Arçelik A.Ş.

THREE PHASE & SINGLE PHASE
INDUSTRIAL MOTORS


arçelik
DECLARATION OF CONFORMITY
IQNet
THE INTERNATIONAL CERTIFICATION NETWORK
CERTIFICATE
ARÇELİK A.Ş
TS EN ISO 9001:2008
bsi.
TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS
CERTIFICATE OF COMPLIANCE
SGS
ISO 14001:2004
EAC
bsi.
Certificate of Registration
ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2004
KALİTE YÖNETİM SİSTEMİ BELGESİ
QUALITY MANAGEMENT SYSTEM CERTIFICATE
K - Q
TSE-ISO-EN
9000
TÜRK STANDARDLARI ENSTİTÜSÜ

Arçelik Electrical Motors Plant performs manufacturing operations at its factory in Çerkezköy, Tekirdağ. Electrical Motors Plant manufactures industrial motors and appliance motors in a closed area of 39.000 m2, Electrical Motors Plant manufactures three-phase and single-phase asynchronous motors having new technology, high performance and modern appearance.

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.

Electrical Motors Plant, 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 60034-30-1	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 EN 61000-3-2 EN 61000-3-3	Electromagnetic compatibility

Turkey	Germany	Great Britain
TSE EN 60034-1	DIN VDE 0530 DIN EN 60034	BS EN 60034

Three phases and single-phase motor series complying with UL 1004 and CSA. C 22.2 Nr 100.95 for UL and c-UL respectively, are also available for our standard product range.

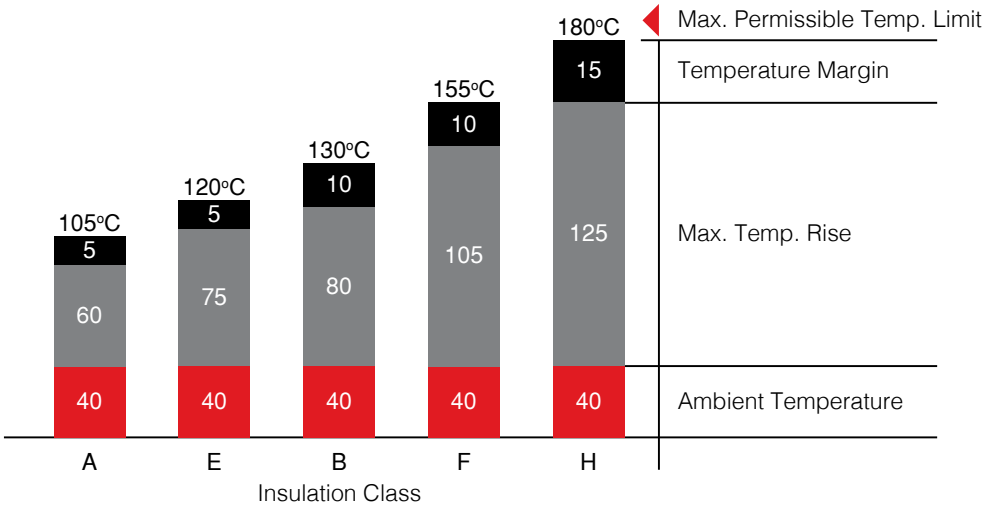
Our products do not contain prohibited materials according to 2011/65/EU RoHS (Recast) Declaration dated 08/06/2011 and 2003/11/EC Directive dated 15/08/2010.

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.

IP	5 The first characteristic numeral: Protection from introduction of solid foreign matter	5 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 Magnitudes (mm/s)

Frame sizes	Vibration grade	
	A	B
63 - 132	1,6	0,7
160 - 280	2,2	1,1
315 - 355	2,8	1,8

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

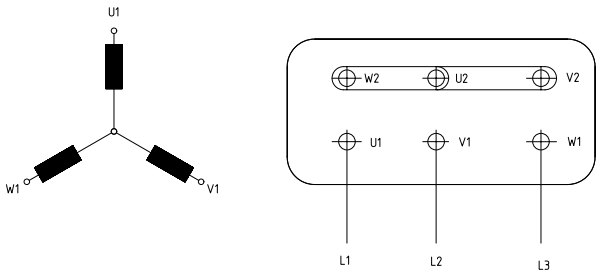
ELECTRICAL CONNECTIONS

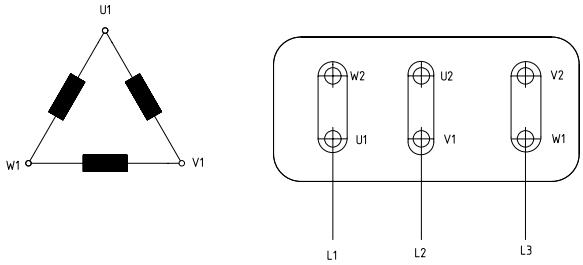
Terminal plate has 6 connection terminals marked in accordance with IEC 60034-8.

Frame size	63-80	90-100	112	132-160	180	200-225	250-280	315	355
Cable entry	M20	M25	M25	M32	M40	M50	M50/M63*	M63	M63
Number of Entries	1	1	2	2	2	2	2	2	4

*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 configuration 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 designed 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 Application	Rated Speed	Rated Power	Rated Torque	Rated Current	Starting Torque	Breakdown Torque	Starting Current
220 V	220 V	1,2	1	0,83	1	0,83	0,83	0,83
220 V	255 V	1,2	1,15	0,96	1	0,96	0,96	0,96
380 V	380 V	1,2	1	0,83	1	0,70	0,83	0,83
380 V	440 V	1,2	1,15	0,96	1	0,95	0,98	0,97

TOLERANCES

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

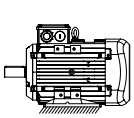
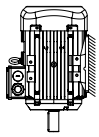
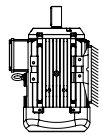
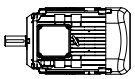
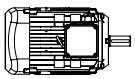
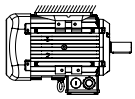
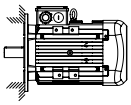
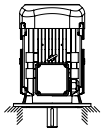
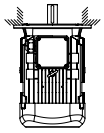
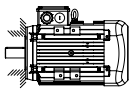
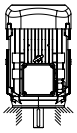
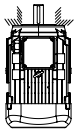
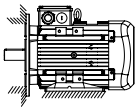
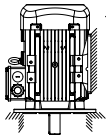
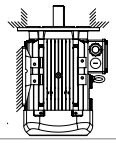
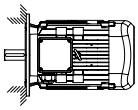
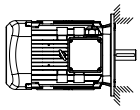
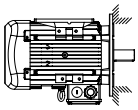
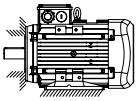
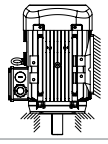
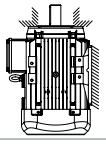
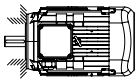
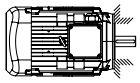
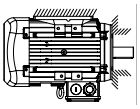
Speed (n)	$\Delta n = \pm 20\%(n_S - n_N)$, PN> 1kW $\Delta n = \pm 30\%(n_S - n_N)$, PN≤ 1kW
Efficiency % (n)	$\Delta n = -15\%(100 - n_N)$, PN<=150kW $\Delta n = -10\%(100 - n_N)$, PN>150kW
Power Factor (cos φ)	$\Delta \cos \varphi = -1/6\ (1 - \cos \varphi)$
Locked Rotor Current (I_L/I_N)	$\Delta\ (I_L/I_N) = +20\%\ (I_L/I_N)$
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) [kgm²]	$\Delta J = \pm 10\% J$
Sound Pressure Level (LPA) [dB]	Δ LPA = +3 dB (A)

MATERIAL

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

* Steel fan cover is optional.

MOUNTING ARRANGEMENTS

	B3 - IM 1001 	V5 - IM 1011 	V6 - IM 1031 	B6 - IM 1051 	B7 - IM 1061 	B8 - IM 1071 
FA	B5 - IM 3001 	V1 - IM 3011 	V3 - IM 3031 			
FB veya FC	B14 - IM 3601 	V18 - IM 3611 	V19 - IM 3631 			
PA	B35 - IM 2001 	V15 - IM 2011 	V35 - IM 2031 	IM 2051 	IM 2061 	IM 2071 
PB veya PC	B34 - IM 2101 	V17 - IM 2111 	V37 - IM 2131 	IM 2151 	IM 2161 	IM 2171 

BEARING

63-225 frame motors are equipped with deep grove ball bearings with ZZ shields. 250-355 frame size motors have external lubrication. Standard motor bearing and seal information is tabulated below. Please also refer to the mechanical dimension section for specific motor data.

Bearing & Seal Type

Frame	Bearing		Seal	
	Drive side	Non-drive side	Drive side	Non-drive side
63	6201-2Z	6201-2Z	12*22*7	12*22*7
71	6202-2Z	6202-2Z	15*24*5	15*24*5
80	6204-2Z	6204-2Z	20*30*7	20*30*7
90	6305-2Z	6205-2Z	25*40*7	25*40*7
100	6306-2Z	6205-2Z	30*47*7	25*40*7
112	6306-2Z	6206-2Z	30*47*7	30*47*7
*132	6208-2Z	6208-2Z	40*62*10	40*62*10
160	6309-2Z	6209-2Z	45*72*10	45*72*10
180	6310-2Z	6310-2Z	50*80*10	50*80*10
200	6312-2Z	6310-2Z	60*90*10	50*80*10
225	6313-2Z	6313-2Z	65*100*13	65*100*13
250	6315	6313-2Z	75*112*12	65*100*13
250 (Cast Iron)	6316	6316	80*100*10	80*100*10
280 (Cast Iron)	6316	6316	80*100*10	80*100*10
*315 - 2 pole (Cast Iron)	6316	6316	80*100*5,5	80*100*5,5
*315 - 4 pole (Cast Iron)	6319	6319	95*115*5,5	95*115*5,5
*355 - 2 pole (Cast Iron)	6317	6317	85*105*5,5	85*105*5,5
355 - 4 pole (Cast Iron)	6322	6322	110*130*5,5	110*130*5,5

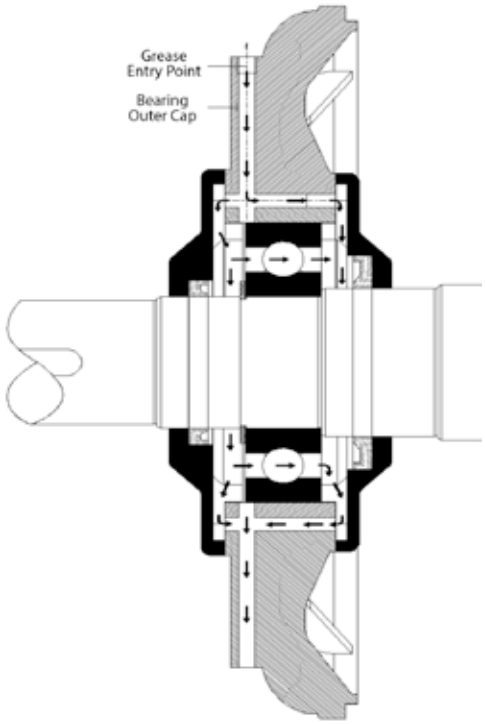
* Bigger size deep groove ball bearings and corresponding seals are optional.

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 have externally lubricated roller bearings. There are bearing lubrication channel and grease nipple for motors 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 nameplatel 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 63-180 frame size motors, feet can be mounted on three sides, allowing terminal box assembly on the desired side. For 63-250 frame size aluminium motors, the feet are detachable and this feature provides flexibility for different mounting types.

TERMINAL BOX

Motors frame size 63-280 have terminal boxes on top situated at drive end which can be rotated 90°C, 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 request, 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

Q3EFA225M4C43 (Sample motor number)

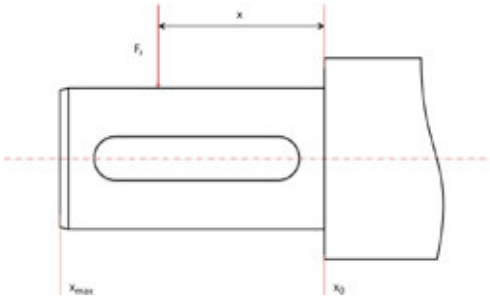
Q3E	Motor Type	
Q4H	IE4 efficiency class motors	
Q3E	IE3 efficiency class motors	
Q2E	IE2 efficiency class motors	
Q1E	IE1 efficiency class motors	
Q1D	IE1 efficiency class inverter entegrated motors	
Q2D	IE2 efficiency class inverter entegrated motors	
Q3D	IE3 efficiency class inverter entegrated motors	
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	
P	Cast Iron	
FA	Construction Type	
---	with feet	B3,B6,B7,B8,V5,V6/V19
FA	with A flange	B5,V1,V3
FB	with B flange	B14,V18,V19
FC	with C flange	B14,V18,V19
FS	with special flange	-
PA	with feet and A flange	B3/B5,V1/V5,V3/V6
PB	with feet and B flange	B3/B14,V5/V18,V6/V19
PC	with feet and C flange	B3/B14,V5/V18,V6/V19
PS	with feet and special flange	-
X	without feet,flange and/or end-shield	B9,V8,V9

225	Frame Size	
	Shaft height (mm)	
M	Motor Leght	
	S	Short
	M	Medium
	L	Long
4	Number of Poles	
	2.4.6.8 Poles	
C	Core Length (Does not affect outside dimensions)	
	A	Short
	B	Medium
	C	Long
	D,E	Extra Long
43	Special Motor Number	
	01 - … - 99	

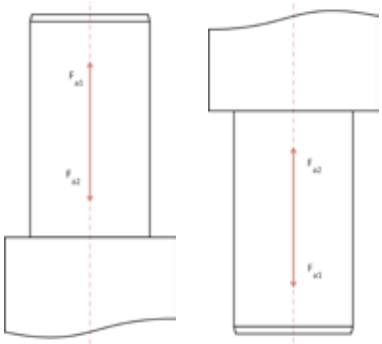
PERMISSIBLE LOADING ON THE SHAFT END

Frame Size	Number of Poles	F_r (x=0) (kN)	F_r (x=max) (kN)	F_{a1} (kN)	F_{a2} (kN)
63	2	0,25	0,22	0,18	0,18
	4	0,29	0,25	0,21	0,21
	6	0,31	0,27	0,23	0,23
71	2	0,30	0,26	0,21	0,21
	4	0,35	0,29	0,25	0,25
	6	0,37	0,31	0,27	0,27
	8	0,38	0,32	0,28	0,28
80	2	0,54	0,45	0,38	0,38
	4	0,62	0,51	0,44	0,44
	6	0,66	0,54	0,48	0,48
	8	0,67	0,55	0,49	0,49
90	2	0,91	0,74	0,70	0,36
	4	0,99	0,80	0,77	0,40
	6	1,04	0,84	0,82	0,43
	8	1,03	0,83	0,80	0,43
100	2	1,21	0,96	0,91	0,36
	4	1,31	1,04	1,01	0,40
	6	1,38	1,09	1,07	0,43
	8	1,38	1,09	1,07	0,43
112	2	1,23	1,00	0,91	0,54
	4	1,33	1,09	1,01	0,60
	6	1,40	1,14	1,07	0,64
	8	1,40	1,14	1,07	0,61
132	2	1,22	0,98	0,86	0,86
	4	1,31	1,04	0,92	0,92
	6	1,34	1,08	0,95	0,95
	8	1,42	1,14	1,03	1,03
160	2	2,22	1,72	1,59	1,59
	4	2,34	1,82	1,71	1,71
	6	2,34	1,82	1,71	1,71
	8	2,48	1,92	1,83	1,83
180	2	2,68	2,12	1,94	1,94
	4	2,82	2,23	2,07	2,07
	6	2,93	2,31	2,17	2,17
	8	2,92	2,31	2,16	2,16
200	2	3,80	3,04	2,79	2,79
	4	3,95	3,16	2,93	2,93
	6	4,07	3,26	3,05	3,05
	8	3,95	3,16	2,93	2,93
225	2	4,45	3,65	3,25	3,25
	4	4,59	3,60	3,39	3,39
	6	4,73	3,71	3,52	3,52
	8	4,53	3,55	3,32	3,32
250	2	4,97	3,93	3,61	2,94
	4	5,78	4,57	4,26	3,15
280	2	4,97	3,93	3,61	2,94
	4	5,78	4,57	4,26	3,15
315	2	6,04	5,23	1,52	7,90
	4	6,08	5,61	1,08	9,62
355	2	5,88	5,17	0,38	9,50
	4	8,49	7,37	2,73	13,55

Horizontal operation



Vertical operation



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

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

Where; F_{x0} - value of Fr force acting on the beginning of the shaft end
F_{xmax} - value of Fr force acting on the shaft end
E - length of the shaft end

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.

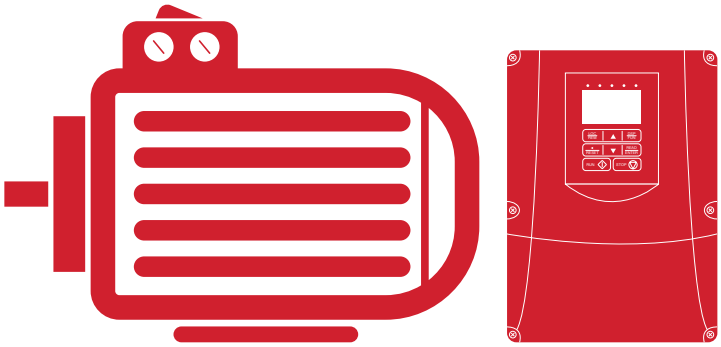
Vector control mode is used mainly in applications, where high starting torque, high accuracy on speed and the fast changes at load, prolonged low speed operation at load are required. Due to the control principle, vector control can provide higher torque for the same motor current and handle dynamic 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.

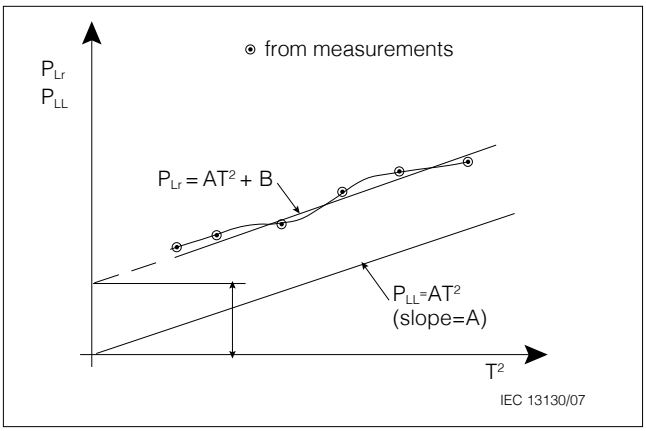
This standard covers 2, 4 and 6 pole motors in 0.12kW and 1000kW power range and 50-60Hz frequency and refers to IEC standard 60034-2-1 to define efficiency.

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.

According to IEC 60034-2-1, these losses are obtained with specific methods and efficiency is calculated after loss analysis. Before 2-1 standard issued in September 2007, 60034-2 standard was used for efficiency calculations. The main difference between

Additional losses	
IEC 60034-2	0.5% of input power
IEC 60034-2-1	Determined by measurement

New measurement standard 60034-2-1 offers different methods to determine additional losses. Arçelik determines additional losses by means of the method (8.2.2.5.1) whose accuracy is stated to be highest by the standard. In this method, additional losses are determined according to the results obtained from measurement values. There is not any assumption in question.

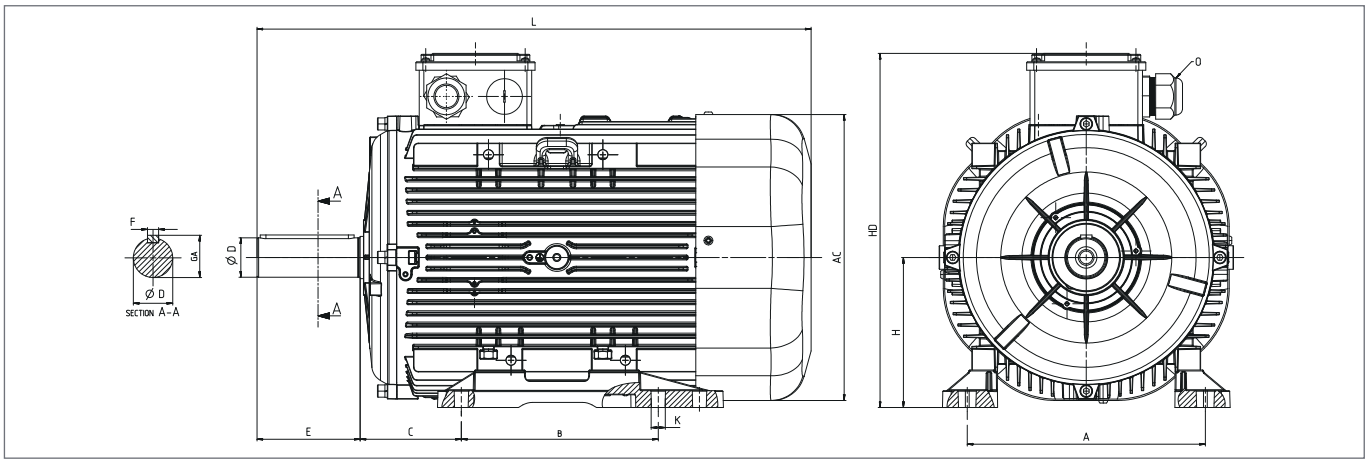


ELECTRICAL CHARACTERISTICS AT 50 Hz

	MOTOR TYPE	HOUSING TYPE	RATED VALUES					STARTING VALUES				Breakdown Torque Ratio	EFFICIENCY * η %			Cosφ	Weight (B3)	Sound Pressure Level dBA **
			Power		Speed	Current (400V)	Torque	Current I_A / I_N		Torque M_A / M_N								
			kW	HP	rpm	A	Nm	⅄	Δ	⅄	Δ	Mk/Mn	4/4	3/4	2/4	4/4	kg	
	2 pole 3000 rpm																	
230/400V	Q3H80M2C	Aluminium	0,75	1,0	2888	1,6	2,5	8,6	-	3,7	-	4,0	80,7	79,1	77,4	0,85	11	57
230/400V	Q3H80M2D	Aluminium	1,1	1,5	2885	3,1	3,7	6,7	-	4,0	-	4,3	82,7	82,1	78,9	0,87	13	57
230/400V	Q3H90S2C	Aluminium	1,5	2,0	2925	3,2	4,9	9,3	-	4,7	-	5,4	84,2	84,7	82,3	0,84	18	61
230/400V	Q3H90L2D	Aluminium	2,2	3,0	2910	4,3	7,2	8,9	-	5,1	-	4,4	85,9	85,2	83,5	0,88	18	61
230/400V	Q3H100L2D	Aluminium	3,0	4,0	2930	5,6	9,8	10,0	-	4,5	-	4,9	87,1	86,9	84,5	0,89	26	63
400/690V	Q3H112M2C	Aluminium	4,0	5,5	2920	7,4	13,2	3,3	9,9	1,4	4,2	5,7	88,1	87,9	85,7	0,90	31	66
400/690V	Q3H132S2C	Aluminium	5,5	7,5	2933	9,5	18,0	3,6	10,8	1,1	3,2	3,9	89,2	88,9	86,7	0,93	47	69
400/690V	Q3H132S2D	Aluminium	7,5	10,0	2938	13,0	24,5	3,3	9,9	1,4	4,2	4,9	90,1	90,3	88,9	0,93	53	69
400/690V	Q3H160M2C	Aluminium	11,0	15,0	2948	18,5	35,9	3,0	9,0	1,1	3,4	5,7	91,2	91,4	90,3	0,94	85	70
400/690V	Q3H160M2D	Aluminium	15,0	20,0	2948	25,0	48,8	3,6	10,8	1,2	3,5	4,3	91,9	91,0	90,3	0,93	94	70
400/690V	Q3H160L2C	Aluminium	18,5	25,0	2953	31,2	60,0	3,1	9,3	1,4	4,1	4,5	92,4	92,0	90,9	0,93	95	70
400/690V	Q3H180M2A	Aluminium	22,0	30,0	2963	36,8	71,3	3,6	10,8	1,2	3,6	3,5	92,7	92,9	91,7	0,93	112	78
400/690V	Q3H200L2C	Aluminium	30,0	40,0	2960	51,0	97,4	3,3	9,9	0,9	2,9	3,9	93,3	93,8	93,4	0,91	168	79
400/690V	Q3H200L2D	Aluminium	37,0	50,0	2960	62,3	119,5	3,2	9,6	1,0	3,1	3,9	93,7	94,1	93,6	0,92	179	79
	4 pole 1500 rpm																	
230/400V	Q3H80M4D	Aluminium	0,75	1,0	1437	1,7	5,0	6,9	-	3,0	-	3,4	82,5	81,2	78,0	0,77	13	48
230/400V	Q3H90S4C	Aluminium	1,1	1,5	1444	2,4	7,3	8,0	-	3,2	-	3,7	84,1	84,1	91,3	0,78	18	53
230/400V	Q3H90L4D	Aluminium	1,5	2,0	1445	3,3	9,9	8,4	-	3,5	-	4,0	85,3	84,9	82,0	0,77	20	54
230/400V	Q3H100L4C	Aluminium	2,2	3,0	1446	4,5	14,7	8,1	-	4,1	-	4,4	86,7	86,3	84,7	0,83	25	55
230/400V	Q3H100L4D	Aluminium	3,0	4,0	1453	6,4	19,9	8,7	-	4,2	-	4,5	87,7	87,3	85,5	0,80	26	55
400/690V	Q3H112M4D	Aluminium	4,0	5,5	1450	8,0	26,4	3,0	9,0	1,1	3,4	4,4	88,6	87,6	85,8	0,81	34	57
400/690V	Q3H132S4B	Aluminium	5,5	7,5	1467	11,0	36,2	2,5	7,5	1,2	3,5	4,3	89,6	89,0	86,8	0,80	55	60
400/690V	Q3H132M4D	Aluminium	7,5	10,0	1467	14,8	49,4	2,7	8,1	1,1	3,4	4,5	90,4	89,3	87,4	0,82	57	60
400/690V	Q3H160M4C	Aluminium	11,0	15,0	1472	21,9	71,9	2,6	7,8	1,1	3,2	4,0	91,4	90,7	89,4	0,81	92	62
400/690V	Q3H160L4B	Aluminium	15,0	20,0	1477	29,7	98,0	2,9	8,7	1,0	2,9	3,8	92,1	91,7	90,7	0,81	99	62
400/690V	Q3H180M4B	Aluminium	18,5	25,0	1479	34,0	119,6	3,0	9,0	0,9	2,8	3,4	92,6	92,5	92,2	0,85	126	68
400/690V	Q3H180L4B	Aluminium	22,0	30,0	1478	39,8	142,3	2,9	8,7	0,9	2,6	2,8	93,0	93,0	93,0	0,87	135	68
400/690V	Q3H200L4D	Aluminium	30,0	40,0	1475	54,5	194,5	2,7	8,1	0,8	2,4	2,8	93,6	93,6	93,7	0,85	183	69
	6 pole 1000 rpm																	
230/400V	Q3H90S6C	Aluminium	0,75	1,0	942	2,0	7,0	4,4	-	2,5	-	2,8	78,9	77,7	76,1	0,70	18	53
230/400V	Q3H90L6D	Aluminium	1,1	1,5	942	2,9	11,2	4,5	-	2,6	-	2,9	81,0	80,5	79,9	0,69	20	54
230/400V	Q3H100L6D	Aluminium	1,5	2,0	942	3,8	15,2	4,8	-	2,6	-	3,0	82,5	81,9	79,0	0,70	26	55
230/400V	Q3H112M6D	Aluminium	2,2	3,0	957	5,3	22,0	4,9	-	2,7	-	3,0	84,3	83,7	80,7	0,71	32	57
400/690V	Q3H132S6C	Aluminium	3,0	4,0	967	7,0	29,7	1,9	5,7	0,6	2,0	2,5	85,6	85,2	82,8	0,71	59	60
400/690V	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	67	60
400/690V	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	76	60
400/690V	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	96	62
400/690V	Q3H160L6D	Aluminium	11,0	15,0	962	24,0	109,4	2,1	6,3	0,7	2,2	3,0	90,3	90,1	89,3	0,76	101	62
400/690V	Q3H180L6B	Aluminium	15,0	20,0	982	32,1	140,2	2,2	6,6	0,7	2,1	2,9	91,2	90,9	88,7	0,75	155	68
400/690V	Q3H200L6C	Aluminium	18,5	25,0	982	35,8	180,3	2,3	6,9	0,6	1,9	2,7	91,7	91,5	90,9	0,80	165	69
400/690V	Q3H200L6D	Aluminium	22,0	30,0	985	42,7	214,4	2,2	6,6	0,6	1,9	2,7	92,2	92,0	91,4	0,81	170	69

* According to IEC 60034-2-1
** The sound pressure measurements are taken 1m away from the motor
** Tolerance +3 dBA

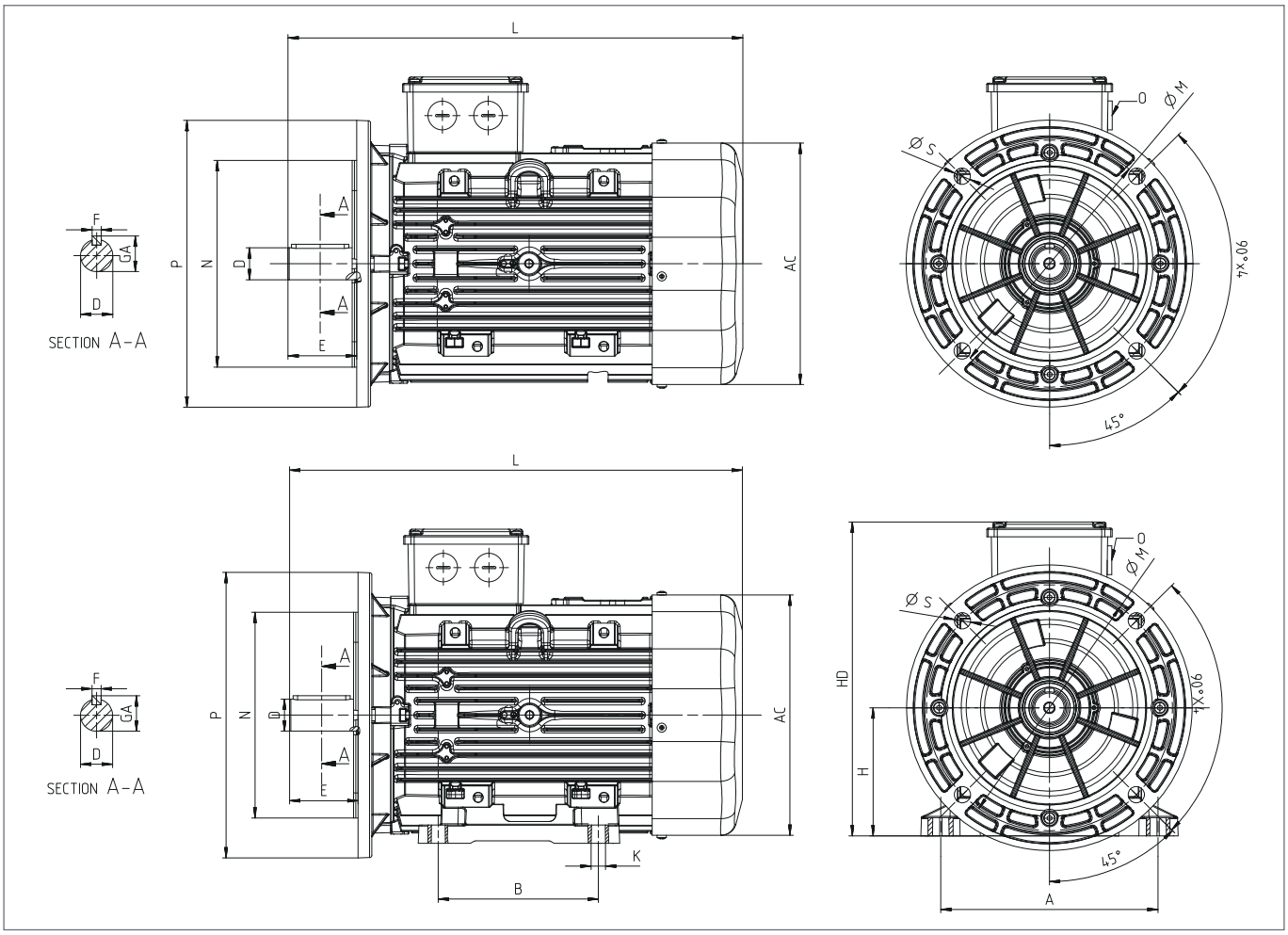
DIMENSION - B3



				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
0,75	2	Q3H80M2C	Aluminium	158	268,0	1*M20	100	125	80	216	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q3H80M4D	Aluminium	158	268,0	1*M20	100	125	80	216	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	6	Q3H90S6C	Aluminium	172	343,5	1*M25	100	140	90	223	10	56	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1,1	2	Q3H80M2D	Aluminium	158	268,0	1*M20	100	125	80	216	10	50	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7
	4	Q3H90S4C	Aluminium	172	343,5	1*M25	100	140	90	223	10	56	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	6	Q3H90L6D	Aluminium	172	343,5	1*M25	125	140	90	223	10	56	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
1,5	2	Q3H90S2C	Aluminium	172	343,5	1*M25	100	140	90	223	10	56	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	4	Q3H90L4D	Aluminium	172	343,5	1*M25	125	140	90	223	10	56	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	6	Q3H100L6D	Aluminium	191	385,0	1*M25	140	160	100	255	12	63	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7
2,2	2	Q3H90L2D	Aluminium	172	343,5	1*M25	125	140	90	223	10	56	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7
	4	Q3H100L4C	Aluminium	191	385,0	1*M25	140	160	100	255	12	63	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7
	6	Q3H112M6D	Aluminium	210	396,0	2*M25	140	190	112	276	12	70	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7
3,0	2	Q3H100L2D	Aluminium	191	385,0	1*M25	140	160	100	255	12	63	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7
	4	Q3H100L4D	Aluminium	191	385,0	1*M25	140	160	100	255	12	63	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7
	6	Q3H132S6C	Aluminium	260	480,5	2*M32	140	216	132	323	12	89	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
4,0	2	Q3H112M2C	Aluminium	210	396,0	2*M25	140	190	112	276	12	70	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7
	4	Q3H112M4D	Aluminium	210	396,0	2*M25	140	190	112	276	12	70	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7
	6	Q3H132M6C	Aluminium	260	480,5	2*M32	178	216	132	323	12	89	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
5,5	2	Q3H132S2C	Aluminium	260	480,5	2*M32	140	216	132	323	12	89	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	4	Q3H132S4B	Aluminium	260	480,5	2*M32	140	216	132	323	12	89	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	6	Q3H132M6D	Aluminium	260	480,5	2*M32	178	216	132	323	12	89	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
7,5	2	Q3H132S2D	Aluminium	260	480,5	2*M32	140	216	132	323	12	89	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	4	Q3H132M4D	Aluminium	260	480,5	2*M32	178	216	132	323	12	89	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10
	6	Q3H160M6C	Aluminium	305	590,5	2*M32	210	254	160	378	15	108	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
11,0	2	Q3H160M2C	Aluminium	305	590,5	2*M32	210	254	160	378	15	108	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q3H160M4C	Aluminium	305	590,5	2*M32	210	254	160	378	15	108	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	6	Q3H160L6D	Aluminium	305	590,5	2*M32	254	254	160	378	15	108	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
15,0	2	Q3H160M2D	Aluminium	305	590,5	2*M32	210	254	160	378	15	108	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q3H160L4B	Aluminium	305	590,5	2*M32	254	254	160	378	15	108	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	6	Q3H180L6B	Aluminium	347	696,0	2*M40	279	279	180	432	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
18,5	2	Q3H160L2C	Aluminium	305	590,5	2*M32	254	254	160	378	15	108	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10
	4	Q3H180M4B	Aluminium	347	696,0	2*M40	241	279	180	432	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	6	Q3H200L6C	Aluminium	347	705,5	2*M50	305	318	200	455	19	133	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10
22,0	2	Q3H180M2A	Aluminium	347	696,0	2*M40	241	279	180	432	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	4	Q3H180L4B	Aluminium	347	696,0	2*M40	279	279	180	432	15	121	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10
	6	Q3H200L6D	Aluminium	347	759,0	2*M50	305	318	200	455	19	133	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10
30,0	2	Q3H200L2C	Aluminium	347	705,5	2*M50	305	318	200	455	19	133	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10
	4	Q3H200L4D	Aluminium	347	759,0	2*M50	305	318	200	455	19	133	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10
37,0	2	Q3H200L2D	Aluminium	347	705,5	2*M50	305	318	200	455	19	133	55	110	59,0	16	6312-2Z	6310-2Z	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



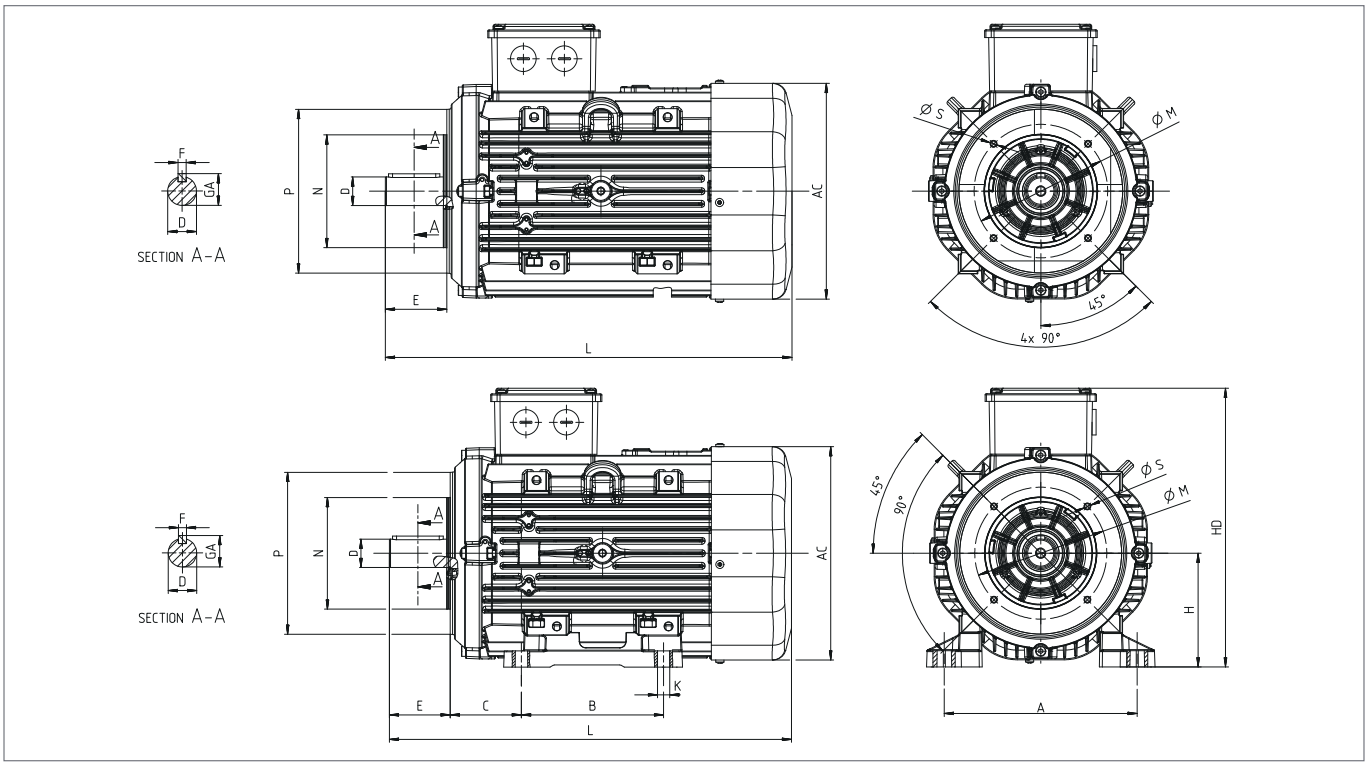
				Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange (FA) (B5)				
Power (kW)	Number of Poles	Motor Type	Housing Type	AC	L	O	B	A	H	HD	K	D(1)	E	GA	F(2)	Drive Side	Non drive Side	Drive Side	Non drive Side	P	N(3)	M	R	S
0,75	2	Q3H80M2C	Aluminium	158	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q3H80M4D	Aluminium	158	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	6	Q3H90S6C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1,1	2	Q3H80M2D	Aluminium	158	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	200	130	165	0	12
	4	Q3H90S4C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	6	Q3H90L6D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
1,5	2	Q3H90S2C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	4	Q3H90L4D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	6	Q3H100L6D	Aluminium	191	385,0	1*M25	140	160	100	242	10	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	250	180	215	0	15
2,2	2	Q3H90L2D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	200	130	165	0	12
	4	Q3H100L4C	Aluminium	191	385,0	1*M25	140	160	100	242	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	250	180	215	0	15
	6	Q3H112M6D	Aluminium	210	396,0	2*M25	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	250	180	215	0	15
3,0	2	Q3H100L2D	Aluminium	191	385,0	1*M25	140	160	100	242	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	250	180	215	0	15
	4	Q3H100L4D	Aluminium	191	385,0	1*M25	140	160	100	242	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	250	180	215	0	15
	6	Q3H132S6C	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
4,0	2	Q3H112M2C	Aluminium	210	396,0	2*M25	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	250	180	215	0	15
	4	Q3H112M4D	Aluminium	210	396,0	2*M25	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	250	180	215	0	15
	6	Q3H132M6C	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
5,5	2	Q3H132S2C	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	4	Q3H132S4B	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	6	Q3H132M6D	Aluminium	260	480,5	2*M32	178	216	132	322	15	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
7,5	2	Q3H132S2D	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	4	Q3H132M4D	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	300	230	265	0	15
	6	Q3H160M6C	Aluminium	305	590,5	2*M32	210	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19

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
11,0	2	Q3H160M2C	Aluminium	305	590,5	2*M32	210	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	348	250	300	0	19
	4	Q3H160M4C	Aluminium	305	590,5	2*M32	210	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	348	250	300	0	19
	6	Q3H160L6D	Aluminium	305	590,5	2*M32	254	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	350	250	300	0	19
15,0	2	Q3H160M2D	Aluminium	305	590,5	2*M32	210	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	348	250	300	0	19
	4	Q3H160L4B	Aluminium	305	590,5	2*M32	254	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	348	250	300	0	19
	6	Q3H180L6B	Aluminium	350	696,0	2*M40	279	279	180	437	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
18,5	2	Q3H160L2C	Aluminium	305	590,5	2*M32	254	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	348	250	300	0	19
	4	Q3H180M4B	Aluminium	347	696,0	2*M40	241	279	180	437	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
	6	Q3H200L6C	Aluminium	347	705,5	2*M50	305	318	200	455	19	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10	400	300	350	0	19
22,0	2	Q3H180M2A	Aluminium	347	696,0	2*M40	241	279	180	437	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
	4	Q3H180L4B	Aluminium	347	696,0	2*M40	279	279	180	437	15	48	110	51,5	14	6310-2Z	6310-2Z	50*80*10	50*80*10	350	250	300	0	19
	6	Q3H200L6D	Aluminium	347	705,5	2*M50	305	318	200	455	19	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10	400	300	350	0	19
30,0	2	Q3H200L2C	Aluminium	347	705,5	2*M50	305	318	200	455	19	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10	400	300	350	0	19
	4	Q3H200L4D	Aluminium	347	705,5	2*M50	305	318	200	455	19	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10	400	300	350	0	19
37,0	2	Q3H200L2D	Aluminium	347	705,5	2*M50	305	318	200	455	19	55	110	59,0	16	6312-2Z	6310-2Z	60*90*10	50*80*10	400	300	350	0	19

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

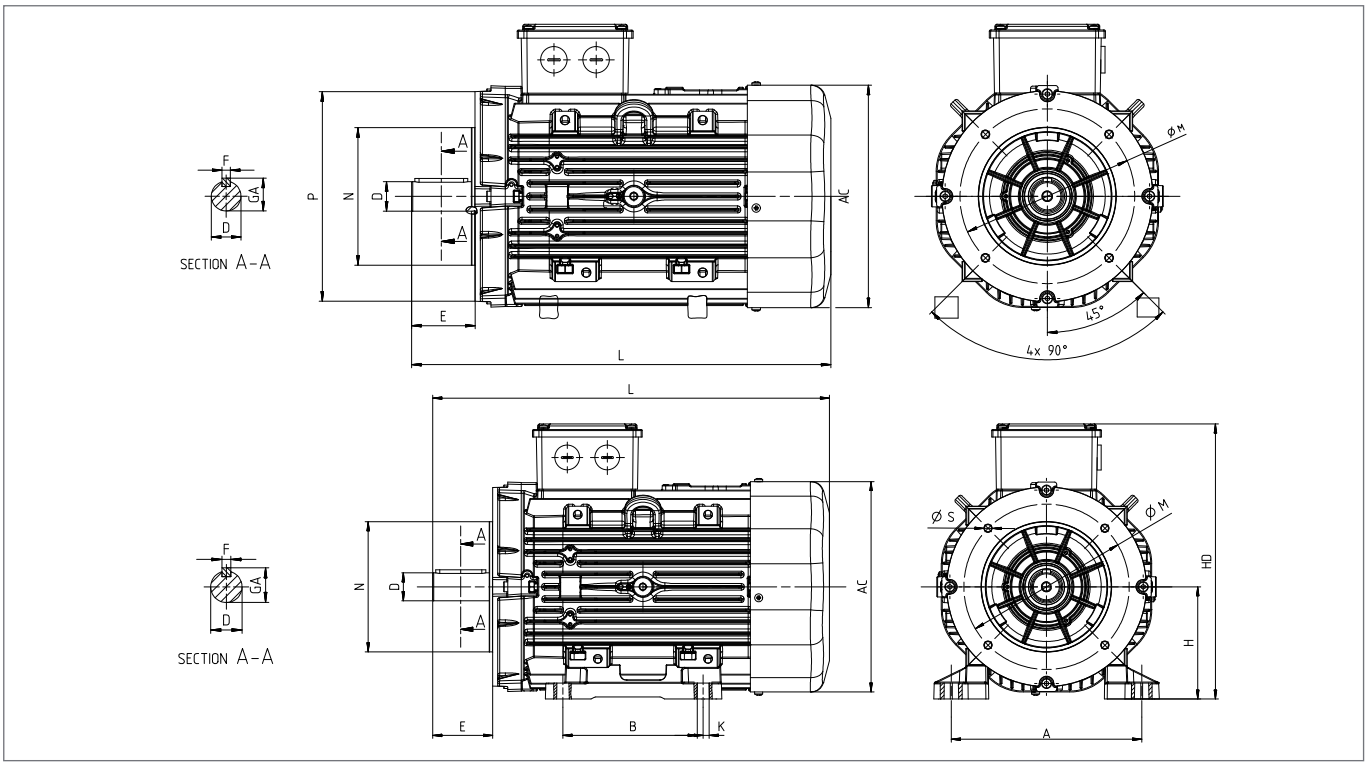
DIMENSION - B14a, B34a



				Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange (FC) (B14a)				
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	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q3H80M4D	Aluminium	158	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	6	Q3H90S6C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1,1	2	Q3H80M2D	Aluminium	158	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	120	80	100	0	M6
	4	Q3H90S4C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	6	Q3H90L6D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1,5	2	Q3H90S2C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	4	Q3H90L4D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	6	Q3H100L6D	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	200	130	165	0	M10
2,2	2	Q3H90L2D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	140	95	115	0	M8
	4	Q3H100L4C	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	160	110	130	0	M8
	6	Q3H112M6D	Aluminium	210	396,0	2*M25	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	200	130	165	0	M10
3,0	2	Q3H100L2D	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	160	110	130	0	M8
	4	Q3H100L4D	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	160	110	130	0	M8
	6	Q3H132S6C	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
4,0	2	Q3H112M2C	Aluminium	210	396,0	2*M25	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	160	110	130	0	M8
	4	Q3H112M4D	Aluminium	210	396,0	2*M26	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	160	110	130	0	M8
	6	Q3H132M6C	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
5,5	2	Q3H132S2C	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
	4	Q3H132S4B	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
	6	Q3H132M6D	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
7,5	2	Q3H132S2D	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
	4	Q3H132M4D	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	200	130	165	0	M10
	6	Q3H160M6C	Aluminium	305	590,5	2*M32	210	254	16	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	250	180	215	0	M12
11,0	2	Q3H160M2C	Aluminium	305	590,5	2*M32	210	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	250	180	215	0	M12
	4	Q3H160M4C	Aluminium	305	590,5	2*M32	210	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	250	180	215	0	M12
	6	Q3H160L6D	Aluminium	305	590,5	2*M32	254	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	250	180	215	0	M12
15,0	2	Q3H160M2D	Aluminium	305	590,5	2*M32	210	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	250	180	215	0	M12
	4	Q3H160L4B	Aluminium	305	590,5	2*M32	254	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	250	180	215	0	M12
18,5	2	Q3H160L2C	Aluminium	305	590,5	2*M32	254	254	160	378	15	42	110	45,0	12	6309-2Z	6209-2Z	45*72*10	45*72*10	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"

DIMENSION - B14b, B34b



				Main Dimensions			Foot Mounted Motors					Shaft				Bearing		Seal		Flange (FB) (B14b)				
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	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q3H80M4D	Aluminium	158	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	6	Q3H90S6C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1,1	2	Q3H80M2D	Aluminium	158	268,0	1*M20	100	125	80	216	10	19	40	21,5	6	6204-2Z	6204-2Z	20*30*7	20*30*7	160	110	130	0	M8
	4	Q3H90S4C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	6	Q3H90L6D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
1,5	2	Q3H90S2C	Aluminium	172	343,5	1*M25	100	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q3H90L4D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	6	Q3H100L6D	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	200	130	165	0	M10
2,2	2	Q3H90L2D	Aluminium	172	343,5	1*M25	125	140	90	223	10	24	50	27,0	8	6305-2Z	6205-2Z	25*40*7	25*40*7	160	110	130	0	M8
	4	Q3H100L4C	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	200	130	165	0	M10
	6	Q3H112M6D	Aluminium	210	396,0	2*M25	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	200	130	165	0	M10
3,0	2	Q3H100L2D	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	200	130	165	0	M11
	4	Q3H100L4D	Aluminium	191	385,0	1*M25	140	160	100	255	12	28	60	31,0	8	6306-2Z	6305-2Z	30*47*7	25*40*7	200	130	165	0	M12
	6	Q3H132S6C	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
4,0	2	Q3H112M2C	Aluminium	210	396,0	2*M25	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	200	130	165	0	M10
	4	Q3H112M4D	Aluminium	210	396,0	2*M26	140	190	112	276	12	28	60	31,0	8	6306-2Z	6306-2Z	30*47*7	30*47*7	200	130	165	0	M10
	6	Q3H132M6C	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
5,5	2	Q3H132S2C	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
	4	Q3H132S4C	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
	6	Q3H132M6D	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
7,5	2	Q3H132S2D	Aluminium	260	480,5	2*M32	140	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	0	M10
	4	Q3H132M4C	Aluminium	260	480,5	2*M32	178	216	132	322	12	38	80	41,0	10	6208-2Z	6208-2Z	40*62*10	40*62*10	250	180	215	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”

Arçelik A.Ş.