotating electrical machines
EN 50347	Dimensions and output for electrical machines

EN 55014-1	} Electromagnetic compatibility
EN 61000-3-2	
EN 61000-3-3	

Turkey
TSE EN 60034-1

Germany
DIN VDE 0530
DIN EN 60034

Great Britain
BS EN 60034



Three phase and single phase motor series are complying with UL Efficiency and are available in our standard motor range. Those motors are marked with our certification number E235514 upon request.



Safety certification is the process of assessing the compliance of products to recognized safety requirements. Our three phase and single phase motor series are complying with UL Safety. Those motors are marked with our certification number E235514 upon request.



Three phase and single phase motor series are complying with CC Certification and are available in our standard motor range. Those motors are marked with our certification number CC329B upon request.

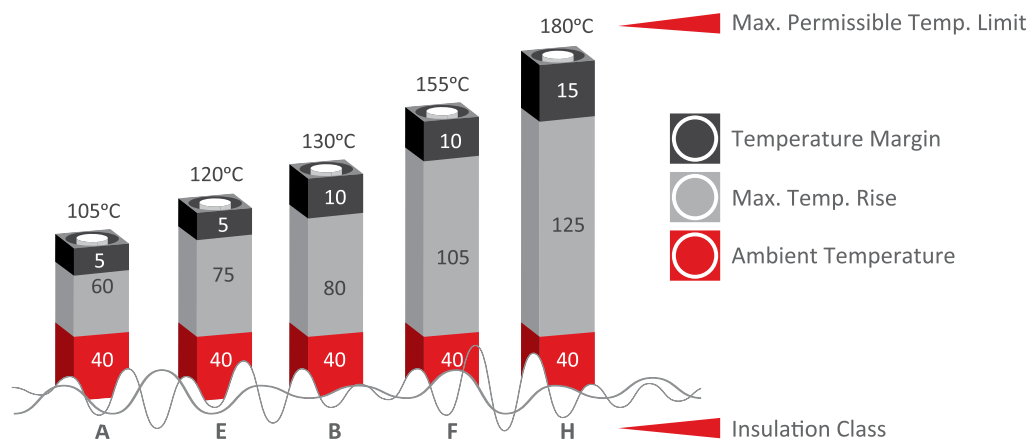


INSULATION CLASSIFICATION

Our standard motors have insulation class F while the temperature rise is for Class B ensuring longer service life.

Upon the customer's request, H class insulation motors are manufactured.

Under specified measuring conditions in accordance with IEC 60034-1 standard, insulation class F for an electric motor means that at ambient temperature of 40°C the temperature rise of its windings may be max. 105°C with the additional temperature margin of 10°C.



DEGREE OF PROTECTION

According to IEC 60034-5 standard, electric motors are provided with IP code which determines the degree of protection ensured by the housing against access to dangerous parts, introducing foreign matter and/or water.

Our motors comply with IP55 protection class as standard.

Please ask for other protection classes.

5		5	
IP	The first characteristic numeral: Protection from introduction of solid foreign matter	The second characteristic numeral: Protection against penetration of water and its harmful effects	
0	Non-protected machine	Non-protected machine	0
1	Machine protected against solid objects greater than 50 mm	Machine protected against dripping water	1
2	Machine protected against solid objects greater than 12 mm	Machine protected against dripping water when tilted up to 15°	2
3	Machine protected against solid objects greater than 2.5 mm	Machine protected against spraying water	3
4	Machine protected against solid objects greater than 1 mm	Machine protected against splashing water	4
5	Dust-protected machine	Machine protected against water jets	5
6	Dust-tight machines	Machine protected against heavy seas	6

VIBRATION/BALANCING

All rotors are balanced dynamically with half key and this is indicated on the rating plate with letter H.

In accordance to IEC 60034-14, vibration level A is guaranteed for the standard motors. On customer demand, motors with reduced vibration level may also be produced.

Vibration levels with respect to frame size

Vibration Grade	Shaft Height [mm]	56 ≤ H ≤ 132		132 < H ≤ 280		H > 280	
	Mounting	Velocity [mm/s]	Acceleration [m/s²]	Velocity [mm/s]	Acceleration [m/s²]	Velocity [mm/s]	Acceleration [m/s²]
A	Free suspension	1,6	2,5	2,2	3,5	2,8	4,4
B	Free suspension	0,7	1,1	1,1	1,7	1,8	2,8

ENVIRONMENTAL CONDITIONS

Motors are designed to operate at altitudes up to 1000 m and ambient temperature up to 40°C according to IEC 60034-1. Rated output will change at the % ratings given below for different altitudes and ambient temperatures.

ALTITUDE		up to 1000 m	1500 m	2000 m	2500 m	3000 m	3500 m	4000 m
Insulation class	B	100	97	94	90	86	82	77
	F	100	98	95	91	87	83	78

AMBIENT TEMPERATURE		30°C	35°C	40°C	45°C	50°C	55°C	60°C
Insulation class	B	106	106	100	97	92	86	60
	F	105	102	100	97	93	87	82

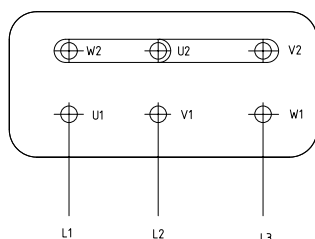
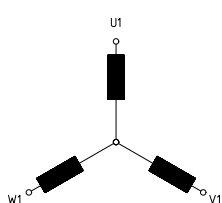
ELECTRICAL CONNECTIONS

Terminal plate has 6 connection terminals marked in accordance with IEC 60034-8.

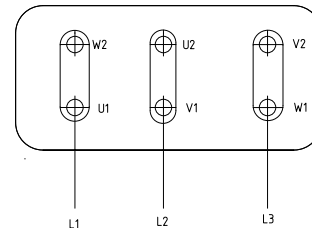
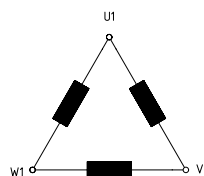
Motor Type	Frame Size	63-80	90-100	112	132-160	180	200-225	250-280
QE	Cable Entry	M20	M25	M25	M32	M40	M50	M50 / M63[*]
	Number of Entries	1	1	2	2	2	2	2
QH	Cable Entry	M20	M25	M25	M32	M40	M50	-
	Number of Entries	1	2	2	2	2	2	-
QHS	Cable Entry	-	M20	M25	M25	M32	-	-
	Number of Entries	-	1	2	2	2	-	-

*Optional

Standard three-phase motors can be connected with star or delta method.



Star connection is achieved by wiring W2, U2, V2 to each other; and U1, V1, W1 leads to voltage supply



Delta connection is achieved by wiring the end of a phase to the head of the other.

STAR-DELTA (Y/Δ) START-UP

Most low voltage motors are delta wired to operate in 400V and star wired to operate at 690V. This flexibility can also be used to operate the motor under lower voltages. Apart from the fact that startup current in star-delta starting drops to one third of direct starting, startup moment also decreases by around 25%. The motor is started in star connection and accelerated as much as possible, then it is transferred to delta connection. This method can only be used in asynchronous motors which are delta-connected to supply voltage.

VOLTAGE & FREQUENCY

Our motors are normally design for 400V, 50Hz. Other voltages and 60 Hz frequency are optional. Our motors wound for 50Hz can be operated on 60Hz for the same output power. The ratios given below indicate changes in the given parameters.

		60 Hz Application Coefficients of 50 Hz Motor						
50 Hz Voltage	60 Hz Voltage	Rated Speed	Rated Power	Rated Torque	Rated Current	Starting Torque	Breakdown Torque	Starting Current
230 V	230 V	1,2	1	0,83	1	0,83	0,83	0,83
230 V	265 V	1,2	1,15	0,96	1	0,96	0,96	0,96
400 V	400 V	1,2	1	0,83	1	0,70	0,83	0,83
400 V	460 V	1,2	1,15	0,96	1	0,95	0,98	0,97

TECHNICAL DOCUMENTATION

TOLERANCES

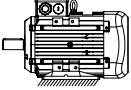
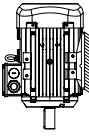
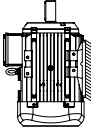
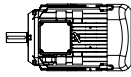
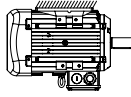
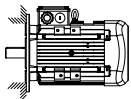
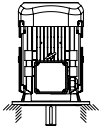
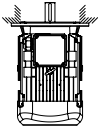
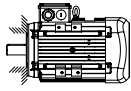
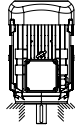
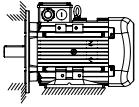
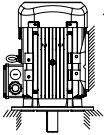
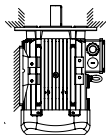
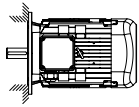
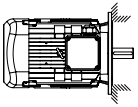
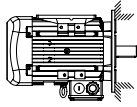
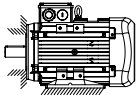
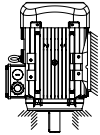
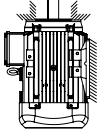
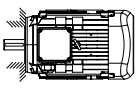
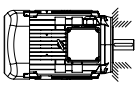
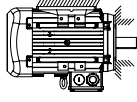
According to IEC 60034-1, catalogue values are permitted to deviate from the real values as follows:

Speed [n]	$\Delta n = \pm 20\%[\eta_s - \eta_N] \cdot P_N > 1kW$ $\Delta n = \pm 30\%[\eta_s - \eta_N] \cdot P_N \leq 1kW$
Efficiency % [η]	$\Delta \eta = -15\%[100 - \eta_N] \cdot P_N \leq 150kW$ $\Delta \eta = -10\%[100 - \eta_N] \cdot P_N > 150kW$
Power Factor [cos Q]	$\Delta \cos Q = -1/6[1 - \cos Q]$
Locked Rotor Current [I_L/I_N]	$\Delta[I_L/I_N] = +20\%[I_L/I_N]$
Locked Rotor Torque [M_L/M_N]	$\min[M_L/M_N] = -15\%[M_L/M_N]$ $\max[M_L/M_N] = +25\%[M_L/M_N]$
Breakdown Torque [M_k/M_N]	$\Delta[M_k/M_N] = -10\%[M_k/M_N]$
Pull-up Torque [M_p/M_N]	$\Delta[M_p/M_N] = -15\%[M_p/M_N]$
Moment of Inertia [J] [kgm ²]	$\Delta J = \pm 10\%$
Sound Pressure Level [LPA] [dB]	$\Delta LPA = +3dB[A]$

Frame	Housing	Fan	Fan Cover	Endshields	B5 Flange	B14 Flange						
63	Aluminium	Plastic	Steel	Aluminium	Aluminium	Aluminium						
71												
80												
90												
100												
112				Cast Iron	Cast Iron							
132												
160												
180												
200												
225			Plastic *			Cast Iron						
250	AL / Cast Iron		Plastic/Steel									
280	Cast Iron		Steel									
315												
355												

* Steel fan cover is optional.

MOUNTING ARRANGEMENTS

B3 - IM 1001	V5 - IM 1011	V6 - IM 1031	B6 - IM 1051	B7 - IM 1061	B8 - IM 107	
						
B5 - IM 3001	V1 - IM 3011	V3 - IM 3031				FA
						
B14 - IM 3601	V18 - IM 3611	V19 - IM 3631				FB or FC
						
B35 - IM 2001	V15 - IM 2011	V35 - IM 2031	IM 2051	IM 2061	IM 2071	PA
						
B34 - IM 2101	V17 - IM 2111	V37 - IM 2131	IM 2151	IM 2161	IM 2171	PB or PC
						

BEARING

63-225 frame motors are equipped with deep groove ball bearings with ZZ shields.

250-355 frame size motors have external lubrication.

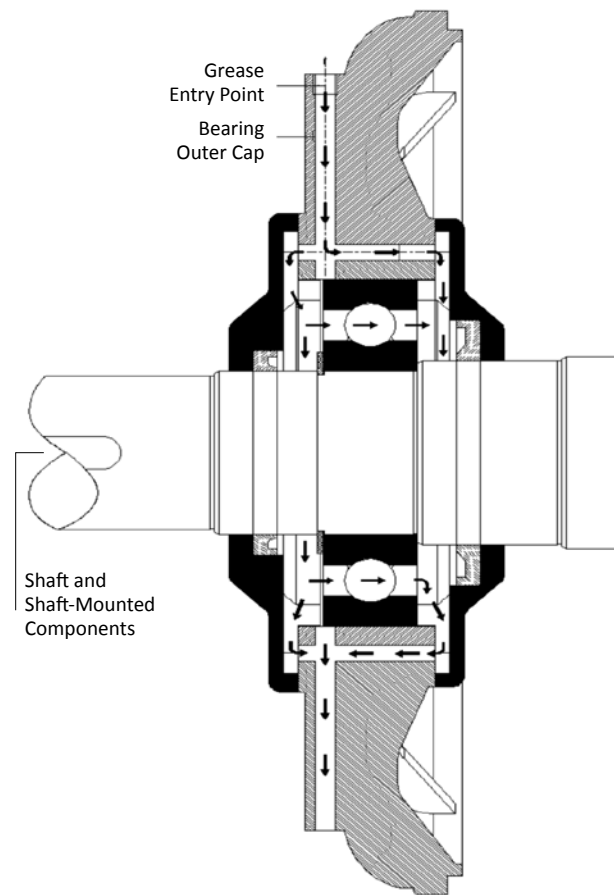
Please refer to the mechanical dimension section for specific motor data.

LUBRICATION

Closed type (2Z) roller bearings are being used. These types of roller bearings do not require maintenance since they are lubricated with the type of lubricant specified by the manufacturer.

Roller bearings should be replaced after 20,000 hours of operation (approx. 2-5 years of use) due to the specified operation temperature, vibration level and shaft loads.

The grease type and quantity are written on the nameplate for motors that have externally lubricated roller bearings. There are bearing lubrication channel and grease nipple for motors that have externally lubricated bearings. After lubrication, grease nipple cover must be closed. Grease must be avoided from dirt and dust during lubrication. Quantity of grease indicated on the nameplate should be considered and different grease must not be used. The mix of different grease must be avoided.



PAINTING

Our standard range of motors are painted with a grey protective paint according to RAL 7031 (grey). Other paint options are also available on request.

FEET

For 63-200 frame size motors, feet can be mounted on three sides, allowing terminal box assembly on the desired side. For 63-250 frame size motors, the feet are detachable and this feature provides flexibility for different mounting types.

TERMINAL BOX

Motors frame size 63-250 have terminal boxes on top situated at drive end which can be rotated 90°, so that conduits can be at each side. For the other frame sizes, it is position on top and situated at the drive end.

DRAIN/CONDENSATION HOLES

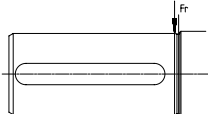
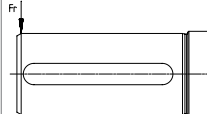
In the basic design, motors are supplied without holes. In case of customer requests, motors can be supplied with drain holes. Since these motors are provided with a special plug in the hole, the degree of protection remains IP 55.

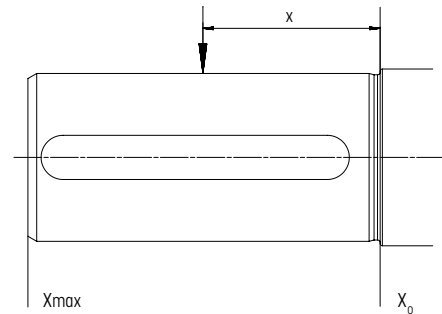
MOTOR IDENTIFICATION SYMBOLS

Q3E FA 225 M 4 C-43 (Sample motor number)

Q3E	Motor Type		225	Frame Size	Shaft height (mm)
Q4H	IE4 efficiency class motors				
Q3H	IE3 efficiency class motors				
Q2H	IE2 efficiency class motors				
Q2HS	IE2 efficiency class motors				
Q4E	IE4 efficiency class motors				
Q3E	IE3 efficiency class motors				
Q2E	IE2 efficiency class motors		M	Motor Length	S Short
Q1E	IE1 efficiency class motors				M Medium
Q3D	IE3 efficiency class inverter entegrated motors				L Long
Q2D	IE2 efficiency class inverter entegrated motors				
Q1D	IE1 efficiency class inverter entegrated motors				
QS	Dahlander type motors				
QB	Brake motors				
QM	Single phase motors with run capacitor				
QC	Single phase motors with start and run capacitors				
P	Housing Type				
---	Aluminium		4	Number of Poles	2.4.6.8 Poles
P	Cast Iron				
FA	Construction Type		C	Core Length	(Does not affect outside dimensions)
---	with feet	B3,B6,B7,B8,V5,V6/V19			A Short
FA	with A flange	B5,V1,V3			B Medium
FB	with B flange	BI4,V18,V19			C Long
FC	with C flange	BI4,V18,V19			D.E Extra Long
FS	with special flange	-			
PA	with feet and A flange	B3/B5,V1/V5,V3/V6			
PB	with feet and B flange	B3/BI4,V5/V18,V6/V19	43	Special Motor Number	01 - ... - 99
PC	with feet and C flange	B3/BI4,V5/V18,V6/V19			
PS	with feet and special flange	-			
X	without feet,flange and /or end-shield	B9,V8,V9			

PERMISSIBLE RADIAL LOADS

Radial Load Location			
Frame Size	Speed [rpm]	RADIAL LOAD [X=0] [kN]	RADIAL LOAD [X=max] [kN]
63	3000	0.25	0.22
	1500	0.29	0.25
	1000	0.31	0.27
71	3000	0.30	0.26
	1500	0.35	0.29
	1000	0.37	0.31
80	3000	0.54	0.45
	1500	0.62	0.51
	1000	0.66	0.54
90	3000	0.91	0.74
	1500	0.99	0.80
	1000	1.04	0.84
100	3000	1.21	0.96
	1500	1.31	1.04
	1000	1.38	1.09
112	3000	1.23	1.00
	1500	1.33	1.09
	1000	1.40	1.14
132	3000	1.22	0.98
	1500	1.31	1.04
	1000	1.34	1.08
160	3000	2.22	1.72
	1500	2.34	1.82
	1000	2.34	1.82
180	3000	2.68	2.12
	1500	2.82	2.23
	1000	2.93	2.31
200	3000	3.80	3.04
	1500	3.95	3.16
	1000	4.07	3.26
225	3000	4.45	3.65
	1500	4.59	3.60
	1000	4.73	3.71
250	3000	4.97	3.93
	1500	5.78	4.57
280	3000	4.97	3.93
	1500	5.78	4.57
315	3000	6.04	5.23
	1500	6.08	5.61
355	3000	5.88	5.17
	1500	8.49	7.37



Calculations are based on 20.000h (L10aah) bearing life time and the actual values will differ if radial and axial loads act at the same time. Mechanical strength of the end-shields should also be considered for critical applications.

Value of force F_r acting on any point of the shaft end (between points $X=\max$ and $X=0$) may be calculated according to the following formula:

$$F_r = F_{x0} - \frac{x}{E} \times (F_{x0} - F_{xmax}) \text{ [kN]}$$

Where; F_{x0} - value of F_r force acting on the beginning of the shaft end

F_{xmax} - value of F_r force acting on the shaft end

E - length of the shaft end

* All calculations are based on floating bearing arrangement for standard (excluding compact & super compact) motors.

PERMISSIBLE AXIAL LOADS

Position & Axial Load Direction										
Frame Size	Speed [rpm]	MOTOR SERIES / AXIAL LOADS [kN]								
		QH, QE	QHS	QH, QHS, QE	QH, QHS, QE	QH , QE	QHS	QH, QHS, QE	QH , QE	QHS
63	3000	0.09		0.23	0.22	0.10		0.24	0.08	
	1500	0.09		0.31	0.29	0.11		0.33	0.07	
	1000	0.09		0.36	0.34	0.11		0.38	0.07	
71	3000	0.11		0.25	0.23	0.13		0.27	0.09	
	1500	0.11		0.33	0.31	0.14		0.36	0.09	
	1000	0.11		0.39	0.37	0.14		0.42	0.09	
80	3000	0.15	0.15	0.43	0.40	0.18	0.18	0.46	0.12	0.12
	1500	0.15	0.15	0.57	0.53	0.19	0.19	0.61	0.11	0.11
	1000	0.15	0.15	0.67	0.63	0.19	0.19	0.71	0.11	0.11
90	3000	0.19	0.15	0.75	0.70	0.23	0.20	0.80	0.14	0.10
	1500	0.19	0.15	0.99	0.93	0.25	0.22	1.06	0.12	0.09
	1000	0.19	0.15	1.18	1.12	0.25	0.22	1.25	0.12	0.09
100	3000	0.19	0.19	0.94	0.88	0.25	0.25	1.01	0.12	0.12
	1500	0.19	0.19	1.25	1.17	0.27	0.27	1.34	0.10	0.10
	1000	0.19	0.19	1.49	1.41	0.27	0.27	1.58	0.10	0.10
112	3000	0.23	0.19	0.94	0.86	0.31	0.27	1.02	0.14	0.11
	1500	0.23	0.19	1.25	1.14	0.34	0.30	1.36	0.11	0.07
	1000	0.23	0.19	1.49	1.38	0.34	0.30	1.60	0.11	0.07
132	3000	0.30	0.23	0.93	0.75	0.48	0.41	1.11	0.12	0.04
	1500	0.30	0.23	1.23	1.01	0.52	0.44	1.45	0.08	9.00
	1000	0.30	0.26	1.46	1.24	0.52	0.47	1.68	0.08	0.04
160	3000	0.34	0.30	1.78	1.53	0.59	0.55	2.03	**	**
	1500	0.34	0.30	2.40	2.01	0.72	0.69	2.79	**	**
	1000	0.34	0.30	2.75	2.36	0.72	0.69	3.14	**	**
180	3000	0.38	0.34	2.01	1.65	0.73	0.69	2.37	**	**
	1500	0.38	0.34	2.70	2.18	0.90	0.86	3.22	**	**
	1000	0.38	0.34	3.20	2.68	0.90	0.86	3.72	**	**
200	3000	0.38		2.60	1.95	1.03		3.25	**	
	1500	0.38		3.52	2.77	1.13		4.27	**	
	1000	0.38		4.20	3.45	1.13		4.95	**	
225	3000	0.49		2.90	2.10	1.29		3.70	**	
	1500	0.49		3.90	2.90	1.49		4.90	**	
	1000	0.49		4.65	3.65	1.49		5.65	**	
250	3000	0.60		3.65	2.65	1.60		4.65	**	
	1500	0.60		4.75	3.54	1.81		5.96	**	
280	3000	0.60		3.65	2.38	1.87		4.92	**	
	1500	0.60		4.75	3.11	2.24		6.39	**	
315	3000	4.56		3.68	1.52	7.90		**	**	
	1500	5.20		4.00	1.08	9.62		**	**	
355	3000	4.52		3.62	0.38	9.50		**	**	
	1500	6.40		5.00	2.73	13.55		**	**	

* All calculations are based on floating bearing arrangement for standard (excluding compact & super compact) motors.

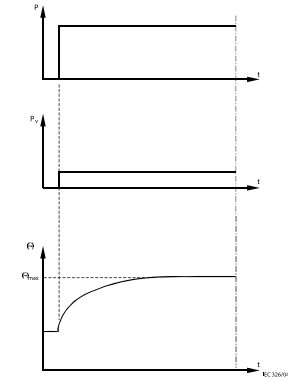
** Please get in contact for a specific design.

TECHNICAL DOCUMENTATION

DUTY TYPE

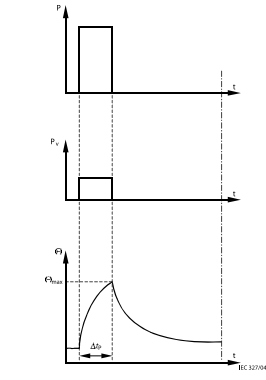
Duty types according to the IEC 60034-1 are given below:

S1: Continuous running duty



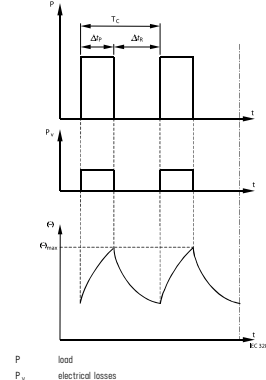
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 t time

S2: Short-time duty



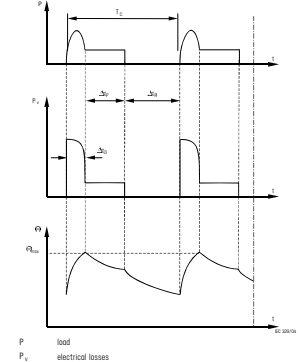
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 t time
 t_p operation time at constant load

S3: Intermittent periodic duty



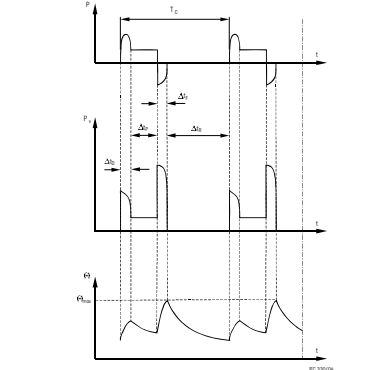
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 t time
 T_C time of one load cycle
 Δt_p operation time at constant load
 Δt_R time de-energized and at rest

S4: Intermittent periodic duty with starting



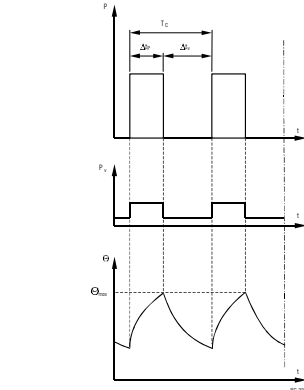
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 t time
 T_C time of one load cycle
 Δt_0 starting/accelerating time
 Δt_p operation time at constant load
 Δt_R time de-energized and at rest

S5: Intermittent periodic duty with electric braking



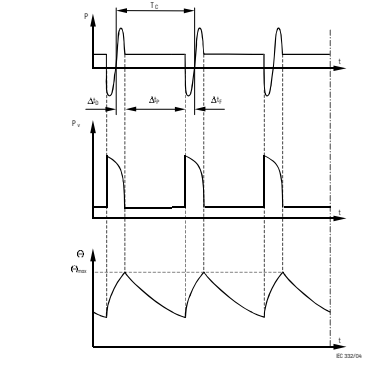
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 t time
 T_C time of one load cycle
 Δt_0 starting/accelerating time
 Δt_p operation time at constant load
 Δt_b time of electric braking
 Δt_R time de-energized and at rest

S6: Continuous operation periodic duty



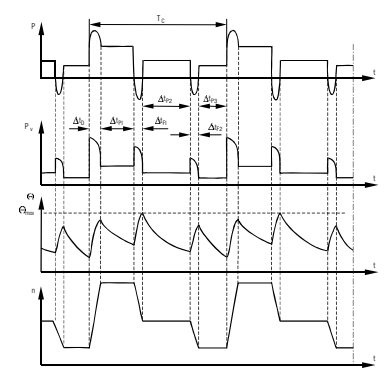
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 t time
 T_C time of one load cycle
 Δt_p operation time at constant load
 Δt_R operation time at no-load

S7: Continuous operation periodic duty with electric braking



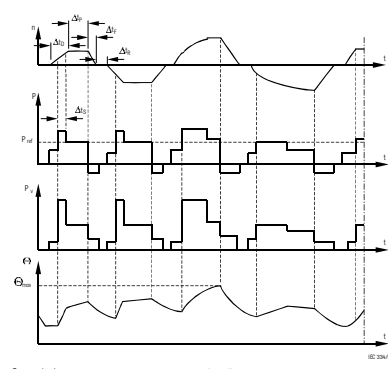
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 t time
 T_C time of one load cycle
 Δt_0 starting/accelerating time
 Δt_p operation time at constant load
 Δt_b time of electric braking

S8: Continuous operation periodic duty with related load/speed changes



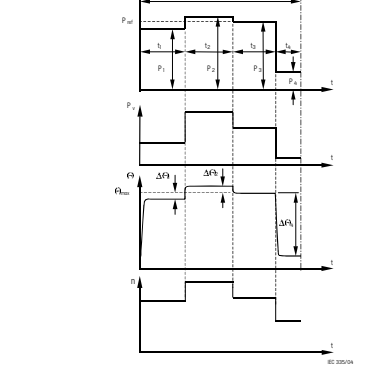
P load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 n speed
 t time
 T_C time of one load cycle
 Δt_0 starting/accelerating time
 Δt_p operation time at constant load (P1, P2, P3)
 Δt_b time of electric braking (P1, P2)

S9: Duty with non-periodic load and speed variations



P load
 P_{ref} reference load
 P_v electrical losses
 Θ temperature
 Θ_{max} maximum temperature attained
 n speed
 t time
 t_0 starting/accelerating time
 t_p operation time at constant load
 t_b time of electric braking
 t_R time de-energized and at rest
 t_0 time under overload

S10: Duty with discrete constant loads and speeds



P load
 P_i constant load within a load cycle
 P_{ref} reference load based on duty type S1
 P_v electrical losses
 Θ temperature
 Θ_{ref} temperature of reference load based on duty type S1
 t time
 t_i time of a constant load within a cycle
 T_C time of one load cycle
 $\Delta \Theta$ difference between the temperature rise of the winding at each of the various loads within one cycle and the temperature rise based on duty cycle S1 with reference load

The duty type of our standard motors is S1. On customer demand, the other duty type-motors can be produced.

INDUCTION MOTORS FED BY INVERTER

Due to its simple and rugged construction, low cost production and less maintenance requirements, squirrel cage induction motors are the most preferred type of the motor in the industry. In particular, technological developments and cost reduction in power electronics fields and also regulations on energy efficiency especially in HVAC industry, motivate the use of induction machine fed by inverters.

Important issues regarding the motor operation supplied by the inverter are listed below:

- The application should be compatible with the torque-speed curve of the selected motor and also continuous and maximum output current capability of the inverter. Please, get in contact with your inverter supplier regarding the normal duty and heavy duty operation based on your application.
- High switching frequency operation of the inverter imposes voltage stress on motor insulation. Please, get in contact with your motor supplier if your inverter switching frequency is higher than 5 kHz.
- High switching frequency improves the efficiency of the motor and also decreases the noise level, while decreases the inverter efficiency.
- Motor control modes of the inverter (Scalar or Vector) are chosen depending on the applications. Scalar control (U/f) is used mainly in applications like pump and fans where the requirements on speed accuracy and load dynamics, and starting torque are not so strict.

Vector control mode is used mainly in applications, where high starting torque, high accuracy on speed and the fast changes at load, prolonged low speed operation at load are required. Due to the control principle, vector control can provide higher torque for the same motor current and handle dynamic torque changes. In that sense, in case of operation by scalar control mode, inverter with a higher current rating is required, for the same application conditions.

- Beside the efficiency class of the motor, efficient operation of the motor is also dependent on the parameter settings of the inverter. (Motor control modes, switching frequency, braking methods, torque boost in Scalar control have the influence on efficient operation and thermal load of the motor.)
- Control methods used in speed sensor-less vector control may have varying performance, dependent on the motor design. Therefore, although using the same inverter, user may experience different performance at the motors produced by the different manufacturers.
- Identification of the motor equivalent circuit, which is part of the auto-tuning procedure of the inverter, is a critical setting which has influence on torque capability, speed accuracy, low and high speed performance and also efficient operation of the motor.
- Inverter suppliers may have different PWM Modulation methods which has especially influence on noise characteristics of the motor and other characteristics like inverter and motor efficiency and thermal behaviour as well.



EFFICIENCY

European Committee of Manufacturers of Electrical Machines and Power Electronics (CEMEP) and European Commission issued a declaration on June 28, 1999 that categorized the motors in efficiency classes.

This standard covers 2, 4 and 6 pole motors in 0.12kW and 1000kW power range and 50-60Hz frequency and refers to IEC standard 60034-2-1 to define efficiency.

Efficiency is defined as the ratio of output power of the motor to the input power reflected in the cost and it is actually an indicator of losses.

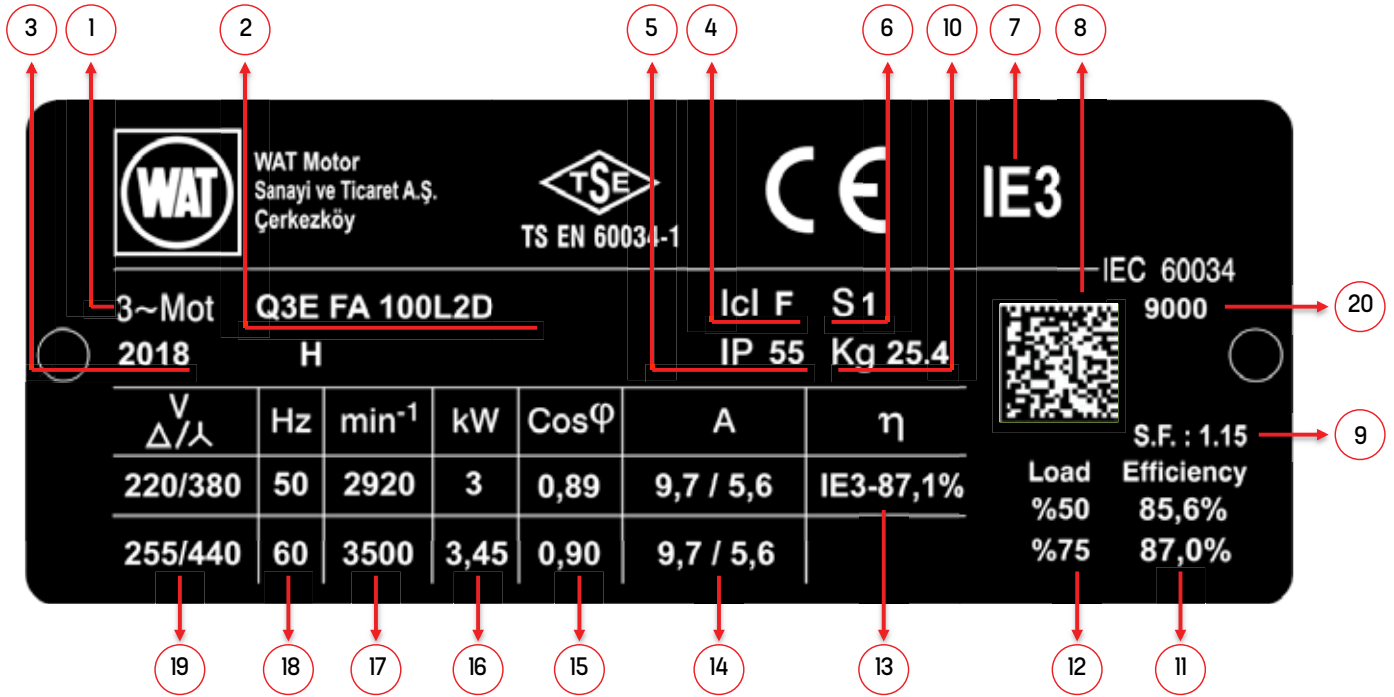


“EU Regulation related to the subject has been issued in June 2009. This regulation focuses on some changes in 60034-30 standard and includes certain obligatory applications.

June 16, 2011	Minimum IE2 efficiency class obligatory
January 1, 2015	Minimum IE3 efficiency class (or IE2+inverter) obligatory (7.5-375kW)
January 1, 2017	Minimum IE3 efficiency class (or IE2+inverter) obligatory (0.75-375kW)

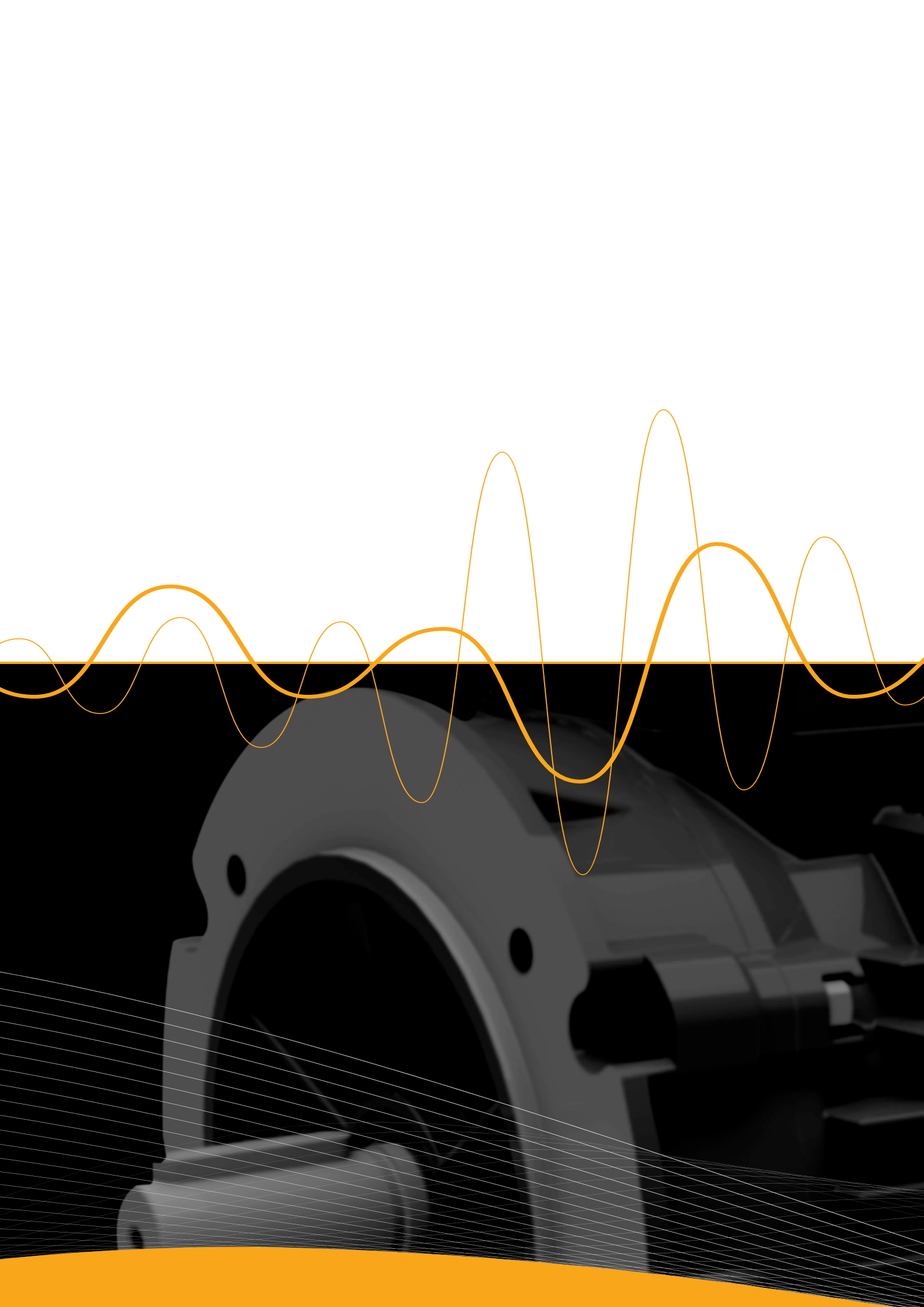
According to EC No 640/2009 regulation, motor labels will include 50Hz and 60Hz motor data as well as IE codes and efficiency value. Most prominent feature of new labels is that 2D barcoding will be placed on the labels. This application ensures the customers to track the motors.

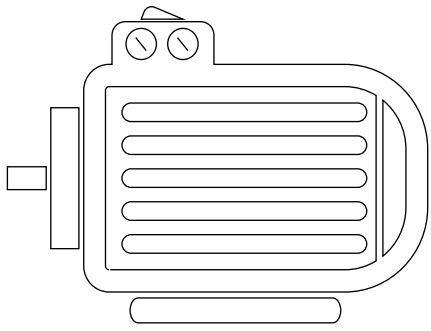
With barcoding, the motor users will be able to reach information such as manufacture date of motor, results of routine testing (current with neutral resistance, power etc.) and serial no. and etc.



- | | | | |
|----|---|----|--|
| 1 | Motor type | 11 | Efficiency value (acc. to IEC 60034-2-1) |
| 2 | Motor code | 12 | Load value |
| 3 | Year of manufacture | 13 | Efficiency value (acc. to IEC 60034-2-1) |
| 4 | Insulation class | 14 | Nominal current |
| 5 | IP class | 15 | Power factor |
| 6 | Service type | 16 | Motor output power |
| 7 | Efficiency class (acc. to IEC 60034-30) | 17 | Rated speed |
| 8 | 2D Barcode | 18 | Motor nominal frequency |
| 9 | Service factor * | 19 | Operation voltage |
| 10 | Motor weight | 20 | Production tracing number |

* For IE2 and above efficiency (except 315 & 355 frame) motors, SF 1.15 is optional (with temperature rise F) for 315 & 355 frame motors.





THREE PHASE MOTORS



ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES				STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pressure Level dBA **	
		POWER		SPEED	CUR- RENT	TORQUE	CURRENT		TORQUE		η %							
		kW	HP				rpm	A	Nm		I _A / I _N	M _A / M _N	λ					Δ

2 pole 3000 rpm

400/690V	Q4HI32S2D	Aluminium	5.5	7.5	2945	10.7	17.8	3.5	10.6	1.2	3.6	5.4	90.9	89.8	88.2	0.82	0.02947	53	65
	Q4HI32S2DE	Aluminium	7.5	10.0	2937	14.1	24.5	3.4	10.2	1.3	3.8	5.1	91.7	91.3	90.1	0.85	0.03325	59	66
	Q4HI60M2D	Aluminium	11.0	15.0	2975	21.7	35.1	3.6	10.8	1.6	4.8	6.1	92.6	92.8	91.0	0.78	0.04117	88	68
	Q4HI60M2DE	Aluminium	15.0	20.0	2968	28.7	48.8	3.5	10.6	1.4	4.1	6.1	93.3	93.0	91.9	0.82	0.04578	95	69
	Q4HI60L2D	Aluminium	18.5	25.0	2969	35.6	59.7	2.5	7.6	2.6	10.9	6.5	93.7	93.4	92.4	0.80	0.05270	106	69
	Q4HI80M2B	Aluminium	22.0	30.0	2972	37.6	71.0	3.6	10.8	1.3	3.9	5.2	94.0	94.3	93.8	0.89	0.09831	142	76
	Q4H200L2D	Aluminium	30.0	40.0	2970	51.3	96.9	3.6	10.8	1.3	3.8	5.0	94.5	94.1	93.1	0.90	0.11383	166	77
	Q4H200L2DE	Aluminium	37.0	50.0	2973	63.0	118.3	3.6	10.9	1.5	4.5	5.9	94.8	94.7	93.9	0.89	0.14100	196	78
	Q4H225M2C	Aluminium	45.0	60.0	2971	84.3	144.7	2.9	8.6	0.9	2.6	3.2	95.0	94.8	93.3	0.86	0.23500	249	80
	Q4HP250M2C	Cast Iron	55.0	75.0	2981	97.7	178.5	2.2	6.7	0.8	2.3	3.2	95.3	95.0	93.6	0.90	0.54000	585	81
	Q4HP280M2C	Cast Iron	75.0	100.0	2982	129.6	241.1	2.3	7.0	0.8	2.4	3.1	95.6	95.5	94.3	0.91	0.64500	596	82
	Q4HP280M2D	Cast Iron	90.0	125.0	2986	155.8	291.3	2.6	7.8	0.8	2.3	3.2	95.8	95.6	94.6	0.91	0.70200	640	82

4 pole 1500 rpm

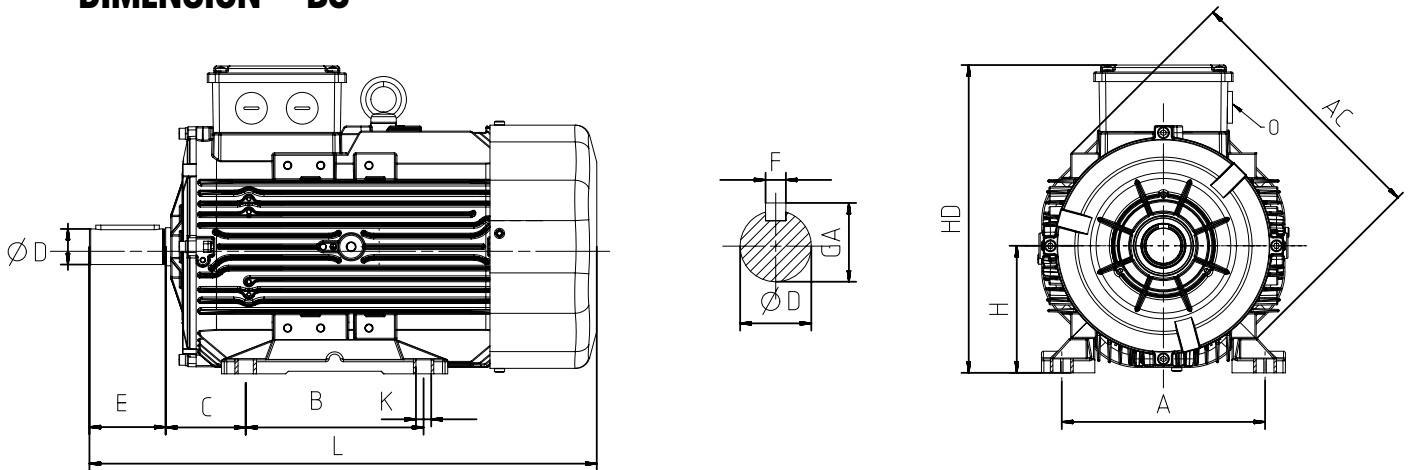
400/690V	Q4HI32S4C	Aluminium	5.5	7.5	1474	10.9	35.6	3.0	9.0	0.8	2.5	4.1	91.9	91.2	90.2	0.80	0.03846	57	51
	Q4HI32M4DE	Aluminium	7.5	10.0	1465	15.1	48.9	2.8	8.4	1.0	3.0	4.0	92.6	92.8	91.1	0.81	0.04405	81	53
	Q4HI60M4D	Aluminium	11.0	15.0	1481	22.2	71.0	2.7	8.0	0.9	2.8	3.6	93.3	92.5	91.4	0.77	0.08841	100	57
	Q4HI60L4C	Aluminium	15.0	20.0	1475	29.7	97.5	2.7	8.0	0.9	2.8	3.6	93.9	94.2	93.1	0.80	0.10511	113	58
	Q4HI80L4B	Aluminium	18.5	25.0	1481	33.9	119.7	3.1	9.2	0.9	2.9	3.1	94.2	94.4	93.1	0.84	0.17777	152	68
	Q4HI80L4C	Aluminium	22.0	30.0	1487	43.7	141.5	3.7	10.7	1.1	3.4	4.0	94.5	94.6	91.7	0.77	0.22166	182	69
	Q4H200L4D	Aluminium	30.0	40.0	1475	54.8	195.5	2.7	8.0	0.8	2.5	3.1	91.9	94.6	94.8	0.85	0.22166	194	68
	Q4H225M4C	Aluminium	37.0	50.0	1485	71.6	238.2	2.5	7.4	0.9	2.8	3.2	95.2	94.9	93.4	0.82	0.43500	276	71
	Q4H225M4D	Aluminium	45.0	60.0	1485	86.8	290.1	2.5	7.4	0.9	2.8	3.2	95.4	95.5	94.4	0.82	0.43500	285	71
	Q4HP250M4E	Cast Iron	55.0	75.0	1490	103.5	359.0	2.6	7.8	0.9	2.7	3.0	95.7	95.6	94.6	0.84	1.06100	638	72
	Q4HP280M4C	Cast Iron	75.0	100.0	1490	139.3	485.7	2.6	7.7	0.9	2.7	3.2	96.0	95.2	93.8	0.84	1.25200	688	73
	Q4HP280M4D	Cast Iron	90.0	125.0	1490	168.9	584.2	2.5	7.6	0.9	2.8	3.0	96.1	95.7	94.0	0.83	1.36200	710	73

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

DIMENSION - B3

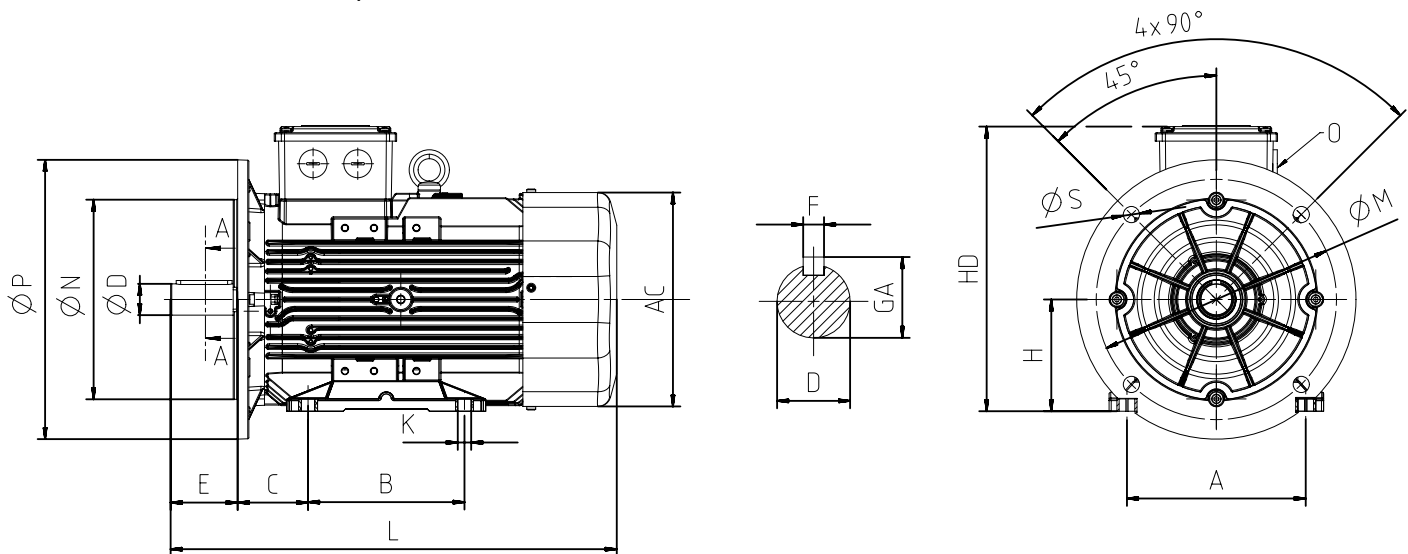


Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
5.5	2	Q4HI32S2D	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
5.5	4	Q4HI32S4C	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
7.5	2	Q4HI32S2DE	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
7.5	4	Q4HI32M4DE	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
11.0	2	Q4HI60M2D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
11.0	4	Q4HI60M4D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
15.0	2	Q4HI60M2DE	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
15.0	4	Q4HI60L4C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
18.5	2	Q4HI60L2D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
18.5	4	Q4HI80L4B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
22.0	2	Q4HI80M2B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
22.0	4	Q4HI80L4C	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
30.0	2	Q4H200L2D	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
30.0	4	Q4H200L4D	Aluminium	349	759	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
37.0	2	Q4H200L2DE	Aluminium	349	759	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
37.0	4	Q4H225M4C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
45.0	2	Q4H225M2C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
45.0	4	Q4H225M4D	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
55.0	2	Q4HP250M2C	Cast Iron	489	893	1xM50	311-349	406	250	616	30.0	149	65	140	69.0	18	6316	6316	80*100*10	80*100*10
55.0	4	Q4HP250M4E	Cast Iron	489	893	1xM50	311-349	406	250	616	30.0	149	65	140	69.0	18	6316	6316	80*100*10	80*100*10
75.0	2	Q4HP280M2C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	190	65	140	69.0	18	6316	6316	80*100*10	80*100*10
75.0	4	Q4HP280M4C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	190	65	140	69.0	18	6316	6316	80*100*10	80*100*10
90.0	2	Q4HP280M2D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	190	65	140	69.0	18	6316	6316	80*100*10	80*100*10
90.0	4	Q4HP280M4D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	190	65	140	69.0	18	6316	6316	80*100*10	80*100*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

DIMENSION - B5, B35



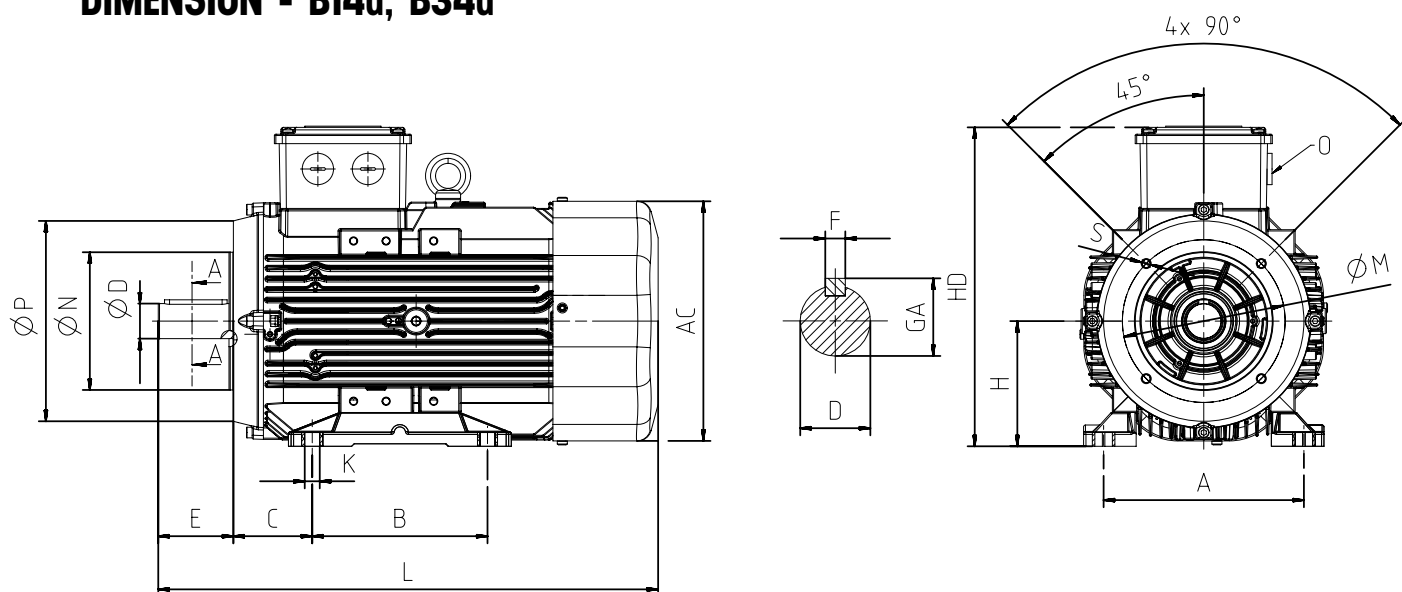
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [B5]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
5.5	2	Q4HI32S2D	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
5.5	4	Q4HI32S4C	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
7.5	2	Q4HI32S2DE	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
7.5	4	Q4HI32M4DE	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
11.0	2	Q4HI60M2D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
11.0	4	Q4HI60M4D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
15.0	2	Q4HI60M2DE	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
15.0	4	Q4HI60L4C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
18.5	2	Q4HI60L2D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
18.5	4	Q4HI80L4B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
22.0	2	Q4HI80M2B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
22.0	4	Q4HI80L4C	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
30.0	2	Q4H200L2D	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
30.0	4	Q4H200L4D	Aluminium	349	759	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
37.0	2	Q4H200L2DE	Aluminium	349	759	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
37.0	4	Q4H225M4C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
45.0	2	Q4H225M2C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
45.0	4	Q4H225M4D	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
55.0	2	Q4HP250M2C	Cast Iron	489	893	1xM50	311-349	406	250	616	30.0	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
55.0	4	Q4HP250M4E	Cast Iron	489	893	1xM50	311-349	406	250	616	30.0	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
75.0	2	Q4HP280M2C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
75.0	4	Q4HP280M4C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
90.0	2	Q4HP280M2D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
90.0	4	Q4HP280M4D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14a, B34a



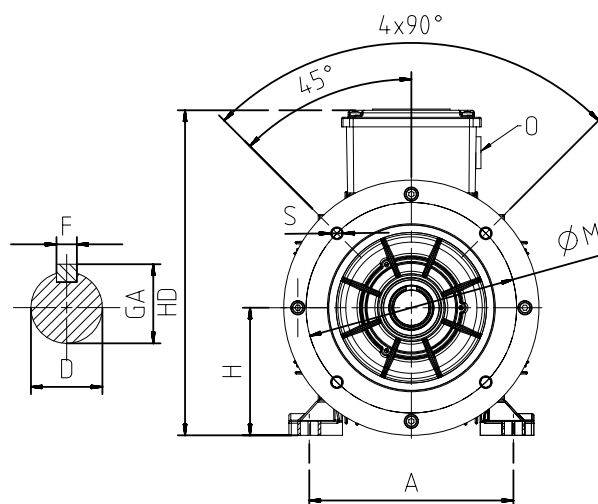
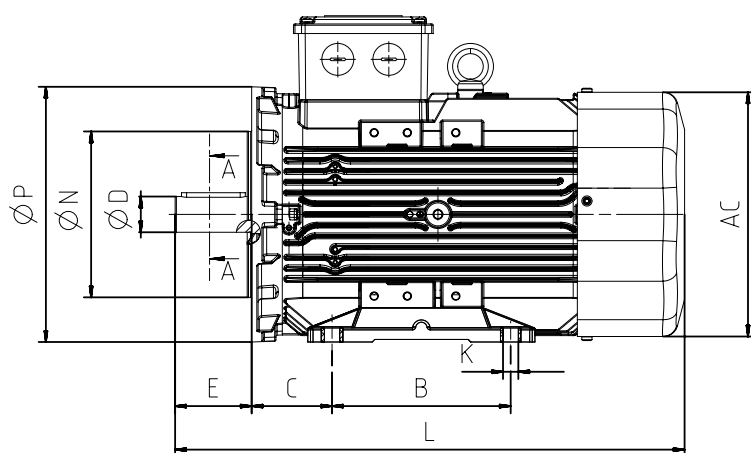
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FC] [B14a]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
5.5	2	Q4HI32S2D	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
5.5	4	Q4HI32S4C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
7.5	2	Q4HI32S2DE	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
7.5	4	Q4HI32M4DE	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14b, B34b

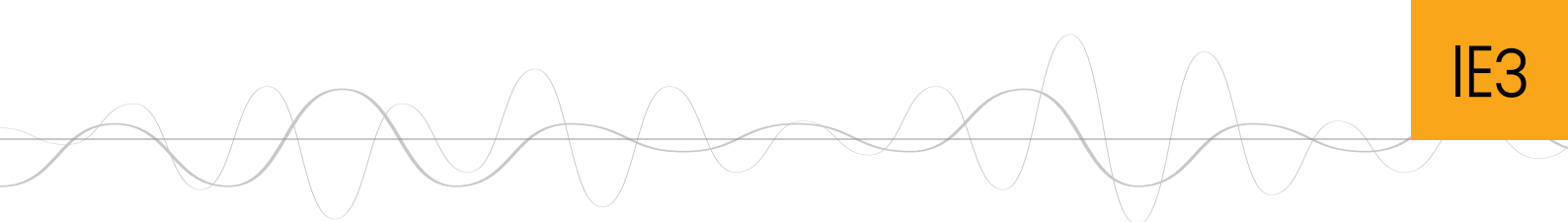
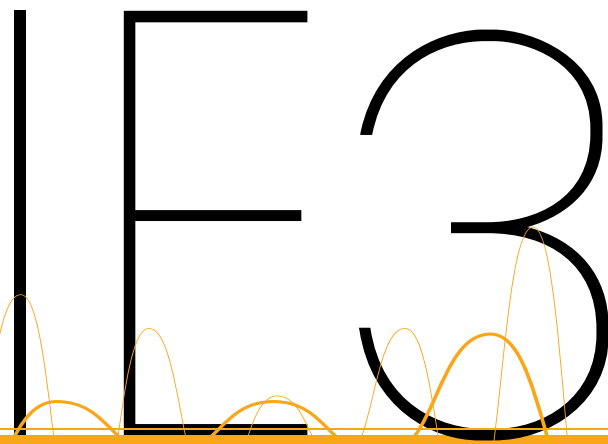


Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FB] [B14b]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
5.5	2	Q4HI32S2D	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
5.5	4	Q4HI32S4C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
7.5	2	Q4HI32S2DE	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
7.5	4	Q4HI32M4DE	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

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ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES				STARTING VALUES				Break- down Torque Ratio Mk/ Mn	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pressure Level dBA **	
		POWER		SPEED rpm	CURRENT A	TORQUE Nm	CURRENT		TORQUE		η %							
		kW	HP				I _a / I _n	Δ	M _a / M _n		Δ	4/4	3/4					2/4

2 pole 3000 rpm

230/400V	Q3H80M2C	Aluminium	0.75	1.0	2890	1.7	2.5	8.3	-	3.7	-	4.2	80.7	79.8	76.1	0.81	0.0014	13	57
	Q3H80M2D	Aluminium	1.1	1.5	2894	2.3	3.6	9.1	-	3.9	-	4.3	82.7	82.2	79.3	0.80	0.0017	13	57
	Q3HS90S2C	Aluminium	1.5	2.0	2905	3.3	5.0	10.9	-	5.2	-	5.4	84.2	83.3	80.5	0.80	0.0023	16	62
	Q3H90L2D	Aluminium	2.2	3.0	2917	4.3	7.2	9.2	-	3.1	-	4.9	85.9	86.4	85.2	0.87	0.0028	19	62
	Q3HS100L2C	Aluminium	3.0	4.0	2890	5.8	9.9	8.1	-	3.2	-	3.5	87.1	88.1	87.7	0.86	0.0031	25	66
400/690V	Q3HS112M2C	Aluminium	4.0	5.5	2920	7.95	13.0	3.6	10.9	1.6	4.8	5.7	88.1	88.1	85.8	0.82	0.0064	29	68
	Q3HS132S2C	Aluminium	5.5	7.5	2920	10.5	18.1	3.6	10.7	1.2	3.7	5.1	89.2	89.0	87.2	0.86	0.0077	37	69
	Q3HS132S2D	Aluminium	7.5	10.0	2918	13.6	24.5	3.6	10.8	1.4	4.3	5.4	90.1	90.3	89.1	0.88	0.0093	43	69
	Q3HS160M2D	Aluminium	11.0	15.0	2925	20.7	36.0	3.5	10.5	1.3	3.9	5.2	91.2	91.4	90.6	0.85	0.0352	65	70
	Q3HS160M2DE	Aluminium	15.0	20.0	2935	27.6	48.8	3.5	10.5	1.2	3.7	5.2	91.9	91.3	89.8	0.86	0.0402	79	71
	Q3HI60L2C	Aluminium	18.5	25.0	2960	32.8	59.9	3.6	10.8	1.1	3.4	4.8	92.4	92.5	91.6	0.89	0.0481	96	70
	Q3HS180M2B	Aluminium	22.0	30.0	2961	39.1	70.7	3.5	10.5	1.1	3.2	5.2	92.7	92.5	91.3	0.87	0.0587	114	77
	Q3H200L2C	Aluminium	30.0	40.0	2965	50.8	96.7	3.5	10.5	1.0	3.0	4.5	93.3	93.2	92.2	0.92	0.1028	153	78
	Q3H200L2D	Aluminium	37.0	50.0	2960	61.9	119.4	3.3	9.9	1.0	2.9	4.4	93.7	94.4	94.0	0.92	0.1138	166	78
	Q3E225M2C	Aluminium	45.0	60.0	2965	77.1	144.9	2.8	8.6	0.9	2.4	3.8	94.0	93.7	92.2	0.85	0.2350	249	80
	Q3E250M2C	Aluminium	55	75	2970	92.1	176.7	2.7	8	0.8	2.5	3.1	94.3	94.1	92.9	0.92	0.50903	279	81
	Q2E250M2B	Aluminium	55	75	2975	93.9	176.5	3.3	9.8	1.0	3.0	5.3	93.2	93.1	92.4	0.89	0.42083	254	81
	Q3EP250M2C	Cast Iron	55.0	75.0	2982	93.8	176.1	2.3	7.0	0.9	2.7	3.4	94.3	94.0	92.6	0.90	0.4870	488	81
	Q3EP280M2C	Cast Iron	75.0	100.0	2975	124.9	240.7	2.8	8.4	0.7	2.2	4.4	94.7	94.2	93.1	0.91	0.5400	585	82
	Q3EP280M2D	Cast Iron	90.0	125.0	2975	150.7	288.9	2.8	8.6	0.8	2.4	5.4	95.0	94.7	93.7	0.93	0.6450	596	82
	Q3EP315S2C	Cast Iron	110.0	127.0	2.983	187	358	2.4	7.2	0.6	1.7	2.6	95.2	95.2	94.0	0.89	2.19900	963	83
	Q3EP315M2B	Cast Iron	132.0	152.0	2.983	224	418	2.5	7.5	0.6	1.8	2.6	95.4	95.4	94.4	0.89	2.37790	1007	83
	Q3EP315L2A	Cast Iron	160.0	184.0	2.983	271	513	2.5	7.5	0.6	1.8	2.6	95.6	95.6	94.4	0.89	2.62170	1065	83
	Q3EP315L2C	Cast Iron	200.0	230.0	2.983	339	641	2.5	7.5	0.6	1.9	2.6	95.8	95.8	94.9	0.89	2.90860	1180	83
	Q3EP355M2C	Cast Iron	250.0	280.0	2.983	419	800	2.4	7.3	0.6	1.7	2.5	95.8	95.8	94.7	0.90	3.81300	1612	91
	Q3EP355L2B	Cast Iron	315.0	353.0	2.984	527	1008	2.4	7.3	0.6	1.8	2.5	95.8	95.7	94.4	0.90	4.52000	1771	91
	Q3EP355L2C	Cast Iron	355.0	398.0	2.981	594	1137	2.6	7.9	0.7	2.2	2.5	95.8	95.8	95.0	0.90	5.58000	2002	91

4 pole 1500 rpm

230/400V	Q3H80M4D	Aluminium	0.75	1.0	1445	1.7	5.0	6.7	-	2.8	-	3.4	82.5	83.2	80.6	0.77	0.00261	13	52
	Q3HS90S4C	Aluminium	1.1	1.5	1448	2.6	7.3	7.2	-	3.1	-	3.7	82.7	82.4	89.5	0.75	0.00328	15	54
	Q3H90L4D	Aluminium	1.5	2.0	1449	3.5	9.9	8.1	-	3.6	-	4.2	85.3	85.0	82.1	0.76	0.00526	20	53
	Q3HS100L4C	Aluminium	2.2	3.0	1453	5.4	14.4	9.5	-	5.0	-	5.5	86.7	84.3	80.6	0.68	0.00690	25	55
	Q3HI00L4D	Aluminium	3.0	4.0	1446	6.2	19.9	8.4	-	3.3	-	3.8	87.7	88.0	87.0	0.81	0.01059	31	56
400/690V	Q3HI12M4D	Aluminium	4.0	5.5	1452	8.2	26.5	3.0	9.1	1.1	3.3	4.1	88.6	88.8	87.3	0.81	0.01383	32	54
	Q3HI32S4B	Aluminium	5.5	7.5	1470	11.0	35.8	2.8	8.5	0.7	2.0	3.8	89.6	89.1	87.6	0.81	0.03560	53	60
	Q3HI32M4D	Aluminium	7.5	10.0	1467	15.2	48.8	2.7	8.2	0.8	2.3	3.8	90.4	90.7	89.6	0.80	0.04030	58	60
	Q3HS160M4C	Aluminium	11.0	15.0	1470	19.2	71.3	2.7	8.0	0.7	2.1	3.8	91.4	91.5	90.4	0.90	0.05940	84	63
	Q3HI60L4B	Aluminium	15.0	20.0	1477	30.8	97.1	2.6	7.8	0.9	2.8	3.3	92.1	92.0	90.8	0.76	0.09005	101	62
	Q3HS180M4B	Aluminium	18.5	25.0	1474	39.5	119.9	2.5	7.4	0.8	2.3	3.5	92.6	91.9	91.2	0.74	0.11398	118	67
	Q3HI80L4B	Aluminium	22.0	30.0	1485	41.6	141.7	3.1	9.2	0.9	2.8	3.6	93.0	93.1	92.3	0.83	0.18660	158	68
	Q3H200L4D	Aluminium	30.0	40.0	1475	54.8	195.5	2.7	8.0	0.8	2.5	3.1	93.6	94.6	94.8	0.85	0.22166	194	68
	Q3E225M4D	Aluminium	37.0	50.0	1485	68.6	237.9	2.9	8.8	1.0	3.1	3.7	93.9	93.8	92.6	0.84	0.36400	280	71
	Q3E225M4DE	Aluminium	45.0	60.0	1485	83.1	289.4	3.0	9.2	1.0	3.1	3.7	94.2	94.0	93.3	0.83	0.43500	276	71
	Q3EP250M4E	Cast Iron	55.0	75.0	1487	106.9	353.2	3.0	9.2	1.0	3.1	3.7	94.6	94.4	93.5	0.79	0.90782	506	72
	Q3EP280M4C	Cast Iron	75.0	100.0	1485	138.9	482.3	2.6	7.8	1.0	3.0	3.2	95.0	94.8	94.0	0.82	1.06100	638	73
	Q3EP280M4D	Cast Iron	90.0	125.0	1485	163.5	578.7	2.6	7.9	1.0	3.0	3.2	95.2	95.0	93.9	0.86	1.14760	653	73
	Q3EP315S4C	Cast Iron	110.0	127.0	1489	194	705	2.5	7.5	0.7	2.0	2.5	95.4	95.4	94.7	0.86	3.46500	867	70
	Q3EP315M4B	Cast Iron	132.0	152.0	1489	232	846	2.5	7.6	0.7	2.1	2.5	95.6	95.6	95.0	0.86	3.96600	993	70
	Q3EP315L4A	Cast Iron	160.0	184.0	1489	274	1026	2.5	7.6	0.7	2.2	2.5	95.8	95.8	95.4	0.88	4.88320	1165	70
	Q3EP315L4C	Cast Iron	200.0	230.0	1489	346	1282	2.7	8.2	0.7	2.2	2.5	96.0	96.0	95.5	0.87	5.23440	1223	70
	Q3EP355M4C	Cast Iron	250.0	280.0	1491	422	1601	2.5	7.5	0.6	1.9	2.4	96.0	96.0	95.5	0.89	9.30600	1692	82
	Q3EP355L4B	Cast Iron	315.0	353.0	1491	532	2.017	2.5	7.5	0.6	1.9	2.4	96.0	96.0	95.5	0.89	10.06700	1879	82
	Q3EP355L4C	Cast Iron	355.0	398.0	1491	600	2.273	2.5	7.5	0.7	2.0	2.3	96.0	96.0	95.5	0.89	11.90000	1953	82

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

MOTOR TYPE	HOUSING TYPE	RATED VALUES				STARTING VALUES				Break- down Torque Ratio Mk/ Mn	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pressure Level dBA **	
		POWER		SPEED rpm	CURRENT A	TORQUE Nm	CURRENT		TORQUE		η %							
		kW	HP				I _A / I _N	Δ	M _A / M _N		Δ	4/4	3/4					2/4

6 pole 1000 rpm

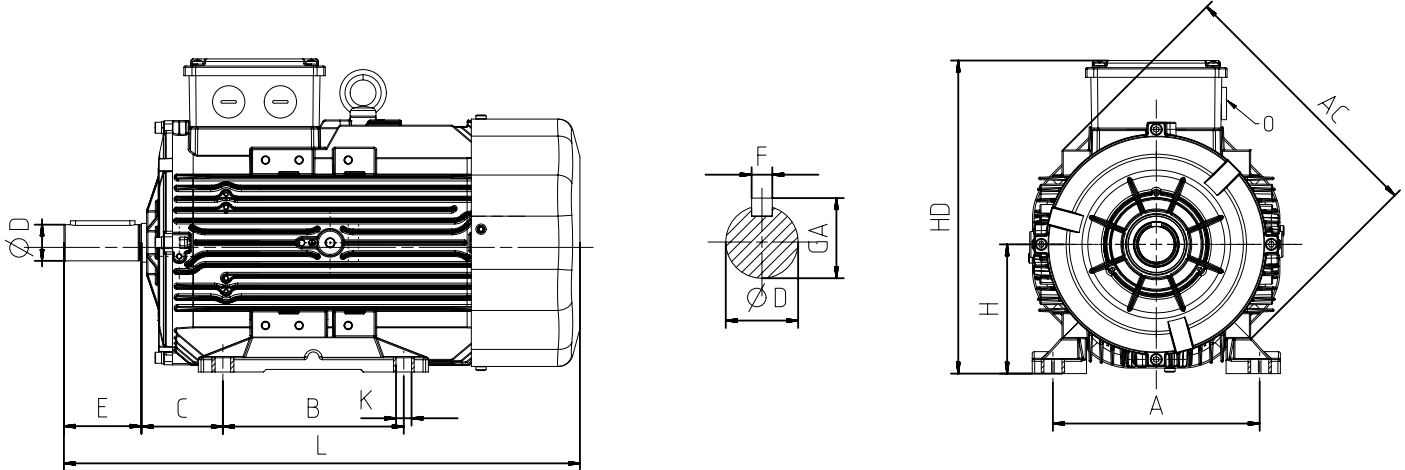
230/400V	Q3H90L6C	Aluminium	0.75	1.0	950	2.0	7.6	4.9	-	2.5	-	3.0	78.9	78.4	74.9	0.67	0.00460	18	53
	Q3H90L6D	Aluminium	1.1	1.5	950	3.0	11.1	4.5	-	2.6	-	2.9	81.0	80.6	78.3	0.67	0.00528	20	53
	Q3H100L6D	Aluminium	1.5	2.0	960	4.0	14.9	4.8	-	2.6	-	3.0	82.5	81.7	78.2	0.65	0.01059	26	55
	Q3H112M6D	Aluminium	2.2	3.0	957	5.2	22.0	4.9	-	2.7	-	3.0	84.3	84.6	83.7	0.71	0.01383	32	57
400/690V	Q3H132S6C	Aluminium	3.0	4.0	965	7.1	29.7	1.9	5.7	0.6	2.0	2.5	85.6	85.2	82.8	0.70	0.03560	53	61
	Q3H132M6C	Aluminium	4.0	5.5	962	9.2	39.8	2.0	6.0	0.7	2.2	2.6	86.8	85.7	82.8	0.72	0.04030	58	60
	Q3H132M6D	Aluminium	5.5	7.5	957	12.4	55.0	2.1	6.3	0.7	2.1	2.6	88.0	87.6	85.3	0.75	0.05940	82	60
	Q3H160M6C	Aluminium	7.5	10.0	967	17.4	74.2	2.0	6.0	0.7	2.2	3.0	89.1	89.0	88.0	0.71	0.07540	88	62
	Q3H160L6D	Aluminium	11.0	15.0	962	24.0	109.2	2.1	6.3	0.7	2.2	3.0	90.3	90.1	89.3	0.76	0.09000	101	62
	Q3H180L6B	Aluminium	15.0	20.0	980	32.2	146.2	2.2	6.6	0.7	2.1	2.9	91.2	90.9	88.7	0.75	0.18660	155	68
	Q3H200L6C	Aluminium	18.5	25.0	981	40.3	180.1	2.3	6.9	0.6	1.9	2.7	91.7	91.6	91.3	0.72	0.23286	194	69
	Q3H200L6D	Aluminium	22.0	30.0	977	49.6	215.0	2.9	5.0	0.6	1.9	2.2	92.2	92.2	91.6	0.76	0.22166	193	69
	Q3E225M6C	Aluminium	30.0	40.0	975	59.1	293.8	1.9	6.1	0.6	1.8	2.5	92.9	92.8	91.8	0.80	0.52900	238	71

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

DIMENSION - B3



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
0.75	2	Q3H80M2C	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
0.75	4	Q3H80M4D	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
0.75	6	Q3H90L6C	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
1.1	2	Q3H80M2D	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
1.1	4	Q3HS90S4C	Aluminium	158	303	1xM25	100-125	140	90	213	10	56	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7
1.1	6	Q3H90L6D	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
1.5	2	Q3HS90S2C	Aluminium	158	303	1xM25	100-125	140	90	213	10	56	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7
1.5	4	Q3H90L4D	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
1.5	6	Q3HI00L6D	Aluminium	192	400	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7
2.2	2	Q3H90L2D	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
2.2	4	Q3HS100L4C	Aluminium	172	384	1xM25	140	160	100	233	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
2.2	6	Q3HI12M6D	Aluminium	210	396	1xM25	140	190	112	265	12	70	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7
3	2	Q3HS100L2C	Aluminium	172	349	1xM25	140	160	100	233	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
3	4	Q3HI00L4D	Aluminium	192	400	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7
3	6	Q3HI32S6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
4	2	Q3HS112M2C	Aluminium	192	400	1xM25	140	190	112	254	12	70	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
4	4	Q3HI12M4D	Aluminium	210	396	1xM25	140	190	112	265	12	70	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7
4	6	Q3HI32M6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
5.5	2	Q3HS132S2C	Aluminium	210	422	1xM25	140-178	216	132	283	12	89	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7
5.5	4	Q3HI32S4B	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
5.5	6	Q3HI32M6D	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
7.5	2	Q3HS132S2D	Aluminium	210	448	1xM25	140-178	216	132	283	12	89	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7
7.5	4	Q3HI32M4D	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
7.5	6	Q3HI60M6C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
11	2	Q3HS160M2D	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
11	4	Q3HS160M4C	Aluminium	260	580	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
11	6	Q3HI60L6D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
15	2	Q3HS160M2DE	Aluminium	260	580	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
15	4	Q3HI60L4B	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
15	6	Q3HI80L6B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

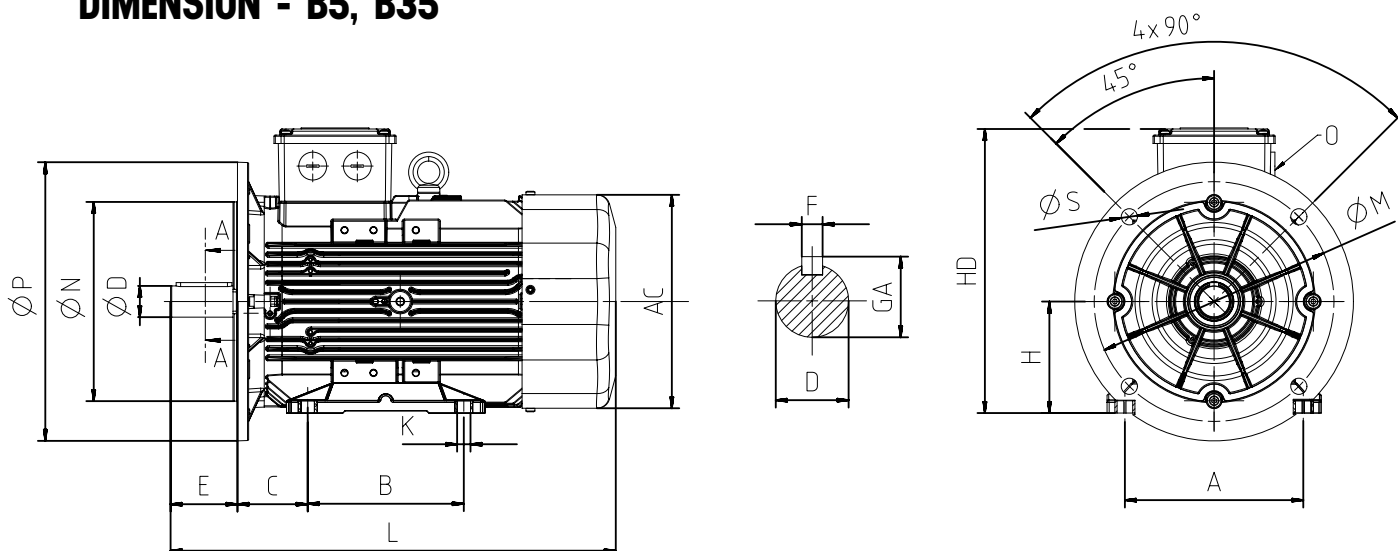
(2) According to DIN 6885

Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
18.5	2	Q3HI60L2C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
18.5	4	Q3HS180M4B	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	121	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10
18.5	6	Q3H200L6C	Aluminium	349	750	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
22	2	Q3HS180M2B	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	121	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10
22	4	Q3HI80L4B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
22	6	Q3H200L6D	Aluminium	349	750	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
30	2	Q3H200L2C	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
30	4	Q3H200L4D	Aluminium	349	759	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
30	6	Q3E225M6C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
37	2	Q3H200L2D	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
37	4	Q3E225M4D	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
45	2	Q3E225M2C	Aluminium	456	735	1xM50	286-311	356	225	485	18.5	149	55	110	59.0	16	6313-ZZ	6313-ZZ	65*100*13	65*100*13
45	4	Q3E225M4DE	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
55	2	Q3E250M2C	Aluminium	527	886	2*M50	349	406	250	615	30	60	60	140	64.0	18	6315-ZZ	6313-ZZ	75*112*12	65*100*13
55	2	Q2E250M2B	Aluminium	527	886	2*M50	349	406	250	615	30	60	60	140	64.0	18	6315-ZZ	6313-ZZ	75*112*12	65*100*13
55	2	Q3EP250M2C	Cast Iron	489	893	1xM50	311-349	406	250	616	30	149	65	140	69.0	18	6316	6316	80*100*10	80*100*10
55	4	Q3EP250M4E	Cast Iron	489	893	1xM50	311-349	406	250	616	30	149	65	140	69.0	18	6316	6316	80*100*10	80*100*10
75	2	Q3EP280M2C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	65	140	69.0	18	6316	6316	80*100*10	80*100*10
75	4	Q3EP280M4C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	75	140	79.5	20	6316	6316	80*100*10	80*100*10
90	2	Q3EP280M2D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	65	140	69.0	18	6316	6316	80*100*10	80*100*10
90	4	Q3EP280M4D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	75	140	79.5	20	6316	6316	80*100*10	80*100*10
110	2	Q3EP315S2C	Cast Iron	652	1176	2*M63	406	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5
110	4	Q3EP315S4C	Cast Iron	652	1206	2*M63	406	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
132	2	Q3EP315M2B	Cast Iron	652	1176	2*M63	457	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5
132	4	Q3EP315M4B	Cast Iron	652	1206	2*M63	457	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
160	2	Q3EP315L2A	Cast Iron	652	1287	2*M63	508	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5
160	4	Q3EP315L4A	Cast Iron	652	1317	2*M63	508	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
200	2	Q3EP315L2C	Cast Iron	652	1287	2*M63	508	508	315	833	28	216	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5
200	4	Q3EP315L4C	Cast Iron	652	1317	2*M63	508	508	315	833	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
250	2	Q3EP355M2C	Cast Iron	762	1512	4*M63	560	610	355	997	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
250	4	Q3EP355M4C	Cast Iron	762	1542	4*M63	560	610	355	997	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5
315	2	Q3EP355L2B	Cast Iron	762	1512	4*M63	630	610	355	997	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
315	4	Q3EP355L4B	Cast Iron	762	1542	4*M63	630	610	355	997	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5
355	2	Q3EP355L2C	Cast Iron	762	1512	4*M63	630	610	355	997	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
355	4	Q3EP355L4C	Cast Iron	762	1542	4*M63	630	610	355	997	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

DIMENSION - B5, B35



				Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [B5]					
Power [kW]	Number of Poles	Motor Type	Housing Type	AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S	
0.75	2	Q3H80M2C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12	
0.75	4	Q3H80M4D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12	
0.75	6	Q3H90L6C	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12	
1.1	2	Q3H80M2D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12	
1.1	4	Q3HS90S4C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	200	130	165	-	12	
1.1	6	Q3H90L6D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12	
1.5	2	Q3HS90S2C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	200	130	165	-	12	
1.5	4	Q3H90L4D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12	
1.5	6	Q3HI00L6D	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5	
2.2	2	Q3H90L2D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12	
2.2	4	Q3HS100L4C	Aluminium	172	384	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5	
2.2	6	Q3HI12M6D	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	-	14.5	
3	2	Q3HS100L2C	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5	
3	4	Q3HI00L4D	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5	
3	6	Q3HI32S6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5	
4	2	Q3HS112M2C	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5	
4	4	Q3H112M4D	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	-	14.5	
4	6	Q3HI32M6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5	
5.5	2	Q3HS132S2C	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	300	230	265	-	14.5	
5.5	4	Q3HI32S4B	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5	
5.5	6	Q3HI32M6D	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5	
7.5	2	Q3HS132S2D	Aluminium	210	448	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	300	230	265	-	14.5	
7.5	4	Q3HI32M4D	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5	
7.5	6	Q3HI60M6C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5	
11	2	Q3HS160M2D	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5	
11	4	Q3HS160M4C	Aluminium	260	580	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5	
11	6	Q3HI60L6D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5	
15	2	Q3HS160M2DE	Aluminium	260	580	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5	
15	4	Q3HI60L4B	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5	
15	6	Q3HI80L6B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5	

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

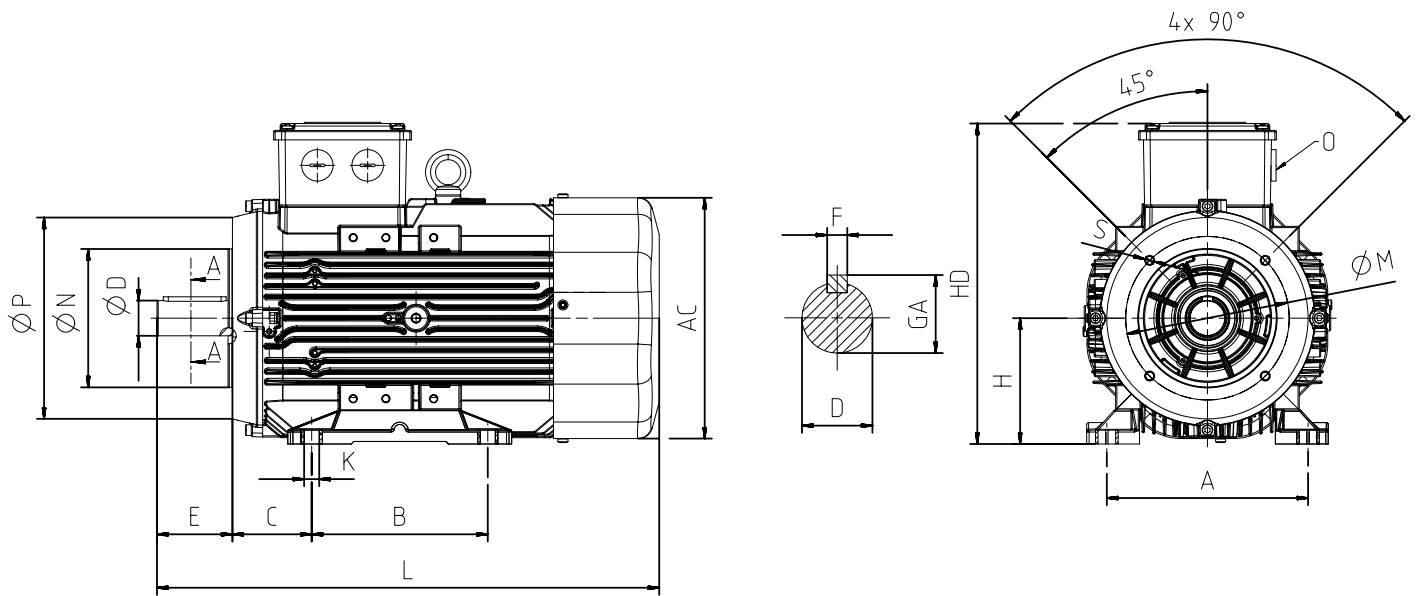
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [BS]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
18.5	4	Q3HS180M4B	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10	350	250	300	-	18.5
18.5	6	Q3H200L6C	Aluminium	349	750	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
22	2	Q3HS180M2B	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10	350	250	300	-	18.5
22	4	Q3H180L4B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
22	6	Q3H200L6D	Aluminium	349	750	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
30	2	Q3H200L2C	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
30	4	Q3H200L4D	Aluminium	349	760	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
30	6	Q3E225M6C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
37	2	Q3H200L2D	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
37	4	Q3E225M4D	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
45	2	Q3E225M2C	Aluminium	456	735	1xM50	286-311	356	225	485	18.5	55	110	59.0	16	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
45	4	Q3E225M4DE	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
55	2	Q3E250M2C	Aluminium	527	886	2*M50	349	406	250	615	30	60	140	64.0	18	6315-ZZ	6313-ZZ	75*112*12	65*100*13	550	450	500	-	18.5
55	2	Q2E250M2B	Aluminium	527	886	2*M50	349	406	250	615	30	60	140	64.0	18	6315-ZZ	6313-ZZ	75*112*12	65*100*13	550	450	500	-	18.5
55	2	Q3EP250M2C	Cast Iron	489	893	1xM50	311-349	406	250	616	30	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
55	4	Q3EP250M4E	Cast Iron	489	893	1xM50	311-349	406	250	616	30	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
75	2	Q3EP280M2C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
75	4	Q3EP280M4C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	75	140	79.5	20	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
90	2	Q3EP280M2D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	65	140	69.0	18	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
90	4	Q3EP280M4D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	75	140	79.5	20	6316	6316	80*100*10	80*100*10	550	450	500	-	18.5
110	2	Q3EP315S2C	Cast Iron	652	1176	2*M63	406	508	315	833	28	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5	660	550	600	0	24
110	4	Q3EP315S4C	Cast Iron	652	1206	2*M63	406	508	315	833	28	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5	660	550	600	0	24
132	2	Q3EP315M2B	Cast Iron	652	1176	2*M63	457	508	315	833	28	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5	660	550	600	0	24
132	4	Q3EP315M4B	Cast Iron	652	1206	2*M63	457	508	315	833	28	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5	660	550	600	0	24
160	2	Q3EP315L2A	Cast Iron	652	1287	2*M63	508	508	315	833	28	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5	660	550	600	0	24
160	4	Q3EP315L4A	Cast Iron	652	1317	2*M63	508	508	315	833	28	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5	660	550	600	0	24
200	2	Q3EP315L2C	Cast Iron	652	1287	2*M63	508	508	315	833	28	65	140	69	18	6316	6316	80*100*5.5	80*100*5.5	660	550	600	0	24
200	4	Q3EP315L4C	Cast Iron	652	1317	2*M63	508	508	315	833	28	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5	660	550	600	0	24
250	2	Q3EP355M2C	Cast Iron	762	1512	4*M63	560	610	355	997	28	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5	800	680	740	0	24
250	4	Q3EP355M4C	Cast Iron	762	1542	4*M63	560	610	355	997	28	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5	800	680	740	0	24
315	2	Q3EP355L2B	Cast Iron	762	1512	4*M63	630	610	355	997	28	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5	800	680	740	0	24
315	4	Q3EP355L4B	Cast Iron	762	1542	4*M63	630	610	355	997	28	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5	800	680	740	0	24
355	2	Q3EP355L2C	Cast Iron	762	1512	4*M63	630	610	355	997	28	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5	800	680	740	0	24
355	4	Q3EP355L4C	Cast Iron	762	1542	4*M63	630	610	355	997	28	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5	800	680	740	0	24

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14a, B34a



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FC] (B14a)				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.75	2	Q3H80M2C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
0.75	4	Q3H80M4D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
0.75	6	Q3H90L6C	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
1.1	2	Q3H80M2D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
1.1	4	Q3HS90S4C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	140	95	115	-	M8
1.1	6	Q3H90L6D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
1.5	2	Q3HS90S2C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	140	95	115	-	M8
1.5	4	Q3H90L4D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
1.5	6	Q3H100L6D	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	160	110	130	-	M8
2.2	2	Q3H90L2D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
2.2	4	Q3HS100L4C	Aluminium	172	384	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
2.2	6	Q3H112M6D	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	160	110	130	-	M8
3	2	Q3HS100L2C	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
3	4	Q3H100L4D	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	160	110	130	-	M8
3	6	Q3HI32S6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
4	2	Q3HS112M2C	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
4	4	Q3H112M4D	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	160	110	130	-	M8
4	6	Q3HI32M6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
5.5	2	Q3HS132S2C	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	200	130	165	-	M10
5.5	4	Q3HI32S4B	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
5.5	6	Q3HI32M6D	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
7.5	2	Q3HS132S2D	Aluminium	210	448	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	200	130	165	-	M10
7.5	4	Q3HI32M4D	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Technical drawings of the motor showing side, front, and detail views with dimension labels:

- Side View (Left):** Shows the motor's profile with dimensions $\varnothing P$, $\varnothing N$, $\varnothing D$, A , E , C , B , L , K , and AC .
- Front View (Right):** Shows the motor's face with dimensions HD , H , A , S , 0 , 45° , $4 \times 90^\circ$, and $\varnothing M$.
- Detail View (Middle):** A cross-section of the mounting flange with dimensions F , D , and GA .

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm
(2) According to DIN 6885
(3) Tolerance DIN EN 50347 "j6"

ELECTRICAL CHARACTERISTICS AT 50 Hz

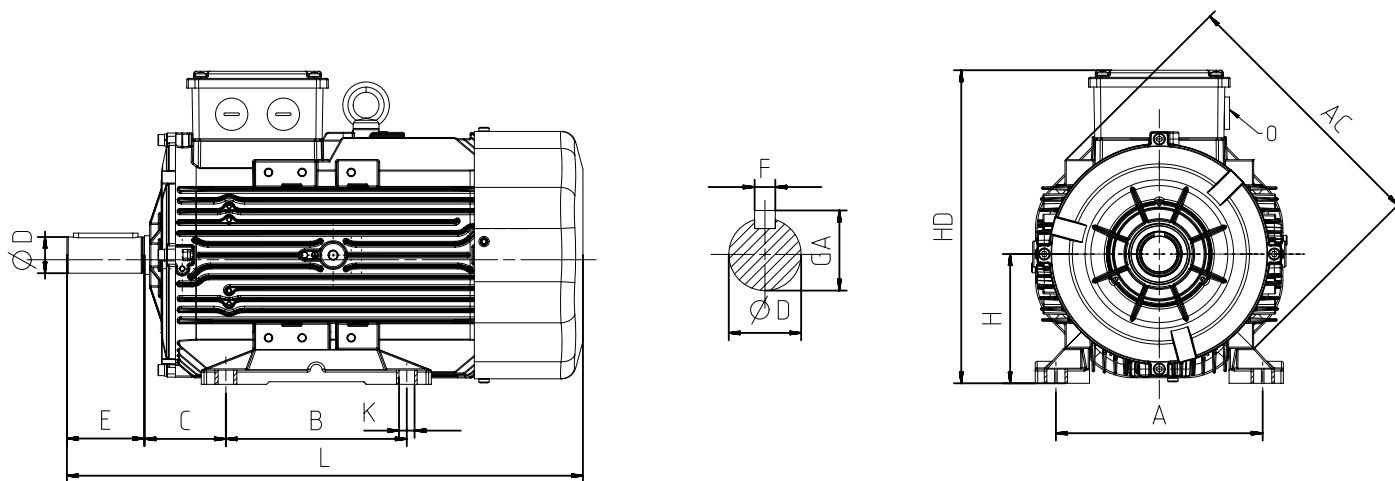
MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pressure Level dBA **
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE		η %								
		kW	HP				rpm	A	Nm	I _A / I _N	Δ		M _A / M _N	Δ	Mk/ Mn				
2 pole 3000 rpm																			
230/400V	Q3H80M2DE	Aluminium	1.5	2.0	2905	3.2	4.9	10.9	-	5	-	5.4	84.2	83.3	80.5	0.80	0.00224	15	59
	Q3H90L2E	Aluminium	3.0	4.0	2890	5.8	9.9	8.1	-	3	-	3.5	87.1	88.1	87.7	0.86	0.00318	19	63
400/690V	Q3H100L2DE	Aluminium	4.0	5.5	2936	8.0	13.0	3.6	10.9	1.6	4.8	5.7	88.1	88.1	85.8	0.82	0.00611	29	66
	Q3H112M2D	Aluminium	5.5	7.5	2920	10.5	18.1	3.5	10.5	1.2	3.7	5.1	89.2	89.0	87.2	0.86	0.00741	32	68
	Q3H112M2DE	Aluminium	7.5	10.0	2918	13.6	24.5	3.6	10.7	1.4	4.3	5.4	90.1	90.3	89.1	0.88	0.00921	42	69
	Q3H132M2A	Aluminium	11.0	15.0	2925	20.7	36.0	3.5	10.5	1.3	3.9	5.2	91.2	91.4	90.6	0.85	0.03489	61	69
	Q3H132M2B	Aluminium	15.0	20.0	2935	27.6	48.8	3.5	10.4	1.2	3.7	5.2	91.9	91.3	89.8	0.86	0.00402	77	71
	Q3H160L2D	Aluminium	22.0	30.0	2961	39.1	71.0	3.5	10.6	1.2	3.6	5.1	92.7	92.4	91.3	0.87	0.05539	114	70
	Q3H180M2B	Aluminium	30.0	40.0	2957	50.1	96.9	3.2	9.6	1.0	2.9	3.9	93.3	93.2	92.6	0.93	0.10277	148	77
	Q3H200L2DE	Aluminium	45.0	60.0	2964	75.2	145.0	3.6	10.7	1.0	3.0	2.7	94.0	93.3	92.8	0.92	0.14769	199	78
4 pole 1500 rpm																			
230/400V	Q3H80M4DE	Aluminium	1.1	1.5	1448	2.6	7.3	7.2	-	3.1	-	3.7	82.7	82.4	89.5	0.75	0.00306	14	48
	Q3H90L4DE	Aluminium	2.2	3.0	1453	5.4	14.4	9.5	-	5.0	-	5.5	86.7	84.3	80.6	0.68	0.00690	25	54
400/690V	Q3H100L4E	Aluminium	4.0	5.5	1445	8.8	26.4	8.6	-	3.5	-	4.2	88.6	87.1	85.6	0.75	0.01124	35	56
	Q3H112M4E	Aluminium	5.5	7.5	1443	11.25	36.4	2.8	8.3	1.0	3.1	3.8	89.6	89.2	88.3	0.80	0.01526	40	57
	Q3H132M4E	Aluminium	11.0	15.0	1470	19.2	71.3	2.7	8.0	0.7	2.1	3.8	91.4	91.5	90.4	0.90	0.05940	82	63
	Q3H160L4C	Aluminium	18.5	25.0	1474	39.5	119.9	2.5	7.4	0.8	2.3	3.5	92.6	91.9	91.2	0.74	0.10511	114	58
	Q3H180L4C	Aluminium	30.0	40.0	1475	54.8	194.2	2.5	7.6	0.8	2.3	2.8	93.6	93.2	92.3	0.85	0.22165	187	69

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

DIMENSION - B3

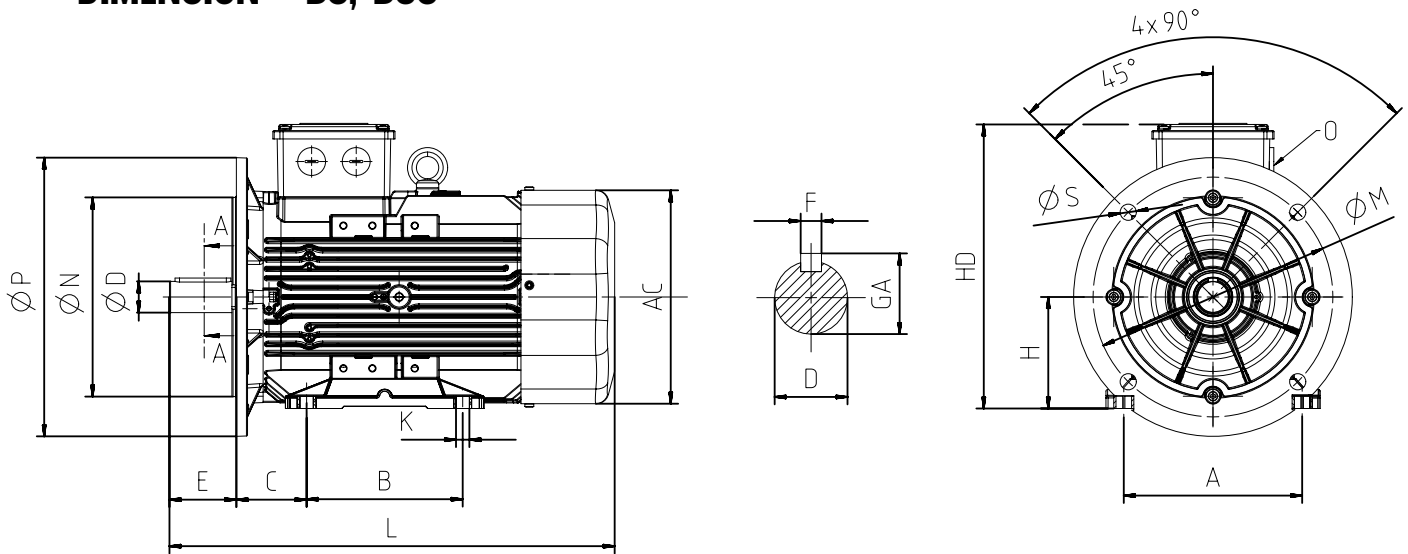


Power (kW)	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
1.1	4	Q3H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
1.5	2	Q3H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
2.2	4	Q3H90L4DE	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
3.0	2	Q3H90L2E	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
4.0	2	Q3H100L2DE	Aluminium	192	400	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7
4.0	4	Q3H100L4E	Aluminium	192	422	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7
5.5	2	Q3H112M2D	Aluminium	210	396	1xM25	140	190	112	265	12	70	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7
5.5	4	Q3H112M4E	Aluminium	210	421	1xM25	140	190	112	265	12	70	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7
7.5	2	Q3H112M2DE	Aluminium	210	421	1xM25	140	190	112	265	12	70	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7
11.0	2	Q3H132M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
11.0	4	Q3H132M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6309-ZZ	6209-ZZ	40*62*10	40*62*10
15.0	2	Q3H132M2B	Aluminium	260	520	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
18.5	4	Q3H160L4C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
30.0	4	Q3H180L4C	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
22.0	2	Q3H160L2D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
30.0	2	Q3H180M2B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
45.0	2	Q3H200L2DE	Aluminium	349	759	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

DIMENSION - B5, B35



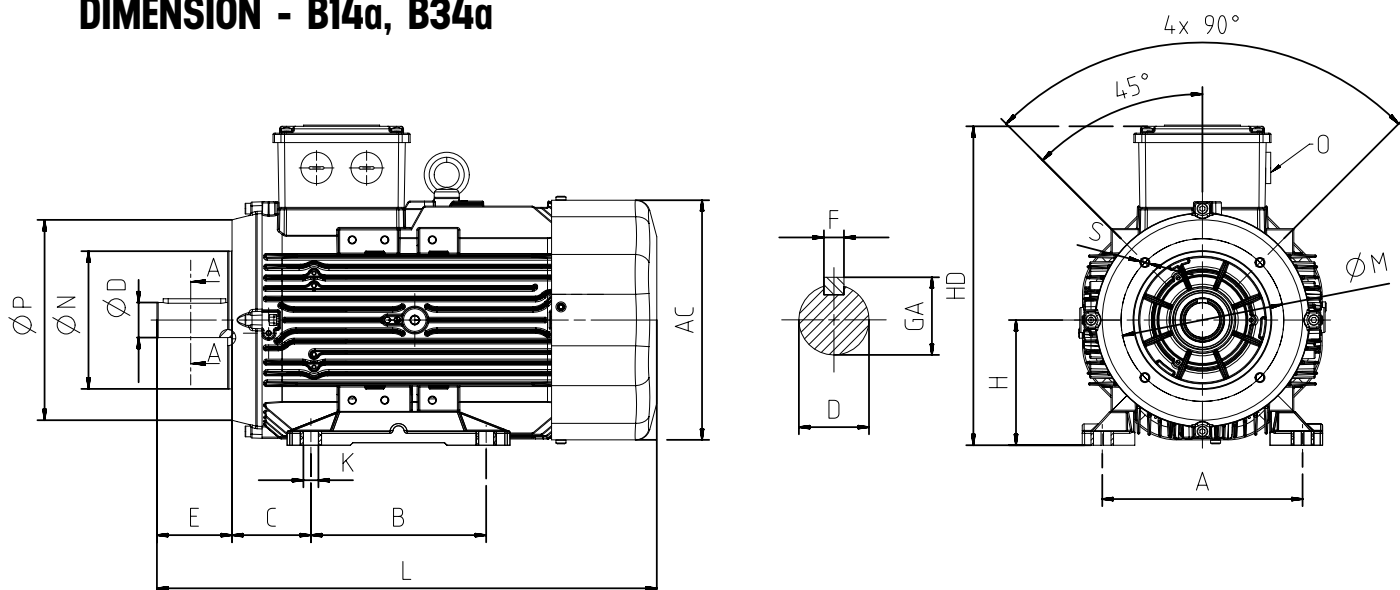
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [B5]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
1.1	4	Q3H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12
1.5	2	Q3H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12
2.2	4	Q3H90L4DE	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12
3	2	Q3H90L2E	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12
4	2	Q3H100L2DE	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
4	4	Q3H100L4E	Aluminium	192	422	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
5.5	2	Q3H112M2D	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
5.5	4	Q3H112M4E	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
7.5	2	Q3H112M2DE	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
11	2	Q3H132M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
11	4	Q3H132M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6309-ZZ	6209-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
15	2	Q3H132M2B	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
18.5	4	Q3H160L4C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
30	4	Q3H180L4C	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
22	2	Q3H160L2D	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
30	2	Q3H180M2B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
45	2	Q3H200L2DE	Aluminium	349	759	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14a, B34a



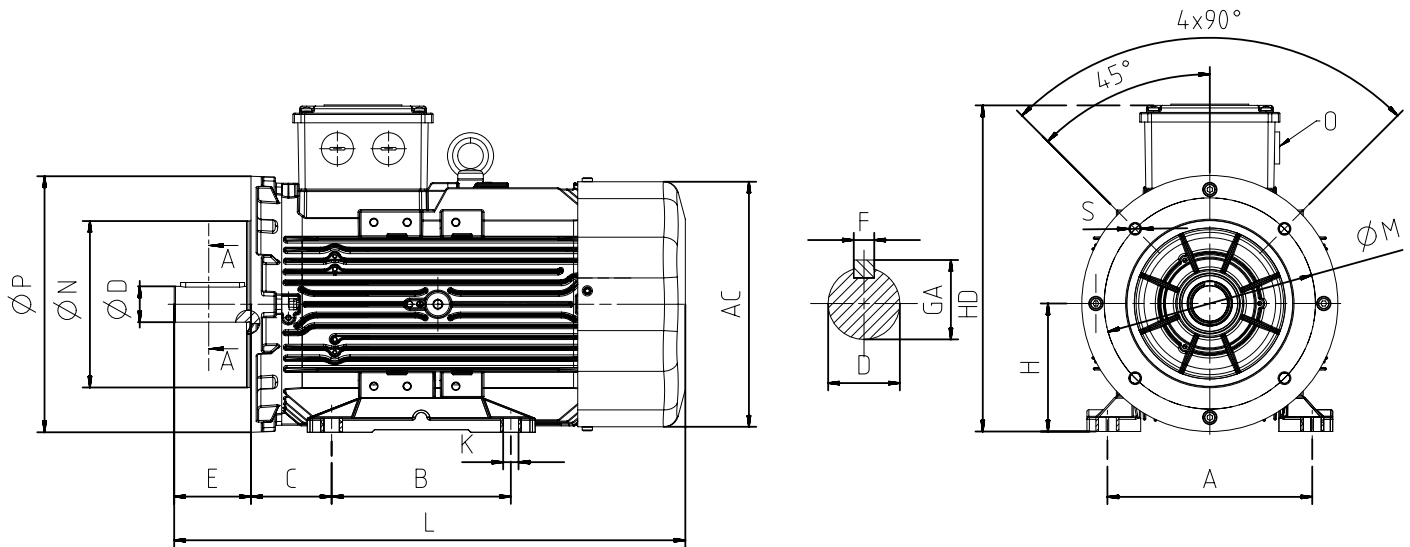
Power (kW)	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		[FC][B14a]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
1.1	4	Q3H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
1.5	2	Q3H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
2.2	4	Q3H90L4DE	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
3	2	Q3H90L2E	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
4	2	Q3H100L2DE	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	160	110	130	-	M8
4	4	Q3H100L4E	Aluminium	192	422	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	160	110	130	-	M8
5.5	2	Q3H112M2D	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	160	110	130	-	M8
5.5	4	Q3H112M4E	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	160	110	130	-	M8
7.5	2	Q3H112M2DE	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	160	110	130	-	M8
11	2	Q3H132M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
11	4	Q3H132M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6309-ZZ	6209-ZZ	40*62*10	40*62*10	200	130	165	-	M10
15	2	Q3H132M2B	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14b, B34b

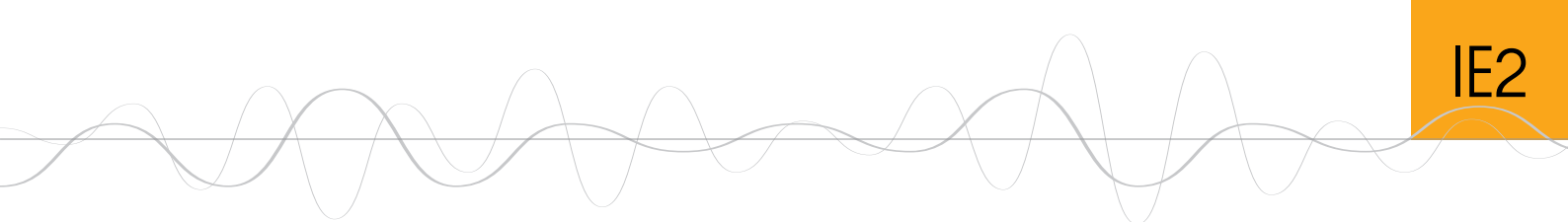
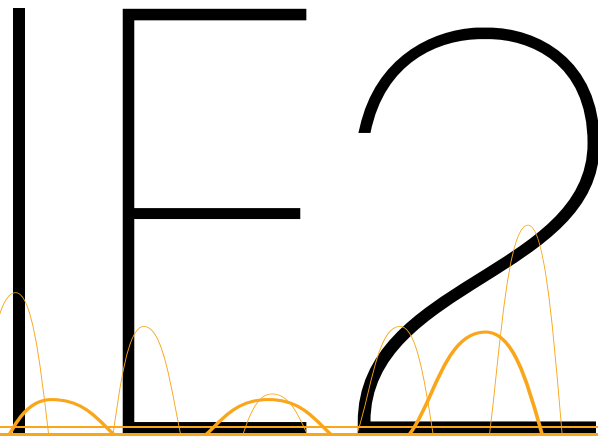


Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		[FB][B14b]				
				AC	L	O	B	A	H	HD	K	D ^[1]	E	GA	F ^[2]	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ^[3]	M	R	S
1.1	4	Q3H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
1.5	2	Q3H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
2.2	4	Q3H90L4DE	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
3	2	Q3H90L2E	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
4	2	Q3H100L2DE	Aluminium	191	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	200	130	165	-	M10
4	4	Q3H100L4E	Aluminium	192	422	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	200	130	165	-	M10
5.5	2	Q3H112M2D	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	200	130	165	-	M10
5.5	4	Q3H112M4E	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	200	130	165	-	M10
7.5	2	Q3H112M2DE	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	200	130	165	-	M10
11	2	Q3H132M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
11	4	Q3H132M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6309-ZZ	6209-ZZ	40*62*10	40*62*10	250	180	215	-	M12
15	2	Q3H132M2B	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

A thin, light gray wavy line spans the width of the page near the top.Large, bold, black text 'IE2' is centered on the page.A thin, orange wavy line spans the width of the page, positioned just above the orange footer bar.

ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pressure Level dBA **
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE		η %								
		kW	HP				rpm	A	Nm	I _A / I _N	Δ		M _A / M _N	Δ	Mk / Mn				
2 pole 3000 rpm																			
230/400V	Q2E63M2A	Aluminium	0.18	1/4	2810	0.4	0.6	4.7	-	2.1	-	2.3	59.1	63.8	58.5	0.85	0.00022	5	52
	Q2E63M2B	Aluminium	0.25	1/3	2820	0.6	0.8	5.6	-	2.7	-	2.7	64.7	66.2	63.5	0.84	0.00025	6	52
	Q2E71M2C	Aluminium	0.37	1/2	2850	0.8	1.2	8.1	-	4.0	-	4.2	69.5	69.6	67.3	0.80	0.00067	8	54
	Q2E71M2D	Aluminium	0.55	3/4	2880	1.2	1.8	8.2	-	4.1	-	4.3	74.1	74.3	74.2	0.82	0.00086	10	54
	Q2H80M2B	Aluminium	0.75	1.0	2850	1.7	2.5	6.4	-	2.8	-	3.3	77.4	77.6	74.4	0.82	0.00111	9	58
	Q2H80M2C	Aluminium	1.1	1.5	2860	2.5	3.7	6.7	-	2.8	-	3.3	79.6	79.8	77.0	0.81	0.00140	11	58
	Q2HS90S2B	Aluminium	1.5	2.0	2875	3.8	5.0	8.0	-	3.9	-	4.4	81.3	80.4	76.6	0.74	0.00176	13	62
	Q2HS90L2C	Aluminium	2.2	3.0	2870	4.7	7.3	9.1	-	3.9	-	4.4	83.2	82.8	81.3	0.83	0.00231	16	62
	Q2HS100L2B	Aluminium	3.0	4.0	2887	6.3	9.9	7.3	-	2.4	-	2.9	84.6	85.4	84.2	0.83	0.00266	19	66
400/690V	Q2HS112M2B	Aluminium	4.0	5.5	2900	8.0	13.2	3.1	9.3	1.1	3.2	4.0	85.8	86.1	84.5	0.85	0.00487	24	68
	Q2HS132S2B	Aluminium	5.5	7.5	2915	10.6	18.0	3.5	10.6	1.5	4.4	5.3	87.0	87.1	84.9	0.86	0.00703	34	69
	Q2HS132S2C	Aluminium	7.5	10.0	2900	14.6	24.7	3.5	10.6	1.3	3.8	4.6	88.1	88.6	87.6	0.85	0.00772	37	69
	Q2HS160M2C	Aluminium	11.0	15.0	2923	21.2	35.9	3.1	9.2	1.1	3.3	4.8	89.4	89.9	88.4	0.83	0.03517	65	70
	Q2HS160M2D	Aluminium	15.0	20.0	2915	30.0	49.2	3.2	9.6	1.3	3.9	5.1	90.3	90.6	89.6	0.80	0.04015	67	70
	Q2HS160L2A	Aluminium	18.5	25.0	2930	30.8	60.3	2.7	8.0	0.6	1.9	3.6	90.9	91.7	91.1	0.95	0.04613	79	70
	Q2HS180M2A	Aluminium	22.0	30.0	2955	40.9	71.2	3.5	10.6	1.2	3.6	5.2	91.3	92.0	90.7	0.84	0.05141	100	77
	Q2H200L2B	Aluminium	30.0	40.0	2955	51.5	97.1	2.8	8.5	0.8	2.4	3.6	92.0	92.5	91.8	0.91	0.08644	175	78
	Q2H200L2C	Aluminium	37.0	50.0	2965	66.2	119.6	3.4	10.1	1.0	3.1	4.5	92.5	92.5	91.2	0.87	0.10277	175	78
	Q2E225M2B	Aluminium	45.0	60.0	2960	82.1	145.2	2.9	8.7	0.8	2.4	2.9	92.9	92.6	91.1	0.85	0.23500	235	81
	Q3E250M2C	Aluminium	55.0	75	2970	92.1	176.7	2.7	8	0.8	2.5	3.1	94.3	94.1	92.9	0.92	0.50903	279	81
	Q2E250M2B	Aluminium	55.0	75	2975	93.9	176.5	3.3	9.8	1.0	3.0	5.3	93.2	93.1	92.4	0.89	0.42083	254	81
	Q2EP250M2B	Cast Iron	55.0	75.0	2976	92.7	177.0	2.8	8.4	0.8	2.5	3.4	93.2	93.0	91.6	0.91	0.48700	486	82
	Q2EP280M2B	Cast Iron	75.0	100.0	2975	127.9	240.8	3.5	10.6	0.9	2.7	5.1	93.8	93.7	92.5	0.92	0.54000	576	84
	Q2EP280M2C	Cast Iron	90.0	125.0	2980	149.0	288.6	2.4	7.1	1.0	3.0	3.0	94.1	93.9	92.9	0.91	0.64500	585	84
	Q2EP315S2C	Cast Iron	110.0	127	2.975	185	353	2.6	7.8	0.7	2.2	2.4	94.3	94.3	93.1	0.91	1.43600	920	87
	Q2EP315M2C	Cast Iron	132.0	152	2.975	221	423	2.6	7.8	0.8	2.3	2.4	94.6	94.6	93.4	0.91	1.72300	970	87
	Q2EP315L2C	Cast Iron	160.0	184	2.975	268	513	2.5	7.5	0.8	2.3	2.4	94.8	94.8	93.6	0.91	1.95300	1170	87
	Q2EP315L2D	Cast Iron	200.0	230	2.975	334	643	2.7	8	0.8	2.4	2.6	95	95	93.8	0.91	2.52700	1200	87
	Q2EP355M2C	Cast Iron	250.0	280	2.985	422	799	2.3	7	0.7	2	2.4	95	95	93.8	0.90	3.92000	1690	87
	Q2EP355L2C	Cast Iron	315.0	353.0	2.985	532	1007	2.5	7.4	0.7	2.0	2.3	95.0	95.0	93.8	0.90	4.17000	1870	87
	Q2EP355L2D	Cast Iron	355.0	398.0	2.985	599	1135	2.5	7.5	0.6	1.8	2.1	95.0	95.0	93.8	0.90	4.44000	1953	87

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

MOTOR TYPE	HOUSING TYPE	RATED VALUES				STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pres- sure Level dBA **	
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE		η %							
		kW	HP				rpm	A	Nm		I _A / I _N	Δ	M _A / M _N					Δ

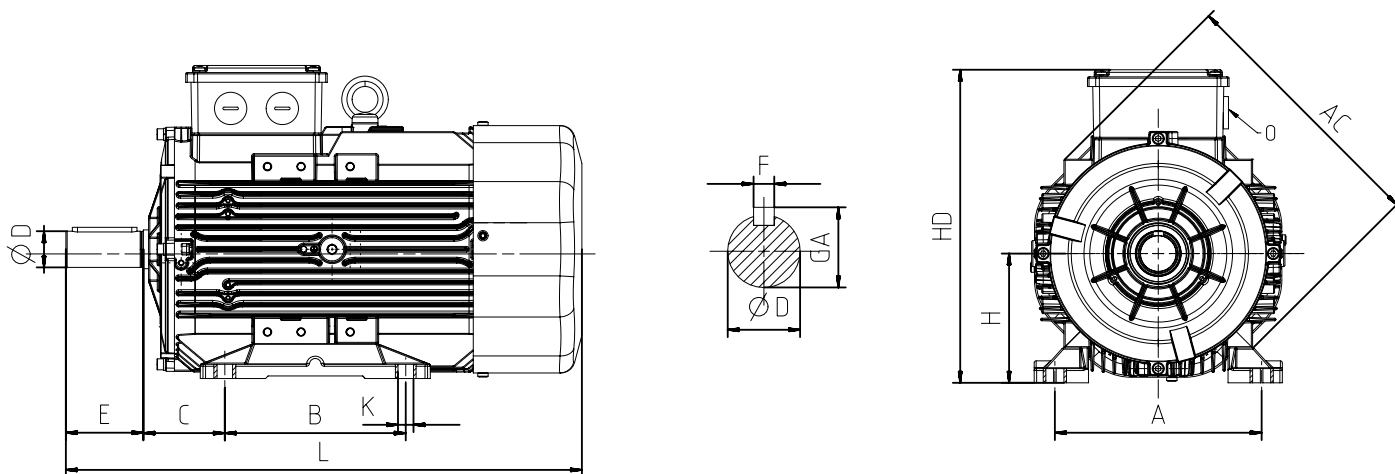
4 pole 1500 rpm

230/400V	Q2E63M4A	Aluminium	0.12	1/6	1420	0.5	0.9	3.4	-	2.2	-	3.2	64.0	54.1	44.9	0.56	0.00022	5	41
	Q2E63M4B	Aluminium	0.18	1/4	1400	0.6	1.2	3.7	-	2.7	-	3.0	68.0	60.0	51.3	0.66	0.00026	6	41
	Q2E71M4C	Aluminium	0.25	1/3	1415	0.6	1.7	4.6	-	2.6	-	3.8	68.5	68.8	66.9	0.70	0.00095	9	45
	Q2E71M4D	Aluminium	0.37	1/2	1425	1.1	2.5	4.6	-	2.6	-	3.8	72.7	73.1	72.0	0.71	0.00095	9	45
	Q2H80M4B	Aluminium	0.55	3/4	1435	1.3	3.6	6.4	-	2.3	-	3.2	77.1	78.8	75.4	0.76	0.00175	10	49
	Q2H80M4C	Aluminium	0.75	1.0	1440	1.8	5.0	5.5	-	2.1	-	2.6	79.6	80.0	77.7	0.76	0.00216	11	49
	Q2HS90S4B	Aluminium	1.10	1.5	1430	2.5	7.4	5.7	-	2.2	-	2.6	81.4	82.4	81.6	0.80	0.00267	13	54
	Q2HS90L4C	Aluminium	1.50	2.0	1427	3.3	10.0	6.4	-	2.5	-	3.1	82.8	84.2	83.7	0.79	0.00328	15	54
	Q2HS100L4B	Aluminium	2.20	3.0	1437	5.3	14.6	7.6	-	3.6	-	4.2	84.3	84.1	81.5	0.72	0.00521	21	55
	Q2HS100L4C	Aluminium	3.00	4.0	1440	7.4	20.0	6.5	-	3.3	-	3.7	85.5	85.3	83.0	0.70	0.00694	25	55
400/690V	Q2HS112M4C	Aluminium	4.00	5.5	1440	8.7	26.6	2.7	8.0	1.1	3.2	3.8	86.6	85.7	83.5	0.78	0.01085	31	58
	Q2HS132S4A	Aluminium	5.50	7.5	1445	11.5	35.5	2.7	8.0	1.0	3.0	3.8	87.7	88.3	87.3	0.79	0.01414	38	59
	Q2H132M4C	Aluminium	7.50	10.0	1460	15.0	49.1	2.4	7.1	0.5	1.5	0.6	88.7	89.4	88.7	0.82	0.03560	54	62
	Q2HS160M4B	Aluminium	11.00	15.0	1468	21.6	71.5	2.6	7.9	0.7	2.1	3.6	89.8	91.1	90.3	0.81	0.05468	79	63
	Q2HS160L4A	Aluminium	15.00	20.0	1462	29.8	98.0	2.6	7.8	0.6	1.8	3.4	90.6	91.4	90.9	0.80	0.05940	83	63
	Q2HS180M4A	Aluminium	18.50	25.0	1470	36.0	120.2	2.3	6.8	0.7	2.2	2.9	91.2	92.0	91.6	0.81	0.10513	110	67
	Q2HS180L4B	Aluminium	22.00	30.0	1462	41.8	143.8	1.8	5.5	0.6	1.9	2.8	91.6	92.9	93.3	0.84	0.11398	118	67
	Q2H200L4C	Aluminium	30.00	40.0	1475	55.3	194.6	2.7	8.2	0.9	2.7	3.5	92.0	91.9	91.4	0.85	0.18660	195	70
	Q2E225M4C	Aluminium	37.00	50.0	1480	68.3	238.8	3.0	9.1	1.2	3.6	4.0	92.7	92.6	91.3	0.84	0.36420	263	71
	Q2E225M4D	Aluminium	45.00	60.0	1480	81.5	290.5	3.1	9.4	1.2	3.7	3.0	93.1	93.0	91.9	0.85	0.43500	280	71
	Q2EP250M4D	Cast Iron	55.00	75.0	1486	104.8	353.5	2.4	7.2	0.8	2.3	3.0	93.5	93.7	93.3	0.81	0.36400	506	72
	Q2EP280M4B	Cast Iron	75.00	100.0	1485	134.2	485.7	2.6	7.8	1.0	2.9	3.4	94.0	93.9	93.2	0.86	1.06100	624	73
	Q2EP280M4C	Cast Iron	90.00	125.0	1486	163.5	584.2	2.6	7.8	1.0	2.9	3.3	94.2	94.6	94.2	0.85	1.14800	638	73
	Q2EP315S4C	Cast Iron	110.0	127.0	1480	191	709	2.4	7.2	0.7	2.2	2.5	94.5	94.5	93.9	0.88	3.03500	925	70
	Q2EP315M4C	Cast Iron	132.0	152.0	1480	229	851	2.3	7.0	0.7	2.1	2.4	94.7	94.7	94.1	0.88	3.41500	1010	70
	Q2EP315L4C	Cast Iron	160.0	184.0	1480	273	1032	2.5	7.5	0.7	2.2	2.5	94.9	94.9	94.3	0.89	4.11900	1080	76
	Q2EP315L4D	Cast Iron	200.0	230.0	1480	341	1290	2.5	7.5	0.8	2.3	2.5	95.1	95.1	94.5	0.89	5.20300	1200	76
	Q2EP355M4C	Cast Iron	250.0	280.0	1485	426	1607	2.6	7.9	0.8	2.3	2.5	95.1	95.1	94.5	0.89	8.79000	1720	76
	Q2EP355L4C	Cast Iron	315.0	353.0	1485	531	2025	2.5	7.4	0.7	2.0	2.3	95.1	95.1	94.5	0.90	10.13300	1920	87
	Q2EP355L4D	Cast Iron	355.0	398.0	1485	603	2283	2.9	8.8	0.6	1.8	2.0	95.1	95.1	94.5	0.89	10.67800	1953	87

6 pole 1000 rpm

230/400V	Q2H90S6B	Aluminium	0.75	1.0	943	1.8	7.7	4.6	-	2.1	-	2.7	75.9	75.1	71.4	0.69	0.00383	16	53
	Q2H90L6C	Aluminium	1.10	1.5	938	3.0	11.2	2.8	-	2.4	-	2.8	78.1	78.0	75.1	0.69	0.00464	18	53
	Q2H100L6C	Aluminium	1.50	2.0	955	4.0	15.2	3.3	-	2.6	-	3.2	79.8	79.3	76.3	0.67	0.00871	26	56
	Q2H112M6C	Aluminium	2.20	3.0	942	5.4	22.4	5.2	-	2.0	-	2.6	81.8	81.5	79.5	0.72	0.00936	31	58
400/690V	Q2H132M6A	Aluminium	3.00	4.0	965	14.1	29.8	1.8	5.4	1.1	3.2	3.3	83.3	82.3	79.4	0.64	0.02950	47	62
	Q2H132M6B	Aluminium	4.00	5.5	970	10.4	39.8	1.9	5.8	0.7	2.2	2.6	84.6	83.5	80.7	0.65	0.03560	53	61
	Q2H132M6C	Aluminium	5.50	7.5	960	12.8	54.7	1.7	5.2	0.9	2.6	2.9	86.1	85.7	83.9	0.72	0.06420	67	60
	Q2H160M6B	Aluminium	7.50	10.0	970	18.9	74.6	2.1	6.2	1.2	3.6	3.8	87.2	84.3	81.7	0.66	0.07540	88	63
	Q2H160L6C	Aluminium	11.00	15.0	970	25.5	109.4	1.7	5.2	1.0	3.0	3.1	88.7	88.5	86.3	0.71	0.07040	99	63
	Q2H180L6A	Aluminium	15.00	20.0	970	31.5	146.9	1.8	5.1	0.6	1.8	2.0	89.7	89.5	8730.0	0.76	0.16677	115	69
	Q2H200L6B	Aluminium	18.50	25.0	981	41.6	179.8	2.0	5.9	0.7	2.1	2.6	90.4	90.5	89.6	0.70	0.18660	160	70
	Q2H200L6C	Aluminium	22.00	30.0	982	48.8	214.5	1.8	5.6	0.8	2.3	2.4	90.9	91.0	90.3	0.72	0.20643	171	70
	Q2E225M6B	Aluminium	30.00	40.0	975	57.0	287.6	1.9	5.7	0.6	1.7	2.5	91.7	91.6	90.7	0.83	0.49334	234	66

DIMENSION - B3



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
0.12	4	Q2E63M4A	Aluminium	123	220	1xM20	80	100	63	162	7	40	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7
0.18	2	Q2E63M2A	Aluminium	123	220	1xM20	80	100	63	162	7	40	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7
0.18	4	Q2E63M4B	Aluminium	123	220	1xM20	80	100	63	162	7	40	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7
0.25	2	Q2E63M2B	Aluminium	123	220	1xM20	80	100	63	162	7	40	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7
0.25	4	Q2E71M4C	Aluminium	138	253	1xM20	90	112	71	190	7	45	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5
0.37	2	Q2E71M2C	Aluminium	138	253	1xM20	90	112	71	190	7	45	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5
0.37	4	Q2E71M4D	Aluminium	138	253	1xM20	90	112	71	190	7	45	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5
0.55	2	Q2E71M2D	Aluminium	138	253	1xM20	90	112	71	190	7	45	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5
0.55	4	Q2H80M4B	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
0.75	2	Q2H80M2B	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
0.75	4	Q2H80M4C	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
0.75	6	Q2H90S6B	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
1.1	2	Q2H80M2C	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
1.1	4	Q2HS90S4B	Aluminium	158	278	1xM25	100-125	140	90	213	10	56	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7
1.1	6	Q2H90L6C	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
1.5	2	Q2HS90S2B	Aluminium	158	278	1xM25	100-125	140	90	213	10	56	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7
1.5	4	Q2HS90L4C	Aluminium	158	303	1xM25	100-125	140	90	213	10	56	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7
1.5	6	Q2HI00L6C	Aluminium	192	400	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7
2.2	2	Q2HS90L2C	Aluminium	158	303	1xM25	100-125	140	90	213	10	56	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7
2.2	4	Q2HS100L4B	Aluminium	172	349	1xM25	140	160	100	233	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
2.2	6	Q2HI12M6C	Aluminium	210	396	1xM25	140	190	112	265	12	70	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7
3	2	Q2HS100L2B	Aluminium	172	349	1xM25	140	160	100	233	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
3	4	Q2HS100L4C	Aluminium	172	384	1xM25	140	160	100	233	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
3	6	Q2HI32M6A	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
4	2	Q2HS112M2B	Aluminium	192	399	1xM25	140	190	112	254	12	70	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
4	4	Q2HS112M4C	Aluminium	192	399	1xM25	140	190	112	254	12	70	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
4	6	Q2HI32M6B	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
5.5	2	Q2HS132S2B	Aluminium	210	422	1xM25	140-178	216	132	283	12	89	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7
5.5	4	Q2HS132S4A	Aluminium	210	422	1xM25	140-178	216	132	283	12	89	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7
5.5	6	Q2HI32M6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

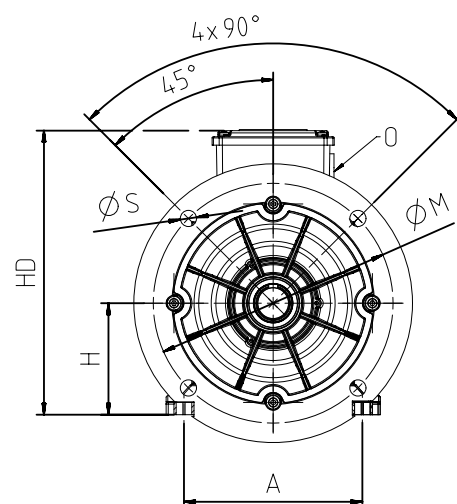
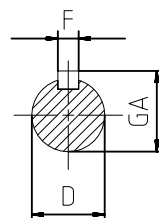
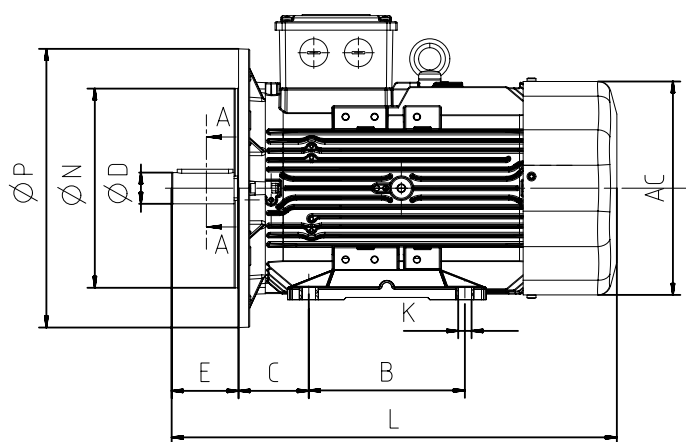
(2) According to DIN 6885

Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
7.5	2	Q2HSI32S2C	Aluminium	210	422	1xM25	140-178	216	132	283	12	89	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7
7.5	4	Q2HI32M4C	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
7.5	6	Q2HI60M6B	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
11	2	Q2HSI60M2C	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
11	4	Q2HSI60M4B	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
11	6	Q2HI60L6C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
15	2	Q2HSI60M2D	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
15	4	Q2HSI60L4A	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
15	6	Q2HI80L6A	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
18.5	2	Q2HSI60L2A	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	108	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10
18.5	4	Q2HSI80M4A	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	121	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10
18.5	6	Q2H200L6B	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
22	2	Q2HSI80M2A	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	121	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10
22	4	Q2HSI80L4B	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	121	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10
22	6	Q2H200L6C	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
30	2	Q2H200L2B	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
30	4	Q2H200L4C	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
30	6	Q2E225M6B	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
37	2	Q2H200L2C	Aluminium	349	706	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
37	4	Q2E225M4C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
45	2	Q2E225M2B	Aluminium	456	735	1xM50	286-311	356	225	485	18.5	149	55	110	59.0	16	6313-ZZ	6313-ZZ	65*100*13	65*100*13
45	4	Q2E225M4D	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	149	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13
55	2	Q3E250M2C	Aluminium	527	886	2*M50	349	406	250	615	30	60	60	140	64.0	18	6315-ZZ	6313-ZZ	75*112*12	65*100*13
55	2	Q2E250M2B	Aluminium	527	886	2*M50	349	406	250	615	30	60	60	140	64.0	18	6315-ZZ	6313-ZZ	75*112*12	65*100*13
55	2	Q2EP250M2B	Cast Iron	489	893	1xM50	311-349	406	250	616	30	149	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10
55	4	Q2EP250M4D	Cast Iron	489	893	1xM50	311-349	406	250	616	30	149	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10
75	2	Q2EP280M2B	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10
75	4	Q2EP280M4B	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	75	140	79.5	20	6316-Z	6316-Z	80*100*10	80*100*10
90	2	Q2EP280M2C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10
90	4	Q2EP280M4C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	75	140	79.5	20	6316-Z	6316-Z	80*100*10	80*100*10
110	2	Q2EP315S2C	Cast Iron	630	1180	2*M63	406	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
110	4	Q2EP315S4C	Cast Iron	630	1210	2*M63	406	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
132	2	Q2EP315M2C	Cast Iron	630	1290	2*M63	457	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
132	4	Q2EP315M4C	Cast Iron	630	1320	2*M63	457	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
160	2	Q2EP315L2C	Cast Iron	630	1290	2*M63	508	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
160	4	Q2EP315L4C	Cast Iron	630	1320	2*M63	508	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
200	2	Q2EP315L2D	Cast Iron	630	1290	2*M63	508	508	315	845	28	216	65	140	69	18	6317	6317	85*105*5.5	85*105*5.5
200	4	Q2EP315L4D	Cast Iron	630	1320	2*M63	508	508	315	845	28	216	80	170	85	22	6319	6319	95*115*5.5	95*115*5.5
250	2	Q2EP355M2C	Cast Iron	710	1486	4*M63	560	610	355	956	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
250	4	Q2EP355M4C	Cast Iron	710	1517	4*M63	560	610	355	956	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5
315	2	Q2EP355L2C	Cast Iron	710	1486	4*M63	630	610	355	956	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
315	4	Q2EP355L4C	Cast Iron	710	1517	4*M63	630	610	355	956	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5
355	2	Q2EP355L2D	Cast Iron	710	1486	4*M63	630	610	355	956	28	254	75	140	80	20	6317	6317	85*105*5.5	85*105*5.5
355	4	Q2EP355L4D	Cast Iron	710	1517	4*M63	630	610	355	956	28	254	95	170	100	25	6322	6322	110*130*5.5	110*130*5.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

DIMENSION - B5, B35



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [BS]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.12	4	Q2E63M4A	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	140	95	115	-	10
0.18	2	Q2E63M2A	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	120	80	100	-	10
0.18	4	Q2E63M4B	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	140	95	115	-	10
0.25	2	Q2E63M2B	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	140	95	115	-	10
0.25	4	Q2E71M4C	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	160	110	130	-	10
0.37	2	Q2E71M2C	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	160	110	130	-	10
0.37	4	Q2E71M4D	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	160	110	130	-	10
0.55	2	Q2E71M2D	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	160	110	130	-	10
0.55	4	Q2H80M4B	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12
0.75	2	Q2H80M2B	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12
0.75	4	Q2H80M4C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12
0.75	6	Q2H90S6B	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12
1.1	2	Q2H80M2C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12
1.1	4	Q2HS90S4B	Aluminium	158	278	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	200	130	165	-	12
1.1	6	Q2H90L6C	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12
1.5	2	Q2HS90S2B	Aluminium	158	278	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	200	130	165	-	12
1.5	4	Q2HS90L4C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	200	130	165	-	12
1.5	6	Q2HI00L6C	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
2.2	2	Q2HS90L2C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	200	130	165	-	12
2.2	4	Q2HSI00L4B	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
2.2	6	Q2HI12M6C	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
3	2	Q2HSI00L2B	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
3	4	Q2HSI00L4C	Aluminium	172	384	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
3	6	Q2HI32M6A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
4	2	Q2HSI12M2B	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
4	4	Q2HSI12M4C	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
4	6	Q2HI32M6B	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
5.5	2	Q2HSI32S2B	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	300	230	265	-	14.5
5.5	4	Q2HSI32S4A	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	300	230	265	-	14.5
5.5	6	Q2HI32M6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5

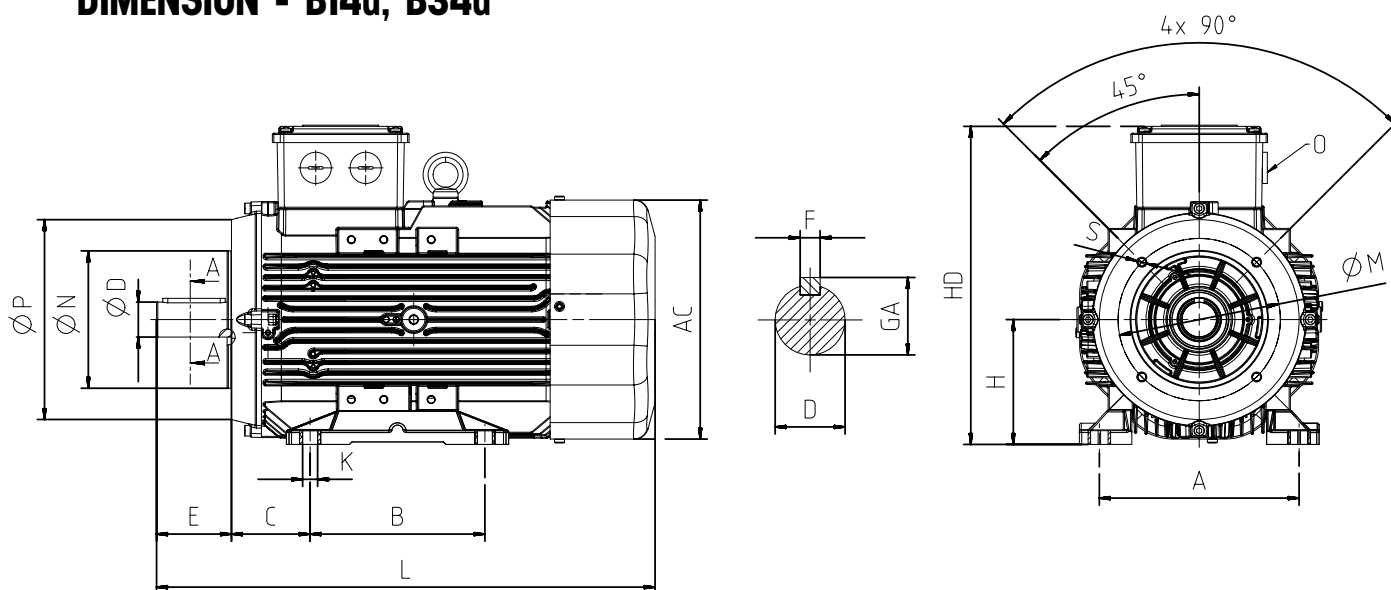
(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [BS]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
7.5	2	Q2HSI32S2C	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	300	230	265	-	14.5
7.5	4	Q2HI32M4C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
7.5	6	Q2HI60M6B	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
11	2	Q2HSI60M2C	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5
11	4	Q2HSI60M4B	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5
11	6	Q2HI60L6C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
15	2	Q2HSI60M2D	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5
15	4	Q2HSI60L4A	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5
15	6	Q2HI80L6A	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
18.5	2	Q2HSI60L2A	Aluminium	260	520	1xM32	210-254	254	160	351	14.5	42	110	45.0	12	6309-ZZ	6208-ZZ	45*72*10	40*62*10	350	250	300	-	18.5
18.5	4	Q2HSI80M4A	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10	350	250	300	-	18.5
18.5	6	Q2H200L6B	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
22	2	Q2HSI80M2A	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10	350	250	300	-	18.5
22	4	Q2HSI80L4B	Aluminium	305	596	1xM32	241-279	279	180	398	14.5	48	110	51.5	14	6310-ZZ	6209-ZZ	50*80*10	45*72*10	350	250	300	-	18.5
22	6	Q2H200L6C	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
30	2	Q2H200L2B	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
30	4	Q2H200L4C	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
30	6	Q2E225M6B	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
37	2	Q2H200L2C	Aluminium	349	706	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
37	4	Q2E225M4C	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
45	2	Q2E225M2B	Aluminium	456	735	1xM50	286-311	356	225	485	18.5	55	110	59.0	16	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
45	4	Q2E225M4D	Aluminium	456	765	1xM50	286-311	356	225	485	18.5	60	140	64.0	18	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
55	2	Q3E250M2C	Aluminium	527	886	2*M50	349	406	250	615	30	60	140	18	64	6315-ZZ	6313-ZZ	75*112*12	65*100*13	550	450	500	-	18.5
55	2	Q2E250M2B	Aluminium	527	886	2*M50	349	406	250	615	30	60	140	18	64	6315-ZZ	6313-ZZ	75*112*12	65*100*13	550	450	500	-	18.5
55	2	Q2EP250M2B	Cast Iron	489	893	1xM50	311-349	406	250	616	30	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
55	4	Q2EP250M4D	Cast Iron	489	893	1xM50	311-349	406	250	616	30	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
75	2	Q2EP280M2B	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
75	4	Q2EP280M4B	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	75	140	79.5	20	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
90	2	Q2EP280M2C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
90	4	Q2EP280M4C	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	75	140	79.5	20	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
110	2	Q2EP315S2C	Cast Iron	630	1180	2*M63	406	508	315	845	28	216	65	140	69	6317	6317	85*105*5.5	85*105*5.5	660	550	600	-	24
110	4	Q2EP315S4C	Cast Iron	630	1210	2*M63	406	508	315	845	28	216	80	170	85	6319	6319	95*115*5.5	95*115*5.5	660	550	600	-	24
132	2	Q2EP315M2C	Cast Iron	630	1290	2*M63	457	508	315	845	28	216	65	140	69	6317	6317	85*105*5.5	85*105*5.5	660	550	600	-	24
132	4	Q2EP315M4C	Cast Iron	630	1320	2*M63	457	508	315	845	28	216	80	170	85	6319	6319	95*115*5.5	95*115*5.5	660	550	600	-	24
160	2	Q2EP315L2C	Cast Iron	630	1290	2*M63	508	508	315	845	28	216	65	140	69	6317	6317	85*105*5.5	85*105*5.5	660	550	600	-	24
160	4	Q2EP315L4C	Cast Iron	630	1320	2*M63	508	508	315	845	28	216	80	170	85	6319	6319	95*115*5.5	95*115*5.5	660	550	600	-	24
200	2	Q2EP315L2D	Cast Iron	630	1290	2*M63	508	508	315	845	28	216	65	140	69	6317	6317	85*105*5.5	85*105*5.5	660	550	600	-	24
200	4	Q2EP315L4D	Cast Iron	630	1320	2*M63	508	508	315	845	28	216	80	170	85	6319	6319	95*115*5.5	95*115*5.5	660	550	600	-	24
250	2	Q2EP355M2C	Cast Iron	710	1486	4*M63	560	610	355	956	28	254	75	140	80	6317	6317	85*105*5.5	85*105*5.5	800	680	740	-	24
250	4	Q2EP355M4C	Cast Iron	710	1517	4*M63	560	610	355	956	28	254	95	170	100	6322	6322	110*130*5.5	110*130*5.5	800	680	740	-	24
315	2	Q2EP355L2C	Cast Iron	710	1486	4*M63	630	610	355	956	28	254	75	140	80	6317	6317	85*105*5.5	85*105*5.5	800	680	740	-	24
315	4	Q2EP355L4C	Cast Iron	710	1517	4*M63	630	610	355	956	28	254	95	170	100	6322	6322	110*130*5.5	110*130*5.5	800	680	740	-	24
355	2	Q2EP355L2D	Cast Iron	710	1486	4*M63	630	610	355	956	28	254	75	140	80	6317	6317	85*105*5.5	85*105*5.5	800	680	740	-	24
355	4	Q2EP355L4D	Cast Iron	710	1517	4*M63	630	610	355	956	28	254	95	170	100	6322	6322	110*130*5.5	110*130*5.5	800	680	740	-	24

DIMENSION - B14a, B34a



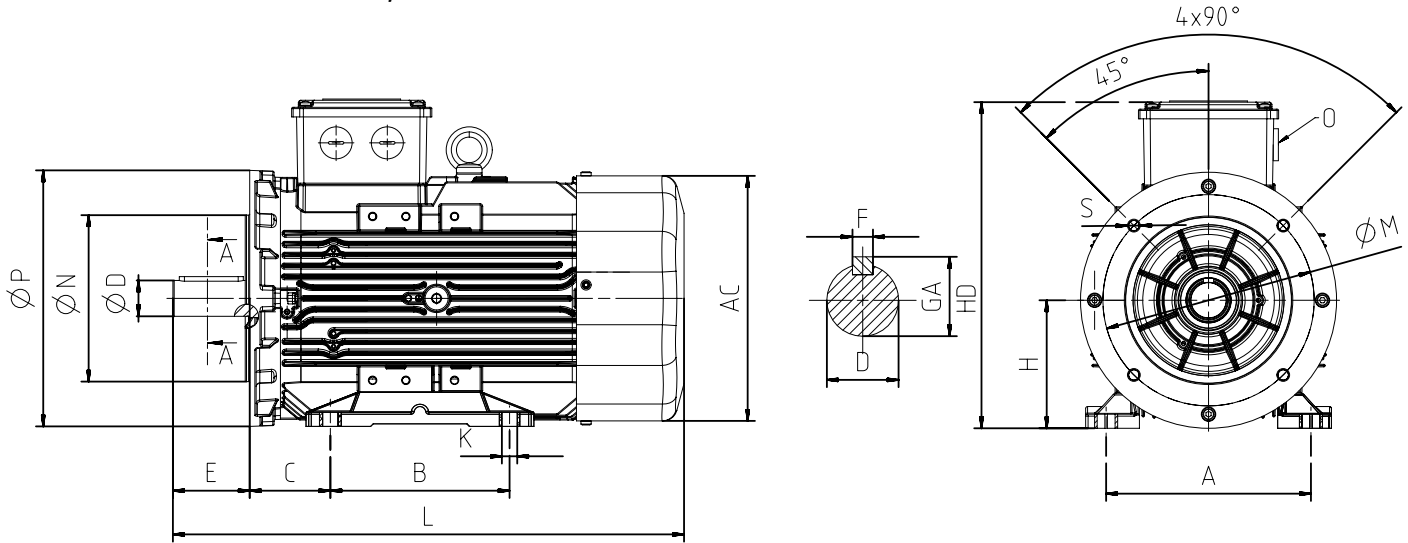
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FC] [B14a]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.12	4	Q2E63M4A	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	90	60	75	-	M6
0.18	2	Q2E63M2A	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	90	60	75	-	M5
0.18	4	Q2E63M4B	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	90	60	75	-	M5
0.25	2	Q2E63M2B	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	105	70	85	-	M6
0.25	4	Q2E71M4C	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	105	70	85	-	M6
0.37	2	Q2E71M2C	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	105	70	85	-	M6
0.37	4	Q2E71M4D	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	105	70	85	-	M6
0.55	2	Q2E71M2D	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	105	70	85	-	M6
0.55	4	Q2H80M4B	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
0.75	2	Q2H80M2B	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
0.75	4	Q2H80M4C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	140	95	115	-	M8
0.75	6	Q2H90S6B	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	120	80	100	-	M6
1.1	2	Q2H80M2C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	140	95	115	-	M8
1.1	4	Q2H90S4B	Aluminium	158	278	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	140	95	115	-	M8
1.1	6	Q2H90L6C	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
1.5	2	Q2H90S2B	Aluminium	158	278	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	140	95	115	-	M8
1.5	4	Q2H90L4C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	160	110	130	-	M8
1.5	6	Q2H100L6C	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	140	95	115	-	M8
2.2	2	Q2HS90L2C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	160	110	130	-	M8
2.2	4	Q2HS100L4B	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
2.2	6	Q2H112M6C	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	160	110	130	-	M8
3	2	Q2HS100L2B	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
3	4	Q2HS100L4C	Aluminium	172	384	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
3	6	Q2H132M6A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	160	110	130	-	M8
4	2	Q2HS112M2B	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
4	4	Q2HS112M4C	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
4	6	Q2H132M6B	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
5.5	2	Q2HS132S2B	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	200	130	165	-	M10
5.5	4	Q2HS132S4A	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	200	130	165	-	M10
5.5	6	Q2H132M6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
7.5	2	Q2HS132S2C	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	200	130	165	-	M10
7.5	4	Q2H132M4C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14b, B34b



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FB] (B14b)				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.12	4	Q2E63M4A	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	120	80	100	-	M6
0.18	2	Q2E63M2A	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	120	80	100	-	M6
0.18	4	Q2E63M4B	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	120	80	100	-	M6
0.25	2	Q2E63M2B	Aluminium	123	220	1xM20	80	100	63	162	7	11	23	12.5	4	6201-ZZ	6201-ZZ	12*22*7	12*22*7	120	80	100	-	M6
0.25	4	Q2E71M4C	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	120	80	100	-	M6
0.37	2	Q2E71M2C	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	120	80	100	-	M6
0.37	4	Q2E71M4D	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	120	80	100	-	M6
0.55	2	Q2E71M2D	Aluminium	138	253	1xM20	90	112	71	190	7	14	30	16.0	5	6202-ZZ	6202-ZZ	15*24*5	15*24*5	120	80	100	-	M6
0.55	4	Q2H80M4B	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
0.75	2	Q2H80M2B	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
0.75	4	Q2H80M4C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
0.75	6	Q2H90S6B	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
1.1	2	Q2H80M2C	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
1.1	4	Q2HS90S4B	Aluminium	158	278	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	160	110	130	-	M8
1.1	6	Q2H90L6C	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
1.5	2	Q2HS90S2B	Aluminium	158	278	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	160	110	130	-	M8
1.5	4	Q2HS90L4C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	160	110	130	-	M8
1.5	6	Q2H100L6C	Aluminium	191.5	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	200	130	165	-	M10
2.2	2	Q2HS90L2C	Aluminium	158	303	1xM25	100-125	140	90	213	10	24	50	27.0	8	6305-ZZ	6204-ZZ	25*40*7	20*30*7	160	110	130	-	M8
2.2	4	Q2HS100L4B	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
2.2	6	Q2H112M6C	Aluminium	210	396	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	200	130	165	-	M10
3	2	Q2HS100L2B	Aluminium	172	349	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
3	4	Q2HS100L4C	Aluminium	172	384	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
3	6	Q2H132M6A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
4	2	Q2HS112M2B	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
4	4	Q2HS112M4C	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
4	6	Q2H132M6B	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
5.5	2	Q2HS132S2B	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	250	180	215	-	M12
5.5	4	Q2HS132S4A	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	250	180	215	-	M12
5.5	6	Q2H132M6C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
7.5	2	Q2HS132S2C	Aluminium	210	422	1xM25	140-178	216	132	283	12	38	80	41.0	10	6208-ZZ	6206-ZZ	40*62*10	30*47*7	250	180	215	-	M12
7.5	4	Q2H132M4C	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

ELECTRICAL CHARACTERISTICS AT 50 Hz

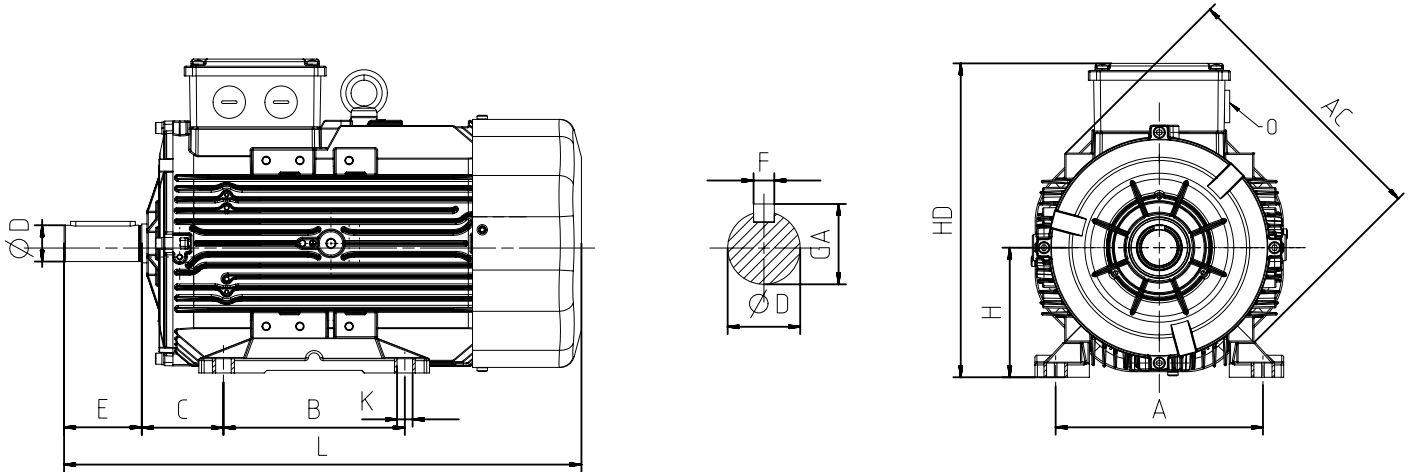
MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES				Break-down Torque Ratio Mk / Mn	EFFICIENCY *			Cosφ	J kgm²	Weight [B3] kg	Sound Pressure Level dBA **
		POWER		SPEED d/d	CURRENT A	TORQUE Nm	CURRENT I _A / I _N		TORQUE M _A / M _N		η %								
		kW	HP				λ	Δ	λ	Δ	4/4		3/4	2/4					
2 pole 3000 rpm																			
230/400V	Q2H80M2D	Aluminium	1.5	2.0	2875	3.8	5.0	8.0	-	3.9	-	4.4	81.3	80.4	76.6	0.74	0.00169	12	58
	Q2H80M2DE	Aluminium	2.2	3.0	2870	4.7	7.3	9.1	-	3.9	-	4.4	83.2	82.8	81.3	0.83	0.00224	16	59
	Q2H90L2D	Aluminium	3.0	4.0	2887	6.3	9.9	7.3	-	2.4	-	2.9	84.6	85.4	84.2	0.83	0.00283	19	61
400/690V	Q2HS100L2C	Aluminium	4.0	5.5	2913	8.2	13.2	3.6	10.8	1.4	4.2	4.8	85.8	87.0	86.1	0.82	0.00381	24	66
	Q2HS112M2C	Aluminium	5.5	7.5	2910	10.6	18.1	3.6	10.9	1.3	3.8	4.5	87.0	87.5	86.2	0.86	0.00637	29	68
	Q2HS112M2D	Aluminium	7.5	10.0	2895	14.1	24.8	3.4	10.3	1.3	3.9	4.6	88.1	89.0	88.7	0.88	0.00751	30	68
	Q2HI32M2A	Aluminium	11.0	15.0	2923	21.3	35.9	3.1	9.2	1.1	3.3	4.8	89.4	89.9	88.4	0.83	0.03489	57	69
	Q2HI32M2B	Aluminium	15.0	20.0	2915	30.0	49.2	3.2	9.6	1.3	3.9	5.1	90.3	90.6	89.6	0.80	0.03490	65	69
	Q2HI32M2C	Aluminium	18.5	25.0	2930	30.8	60.3	2.7	8.0	0.6	1.9	3.6	90.9	91.7	91.1	0.95	0.04685	77	70
	Q2HI60L2C	Aluminium	22.0	30.0	2955	40.9	71.2	3.5	10.4	1.2	3.6	5.2	91.3	92.0	90.7	0.84	0.04808	96	71
	Q2HI80M2B	Aluminium	30.0	37.0	2955	51.5	97.1	2.8	8.5	0.8	2.4	3.6	92.0	92.5	91.8	0.91	0.08643	128	77
	Q2HI80M2C	Aluminium	37.0	50.0	2965	66.2	119.6	3.4	10.1	1.0	3.1	4.5	92.5	92.5	91.2	0.87	0.10277	145	77
	Q2H200L2D	Aluminium	45.0	60.0	2960	76.0	145.1	3.3	9.8	0.9	2.8	5.3	92.9	93.4	92.7	0.92	0.11910	166	78
	Q2E225M2C	Aluminium	55.0	75.0	2970	96.6	176.9	3.5	10.6	1.0	3.0	7.1	93.2	93.7	92.4	0.88	0.29500	244	80
	Q2EP250M2C	Cast Iron	75.0	100.0	2975	127.9	240.8	3.5	10.6	0.9	2.7	6.8	93.8	93.7	92.5	0.92	0.54000	565	81
	Q2EP280M2D	Cast Iron	110.0	150.0	2980	192.0	352.4	2.6	7.7	1.0	2.9	3.4	94.1	93.9	92.9	0.88	0.70200	640	82
4 pole 1500 rpm																			
230/400V	Q2H80M4D	Aluminium	1.1	1.5	1430	2.5	7.4	5.7	-	2.2	-	2.6	81.4	82.4	81.6	0.80	0.00260	12	48
	Q2H80M4DE	Aluminium	1.5	2.0	1427	3.3	10.0	6.4	-	2.5	-	3.1	82.8	84.2	83.7	0.79	0.00306	14	48
	Q2H90L4D	Aluminium	2.2	3.0	1437	5.3	14.6	7.6	-	3.6	-	4.2	84.3	84.1	81.5	0.72	0.00526	18	52
	Q2H90L4DE	Aluminium	3.0	4.0	1440	7.4	20.0	6.5	-	3.3	-	3.7	85.5	85.3	83.0	0.70	0.00690	25	53
	Q2H100L4D	Aluminium	4.0	5.5	1440	8.7	26.6	2.7	8.0	1.1	3.2	3.8	86.6	85.7	83.5	0.78	0.01058	31	57
	Q2H112M4D	Aluminium	5.5	7.5	1445	11.6	35.5	2.7	8.0	1.0	3.0	3.8	87.7	88.3	87.3	0.79	0.01382	38	58
400/690V	Q2HI32M4D	Aluminium	11.0	15.0	1468	21.6	71.5	2.6	7.9	0.7	2.1	3.6	89.8	91.1	90.3	0.81	0.05440	76	61
	Q2HI32M4E	Aluminium	15.0	20.0	1462	29.8	98.0	2.6	7.8	0.6	1.8	3.4	90.6	91.4	90.9	0.80	0.05940	81	63
	Q2HI60L4B	Aluminium	18.5	25.0	1470	36.0	120.2	2.3	6.8	0.7	2.2	2.9	91.2	92.0	91.6	0.81	0.09005	101	57
	Q2HI60L4C	Aluminium	22.0	30.0	1462	41.8	143.8	1.8	5.5	0.6	1.9	2.8	91.6	92.9	93.3	0.84	0.11068	115	58
	Q2HI80L4C	Aluminium	30.0	40.0	1475	55.3	194.6	2.7	8.2	0.9	2.7	3.5	92.0	91.9	91.4	0.85	0.14694	143	70
	Q2H200L4D	Aluminium	37.0	50.0	1476	72.5	240.8	2.8	8.3	0.9	2.8	3.7	92.7	93.2	92.8	0.79	0.26440	177	71
	Q2EP250M4E	Cast Iron	75.0	100.0	1485	134.2	485.7	2.6	7.8	1.0	2.9	3.4	94.0	93.9	93.2	0.86	1.06110	610	72
	Q2EP280M4E	Cast Iron	110.0	150.0	1485	200.3	714.0	2.6	7.9	1.0	2.9	3.4	94.5	94.3	93.1	0.84	1.25200	688	73

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

DIMENSION - B3

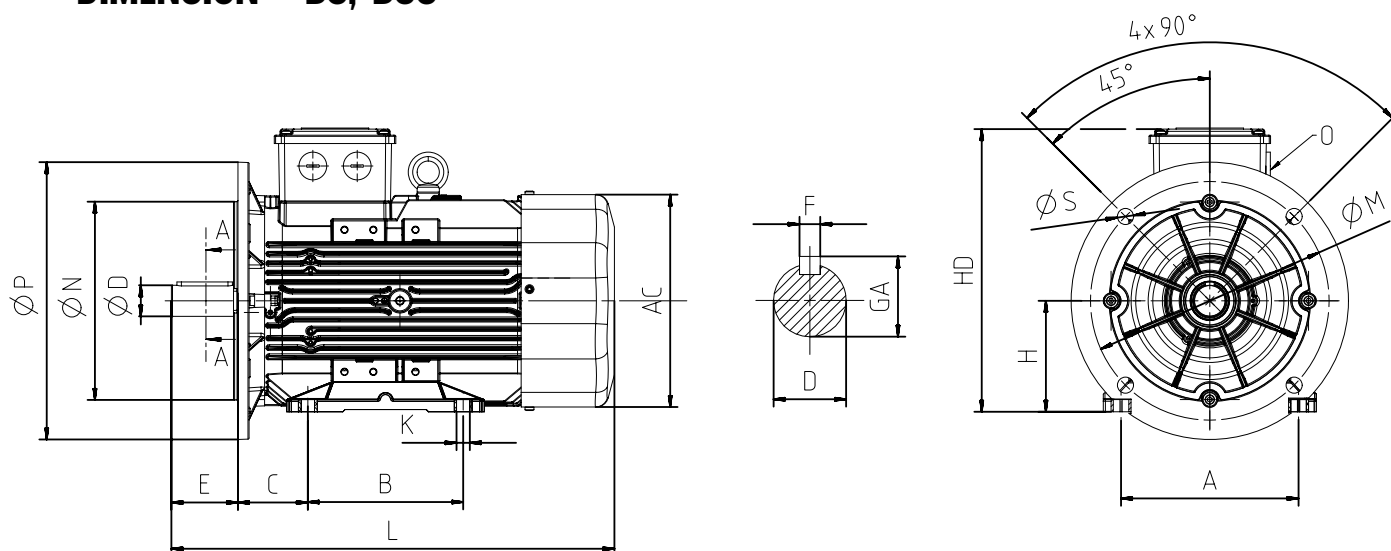


				Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
Power [kW]	Number of Poles	Motor Type	Housing Type	AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
1.1	4	Q2H80M4D	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
1.5	2	Q2H80M2D	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
1.5	4	Q2H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
2.2	2	Q2H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10	50	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7
2.2	4	Q2H90L4D	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
3.0	2	Q2H90L2D	Aluminium	172	344	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
3.0	4	Q2H90L4DE	Aluminium	172	379	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
4.0	2	Q2HS100L2C	Aluminium	172	384	1xM25	140	160	100	233	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
4.0	4	Q2HI00L4D	Aluminium	192	400	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
5.5	2	Q2HS112M2C	Aluminium	192	399	1xM25	140	190	112	254	12	70	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
5.5	4	Q2HI12M4D	Aluminium	210	421	1xM25	140	190	112	265	12	70	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7
7.5	2	Q2HS112M2D	Aluminium	192	421	1xM25	140	190	112	254	12	70	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7
11.0	2	Q2HI32M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
11.0	4	Q2HI32M4D	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
15.0	2	Q2HI32M2B	Aluminium	260	481	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
15.0	4	Q2HI32M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
18.5	2	Q2HI32M2C	Aluminium	260	520	1xM32	140-178	216	132	312	12	89	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10
18.5	4	Q2HI60L4B	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
22.0	2	Q2HI60L2C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
22.0	4	Q2HI60L4C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
30.0	2	Q2HI80M2B40	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
30.0	4	Q2HI80L4C40	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
37.0	2	Q2HI80M2C40	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
37.0	4	Q2H200L4D40	Aluminium	349	759	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
45.0	2	Q2H200L2D40	Aluminium	349	759	1xM50	305	318	200	455	18.5	133	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10
55.0	2	Q2E225M2C40	Aluminium	456	735	1xM50	286-311	356	225	485	18.5	149	55	110	59.0	16	6313-ZZ	6313-ZZ	65*100*13	65*100*13
75.0	2	Q2EP250M2C	Cast Iron	489	893	1xM50	311-349	406	250	616	30	149	60	140	64.0	18	6316-Z	6316-Z	80*100*10	80*100*10
75.0	4	Q2EP250M4E	Cast Iron	489	893	1xM50	311-349	406	250	616	30	149	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10
110.0	2	Q2EP280M2D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	190	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10
110.0	4	Q2EP280M4E	Cast Iron	489	1025	1xM50	368-419	457	280	647	24	130	75	140	79.5	20	6316-Z	6316-Z	80*100*10	80*100*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

DIMENSION - B5, B35



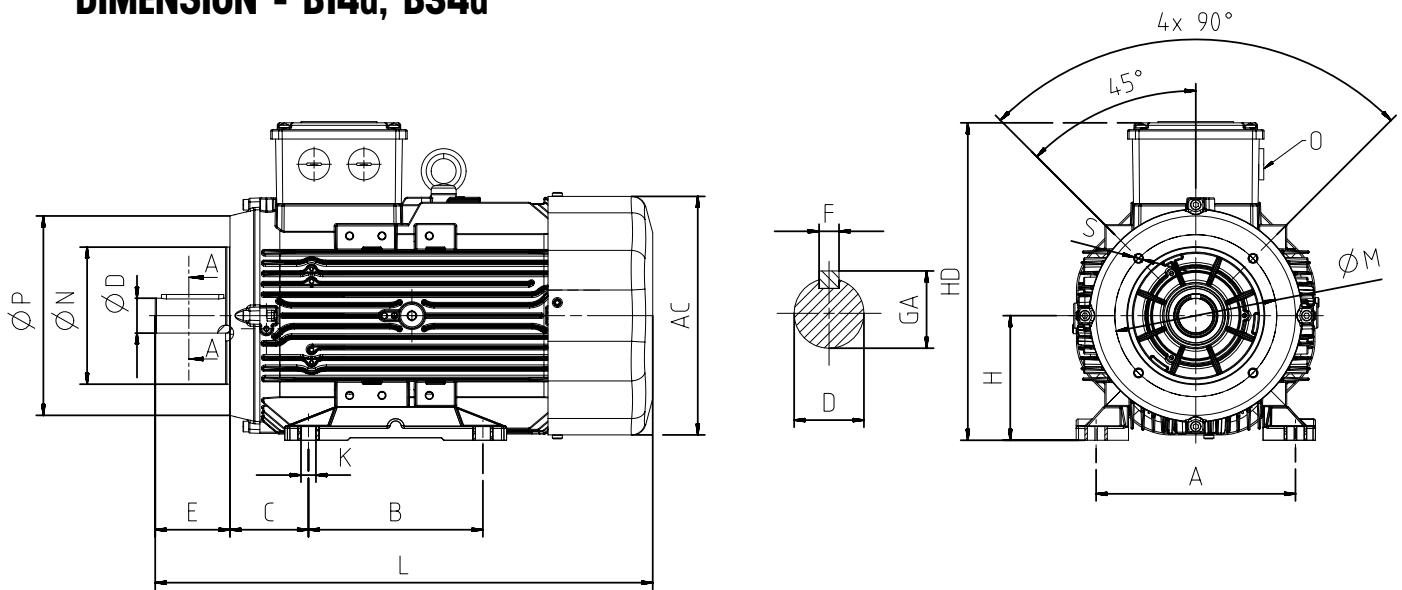
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange (FA) [B5]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
1.1	4	Q2H80M4D	Aluminium	158	268	1xM20	100	125	80	216	10.0	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12.0
1.5	2	Q2H80M2D	Aluminium	158	268	1xM20	100	125	80	216	10.0	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12.0
1.5	4	Q2H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10.0	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12.0
2.2	2	Q2H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10.0	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	200	130	165	-	12.0
2.2	4	Q2H90L4D	Aluminium	172	344	1xM25	100-125	140	90	223	10.0	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12.0
3.0	2	Q2H90L2D	Aluminium	172	344	1xM25	100-125	140	90	223	10.0	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12.0
3.0	4	Q2H90L4DE	Aluminium	172	379	1xM25	100-125	140	90	223	10.0	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12.0
4.0	2	Q2HS100L2C	Aluminium	172	384	1xM25	140	160	100	233	12.0	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
4.0	4	Q2HI00L4D	Aluminium	192	400	1xM25	140	160	100	243	12.0	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
5.5	2	Q2HS112M2C	Aluminium	192	399	1xM25	140	190	112	254	12.0	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
5.5	4	Q2HI12M4D	Aluminium	210	421	1xM25	140	190	112	265	12.0	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
7.5	2	Q2HS112M2D	Aluminium	192	421	1xM25	140	190	112	254	12.0	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	250	180	215	-	14.5
11.0	2	Q2HI32M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
11.0	4	Q2HI32M4D	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
15.0	2	Q2HI32M2B	Aluminium	260	481	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
15.0	4	Q2HI32M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
18.5	2	Q2HI32M2C	Aluminium	260	520	1xM32	140-178	216	132	312	12.0	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	300	230	265	-	14.5
18.5	4	Q2HI60L4B	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
22.0	2	Q2HI60L2C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
22.0	4	Q2HI60L4C	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
30.0	2	Q2HI80M2B	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
30.0	4	Q2HI80L4C	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
37.0	2	Q2HI80M2C	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
37.0	4	Q2H200L4D	Aluminium	349	759	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
45.0	2	Q2H200L2D	Aluminium	349	759	1xM50	305	318	200	455	18.5	55	110	59.0	16	6312-ZZ	6310-ZZ	60*90*10	60*90*10	400	300	350	-	18.5
55.0	2	Q2E225M2C	Aluminium	456	735	1xM50	286-311	356	225	485	18.5	55	110	59.0	16	6313-ZZ	6313-ZZ	65*100*13	65*100*13	450	350	400	-	18.5
75.0	2	Q2EP250M2C	Cast Iron	489	893	1xM50	311-349	406	250	616	30.0	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
75.0	4	Q2EP250M4E	Cast Iron	489	893	1xM50	311-349	406	250	616	30.0	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
110.0	2	Q2EP280M2D	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	65	140	69.0	18	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5
110.0	4	Q2EP280M4E	Cast Iron	489	1025	1xM50	368-419	457	280	647	24.0	75	140	79.5	20	6316-Z	6316-Z	80*100*10	80*100*10	550	450	500	-	18.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14a, B34a



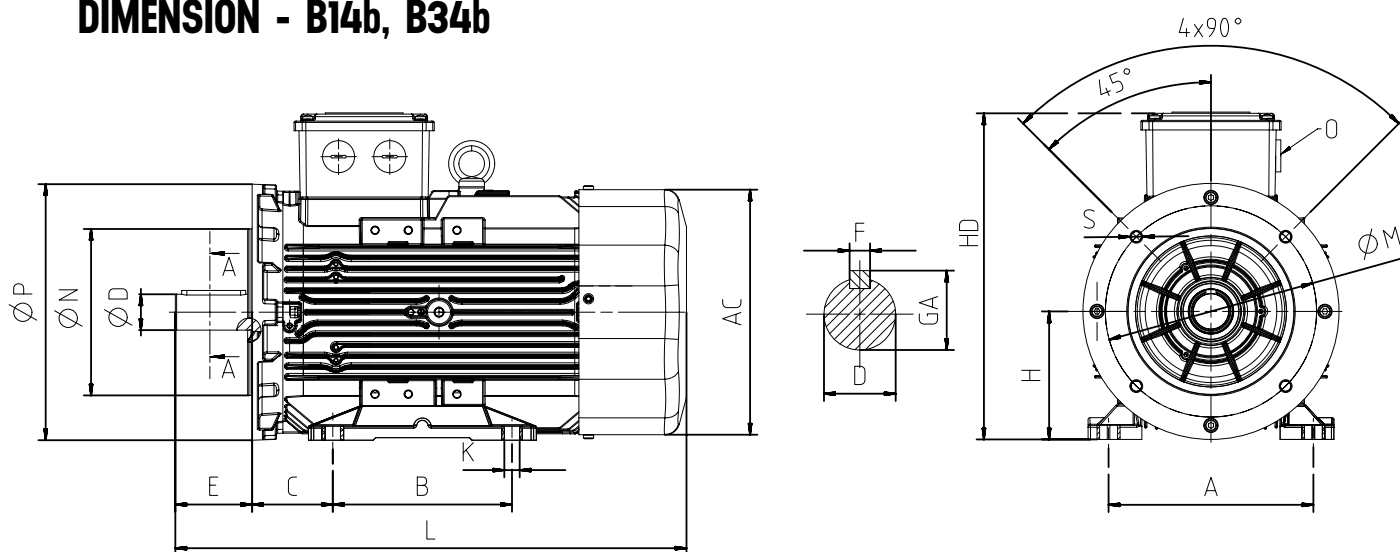
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FC] (B14a)				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
1.1	4	Q2H80M4D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
1.5	2	Q2H80M2D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
1.5	4	Q2H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
2.2	2	Q2H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	120	80	100	-	M6
2.2	4	Q2H90L4D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
3.0	2	Q2H90L2D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
3.0	4	Q2H90L4DE	Aluminium	172	379	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
4.0	2	Q2HS100L2C	Aluminium	172	384	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
4.0	4	Q2HI00L4D	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	160	110	130	-	M8
5.5	2	Q2HS112M2C	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
5.5	4	Q2HI12M4D	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	160	110	130	-	M8
7.5	2	Q2HS112M2D	Aluminium	192	421	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	160	110	130	-	M8
11.0	2	Q2HI32M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
11.0	4	Q2HI32M4D	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
15.0	2	Q2HI32M2B	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
15.0	4	Q2HI32M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10
18.5	2	Q2HI32M2C	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	200	130	165	-	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14b, B34b



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FB][B14b]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
1.1	4	Q2H80M4D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
1.5	2	Q2H80M2D	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
1.5	4	Q2H80M4DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
2.2	2	Q2H80M2DE	Aluminium	158	268	1xM20	100	125	80	216	10	19	40	21.5	6	6204-ZZ	6204-ZZ	20*30*7	20*30*7	160	110	130	-	M8
2.2	4	Q2H90L4D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
3.0	2	Q2H90L2D	Aluminium	172	344	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
3.0	4	Q2H90L4DE	Aluminium	172	379	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
4.0	2	Q2HS100L2C	Aluminium	172	384	1xM25	140	160	100	233	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
4.0	4	Q2H100L4D	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	200	130	165	-	M10
5.5	2	Q2HS112M2C	Aluminium	192	399	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
5.5	4	Q2H112M4D	Aluminium	210	421	1xM25	140	190	112	265	12	28	60	31.0	8	6306-ZZ	6206-ZZ	30*47*7	30*47*7	200	130	165	-	M10
7.5	2	Q2HS112M2D	Aluminium	192	421	1xM25	140	190	112	254	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	25*40*7	200	130	165	-	M10
11.0	2	Q2H132M2A	Aluminium	260	481	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
11.0	4	Q2H132M4D	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
15.0	2	Q2H132M2B	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
15.0	4	Q2H132M4E	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12
18.5	2	Q2H132M2C	Aluminium	260	520	1xM32	140-178	216	132	312	12	38	80	41.0	10	6208-ZZ	6208-ZZ	40*62*10	40*62*10	250	180	215	-	M12

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

ELECTRICAL CHARACTERISTICS AT 50 Hz

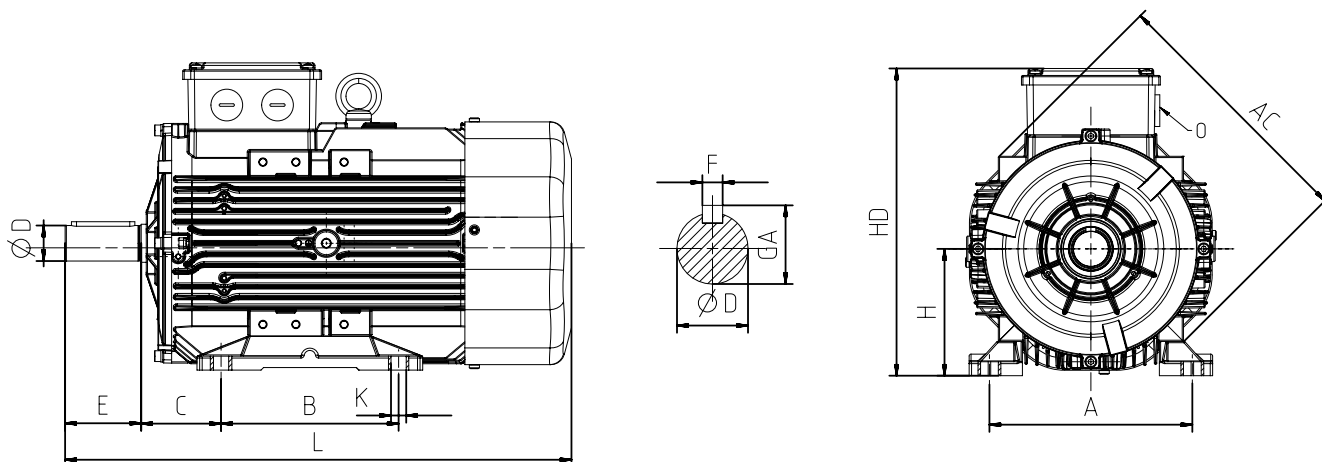
MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pressure Level dBA **
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE		η %								
		kW	HP				rpm	A	Nm	I _A / I _N	Δ		M _A / M _N	Δ	Mk / Mn				
2 pole 3000 rpm																			
400/690V	Q2H90L2DE	Aluminium	4.0	3.0	2913	8.2	13.2	3.6	10.8	1.4	4.2	4.8	85.8	87.0	86.1	0.82	0.00385	23	67
	Q2H100L2DE	Aluminium	5.5	4.0	2910	10.6	18.1	3.6	10.9	1.3	3.8	4.5	87.0	87.5	86.2	0.86	0.00611	29	62
	Q2H100L2E	Aluminium	7.5	5.0	2895	14.1	24.8	3.4	10.3	1.3	3.9	4.6	88.1	89.0	88.7	0.88	0.00724	32	70
	Q2H160L2DE	Aluminium	30.0	6.0	2940	19.6	97.4	3.0	9.1	0.8	2.3	2.8	92.0	92.8	92.1	0.94	0.06270	108	80
	Q2H180L2D	Aluminium	45.0	7.0	2958	76.0	145.1	3.3	9.8	0.9	2.8	5.3	92.9	93.4	92.7	0.92	0.11383	162	76
	Q2H200L2E	Aluminium	55.0	8.0	2960	90.7	177.4	3.1	9.3	0.7	2.0	4.2	93.2	93.3	92.8	0.93	0.10988	194	77
4 pole 1500 rpm																			
400/690V	Q2H180L4A	Aluminium	37.0	4.0	1476	72.5	240.8	2.8	8.3	0.9	2.7	3.7	92.7	93.2	92.8	0.79	0.22165	194	70

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

DIMENSION - B3

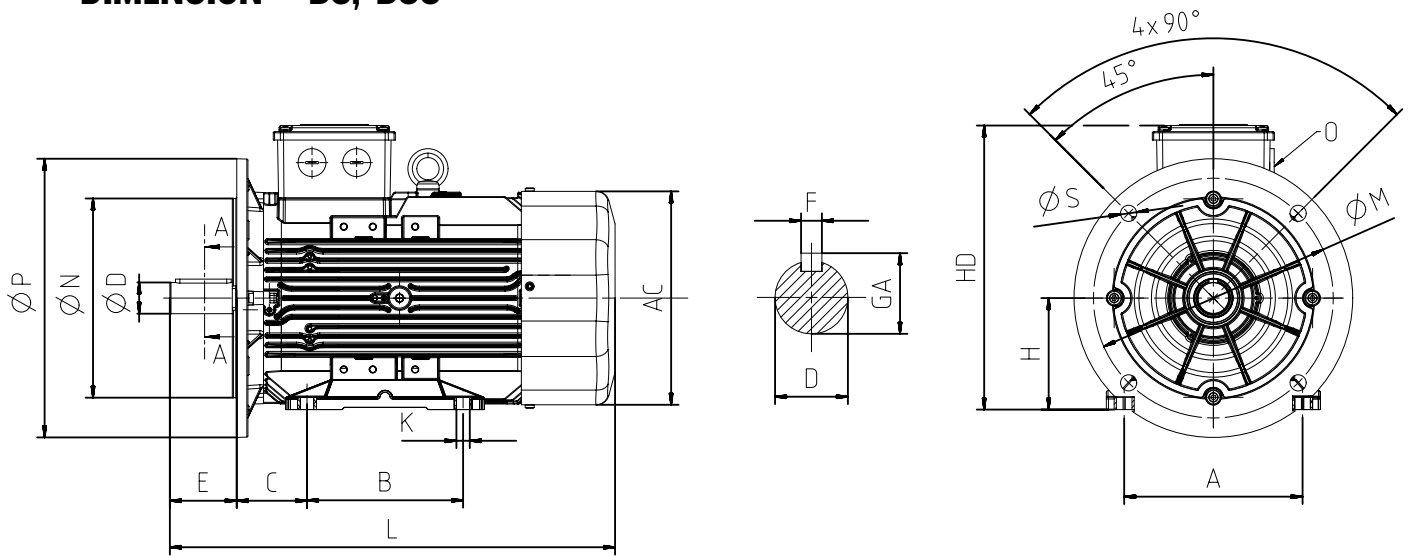


Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
4.0	2	Q2H90L2DE	Aluminium	172	379	1xM25	100-125	140	90	223	10	56	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7
5.5	2	Q2H100L2DE	Aluminium	192	400	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7
7.5	2	Q2H100L2E	Aluminium	192	422	1xM25	140	160	100	243	12	63	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7
30.0	2	Q2H160L2DE	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	108	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10
37.0	4	Q2H180L4A	Aluminium	349	754	1xM40	241-279	279	180	398	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
45.0	2	Q2H180L2D	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	121	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10
55.0	2	Q2H200L2E	Aluminium	349	759	1xM50	267-305	318	200	455	22.5	133	55	110	59	16	6312-ZZ	6310-ZZ	60*90*10	50*80*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

DIMENSION - B5, B35



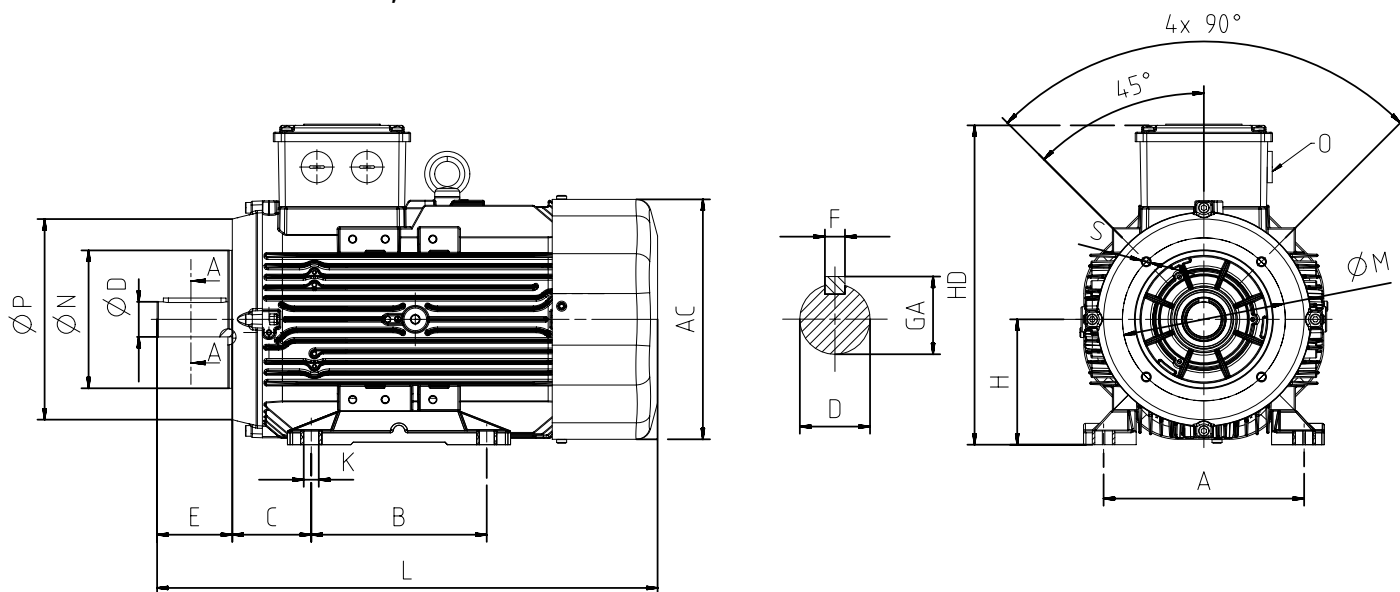
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [B5]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
4.0	2	Q2H90L2DE	Aluminium	172	379	1xM25	100-125	140	90	223	10.0	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	200	130	165	-	12.0
5.5	2	Q2H100L2DE	Aluminium	192	400	1xM25	140	160	100	243	12.0	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
7.5	2	Q2H100L2E	Aluminium	192	422	1xM25	140	160	100	243	12.0	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	250	180	215	-	14.5
30.0	2	Q2H160L2DE	Aluminium	305	591	1xM32	210-254	254	160	368	14.5	42	110	45.0	12	6309-ZZ	6209-ZZ	45*72*10	45*72*10	350	250	300	-	18.5
37.0	4	Q2H180L4A	Aluminium	349	754	1xM40	241-279	279	180	398	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
45.0	2	Q2H180L2D	Aluminium	349	696	1xM40	241-279	279	180	437	14.5	48	110	51.5	14	6310-ZZ	6310-ZZ	50*80*10	50*80*10	350	250	300	-	18.5
55.0	2	Q2H200L2E	Aluminium	349	759	1xM50	267-305	318	200	455	22.5	55	110	59	16	6312-ZZ	6310-ZZ	60*90*10	50*80*10	400	300	350	-	18.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14a, B34a



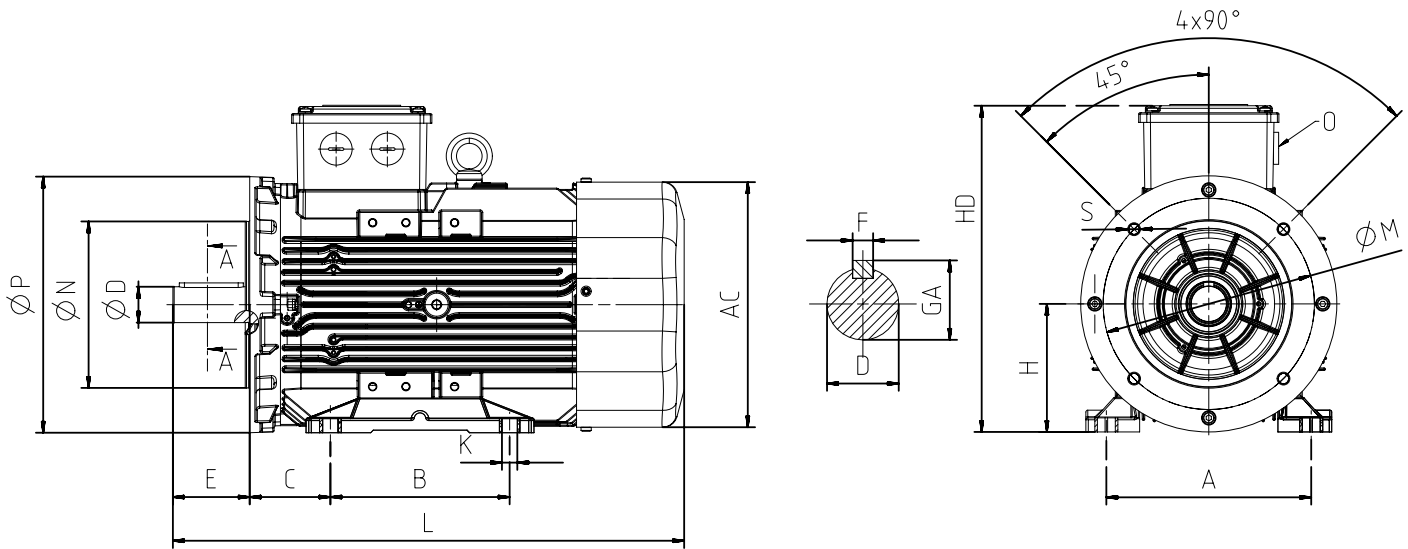
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange (FC) (B14a)				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
4	2	Q2H90L2DE	Aluminium	172	378.5	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	140	95	115	-	M8
5.5	2	Q2H100L2DE	Aluminium	192	399.5	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	160	110	130	-	M8
7.5	2	Q2H100L2E	Aluminium	192	422.0	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	160	110	130	-	M8

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14b, B34b



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		[FB][B14b]				
				AC	L	O	B	A	H	HD	K	D ^[1]	E	GA	F ^[2]	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ^[3]	M	R	S
4.0	2	Q2H90L2DE	Aluminium	172	379	1xM25	100-125	140	90	223	10	24	50	27.0	8	6305-ZZ	6205-ZZ	25*40*7	25*40*7	160	110	130	-	M8
5.5	2	Q2H100L2DE	Aluminium	192	400	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	200	130	165	-	M10
7.5	2	Q2H100L2E	Aluminium	192	422	1xM25	140	160	100	243	12	28	60	31.0	8	6306-ZZ	6205-ZZ	30*47*7	30*47*7	200	130	165	-	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

IE1

ELECTRICAL CHARACTERISTICS AT 50 Hz

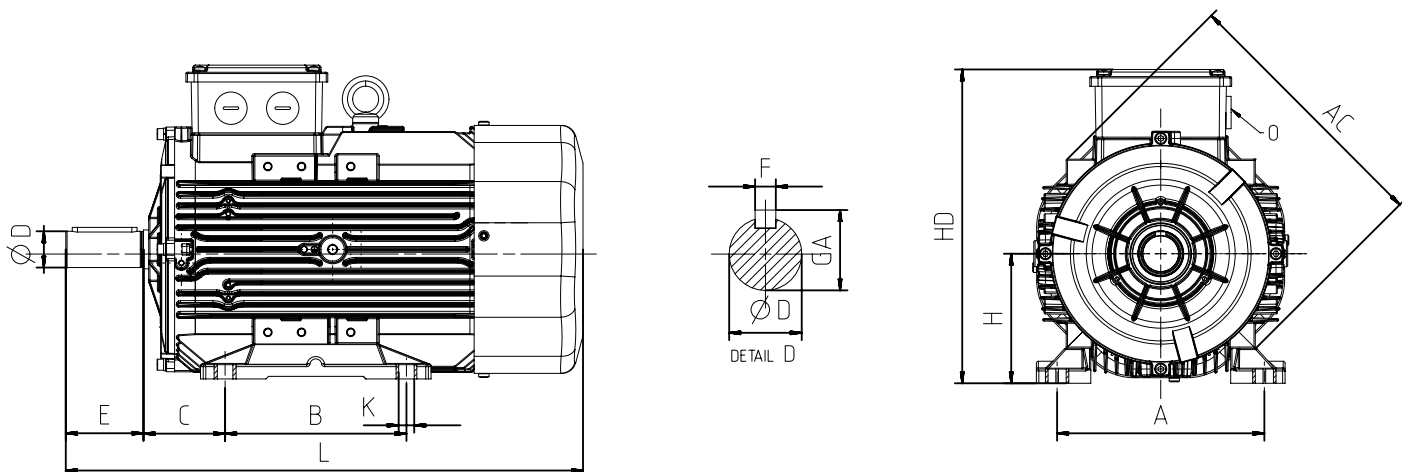
MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY *			Cosφ	J	Weight [B3]	Sound Pressure Level dBA **
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE		η %								
		kW	HP				I _A / I _N	M _A / M _N	4/4	3/4	2/4								
													λ	Δ	λ				
8 pole 750 rpm																			
230/400V	QIE80M8A	Aluminium	0.18	1/4	650	1.7	2.6	2.2	-	1.5	-	1.7	51.9	52.2	49.7	0.53	0.00168	9	44
	QIE80M8B	Aluminium	0.25	1/3	675	2.0	3.5	2.2	-	1.5	-	1.7	57.4	55.4	55.7	0.55	0.00205	11	44
	QIE90S8A	Aluminium	0.37	1/2	680	2.8	5.2	2.9	-	1.9	-	2.3	59.9	57.6	57.9	0.56	0.00242	14	49
	QIE90L8A	Aluminium	0.55	3/4	690	3.8	7.6	3.0	-	1.9	-	2.2	61.5	59.0	59.3	0.59	0.00322	16	49
	QIE100L8A	Aluminium	0.75	1.0	700	4.3	10.2	3.5	-	1.8	-	2.2	70.3	67.5	67.9	0.62	0.00398	20	49
	QIE100L8B	Aluminium	1.1	1.5	685	5.9	15.3	3.5	-	1.8	-	2.2	72.5	70.0	69.5	0.64	0.00471	22	49
	QIE112M8A	Aluminium	1.5	2.0	700	7.8	20.5	3.7	-	1.9	-	2.3	73.7	71.2	70.9	0.65	0.00933	30	54
	QIE132S8B	Aluminium	2.2	3.0	710	11.3	29.6	1.3	4.0	0.6	1.7	2.2	75.5	73.3	73.6	0.65	0.02111	43	58
	QIE132M8A	Aluminium	3.0	4.0	710	14.3	40.3	1.4	4.5	0.6	1.7	2.2	75.2	72.6	71.8	0.69	0.02763	52	58
	QIE160M8A	Aluminium	4.0	5.5	720	19.1	53.1	1.8	5.0	0.6	1.8	2.2	82.4	79.1	78.3	0.63	0.05612	76	60
400/690V	QIE160M8B	Aluminium	5.5	7.5	720	16.8	72.9	1.7	5.0	0.6	1.8	2.2	81.4	79.8	79.4	0.58	0.05612	76	60
	QIE160L8A	Aluminium	7.5	10.0	720	19.7	99.5	1.7	5.0	0.6	1.9	2.2	82.0	80.1	79.9	0.67	0.07004	89	60
	QIE180L8B	Aluminium	11.0	15.0	720	25.4	145.9	1.8	5.5	0.7	2.1	2.6	85.0	83.0	82.8	0.74	0.12773	126	60
	QIE200L8C	Aluminium	15.0	20.0	725	31.0	197.6	1.7	5.5	0.7	2.2	2.8	88.6	86.5	86.3	0.79	0.25035	165	61
	QIE225S8A	Aluminium	18.5	25.0	725	44.3	243.7	1.8	5.5	0.6	2.0	2.5	89.0	87.5	87.6	0.68	0.36429	224	61
	QIE225M8C	Aluminium	22.0	30.0	725	49.5	289.8	1.7	5.5	0.7	2.1	2.6	88.3	86.2	86.3	0.73	0.43513	256	61

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

DIMENSION - B3

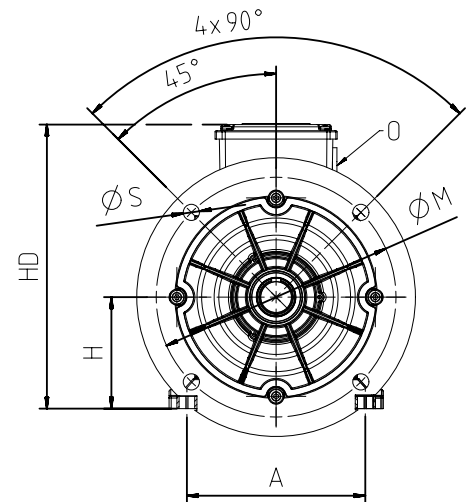
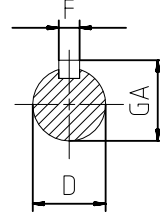
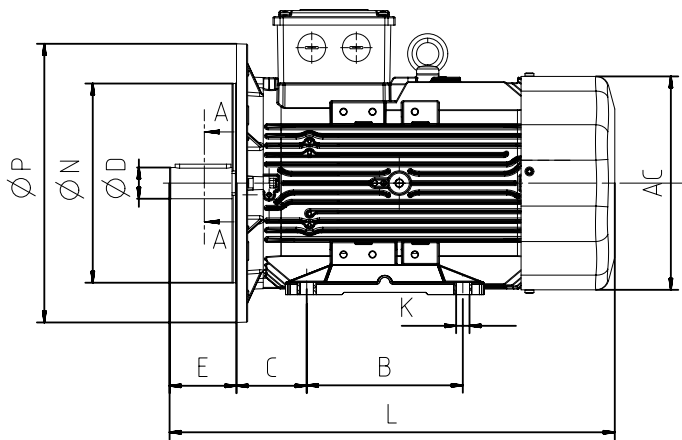


				Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
Power [kW]	Number of Poles	Motor Type	Housing Type	AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
0.18	8	QIE80M8A	Aluminium	158	284	1*M20	100	125	80	195	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
0.25	8	QIE80M8B	Aluminium	158	284	1*M20	100	125	80	195	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
0.37	8	QIE90S8A	Aluminium	193	297	1*M25	100	140	90	222	10	56	24	50	27.0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
0.55	8	QIE90L8A	Aluminium	193	317	1*M25	125	140	90	222	10	56	24	50	27.0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
0.75	8	QIE100L8A	Aluminium	217	352	1*M25	140	160	100	241	12	63	28	60	31.0	8	6306-2Z	6205-2Z	30*47*7	25*40*7
1.1	8	QIE100L8B	Aluminium	217	352	1*M25	140	160	100	241	12	63	28	60	31.0	8	6306-2Z	6205-2Z	30*47*7	25*40*7
1.5	8	QIE112M8A	Aluminium	232	396	2*M25	140	190	112	261	12	70	28	60	31.0	8	6306-2Z	6206-2Z	30*47*7	30*47*7
2.2	8	QIE132S8B	Aluminium	279	441	2*M32	140	216	132	314	12	89	38	80	41.0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
3	8	QIE132M8A	Aluminium	279	476	2*M32	178	216	132	314	12	89	38	80	41.0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
4	8	QIE160M8A	Aluminium	302	576	2*M32	210	254	160	360	14.5	108	42	110	45.0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
5.5	8	QIE160M8B	Aluminium	302	576	2*M32	210	254	160	360	14.5	108	42	110	45.0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
7.5	8	QIE160L8A	Aluminium	302	576	2*M32	254	254	160	360	14.5	108	42	110	45.0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
11	8	QIE180L8B	Aluminium	370	629	2*M40	279	279	180	428	14.5	121	48	110	51.5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
15	8	QIE200L8C	Aluminium	415	665	2*M50	305	318	200	461	18.5	133	55	110	59.0	16	6312-2Z	6312-2Z	60*90*10	60*90*10
18.5	8	QIE225S8A	Aluminium	456	765	2*M50	286	356	225	504	18.5	149	60	140	64.0	18	6313-2Z	6313-2Z	65*100*13	65*100*13
22	8	QIE225M8C	Aluminium	456	765	2*M50	311	356	225	504	18.5	149	60	140	64.0	18	6313-2Z	6313-2Z	65*100*13	65*100*13

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

DIMENSION - B5, B35



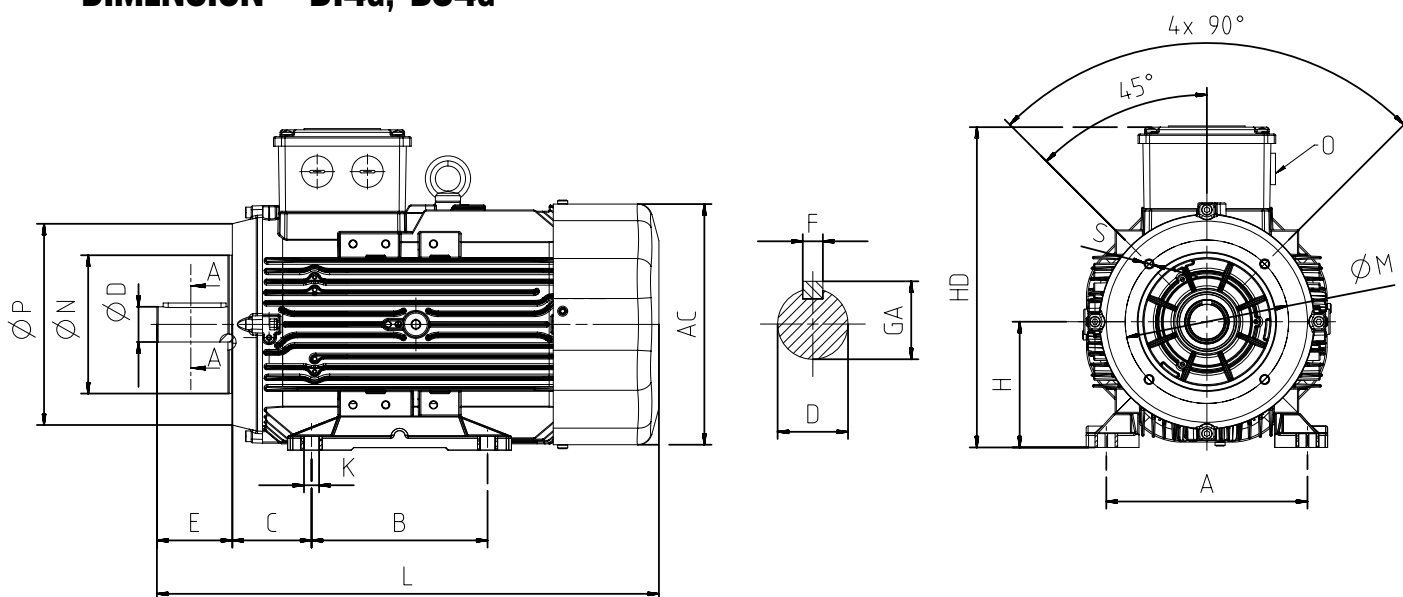
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] (B5)				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.18	8	QIE80M8A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
0.25	8	QIE80M8B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
0.37	8	QIE90S8A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27.0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
0.55	8	QIE90L8A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27.0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
0.75	8	QIE100L8A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31.0	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
1.1	8	QIE100L8B	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31.0	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
1.5	8	QIE112M8A	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31.0	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	14.5
2.2	8	QIE132S8B	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41.0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5
3	8	QIE132M8A	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41.0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5
4	8	QIE160M8A	Aluminium	302	576	2*M32	210	254	160	360	14.5	42	110	45.0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5
5.5	8	QIE160M8B	Aluminium	302	576	2*M32	210	254	160	360	14.5	42	110	45.0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5
7.5	8	QIE160L8A	Aluminium	302	576	2*M32	254	254	160	360	14.5	42	110	45.0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5
11	8	QIE180L8B	Aluminium	370	629	2*M40	279	279	180	428	14.5	48	110	51.5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	18.5
15	8	QIE200L8C	Aluminium	415	665	2*M50	305	318	200	461	18.5	55	110	59.0	16	6312-2Z	6312-2Z	60*90*10	60*90*10	400	300	350	0	18.5
18.5	8	QIE225S8A	Aluminium	456	765	2*M50	286	356	225	504	18.5	60	140	64.0	18	6313-2Z	6313-2Z	65*100*13	65*100*13	450	350	400	0	18.5
22	8	QIE225M8C	Aluminium	456	765	2*M50	311	356	225	504	18.5	60	140	64.0	18	6313-2Z	6313-2Z	65*100*13	65*100*13	450	350	400	0	18.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14a, B34a



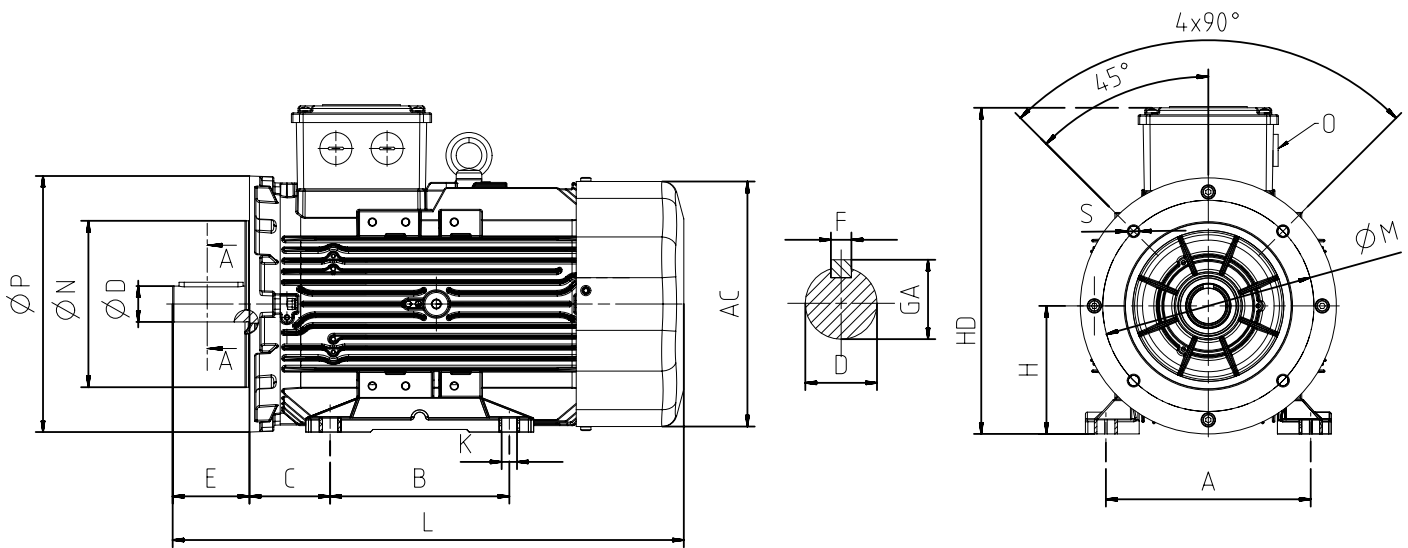
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FC] [B14a]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.18	8	QIE80M8A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
0.25	8	QIE80M8B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
0.37	8	QIE90S8A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
0.55	8	QIE90L8A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
0.75	8	QIE100L8A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
1.1	8	QIE100L8B	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
1.5	8	QIE112M8A	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	160	110	130	0	M8
2.2	8	QIE132S8B	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
3	8	QIE132M8A	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

DIMENSION - B14b, B34b

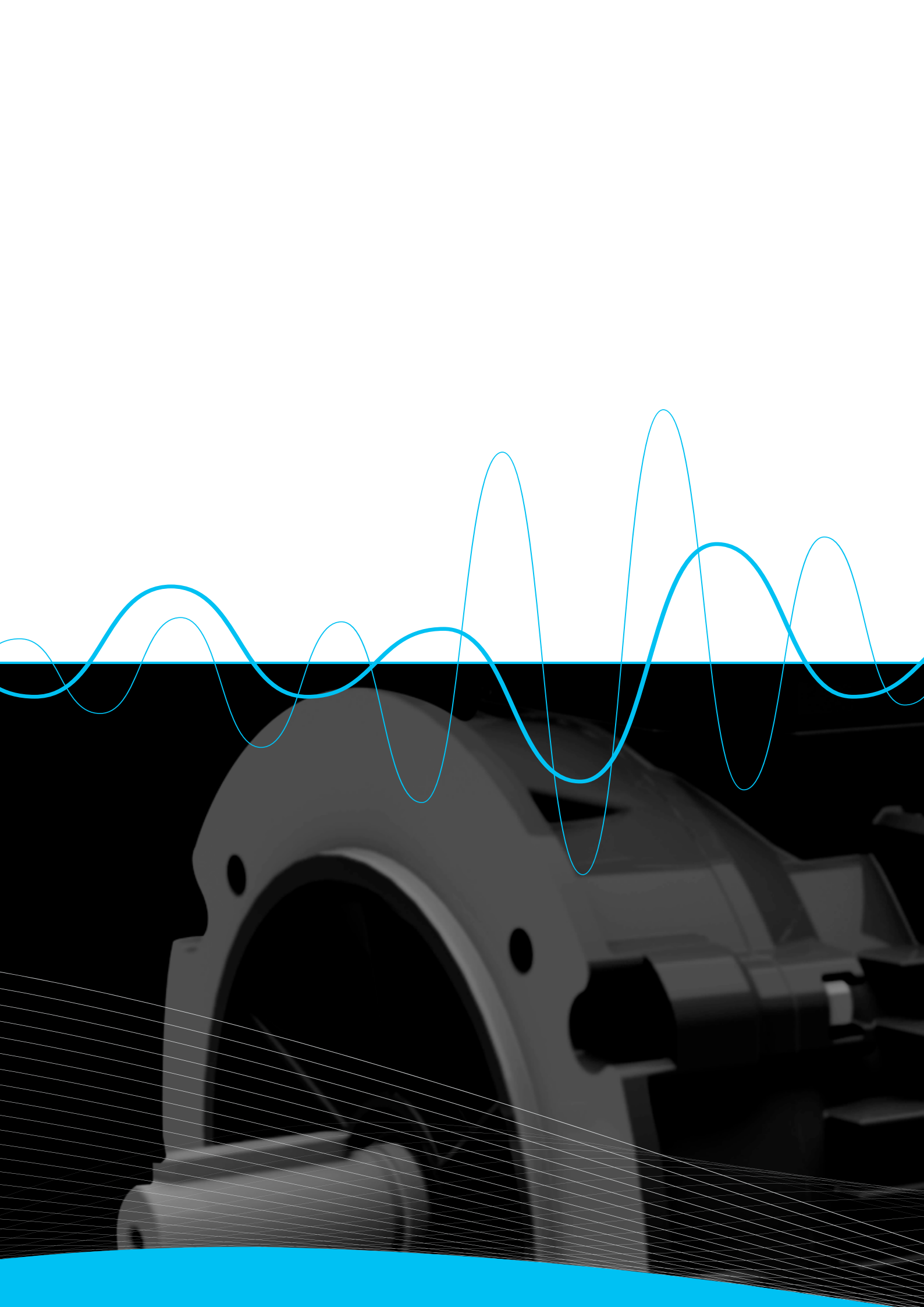


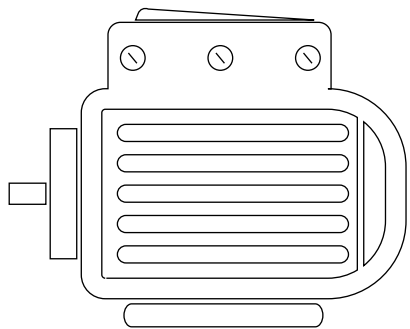
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FB] [B14b]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.18	8	QIE80M8A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
0.25	8	QIE80M8B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
0.37	8	QIE90S8A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
0.55	8	QIE90L8A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
0.75	8	QIE100L8A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
1.1	8	QIE100L8B	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
1.5	8	QIE112M8A	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
2.2	8	QIE132S8B	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	160	110	130	0	M8
3	8	QIE132M8A	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 or 14.5

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

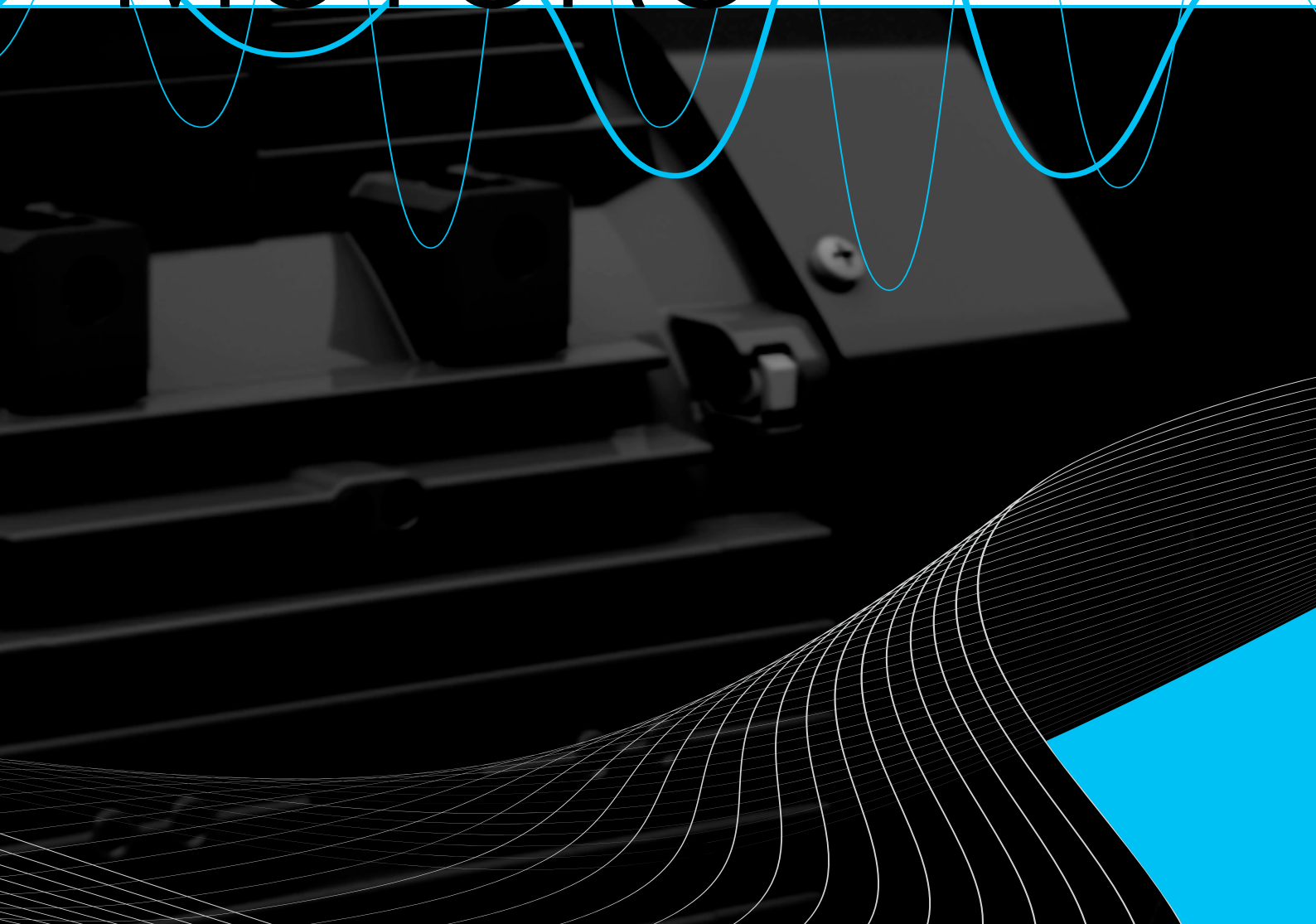
(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"





INVERTER INTEGRATED MOTORS



INVERTER INTEGRATED MOTORS

TECHNICAL DOCUMENTATION

Our inverter integrated motors are between 0,55-22,0 kW, and they are available from 80 to 200 frames. One of the main advantage of this type is that the motor parameters for inverter are setted and by ourself and there is no effect of cable between inverter and motor that can reduce motors' insulation life.

Motor power [kW]	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	11	15	18,5	22
Supply voltage [V]	3~ 400 V (-15%)... 480 V (+10%), 50/60 Hz												
Effective nominal current [A] (at 400V/8 kHz)	1,7	2,3	3,1	4	5,6	7,5	9,5	13	17,8	28,0	34,0	40,0	48,0
Maximum effective current with time [%]	150% for 60 Seconds												
Switching frequency [kHz]	4, 8, 16 (factory setting: 8 kHz)												
Rotating field frequency [kHz]	0 ... 400												
Ambient temperature for power rating [°C]	-10 to +40												
Process control	PID controller, freely configurable												
Protective functions	Undervoltage, overvoltage, I2t limitation, short circuits, motor temperature, inverter temperature, stall protection												

High Efficiency
(IE2/IE3 + Inverter)

Perfect matching of
motor and inverter



Solutions for specific
applications

High temperature and
vibration resistance

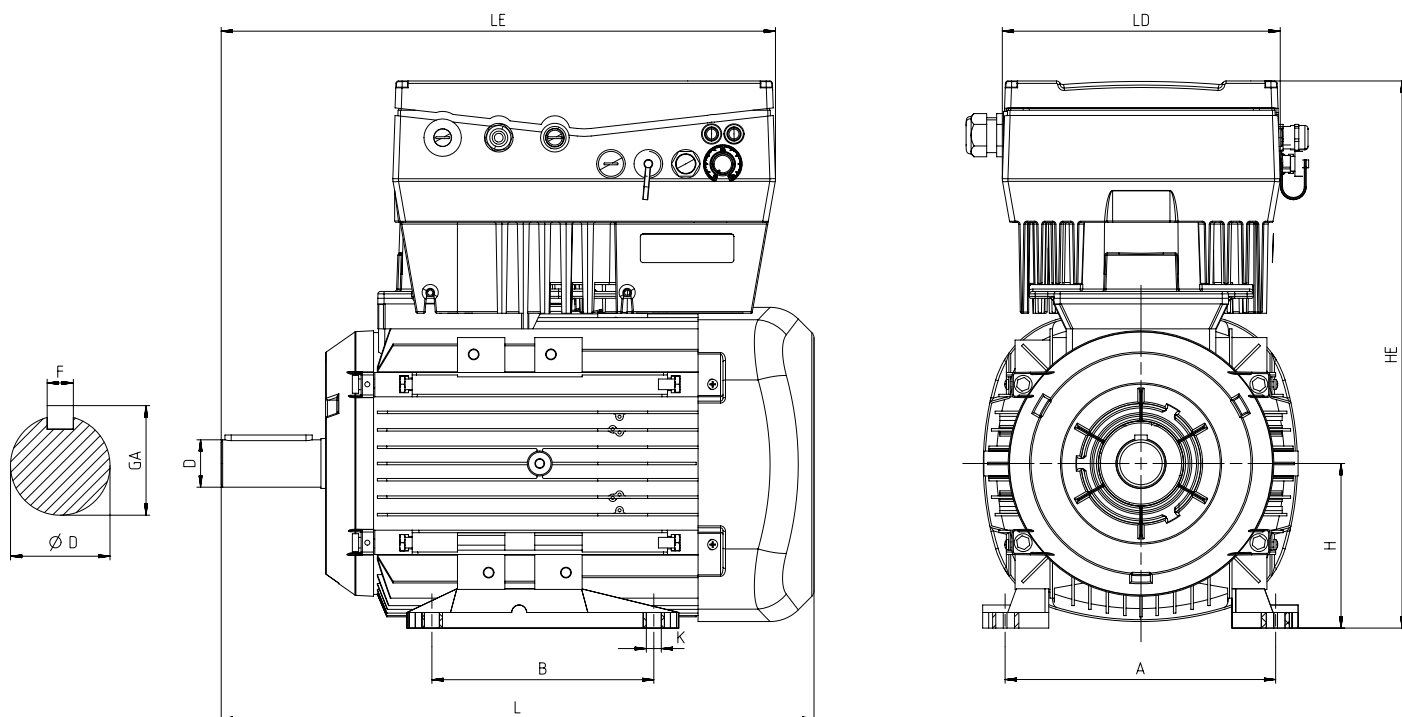
TECHNICAL SPECIFICATIONS

- Perfect combination with IE2 and IE3 motors
- Energy saving function, catch-on-fly function, PID on board
- Standard independence from motor fan
- User friendly MMI (M12 interface on board)
- 24V/100mA (160 mA) switching power supply integrated
- Very high durability through innovative DC bus
- Performance optimized flux reduction
- No power losses in the capacitor
- No aging of the capacitors, thus long-term storage without maintenance possible
- Almost unlimited ripple current persistency
- Less distortion in the power grid (less losses in the EMC filter and rectifier)
- Small construction volume
- Reduced weight
- Very good vibration resistance
- Very low leakage currents (<3.5 mA), thus application on 30m A FI (RCD Type B) possible

PAINTING

Our inverter integrated motors are painted with a black protective paint according to RAL 9005 (black).

DIMENSION - B3



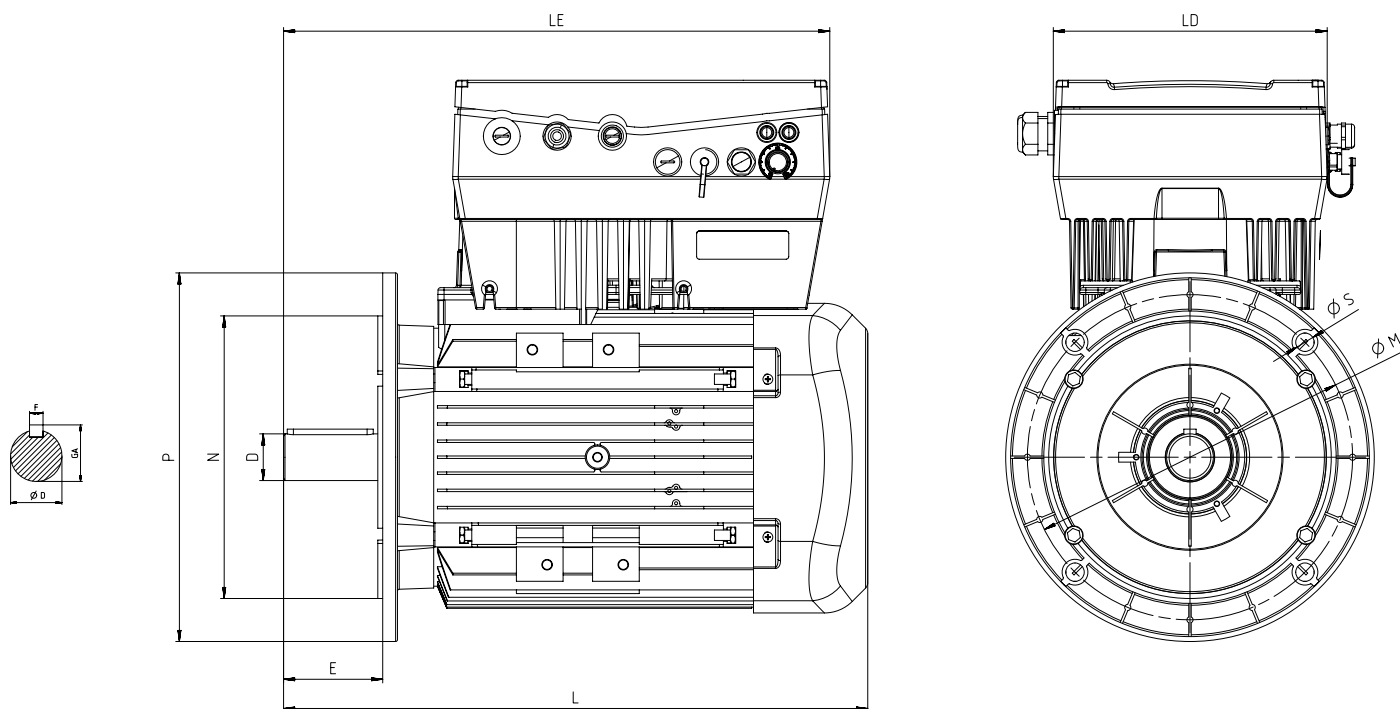
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal	
				LD	L	LE	B	A	H	HE	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
0.75	2	Q3HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q3HD80M4D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
1.1	2	Q3HD80M2D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q3HSD90S4C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7
1.5	2	Q3HSD90S2C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7
	4	Q3HD90L4D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
2.2	2	Q3HD90L2D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	4	Q3HSD100L4C	Aluminium	189	384	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
3	2	Q3HSD100L2C	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	4	Q3HD100L4D	Aluminium	189	400	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
4	2	Q3HSD112M2C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	4	Q3HD112M4D	Aluminium	189	396	396	140	190	112	333	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
5.5	2	Q3HSD132S2C	Aluminium	223	422	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7
	4	Q3HD132S4B	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
7.5	2	Q3HSD132S2D	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6206-2Z	40*62*10	30*47*7
	4	Q3HD132M4D	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

Please contact with us for motors above 7,5kW.

DIMENSION - B5, B35



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [B5]				
				LD	L	LE	B	A	H	HE	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.75	2	Q3HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q3HD80M4D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
1.1	2	Q3HD80M2D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q3HSD90S4C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	200	130	165	0	12
1.5	2	Q3HSD90S2C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	200	130	165	0	12
	4	Q3HD90L4D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
2.2	2	Q3HD90L2D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	4	Q3HSD100L4C	Aluminium	189	384	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
3	2	Q3HSD100L2C	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
	4	Q3HD100L4D	Aluminium	189	400	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
4	2	Q3HSD112M2C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
	4	Q3HD112M4D	Aluminium	189	396	396	140	190	112	333	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	14.5
5.5	2	Q3HSD132S2C	Aluminium	223	422	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	300	230	265	0	14.5
	4	Q3HDI32S4B	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5
7.5	2	Q3HSD132S2D	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6206-2Z	40*62*10	30*47*7	300	230	265	0	14.5
	4	Q3HDI32M4D	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5

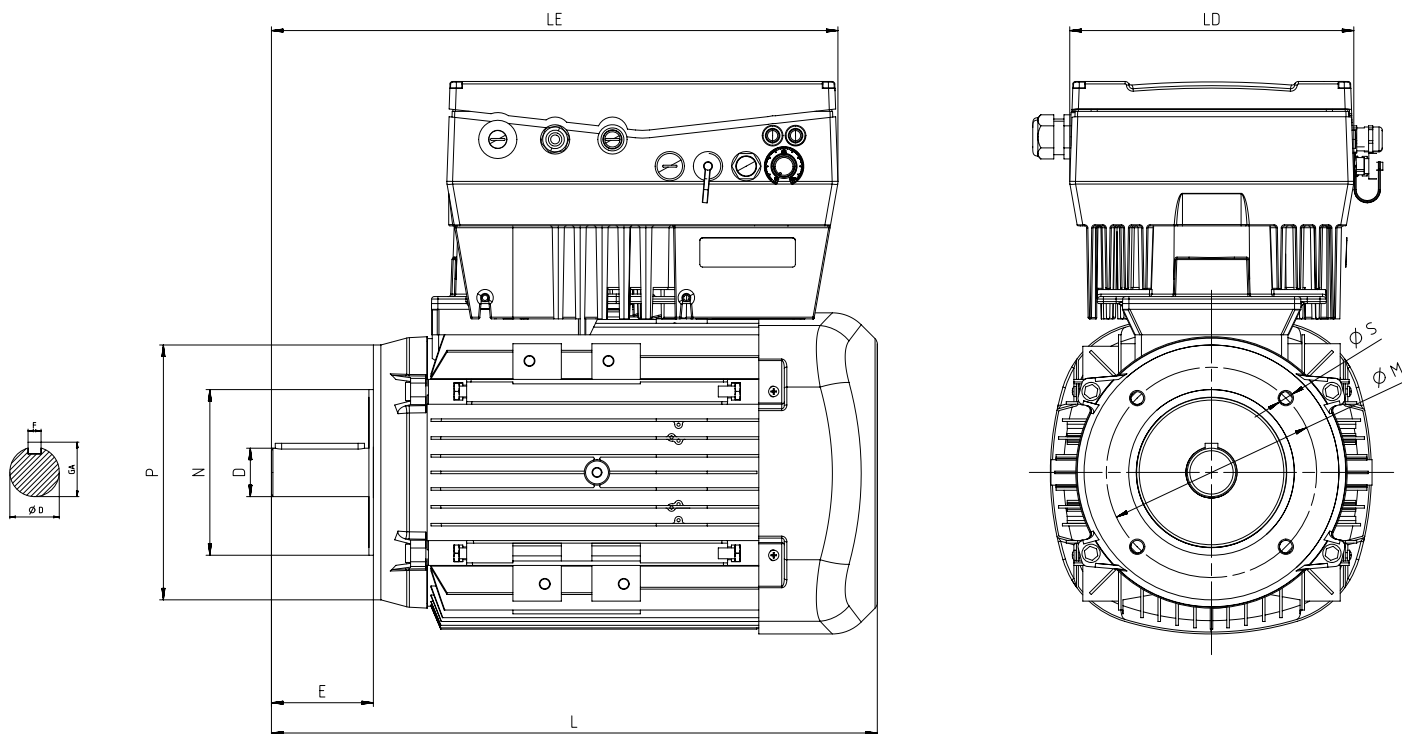
(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Please contact with us for motors above 7,5kW.

DIMENSION - B14a, B34a



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FC] [B14a]				
				LD	L	LE	B	A	H	HE	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.75	2	Q3HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q3HD80M4D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
1.1	2	Q3HD80M2D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q3HSD90S4C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	140	95	115	0	M8
1.5	2	Q3HSD90S2C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	140	95	115	0	M8
	4	Q3HD90L4D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
2.2	2	Q3HD90L2D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	4	Q3HSD100L4C	Aluminium	189	384	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
3	2	Q3HSD100L2C	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
	4	Q3HD100L4D	Aluminium	189	400	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
4	2	Q3HSD112M2C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
	4	Q3HD112M4D	Aluminium	189	396	396	140	190	112	333	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	160	110	130	0	M8
5.5	2	Q3HSD132S2C	Aluminium	223	422	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	200	130	165	0	M10
	4	Q3HDI32S4B	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
7.5	2	Q3HSD132S2D	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6206-2Z	40*62*10	30*47*7	200	130	165	0	M10
	4	Q3HDI32M4D	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10

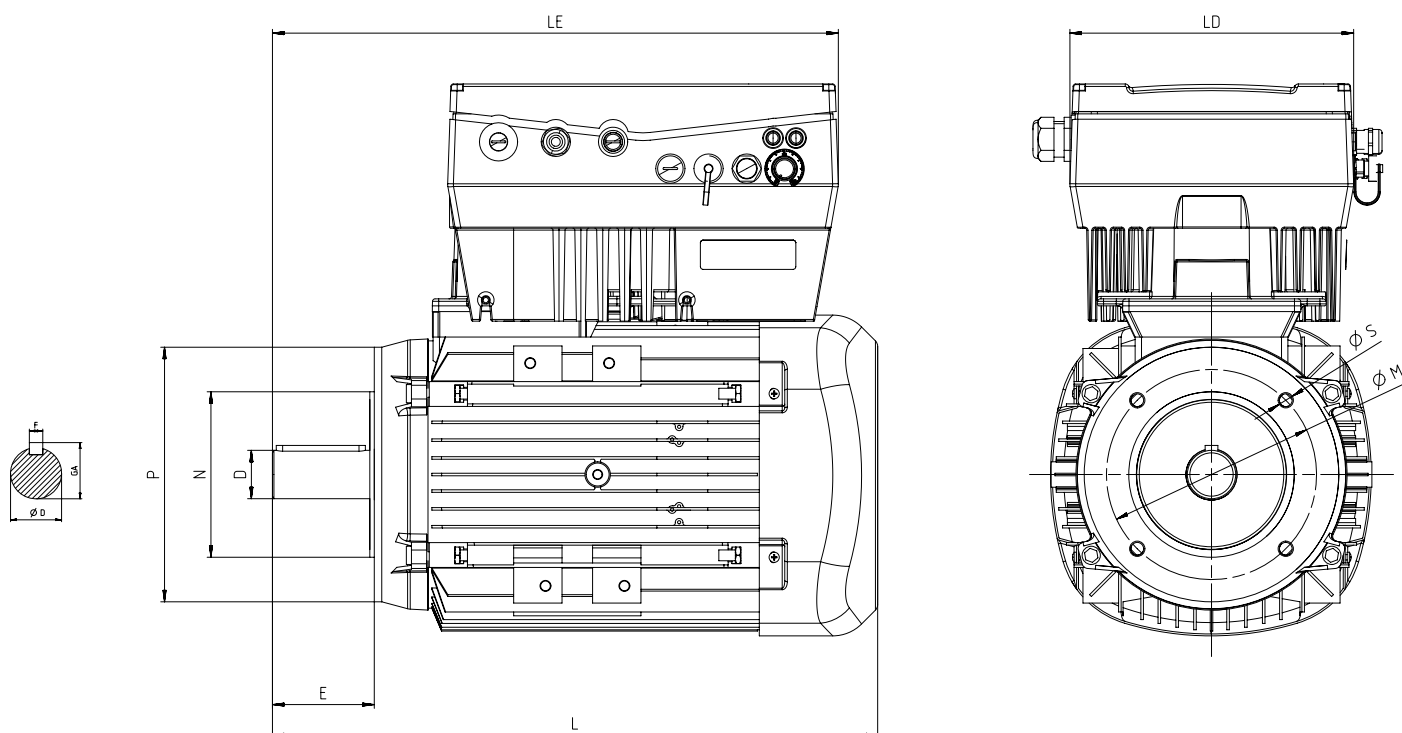
(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Please contact with us for motors above 7,5kW.

DIMENSION - B14b, B34b



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FB] (B14b)				
				LD	L	LE	B	A	H	HE	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.75	2	Q3HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q3HD80M4D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
1.1	2	Q3HD80M2D	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q3HSD90S4C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	160	110	130	0	M8
1.5	2	Q3HSD90S2C	Aluminium	189	303	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	160	110	130	0	M8
	4	Q3HD90L4D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
2.2	2	Q3HD90L2D	Aluminium	189	344	317	100	140	90	311	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q3HSD100L4C	Aluminium	189	384	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
3	2	Q3HSD100L2C	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	4	Q3HD100L4D	Aluminium	189	400	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
4	2	Q3HSD112M2C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	4	Q3HD112M4D	Aluminium	189	396	396	140	190	112	333	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
5.5	2	Q3HSD132S2C	Aluminium	223	422	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	250	180	215	0	M12 or 15
	4	Q3HD132S4B	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 or 15
7.5	2	Q3HSD132S2D	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6206-2Z	40*62*10	30*47*7	250	180	215	0	M12 or 15
	4	Q3HD132M4D	Aluminium	223	481	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 or 15

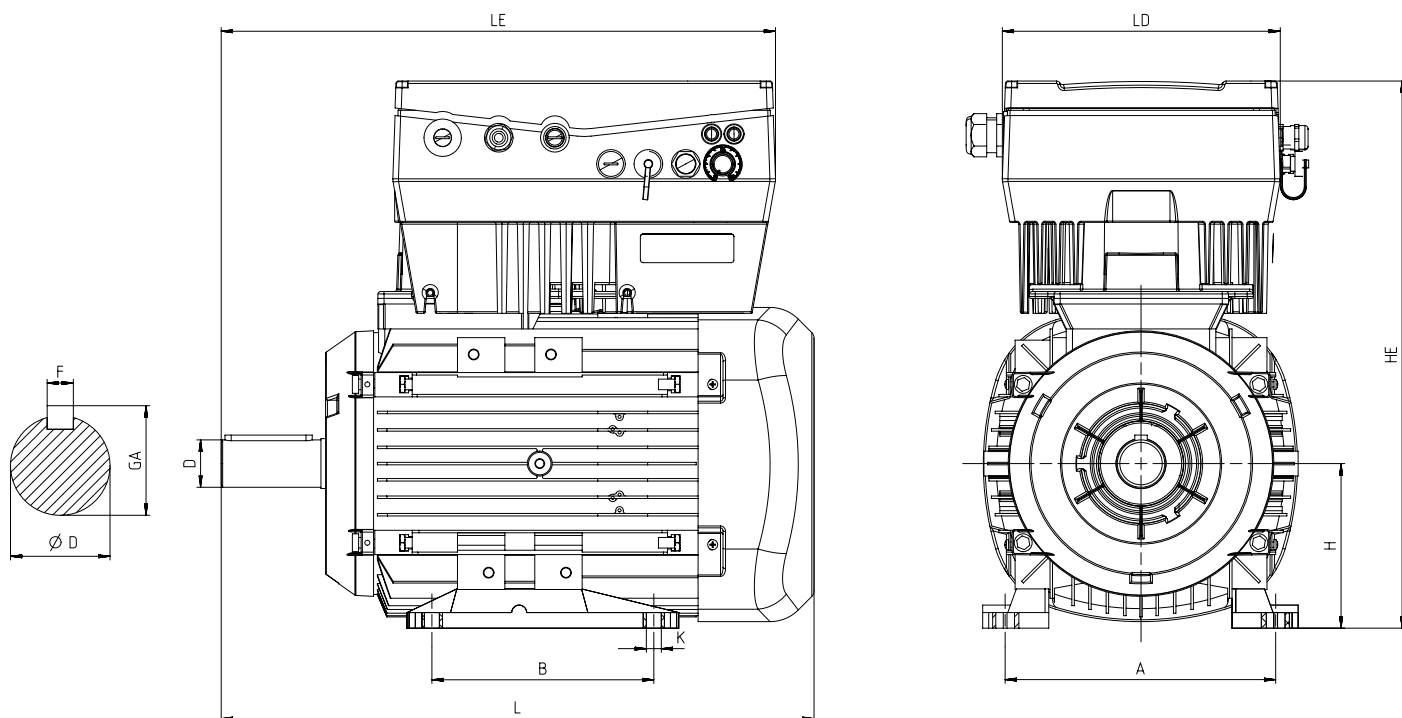
(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Q2D

DIMENSION - B3



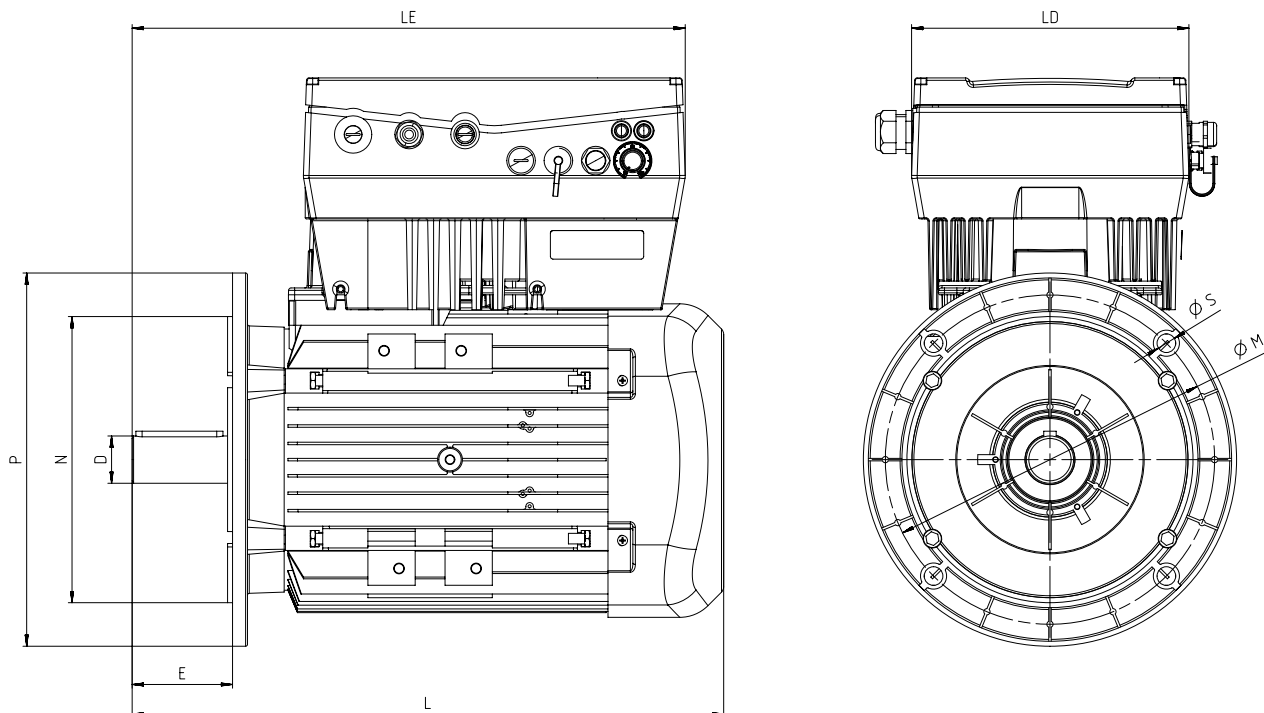
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal	
				LD	L	LE	B	A	H	HE	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side
0.75	2	Q2HD80M2B	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q2HD80M4C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
1.1	2	Q2HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q2HSD90S4B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7
1.5	2	Q2HSD90S2B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7
	4	Q2HSD90L4C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7
2.2	2	Q2HSD90L2C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7
	4	Q2HSD100L4B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
3	2	Q2HSD100L2B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	4	Q2HSD100L4C	Aluminium	189	385	372	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
4	2	Q2HSD112M2B	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
	4	Q2HSD112M4C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
5.5	2	Q2HSD132S2B	Aluminium	189	422	396	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7
	4	Q2HSD132S4A	Aluminium	189	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7
7.5	2	Q2HSD132S2C	Aluminium	223	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7
	4	Q2HSD132M4C	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

2) According to DIN 6885

Please contact with us for motors above 7,5kW.

DIMENSION - B5



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [B5]				
				LD	L	LE	B	A	H	HE	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.75	2	Q2HD80M2B	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q2HD80M4C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
1.1	2	Q2HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q2HS90S4B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	200	130	165	0	12
1.5	2	Q2HSD90S2B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	200	130	165	0	12
	4	Q2HSD90L4C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	200	130	165	0	12
2.2	2	Q2HSD90L2C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	200	130	165	0	12
	4	Q2HSD100L4B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
3	2	Q2HSD100L2B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
	4	Q2HSD100L4C	Aluminium	189	385	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
4	2	Q2HSD112M2B	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
	4	Q2HSD112M4C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
5.5	2	Q2HSD132S2B	Aluminium	189	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	300	230	265	0	14.5
	4	Q2HSD132S4A	Aluminium	189	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	300	230	265	0	14.5
7.5	2	Q2HSD132S2C	Aluminium	223	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	300	230	265	0	14.5
	4	Q2HSD132M4C	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	300	230	265	0	14.5

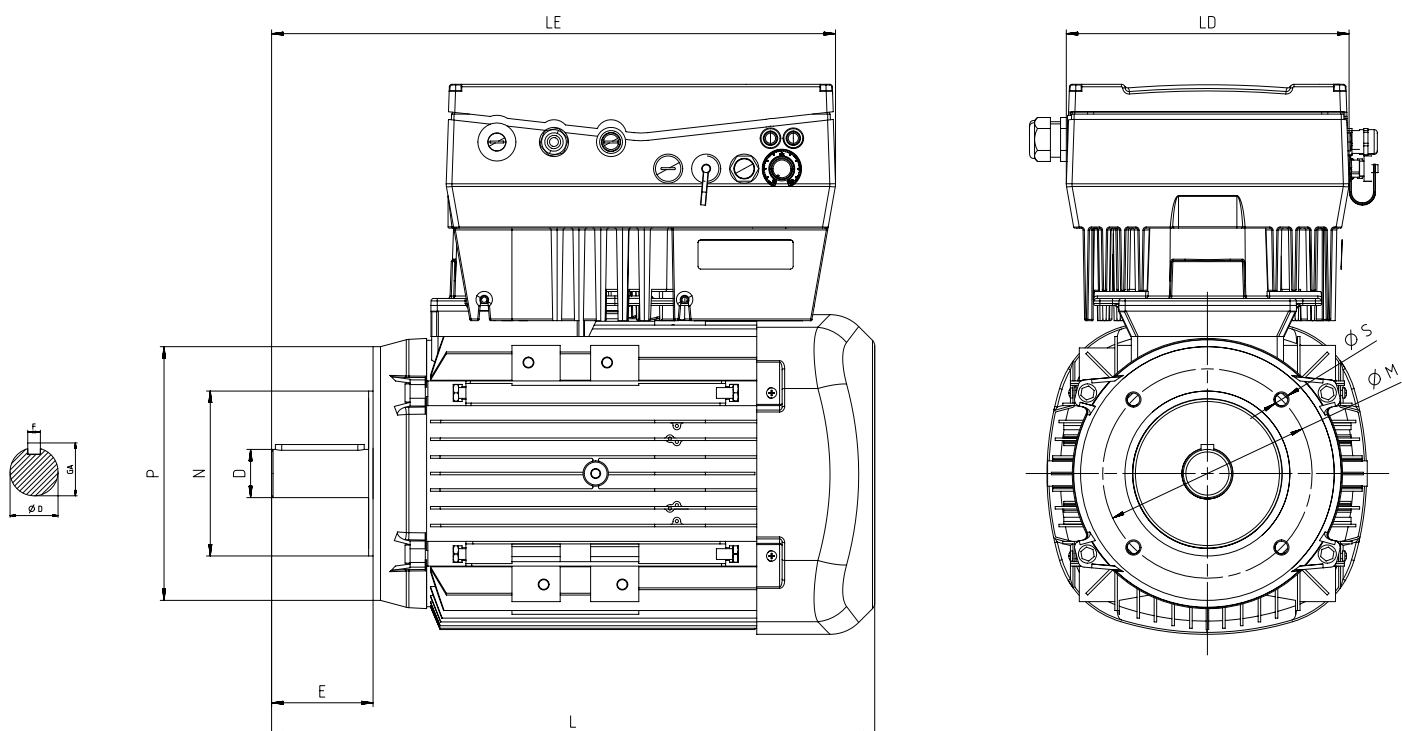
(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Please contact with us for motors above 7,5kW.

DIMENSION - B14a, B34a



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange (FC) (B14a)				
				LD	L	LE	B	A	H	HE	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ⁽³⁾	M	R	S
0.75	2	Q2HD80M2B	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q2HD80M4C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
1.1	2	Q2HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q2HS90S4B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	140	95	115	0	M8
1.5	2	Q2HSD90S2B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	140	95	115	0	M8
	4	Q2HSD90L4C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	140	95	115	0	M8
2.2	2	Q2HSD90L2C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	140	95	115	0	M8
	4	Q2HSD100L4B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
3	2	Q2HSD100L2B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
	4	Q2HSD100L4C	Aluminium	189	385	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
4	2	Q2HSD112M2B	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
	4	Q2HSD112M4C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
5.5	2	Q2HSD132S2B	Aluminium	189	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	200	130	165	0	M10
	4	Q2HSD132S4A	Aluminium	189	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	200	130	165	0	M10
7.5	2	Q2HSD132S2C	Aluminium	223	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	200	130	165	0	M10
	4	Q2HSD132M4C	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	200	130	165	0	M10

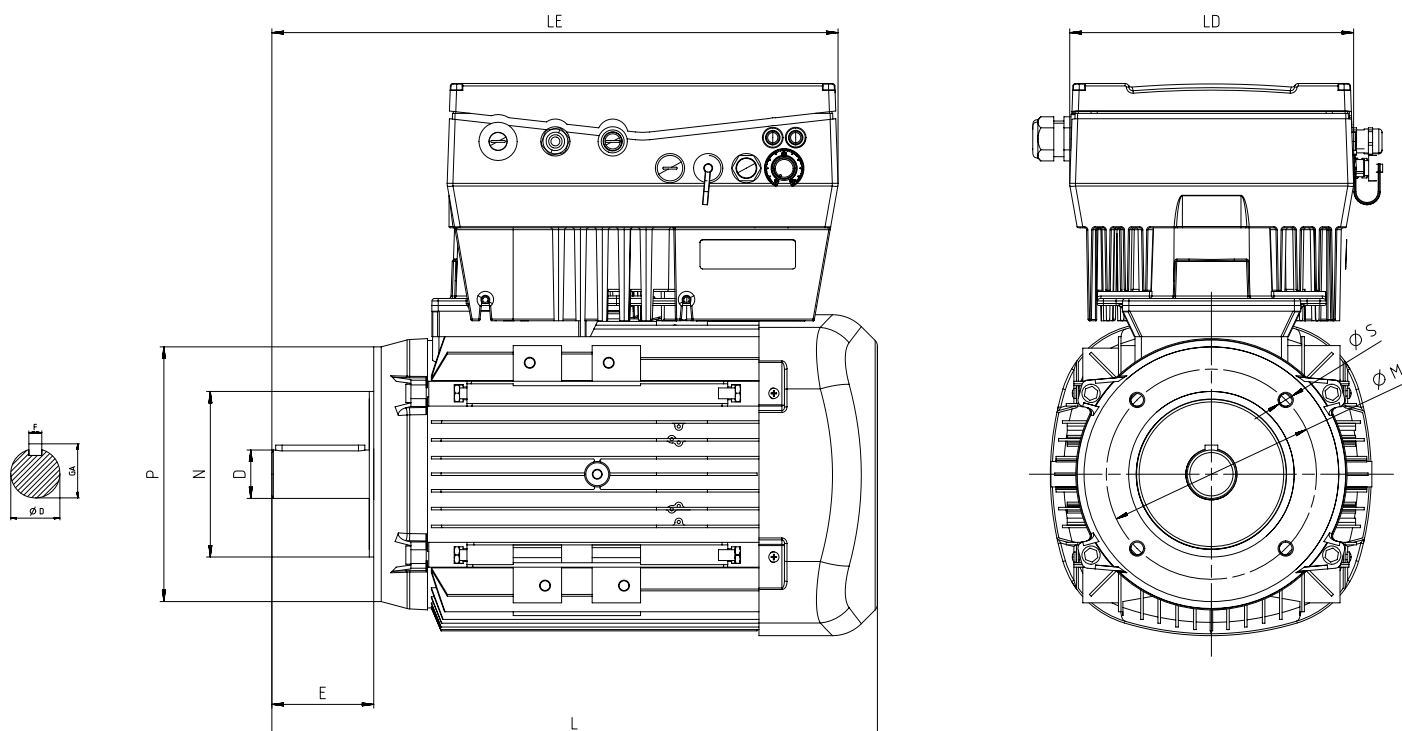
(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Please contact with us for motors above 7,5kW.

DIMENSION - B14b, B34b

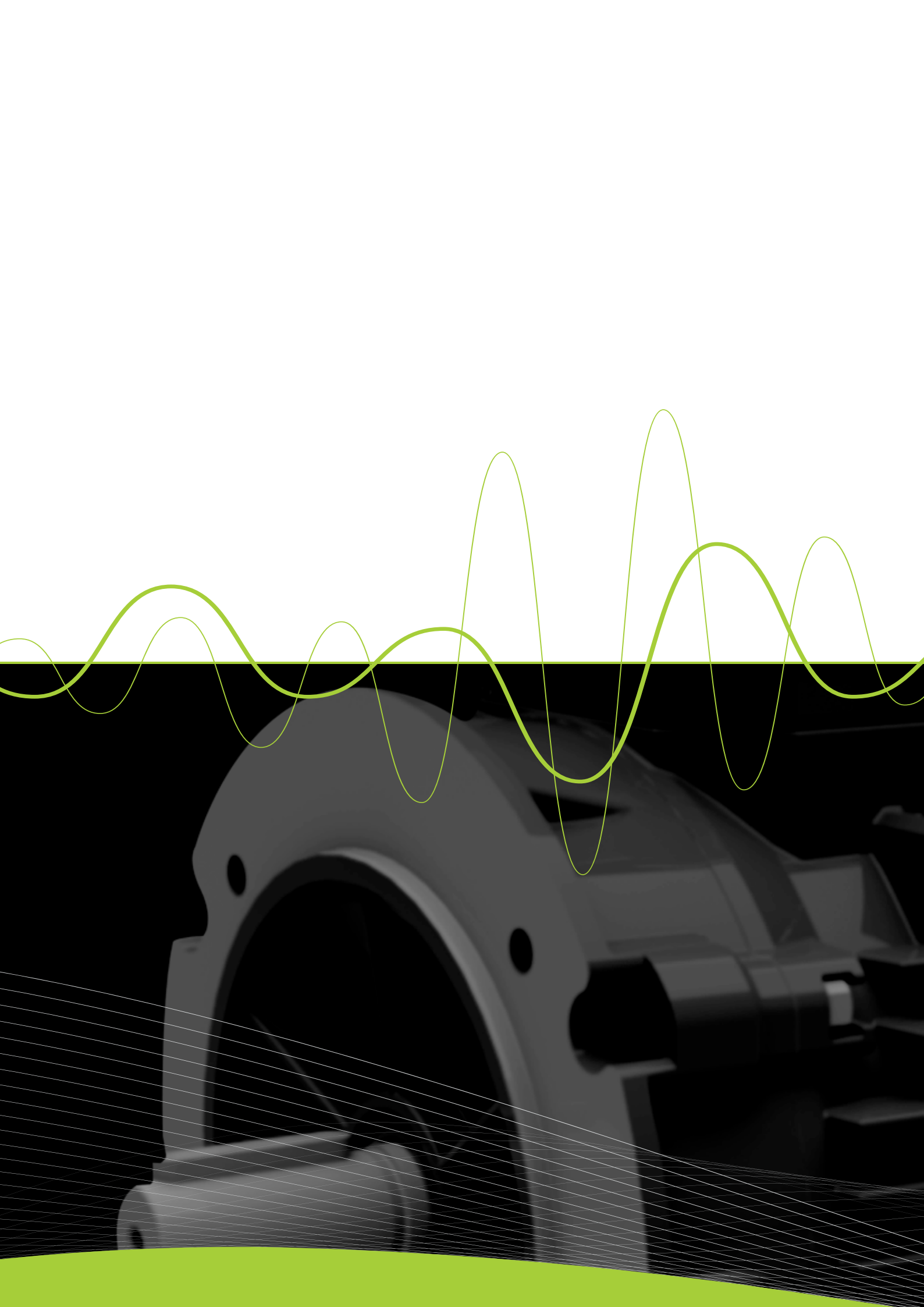


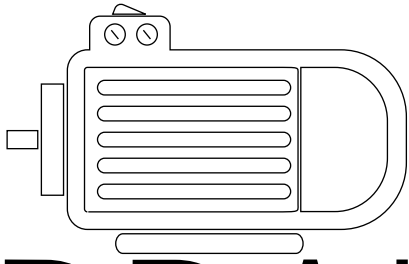
				Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FB][B14b]				
Power [kW]	Number of Poles	Motor Type	Housing Type	LD	L	LE	B	A	H	HE	K	D ^[1]	E	GA	F ^[2]	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ^[3]	M	R	S
0.75	2	Q2HD80M2B	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q2HD80M4C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
1.1	2	Q2HD80M2C	Aluminium	189	268	365	100	125	80	290	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q2HS90S4B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	160	110	130	0	M8
1.5	2	Q2HSD90S2B	Aluminium	189	278	317	100	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	160	110	130	0	M8
	4	Q2HSD90L4C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	160	110	130	0	M8
2.2	2	Q2HSD90L2C	Aluminium	189	303	317	125	140	90	311	10	24	50	27	8	6305-2Z	6204-2Z	25*40*7	25*30*7	160	110	130	0	M8
	4	Q2HSD100L4B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
3	2	Q2HSD100L2B	Aluminium	189	349	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	4	Q2HSD100L4C	Aluminium	189	385	370	140	160	100	331	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
4	2	Q2HSD112M2B	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
	4	Q2HSD112M4C	Aluminium	189	399	396	140	190	112	333	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
5.5	2	Q2HSD132S2B	Aluminium	189	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	250	180	215	0	M12
	4	Q2HSD132S4A	Aluminium	189	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	250	180	215	0	M12
7.5	2	Q2HSD132S2C	Aluminium	223	422	476	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	250	180	215	0	M12
	4	Q2HSD132M4C	Aluminium	223	448	476	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	30*47*7	250	180	215	0	M12

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"





BRAKE MOTORS



TECHNICAL DOCUMENTATION

Mechanical and electrical properties are same as standard type motors. Non-drive endshields are made of cast-iron

Brake Specifications

DC electromagnetic brakes with a safety-design are used in brake motors. Different brake voltages are available upon request.

Working Principle

When the supply fails, the springs make the armature plate press the brake disk and then motor automatically starts braking. When the brake being supplied, electro-magnet pulls the armature plate then both the brake disk and motor shaft are set to free.

Brake Disk

Asbestos-free brake material is used with long-life friction rings.

Type	Distance between Adjusting-ring and Electromagnet: "A" [in mm]									
	9	8	7	6	5	4	3	2	1	"A"
QB63	-	-	-	0.3	0.1	1.7	2.4	3.1	3.8	4.5
QB71	-	-	-	-	0.8	2.2	3.7	5.1	6.6	8
QB80	-	-	-	-	0.1	3.2	5.4	7.6	9.8	12
QB90	-	-	-	-	-	1.6	5.2	8.8	12.4	16
QB100	3.5	7.0	14.5	14.0	17.5	21.0	24.5	28.0	31.5	35
QB112	-	4.0	11.0	18.0	25.0	32.0	39.0	46.0	53.0	60
	Breaking Torque Value [Kgm]									
										Max. Torque [Kgm]

Braking Torque

Braking torque can be adjusted by ring. In the table shown below, you will find the distance "A" in order to obtain the braking torque requested. The variation in the wear of friction material which is subject to change in braking torque is given below.

Switching Times

Normal switching times are given in the table below. These values are subject to change according to load characteristics.

Type	Normal switch-off time ms	Normal switch-on time ms	Fast switch-off time ms
QB63	10	45	20
QB71	15	50	30
QB80	15	55	30
QB90	15	65	40
QB100	20	75	45
QB112	25	180	85

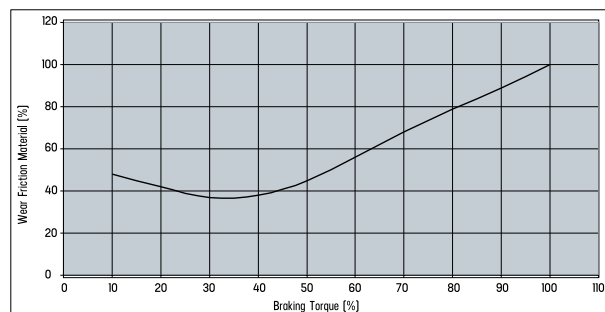
Special Constructions

The following special construction class features are possible upon request;

- Special shaft end
- Special flanges
- Different type bearings
- Fixed bearings
- IP55 protection class
- Different voltages an frequencies
- AC type brake

Air Gap

Ideal air-gap values are given in the table below. The maximum acceptable air-gap value is 0,7 mm. If this value is exceeded, the brake's performance will change and air gap must be adjusted again.



Type	QB630	B71	QB80	QB90	QB100	QB112
Ideal Air-gap [mm]	0.2	0.2	0.2	0.2	0.3	0.3

Rectifier Bridge

Normal Type (AS) half-wave rectifier is used as standard in motors. By using fast type (ASR) rectifier, it is possible to get fast switch on times which is shown on the table.

ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES				STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY ** η %	Cos ϕ 4/4	Brake Max Torque kgm ²	J kgm ²	Weight [B3] kg	
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE							
		kW	HP				rpm	A	Nm							I_A / I_N $\lambda \quad \Delta$

2 pole 3000 rpm

230/400V	QB63M2A	Aluminium	0.18	1	2800	0.6	0.62	4.2	-	2.3	-	2.4	61.8	0.74	5	0.00017	6
	QB63M2B	Aluminium	0.25	1	2800	0.7	0.86	4.2	-	2.2	-	2.3	64.8	0.83	5	0.00022	7
	QB71M2A	Aluminium	0.37	1	2800	1	1.27	4.3	-	2	-	2.4	65.7	0.84	8	0.00028	9
	QB71M2B	Aluminium	0.55	3	2820	1.4	1.87	5	-	2.2	-	2.5	67.7	0.85	8	0.00036	10
	QB80M2A	Aluminium	0.75	1	2840	1.8	2.53	5.2	-	2.2	-	2.6	72.1	0.86	12	0.00088	13
	QB80M2B	Aluminium	1.1	1.5	2850	2.5	3.69	6	-	2.6	-	2.9	75	0.86	12	0.00109	14
	QB90S2A	Aluminium	1.5	2	2860	3.3	5.01	6.3	-	2.6	-	3.1	77.2	0.87	16	0.00130	18
	QB90L2A	Aluminium	2.2	3	2860	4.7	7.37	6.9	-	2.6	-	3.2	79.7	0.88	16	0.00164	20
	QB100L2A	Aluminium	3	4	2890	6.2	9.94	7.1	-	2.8	-	3.5	81.5	0.89	35	0.00243	27
400/690V	QB112M2A	Aluminium	4	5.5	2890	8	13.31	2.2	6.9	0.87	2.6	3.4	83.1	0.9	60	0.00399	35

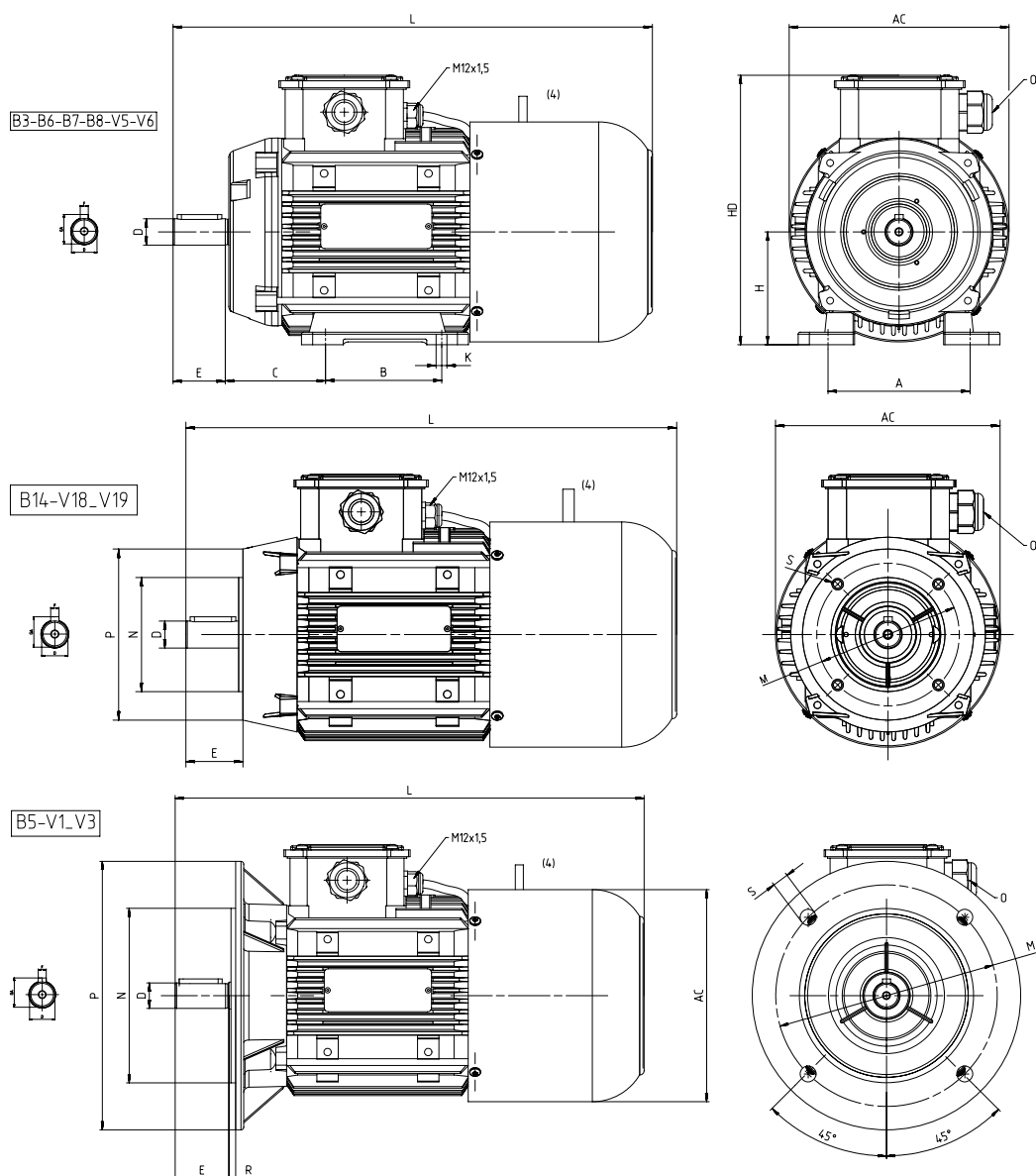
4 pole 1500 rpm

230/400V	QB63M4A	Aluminium	0.12	1/6	1365	0.5	0.84	2.8	-	2.0	-	2.3	52.8	0.65	5	0.00020	6
	QB63M4B	Aluminium	0.18	1/4	1380	0.7	1.25	3.2	-	2.2	-	2.4	59.9	0.62	5	0.00025	7
	QB71M4A	Aluminium	0.25	1/3	1390	0.9	1.72	3.5	-	2.2	-	2.4	62.9	0.67	8	0.00072	9
	QB71M4B	Aluminium	0.37	1/2	1390	1.2	2.54	4.0	-	2.3	-	2.6	65.5	0.69	8	0.00096	10
	QB80M4A	Aluminium	0.55	3/4	1400	1.6	3.75	4.0	-	2.1	-	2.3	69.2	0.73	12	0.00168	13
	QB80M4B	Aluminium	0.75	1.0	1400	2.1	5.12	4.2	-	2.1	-	2.2	72.1	0.74	12	0.00206	14
	QB90S4A	Aluminium	1.1	1.5	1410	2.7	7.45	5.4	-	2.4	-	2.7	75.0	0.79	16	0.00245	18
	QB90L4A	Aluminium	1.5	2.0	1420	3.6	10.09	5.5	-	2.4	-	2.7	77.2	0.79	16	0.00324	20
	QB100L4A	Aluminium	2.2	3.0	1420	5.1	14.90	5.4	-	2.5	-	2.7	79.7	0.80	35	0.00400	27
	QB100L4B	Aluminium	3.0	4.0	1425	6.8	20.32	5.4	-	2.5	-	2.7	81.5	0.81	35	0.00474	30
400/690V	QB112M4B	Aluminium	4	5.5	1445	8.7	26.71	2.1	6.7	0.72	2.8	3.2	83.1	0.82	60	0.00938	39

6 pole 1000 rpm

230/400V	QB71M6A	Aluminium	0.18	1/4	900	0.8	1.91	3.0	-	2.0	-	2.3	54.2	0.60	8	0.00068	9
	QB71M6B	Aluminium	0.25	1/3	910	0.95	2.63	3.1	-	2.0	-	2.3	60.1	0.63	8	0.00090	10
	QB80M6A	Aluminium	0.37	1/2	920	1.35	3.84	3.3	-	2.1	-	2.4	64.1	0.61	12	0.00160	13
	QB80M6B	Aluminium	0.55	3/4	920	1.85	5.71	3.2	-	2.1	-	2.5	67.0	0.65	12	0.00196	14
	QB90S6A	Aluminium	0.75	1.0	925	2.3	7.75	3.6	-	1.9	-	2.1	70.0	0.69	16	0.00257	18
	QB90L6B	Aluminium	1.1	1.5	930	3.3	11.24	4.0	-	2.0	-	2.2	72.9	0.69	16	0.00330	20
	QB100L6A	Aluminium	1.5	2.0	935	4.2	15.24	4.2	-	2.1	-	2.3	75.2	0.72	35	0.00465	28
	QB112M6A	Aluminium	2.2	3.0	950	5.8	22.12	4.5	-	2.1	-	2.4	77.7	0.75	60	0.00921	38

QB 63-80



Frame ⁽⁴⁾	Number of Poles	Main Dimensions			Foot Mounted Motors					Shaft					Bearing		Seal		Flange						
		AC	L	O	B	A	H	HD ⁽³⁾	K	C	D ⁽¹⁾	E	GA	F ⁽³⁾	Drive Side	Non drive Side	Drive Side	Non drive Side ⁽⁵⁾	Mounting Type	Flange Type	P	N ⁽²⁾	M	R	S
63 M	2..8	123	278	1*M20	80	100	63	174	7	40	11	23	12.5	4	6201-2Z	6202-2RS	12*22*7	-	B5	FA	140	95	115	0	10
																			B14	FB	120	80	100	0	M6
																			B14	FC	90	60	75	0	M5
71 M	2..8	138	314	1*M20	90	112	71	190	7	45	14	30	16.0	5	6202-2Z	6202-2RS	15*24*5	-	B5	FA	160	110	130	0	10
																			B14	FB	140	95	115	0	M8
																			B14	FC	105	70	85	0	M6
80 M	2..8	158	345	1*M20	100	125	80	207	10	50	19	40	21.5	6	6204-2Z	6204-2RS	20*30*7	-	B5	FA	200	130	165	0	12
																			B14	FB	160	110	130	0	M8
																			B14	FC	120	80	100	0	M6

Dimensions are in mm.

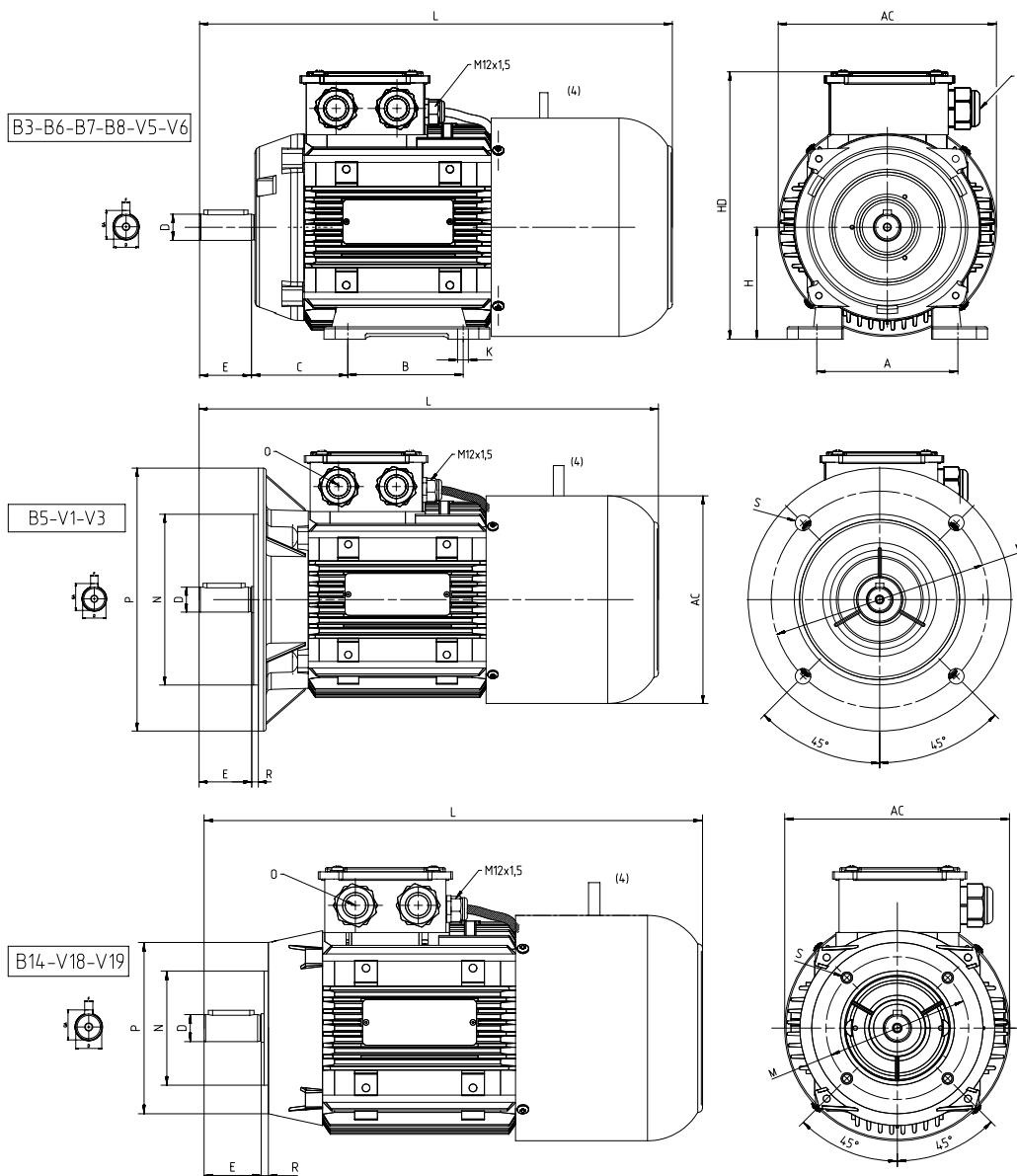
(1) Tolerance DIN EN 50347 "j6" up to f28mm., "k6" above f28mm.

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

(4) Lifting bolt is mounted from frame size 112 on

QB 90-112



Frame ⁽⁴⁾	Number of Poles	Main Dimensions			Foot Mounted Motors					Shaft					Bearing		Seal		Flange						
		AC	L	O	B	A	H	HD ⁽⁶⁾	K	C	D ⁽¹⁾	E	GA	F ⁽³⁾	Drive Side	Non drive Side	Drive Side	Non drive Side ⁽⁵⁾	Mounting Type	Flange Type	P	N ⁽²⁾	M	R	S
90S 90L	2...8	123	365.5	1*M25	100	140	90	241	10	56	24	50	27	8	6305-2Z	6205-2RS	25*40*7	-	B5	FA	200	130	165	0	12
			385.5		125														B14	FB	160	110	130	0	M8
																			B14	FC	140	95	115	0	M8
100L	2...8	138	437.0	1*M25	140	160	100	260	12	63	28	60	31	8	6306-2Z	6206-2RS	30*47*7	-	B5	FA	250	180	215	0	14.5
					140														B14	FB	200	130	165	0	M10
					160														B14	FC	160	110	130	0	M8
112M	2...8	158	475.5	2*M25	140	190	112	280	12	50	28	60	31	8	6306-2Z	6206-2RS	30*47*7	-	B5	FA	250	180	215	0	14.5
					140														B14	FB	200	130	165	0	M10
					160														B14	FC	160	110	130	0	M8

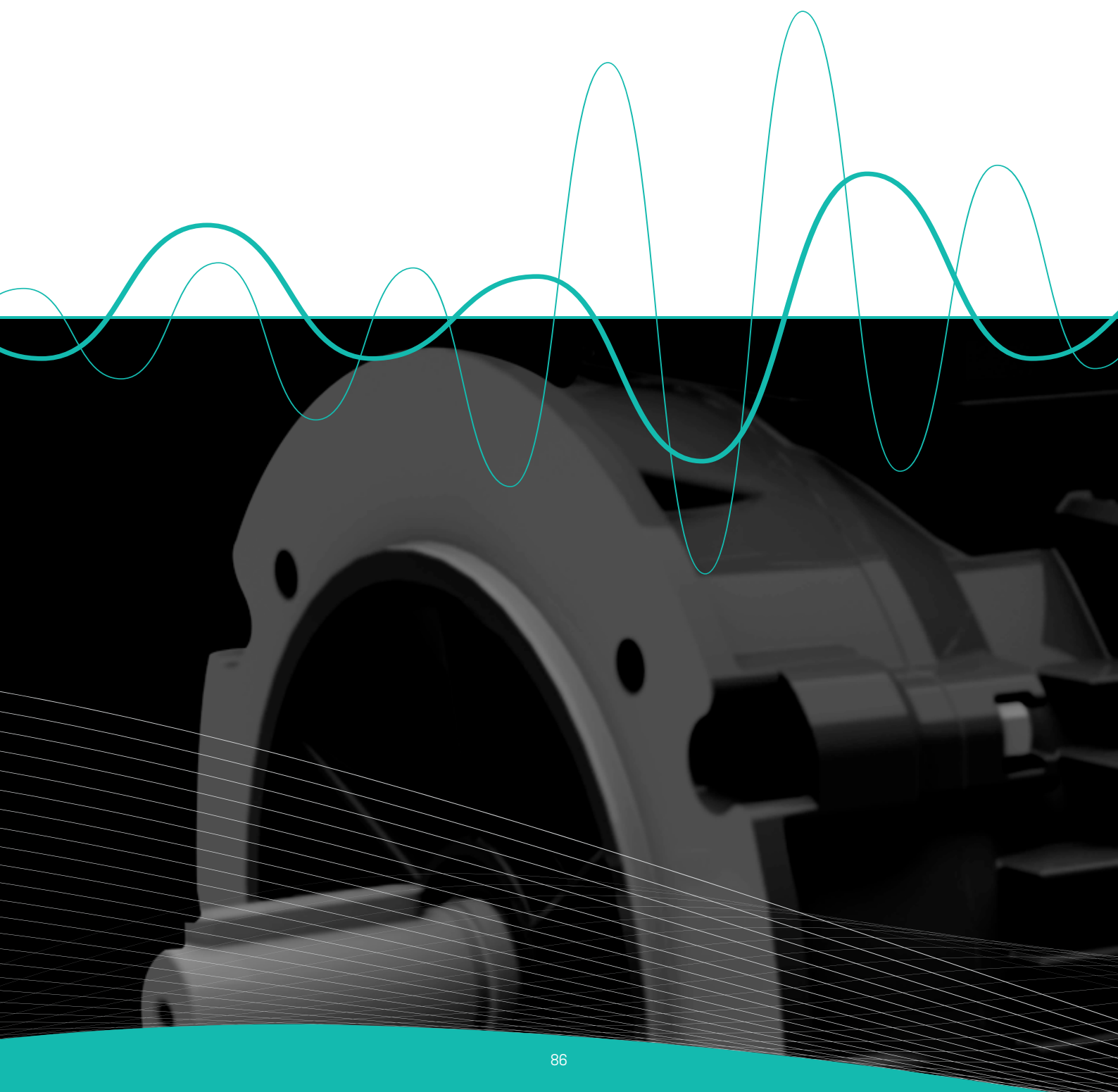
Dimensions are in mm.

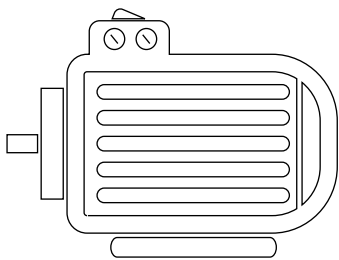
(1) Tolerance DIN EN 50347 "j6" up to f28mm, "k6" above f28mm.

(2) According to DIN 6885

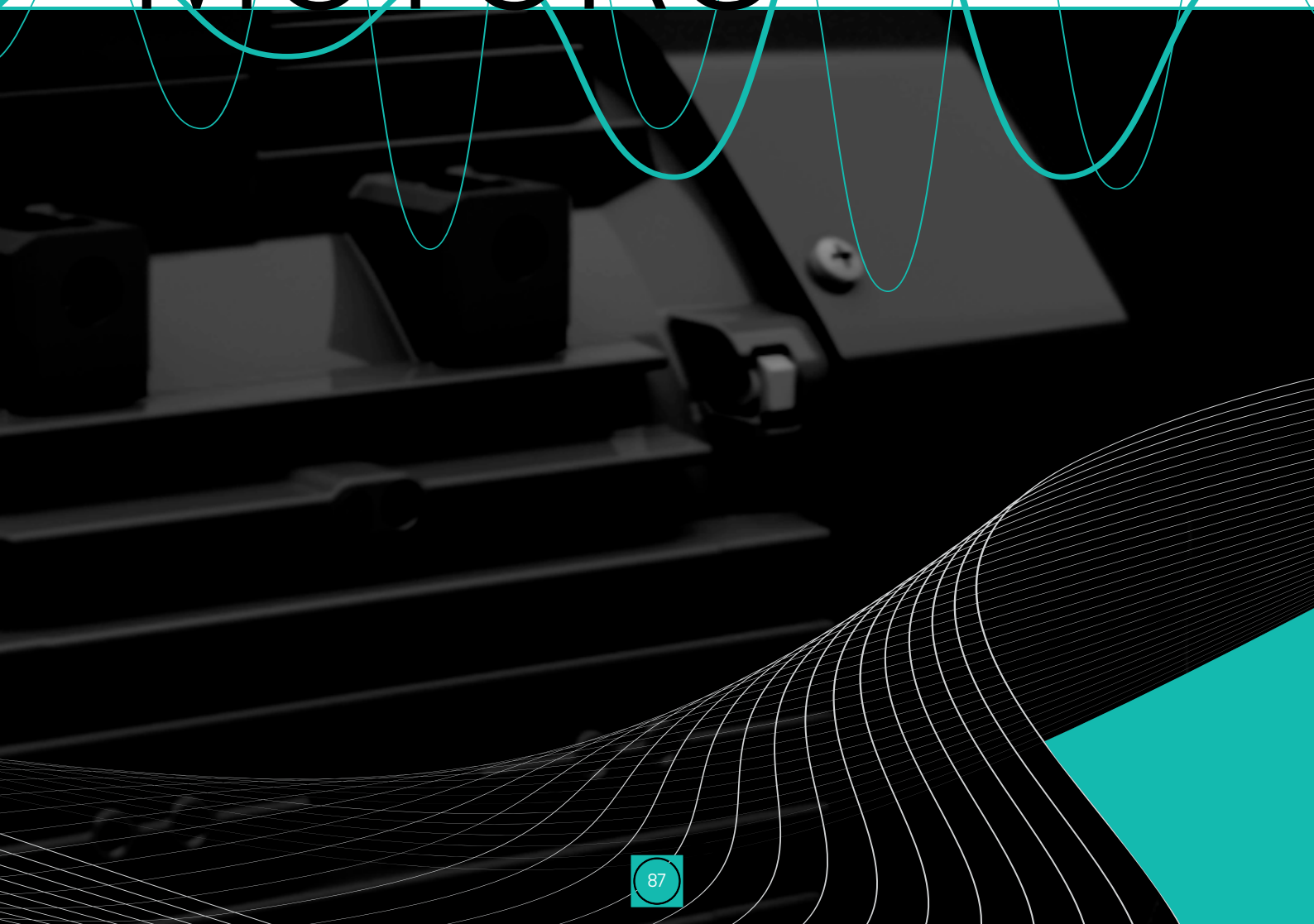
(3) Tolerance DIN EN 50347 "j6"

(4) Lifting bolt is mounted from frame size 112 on





TWO SPEED MOTORS



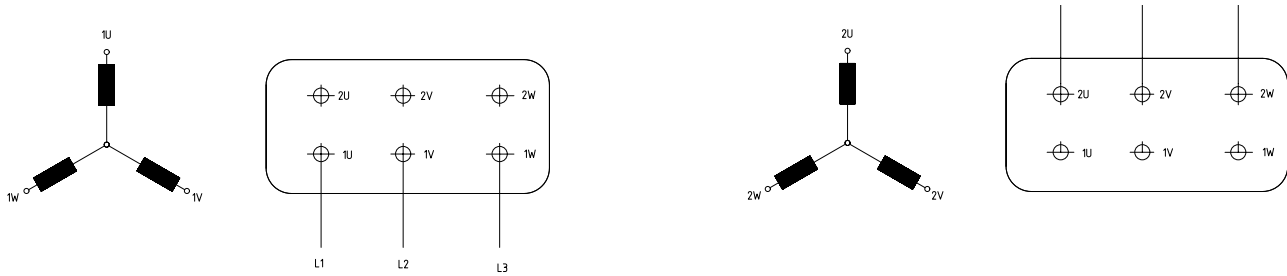
Q1E TWO SPEED MOTORS with Dahlander Winding

TECHNICAL DOCUMENTATION

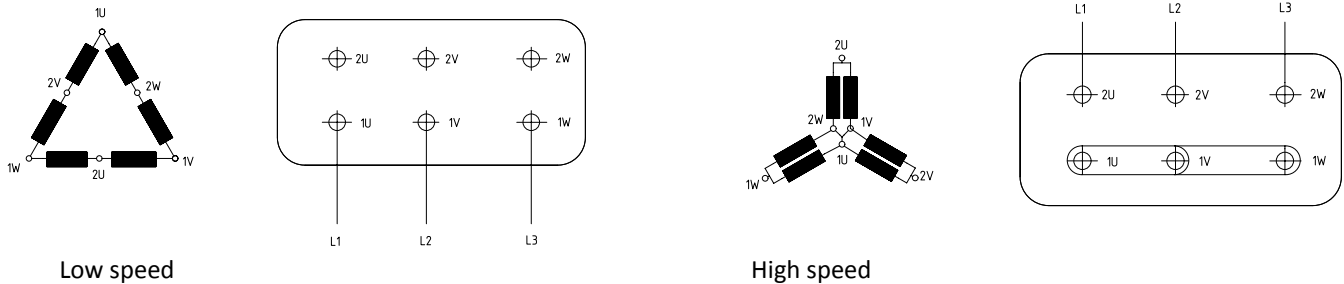
Multi-speed Motors

Multi-speed motors are categorized in two main groups as having “two separate windings” or “Dahlander winding”. In two-separate-winding motors, required speed is obtained with two independent windings with stator. In Dahlander-winding motors, two different speed rating at 2:1 ratio are normally obtained from a single wound motor.

Wiring Diagram for Two-Separate-Winding Motor:



Dahlander Motor Connection Diagram:



Low speed

High speed

TWO SPEED MOTORS with Dahlander Winding

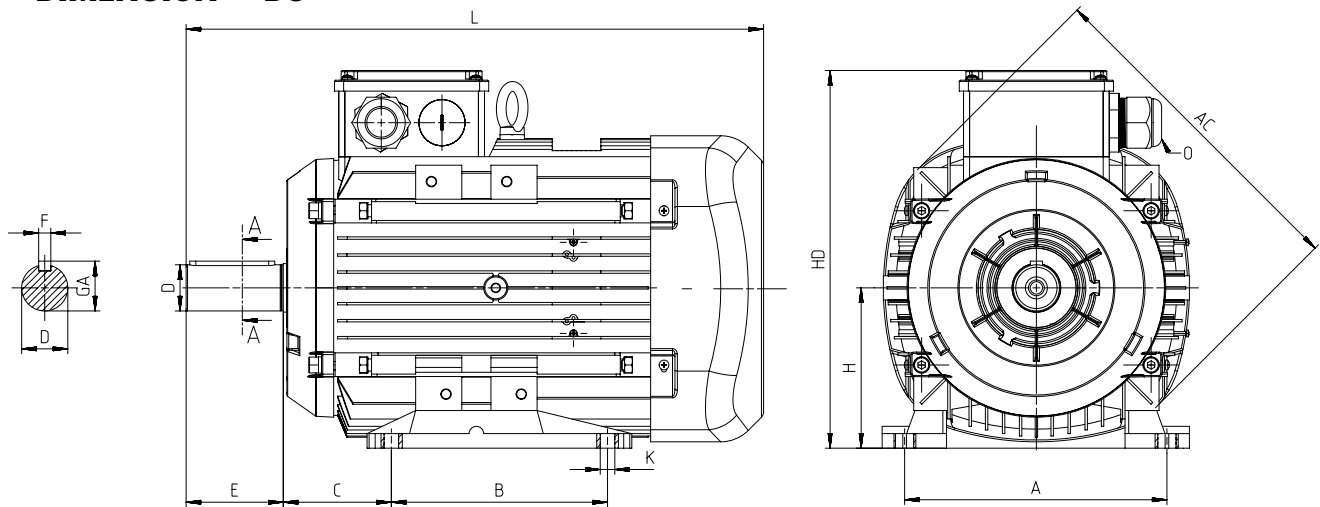
ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES				STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY		J kgm ²	Weight [B3] kg
		Power	Speed	Current	Torque	Current		Torque						
		kW	rpm	A	Nm	I _A / N	D	M _A / M _N	D		η %	Cos φ		
						λ	D	λ	D	Mk/ Mn	4/4	4/4		
Q1E7IM2/4A	Aluminium	0.20 0.30	1440 2850	0.80 1.13	1.32 1.00	3.8 3.5		2.25 2.15		3.00 2.90	62.5 59.5	0.61 0.68	0.00072	5
Q1E7IM2/4B	Aluminium	0.30 0.45	1440 2880	1.20 2.00	2.00 1.50	4.0 3.4		2.40 2.15		3.40 3.20	63.0 56.5	0.60 0.61	0.00096	6
Q1E80M2/4A	Aluminium	0.37 0.55	1400 2840	1.17 1.57	2.52 1.90	4.0 5.2		2.40 2.10		2.80 2.60	69.0 66.0	0.70 0.82	0.00168	8
Q1E80M2/4B	Aluminium	0.55 0.75	1400 2850	1.60 2.20	3.75 2.51	4.6 4.9		2.30 2.30		2.80 2.70	74.0 72.0	0.71 0.72	0.00205	9
Q1E90S2/4A	Aluminium	0.85 1.20	1410 2810	2.30 3.70	5.75 4.10	5.3 4.9		2.50 2.40		3.00 2.90	76.2 70.0	0.73 0.71	0.00243	14
Q1E90L2/4A	Aluminium	1.40 1.80	1415 2855	3.60 4.80	9.48 6.03	5.1 5.0		2.20 2.30		2.60 2.70	78.0 73.5	0.76 0.78	0.00322	16
Q1E100L2/4A	Aluminium	2.00 2.60	1420 2850	4.60 5.80	13.45 8.70	5.1 5.4		2.40 2.50		2.80 2.90	81.5 80.0	0.81 0.85	0.00398	22
Q1E100L2/4B	Aluminium	2.60 3.20	1420 2850	6.00 7.00	17.49 10.72	5.4 5.6		2.50 2.60		3.10 3.00	83.0 82.0	0.80 0.85	0.00471	25
Q1E112M2/4B	Aluminium	3.70 4.70	1420 2890	7.40 10.50	24.40 15.50	6.2 6.0		2.30 2.20		2.90 3.10	85.0 81.0	0.89 0.84	0.00933	32
Q1E132S2/4C	Aluminium	4.70 5.70	1450 2900	9.50 12.90	30.95 18.83	6.2 6.5		2.20 2.40		2.80 3.10	85.5 81.0	0.88 0.83	0.02111	40
Q1E132M2/4B	Aluminium	6.50 8.00	1450 2900	12.70 17.70	42.81 26.30	6.3 6.9		2.50 2.70		2.90 3.40	86.0 82.0	0.90 0.84	0.02763	61
Q1E160M2/4B	Aluminium	9.50 11.00	1450 2910	18.50 21.80	62.57 36.09	5.4 6.9		2.20 2.70		2.70 3.20	88.0 87.0	0.89 0.88	0.05547	73
Q1E160L2/4A	Aluminium	13.00 17.00	1450 2920	25.90 33.20	85.60 55.60	5.6 6.5		2.50 2.50		2.90 3.20	89.0 88.0	0.86 0.88	0.06922	102
Q1E7IM4/8B	Aluminium	0.09 0.15	690 1400	0.63 0.45	1.25 1.00	2.0 4.0		2.10 1.90		2.60 2.60	39.5 68.0	0.55 0.74	0.00068	6
Q1E7IM4/8B	Aluminium	0.12 0.22	690 1400	0.91 0.63	1.66 1.50	2.1 4.0		2.30 2.00		2.80 2.50	39.0 70.0	0.53 0.76	0.00091	8
Q1E80M4/8A	Aluminium	0.15 0.25	700 1400	0.93 0.65	2.05 1.70	2.3 4.3		2.20 2.00		2.60 2.50	46.0 71.5	0.54 0.81	0.0016	10
Q1E80M4/8B	Aluminium	0.18 0.33	700 1410	1.20 0.84	2.46 2.24	2.5 4.5		2.70 2.30		3.10 2.70	47.0 75.0	0.50 0.80	0.00196	11
Q1E80M4/8C	Aluminium	0.25 0.45	700 1400	1.47 1.10	3.41 3.10	2.6 4.5		2.60 2.30		3.00 2.70	51.5 76.0	0.51 0.82	0.0022	12
Q1E90S4/8A	Aluminium	0.37 0.66	705 1420	1.81 2.37	5.01 6.72	3.0 4.8		1.80 1.80		2.50 2.50	57.0 78.0	0.55 0.55	0.00243	14
Q1E90L4/8A	Aluminium	0.55 1.00	710 1430	2.50 2.30	7.50 6.70	3.0 5.0		1.80 1.80		2.50 2.50	63.0 78.0	0.54 0.85	0.00322	16
Q1E100L4/8A	Aluminium	0.80 1.40	705 1425	3.00 3.20	10.84 9.38	2.8 4.2		1.70 1.50		2.10 2.10	64.5 77.0	0.63 0.87	0.00398	22
Q1E100L4/8C	Aluminium	1.20 2.00	700 1430	3.80 4.30	16.10 13.40	3.1 4.4		1.40 1.60		1.90 2.10	70.5 79.5	0.68 0.89	0.00471	29
Q1E112M4/8B	Aluminium	1.80 2.70	710 1440	4.90 5.50	20.50 17.90	3.8 5.6		1.50 1.60		2.30 2.50	73.0 80.0	0.76 0.93	0.00933	32
Q1E132S4/8C	Aluminium	2.70 4.00	720 1450	7.70 7.75	35.81 26.30	3.4 3.5		1.60 2.00		1.90 2.60	76.0 85.5	0.70 0.91	0.02111	40
Q1E132M4/8B	Aluminium	3.50 6.00	720 1450	10.30 11.65	46.42 39.52	3.2 5.8		1.40 2.00		2.10 2.60	77.0 86.0	0.67 0.90	0.02763	61
Q1E160M4/8B	Aluminium	5.00 7.50	720 1450	14.80 15.00	66.32 49.40	3.6 6.6		1.70 2.20		2.20 2.80	82.0 88.0	0.62 0.86	0.05915	75
Q1E160L4/8A	Aluminium	6.50 9.00	720 1450	17.50 17.50	86.22 59.30	3.7 7.1		1.90 2.30		2.30 3.00	83.0 88.0	0.68 0.88	0.07315	90
Q1E160L4/8B	Aluminium	7.00 11.00	720 1450	19.80 21.50	92.85 72.50	3.8 6.8		2.00 2.40		2.30 3.00	82.0 88.0	0.65 0.88	0.07315	101

Please get in contact for other motor types.

Q1E TWO SPEED MOTORS with Dahlander Winding

DIMENSION - B3



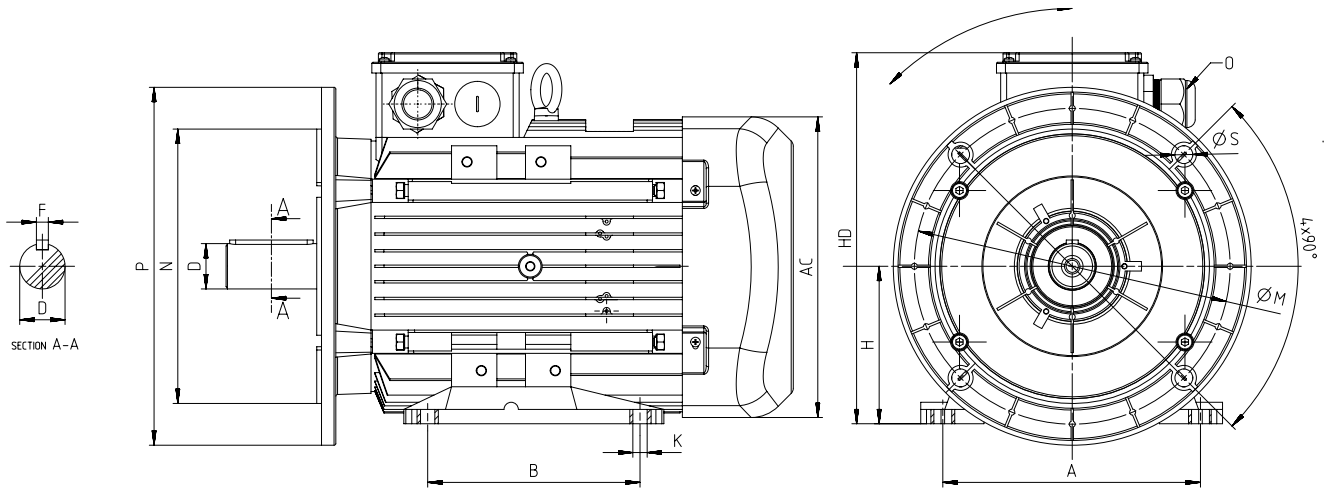
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal	
				AC	L	O	B	A	H	HD	K	C	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non Drive Side	Drive Side	Non Drive Side
0.30/0.20	2/4	Q1E7IM2/4A	Aluminium	138	253	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
0.45/0.30	2/4	Q1E7IM2/4B	Aluminium	138	253	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
0.55/0.37	2/4	Q1E80M2/4A	Aluminium	158	284	1*M20	100	125	80	195	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
0.75/0.55	2/4	Q1E80M2/4B	Aluminium	158	284	1*M20	100	125	80	195	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
1.20/0.85	2/4	Q1E90S2/4A	Aluminium	193	297	1*M25	100	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1.80/0.40	2/4	Q1E90L2/4A	Aluminium	193	317	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
2.60/2.00	2/4	Q1E100L2/4A	Aluminium	217	352	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
3.20/2.60	2/4	Q1E100L2/4B	Aluminium	217	352	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
4.70/3.70	2/4	Q1E112M2/4B	Aluminium	232	396	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
5.70/4.70	2/4	Q1E132S2/4C	Aluminium	279	441	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
8.00/6.50	2/4	Q1E132M2/4B	Aluminium	279	476	2*M32	178	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
11.00/9.50	2/4	Q1E160M2/4B	Aluminium	302	576	2*M32	210	254	160	360	14.5	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
17.00/13.00	2/4	Q1E160L2/4A	Aluminium	302	576	2*M32	210	254	160	360	14.5	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
0.15/0.09	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
0.22/0.12	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	45	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5
0.25/0.15	4/8	Q1E80M4/8A	Aluminium	158	284	1*M20	100	125	80	195	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
0.33/0.18	4/8	Q1E80M4/8B	Aluminium	158	284	1*M20	100	125	80	195	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
0.45/0.25	4/8	Q1E80M4/8C	Aluminium	158	284	1*M20	100	125	80	195	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
0.66/0.37	4/8	Q1E90S4/8A	Aluminium	193	297	1*M25	100	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1.00/0.55	4/8	Q1E90L4/8A	Aluminium	193	317	1*M25	125	140	90	222	10	56	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1.40/0.80	4/8	Q1E100L4/8A	Aluminium	217	352	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
2.00/1.20	4/8	Q1E100L4/8C	Aluminium	217	352	1*M25	140	160	100	241	12	63	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7
2.70/1.80	4/8	Q1E112M4/8B	Aluminium	232	396	2*M25	140	190	112	261	12	70	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7
4.00/2.70	4/8	Q1E132S4/8C	Aluminium	279	441	2*M32	140	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
6.00/3.50	4/8	Q1E132M4/8B	Aluminium	279	476	2*M32	178	216	132	314	12	89	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10
7.50/5.00	4/8	Q1E160M4/8B	Aluminium	302	576	2*M32	210	254	160	360	14.5	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
9.00/6.50	4/8	Q1E160L4/8A	Aluminium	302	576	2*M32	210	254	160	360	14.5	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10
11.00/7.00	4/8	Q1E160L4/8B	Aluminium	302	576	2*M32	210	254	160	360	14.5	108	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

TWO SPEED MOTORS with Dahlander Winding

DIMENSION - B5



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FA] [B5]				
				AC	L	O	B	A	H	HD	K	d [1]	E	GA	F [2]	Drive Side	Non Drive Side	Drive Side	Non Drive Side	P	N [3]	M	R	S
0.30/0.20	2/4	Q1E7IM2/4A	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	160	110	130	0	10
0.45/0.30	2/4	Q1E7IM2/4B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	160	110	130	0	10
0.55/0.37	2/4	Q1E80M2/4A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
0.75/0.55	2/4	Q1E80M2/4B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
1.20/0.85	2/4	Q1E90S2/4A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1.80/0.40	2/4	Q1E90L2/4A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
2.60/2.00	2/4	Q1E100L2/4A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
3.20/2.60	2/4	Q1E100L2/4B	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
4.70/3.70	2/4	Q1E112M2/4B	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	14.5
5.70/4.70	2/4	Q1E132S2/4C	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5
8.00/6.50	2/4	Q1E132M2/4B	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5
11.00/9.50	2/4	Q1E160M2/4B	Aluminium	302	576	2*M32	210	254	160	360	14.5	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5
17.00/13.00	2/4	Q1E160L2/4A	Aluminium	302	576	2*M32	210	254	160	360	14.5	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5
0.15/0.09	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	160	110	130	0	10
0.22/0.12	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	160	110	130	0	10
0.25/0.15	4/8	Q1E80M4/8A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
0.33/0.18	4/8	Q1E80M4/8B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
0.45/0.25	4/8	Q1E80M4/8C	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
0.66/0.37	4/8	Q1E90S4/8A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1.00/0.55	4/8	Q1E90L4/8A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1.40/0.80	4/8	Q1E100L4/8A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
2.00/1.20	4/8	Q1E100L4/8C	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	250	180	215	0	14.5
2.70/1.80	4/8	Q1E112M4/8B	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	250	180	215	0	14.5
4.00/2.70	4/8	Q1E132S4/8C	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5
6.00/3.50	4/8	Q1E132M4/8B	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	14.5
7.50/5.00	4/8	Q1E160M4/8B	Aluminium	302	576	2*M32	210	254	160	360	14.5	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5
9.00/6.50	4/8	Q1E160L4/8A	Aluminium	302	576	2*M32	210	254	160	360	14.5	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5
11.00/7.00	4/8	Q1E160L4/8B	Aluminium	302	576	2*M32	210	254	160	360	14.5	42	110	45	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	18.5

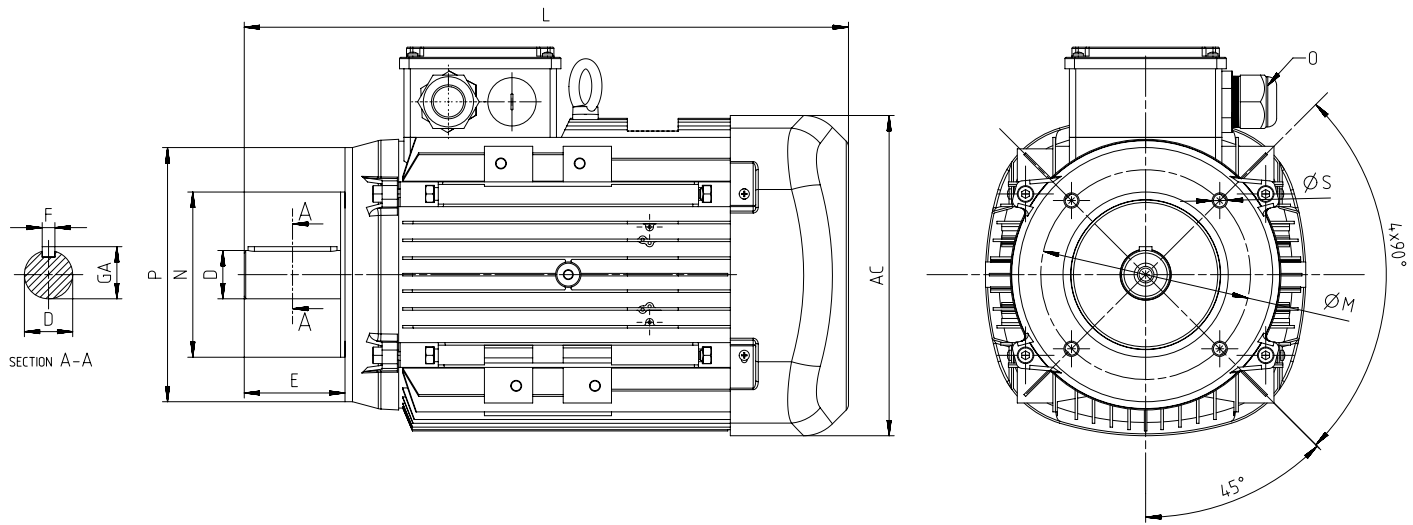
(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

Q1E TWO SPEED MOTORS with Dahlander Winding

DIMENSION - B14a, B34a



Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FC] [B14a]				
				AC	L	O	B	A	H	HD	K	D ⁽¹⁾	E	GA	F ⁽²⁾	Drive Side	Non Drive Side	Drive Side	Non Drive Side	P	N ⁽³⁾	M	R	S
0.30/0.20	2/4	Q1E7IM2/4A	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
0.45/0.30	2/4	Q1E7IM2/4B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
0.55/0.37	2/4	Q1E80M2/4A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
0.75/0.55	2/4	Q1E80M2/4B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
1.20/0.85	2/4	Q1E 90S2/4A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
1.80/0.40	2/4	Q1E 90L2/4A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
2.60/2.00	2/4	Q1E100L2/4A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
3.20/2.60	2/4	Q1E100L2/4B	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
4.70/3.70	2/4	Q1E12M2/4B	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	160	110	130	0	M8
5.70/4.70	2/4	Q1E132S2/4C	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
8.00/6.50	2/4	Q1E132M2/4B	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
0.15/0.09	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
0.22/0.12	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	105	70	85	0	M6
0.25/0.15	4/8	Q1E80M4/8A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
0.33/0.18	4/8	Q1E80M4/8B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
0.45/0.25	4/8	Q1E80M4/8C	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
0.66/0.37	4/8	Q1E90S4/8A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
1.00/0.55	4/8	Q1E90L4/8A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
1.40/0.80	4/8	Q1E100L4/8A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
2.00/1.20	4/8	Q1E100L4/8C	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	160	110	130	0	M8
2.70/1.80	4/8	Q1E12M4/8B	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	160	110	130	0	M8
4.00/2.70	4/8	Q1E132S4/8C	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
6.00/3.50	4/8	Q1E132M4/8B	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

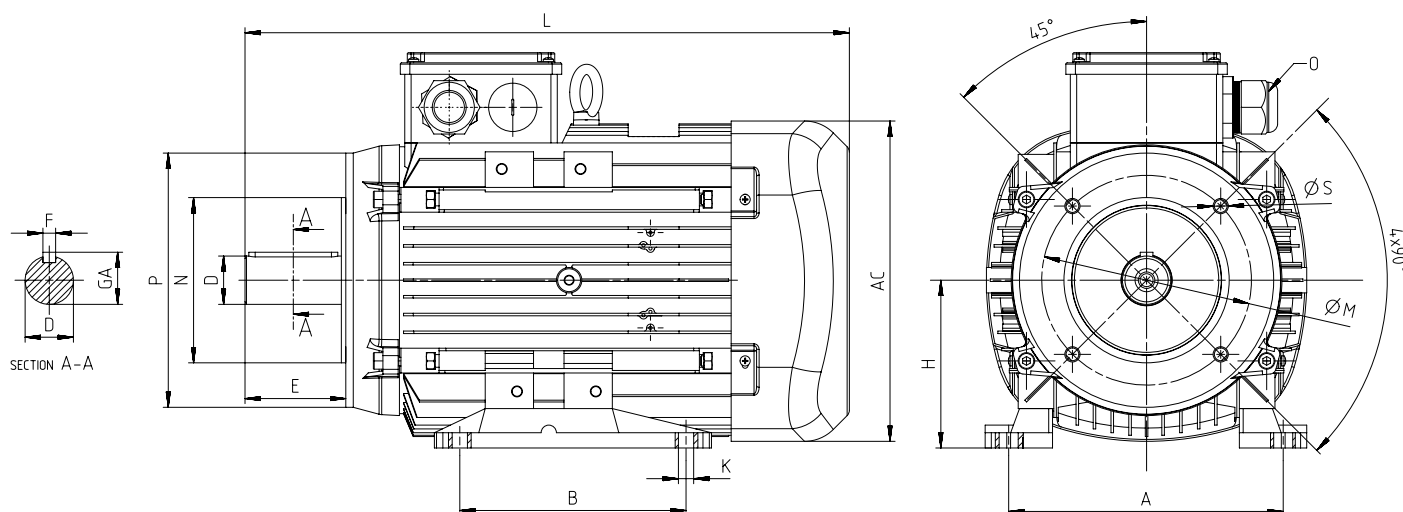
(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

TWO SPEED MOTORS with Dahlander Winding

Q1E

DIMENSION - B14b, B34b

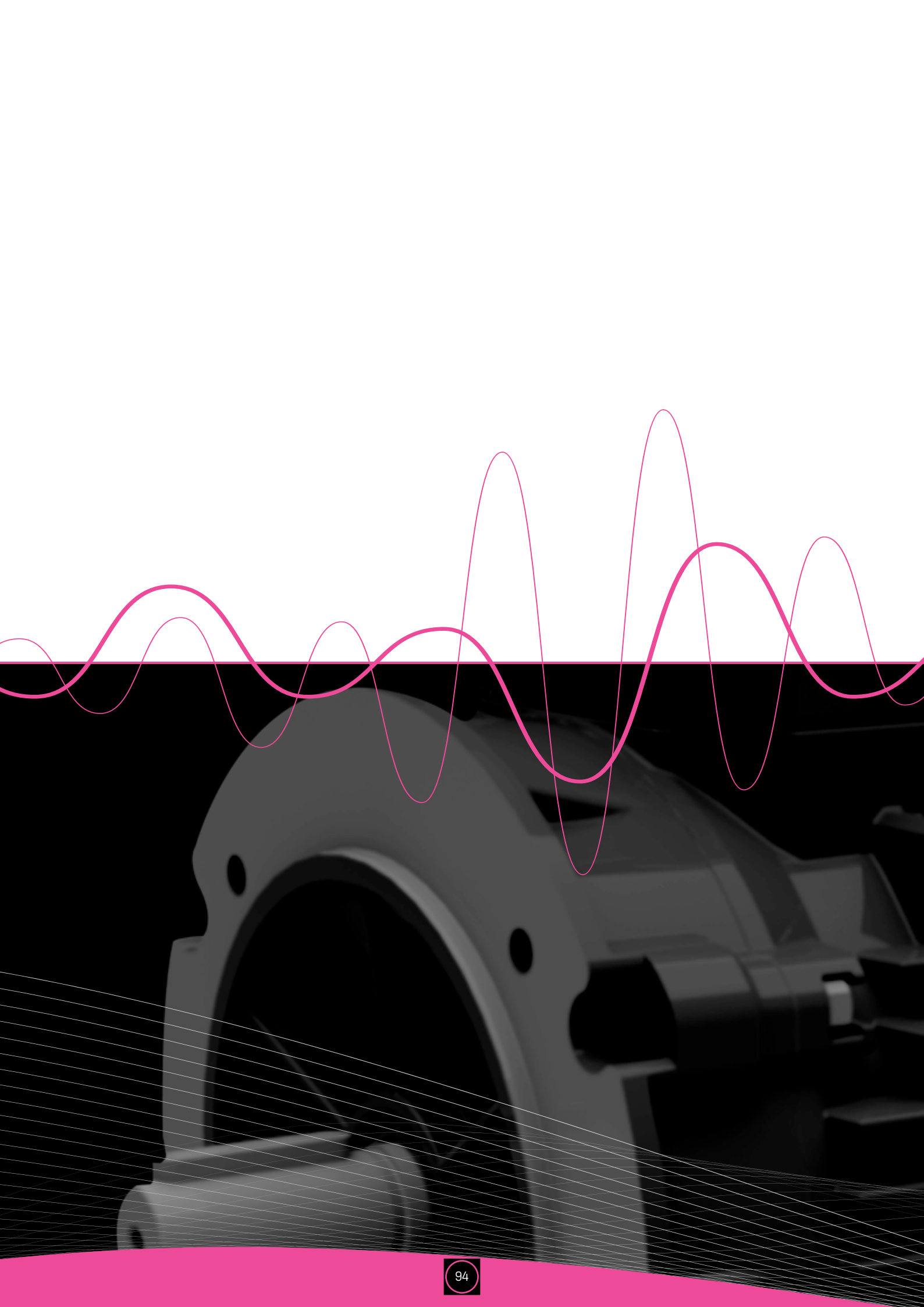


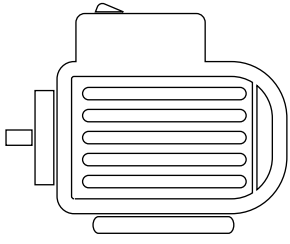
Power [kW]	Number of Poles	Motor Type	Housing Type	Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange [FB] [B14b]				
				AC	L	O	B	A	H	HD	K	D ^[1]	E	GA	F ^[2]	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N ^[3]	M	R	S
0.30/0.20	2/4	Q1E7IM2/4A	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
0.45/0.30	2/4	Q1E7IM2/4B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
0.55/0.37	2/4	Q1E80M2/4A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
0.75/0.55	2/4	Q1E80M2/4B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
1.20/0.85	2/4	Q1E90S2/4A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1.80/0.40	2/4	Q1E90L2/4A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
2.60/2.00	2/4	Q1E100L2/4A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
3.20/2.60	2/4	Q1E100L2/4B	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
4.70/3.70	2/4	Q1E12M2/4B	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
5.70/4.70	2/4	Q1E132S2/4C	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 or 15
8.00/6.50	2/4	Q1E132M2/4B	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 or 15
0.15/0.09	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
0.22/0.12	4/8	Q1E7IM4/8B	Aluminium	138	253	1*M20	90	112	71	190	7	14	30	16	5	6202-2Z	6202-2Z	15*24*5	15*24*5	140	95	115	0	M8
0.25/0.15	4/8	Q1E80M4/8A	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
0.33/0.18	4/8	Q1E80M4/8B	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
0.45/0.25	4/8	Q1E80M4/8C	Aluminium	158	284	1*M20	100	125	80	195	10	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
0.66/0.37	4/8	Q1E90S4/8A	Aluminium	193	297	1*M25	100	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1.00/0.55	4/8	Q1E90L4/8A	Aluminium	193	317	1*M25	125	140	90	222	10	24	50	27	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1.40/0.80	4/8	Q1E100L4/8A	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
2.00/1.20	4/8	Q1E100L4/8C	Aluminium	217	352	1*M25	140	160	100	241	12	28	60	31	8	6306-2Z	6205-2Z	30*47*7	25*40*7	200	130	165	0	M10
2.70/1.80	4/8	Q1E12M4/8B	Aluminium	232	396	2*M25	140	190	112	261	12	28	60	31	8	6306-2Z	6206-2Z	30*47*7	30*47*7	200	130	165	0	M10
4.00/2.70	4/8	Q1E132S4/8C	Aluminium	279	441	2*M32	140	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 or 15
6.00/3.50	4/8	Q1E132M4/8B	Aluminium	279	476	2*M32	178	216	132	314	12	38	80	41	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M12 or 15

(1) Tolerance DIN EN 50347 "j6" up to 28mm, "k6" above 28mm

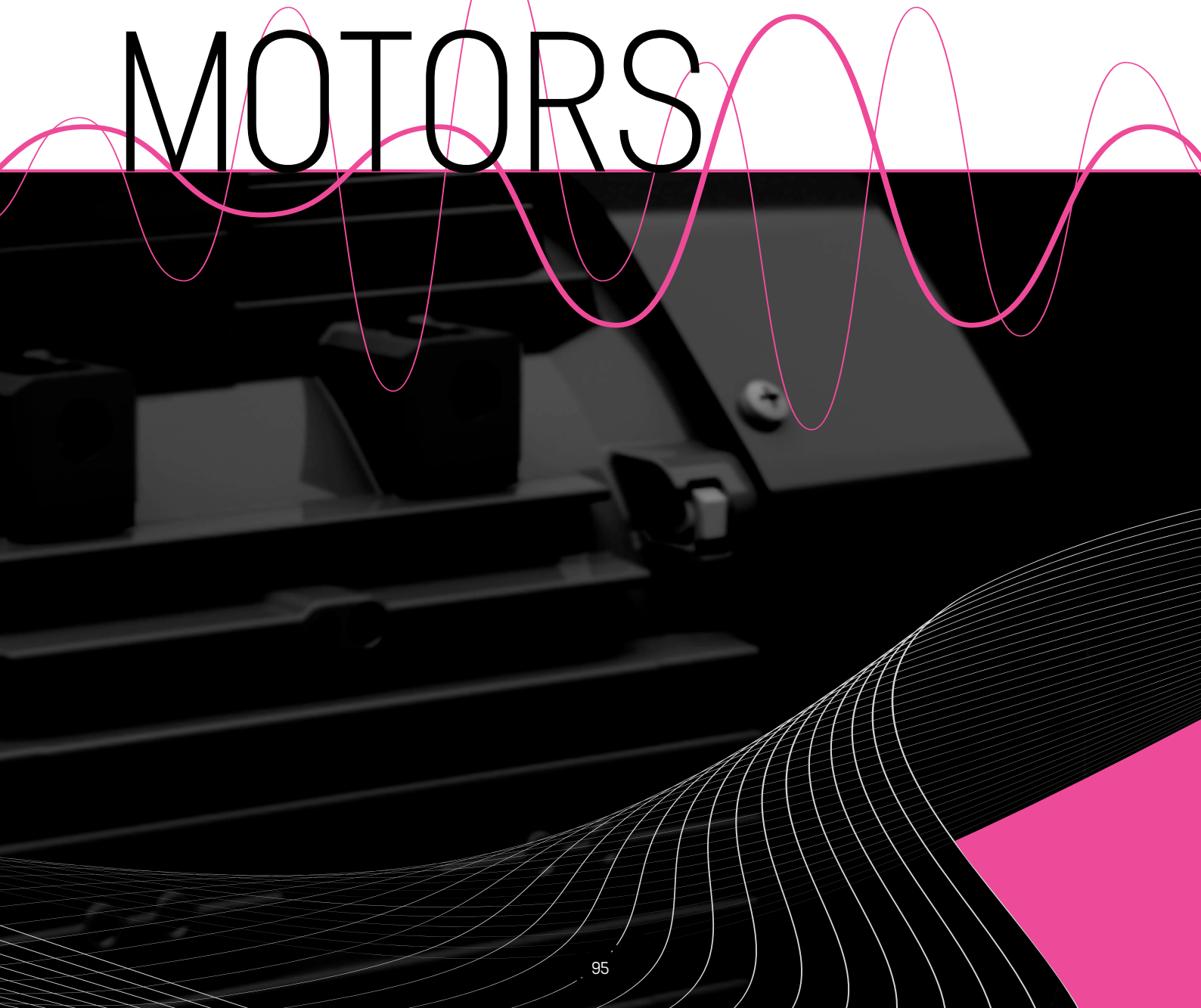
(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"





SINGLE PHASE MOTORS



TECHNICAL DOCUMENTATION

Motors are manufactured in IEC 63-100 frame size as single phase, fully closed, short-circuit rotor and fan cooling.

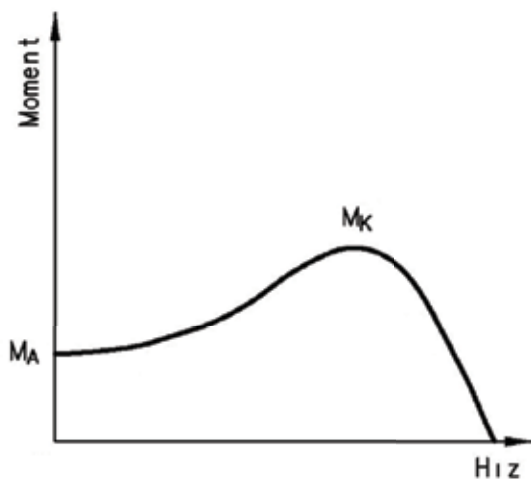
Motors have been designed according to 230V, 50Hz as standard. Motors with other voltage and 60Hz frequency rating can be manufactured on demand.

QM type single phase motors are with run capacitors and QC type single phase motors are with start and run capacitors.

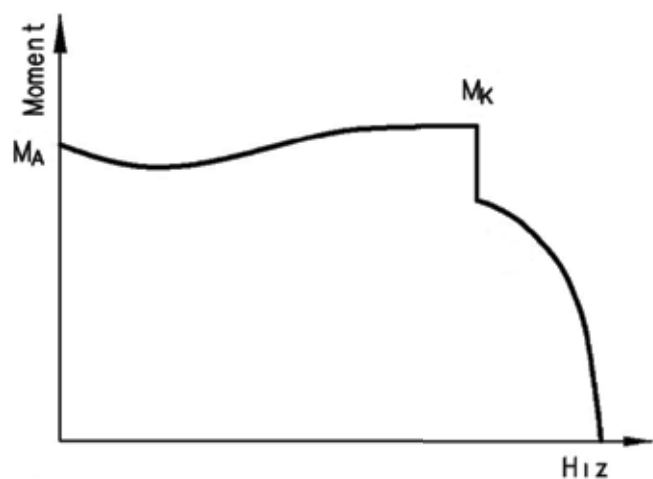
QM type motors with run capacitor:
400V run capacitor is used in the motors.

QC type motors with start and run capacitor:

Motors have electronic relay as well as 400V run capacitor and start capacitor. These type of motors with high startup moment have the capability of 300 start/stop per hour. Frequent direction of rotation change, will affect this capability. If you have such an application, please contact with us to get more detailed information. Thanks to current smoothing and rotor blocking protection properties of electronic relay, our single phase motors are guaranteed an extended service life.



Torque-Speed curve of QM type motors with run capacitor



Torque-Speed curve of QC type motors with start and run capacitor

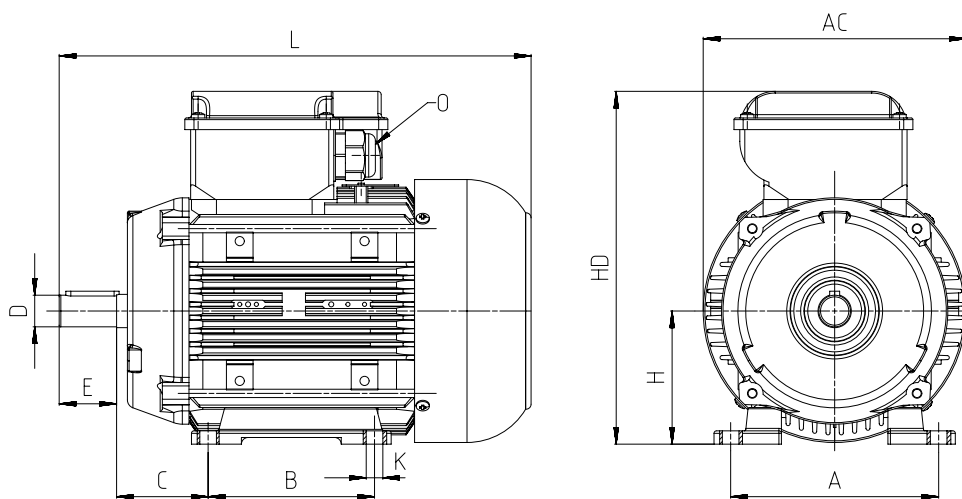
Thanks to the electronic relay, the starting torque (M_A) of QC type motors is 2.5-3 times the nominal torque.

SINGLE PHASE MOTORS with Run Capacitor

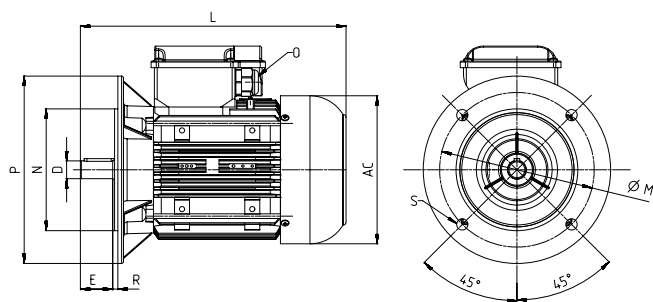
ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES		Breakdown Torque Ratio Mk/ Mn	η %	Cos φ	μF [400 V]	J kgm²	Weight [B3] kg
		Power		Speed rpm	Current A	Torque Nm	Current I _A / N	Torque M _A / MN							
		HP	kW												
2 pole 3000 rpm															
230V 50Hz	QM63M2B	Aluminium	1/3	0.25	2780	1.95	0.85	3.6	0.60	1.90	60	0.94	10	0.00021	6
	QM63M2C	Aluminium	1/2	0.37	2780	2.80	1.28	3.6	0.60	1.80	61	0.94	15	0.00026	6
	QM63M2D	Aluminium	3/4	0.55	2820	4.00	1.88	4.0	0.55	1.80	63	0.93	15	0.00030	7
	QM71M2A	Aluminium	1/3	0.25	2780	2.00	0.85	3.8	0.80	2.20	63	0.93	12.5	0.00028	6
	QM71M2B	Aluminium	1/2	0.37	2780	2.85	1.25	3.8	0.70	2.20	66	0.92	18	0.00035	7
	QM71M2C	Aluminium	3/4	0.55	2800	4.00	1.89	3.8	0.60	2.10	67	0.88	20	0.00040	8
	QM71M2D	Aluminium	1.0	0.75	2800	4.80	2.56	4.2	0.55	2.00	69	0.94	25	0.00051	9
	QM80M2A	Aluminium	3/4	0.55	2820	3.90	1.88	4.0	0.70	2.10	64	0.95	20	0.00092	10
	QM80M2B	Aluminium	1.0	0.75	2820	5.00	2.56	4.0	0.70	2.10	68	0.94	25	0.00107	11
	QM80M2C	Aluminium	1.5	1.10	2800	7.80	3.75	3.8	0.60	2.00	68	0.86	30	0.00126	12
	QM90S2A	Aluminium	1.5	1.10	2820	7.70	3.75	4.5	0.70	2.10	72	0.88	30	0.00118	14
	QM90L2A	Aluminium	2.0	1.50	2840	9.90	5.12	4.5	0.65	2.10	74	0.94	40	0.00152	16
	QM90L2C	Aluminium	3.0	2.20	2790	14.50	7.53	4.5	0.55	2.10	74	0.90	50	0.00172	18
	QM100L2B	Aluminium	4.0	3.00	2750	18.70	10.10	2.7	0.40	1.80	75	0.97	80	0.00213	22
4 pole 1500 rpm															
230V 50Hz	QM63M4B	Aluminium	1/6	0.12	1400	1.10	1.12	3.5	0.70	2.00	51	0.91	12.5	0.00025	6
	QM71M4A	Aluminium	1/4	0.18	1400	1.50	1.24	3.5	0.70	2.00	57	0.92	12.5	0.00071	6.5
	QM71M4B	Aluminium	1/3	0.25	1400	2.00	1.72	3.5	0.70	2.00	60	0.90	15	0.00095	7.5
	QM71M4C	Aluminium	1/2	0.37	1400	2.70	2.54	3.5	0.65	1.90	64	0.91	20	0.00107	8.0
	QM80M4A	Aluminium	1/2	0.37	1400	2.60	2.52	3.5	0.70	1.80	66	0.84	20	0.00167	9.5
	QM80M4B	Aluminium	3/4	0.55	1390	3.80	3.78	2.2	0.70	1.80	68	0.95	25	0.00204	10.5
	QM80M4C	Aluminium	1.0	0.75	1380	5.00	5.23	3.5	0.65	1.75	69	0.95	30	0.00229	11.5
	QM90S4A	Aluminium	1.0	0.75	1400	5.50	5.15	4.5	0.60	1.80	68	0.88	30	0.00237	14
	QM90L4A	Aluminium	1.5	1.10	1400	7.40	7.50	4.5	0.65	1.90	69	0.90	40	0.00309	16
	QM90L4C	Aluminium	2.0	1.50	1400	10.20	10.31	5.0	0.55	1.60	69	0.90	50	0.00351	18
	QM100L4B	Aluminium	3.0	2.20	1410	13.50	15.34	3.0	0.55	1.80	76	0.94	75	0.00471	24

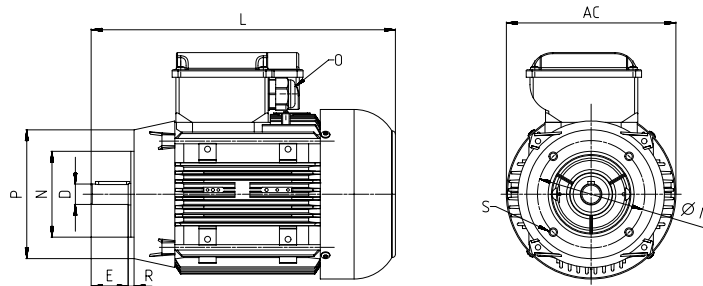
DIMENSION



B3-B6-B7-B8-V5-V6



B14-V18-V19



B5-V1-V3

			Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal		Flange						
Frame Size	Housing Type	No. Of poles	AC	L	O	B	A	H	HD	K	C	D ^[1]	E	GA	F ^[2]	Drive Side	Non Drive Side	Drive Side	Non Drive Side	Mounting Type	Flange Type	P	N ^[3]	M	R	S
63 M	Aluminium	2..4	123	220	1*M20	80	100	63	182	7	40	11	23	12.5	4	6201-2Z	6201-2Z	12*22*7	12*22*7	B5	FA	140	95	115	0	10
																				B14	FB	120	80	100	0	M6
																				B14	FC	90	60	75	0	M5
71 M	Aluminium	2..4	138	253	1*M20	90	112	71	198	7	45	14	30	16.0	5	6202-2Z	6202-2Z	15*24*5	15*24*5	B5	FA	140	95	115	0	10
																				B14	FB	120	80	100	0	M6
																				B14	FC	90	60	75	0	M5
80 M	Aluminium	2..4	158	284	1*M20	100	125	80	215	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	B5	FA	200	130	165	0	12
																				B14	FB	160	110	130	0	M8
																				B14	FC	120	80	100	0	M6
90 S L	Aluminium	2..4	193	297	1*M20	100	140	90	241	10	56	24	50	27.0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	B5	FA	200	130	165	0	12
				317		125														B14	FB	160	110	130	0	M8
				B14		FC														140	95	115	0	M8		
100 L	Aluminium	2..4	217	352	1*M25	140	160	100	241	12	63	28	60	31.0	8	6306-2Z	6205-2Z	30*47*7	25*40*7	B5	FA	250	180	215	0	14.5
																				B14	FB	160	110	130	0	M8
																				B14	FC	200	130	165	0	M10

Dimensions are in mm

(1) Tolerance DIN EN 50347 "j6"

(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"

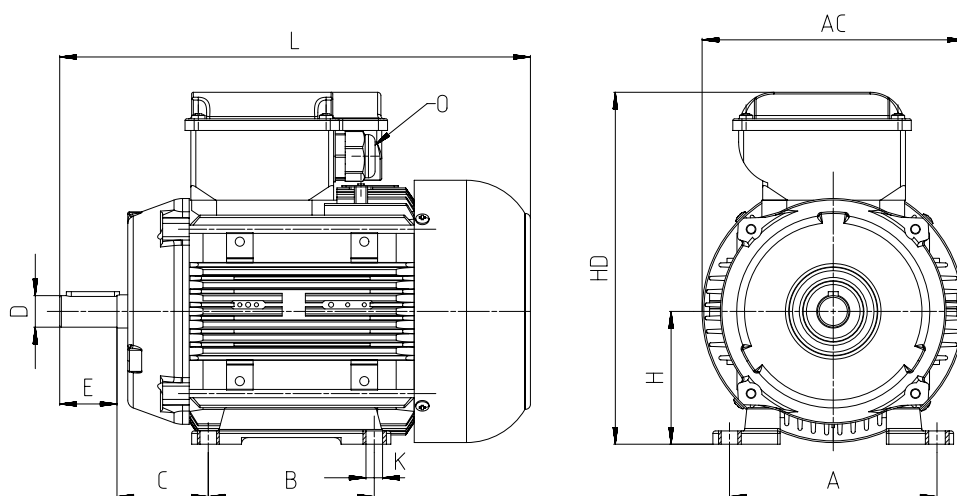
SINGLE PHASE MOTORS with Run & Start Capacitor

QC

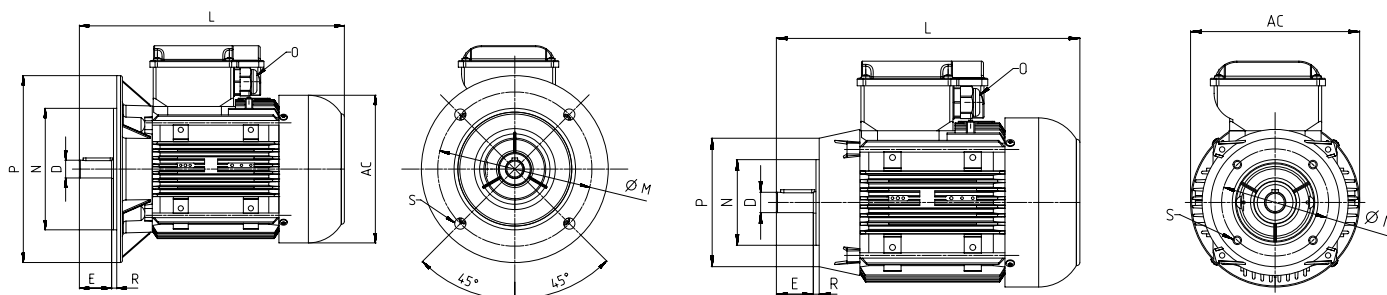
ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES		Breakdown Torque Ratio	η %	Cos φ	Capacitor		J kgm ²	Weight [B3] kg
		Power		Speed	Current	Torque	Current	Torque	Run				Start			
		HP	kW	rpm	A	Nm	I _A / I _N	M _A / M _N	Mk/ Mn				μF	μF		
2 pole 3000 rpm																
230V 50Hz	QC80M2A	Aluminium	3/4	0.55	2800	3.80	1.88	4.9	2.70	2.10	64	0.98	20	124-149	0.00092	10
	QC80M2B	Aluminium	1.0	0.75	2800	4.95	2.56	4.9	2.70	2.10	68	0.98	25	124-149	0.00107	11
	QC80M2C	Aluminium	1.5	1.10	2800	7.70	3.75	5.1	2.60	2.00	68	0.86	30	145-175	0.00126	12
	QC90S2A	Aluminium	1.5	1.10	2800	7.60	3.75	5.0	2.95	2.10	72	0.88	30	189-227	0.00118	15
	QC90L2A	Aluminium	2.0	1.50	2810	9.10	5.10	5.1	2.95	2.10	74	0.94	40	189-227	0.00152	17
	QC90L2C	Aluminium	3.0	2.20	2780	14.50	7.53	5.2	2.95	2.10	74	0.90	50	280-333	0.00172	19
	QC100L2B	Aluminium	4.0	3.00	2860	17.80	10.10	2.5	1.80	1.80	75	0.97	80	189-227	0.00213	23
4 pole 1500 rpm																
230V 50Hz	QC80M4A	Aluminium	1/2	0.37	1390	2.80	2.54	4.5	2.50	1.80	66	0.84	20	130-156	0.00167	10
	QC80M4B	Aluminium	3/4	0.55	1390	3.70	3.80	4.5	2.55	1.80	69	0.98	25	130-156	0.00204	11
	QC80M4C	Aluminium	1.0	0.75	1370	5.00	5.20	4.6	2.65	1.75	69	0.95	30	130-156	0.00229	12
	QC90S4A	Aluminium	1.0	0.75	1400	5.80	5.15	4.8	2.85	1.80	68	0.93	30	145-175	0.00237	15
	QC90L4A	Aluminium	1.5	1.10	1400	7.40	7.50	4.9	2.95	1.90	69	0.90	40	145-175	0.00309	17
	QC90L4C	Aluminium	2.0	1.50	1400	10.70	10.31	5.3	2.85	1.60	69	0.90	50	145-175	0.00351	19
	QC100L4B	Aluminium	3.0	2.20	1415	14.20	15.30	3.0	1.90	1.80	76	0.94	75	145-175	0.00471	24

DIMENSION



B3-B6-B7-B8-V5-V6



B14-V18-V19

B5-V1-V3

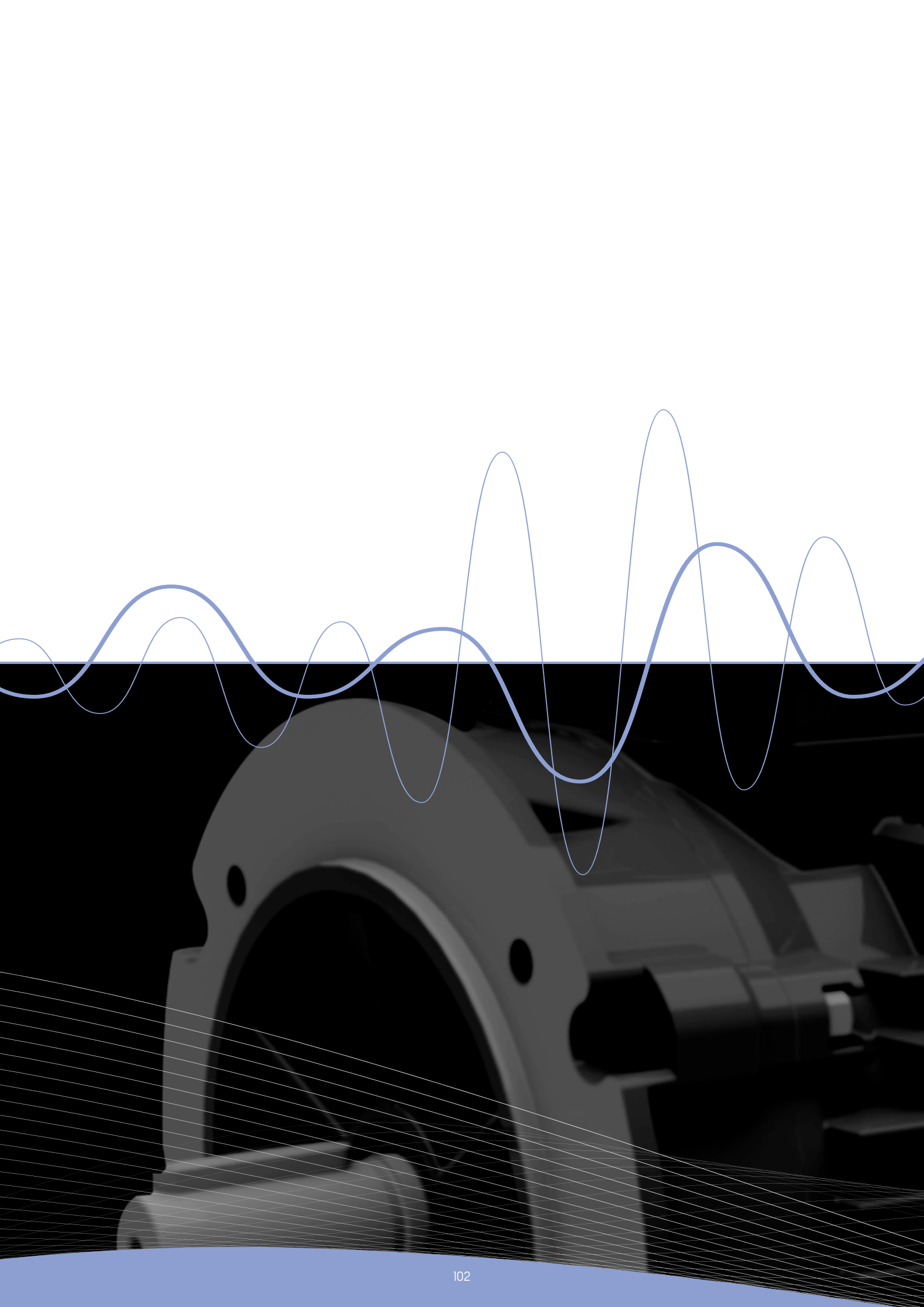
			Main Dimensions			Foot Mounted Motors						Shaft				Bearing		Seal		Flange						
Frame Size	Housing Type	No. Of poles	AC	L	O	B	A	H	HD	K	C	D ^[1]	E	GA	F ^[2]	Drive Side	Non Drive Side	Drive Side	Non Drive Side	Mounting Type	Flange Type	P	N ^[3]	M	R	S
80 M	Aluminium	2...4	158	284	1*M20	100	125	80	215	10	50	19	40	21.5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	B5	FA	200	130	165	0	12
																				B14	FB	160	110	130	0	M8
S 90 L	Aluminium	2...4	193	297 317	1*M20	100 125	140	90	241	10	56	24	50	27.0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	B5	FA	200	130	165	0	12
																				B14	FB	160	110	130	0	M8
100 L	Aluminium	2...4	217	352	1*M25	140	160	100	241	12	63	28	60	31.0	8	6306-2Z	6205-2Z	30*47*7	25*40*7	B5	FA	250	180	215	0	14.5
																				B14	FB	160	110	130	0	M8
																				B14	FC	200	130	165	0	M10

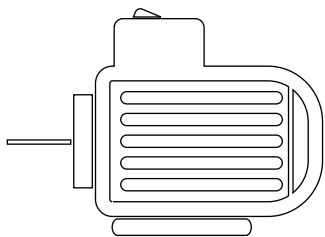
Dimensions are in mm

(1) Tolerance DIN EN 50347 "j6"

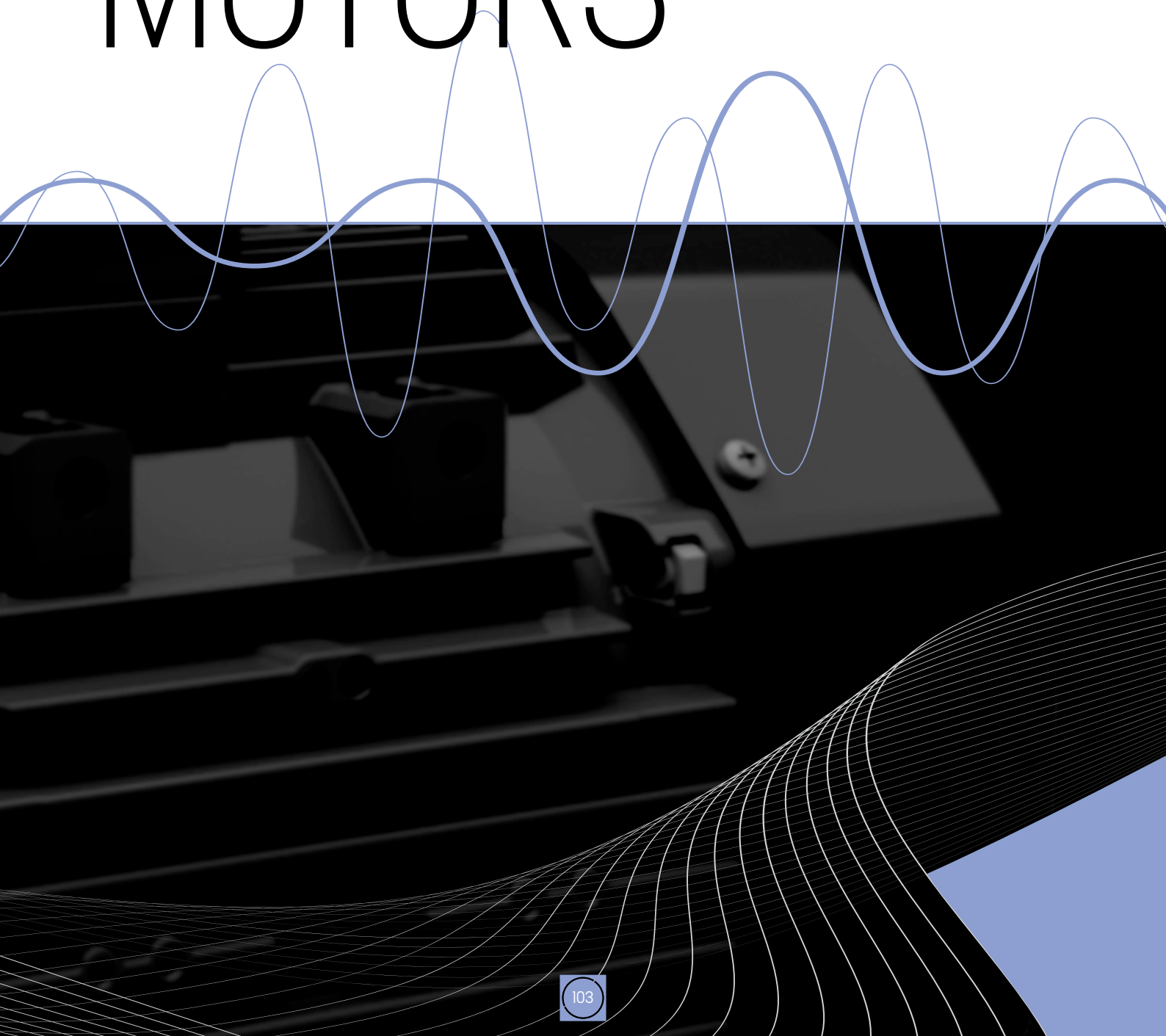
(2) According to DIN 6885

(3) Tolerance DIN EN 50347 "j6"



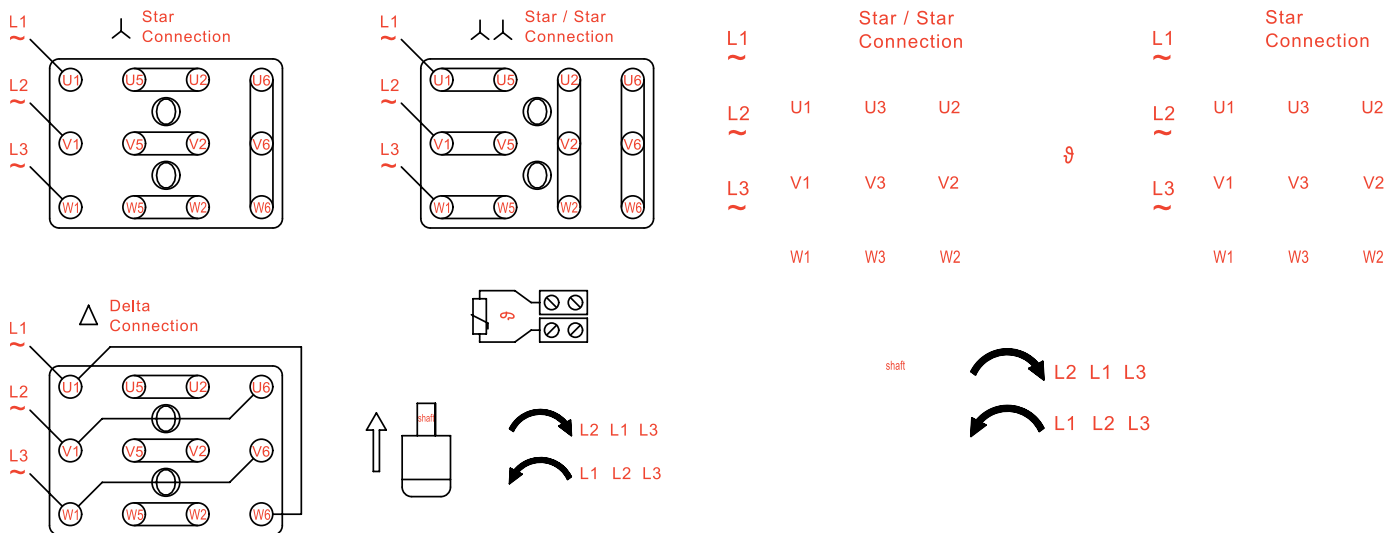


SPECIAL MOTORS



DOUBLE VOLTAGE MOTORS

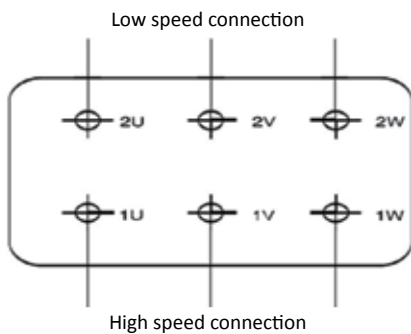
9-lead motors with YY / Y connection and 12-lead motors with Δ /YY/Y connection. Generally designed for 230/460V 60Hz operating values, these motors address different mains voltage needs.



SEPARATE WINDING MOTORS

9-lead motors with YY / Y connection and 12-lead motors with Δ /YY/Y connection. Generally designed for 230/460V 60Hz operating values, these motors address different mains voltage needs.

Q1E112M2/12D 380V 50Hz 4.9/0.8kW 2900/385 d/d



ANTI-CONDENSATION HEATER

Humidity, particularly on motor windings operating in humid environment, reduces insulation resistance and causes shorter motor life. In such applications, with the heaters placed on motor winding, the humidity of windings are removed before starting the motor.

H INSULATION CLASS MOTORS

Our standard motors have Class F insulation. However, we also manufacture motors with Class H insulation.

Ambient Temperature	Winding Temperature Rise Limit	Tolerance
40	125	15
180 °		

UL CERTIFIED MOTORS

We also manufacture UL certified motors upon request.

SPECIAL VOLTAGE MOTORS

Different from standard voltages, we also manufacture motors in different voltage steps (290/500V, 330/570V etc) upon request.

SPECIAL FREQUENCY MOTORS

Different from standard frequencies, we also manufacture motors in different frequencies (32Hz, 87Hz etc) upon request.

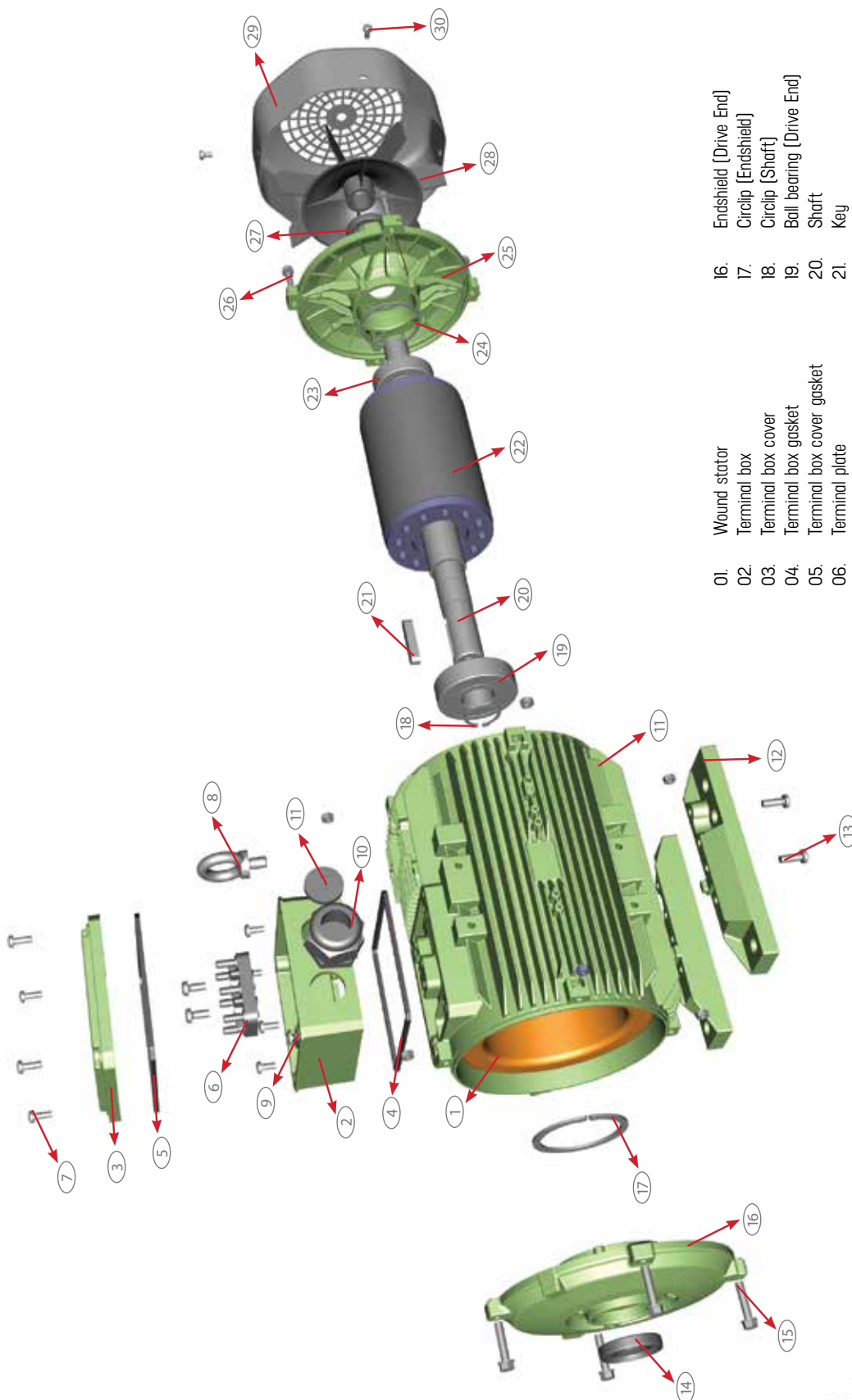
SPECIAL BEARING MOTORS

We manufacture motors with bearings that suit to various temperature steps (150°C , 200°C etc) and axial-radial loads for different applications.

OTHER SPECIAL APPLICATIONS

- Special axle or double axle motors
- Special flange motors
- Fixed bearing motors
- Drain hole to remove condensation
- Use of thermic or thermistor to prevent motor winding temperature from rising above limit values
- Inverter duty motors

MOTOR PART LIST



01.	Wound stator	16.	Endshield (Drive End)
02.	Terminal box	17.	Circlip [Endshield]
03.	Terminal box cover	18.	Circlip [Shaft]
04.	Terminal box gasket	19.	Ball bearing (Drive End)
05.	Terminal box cover gasket	20.	Shaft
06.	Terminal plate	21.	Key
07.	Terminal box screws	22.	Rotor
08.	Eyebolt	23.	Ball bearing (Non-drive End)
09.	Grounding screw	24.	Spring washer
10.	Cable gland	25.	Endshield (Non-drive End)
11.	Blind Plug	26.	Endshield screws (Non-drive End)
12.	Foot	27.	Seal (Non-drive End)
13.	Foot screws	28.	Fan
14.	Seal (Drive End)	29.	Fan cover
15.	Endshield screws (Drive End)	30.	Fan cover screws



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This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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KAPAKLI 59510 TEKİRDAĞ, TURKEY

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