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Bearings, terminal boxes and dimensions upon request

Product description

VEM is an innovative, dependable and internationally recognised manufacturer of technically sophisticated systems and drive solutions, as well as special drives and individual components. The product range covers practically the complete spectrum of electric motors and drives for industrial use. Through many years of experience in three-phase drive design, manufacturing, assembly and project development, VEM has gathered a wealth of know-how in many

specialised fields of application. One of these fields is the steel and rolling mill industry, with its extremely challenging demands and operating conditions. VEM has developed a full, complex package of drive solutions tailored to the specific requirements of this sector. This package includes not only “classic” roller table motors, but also geared roller table motors in numerous versions and “special motors” for particular applications in the rolling mill industry.

Series	Light-duty VEM roller table motors				Heavy-duty VEM roller table motors		
	(IE*-)A..R	(IE*-)A..F	(IE*-)A..O	(IE*-)A..B	ARB	ARC	DS..
Type of cooling	IC 411 Self-ventilated	IC 416 Forced-ventilated	IC 410 Non-ventilated	IC 31 W Water-cooled	IC 410 Non-ventilated	IC 410 Non-ventilated	IC 410, IC 411, IC 416, 31 W –
Power supply	Mains or converter-fed				Mains	Converter-fed	Mains or converter-fed
Efficiency class to IEC/EN 60034-30	132 ... 400	63 ... 400	225 ... 280	280 ... 400	22, 33, 54, 65	112 ... 400	355 ... 630
	without, IE1, IE2 or IE3				without	without	without
Output range [kW]	2.2 ... 710	0.06 ... 235	37 ... 90	110 ... 710	0.4 ... 5.5	1.1 ... 290	100 ... 1500
Duty types	S1, S3, S6, S7, S9				S4	S3, S6, S7, S9	S1, S3, S6, S7, S9
Rated torque [Nm]	24 ... 4550	0.3 ... 1515	240 ... 600	700 ... 4550	2.5 ... 35	10 ... 2500	1000 ... 15000
Acceleration torque [Nm]	55 ... 7000	0.5 ... 2700	490 ... 1000	1260 ... 8200	22 ... 240	45 ... 7500	1000 ... 25000
Housing material	EN-GJL-200, optionally EN-GJS 500			Sheet steel	EN-GJL-200	EN-GJL-200 optionally EN-GJS 500	Sheet steel
Housing type	Ribbed (horizontal/vertical)		Smooth surface		Ring-ribbed		Smooth surface/ ribbed
Thermal class	Thermal class 155, optionally 155 (F(B)), 180						
Transponder	Optional RFID system iID®2000 (13.56 MHz based on ISO 15693), (size A42. 400 as standard)						

*IE-class to IEC/EN 60034-30-1

Light-duty roller table motors, series IE3-A4../IE2-AE../A210/A200 for mains and converter-fed operation

Output range	0.09–approx. 710 kW
Degree of protection	IP 55 to IEC/EN 60034-5, higher degree of protection as an option
Types of cooling	IC 410, IC 411, IC 416 and water-jacket cooling IC 71 W (31 W) (upon request) to IEC/EN 60034-6
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7

The series are derived from the VEM standard motor series and are mechanically identical in their principle design elements. The motor windings have been adapted to the

particular application of roller table drive. All screwed connections are additionally secured and the corrosion protection is similarly adapted for use in rolling mills.

Heavy-duty roller table motors, series ARC for converter-fed operation

Sizes	112–400
Output range	0.4–approx. 240 kW
Degree of protection	IP 55 to IEC/EN 60034-5, higher degree of protection as an option
Types of cooling	IC 410, IC 411, IC 416 to IEC/EN 60034-6
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7

The series ARC (IC 410) is designed for converter-fed operation in rolling mill applications. It represents a combination of the positive features of a converter-fed double squirrel-cage rotor, with its torque characteristic geared to optimum acceleration (M_K/M_B approx. 3), and the mecha-

nically robust construction of a heavy-duty roller table motor. The overall design is identical to that of a VEM standard motor, with the exception of the housing form (circumferential ribs) and the bearing/seal arrangement on the D-end.

Heavy-duty roller table motors, series ARB for mains operation

Sizes	22 (132), 33 (125), 54 (180), 65 (200)
Output range	0.4–5.5 kW
Degree of protection	IP 55 to IEC/EN 60034-5, higher degree of protection as an option
Type of cooling	IC 410 to IEC/EN 60034-6
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7

The heavy-duty roller table motor ARB (IC 410) is designed for mains operation. As with the ARC series, the housing is provided with circumferential cooling ribs. It is manufac-

tured from grey-cast iron with ribs running transverse to the shaft direction. The conventional motor design achieves a soft torque characteristic and long blocking times.

Transnorm motors, series DS, DSf, DSo, DSWM for mains and converter-fed operation

Sizes	355–630
Output range	100–approx. 1400 kW
Degree of protection	IP 55 to IEC/EN 60034-5, higher degree of protection as an option
Types of cooling	IC 410, IC 411, IC 416 and water-jacket cooling IC 71 W (31 W) to IEC/EN 60034-6
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7

The motors are designed as welded steel constructions and can be adapted to specific project demands.

Robust to meet the toughest demands

The drive elements of the mill and driving tables in rolling mills are subjected to particularly exacting electrical and mechanical demands. They must cope with a diversity of operating modes, such as continuous, intermittent and short-time duty, as well as start-up, braking and reversing functions. Furthermore, the motors must withstand the high ambient temperatures arising from the molten steel and the overloads which may occur if jammed stock blocks the transport system. Exposure to water must frequently be expected, and this must be taken into account by the mechanical design of the motor. VEM roller table motors are ideally prepared to handle all such extreme operating conditions.



Wide hot strip mill train, ARC 315

Proven quality – modern design

VEM roller table motors of the classic series ARB 22–65 have been demonstrating their function capabilities and reliability under often extreme ambient conditions for many decades.

On the basis of this experience, VEM has developed several variants of roller table motors, which are each adapted to the special requirements of modern drive technologies for use in conjunction with a frequency converter. The motor windings are designed specifically for converter-fed operation. In contrast to a classic roller table motor design with soft torque characteristic and long blocking times, roller table motors for converter-fed operation feature a specially tailored characteristic, as is typical for a double squirrel-cage rotor. This ensures reliable synchronous operation with grouped drives, even under changing loads, which is turn a prerequisite for high rolling quality.



Motor of the ARB series for mains operation



Motor of the ARC series with built-on holding brake and incremental encoder

Versatile applications – individual adaptation

With regard to their mechanical design, the motors are available either as robust grey-cast constructions with horizontal/vertical ribbing, in versions with self- or forced ventilation as series IE2-AE.R/AE.F or in a non-ventilated version as series IE2-AE1O, or else on the basis of a ring-ribbed housing in the case of series ARC and ARB. In converter-fed operation, the operating speeds can be matched perfectly to the individual drive requirements. As control is realised primarily in the lower frequency range, project-specific adaptation of the windings and the use of a frequency converter with automatic voltage boost or field-oriented control are recommended. The windings are designed specifically for converter-fed operation. Detailed operating data sheets are available to assist project planning. They are based on windings for thermal class 155. Designs for thermal class 180 are also possible as an option, for example as a means to increase the frequency of switching operations. For existing installations, it is still possible to choose the heavy-duty series ARB, which is designed specifically for mains operation and can withstand a blocking period of several minutes without damage (soft torque characteristic, additional heat sinks on the rotor).



Furnace table with ARG 200L 12, $M_{max}=1888$ Nm

Geared roller table motor version

The single- and multi-stage gearing arrangements used by VEM motors GmbH are developed in cooperation with leading gear manufacturers and designed specifically for operation in continuous casting, furnace and rolling mill plant. All individual components meet the tough demands posed by such environments. The gear housings are manufactured as grey cast iron (GG), spheroidal cast iron (GGG) or welded steel constructions, depending on the motor type and version. The dimensioning of the wall thickness ensures that ample space is available for the bearings and seals required at a particular place of installation. The actual gears are likewise matched in their dimensions to the individual demands. The gear teeth are designed as corrected involute helical teeth and have been case-hardened and honed. The quality complies with the stipulations of DIN quality class 7. The material used is 16MnCr5, 20MnCr5 or 17CrNiMo6. The drive shaft is sealed to the outside with a VITON sealing ring running on a hardened and ground bushing and with an additional labyrinth seal in order to prevent the penetration of dust, scale or water. The gearing is oil-lubricated (immersion lubrication). For special applications, for example in continuous casting plant (high ambient temperatures), we recommend lubrication with synthetic oils. In certain cases, fluid grease may be sufficient. The torques specified in the data sheet are firstly the nominal torque and secondly the acceleration or breakdown torque. The breakdown torque generally lies 20–30 % above the acceleration torque. The nominal torque can be delivered 24 hours a day without influencing service life. The acceleration torque can occur for a duration of 5 seconds approx. 100 times per hour without influencing the service life of the gearing. The maximum loading of the gears is designed such that the acceleration torque can be exceeded by 2.5 times occasionally (also several times per day, but not more than 10 times per hour for 2 seconds in each case), without influencing the service life of the gearing. The gearing is durable at acceleration torque. The motors are integrated with the gearing by way of at least four bolts. They can thus be separated from the gearing at any time, for example for maintenance purposes. It is



Roller table version, SG200 ARG 200L 8, $M_{max}= 1655$ Nm



Delay table with S141-1A ARG 160L 4, $M_{max}=1039$ Nm

merely necessary to drain the oil from the gearing before separation. The motors always possess an oil-tight seal at the drive end. The bearing on the non-drive end is generally provided with lifetime lubrication.

VEM – your competent partner for drive questions

Wherever our customers need electric machines, we are at hand as a partner and offer every necessary support at all phases of a project. It is not important whether you are doing business in Europe, the Middle East, Asia or America. As the VEM market share increases beyond Germany, we are also expanding our sales network with a combination of own subsidiary companies and strategic alliances.

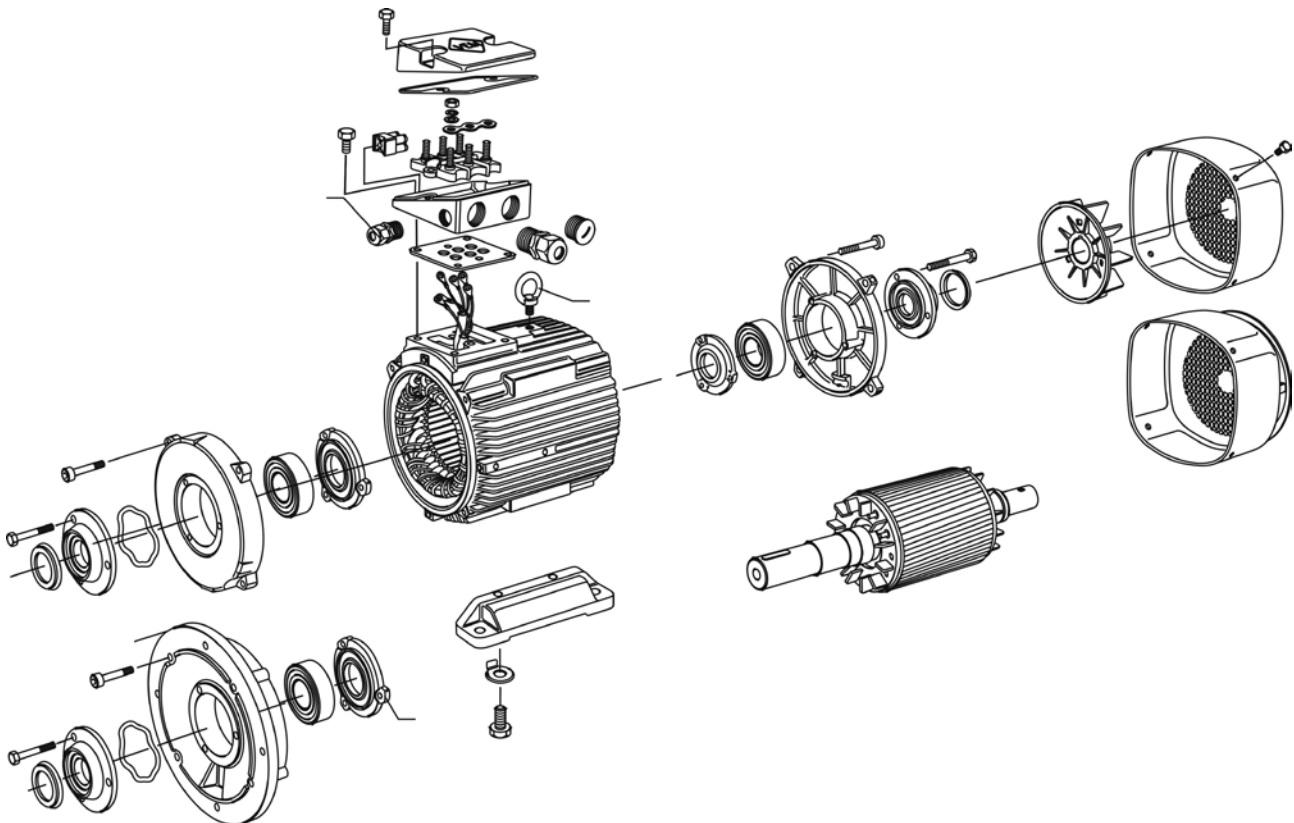
Already today, our customers can address their questions to competent and experienced local partners all over the world. Our dense sales and service network comprises VEM subsidiaries in Finland, Great Britain, Norway, Austria, Sweden and Singapore, alongside agents and representatives in more than 40 countries.

Design versions

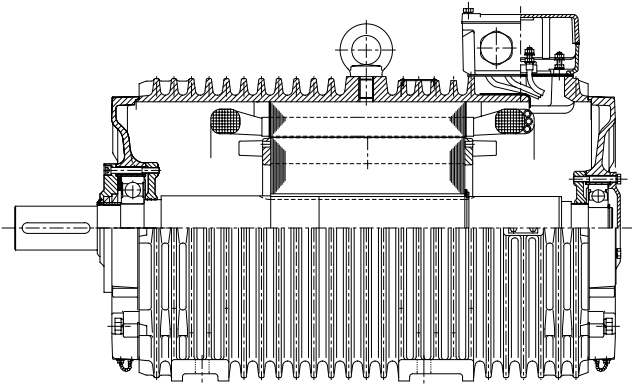
The housings of the light-duty series IE3-A4../IE2-AE../A2.O possess horizontal/vertical ribbing, whilst on the heavy-duty series ARB/ARC the cooling ribs run transverse to the shaft direction. Both housing designs are characterised by their high mechanical strength and very good thermal capacity.

The terminal box for motors of the series AE.O can be mounted either at the top, on the right or on the left, as is the case for the standard motor series K21R, K20R. The terminal box for series ARB is mounted on the right, while that for series ARC is positioned either on the top at the non-drive end or optionally on the non-drive-end shield.

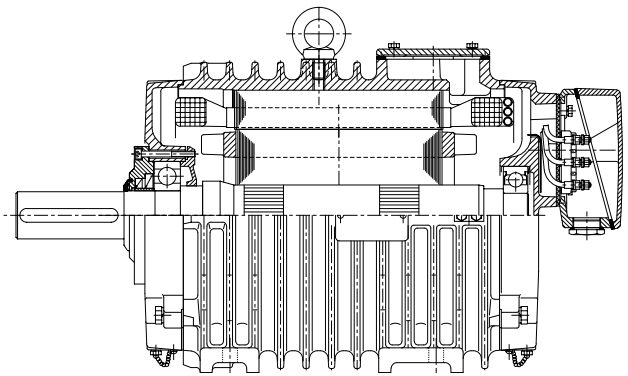
Shaft height	Series	Housing	Material for			Foot mounting
			End shields	Feet		
132 to 280	IE3-A4../ IE2-AE../ A2.O	Grey cast iron	Grey cast iron	Grey cast iron	Bolted	
315					Cast	
355, 400					Cast	
112 to 400	ARC				Cast	
22 to 65	ARB				Cast	
355 to 630	DSWM	Steel	Steel	Steel	Welded	



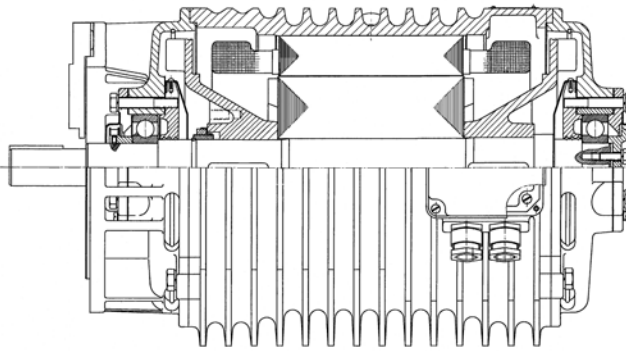
Design of an IE2-AE.R motor, schematic representation



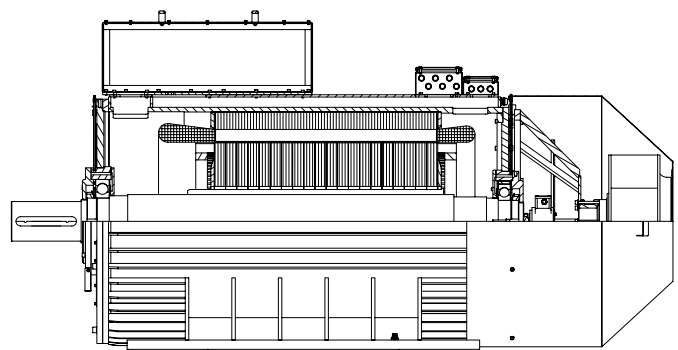
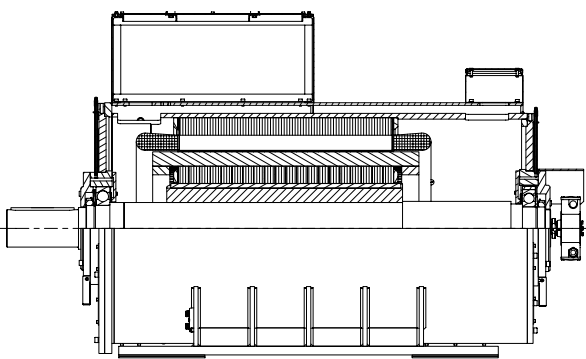
Design example for series ARC, with top-mounted terminal box



Design example for series ARC, terminal box on non-drive-end shield



Design example for series ARB, terminal box mounted on the right



Design examples for welded-steel transnorm motors, types of cooling IC 411 and IC 416

Overview of technical data

Three-phase roller table motors with squirrel-cage rotor, light-duty version for converter-fed operation, self-ventilated, Type of cooling IC 411

The most important technical data are summarised in the following table. Further information can be taken from the catalogue section "Introduction" (chapter 1).

Product group	Roller table motors, squirrel-cage rotor, IEC/EN
Rated output	5.5 kW to 500 kW (IE2-, IE3-model 2-, 4-, 6- und 8-pole)
Sizes	132 to 355
Housing material	Grey cast iron EN GJL-200 to DIN EN 1561 or optionally spheroidal cast iron EN-GJS 500 to DIN EN 1563 with horizontal/vertical cooling ribs
Rated torque	24 Nm to 3400 Nm
Efficiency classification/ efficiency determination	IEC/EN 60034-30-1 / IEC/EN 60034-2-1, ≤ 1 kW direct measurement, > 1 kW residual loss method
Duty types	S1, S7/S9 to IEC/EN 60034-1
Method of connection	Single-speed motors are designed in star-delta configuration as standard. In the case of pole-changing motors, the method of connection is dependent on the combination of pole numbers, see selection lists.
Stator winding insulation	Thermal class 155, optionally 155 [F(B)], 180 to IEC/EN 60034-1
Degree of protection	IP 55 to IEC/EN 60034-5, optionally IP 56 and higher
Type of cooling	IC 411, optionally IC 410, IC 416 to IEC/EN 60034-6
Coolant temperature/ installation altitude	Standard -20 °C to +40 °C, Altitude 1000 m above sea level
Rated voltage	Standard voltages to EN 60038 50 Hz: 230 V, 400 V, 500 V, 690 V 60 Hz: 275 V, 460 V, 480 V, 600 V Rated Voltage ranges A and B to IEC/EN 60034-1
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7
Paint finish	Normal finish "Moderate", colour RAL 7031, blue-grey Special finish "Worldwide", colour RAL 7031, blue-grey
Vibration severity grade	Grade "A" as standard for machines with no special vibration requirements
Shaft ends	to DIN 748 (IEC 60072), Balanced with half-key
Sound pressure level	to DIN EN ISO 1680, tolerance + 3 dB,
Limit speeds	Please refer to the section of "Limit speeds" in catalogue section "Motors for converter-fed operation", Chapter 4.
Bearing design	Please refer to the tables of "Bearing design data" in catalogue section „Standard motors“, Chapter 2.
Motor mass	Please refer to the technical selection lists.
Terminal boxes	Please refer to the section "Terminal boxes" in catalogue section „Standard motors“, Chapter 2.
Documentation	An operating and maintenance manual, a terminal plan and a safety data sheet are supplied with each motor.
Tolerances	Please refer to the section "Tolerances" in catalogue section "Introduction", Chapter 1.
Options	Please refer to the section "Overview of modifications" in catalogue section "Introduction", Chapter 1.

Motor selection data

Three-phase roller table motors with squirrel-cage rotor, Premium Efficiency IE3 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data																	Design point 400 V, 50 Hz/460 V, 60 Hz			
Type	Converter input voltage to	U _B	f _B	P _B	M _B	P _B	M _B	n _B	η _B			cosφ _B	I _B	I _K /I _B	M _K /M _B	M _S /M _B	M _K /M _B	J	m	
	420 V	500 V	V	Hz	kW	Nm	kW	Nm	rpm	(IEC/EN 60034-2-1)			-	A	-	-	-	-	kgm ²	kg
Synchronous speed 3000 rpm – 2-pole version																				
IE3-A41R 132 SX2	IE3-AU1R 132 SX2	400	50	7.5	24.0	7.5	24.0	2925	IE3-	90.1	89.4	87.9	0.87	14.0	8.0	2.5	2.1	3.3	0.0168	75
		460	60	9	24	9	24	3520	IE3-	90.5	89.5	87.8	0.89	14	7.1	2.3	1.9	3.1		
IE3-A41R 160 M2	IE3-AU1R 160 M2	400	50	11	36.0	11	36.0	2950	IE3-	91.4	91.7	90.5	0.90	19.5	8.0	2.2	1.8	3.2	0.0575	125
		460	60	13.2	36	13.2	36	3540	IE3-	91	90	87.9	0.91	20	7.3	2	1.6	2		
IE3-A41R 160 MX2	IE3-AU1R 160 MX2	400	50	15	49.0	15	49.0	2950	IE3-	91.9	92.0	91.3	0.91	26.0	7.9	2.2	1.7	3.1	0.0675	145
		460	60	18	48	18	48	3545	IE3-	92	92.3	91.2	0.92	26.5	7.4	2	1.6	2.9		
IE3-A41R 160 L2	IE3-AU1R 160 L2	400	50	18.5	60.0	18.5	60.0	2960	IE3-	92.4	92.5	91.4	0.90	32.0	9.2	2.6	2.1	3.6	0.078	160
		460	60	22	59	22	59	3550	IE3-	92	91.9	90.7	0.91	33	8.5	2.4	1.9	3.3		
IE3-A41R 180 M2C	IE3-AU1R 180 M2C	400	50	22	71	22	71	2975	IE3-	92.7	92.6	91.5	0.91	37.5	8.9	1.9	1.4	3.3	0.1717	214
		460	60	26	70	26	70	3570	IE3-	92.4	92.0	90.7	0.92	38.5	8.2	1.8	1.3	3.0		
IE3-A41R 200 L2	IE3-AU1R 200 L2	400	50	30	97	30	97	2965	IE3-	93.3	92.2	90.6	0.88	52.5	8.6	2.1	1.6	3.3	0.36	305
		460	60	33	88	33	88	3565	IE3-	92.4	91.0	88.6	0.88	51.0	8.5	2.1	1.6	3.2		
IE3-A41R 200 LX2C	IE3-AU1R 200 LX2C	400	50	37	119	37	119	2980	IE3-	93.7	92.9	91.7	0.89	64.0	8.7	1.7	1.3	3.2	0.4757	310
		460	60	40	107	40	107	3575	IE3-	93	91.7	89.5	0.89	60.5	8.8	1.8	1.3	3.2		
IE3-A41R 225 M2	IE3-AU1R 225 M2	400	50	45	145	45	145	2960	IE3-	94.0	93.7	93.0	0.89	77.5	8.8	2.3	1.9	3.2	0.375	375
		460	60	54	145	54	145	3553	IE3-	93.6	93.3	92.6	0.89	81.5	8.1	2.1	1.7	2.9		
IE3-A41R 250 M2	IE3-AU1R 250 M2	400	50	55	177	55	177	2970	IE3-	94.6	94.4	93.6	0.91	92	8.9	2.2	1.9	3.2	0.65	510
		460	60	66	177	66	177	3568	IE3-	94.1	93.5	92.3	0.92	95.5	8.2	2	1.8	2.9		
IE3-A41R 280 S2	IE3-AU1R 280 S2	400	50	75	241	75	241	2967	IE3-	94.7	94.5	93.9	0.89	128	8.1	1.9	1.9	2.8	0.65	500
		460	60	82	220	82	220	3566	IE3-	94.5	94	92.5	0.90	121	8.1	2	1.8	3		
IE3-A41R 280 M2	IE3-AU1R 280 M2	400	50	85	273	90	289	2970	IE3-	95	94.5	94	0.90	152	8.4	2.2		3.1	0.675	545
		460	60	85		90							upon request							
IE3-A41R 315 S2	IE3-AU1R 315 S2	400	50	110	354	110	354	2970	IE3-	95.2	94.5	93.5	0.89	187	10.0	1.9	1.7	3.0	1.21	750
		460	60	110	294	110	294	3570	IE3-	95.0	94.0	92.5	0.89	163	10	2	1.8	3.2		
IE3-A41R 315 M2	IE3-AU1R 315 M2	400	50	132	423	132	423	2980	IE3-	95.4	95.0	94.5	0.89	224	10.0	2.0	1.8	3.0	1.44	815
		460	60	145	387	145	387	3580	IE3-	95.4	95.0	94.5	0.89	214	10	2	1.8	3		
IE3-A41R 315 MX2	IE3-AU1R 315 MX2	400	50	160	513	160	513	2980	IE3-	95.7	95.7	95.0	0.9	268	8.5	2.3	1.7	2.6	2.37	1095
		460	60	165	440	165	440	3585	IE3-	95.4	95	94	0.89	244	9	2.5	1.8	2.8		
IE3-A41R 315 MY2	IE3-AU1R 315 MY2	400	50	192	615	200	641	2980	IE3-	95.8	95.9	95.5	0.91	331	8.3	2.6	1.6	2.4	2.82	1200
		460	60	211	563	220	587	3580	IE3-	95.8	95.3	94.5	0.91	317	8.5	2.8	1.7	2.7		
IE3-A41R 315 L2	IE3-AU1R 315 L2	400	50	220	704	250	800	2985	IE3-	96.0	96.0	95.9	0.92	409	8.4	2.5	1.4	2.3	3.66	1460
		460	60	246	656	280	747	3580	IE3-	96	96	95.5	0.92	458	8.2	2.5	1.4	2.3		
IE3-A41R 315 LX2	IE3-AU1R 315 LX2	400	50	270	864	315	1008	2985	IE3-	95.8	95.8	95.8	0.92	516	8.5	2.8	1.6	2.5	4.43	1700
		460	60	291	775	340	906	3585	IE3-	95.8	95.8	95.5	0.92	484	9.1	2.9	1.6	2.5		
IE3-A41R 355 M2	IE3-AU1R 355 M2	400	50	330	1056	355	1136	2985	IE3-	96.0	96.0	96.0	0.92	580	7.7	1.9	1.5	3.8	4.20	2000
IE3-A42R 355 MX2	IE3-AU2R 355 MX2	400	50	355	1135	400	1278	2988	IE3-	96.0	96.0	96.0	0.92	654	8.5	1.8	1.1	2.5	5.50	2275
IE3-A42R 355 L2	IE3-AU2R 355 L2	400	50	370	1182	500	1597	2990	IE3-	96.2	96.2	96.2	0.90	834	11.0	2.2	1.4	3.2	7.10	2445
IE3-A42R 400 M2	IE3-AU2R 400 M2	400	50	450	1435	560	1786	2995	IE3-	96.0	96.0	95.5	0.83	1014	9.0	2.8		3.0	8.44	3000
IE3-A42R 400 MX2	IE3-AU2R 400 MX2	400	50	500	1596	630	2011	2992	IE3-	96.0	96.0	95.5	0.91	1041	9.5	2.5		2.7	9.41	3200
IE3-A42R 400 L2	IE3-AU2R 400 L2	400	50	580	1856	710	2272	2985	IE3-	96.0	96.0	95.5	0.90	1186	7.7	2.2	1.1	2.8	10.41	3450

Three-phase roller table motors with squirrel-cage rotor, Premium Efficiency IE3 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data																	Design point 400 V, 50 Hz/460 V, 60 Hz			
Type	Converter input voltage to 420 V	U _b V	f _B Hz	P _B M _B Converter		P _B M _B Mains		n _B rpm	η _B (IEC/EN 60034-2-1)			cosφ _B -	I _B A	I _A /I _B -	M _A /M _B -	M _S /M _B -	M _K /M _B -	J kgm ²	m kg	
				kW	Nm	kW	Nm		100 %	75 %	50 %									
Synchronous speed 1500 rpm – 4-pole version																				
IE3-A41R 132 S4	IE3-AU1R 132 S4	400	50	5.5	35	5.5	35	1480	IE3-	91.0	90.2	87.8	0.73	12.0	9.9	3.4	2.8	5.4	0.035	90
		460	60	6.6	35	6.6	35	1780	IE3-	91.8	91	88.9	0.77	11.7	9.6	3.1	2.6	5		
IE3-A41R 132 M4	IE3-AU1R 132 M4	400	50	7.5	49	7.5	49	1475	IE3-	91.3	91.3	90.1	0.83	14.5	8.6	2.4	2.0	3.9	0.043	100
		460	60	9	49	9	49	1765	IE3-	91.8	91.7	90.6	0.85	14.5	8	2.3	1.9	3.6		
IE3-A41R 160 M4	IE3-AU1R 160 M4	400	50	11	71	11	71	1475	IE3-	91.4	91.5	90.5	0.83	21.0	7.5	2.5	2.0	3.2	0.078	125
		460	60	12.5	67	12.5	67	1775	IE3-	92.4	91.8	90.6	0.80	21.5	7.4	2.4	2	3.1		
IE3-A41R 160 L4C	IE3-AU1R 160 L4C	400	50	15	96	15	96	1490	IE3-	92.8	92.5	91.0	0.83	28.0	10.5	2.8	2.4	3.9	0.1567	175
		460	60	18	96	18	96	1785	IE3-	93.6	92.8	91.3	0.85	28.5	9.9	2.6	2.2	3.6		
IE3-A41R 180 M4	IE3-AU1R 180 M4	400	50	18.5	120	18.5	120	1475	IE3-	92.7	92.9	92.0	0.84	34.5	6.9	1.9	1.7	3.0	0.168	210
		460	60	22	118	22	118	1775	IE3-	93.6	93.0	92.3	0.84	35.0	6.5	1.8	1.9	2.8		
IE3-A41R 180 L4	IE3-AU1R 180 L4	400	50	22	142	22	142	1480	IE3-	93.0	93.0	92.1	0.84	40.5	7.6	2.2	2.0	3.2	0.203	240
		460	60	25	134	25	134	1775	IE3-	93.6	92.8	91.8	0.85	39.5	7.5	2.1	1.9	3.1		
IE3-A41R 200 L4C	IE3-AU1R 200 L4C	400	50	30	193	30	193	1485	IE3-	93.6	92.4	92.4	0.85	54.5	7.0	1.6	1.4	2.6	0.411	327
		460	60	30	160	30	160	1790	IE3-	94.1	92.8	91.0	0.84	47.5	7.7	1.7	1.5	2.8		
IE3-A41R 225 S4C	IE3-AU1R 225 S4C	400	50	37	237	37	237	1490	IE3-	93.9	93.8	93.2	0.85	67.0	7.4	1.9	1.4	2.7	0.4675	367
		460	60	40	214	40	214	1785	IE3-	94.5	93.7	92.5	0.85	62.5	7.5	1.9	1.4	2.7		
IE3-A41R 225 M4	IE3-AU1R 225 M4	400	50	45	290	45	290	1482	IE3-	94.2	94.3	94.0	0.82	84	8.1	2.6	2.1	2.6	0.619	450
		460	60	49	263	49	263	1782	IE3-	95	94	91.5	0.83	79	8.7	2.7	2.2	2.7		
IE3-A41R 250 M4	IE3-AU1R 250 M4	400	50	55	354	55	354	1485	IE3-	94.7	94.8	94.4	0.83	101	8.1	2.1	1.8	2.5	0.95	550
		460	60	55	294	55	294	1785	IE3-	95.4	94.9	93.5	0.83	87	8.9	2.3	2	2.7		
IE3-A41R 280 S4	IE3-AU1R 280 S4	400	50	75	482	75	482	1485	IE3-	95.0	94.6	94.2	0.83	137	8.2	2.1	1.8	2.5	1.1	617
		460	60	90	482	90	482	1783	IE3-	95.4	94.6	94	0.84	141	7.9	2	1.7	2.3		
IE3-A41R 280 M4	IE3-AU1R 280 M4	400	50	90	578	90	578	1487	IE3-	95.2	94.7	94.0	0.83	164	9.2	2.1	1.9	2.7	1.96	785
		460	60	90	480	90	480	1790	IE3-	95	95.4	93.2	0.82	144	10	2	1.9	2.9		
IE3-A41R 315 S4	IE3-AU1R 315 S4	400	50	110	706	110	706	1487	IE3-	95.4	95.0	94.3	0.82	203	9.5	1.9	1.7	2.7	1.96	760
		460	60	125	668	125	668	1788	IE3-	95.8	95.2	94.3	0.83	197	9.2	2.1	2	2.7		
IE3-A41R 315 M4	IE3-AU1R 315 M4	400	50	132	849	132	849	1485	IE3-	95.6	95.4	95.0	0.83	240	9.0	2.2	1.9	2.7	2.27	850
		460	60	129	689	129	689	1787	IE3-	95.8	95.3	94.7	0.83	204	10	2.3	2.1	2.9		
IE3-A41R 315 MX4	IE3-AU1R 315 MX4	400	50			160	1029	1485	IE3-	95.8	95.0	94.5	0.83	290	8.5	1.5	1.6	2.5	2.73	975
		460	60			160							upon request							
IE3-A41R 315 MX4	IE3-AU1R 315 MX4	400	50	160	1026	160	1026	1490	IE3-	95.8	95.5	95.0	0.84	287	9.5	2.1	2.0	3.2	4.01	1120
		460	60	175	934	175	934	1790	IE3-	96.2	96	95	0.84	272	10	2.1	2	3.2		
IE3-A41R 315 MY4	IE3-AU1R 315 MY4	400	50	200	1282	200	1282	1490	IE3-	96.0	95.8	95.5	0.87	346	9.5	2.1	1.7	2.7	4.82	1250
		460	60	225	1200	225	1200	1790	IE3-	96.2	96	95.5	0.86	341	9.5	2.2	1.8	2.7		
IE3-A41R 315 L4	IE3-AU1R 315 L4	400	50	250	1602	250	1602	1490	IE3-	96.2	96.2	96.0	0.87	431	9.4	2.2	1.8	2.7	5.93	1450
		460	60	280	1494	280	1494	1790	IE3-	96.2	96.1	95.7	0.87	420	9.3	2.2	1.8	2.7		
IE3-A41R 315 LX4	IE3-AU1R 315 LX4	400	50	285	1827	315	2019	1490	IE3-	96.0	96.0	96.0	0.87	544	9.5	2.3	1.7	2.9	6.82	1630
		460	60	285	1521	315	1680	1790	IE3-	96.2	96.2	95.5	0.87	472	10.5	2.6	1.9	3.2		
IE3-A41R 355 M4	IE3-AU1R 355 M4	400	50	355	2271	355	2271	1493	IE3-	96.2	96.2	95.5	0.87	612	8.1	1.3	1.0	2.7	7.90	2150
		460	60	375	2001	375	2001	1790	IE3-	96.2	95.8	95	0.87	647	9.1	1.3	1	3.2		
IE3-A42R 355 MX4	IE3-AU2R 355 MX4	400	50	390	2500	400	2564	1490	IE3-	96.2	96.2	96.2	0.84	714	8.2	1.7	1.4	2.4	9.50	2410
IE3-A42R 355 L4	IE3-AU2R 355 L4	400	50	480	3077	500	3205	1490	IE3-	96.4	96.4	96.0	0.84	891	7.4	2.5	1.2	2.3	10.00	2500
IE3-A42R 400 M4	IE3-AU2R 400 M4	400	50	500	3198	560	3582	1493	IE3-	96.3	96.3	96.0	0.87	965	10.5	2.0		2.5	12.60	2900
IE3-A42R 400 MX4	IE3-AU2R 400 MX4	400	50	580	3707	630	4027	1494	IE3-	96.5	96.5	96.0	0.86	1096	10.0	3.1		3.3	14.33	3100
IE3-A42R 400 L4	IE3-AU2R 400 L4	400	50	650	4158	710	4542	1493	IE3-	96.5	96.5	96.5	0.86	1235	11.4	4.1		3.8	16.29	3400

Three-phase roller table motors with squirrel-cage rotor, Premium Efficiency IE3 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data														Design point 400 V, 50 Hz/460 V, 60 Hz						
Type	Converter input voltage to		U _B V	f _B Hz	P _B M _B Converter		P _B M _B Mains		n _B rpm	η _B (IEC/EN 60034-2-1)			cosφ _B	I _B A	I _A /I _B	M _A /M _B	M _G /M _B	M _K /M _B	J kgm ²	m kg
	420 V	500 V			P _B kW	M _B Nm	P _B kW	M _B Nm		100 %	75 %	50 %								
Synchronous speed 1000 rpm – 6-pole version																				
IE3-A41R 132 M6	IE3-AU1R 132 M6	400	50	4	40	4	40.0	965	IE3-	86.8	87.0	86.0	0.80	8.3	4.8	1.7	1.4	2.4	0.043	75
		460	60	4.5	37	4.5	37	1170	IE3-	89.5	88.7	87.6	0.80	7.9	4.8	1.7	1.5	2.4		
IE3-A41R 132 MX6	IE3-AU1R 132 MX6	400	50	5.5	54	5.5	54.0	970	IE3-	88.6	88.6	87.2	0.80	11.0	6.0	2.1	1.7	3.0	0.053	105
		460	60	5.7	46	5.7	46	1175	IE3-	91	89.8	87.5	0.79	10	6.5	2.2	1.9	3.2		
IE3-A41R 160 M6	IE3-AU1R 160 M6	400	50	7.5	73	7.5	73.0	980	IE3-	90.2	90.0	88.3	0.83	14.5	6.4	2.4	2.0	3.0	0.145	145
		460	60	9	73	9	73	1175	IE3-	91.3	90.6	89	0.85	14.6	6	2.2	1.9	2.8		
IE3-A41R 160 L6C	IE3-AU1R 160 L6C	400	50	11	107	11	107.0	985	IE3-	91.4	91.2	89.8	0.85	20.5	6.8	2.2	2	2.8	0.166	168
		460	60	13	105	13	105	1185	IE3-	91.7	91.4	90	0.86	20.5	6.5	2.1	1.9	2.6		
IE3-A41R 180 L6C	IE3-AU1R 180 L6C	400	50	15	145	15	145.0	985	IE3-	91.2	91.3	90.2	0.87	27.5	6.8	2	1.7	2.7	0.3396	214
		460	60	18.5	149	18.5	149	1185	IE3-	93	91.9	90.5	0.85	29.5	6.2	1.8	1.5	2.5		
IE3-A41R 200 L6	IE3-AU1R 200 L6	400	50	18.5	180	18.5	180.0	980	IE3-	91.8	91.7	90.5	0.87	33.5	7.2	2.3	2	3	0.514	310
		460	60	22	178	22	178	1180	IE3-	93	91.7	90.5	0.87	34	6.7	2.1	1.8	2.8		
IE3-A41R 200 LX6C	IE3-AU1R 200 LX6C	400	50	22	213	22	213.0	985	IE3-	92.2	91.5	90	0.87	39.5	7.6	2.1	1.7	2.9	0.6476	321
		460	60	22	177	22	177	1190	IE3-	93	91.4	89.4	0.87	34	6.5	2.4	1.9	3.2		
IE3-A41R 225 M6	IE3-AU1R 225 M6	400	50	30	291	30	291	984	IE3-	92.9	92.2	91.0	0.84	55.5	7.2	2.7	2.2	2.9	0.92	400
		460	60	30	***	30							***							
IE3-A41R 250 M6	IE3-AU1R 250 M6	400	50	37	359	37	359	985	IE3-	93.3	93.2	92.3	0.86	66.5	7.1	2.8	2.0	2.7	1.48	545
		460	60	40	322	40	322	1185	IE3-	94.1	93.3	92	0.86	62	7.2	2.9	2	2.8		
IE3-A41R 280 S6	IE3-AU1R 280 S6	400	50	45	434	45	434	990	IE3-	93.7	93.5	91.5	0.86	80.5	8.5	2.1	1.8	2.8	2.63	695
		460	60	45	***	45							***							
IE3-A41R 280 M6	IE3-AU1R 280 M6	400	50	55	531	55	531	990	IE3-	94.2	94.1	93.1	0.85	99	9.0	2.2	1.9	3.1	3.33	815
		460	60	55	440	55	440	1195	IE3-	94.5	94	92.5	0.85	86	9.5	2.5	2.2	3.4		
IE3-A41R 315 S6	IE3-AU1R 315 S6	400	50			75	723	990	IE3-	94.6	94.0	93.5	0.87	132	7.8	2.0	1.6	2.5	3.6	910
		460	60			75							***							
IE3-A41R 315 S6	IE3-AU1R 315 S6	400	50	75	723	75	723	990	IE3-	94.6	94.0	93.5	0.86	133	8.2	1.8	1.4	2.3	5.55	1060
		460	60	85	***	85							***							
IE3-A41R 315 M6	IE3-AU1R 315 M6	400	50	90	868	90	868	990	IE3-	94.9	94.0	93.0	0.86	159	8.5	2.2	1.7	2.8	6	1100
		460	60	99	***	99														
IE3-A41R 315 MX6	IE3-AU1R 315 MX6	400	50	110	1061	110	1061	990	IE3-	95.1	95.0	94.5	0.86	194	8.5	2.5	1.7	2.7	6.67	1210
		460	60	120	***	120							***							
IE3-A41R 315 L6	IE3-AU1R 315 L6	400	50	132	1267	132	1267	995	IE3-	95.4	95.0	94.5	0.87	230	9.0	2.8	2.0	3.2	8.6	1550
		460	60	132	1055	132	1055	1195	IE3-	95.8	95.3	94.4	0.84	206	9.5	3	2.2	3.5		
IE3-A41R 355 M6	IE3-AU1R 355 M6	400	50	160	1536	160	1536	995	IE3-	95.6	95.0	94.6	0.82	295	8.0	2.1	0.0	2.7	8.2	1850
		460	60	175	***	175							***							
IE3-A41R 355 MX6	IE3-AU1R 355 MX6	400	50	200	1919	200	1919	995	IE3-	95.8	95.0	94.0	0.85	355	9.0	2.1	0.0	2.9	12.10	2200
		460	60	200	***	200							***							
IE3-A42R 355 MX6	IE3-AU2R 355 MX6	400	50	200	1919	200	1919	995	IE3-	95.8	95.5	95.0	0.84	359	9.6	2.2	1.7	2.8	12.10	2350
IE3-A42R 355 LY 6	IE3-AU2R 355 LY 6	400	50	250	2399	250	2399	995	IE3-	95.8	95.5	95.0	0.82	459	8.0	1.8	1.5	2.5	14.00	2450
IE3-A42R 355 L6	IE3-AU2R 355 L6	400	50	315	3023	315	3023	995	IE3-	95.8	96.0	95.7	0.84	565	7.8	2.0	1.5	2.2	14.00	2450
IE3-A42R 400 MY6	IE3-AU2R 400 MY6	400	50	355	3407	355	3407	995	IE3-	96.0	96	95.8	0.83	643	7.5	1.2	1.2	2.1	16.54	3000
IE3-A42R 400 M6	IE3-AU2R 400 M6	400	50	400	3839	400	3839	995	IE3-	96.2	96.2	96	0.83	723	8.0	1.5	1.3	2.5	16.54	3000
IE3-A42R 400 MX6	IE3-AU2R 400 MX6	400	50	450	4314	450	4314	996	IE3-	96.0	96	95.8	0.84	805	7.6	1.5		2.2	18.44	3100
IE3-A42R 400 L6	IE3-AU2R 400 L6	400	50	500	4794	500	4794	996	IE3-	96.4	96.4	96.4	0.82	1023	7.5	1.7		2.2	20.63	3320

***) upon request

Three-phase roller table motors with squirrel-cage rotor, Premium Efficiency IE3 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data													Design point 400 V, 50 Hz/460 V, 60 Hz								
Type	Converter input voltage to		U _B V	f _B Hz	P _B M _B Converter		P _B M _B Mains		n _B rpm	η _B (IEC/EN 60034-2-1)			cosφ _B	I _B A	I _A /I _B	M _A /M _B	M _G /M _B	M _K /M _B	J kgm ²	m kg	
	420 V	500 V			kW	Nm	kW	Nm		100 %	75 %	50 %									
Synchronous speed 750 rpm – 8-pole version																					
IE3-A41R 132 S8	IE3-AU1R 132 S8		400	50	2.2	29	2.2	29	725	IE3-	84.4	84.5	82.4	0.7	5.4	4.1	1.6	1.5	2.3	0.043	80
IE3-A41R 132 M8	IE3-AU1R 132 M8		400	50	3	40	3	40	720	IE3-	83.5	83.5	81.4	0.72	7	3.9	1.6	1.4	2.1	0.043	74
IE3-A41R 160 M8	IE3-AU1R 160 M8		400	50	4	52	4	52	735	IE3-	87	86.7	83.8	0.71	9.4	5.4	2.5	2.2	2.9	0.113	119
IE3-A41R 160 MX8	IE3-AU1R 160 MX8		400	50	5.5	72	5.5	72	730	IE3-	87.5	87.5	85.6	0.73	12.5	4.7	1.9	1.7	2.5	0.145	143
IE3-A41R 160 L8	IE3-AU1R 160 L8		400	50	7.5	98	7.5	98	730	IE3-	87.9	87.6	85.6	0.73	17	5.1	2.1	1.8	2.7	0.166	155
IE3-A41R 180 L8	IE3-AU1R 180 L8		400	50	11	143	11	143	733	IE3-	89.3	89	87.1	0.75	23.5	5.4	2.1	1.9	2.8	0.228	175
IE3-A41R 200 L8	IE3-AU1R 200 L8		400	50	15	196	15	196	730	IE3-	89.6	90	89	0.80	30	5.3	1.8	1.7	2.5	0.324	235
IE3-A41R 225 S8	IE3-AU1R 225 S8		400	50	18.5	242	18.5	242	730	IE3-	90.1									0.514	310
IE3-A41R 225 M8	IE3-AU1R 225 M8		400	50	22	286	22	286	735	IE3-	91.5	91.6	90.6	0.79	44	5.7	2.3	2	2.5	0.825	360
IE3-A41R 250 M8	IE3-AU1R 250 M8		400	50	30	391	30	391	732	IE3-	91.3	91.9	91.4	0.81	58.5	5.4	2	1.8	2.3	0.92	420
IE3-A41R 280 S8	IE3-AU1R 280 S8		400	50	37	479	37	479	738	IE3-	92	92	90.8	0.78	74.5	5.9	2.3	1.8	2.4	1.55	555
IE3-A41R 280 M8	IE3-AU1R 280 M8		400	50	45	581	45	581	740	IE3-	93	93	92.4	0.78	89.5	6.5	1.7	1.5	2.4	2.63	700
IE3-A42R 315 S8	IE3-AU2R 315 S8		400	50	55	708	55	708	742	IE3-	93.3	93.3	92.4	0.78	109	7.0	1.9	1.7	2.5	3.33	805
IE3-A41R 315 M8	IE3-AU1R 315 M8		400	50	75	742	75	742	965	IE3-	93.8	94.2	93.8	0.81	142	7.0	1.9	1.7	2.3	5.55	1120
IE3-A41R 315 MX8	IE3-AU1R 315 MX8		400	50	90	1157	90	1157	743	IE3-	94.3	94.4	93.6	0.8	172	7.9	2.4	2.0	2.7	6	1185
IE3-A41R 315 MY8	IE3-AU1R 315 MY8		400	50	110	1419	110	1419	740	IE3-	93.8	94.0	93.8	0.82	206	6.5	1.9	1.5	2.1	6.76	1250
IE3-A41R 315 L8	IE3-AU1R 315 L8		400	50	132	1703	132	1703	740	IE3-	94.2	94.2	93.5	0.8	253	8.0	2.4	1.9	2.7	8.71	1450
IE3-A41R 355 MY8	IE3-AU1R 355 MY8		400	50	145	1859	145	1859	745	IE3-	94.3	94.3	94.0	0.82	299	6.6	1.2	1.0	2.6	9.3	1700
IE3-A41R 355 M8	IE3-AU1R 355 M8		400	50	180	2307	180	2307	745	IE3-	94.7	94.9	94.2	0.81	376	7.0	1.0	1.0	2.7	9.5	1890
IE3-A42R 355 MX8	IE3-AU2R 355 MX8		400	50	220	2820	220	2820	745	IE3-	94.6	94.4	93.5	0.68	561	5.2	1.4	1.3	2.0	13.40	2300
IE3-A42R 355 L8	IE3-AU2R 355 L8		400	50	250	3204	250	3204	745	IE3-	95.0	95.0	95.0	0.73	656	5.7	2.0	1.5	2.2	15.80	2450
IE3-A42R 355 LX8	IE3-AU2R 355 LX8		400	50	315	4048	315	4048	743	IE3-	94.6									15.80	2400
IE3-A42R 400 M8	IE3-AU2R 400 M8		400	50	315	4038	355	4550	745	IE3-	95.0	95.0	95.0	0.74	729	6.5	1.5	1.3	1.8	17.94	2800
IE3-A42R 400 MX8	IE3-AU2R 400 MX8		400	50	355	4550	400	5127	745	IE3-	95.6	95.5	95.0	0.69	875	5.6	1.3	1.0	2.0	19.99	3170
IE3-A42R 400 L8	IE3-AU2R 400 L8		400	50	400	5127	450	5768	745	IE3-	95.0	95.0	95.0	0.74	924	6.0	1.5	1.3	1.8	22.34	3320

Assignment tables

The three-phase roller table motors IE3-A4.R/IE3-AU.R are identical to series IE3-W4.R/IE3-WU.R
 For further information regarding the connection system, bearings and dimensions, please refer to Chapter 2.

Assignment tables					
Type	Type		J	m	
	Converter input voltage to				
420 V	500 V	420 V	500 V	kgm ²	kg
Synchronous speed 3000 rpm – 2-pole version					
IE3-A41R 132 SX2	IE3-AU1R 132 SX2	IE3-W41R 132 SX2	IE3-WU1R 132 SX2	0.0168	75
IE3-A41R 160 M2	IE3-AU1R 160 M2	IE3-W41R 160 M2	IE3-WU1R 160 M2	0.0575	125
IE3-A41R 160 MX2	IE3-AU1R 160 MX2	IE3-W41R 160 MX2	IE3-WU1R 160 MX2	0.0675	145
IE3-A41R 160 L2	IE3-AU1R 160 L2	IE3-W41R 160 L2	IE3-WU1R 160 L2	0.078	160
IE3-A41R 180 M2C	IE3-AU1R 180 M2C	IE3-W41R 180 M2C	IE3-WU1R 180 M2C	0.1717	214
IE3-A41R 200 L2	IE3-AU1R 200 L2	IE3-W41R 200 L2	IE3-WU1R 200 L2	0.36	305
IE3-A41R 200 LX2C	IE3-AU1R 200 LX2C	IE3-W41R 200 LX2C	IE3-WU1R 200 LX2C	0.4757	310
IE3-A41R 225 M2	IE3-AU1R 225 M2	IE3-W41R 225 M2	IE3-WU1R 225 M2	0.375	375
IE3-A41R 250 M2	IE3-AU1R 250 M2	IE3-W41R 250 M2	IE3-WU1R 250 M2	0.65	510
IE3-A41R 280 S2	IE3-AU1R 280 S2	IE3-W41R 280 S2	IE3-WU1R 280 S2	0.65	500
IE3-A41R 280 M2	IE3-AU1R 280 M2	IE3-W41R 280 M2	IE3-WU1R 280 M2	0.675	545
IE3-A41R 315 S2	IE3-AU1R 315 S2	IE3-W41R 315 S2	IE3-WU1R 315 S2	1.21	750
IE3-A41R 315 M2	IE3-AU1R 315 M2	IE3-W41R 315 M2	IE3-WU1R 315 M2	1.44	815
IE3-A41R 315 MX2	IE3-AU1R 315 MX2	IE3-W41R 315 MX2	IE3-WU1R 315 MX2	2.37	1095
IE3-A41R 315 MY2	IE3-AU1R 315 MY2	IE3-W41R 315 MY2	IE3-WU1R 315 MY2	2.82	1200
IE3-A41R 315 L2	IE3-AU1R 315 L2	IE3-W41R 315 L2	IE3-WU1R 315 L2	3.66	1460
IE3-A41R 315 LX2	IE3-AU1R 315 LX2	IE3-W41R 315 LX2	IE3-WU1R 315 LX2	4.43	1700
IE3-A41R 355 M2	IE3-AU1R 355 M2	IE3-W41R 355 M2	IE3-WU1R 355 M2	4.20	2000
IE3-A42R 355 MX2	IE3-AU2R 355 MX2	IE3-W42R 355 MX2	IE3-WU2R 355 MX2	5.50	2275
IE3-A42R 355 L2	IE3-AU2R 355 L2	IE3-W42R 355 L2	IE3-WU2R 355 L2	7.10	2445
IE3-A42R 400 M2	IE3-AU2R 400 M2	IE3-W42R 400 M2	IE3-WU2R 400 M2	8.44	3000
IE3-A42R 400 MX2	IE3-AU2R 400 MX2	IE3-W42R 400 MX2	IE3-WU2R 400 MX2	9.41	3200
IE3-A42R 400 L2	IE3-AU2R 400 L2	IE3-W42R 400 L2	IE3-WU2R 400 L2	10.41	3450
Synchronous speed 1500 rpm – 4-pole version					
IE3-A41R 132 M4	IE3-AU1R 132 M4	IE3-W41R 132 M4	IE3-WU1R 132 M4	0.043	100
IE3-A41R 160 M4	IE3-AU1R 160 M4	IE3-W41R 160 M4	IE3-WU1R 160 M4	0.078	125
IE3-A41R 160 L4C	IE3-AU1R 160 L4C	IE3-W41R 160 L4C	IE3-WU1R 160 L4C	0.1567	175
IE3-A41R 180 M4	IE3-AU1R 180 M4	IE3-W41R 180 M4	IE3-WU1R 180 M4	0.168	210
IE3-A41R 180 L4	IE3-AU1R 180 L4	IE3-W41R 180 L4	IE3-WU1R 180 L4	0.203	240
IE3-A41R 200 L4C	IE3-AU1R 200 L4C	IE3-W41R 200 L4C	IE3-WU1R 200 L4C	0.411	327
IE3-A41R 225 S4C	IE3-AU1R 225 S4C	IE3-W41R 225 S4C	IE3-WU1R 225 S4C	0.4675	367
IE3-A41R 225 M4	IE3-AU1R 225 M4	IE3-W41R 225 M4	IE3-WU1R 225 M4	0.619	450
IE3-A41R 250 M4	IE3-AU1R 250 M4	IE3-W41R 250 M4	IE3-WU1R 250 M4	0.95	550
IE3-A41R 280 S4	IE3-AU1R 280 S4	IE3-W41R 280 S4	IE3-WU1R 280 S4	1.1	617
IE3-A41R 280 M4	IE3-AU1R 280 M4	IE3-W41R 280 M4	IE3-WU1R 280 M4	1.96	785
IE3-A41R 315 S4	IE3-AU1R 315 S4	IE3-W41R 315 S4	IE3-WU1R 315 S4	1.96	760
IE3-A41R 315 M4	IE3-AU1R 315 M4	IE3-W41R 315 M4	IE3-WU1R 315 M4	2.27	850
IE3-A41R 315 MX4	IE3-AU1R 315 MX4	IE3-W41R 315 MX4	IE3-WU1R 315 MX4	4.01	1120
IE3-A41R 315 MY4	IE3-AU1R 315 MY4	IE3-W41R 315 MY4	IE3-WU1R 315 MY4	4.82	1250
IE3-A41R 315 L4	IE3-AU1R 315 L4	IE3-W41R 315 L4	IE3-WU1R 315 L4	5.93	1450
IE3-A41R 315 LX4	IE3-AU1R 315 LX4	IE3-W41R 315 LX4	IE3-WU1R 315 LX4	6.82	1630
IE3-A41R 355 M4	IE3-AU1R 355 M4	IE3-W41R 355 M4	IE3-WU1R 355 M4	7.90	2150
IE3-A42R 355 MX4	IE3-AU2R 355 MX4	IE3-W42R 355 MX4	IE3-WU2R 355 MX4	9.50	2410
IE3-A42R 355 L4	IE3-AU2R 355 L4	IE3-W42R 355 L4	IE3-WU2R 355 L4	10.00	2500
IE3-A42R 400 M4	IE3-AU2R 400 M4	IE3-W42R 400 M4	IE3-WU2R 400 M4	12.60	2900
IE3-A42R 400 MX4	IE3-AU2R 400 MX4	IE3-W42R 400 MX4	IE3-WU2R 400 MX4	14.33	3100
IE3-A42R 400 L4	IE3-AU2R 400 L4	IE3-W42R 400 L4	IE3-WU2R 400 L4	16.29	3400

The three-phase roller table motors IE3-A4.R/IE3-AU.R are identical to series IE3-W4.R/IE3-WU.R
 For further information regarding the connection system, bearings and dimensions, please refer to Chapter 2.

Assignment tables

Type		Type	J	m	
Converter input voltage to		Converter input voltage to			
420 V	500 V	420 V	500 V		
Synchronous speed 1000 rpm – 6-pole version					
IE3-A41R 132 M6	IE3-AU1R 132 M6	IE3-W41R 132 M6	IE3-WU1R 132 M6	0.043	75
IE3-A41R 132 MX6	IE3-AU1R 132 MX6	IE3-W41R 132 MX6	IE3-WU1R 132 MX6	0.053	105
IE3-A41R 160 M6	IE3-AU1R 160 M6	IE3-W41R 160 M6	IE3-WU1R 160 M6	0.145	145
IE3-A41R 160 L6C	IE3-AU1R 160 L6C	IE3-W41R 160 L6C	IE3-WU1R 160 L6C	0.166	168
IE3-A41R 180 L6C	IE3-AU1R 180 L6C	IE3-W41R 180 L6C	IE3-WU1R 180 L6C	0.3396	214
IE3-A41R 200 L6	IE3-AU1R 200 L6	IE3-W41R 200 L6	IE3-WU1R 200 L6	0.514	310
IE3-A41R 200 LX6C	IE3-AU1R 200 LX6C	IE3-W41R 200 LX6C	IE3-WU1R 200 LX6C	0.6476	321
IE3-A41R 225 M6	IE3-AU1R 225 M6	IE3-W41R 225 M6	IE3-WU1R 225 M6	0.92	400
IE3-A41R 250 M6	IE3-AU1R 250 M6	IE3-W41R 250 M6	IE3-WU1R 250 M6	1.48	545
IE3-A41R 280 S6	IE3-AU1R 280 S6	IE3-W41R 280 S6	IE3-WU1R 280 S6	2.63	695
IE3-A41R 280 M6	IE3-AU1R 280 M6	IE3-W41R 280 M6	IE3-WU1R 280 M6	3.33	815
IE3-A41R 315 S6	IE3-AU1R 315 S6	IE3-W41R 315 S6	IE3-WU1R 315 S6	5.55	1060
IE3-A41R 315 M6	IE3-AU1R 315 M6	IE3-W41R 315 M6	IE3-WU1R 315 M6	6	1100
IE3-A41R 315 MX6	IE3-AU1R 315 MX6	IE3-W41R 315 MX6	IE3-WU1R 315 MX6	6.67	1210
IE3-A41R 315 L6	IE3-AU1R 315 L6	IE3-W41R 315 L6	IE3-WU1R 315 L6	8.6	1550
IE3-A41R 355 M6	IE3-AU1R 355 M6	IE3-W41R 355 M6	IE3-WU1R 355 M6	8.2	1850
IE3-A41R 355 MX6	IE3-AU1R 355 MX6	IE3-W41R 355 MX6	IE3-WU1R 355 MX6	12.10	2200
IE3-A42R 355 MX6	IE3-AU2R 355 MX6	IE3-W42R 355 MX6	IE3-WU2R 355 MX6	12.1	2350
IE3-A42R 355 LY 6	IE3-AU2R 355 LY 6	IE3-W42R 355 LY 6	IE3-WU2R 355 LY 6	14	2450
IE3-A42R 355 L6	IE3-AU2R 355 L6	IE3-W42R 355 L6	IE3-WU2R 355 L6	14	2450
IE3-A42R 400 MY6	IE3-AU2R 400 MY6	IE3-W42R 400 MY6	IE3-WU2R 400 MY6	16.54	3000
IE3-A42R 400 M6	IE3-AU2R 400 M6	IE3-W42R 400 M6	IE3-WU2R 400 M6	16.54	3000
IE3-A42R 400 MX6	IE3-AU2R 400 MX6	IE3-W42R 400 MX6	IE3-WU2R 400 MX6	18.44	3100
IE3-A42R 400 L6	IE3-AU2R 400 L6	IE3-W42R 400 L6	IE3-WU2R 400 L6	20.63	3320

Synchronous speed 750 rpm – 8-pole version

IE3-A41R 132 S8	IE3-AU1R 132 S8	IE3-W41R 132 S8	IE3-WU1R 132 S8	0.043	80
IE3-A41R 132 M8	IE3-AU1R 132 M8	IE3-W41R 132 M8	IE3-WU1R 132 M8	0.043	74
IE3-A41R 160 M8	IE3-AU1R 160 M8	IE3-W41R 160 M8	IE3-WU1R 160 M8	0.113	119
IE3-A41R 160 MX8	IE3-AU1R 160 MX8	IE3-W41R 160 MX8	IE3-WU1R 160 MX8	0.145	143
IE3-A41R 160 L8	IE3-AU1R 160 L8	IE3-W41R 160 L8	IE3-WU1R 160 L8	0.166	155
IE3-A41R 180 L8	IE3-AU1R 180 L8	IE3-W41R 180 L8	IE3-WU1R 180 L8	0.228	175
IE3-A41R 200 L8	IE3-AU1R 200 L8	IE3-W41R 200 L8	IE3-WU1R 200 L8	0.324	235
IE3-A41R 225 S8	IE3-AU1R 225 S8	IE3-W41R 225 S8	IE3-WU1R 225 S8	0.514	310
IE3-A41R 225 M8	IE3-AU1R 225 M8	IE3-W41R 225 M8	IE3-WU1R 225 M8	0.825	360
IE3-A41R 250 M8	IE3-AU1R 250 M8	IE3-W41R 250 M8	IE3-WU1R 250 M8	0.92	420
IE3-A41R 280 S8	IE3-AU1R 280 S8	IE3-W41R 280 S8	IE3-WU1R 280 S8	1.55	555
IE3-A41R 280 M8	IE3-AU1R 280 M8	IE3-W41R 280 M8	IE3-WU1R 280 M8	2.63	700
IE3-A42R 315 S8	IE3-AU2R 315 S8	IE3-W42R 315 S8	IE3-WU2R 315 S8	3.33	805
IE3-A41R 315 M8	IE3-AU1R 315 M8	IE3-W41R 315 M8	IE3-WU1R 315 M8	5.55	1120
IE3-A41R 315 MX8	IE3-AU1R 315 MX8	IE3-W41R 315 MX8	IE3-WU1R 315 MX8	6	1185
IE3-A41R 315 MY8	IE3-AU1R 315 MY8	IE3-W41R 315 MY8	IE3-WU1R 315 MY8	6.76	1250
IE3-A41R 315 L8	IE3-AU1R 315 L8	IE3-W41R 315 L8	IE3-WU1R 315 L8	8.71	1450
IE3-A41R 355 MY8	IE3-AU1R 355 MY8	IE3-W41R 355 MY8	IE3-WU1R 355 MY8	9.3	1700
IE3-A41R 355 M8	IE3-AU1R 355 M8	IE3-W41R 355 M8	IE3-WU1R 355 M8	9.5	1890
IE3-A42R 355 MX8	IE3-AU2R 355 MX8	IE3-W42R 355 MX8	IE3-WU2R 355 MX8	13.4	2300
IE3-A42R 355 L8	IE3-AU2R 355 L8	IE3-W42R 355 L8	IE3-WU2R 355 L8	15.8	2450
IE3-A42R 355 LX8	IE3-AU2R 355 LX8	IE3-W42R 355 LX8	IE3-WU2R 355 LX8	15.8	2400
IE3-A42R 400 M8	IE3-AU2R 400 M8	IE3-W42R 400 M8	IE3-WU2R 400 M8	17.94	2800
IE3-A42R 400 MX8	IE3-AU2R 400 MX8	IE3-W42R 400 MX8	IE3-WU2R 400 MX8	19.99	3170
IE3-A42R 400 L8	IE3-AU2R 400 L8	IE3-W42R 400 L8	IE3-WU2R 400 L8	22.34	3320

Three-phase roller table motors with squirrel-cage rotor, High Efficiency IE2 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data																	Design point 400 V. 50 Hz/460 V. 60 Hz			
Type	Converter input voltage to		U _B V	f _B Hz	P _B M _B Converter		P _B M _B Mains		n _B rpm	η _B (IEC/EN 60034-2-1)			cosφ _B	I _B A	I _x /I _B	M _x /M _B	M _y /M _B	M _k /M _B	J kgm ²	m kg
	420 V	500 V			kW	Nm	kW	Nm		100 %	75 %	50 %								
Synchronous speed 3000 rpm – 2-pole version																				
IE2-AE1R 132 SX2	IE2-AU1R 132 SX2	400	50	7.5	24.5	7.5	24.5	2925	IE2- 88.8	89.2	88.3	0.91	13.5	6.7	2.1	1.6	2.9	0.0168	75	
		460	60	9	24.5	9.0	24.5	3505	IE2- 89.5	89.4	88.5	0.90	14.0	6.2	2.1	1.7	2.8			
IE2-AE1R 160 M2	IE2-AU1R 160 M2	400	50	11	35.6	11.0	35.6	2950	IE2- 90.3	90.3	89.1	0.90	19.5	7.7	2.3	1.7	3.1	0.0258	125	
		460	60	13	35.0	13.0	35.0	3550	IE2- 91.0	90.9	89.5	0.91	20.0	7.3	2.0	1.6	2.7			
IE2-AE1R 160 MX2	IE2-AU1R 160 MX2	400	50	15	48.7	15.0	48.7	2940	IE2- 90.7	90.5	89.1	0.92	26	6.7	1.8	1.4	2.6	0.0675	140	
		460	60	16.5	44.6	16.5	44.6	3535	IE2- 90.2	89.7	88.4	0.91	25.0	6.5	1.9	1.4	2.6			
IE2-AE1R 160 L2	IE2-AU1R 160 L2	400	50	18.5	60.2	18.5	60.2	2935	IE2- 91.0	91.4	91.4	0.91	32	7.2	2.0	1.5	2.8	0.0675	140	
		460	60	22	59.6	22.0	59.6	3525	IE2- 91.6	91.3	89.6	0.92	37.5	7.0	1.8	1.3	2.6			
IE2-AE1R 180 M2	IE2-AU1R 180 M2	400	50	22	72	22	72	2935	IE2- 91.3	90.6	86.4	0.90	38.5	6.2	1.4	1.1	2.4	0.105	173	
		460	60	26	70	26	70	3545	IE2- 91.7	91.6	90.9	0.90	39.5	6.0	1.5	1.2	2.4			
IE2-AE1R 200 L2	IE2-AU1R 200 L2	400	50	30	97	30	97	2945	IE2- 92.0	91.3	90.5	0.91	52	6.9	1.7	1.3	2.6	0.128	210	
		460	60	36	97	36	97	3550	IE2- 92.4	92.5	91.6	0.91	54.0	6.0	1.4	1.1	2.3			
IE2-AE1R 200 LX2	IE2-AU1R 200 LX2	400	50	55	179	37	120	2940	IE2- 92.5	92.3	91.6	0.92	63	7.4	1.9	1.4	2.9	0.154	233	
		460	60	44	119	44	119	3545	IE2- 93.0	92.4	92.1	0.91	65.5	6.8	1.9	1.5	2.8			
IE2-AE2R 200 LX2	IE2-AU2R 200 LX2	400	50	37	120	37	120	2940	IE2- 92.5	92.3	91.6	0.92	63	7.4	1.9	1.4	2.9	0.154	233	
		460	60	44	119	44	119	3545	IE2- 93.0	92.4	92.1	0.91	65.5	6.8	1.9	1.5	2.8			
IE2-AE1R 225 M2	IE2-AU1R 225 M2	400	50	45	146	45	146	2950	IE2- 92.9	92.2	91.2	0.87	80.5	6.9	1.7	1.1	2.7	0.220	295	
		460	60	54	145	54	145	3545	IE2- 93.0	92.5	91.8	0.88	83.0	6.9	1.7	1.4	2.8			
IE2-AE1R 250 M2	IE2-AU1R 250 M2	400	50	55	178	55	178	2955	IE2- 93.5	93.7	93.2	0.89	95.5	8.2	2.3	1.9	2.8	0.375	385	
		460	60	66	178	66	178	3550	IE2- 93.6	93.7	93.0	0.90	98.5	7.6	2.1	1.8	2.7			
IE2-AE1R 280 S2	IE2-AU1R 280 S2	400	50	74	238	75	241	2970	IE2- 94.1	94.0	91.5	0.90	128	7.9	2.1	1.7	3.0	0.65	500	
		460	60	89	238	90	241	3570	IE2- 94.5	93.9	92.8	0.91	131	7.3	1.9	1.6	2.8			
IE2-AE1R 280 M2	IE2-AU1R 280 M2	400	50	87	280	90	289	2970	IE2- 94.4	94.1	91.9	0.91	151	7.7	2.0	1.7	2.8	0.68	550	
		460	60	106	284	110	294	3568	IE2- 94.5	94.0	93.7	0.91	161	7.5	1.9	1.6	2.7			
IE2-AE1R 315 S2	IE2-AU1R 315 S2	400	50	110	353	110	353	2975	IE2- 94.5	94.3	93.3	0.89	189	8.0	1.3	1.2	2.4	1.21	730	
		460	60	120	320	120	320	3580	IE2- 94.5	94.0	93.0	0.89	179	8.5	1.4	1.3	2.5			
IE2-AE1R 315 M2	IE2-AU1R 315 M2	400	50	132	424	132	424	2975	IE2- 95.0	94.8	94.5	0.89	225	9.2	1.4	1.2	2.4	1.44	820	
		460	60	145	387	145	387	3580	IE2- 95.0	94.5	94.0	0.90	213	9.4	1.4	1.2	2.4			
IE2-AE1R 315 MX2	IE2-AU1R 315 MX2	400	50	160	514	160	514	2973	IE2- 94.8	94.8	94.8	0.89	274	8.2	1.3	1.3	2.4	1.76	955	
		460	60	175	467	175	467	3575	IE2- 95.4	95.0	94.0	0.90	256	8.2	1.7	1.6	2.7			
IE2-AE1R 315 MY2	IE2-AU1R 315 MY2	400	50	200	640	200	640	2983	IE2- 95.4	95.0	94.3	0.88	344	9.4	2.8	2.0	3.0	2.82	1200	
		460	60	220	586	220	586	3585	IE2- 95.4	95.0	94.0	0.89	325	9.5	2.8	2.0	3.0			
IE2-AE1R 315 L2	IE2-AU1R 315 L2	400	50	220	704	250	800	2984	IE2- 95.4	95.4	95.4	0.92	411	9.0	2.3	1.2	2.3	3.66	1450	
		460	60	246	656	280	747	3580	IE2- 95.5	95.5	95.5	0.92	400	8.0	2.3	1.4	2.3			
IE2-AE1R 315 LX2	IE2-AU1R 315 LX2	400	50	270	864	315	1008	2985	IE2- 95.4	95.4	95.0	0.92	518	8.5	2.8	1.6	2.5	4.43	1700	
		460	60	283	754	330	879	3585	IE2- 95.4	95.4	95.4	0.92	472	9.0	2.8	1.6	2.5			
IE2-AE2R 355 M2	IE2-AU2R 355 M2	400	50	330	1056	355	1136	2985	IE2- 95.5	95.5	95.5	0.92	583	7.7	1.3	1.0	2.6	4.20	2000	
		460	60	349	930	375	999	3585	IE2- 95.4	95.0	94.5	0.91	542	8.5	1.5	1.3	2.2			
IE2-AE2R 355 MX2	IE2-AU2R 355 MX2	400	50	355	1134	400	1278	2990	IE2- 95.5	95.5	95.5	0.91	664	9.4	1.8	1.0	3.0	4.50	2200	
		460	60	391	1040	440	1170	3590	IE2- 95.8	95.5	95.0	0.91	633	9.4	1.7	1.1	3.0			
IE2-AE2R 355 LY2	IE2-AU2R 355 LY2	400	50	425	1360	450	1440	2985	IE2- 95.5	95.5	95.5	0.92	739	7.0	1.3	0.9	2.4	7.10	2400	
		460	60	463	1232	490	1303	3590	IE2- 95.5	95.5	95.0	0.92	700	7.5	1.5	0.9	2.4			
IE2-AE2R 355 L2	IE2-AU2R 355 L2	400	50	425	1357	500	1597	2990	IE2- 95.5	95.5	95.5	0.92	821	8.5	1.5	1.2	2.5	7.10	2400	
		460	60	468	1248	550	1467	3580	IE2- 95.5	95.5	95.0	0.92	786	8.5	1.5	1.0	2.4			

Three-phase roller table motors with squirrel-cage rotor, High Efficiency IE2 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data		Design point 400 V. 50 Hz/460 V. 60 Hz																		
Type	Converter input voltage to		U _B V	f _B Hz	P _B M _B Converter		P _B M _B Mains		n _B rpm	η _B (IEC/EN 60034-2-1)			cosφ _B	I _B A	I _x /I _B	M _x /M _B	M _S /M _B	M _K /M _B	J kgm ²	m kg
	420 V	500 V			P _B kW	M _B Nm	P _B kW	M _B Nm		100 %	75 %	50 %								
Synchronous speed 1500 rpm – 4-pole version																				
IE2-AE1R 132 S4	IE2-AU1R 132 S4	400	50	5.5	35.7	5.5	35.7	1470	IE2- 89.8	89.9	88.4	0.87	10	7.4	2.3	1.9	3.4	0.035	87	
		460	60	6.6	35.7	6.6	35.7	1765	IE2- 89.8	90.0	88.5	0.88	11	6.6	2.2	1.6	3.0			
IE2-AE1R 132 M4	IE2-AU1R 132 M4	400	50	7.5	48.7	7.5	48.7	1470	IE2- 89.9	90.0	88.5	0.82	14.5	8.5	2.6	2.1	4.0	0.035	88	
		460	60	9	48.6	9.0	48.6	1770	IE2- 90.8	90.6	89.0	0.83	15	8.1	2.5	2.0	3.8			
IE2-AE1R 160 M4	IE2-AU1R 160 M4	400	50	11	71	11.0	71	1475	IE2- 90.6	90.3	88.5	0.82	21.5	8.1	3.1	2.4	3.4	0.078	122	
		460	60	13	70	13.0	70	1775	IE2- 91.1	90.8	89.2	0.82	22.0	7.7	2.8	2.2	3.2			
IE2-AE2R 160 M4	IE2-AU2R 160 M4	400	50	11	71	11	71.5	1470	IE2- 90.3	90.3	88.5	0.78	22.5	7.8	2.4	2.1	3.9	0.043	105	
		460	60	13	70	13	70	1765	IE2- 91.3	91.5	90.4	0.80	22.5	7.5	2.3	1.9	3.6			
IE2-AE1R 160 L4	IE2-AU1R 160 L4	400	50	15	97	15.0	97	1470	IE2- 90.6	90.9	90.5	0.87	27.5	8.3	2.7	2.2	3.2	0.115	160	
		460	60	18	97	18.0	97	1770	IE2- 92.5	92.4	91.4	0.86	28.0	8.0	2.5	2.0	3.0			
IE2-AE2R 160 L4	IE2-AU2R 160 L4	400	50	15	97	15	97	1480	IE2- 92.0	92.0	90.6	0.84	28	9.1	3.0	2.5	3.9	0.115	161	
		460	60	18	97	18	97	1775	IE2- 92.5	92.4	91.4	0.85	28.5	8.5	2.7	2.3	3.5			
IE2-AE1R 180 M4	IE2-AU1R 180 M4	400	50	18.5	120	18.5	120	1475	IE2- 91.5	91.5	90.4	0.86	34	6.8	1.8	1.5	2.7	0.168	207	
		460	60	22	118	22.0	118	1775	IE2- 92.4	91.4	89.9	0.86	35.0	6.3	1.6	1.4	2.5			
IE2-AE2R 180 M4	IE2-AU2R 180 M4	400	50	18.5	120	18.5	120	1470	IE2- 91.2	90.6	89.3	0.78	37.5	6.4	2.0	1.6	2.8	0.138	176	
		460	60	22	118	22	118	1775	IE2- 92.4	91.5	90.1	0.80	37.5	6.1	1.9	1.5	2.6			
IE2-AE1R 180 L4	IE2-AU1R 180 L4	400	50	22	142	22	142	1475	IE2- 91.6	91.4	89.9	0.83	42	7.3	2.1	1.7	3.0	0.168	215	
		460	60	26	139	26	139	1780	IE2- 93.0	91.7	90.0	0.84	42.0	7.2	2.0	1.7	2.9			
IE2-AE1R 200 L4	IE2-AU1R 200 L4	400	50	30	194	30	194	1480	IE2- 92.3	91.3	88.2	0.80	58.5	7.3	2.1	1.7	2.9	0.275	277	
		460	60	36	193	36	193	1780	IE2- 93.0	92.5	91.4	0.82	59.5	6.8	2.0	1.7	2.8			
IE2-AE1R 225 S4	IE2-AU1R 225 S4	400	50	37	240	37	240	1475	IE2- 92.7	91.8	90.7	0.84	68.5	7.4	2.2	1.7	2.7	0.313	313	
		460	60	44	237	44	237	1775	IE2- 93.6	92.9	92.1	0.83	71.5	6.5	1.9	1.6	2.5			
IE2-AE1R 225 M4	IE2-AU1R 225 M4	400	50	45	290	45	290	1483	IE2- 93.1	93.0	91.1	0.84	83	7.9	2.3	1.9	2.4	0.525	390	
		460	60	49	263	49	263	1780	IE2- 93.6	93.0	91.5	0.84	78.0	8.0	2.2	1.8	2.4			
IE2-AE2R 225 M4	IE2-AU2R 225 M4	400	50	45	291	45	291	1475	IE2- 93.1	93.0	92.1	0.80	87	7.6	2.6	1.9	3.1	0.356	346	
		460	60	45	242	45	242	1775	IE2- 93.6	92.7	91.2	0.80	75.5	8.3	2.9	2.1	3.3			
IE2-AE1R 250 M4	IE2-AU1R 250 M4	400	50	55	354	55	354	1485	IE2- 94.0	94.1	92.5	0.84	101	8.0	2.0	1.7	2.3	0.95	535	
		460	60	64	343	64	343	1780	IE2- 94.1	93.5	93.0	0.85	100	7.6	1.7	1.5	2.2			
IE2-AE2R 250 M4	IE2-AU2R 250 M4	400	50	55	356	55	356	1477	IE2- 93.9	93.8	93.7	0.82	103	7.5	2.4	1.9	2.4	0.62	435	
		460	60	63	339	63	339	1777	IE2- 94.1	93.6	93.2	0.83	101	7.2	2.3	1.8	2.3			
IE2-AE1R 280 S4	IE2-AU1R 280 S4	400	50	75	482	75	482	1485	IE2- 94.2	94.4	92.1	0.84	137	7.2	1.8	1.6	2.1	0.95	550	
		460	60	90	483	90	483	1779	IE2- 94.5	94.2	93.9	0.84	142	6.6	1.7	1.4	2.0			
IE2-AE1R 280 M4	IE2-AU1R 280 M4	400	50	90	580	90	580	1483	IE2- 94.3	94.5	94.0	0.84	164	7.6	1.8	1.6	2.3	1.10	610	
		460	60	105	563	105	563	1780	IE2- 95.0	94.6	94.1	0.84	166	7.4	1.8	1.6	2.2			
IE2-AE1R 315 S4	IE2-AU1R 315 S4	400	50	110	707	110	707	1485	IE2- 94.8	94.8	94.0	0.82	204	8.5	1.8	1.5	2.7	1.96	760	
		460	60	132	707	132	707	1784	IE2- 95.2	95.2	94.6	0.85	205	8.0	1.6	1.5	2.2			
IE2-AE1R 315 M4	IE2-AU1R 315 M4	400	50	132	849	132	849	1484	IE2- 95.0	95.0	94.5	0.83	242	8.2	1.8	1.6	2.3	2.27	850	
		460	60	145	776	145	776	1784	IE2- 95.0	95.0	94.5	0.85	225	8.2	1.9	1.7	2.3			
IE2-AE1R 315 MX4	IE2-AU1R 315 MX4	400	50	160	1031	160	1031	1482	IE2- 95.0	95.0	94.5	0.84	289	7.4	1.6	1.4	2.2	2.73	975	
		460	60	175	939	175	939	1780	IE2- 95.1	95.1	94.5	0.85	272	8.0	1.6	1.5	2.2			
IE2-AE1R 315 MY4	IE2-AU1R 315 MY4	400	50	200	1282	200	1282	1490	IE2- 95.1	95.1	94.5	0.87	349	8.5	1.8	1.6	2.5	4.82	1270	
		460	60	220	1174	220	1174	1790	IE2- 95.4	95.4	95.0	0.87	333	8.8	2.0	1.6	2.6			
IE2-AE1R 315 L4	IE2-AU1R 315 L4	400	50	250	1602	250	1602	1490	IE2- 95.4	95.4	95.3	0.88	430	9.0	2.2	1.5	2.7	5.93	1450	
		460	60	280	1494	280	1792	1790	IE2- 95.4	95.4	95.3	0.88	419	8.5	2.2	1.6	2.5			
IE2-AE1R 315 LX4	IE2-AU1R 315 LX4	400	50	285	1827	315	2019	1490	IE2- 95.4	95.4	95.0	0.88	542	9.0	2.4	1.6	2.6	6.82	1630	
		460	60	299	1595	330	1761	1790	IE2- 95.4	94.5	93.5	0.87	499	9.2	2.5	1.7	1.7			
IE2-AE2R 355 M4	IE2-AU2R 355 M4	400	50	355	2271	355	2271	1493	IE2- 95.5	95.5	95.0	0.87	617	8.0	1.3	1.0	2.7	7.90	2150	
		460	60	375	1997	375	1997	1793	IE2- 95.4	95.4	94.5	0.87	567	9.0	1.3	0.9	2.9			
IE2-AE2R 355 MX4	IE2-AU2R 355 MX4	400	50	390	2493	400	2557	1494	IE2- 95.5	95.5	95.5	0.88	687	8.5	1.3	1.0	3.0	9.50	2400	
		460	60	414	2209	425	2267	1790	IE2- 95.8	95.8	95.5	0.87	640	9.0	1.4	1.0	3.1			
IE2-AE2R 355 LY4	IE2-AU2R 355 LY4	400	50	430	2745	450	2873	1496	IE2- 95.5	95.5	95.5	0.86	791	8.5	1.4	0.8	2.9	10.00	2500	
		460	60	454	2417	475	2529	1794	IE2- 95.8	95.8	95.5	0.83	750	9.2	1.5	1.0	3.5			
IE2-AE2R 355 L4	IE2-AU2R 355 L4	400	50	430	2751	500	3198	1493	IE2- 95.5	95.5	95.5	0.84	900	8.0	1.2	0.9	3.0	10.00	2500	
		460	60	452	2406	525	2795	1794	IE2- 95.8	95.8	95.5	0.83	829	9.0	1.3	1.0	3.3			

Three-phase roller table motors with squirrel-cage rotor, High Efficiency IE2 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data																	Design point 400 V. 50 Hz/460 V. 60 Hz			
Type	Converter input voltage to		U _B V	f _B Hz	P _B M _B Converter		P _B M _B Mains		n _B rpm	η _B (IEC/EN 60034-2-1)			cosφ _B	I _B A	I _x /I _B	M _x /M _B	M _S /M _B	M _K /M _B	J kgm ²	m kg
	420 V	500 V			kW	Nm	kW	Nm		100 %	75 %	50 %								
Synchronous speed 1000 rpm – 6-pole version																				
IE2-AE1R 132 M6	IE2-AU1R 132 M6	400	50	4.0	39.6	4.0	39.6	965	IE2- 85.5	85.5	83.8	0.79	8.5	5.1	1.8	1.6	2.4	0.043	76	
		460	60	4.5	36.9	4.5	36.9	1165	IE2- 87.5	86.0	83.4	0.79	8	5.3	1.8	1.6	2.5			
IE2-AE1R 132 MX6	IE2-AU1R 132 MX6	400	50	5.5	54	5.5	54	970	IE2- 86.1	85.5	82.4	0.77	12	5.7	2.2	1.7	2.7	0.053	85	
		460	60	6.6	54	6.6	54	1170	IE2- 89.5	88.5	87.1	0.8	11.5	5.6	1.9	1.7	2.9			
IE2-AE1R 160 M6	IE2-AU1R 160 M6	400	50	7.5	73	7.5	73	975	IE2- 87.4	88.1	86.0	0.81	15.5	6.3	2.5	2.1	2.9	0.113	118	
		460	60	9.0	73	9.0	73	1175	IE2- 89.5	88.9	87.0	0.82	16	5.8	2.2	2.0	2.7			
IE2-AE2R 160 M6	IE2-AU2R 160 M6	400	50	7.5	74	7.5	74	970	IE2- 87.5	87.6	85.9	0.79	15.5	5.9	2.1	1.8	2.9	0.053	103	
		460	60	9	73	9	73	1170	IE2- 89	89	87.7	0.81	15.5	5.7	1.9	1.7	2.7			
IE2-AE1R 160 L6	IE2-AU1R 160 L6	400	50	11.0	108	11.0	108	970	IE2- 88.7	87.9	86.3	0.85	21	5.8	2.2	1.9	2.7	0.145	135	
		460	60	11.0		11.0														
IE2-AE2R 160 L6	IE2-AU2R 160 L6	400	50	11.0	108	11.0	108	975	IE2- 88.9	88.8	87.0	0.81	22	6.8	2.7	2.4	3.1	0.166	155	
		460	60	13	106	13	106	1175	IE2- 90.3	89.9	88.1	0.83	22	6.4	2.5	2.2	2.8			
IE2-AE1R 180 L6	IE2-AU1R 180 L6	400	50	15.0	147	15.0	147	975	IE2- 89.7	88.8	86.7	0.84	28.5	6.2	2.1	1.8	2.8	0.228	185	
		460	60	16.5	134	16.5	134	1175	IE2- 90.2	89.8	88.4	0.85	27.0	7.3	2.2	1.9	2.7			
IE2-AE2R 180 L6	IE2-AU2R 180 L6	400	50	15	148	15	148	970	IE2- 89.7	88.8	87.8	0.83	29	5.6	2.3	1.7	2.6	0.166	157	
		460	60	15	122	15	122	1175	IE2- 90.2	89.5	87.4	0.83	25	6.3	2.5	1.9	2.9			
IE2-AE1R 200 L6	IE2-AU1R 200 L6	400	50	18.5	180	18.5	180	980	IE2- 90.4	88.8	86.5	0.85	35	6.6	2.3	1.7	2.9	0.268	208	
		460	60	22.0	179	22.0	179	1175	IE2- 91.7	90.1	88.5	0.85	35.5	6.6	2.2	1.8	2.7			
IE2-AE1R 200 LX6	IE2-AU1R 200 LX6	400	50	22	214	22	214	980	IE2- 90.9	90.2	88.5	0.86	40.5	6.4	2.2	1.8	2.7	0.443	272	
		460	60	25	202	25	202	1180	IE2- 91.7	91.2	90.0	0.86	40.0	6.4	2.2	1.8	2.7			
IE2-AE2R 200 LX6	IE2-AU2R 200 LX6	400	50	22	215	22	215	975	IE2- 90.9	89.9	88.5	0.84	41.5	6.7	2.4	2.0	3.0	0.324	238	
		460	60	25	202	25	202	1180	IE2- 91.7	90.8	89.5	0.86	40	6.6	2.3	1.9	2.9			
IE2-AE1R 225 M6	IE2-AU1R 225 M6	400	50	30	291	30	291	985	IE2- 92.0	91.5	90.0	0.86	54.5	7.3	2.5	2.2	2.9	0.825	365	
		460	60	36	291	36	291	1182	IE2- 93.0	92.0	90.5	0.85	57.0	7.1	2.3	2.0	2.6			
IE2-AE2R 225 M6	IE2-AU2R 225 M6	400	50	30	294	30	294	975	IE2- 91.7	91.4	90.6	0.87	54.5	6.7	2.3	1.9	2.8	0.514	308	
		460	60	25	201	25	201	1185	IE2- 91.7	90.8	88.1	0.86	40	8.2	2.9	2.4	3.7			
IE2-AE1R 250 M6	IE2-AU1R 250 M6	400	50	37	359	37	359	985	IE2- 92.2	91.7	90.7	0.85	68	6.4	2.7	1.8	2.4	1.28	480	
		460	60	40	322	40	322	1185	IE2- 93.0	92.0	90.5	0.86	63	6.6	2.7	1.8	2.5			
IE2-AE2R 250 M6	IE2-AU2R 250 M6	400	50	37	361	37	361	979	IE2- 92.2	92.3	91.8	0.86	67.5	6.6	2.7	2.0	2.6	0.92	407	
		460	60	40	324	40	324	1179	IE2- 93	93.4	91.8	0.86	63	6.7	2.7	2.1	2.6			
IE2-AE1R 280 S6	IE2-AU1R 280 S6	400	50	45	437	45	437	983	IE2- 93.0	92.7	92.4	0.87	80.5	6.5	2.2	1.7	2.4	1.48	560	
		460	60	49	395	49	395	1185	IE2- 93.6	92.4	91.0	0.87	75.5	6.7	2.3	1.9	2.6			
IE2-AE1R 280 M6	IE2-AU1R 280 M6	400	50	55	531	55	531	990	IE2- 93.5	93.5	93.0	0.85	100	7.6	2.0	1.5	2.5	2.63	710	
		460	60	64	514	64	514	1190	IE2- 94.1	93.5	93.0	0.84	102	8.0	2.1	1.6	2.7			
IE2-AE1R 315 S6	IE2-AU1R 315 S6	400	50	75	723	75	723	990	IE2- 93.9	93.7	93.5	0.87	133	7.8	1.9	1.5	2.5	3.33	804	
		460	60	90	722	90	722	1190	IE2- 94.1	93.5	93.0	0.87	138	7.5	1.8	1.6	2.5			
IE2-AE1R 315 M6	IE2-AU1R 315 M6	400	50	90	868	90	868	990	IE2- 94.0	94.0	93.5	0.88	157	7.5	1.8	1.5	2.5	3.60	865	
		460	60	99	794	99	794	1190	IE2- 94.1	94.0	93.5	0.87	152	8.0	2.1	1.6	2.6			
IE2-AE1R 315 MX6	IE2-AU1R 315 MX6	400	50	110	1061	110	1061	990	IE2- 94.3	94.3	94.0	0.87	194	7.5	1.8	1.4	2.3	6.67	1210	
		460	60	110	883	110	883	1190	IE2- 95.0	94.6	94.2	0.87	167	8.3	2.0	1.7	2.6			
IE2-AE1R 315 MY6	IE2-AU1R 315 MY6	400	50	132	1273	132	1273	990	IE2- 94.6	94.3	94.0	0.87	231	7.5	1.9	1.4	2.2	6.67	1250	
		460	60	145	1164	145	1164	1190	IE2- 95.0	95.0	94.5	0.86	223	8.0	2.0	1.5	2.4			
IE2-AE1R 315 L6	IE2-AU1R 315 L6	400	50	160	1543	160	1543	990	IE2- 94.8	94.5	93.5	0.88	277	7.5	2.0	1.5	2.4	8.60	1430	
		460	60	175	1404	175	1404	1190	IE2- 95.0	94.8	94.3	0.87	266	8.0	2.0	1.5	2.4			
IE2-AE1R 315 LX6	IE2-AU1R 315 LX6	400	50	185	1785	200	1929	990	IE2- 95.0	95.0	94.5	0.86	353	7.0	1.9	1.5	2.2	8.60	1460	
		460	60	204	1637	220	1766	1190	IE2- 95.0	95.0	94.5	0.86	338	7.0	1.9	1.5	2.3			
IE2-AE2R 355 M6	IE2-AU2R 355 M6	400	50	250	2402	250	2402	994	IE2- 95.0	95.0	94.7	0.84	452	7.0	1.5	1.2	2.2	8.20	1850	
		460	60	280	2241	280	2241	1193	IE2- 95.0	94.5	93.5	0.83	446	8.0	1.7	1.3	2.5			
IE2-AE2R 355 MX6	IE2-AU2R 355 MX6	400	50	300	2879	315	3023	995	IE2- 95.2	95.2	95.2	0.86	555	7.0	1.3	1.1	2.2	12.1	2200	
		460	60	314	2505	330	2633	1197	IE2- 95.2	95.2	95.2	0.86	506	7.0	1.3	1.1	2.2			
IE2-AE2R 355 LY6	IE2-AU2R 355 LY6	400	50	315	3023	355	3407	995	IE2- 95.0	95.0	94.0	0.77	700	7.5	1.8	1.5	2.6	14.0	2400	
		460	60	333	2661	375	2997	1195	IE2- 95.0	94.5	93.5	0.76	652	8.0	1.9	1.6	2.8			

Three-phase roller table motors with squirrel-cage rotor, High Efficiency IE2 light-duty version for converter-fed operation

self-ventilated, type of cooling IC 411, duty type S1, S7/S9
for rated voltage, thermal class 155 (F), degree of protection IP 55, 50 Hz

Motor selection data																	Design point 400 V. 50 Hz/460 V. 60 Hz			
Type	Converter input voltage to		U _B V	f _B Hz	P _B M _B Converter		P _B M _B Mains		n _B rpm	η _B (IEC/EN 60034-2-1)			cos φ _B	I _B A	I _x /I _B	M _x /M _B	M _y /M _B	M _k /M _B	J kgm ²	m kg
	420 V	500 V			P _B kW	M _B Nm	P _B kW	M _B Nm		100 %	75 %	50 %								
Synchronous speed 750 rpm – 8-pole version																				
IE2-AE1R 132 M8	IE2-AU1R 132 M8	400	50	3	39.8	3.0	39.8	720	IE2-	82.7	83.0	81.3	0.74	7.1	3.9	1.6	1.3	1.9	0.0430	74
		460	60	3.6	39.5	3.6	39.5	870	-	84.2	84.5	83.0	0.75	7.2	3.6	1.4	1.2	1.8		
IE2-AE1R 160 M8	IE2-AU1R 160 M8	400	50	4	53.2	4.0	53.2	718	IE2-	84.2	83.7	81.9	0.72	9.5	4.6	1.6	***	2.5	0.0530	86
		460	60	4		4.0														
IE2-AE1R 160 MX8	IE2-AU1R 160 MX8	400	50	5.5	72	5.5	72.0	730	IE2-	86.9	86.6	84.1	0.72	12.5	4.8	2.1	1.8	2.6	0.1130	115
		460	60	6.6	72	6.6	72	875	-	87.8	87.2	84.6	0.74	12.7	4.9	2.0	1.6	2.4		
IE2-AE2R 160 MX8	IE2-AU2R 160 MX8	400	50	5.5	73	5.5	73	715	IE2-	83.9	84.0	81.9	0.71	13.5	4.3	1.7	1.5	2.5	0.0530	103
		460	60	6.6	73	6.6	73	865	-	86.4	86.7	85.3	0.72	13.5	4.2	1.6	1.4	2.3		
IE2-AE1R 160 L8	IE2-AU1R 160 L8	400	50	7.5	99	7.5	99	725	IE2-	87.5	87.0	83.5	0.77	16	5.5	2.0	***	2.8	0.1450	136
		460	60	7.5		7.5														
IE2-AE1R 180 L8	IE2-AU1R 180 L8	400	50	11	144	11.0	144	727	IE2-	88.2	88.2	86.7	0.78	23	4.9	1.8	1.6	2.4	0.2280	175
		460	60	13	141	13.0	141	878	-	89.4	89.4	87.9	0.78	23.5	4.6	1.7	1.5	2.3		
IE2-AE2R 180 L8	IE2-AU2R 180 L8	400	50	11	144	11	144	730	IE2-	87.9	87.4	85.2	0.67	25.5	4.3	1.9	1.6	2.3	0.1660	157
		460	60	13		13														
IE2-AE1R 200 L8	IE2-AU1R 200 L8	400	50	15	197	15.0	197	727	IE2-	88.2	88.1	86.4	0.77	32	4.9	1.9	1.7	2.3	0.2680	200
		460	60	18	196	18.0	196	878	-	88.9	88.7	87.4	0.78	32.5	4.8	1.8	1.6	2.2		
IE2-AE1R 225 S8	IE2-AU1R 225 S8	400	50	18.5	242	18.5	242	730	IE2-	89.6	89.4	87.2	0.78	38	5.4	2.1	2.0	2.8	0.440	265
		460	60	22	239	22	239	880	-	89.9	89.6	87.5	0.79	39.0	5.2	2.0	1.9	2.7		
IE2-AE2R 225 S8	IE2-AU2R 225 S8	400	50	18.5	240	18.5	240	735	IE2-	90.7	90.7	89.4	0.8	37	6.1	2.1	1.9	2.9	0.514	305
		460	60	22	237	22	237	885	-	91.8	91.5	90.2	0.81	37.0	5.7	2	1.7	2.6		
IE2-AE1R 225 M8	IE2-AU1R 225 M8	400	50	22	287	22	287	733	IE2-	90.6	89.4	89.9	0.78	45	5.6	2.2	1.8	2.6	0.825	380
		460	60	33	356	33	356	885	-	91.5	91.0	89.5	0.78	58.0	5.6	2.1	1.8	2.4		
IE2-AE2R 225 M8	IE2-AU2R 225 M8	400	50	22	286	22	286	735	IE2-	90.3	90.3	88.7	0.77	45.5	6.1	2.2	2.0	2.9	0.514	307
		460	60	26	281	26	281	883	-	91.3	91.1	89.6	0.79	45.0	5.9	2.1	1.8	2.7		
IE2-AE1R 250 M8	IE2-AU1R 250 M8	400	50	30	389	30	389	737	IE2-	92.1	92.4	91.6	0.79	59.5	5.0	2.0	1.6	2.1	1.350	480
		460	60	37	398	37	398	887	-	91.7	91.5	90.0	0.80	63.5	4.7	1.7	1.3	1.8		
IE2-AE2R 250 M8	IE2-AU2R 250 M8	400	50	30	391	30	391	732	IE2-	91.5	91.7	90.9	0.77	61.5	5.6	2.3	2.0	2.5	0.950	405
		460	60	36	391	36	391	880	-	91.9	92.3	91.8	0.78	63.0	5.3	2.1	1.8	2.3		
IE2-AE1R 280 S8	IE2-AU1R 280 S8	400	50	37	479	37	479	737	IE2-	92.2	92.1	90.9	0.79	73.5	6.0	2.3	1.9	2.5	1.55	550
		460	60	45	484	45	484	888	-	91.7	91.2	89.0	0.79	78.0	6.0	2.1	1.6	2.2		
IE2-AE1R 280 M8	IE2-AU1R 280 M8	400	50	45	581	45	581	740	IE2-	92.7	92.7	92.0	0.79	88.5	6.7	1.8	1.5	2.5	2.63	690
		460	60	45		45														
IE2-AE1R 315 S8	IE2-AU1R 315 S8	400	50	55	710	55	710	740	IE2-	92.2	92.2	92.1	0.80	108	6.3	1.8	1.5	2.3	2.63	690
		460	60	66	708	66	708	890	-	93	93	92.5	0.8	111	5.8	1.6	1.4	2		
IE2-AE1R 315 M8	IE2-AU1R 315 M8	400	50	75	968	75	968	740	IE2-	93.5	93.5	93.0	0.81	143	6.0	1.8	1.5	2.1	3.6	880
		460	60	75		75														
IE2-AE1R 315 MX8	IE2-AU1R 315 MX8	400	50	90	1161	90	1161	740	IE2-	92.1	91.6	90.1	0.81	174	6.0	1.9	***	2.2	6	1050
		460	60	90		90														
IE2-AE1R 315 MY8	IE2-AU1R 315 MY8	400	50	110	1420	110	1420	740	IE2-	93.8	93.3	91.2	0.81	209	6.5	2.1	***	2.4	6.76	1250
		460	60			10														
IE2-AE1R 315 L8	IE2-AU1R 315 L8	400	50	132	1704	132	1704	740	IE2-	94.4	94.0	93.5	0.83	243	7.5	2.2	1.8	2.5	8.71	1430
		460	60	132		132														
IE2-AE1R 315 LX8	IE2-AU1R 315 LX8	400	50	145	1871	160	2065	740	IE2-	94.2	94.2	93.8	0.80	306	7.2	2.2	1.8	2.5	8.71	1430
		460	60	190	2039	190	2039	890	-	94.3	94.3	94.0	0.81	312	7.0	2.1	1.7	2.3		
IE2-AE2R 355 M8	IE2-AU2R 355 M8	400	50	200	2571	200	2571	743	IE2-	94.7	94.1	91.5	0.77	396	***	***	***	***	9.5	1850
		460	60	200		200														
IE2-AE2R 355 MX8	IE2-AU2R 355 MX8	400	50	225	2884	250	3205	745	IE2-	95.8	95.8	95.5	0.83	454	7.0	1.2	1.0	2.6	13.4	2200
		460	60	225		250														
IE2-AE2R 355 LY8	IE2-AU2R 355 LY8	400	50	230	2956	280	3599	743	IE2-	94.8	94.1	91.5	0.78	547	***	***	***	***	15.8	2400
		460	60	230		280														

***) upon request

Assignment tables

Die Three-phase roller table motors IE2-AE.R/IE2-AU.R are identical to series IE2-WE.R/IE2-WU.R
 For further information regarding the connection system, bearings and dimensions, please refer to Chapter 2.

Assignment tables						
Type	Converter input voltage to		Type	Converter input voltage to		
	420 V	500 V	420 V	500 V		
Synchronous speed 3000 rpm – 2-pole version						
				J	m	
				kgm ²	kg	
IE2-AE1R 132 SX2	IE2-AU1R 132 SX2		IE2-WE1R 132 SX2	IE2-WU1R 132 SX2	0.0168	75
IE2-AE1R 160 M2	IE2-AU1R 160 M2		IE2-WE1R 160 M2	IE2-WU1R 160 M2	0.0258	125
IE2-AE1R 160 MX2	IE2-AU1R 160 MX2		IE2-WE1R 160 MX2	IE2-WU1R 160 MX2	0.0675	140
IE2-AE1R 160 L2	IE2-AU1R 160 L2		IE2-WE1R 160 L2	IE2-WU1R 160 L2	0.0675	140
IE2-AE1R 180 M2	IE2-AU1R 180 M2		IE2-WE1R 180 M2	IE2-WU1R 180 M2	0.105	173
IE2-AE1R 200 L2	IE2-AU1R 200 L2		IE2-WE1R 200 L2	IE2-WU1R 200 L2	0.128	210
IE2-AE1R 200 LX2	IE2-AU1R 200 LX2		IE2-WE1R 200 LX2	IE2-WU1R 200 LX2	0.154	233
IE2-AE2R 200 LX2	IE2-AU2R 200 LX2		IE2-WE2R 200 LX2	IE2-WU2R 200 LX2	0.154	233
IE2-AE1R 225 M2	IE2-AU1R 225 M2		IE2-WE1R 225 M2	IE2-WU1R 225 M2	0.220	295
IE2-AE1R 250 M2	IE2-AU1R 250 M2		IE2-WE1R 250 M2	IE2-WU1R 250 M2	0.375	385
IE2-AE1R 280 S2	IE2-AU1R 280 S2		IE2-WE1R 280 S2	IE2-WU1R 280 S2	0.65	500
IE2-AE1R 280 M2	IE2-AU1R 280 M2		IE2-WE1R 280 M2	IE2-WU1R 280 M2	0.68	550
IE2-AE1R 315 S2	IE2-AU1R 315 S2		IE2-WE1R 315 S2	IE2-WU1R 315 S2	1.21	730
IE2-AE1R 315 M2	IE2-AU1R 315 M2		IE2-WE1R 315 M2	IE2-WU1R 315 M2	1.44	820
IE2-AE1R 315 MX2	IE2-AU1R 315 MX2		IE2-WE1R 315 MX2	IE2-WU1R 315 MX2	1.76	955
IE2-AE1R 315 MY2	IE2-AU1R 315 MY2		IE2-WE1R 315 MY2	IE2-WU1R 315 MY2	2.82	1200
IE2-AE1R 315 L2	IE2-AU1R 315 L2		IE2-WE1R 315 L2	IE2-WU1R 315 L2	3.66	1450
IE2-AE1R 315 LX2	IE2-AU1R 315 LX2		IE2-WE1R 315 LX2	IE2-WU1R 315 LX2	4.43	1700
IE2-AE2R 355 M2	IE2-AU2R 355 M2		IE2-WE2R 355 M2	IE2-WU2R 355 M2	4.20	2000
IE2-AE2R 355 MX2	IE2-AU2R 355 MX2		IE2-WE2R 355 MX2	IE2-WU2R 355 MX2	4.50	2200
IE2-AE2R 355 LY2	IE2-AU2R 355 LY2		IE2-WE2R 355 LY2	IE2-WU2R 355 LY2	7.10	2400
IE2-AE2R 355 L2	IE2-AU2R 355 L2		IE2-WE2R 355 L2	IE2-WU2R 355 L2	7.10	2400

Synchronous speed 1500 rpm – 4-pole version						
				J	m	
				kgm ²	kg	
IE2-AE1R 132 S4	IE2-AU1R 132 S4		IE2-WE1R 132 S4	IE2-WU1R 132 S4	0.035	87
IE2-AE1R 132 M4	IE2-AU1R 132 M4		IE2-WE1R 132 M4	IE2-WU1R 132 M4	0.035	88
IE2-AE1R 160 M4	IE2-AU1R 160 M4		IE2-WE1R 160 M4	IE2-WU1R 160 M4	0.078	122
IE2-AE2R 160 M4	IE2-AU2R 160 M4		IE2-WE2R 160 M4	IE2-WU2R 160 M4	0.043	105
IE2-AE1R 160 L4	IE2-AU1R 160 L4		IE2-WE1R 160 L4	IE2-WU1R 160 L4	0.115	160
IE2-AE2R 160 L4	IE2-AU2R 160 L4		IE2-WE2R 160 L4	IE2-WU2R 160 L4	0.115	161
IE2-AE1R 180 M4	IE2-AU1R 180 M4		IE2-WE1R 180 M4	IE2-WU1R 180 M4	0.168	207
IE2-AE2R 180 M4	IE2-AU2R 180 M4		IE2-WE2R 180 M4	IE2-WU2R 180 M4	0.138	176
IE2-AE1R 180 L4	IE2-AU1R 180 L4		IE2-WE1R 180 L4	IE2-WU1R 180 L4	0.168	215
IE2-AE1R 200 L4	IE2-AU1R 200 L4		IE2-WE1R 200 L4	IE2-WU1R 200 L4	0.275	277
IE2-AE1R 225 S4	IE2-AU1R 225 S4		IE2-WE1R 225 S4	IE2-WU1R 225 S4	0.313	313
IE2-AE1R 225 M4	IE2-AU1R 225 M4		IE2-WE1R 225 M4	IE2-WU1R 225 M4	0.525	390
IE2-AE2R 225 M4	IE2-AU2R 225 M4		IE2-WE2R 225 M4	IE2-WU2R 225 M4	0.356	346
IE2-AE1R 250 M4	IE2-AU1R 250 M4		IE2-WE1R 250 M4	IE2-WU1R 250 M4	0.95	535
IE2-AE2R 250 M4	IE2-AU2R 250 M4		IE2-WE2R 250 M4	IE2-WU2R 250 M4	0.62	435
IE2-AE1R 280 S4	IE2-AU1R 280 S4		IE2-WE1R 280 S4	IE2-WU1R 280 S4	0.95	550
IE2-AE1R 280 M4	IE2-AU1R 280 M4		IE2-WE1R 280 M4	IE2-WU1R 280 M4	1.10	610
IE2-AE1R 315 S4	IE2-AU1R 315 S4		IE2-WE1R 315 S4	IE2-WU1R 315 S4	1.96	760
IE2-AE1R 315 M4	IE2-AU1R 315 M4		IE2-WE1R 315 M4	IE2-WU1R 315 M4	2.27	850
IE2-AE1R 315 MX4	IE2-AU1R 315 MX4		IE2-WE1R 315 MX4	IE2-WU1R 315 MX4	2.73	975
IE2-AE1R 315 MY4	IE2-AU1R 315 MY4		IE2-WE1R 315 MY4	IE2-WU1R 315 MY4	4.82	1270
IE2-AE1R 315 L4	IE2-AU1R 315 L4		IE2-WE1R 315 L4	IE2-WU1R 315 L4	5.93	1450
IE2-AE1R 315 LX4	IE2-AU1R 315 LX4		IE2-WE1R 315 LX4	IE2-WU1R 315 LX4	6.82	1630
IE2-AE2R 355 M4	IE2-AU2R 355 M4		IE2-WE2R 355 M4	IE2-WU2R 355 M4	7.90	2150
IE2-AE2R 355 MX4	IE2-AU2R 355 MX4		IE2-WE2R 355 MX4	IE2-WU2R 355 MX4	9.50	2400
IE2-AE2R 355 LY4	IE2-AU2R 355 LY4		IE2-WE2R 355 LY4	IE2-WU2R 355 LY4	10.00	2500
IE2-AE2R 355 L4	IE2-AU2R 355 L4		IE2-WE2R 355 L4	IE2-WU2R 355 L4	10.00	2500

Die Three-phase roller table motors IE2-AE.R/IE2-AU.R are identical to series IE2-WE.R/IE2-WU.R
 For further information regarding the connection system, bearings and dimensions, please refer to Chapter 2.

Assignment tables					
Type	Converter input voltage to		Type	Converter input voltage to	
420 V	500 V		420 V	500 V	
Synchronous speed 1000 rpm – 6-pole version					
IE2-AE1R 132 M6	IE2-AU1R 132 M6		IE2-WE1R 132 M6	IE2-WU1R 132 M6	0.043
IE2-AE1R 132 MX6	IE2-AU1R 132 MX6		IE2-WE1R 132 MX6	IE2-WU1R 132 MX6	0.053
IE2-AE1R 160 M6	IE2-AU1R 160 M6		IE2-WE1R 160 M6	IE2-WU1R 160 M6	0.113
IE2-AE2R 160 M6	IE2-AU2R 160 M6		IE2-WE2R 160 M6	IE2-WU2R 160 M6	0.053
IE2-AE1R 160 L6	IE2-AU1R 160 L6		IE2-WE1R 160 L6	IE2-WU1R 160 L6	0.145
IE2-AE2R 160 L6	IE2-AU2R 160 L6		IE2-WE2R 160 L6	IE2-WU2R 160 L6	0.166
IE2-AE1R 180 L6	IE2-AU1R 180 L6		IE2-WE1R 180 L6	IE2-WU1R 180 L6	0.228
IE2-AE2R 180 L6	IE2-AU2R 180 L6		IE2-WE2R 180 L6	IE2-WU2R 180 L6	0.166
IE2-AE1R 200 L6	IE2-AU1R 200 L6		IE2-WE1R 200 L6	IE2-WU1R 200 L6	0.268
IE2-AE1R 200 LX6	IE2-AU1R 200 LX6		IE2-WE1R 200 LX6	IE2-WU1R 200 LX6	0.443
IE2-AE2R 200 LX6	IE2-AU2R 200 LX6		IE2-WE2R 200 LX6	IE2-WU2R 200 LX6	0.324
IE2-AE1R 225 M6	IE2-AU1R 225 M6		IE2-WE1R 225 M6	IE2-WU1R 225 M6	0.825
IE2-AE2R 225 M6	IE2-AU2R 225 M6		IE2-WE2R 225 M6	IE2-WU2R 225 M6	0.514
IE2-AE1R 250 M6	IE2-AU1R 250 M6		IE2-WE1R 250 M6	IE2-WU1R 250 M6	1.28
IE2-AE2R 250 M6	IE2-AU2R 250 M6		IE2-WE2R 250 M6	IE2-WU2R 250 M6	0.92
IE2-AE1R 280 S6	IE2-AU1R 280 S6		IE2-WE1R 280 S6	IE2-WU1R 280 S6	1.48
IE2-AE1R 280 M6	IE2-AU1R 280 M6		IE2-WE1R 280 M6	IE2-WU1R 280 M6	2.63
IE2-AE1R 315 S6	IE2-AU1R 315 S6		IE2-WE1R 315 S6	IE2-WU1R 315 S6	3.33
IE2-AE1R 315 M6	IE2-AU1R 315 M6		IE2-WE1R 315 M6	IE2-WU1R 315 M6	3.60
IE2-AE1R 315 MX6	IE2-AU1R 315 MX6		IE2-WE1R 315 MX6	IE2-WU1R 315 MX6	6.67
IE2-AE1R 315 MY6	IE2-AU1R 315 MY6		IE2-WE1R 315 MY6	IE2-WU1R 315 MY6	6.67
IE2-AE1R 315 L6	IE2-AU1R 315 L6		IE2-WE1R 315 L6	IE2-WU1R 315 L6	8.60
IE2-AE1R 315 LX6	IE2-AU1R 315 LX6		IE2-WE1R 315 LX6	IE2-WU1R 315 LX6	8.60
IE2-AE2R 355 M6	IE2-AU2R 355 M6		IE2-WE2R 355 M6	IE2-WU2R 355 M6	8.20
IE2-AE2R 355 MX6	IE2-AU2R 355 MX6		IE2-WE2R 355 MX6	IE2-WU2R 355 MX6	12.1
IE2-AE2R 355 LY6	IE2-AU2R 355 LY6		IE2-WE2R 355 LY6	IE2-WU2R 355 LY6	14.0
Synchronous speed 750 rpm – 8-pole version					
IE2-AE1R 132 M8	IE2-AU1R 132 M8		IE2-WE1R 132 M8	IE2-WU1R 132 M8	0.0430
IE2-AE1R 160 M8	IE2-AU1R 160 M8		IE2-WE1R 160 M8	IE2-WU1R 160 M8	0.0530
IE2-AE1R 160 MX8	IE2-AU1R 160 MX8		IE2-WE1R 160 MX8	IE2-WU1R 160 MX8	0.1130
IE2-AE2R 160 MX8	IE2-AU2R 160 MX8		IE2-WE2R 160 MX8	IE2-WU2R 160 MX8	0.0530
IE2-AE1R 160 L8	IE2-AU1R 160 L8		IE2-WE1R 160 L8	IE2-WU1R 160 L8	0.1450
IE2-AE1R 180 L8	IE2-AU1R 180 L8		IE2-WE1R 180 L8	IE2-WU1R 180 L8	0.2280
IE2-AE2R 180 L8	IE2-AU2R 180 L8		IE2-WE2R 180 L8	IE2-WU2R 180 L8	0.1660
IE2-AE1R 200 L8	IE2-AU1R 200 L8		IE2-WE1R 200 L8	IE2-WU1R 200 L8	0.2680
IE2-AE1R 225 S8	IE2-AU1R 225 S8		IE2-WE1R 225 S8	IE2-WU1R 225 S8	0.440
IE2-AE2R 225 S8	IE2-AU2R 225 S8		IE2-WE2R 225 S8	IE2-WU2R 225 S8	0.514
IE2-AE1R 225 M8	IE2-AU1R 225 M8		IE2-WE1R 225 M8	IE2-WU1R 225 M8	0.825
IE2-AE2R 225 M8	IE2-AU2R 225 M8		IE2-WE2R 225 M8	IE2-WU2R 225 M8	0.514
IE2-AE1R 250 M8	IE2-AU1R 250 M8		IE2-WE1R 250 M8	IE2-WU1R 250 M8	1.350
IE2-AE2R 250 M8	IE2-AU2R 250 M8		IE2-WE2R 250 M8	IE2-WU2R 250 M8	0.950
IE2-AE1R 280 S8	IE2-AU1R 280 S8		IE2-WE1R 280 S8	IE2-WU1R 280 S8	1.55
IE2-AE1R 280 M8	IE2-AU1R 280 M8		IE2-WE1R 280 M8	IE2-WU1R 280 M8	2.63
IE2-AE1R 315 S8	IE2-AU1R 315 S8		IE2-WE1R 315 S8	IE2-WU1R 315 S8	2.63
IE2-AE1R 315 M8	IE2-AU1R 315 M8		IE2-WE1R 315 M8	IE2-WU1R 315 M8	3.6
IE2-AE1R 315 MX8	IE2-AU1R 315 MX8		IE2-WE1R 315 MX8	IE2-WU1R 315 MX8	6
IE2-AE1R 315 MY8	IE2-AU1R 315 MY8		IE2-WE1R 315 MY8	IE2-WU1R 315 MY8	6.76
IE2-AE1R 315 L8	IE2-AU1R 315 L8		IE2-WE1R 315 L8	IE2-WU1R 315 L8	8.71
IE2-AE1R 315 LX8	IE2-AU1R 315 LX8		IE2-WE1R 315 LX8	IE2-WU1R 315 LX8	8.71
IE2-AE2R 355 M8	IE2-AU2R 355 M8		IE2-WE2R 355 M8	IE2-WU2R 355 M8	9.5
IE2-AE2R 355 MX8	IE2-AU2R 355 MX8		IE2-WE2R 355 MX8	IE2-WU2R 355 MX8	13.4
IE2-AE2R 355 LY8	IE2-AU2R 355 LY8		IE2-WE2R 355 LY8	IE2-WU2R 355 LY8	15.8

Overview of technical data

Three-phase roller table motors with squirrel-cage rotor, light-duty version for converter-fed operation, non-ventilated, Type of cooling IC 410

The most important technical data are summarised in the following table. Further information can be taken from the catalogue section "Introduction" (chapter 1).

Product group	Roller table motors, squirrel-cage rotor, IEC/EN
Series	A210, A200
Rated output	0.04 kW to 230 kW
Sizes	56 to 355
Housing material	Grey cast iron EN GJL-200 DIN EN 1561 or optionally spheroidal cast iron EN-GJS 500 to DIN EN 1563 with horizontal/vertical cooling ribs
Rated torque	0.31 Nm to 1795 Nm
Duty types	S7/S9 to IEC/EN 60034-1
Method of connection	Single-speed motors are designed in star-delta configuration as standard. In the case of pole-changing motors, the method of connection is dependent on the combination of pole numbers, see selection lists.
Stator winding insulation	Thermal class 155, optionally 155 [F(B)], 180 to IEC/EN 60034-1
Degree of protection	IP 55 to IEC/EN 60034-5, higher protection ratings possible as options
Type of cooling	IC 410 to IEC/EN 60034-6
Coolant temperature/ installation altitude	Standard -20 °C to +40 °C, Altitude 1000 m above sea level
Rated voltage	Standard voltages to EN 60038 50 Hz: 230 V, 400 V, 500 V, 690 V 60 Hz: 275 V, 460 V, 480 V, 600 V Rated Voltage ranges A and B to IEC/EN 60034-1
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7
Paint finish	Normal finish "Moderate", colour RAL 7031, blue-grey Special finish "Worldwide", colour RAL 7031, blue-grey
Vibration severity grade	Grade "A" as standard for machines with no special vibration requirements
Shaft ends	to DIN 748 (IEC 60072), balanced with half-key
Sound pressure level	to DIN EN ISO 1680, tolerance + 3 dB,
Limit speeds	Please refer to the section of "Limit speeds" in catalogue section "Motors for converter-fed operation", Chapter 4.
Bearing design	Please refer to the tables of "Bearing design data" in catalogue section „Standand motors“, Chapter 2.
Motor mass	Please refer to the technical selection lists.
Terminal boxes	Please refer to the section "Terminal boxes" in catalogue section „Standand motors“, Chapter 2.
Documentation	An operating and maintenance manual, a terminal plan and a safety data sheet are supplied with each motor.
Tolerances	Please refer to the section "Tolerances" in catalogue section "Introduction", Chapter 1.
Options	Please refer to the section "Overview of modifications" in catalogue section "Introduction", Chapter 1.

Motor selection data

Three-phase roller table motors with squirrel-cage rotor light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version, duty type S7/S9
Thermal class 155, degree of protection IP 55, coolant temperature +50 °C

Motor selection data												Design point 400 V, 50 Hz		
Type		P _B	M _B	n _B	η _B	cosφ _B	I _B	I _R /I _B	M _R /M _B	M _S /M _B	M _K /M _B	J	m	
IEC/EN 60034-2													kgm ²	kg
400 V														
Synchronous speed 3000 rpm – 2-pole version														
		kW	Nm	rpm	%	-	A	-	-	-	-			
A210 63 A2U	A200 56 A2U	0.09	0.31	2815	66.6	0.79	0.25	4.8	2.5	2.3	2.9	0.00013	4.8	
A210 63 G2U	A200 56 G2U	0.12	0.40	2855	64.8	0.74	0.36	5.1	2.8	2.7	3.0	0.00015	5.1	
A210 71 A2U	A200 63 A2U	0.18	0.61	2810	71.4	0.87	0.42	8.5	3.6	3.6	3.9	0.00025	6.5	
A210 71 G2U	A200 63 G2U	0.25	0.84	2860	79.1	0.80	0.57	6.5	2.7	2.7	3.1	0.00032	7.4	
A210 80 A2U	A200 71 A2U	0.37	1.24	2850	79.8	0.87	0.77	6.4	2.8	2.2	2.4	0.00057	10.4	
A210 80 G2U	A200 71 G2U	0.55	1.84	2850	79.6	0.89	1.12	7.2	2.7	2.4	2.6	0.00072	11.2	
A210 90 S2U	A200 80 A2U	0.75	2.49	2880	79.9	0.88	1.54	8.8	3.4	3.2	3.5	0.00132	15.7	
A210 90 L2U	A200 80 G2U	1.10	3.69	2850	81.6	0.89	2.2	7.6	2.6	2.6	2.7	0.0017	18.7	
A210 100 L2U	A200 90 L2U	1.40	4.58	2920	84.7	0.86	2.8	10.5	3.5	3.4	4.0	0.00275	24.5	
A210 112 M2U	A200 100 S2U	2.05	6.68	2930	87.3	0.82	4.1	9.3	2.6	2.5	3.7	0.0045	31.4	
A210 112 MX2U	A200 100 L2U	2.8	9.11	2935	89.4	0.85	5.3	10.8	3.0	2.6	4.1	0.0055	37.4	
A210 132 SX2	A200 112 M2	3.0	9.90	2895	89.5	0.91	5.7	7.4	2.0		2.8	0.0110	57	
A210 160 M2	A200 132 M2	4	13.2	2900	91.0	0.94	7.2	7.3	1.7		2.9	0.0258	81	
A210 160 MX2	A200 160 S2	5.5	17.9	2935	91.5	0.93	9.9	7.8	1.9		2.9	0.0575	118	
A210 160 L2	A200 160 M2	7.5	24.4	2935	92.5	0.93	13.2	8.1	2.1		3.0	0.0675	134	
A210 180 M2	A200 180 S2	8.8	28.6	2935	92.5	0.93	19.3	7.7	2.0		2.6	0.105	165	
A210 200 L2	A200 180 M2	12	39.0	2940	93.5	0.93	21.0	8.1	2.0		2.7	0.128	195	
A210 200 LX2	A200 200 M2	15	48.6	2945	92.5	0.92	25.5	7.7	1.7		2.5	0.193	255	
A210 225 M2	A200 200 L2	18.5	60.0	2945	93.0	0.92	31	8.0	1.8		2.6	0.220	290	
A210 250 M2	A200 225 M2	22	71.1	2955	93.5	0.92	37	8.1	1.9		2.6	0.375	360	
A210 280 S2	A200 250 S2	32	103	2965	93.5	0.93	53	8.9	1.9		2.7	0.650	490	
A210 280 M2	A200 250 M2	40	129	2965	94.0	0.93	66	9.0	1.9		2.7	0.675	510	
A210 315 S2	A200 280 S2	49	158	2970	94.0	0.93	81	8.8	1.6		2.7	1.21	720	
A210 315 M2	A200 280 M2	59	190	2970	94.5	0.93	97	9.2	1.7		2.8	1.44	800	
A210 315 MX2	A200 315 S2	70	225	2970	95.0	0.94	114	9.6	1.9		2.7	1.76	980	
A210 315 MY2	A200 315 M2	90	289	2975	95.5	0.94	145	8.7	2.0		2.7	2.82	1170	
A210 315 L2	A200 315 L2	120	385	2980	96.0	0.94	192	9.7	2.5		2.7	3.66	1460	
A210 315 LX2	A200 315 LX2	145	465	2980	96.0	0.94	232	9.7	2.7		2.7	4.43	1630	
A220 355 MY2		145	464	2985								4.10	1900	
A220 355 M2		160	512	2985								4.20	2000	
A220 355 MX2		180	576	2985								5.5	2200	
A220 355 LY2		200	640	2985								7.1	2400	
A220 355 L2		230	736	2985								7.1	2400	
Synchronous speed 1500 rpm – 4-pole version														
A210 63 K4U	A200 56 K4U	0.06	0.41	1400	57.6	0.66	0.23	3.2	2.1	2.1	2.4	0.00019	4.7	
A210 63 G4U	A200 56 G4U	0.09	0.62	1395	61.8	0.67	0.31	3.7	2.5	2.5	2.7	0.00024	5.1	
A210 71 K4U	A200 63 K4U	0.12	0.82	1400	64.9	0.72	0.37	4.0	2.0	2.0	2.4	0.00040	6.6	
A210 71 G4U	A200 63 G4U	0.18	1.24	1390	67.9	0.76	0.5	4.4	2.3	2.3	2.5	0.00050	7.6	
A210 80 K4U	A200 71 K4U	0.25	1.68	1425	70.5	0.77	0.67	5.5	2.4	2.2	2.6	0.00087	10.3	
A210 80 G4U	A200 71 G4U	0.37	2.50	1415	75.9	0.78	0.9	6.0	2.7	2.3	2.7	0.00107	11.4	
A210 90 S4U	A200 80 K4U	0.55	3.69	1425	78.4	0.79	1.28	6.2	2.5	2.0	2.7	0.00207	15.2	
A210 90 L4U	A200 80 G4U	0.75	5.04	1420	79.4	0.82	1.66	6.5	2.7	2.7	2.9	0.00260	17.7	
A210 100 L4U	A200 90 L4U	1.0	6.63	1440	82.1	0.74	2.4	8.3	3.8	3.6	4.2	0.00400	23.0	
A210 100 LX4U	A200 100 S4U	1.5	9.88	1450	83.5	0.78	3.3	8.3	2.9	2.9	3.7	0.00725	29.4	
A210 112 M4U	A200 100 L4U	2.0	13.1	1455	86.0	0.76	4.4	8.9	3.2	3.2	4.2	0.00900	36.4	
A210 132 S4	A200 112 M4	2.3	15.3	1440	88.0	0.87	4.6	7.5	2.5		3.0	0.015	50	
A210 132 M4	A200 132 S4	3.0	19.8	1445	89.0	0.86	5.9	6.6	2.2		2.3	0.028	69	
A210 160 M4	A200 132 M4	4.4	28.9	1455	90.0	0.86	8.4	7.0	2.0		2.8	0.035	86	
A210 160 L4	A200 160 S4	5.5	35.9	1465	91.5	0.89	10.4	7.7	2.5		3.0	0.078	120	
A210 180 M4	A200 160 M4	8.0	52.2	1465	92.0	0.89	14.8	7.5	2.4		2.9	0.090	136	
A210 180 L4	A200 180 S4	8.8	57.2	1470	93.0	0.89	16.1	8.5	2.4		2.9	0.138	170	
A210 200 L4	A200 180 M4	11.0	71.5	1470	93.0	0.88	20.2	8.5	2.5		2.9	0.168	200	
A210 225 S4	A200 200 M4	15.0	97.2	1475	92.5	0.88	26.5	7.8	2.0		2.4	0.275	270	
A210 225 M4	A200 200 L4	18.5	120	1475	92.5	0.88	33.0	7.6	2.0		2.4	0.313	300	
A210 250 M4	A200 225 M4	22	142	1475	93.0	0.89	38.5	7.7	2.1		2.5	0.525	375	
A210 280 S4	A200 250 S4	32	207	1480	93.5	0.89	56.0	8.2	2.3		2.5	0.95	520	
A210 280 M4	A200 250 M4	40	258	1480	94.0	0.89	69.5	8.5	2.5		2.5	1.10	580	
A210 315 S4	A200 280 S4	50	323	1480	94.0	0.89	86.0	8.9	2.3		2.5	1.96	740	
A210 315 M4	A200 280 M4	60	387	1480	94.5	0.89	103.0	9.1	2.4		2.6	2.27	840	
A210 315 MX4	A200 315 S4	70	452	1480	94.5	0.89	121.0	9.9	2.7		2.8	2.73	1000	
A210 315 MY4	A200 315 M4	95	611	1485	96.0	0.91	158.0	9.0	2.3		2.5	4.82	1200	
A210 315 L4	A200 315 L4	132	849	1485	96.0	0.91	219.0	9.1	2.4		2.6	5.93	1450	
A210 315 LX4	A200 315 LX4	150	966	1485	96.0	0.90	252.0	10.0	2.8		2.9	6.82	1630	
A220 355 MY4		150	961	1490								5.6	1950	
A220 355 LY4		160	1029	1485								10.0	2500	
A220 355 L4		180	1158	1485								10.0	2500	

**Three-phase roller table motors with squirrel-cage rotor
light-duty version, for use on a frequency converter**

Type of cooling IC 410, non-ventilated version, duty type S7/S9
Thermal class 155, degree of protection IP 55, coolant temperature +50 °C

Motor selection data												Design point 400 V, 50 Hz	
Type		P _B	M _B	n _B	η _B	cosφ _B	I _B	I _x /I _B	M _x /M _B	M _s /M _B	M _k /M _B	J	m
					IEC/EN 60034-2		400 V						
		kW	Nm	rpm	%	-	A	-	-	-	-	kgm ²	kg
Synchronous speed 1000 rpm – 6-pole version													
A210 63 K6U	A200 56 K6U	0.04	0.42	920	48.7	0.52	0.23	2.5	2.1	2.1	2.6	0.00024	4.8
A210 63 G6U	A200 56 G6U	0.06	0.63	905	52.5	0.56	0.29	2.5	2.0	2.0	2.3	0.00027	5.6
A210 71 K6U	A200 63 K6U	0.09	0.91	940	59.5	0.50	0.44	3.2	2.1	2.1	2.6	0.00045	7.2
A210 71 G6U	A200 63 G6U	0.12	1.25	920	58.2	0.55	0.54	3.0	2.0	2.0	2.4	0.00060	8.1
A210 80 K6U	A200 71 K6U	0.18	1.83	940	62.8	0.66	0.63	4.3	2.3	2.3	2.8	0.00130	10.7
A210 80 G6U	A200 71 G6U	0.25	2.53	945	69.2	0.61	0.86	4.6	2.9	2.9	3.1	0.00175	12.2
A210 90 S6U	A200 80 K6U	0.37	3.76	940	72.3	0.67	1.1	4.8	2.0	2.0	2.5	0.00325	15.7
A210 90 L6U	A200 80 G6U	0.55	5.59	940	74.6	0.70	1.52	4.6	2.0	2.0	2.4	0.00425	18.7
A210 100 L6U	A200 90 L6U	0.75	7.46	960	78.5	0.66	2.1	5.1	2.3	2.3	2.7	0.00625	23.5
A210 112 M6U	A200 100 L6U	1.1	10.9	960	78.9	0.73	2.8	6.6	2.6	2.5	3.5	0.01225	32.9
A210 132 S6	A200 112 M6	1.5	14.9	960	82.5	0.78	3.5	7.0	2.9		3.6	0.018	46
A210 132 M6	A200 112 MX6	1.9	18.9	960	84.5	0.79	4.3	7.7	3.4		3.7	0.023	53
A210 132 MX6	A200 132 S6	2.6	25.9	960	86.0	0.85	5.4	6.5	2.7		2.8	0.043	70
A210 160 M6	A200 132 M6	3.5	34.8	960	87.0	0.84	7.1	7.2	3.1		3.2	0.053	86
A210 160 L6	A200 160 S6	4.8	47.5	965	89.0	0.88	9.1	7.4	2.7		3.0	0.113	114
A210 180 L6	A200 160 M6	6.5	64.0	970	90.0	0.88	12.3	7.8	3.0		3.2	0.145	136
A210 200 L6	A200 180 S6	7.6	74.4	975	91.0	0.88	14.3	7.5	2.4		3.2	0.228	175
A210 200 LX6	A200 180 M6	9.5	93.1	975	91.0	0.92	17.1	7.7	2.4		3.2	0.268	200
A210 225 M6	A200 200 M6	12.5	123	970	90.5	0.90	22.0	6.5	1.9		2.5	0.443	265
A210 250 M6	A200 225 M6	16.5	162	975	91.5	0.89	29.5	6.8	2.0		2.6	0.825	360
A210 280 S6	A200 250 S6	22	214	980	92.0	0.88	39.5	6.6	2.0		2.4	1.28	465
A210 280 M6	A200 250 M6	27	263	980	92.5	0.88	48.0	7.1	2.2		2.6	1.48	520
A210 315 S6	A200 280 S6	37	359	985	93.0	0.89	65.0	7.4	2.0		2.4	2.63	690
A210 315 M6	A200 280 M6	44	427	985	93.5	0.89	76.5	7.8	2.2		2.5	3.33	800
A210 315 MX6	A200 315 S6	48	465	985	93.5	0.89	84.0	8.6	2.5		2.7	3.60	880
A210 315 MY6	A200 315 M6	75	727	985	94.0	0.89	130.0	8.0	2.2		2.5	6.00	1050
A210 315 L6	A200 315 L6	90	873	985	95.0	0.90	153.0	7.9	2.2		2.4	6.67	1250
A210 315 LX6	A200 315 LX6	110	1067	985	95.0	0.90	187.0	8.6	2.4		2.6	8.60	1460
A220 355 MY6		110	1056	995								8.1	1550
A220 355 M6		140	1344	995								8.2	1650
A220 355 MX6		160	1536	995								12.1	2200
A220 355 LY6		170	1632	995								14.0	2400
Synchronous speed 750 rpm – 8-pole version													
A210 71 K8U	A200 63 K8U	0.04	0.55	695	40.2	0.54	0.27	2.3	2.2	2.2	2.7	0.00050	6.4
A210 71 G8U	A200 63 G8U	0.06	0.84	680	42.2	0.54	0.38	2.3	2.3	2.3	2.6	0.00060	7.9
A210 80 K8U	A200 71 K8U	0.09	1.22	705	49.5	0.60	0.44	3.0	2.0	2.0	2.6	0.00130	10.2
A210 80 G8U	A200 71 G8U	0.12	1.63	705	53.3	0.57	0.57	3.3	2.5	2.5	3.0	0.00175	11.7
A210 90 S8U	A200 80 K8U	0.18	2.44	705	60.5	0.58	0.74	3.3	1.9	1.9	2.2	0.00300	14.7
A210 90 L8U	A200 80 G8U	0.25	3.39	705	67.8	0.56	0.95	3.5	2.0	2.0	2.4	0.00375	17.7
A210 100 L8U	A200 90 L8U	0.37	4.98	710	62.5	0.60	1.43	3.2	1.7	1.7	2.1	0.00625	22.5
A210 100 LX8U	A200 100 S8U	0.55	7.40	710	72.9	0.63	1.73	4.5	2.5	2.5	2.7	0.00900	27.4
A210 112 M8U	A200 100 L8U	0.75	10.1	710	75.1	0.69	2.1	4.5	2.2	2.2	2.8	0.01225	32.9
A210 132 S8	A200 112 M8	1.1	14.6	720	77.5	0.66	3.3	5.5	2.8		3.5	0.018	46
A210 132 M8	A200 112 MX8	1.5	20.0	715	79.5	0.70	4.1	5.3	2.6		3.1	0.023	53
A210 160 M8	A200 132 S8	1.8	23.9	720	83.5	0.72	4.5	5.3	2.6		3.0	0.043	70
A210 160 MX8	A200 132 M8	2.5	33.2	720	84.0	0.74	6.0	5.0	2.3		2.7	0.053	86
A210 160 L8	A200 160 S8	3.6	47.4	725	86.5	0.79	8.0	5.4	2.3		2.9	0.113	114
A210 180 L8	A200 160 M8	5.0	65.9	725	87.5	0.79	11.0	5.5	2.3		2.8	0.145	136
A210 200 L8	A200 180 S8	6.5	85.6	725	89.0	0.81	13.8	6.1	2.2		2.8	0.228	175
A210 225 S8	A200 180 M8	7.5	98.1	730	89.5	0.80	15.9	6.5	2.4		3.0	0.440	265
A210 225 M8	A200 200 M8	9.0	118	730	90.0	0.81	18.0	5.9	1.8		2.6	0.440	265
A210 250 M8	A200 225 M8	13.0	169	735	90.0	0.81	26.0	5.9	1.9		2.5	0.825	360
A210 280 S8	A200 250 S8	17.5	227	735	91.0	0.76	36.5	6.1	2.0		2.7	1.35	465
A210 280 M8	A200 250 M8	22	286	735	91.0	0.76	46.0	6.3	2.1		2.8	1.55	520
A210 315 S8	A200 280 S8	28	364	735	92.0	0.79	55.5	6.8	2.1		2.4	2.63	690
A210 315 M8	A200 280 M8	35	452	740	92.0	0.80	68.5	6.8	2.1		2.4	3.33	800
A210 315 MX8	A200 315 S8	37	478	740	92.5	0.80	72.5	7.2	2.2		2.6	3.60	880
A210 315 MY8	A200 315 M8	55	710	740	93.0	0.82	104.0	7.3	2.1		2.4	6.00	1050
A210 315 L8	A200 315 L8	68	878	740	93.5	0.82	128.0	7.6	2.2		2.5	6.76	1250
A210 315 LX8	A200 315 LX8	85	1097	740	94.0	0.82	159.0	7.7	2.3		2.5	8.6	1430
A220 355 MY8		85	1097	740								9.3	1500
A220 355 M8		90	1154	745								9.5	1600
A220 355 MX8		110	1410	745								13.4	2200
A220 355 LY8		140	1795	745								15.8	2400

Bearings and Connection system

Die Three-phase roller table motors Series A..0 are identical to series Standard motors K21R
For further information regarding the connection system and bearings, please refer to Chapter 2.

Dimensions

Notes concerning dimensions

Dimension designations in accordance with EN 50347 and IEC 60072

Flange sizes in the dimension tables are specified in accordance with DIN 42948.

VEM motors GmbH reserves the right to modify technical data without prior notice. The dimensions shown in catalogues may not be up to date. Binding dimensional data can be requested from the VEM sales organisation.

All dimensions in mm

Flange dimensions

Flanges with threaded holes

Flange type to E DIN EN 50347	Flange type to DIN 42948	LA c ₁	M e ₁	N b ₁	P a ₁	S s ₁	T f ₁
FT 65	C 80	6.5	65	50	80	M5	2.5
FT 75	C 90	8	75	60	90	M5	2.5
FT 85	C 105	8.5	85	70	105	M6	2.5
FT 100	C 120	8	100	80	120	M6	3
FT 115	C 140	10	115	95	140	M8	3
FT 130	C 160	10	130	110	160	M8	3.5
FT 165	C 200	12	165	130	200	M10	3.5
FT 215	C 250	12	215	180	250	M12	4

Flanges with through-holes

Flange type to E DIN EN 50 347	Flange type to DIN 42948	LA c ₁	M e ₁	N b ₁	P a ₁	S s ₁	T f ₁
FF 100	A 120	9	100	80	120	7	3
FF 115	A 140	9	115	95	140	9	3
FF 130	A 160	9	130	110	160	9	3.5
FF 165	A 200	10	165	130	200	11	3.5
FF 215	A 250	11	215	180	250	14	4
FF 265	A 300	12	265	230	300	14	4
FF 300	A 350	13	300	250	350	18	5
FF 350	A 400	15	350	300	400	18	5
FF 400	A 450	16	400	350	450	18	5
FF 500	A 550	18	500	450	550	18	5
FF 600	A 660	22	600	550	660	22	6
FF 740	A 800	25	740	680	800	22	6
FF 940	A1000	25	940	880	1000	28	6
FF 1080	A1150	32	1080	1000	1150	28	6

According to DIN EN 50347, the different sizes of FF flanges possess through-holes, while FT flanges possess threaded holes.
The flange designations A and C defined in DIN 42948 remain valid.

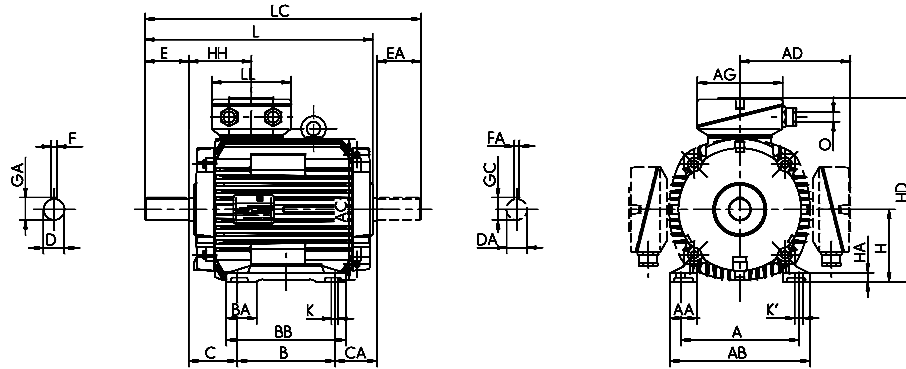
Flange assignments which deviate from the standard are specified in the flange assignment tables.

For tolerances for the dimension N (b₁), refer to the corresponding dimension tables LA (c₁) depth of engagement

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 280

Type of construction IM B3 [IM 1001]



Type designation	Flange size	A	AA	AB	AC	AD	B	BA	BB	C	CA	D	DA	DB ^{*)}	E	EA	F	FA
		b	n	f	g	g1	a	m	e	w1	w2	d	d1		l	l1	u	u1
A210 63 K2, 4, 6 U	FF115	100	28	128	109	98	80	-	100	40	-	11	11	M4	23	23	4	4
A210 63 G2, 4, 6 U	FF115	100	28	128	109	98	80	-	100	40	-	11	11	M4	23	23	4	4
A210 71 K2, 4, 6, 8 U	FF130	112	32	138	124	104	90	-	116	45	-	14	14	M5	30	30	5	5
A210 71 G2, 4, 6, 8	FF130	112	32	138	124	104	90	-	116	45	-	14	14	M5	30	30	5	5
A210 80 K2, 4, 6, 8 U	FF 165	125	38	168	139	111	100	-	125	50	-	19	19	M6	40	40	6	6
A210 80 G2, 4, 6, 8 U	FF 165	125	38	168	139	111	100	-	125	50	-	19	19	M6	40	40	6	6
A210 90 S2, 4, 6, 8 U	FF 165	140	40	178	157	119	100	-	130	56	-	24	22	M8	50	50	8	6
A210 90 L2, 4, 6, 8 U	FF 165	140	40	178	157	119	125	-	155	56	-	24	22	M8	50	50	8	6
A210 100 L2, 4, 6, 8 U	FF 215	160	45	192	177	126	140	-	175	63	-	28	24	M10	60	50	8	8
A210 100 LX4, 8 U	FF 215	160	32	188	196	136	140	-	171	63	-	28	28	M10	60	60	8	8
A210 112 M2 U	FF 215	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 112 M6, 8 U	FF 215	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 112 MX2 U	FF 215	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 112 M4 U	FF 215	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 132 S2T U	FF265	216	50	256	196	155	140	-	180	89	-	38	28	M12	80	60	10	8
A210 132 S4T U	FF265	216	50	256	196	155	140	-	180	89	-	38	28	M12	80	60	10	8
A210 132 S2	FF265	216	50	256	217	178	140	55	180	89	97	38	32	M12	80	80	10	10
A210 132 SX2	FF265	216	50	256	217	178	140	55	180	89	117	38	32	M12	80	80	10	10
A210 132 S4, 6, 8	FF265	216	50	256	217	178	140	55	180	89	97	38	32	M12	80	80	10	10
A210 132 M4	FF265	216	50	256	258	199	178	55	218	89	79	38	38	M12	80	80	10	10
A210 132 MX6	FF265	216	50	256	258	199	178	55	218	89	79	38	38	M12	80	80	10	10
A210 132 M6, 8	FF265	216	50	256	217	178	178	55	218	89	79	38	32	M12	80	80	10	10
A210 160 M2	FF300	254	55	296	258	214	210	60	257	108	76	42	38	M16	110	80	12	10
A210 160 M4, 6, 8	FF300	254	55	296	258	214	210	60	257	108	76	42	38	M16	110	80	12	10
A210 160 MX8	FF300	254	55	296	258	199	210	60	257	108	76	42	38	M16	110	80	12	10
A210 160 MX2	FF300	254	55	296	313	242	210	60	257	108	87	42	42	M16	110	110	12	12
A210 160 L2, 4, 6, 8	FF300	254	55	296	313	242	254	60	301	108	81	42	42	M16	110	110	12	12
A210 180 M2	FF300	279	62	328	351	261	241	65	288	121	107	48	48	M16	110	110	14	14
A210 180 M4	FF300	279	62	328	313	242	241	65	288	121	81	48	42	M16	110	110	14	12
A210 180 L4	FF300	279	62	328	351	261	279	65	326	121	114	48	48	M16	110	110	14	14
A210 180 L6, 8	FF300	279	62	328	313	242	279	65	326	121	43	48	42	M16	110	110	14	12
A210 200 L2, 4, 6, 8	FF 350	318	70	372	351	261	305	70	360	133	76	55	48	M20	110	110	16	14
A210 200 LX6	FF 350	318	70	372	351	261	305	70	360	133	76	55	48	M20	110	110	16	14
A210 200 LX2	FF 350	318	70	372	390	300	305	70	360	133	139	55	55	M20	110	110	16	16
A210 225 S4, 8	FF 400	356	75	413	390	300	286	75	343	149	148	60	55	M20	140	110	18	16
A210 225 M2	FF 400	356	75	413	390	300	311	75	368	149	157	55	55	M20	110	110	16	16
A210 225 M4	FF 400	356	75	413	390	300	311	75	368	149	157	60	55	M20	140	110	18	16
A210 225 M6, 8	FF 400	356	75	413	390	300	311	75	368	149	117	60	55	M20	140	110	18	16
A210 250 M2	FF 500	406	84	471	440	358	349	84	412	168	90	60	55	M20	140	110	18	16
A210 250 M4, 6, 8	FF 500	406	84	471	440	358	349	84	412	168	90	65	55	M20	140	110	18	16
A210 280 S2	FF 500	457	94	522	490	386	368	96	431	190	113	65	65	M20	140	140	18	18
A210 280 S4, 6, 8	FF 500	457	94	522	490	386	368	96	431	190	113	75	65	M20	140	140	20	18
A210 280 M2	FF 500	457	94	522	490	386	419	96	482	190	108	65	65	M20	140	140	18	18
A210 280 M4, 6, 8	FF 500	457	94	522	490	386	419	96	482	190	108	75	65	M20	140	140	20	18

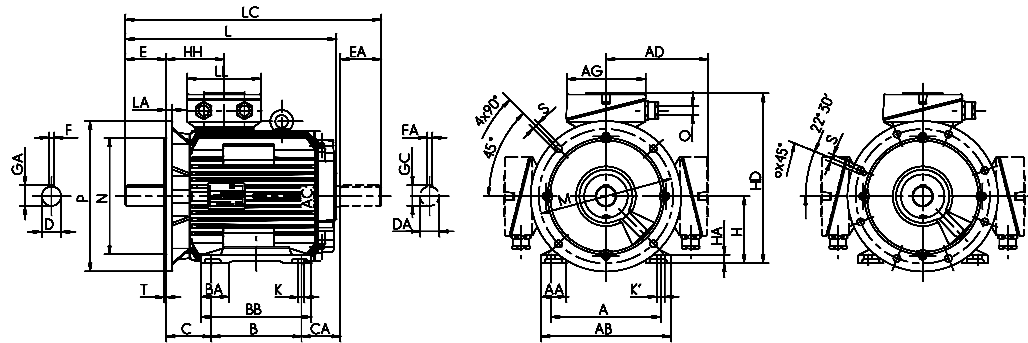
^{*)} Centre holes to DIN 332-DS

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 280

Type of construction IM B3 [IM 1001]

Flange dimensions, see page 9/23



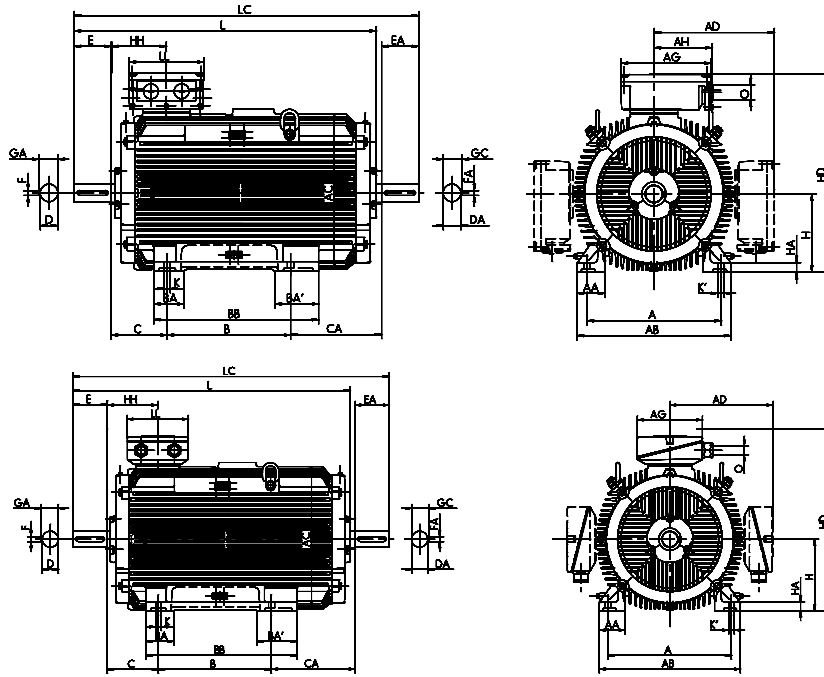
Type designation	GA	GC	H	HA	HD	HD ^{*)}	HH	K	K'	L	LC	TB Type	AG	LL	O	Hole pattern
	t	t1	h	c	p	p	A	s	s'	k	k1		x	z	-	
A210 63 K2, 4, 6 U	12.5	12.5	63	10	161	***)	58	8	8	155	***)	KA 05	92	92	M20 x 1.5	4L
A210 63 G2, 4, 6 U	12.5	12.5	63	10	161	***)	58	8	8	155	***)	KA 05	92	92	M20 x 1.5	4L
A210 71 K2, 4, 6, 8 U	16	16	71	11	175	***)	61	8	8	177	***)	KA 05	92	92	M20 x 1.5	4L
A210 71 G2, 4, 6, 8	16	16	71	11	175	***)	61	8	8	177	***)	KA 05	92	92	M20 x 1.5	4L
A210 80 K2, 4, 6, 8 U	21.5	21.5	80	12	191	***)	67	10	10	217	***)	KA 05	92	92	M20 x 1.5	4L
A210 80 G2, 4, 6, 8 U	21.5	21.5	80	12	191	***)	67	10	10	217	***)	KA 05	92	92	M20 x 1.5	4L
A210 90 S2, 4, 6, 8 U	27	24.5	90	14	210	***)	70	10	10	241	***)	KA 05	92	92	M25 x 1.5	4L
A210 90 L2, 4, 6, 8 U	27	24.5	90	14	210	***)	70	10	10	263	***)	KA 05	92	92	M25 x 1.5	4L
A210 100 L2, 4, 6, 8 U	31	27	100	15	227	***)	75	12	12	289	***)	KA 05	92	92	M25 x 1.5	4L
A210 100 LX4, 8 U	31	31	100	11	237	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 M2 U	31	31	112	18	249	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 M6, 8 U	31	31	112	18	249	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 MX2 U	31	31	112	18	249	***)	77	12	12	348	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 M4 U	31	31	112	18	249	***)	77	12	12	348	***)	KA 05	92	92	M25 x 1.5	4L
A210 132 S2T U	41	31	132	18	287	***)	105	12	12	387	***)	KA 05-13	104	112	M32 x 1.5	4L
A210 132 S4T U	41	31	132	18	287	***)	105	12	12	417	***)	KA 05-13	104	112	M32 x 1.5	4L
A210 132 S2	41	35	132	16	310	257	108	12	12	397	486	25 A	156	145	M32 x 1.5	4L
A210 132 SX2	41	35	132	16	310	257	108	12	12	417	506	25 A	156	145	M32 x 1.5	4L
A210 132 S4, 6, 8	41	35	132	16	310	257	108	12	12	397	486	25 A	156	145	M32 x 1.5	4L
A210 132 M4	41	41	132	16	331	279	114	12	12	420	506	25 A	156	145	M32 x 1.5	4L
A210 132 MX6	41	41	132	16	331	279	114	12	12	420	506	25 A	156	145	M32 x 1.5	4L
A210 132 M6, 8	41	35	132	16	310	257	108	12	12	417	506	25 A	156	145	M32 x 1.5	4L
A210 160 M2	45	41	160	18	374	307	114	15	15	498	584	63 A	193	167	M40 x 1.5	4L
A210 160 M4, 6, 8	45	41	160	18	374	307	114	15	15	498	584	63 A	193	167	M40 x 1.5	4L
A210 160 MX8	45	41	160	18	374	307	114	15	15	498	584	63 A	193	167	M40 x 1.5	4L
A210 160 MX2	45	45	160	18	402	336	138	15	20	502	625	63 A	193	167	M40 x 1.5	4L
A210 160 L2, 4, 6, 8	45	45	160	18	402	336	138	15	20	540	663	63 A	193	167	M40 x 1.5	4L
A210 180 M2	51.5	51.5	180	20	441	369	147	15	20	562	689	63 A	193	167	M40 x 1.5	4L
A210 180 M4	51.5	45	180	20	422	356	138	15	20	540	663	63 A	193	167	M40 x 1.5	4L
A210 180 L4	51.5	51.5	180	20	441	369	147	15	20	607	734	63 A	193	167	M40 x 1.5	4L
A210 180 L6, 8	51.5	45	180	20	422	369	138	15	20	540	663	63 A	193	167	M40 x 1.5	4L
A210 200 L2, 4, 6, 8	59	51.5	200	22	461	389	147	19	25	607	734	63 A	193	167	M40 x 1.5	4L
A210 200 LX6	59	51.5	200	22	461	389	147	19	25	607	734	63 A	193	167	M40 x 1.5	4L
A210 200 LX2	59	59	200	22	500	417	168	19	25	661	797	100 A	213	207	M50 x 1.5	4L
A210 225 S4, 8	64	59	225	25	525	442	168	19	25	691	827	100 A	213	207	M50 x 1.5	8L
A210 225 M2	59	59	225	25	525	442	168	19	25	701	837	100 A	213	207	M50 x 1.5	8L
A210 225 M4	64	59	225	25	525	442	168	19	25	731	867	100 A	213	207	M50 x 1.5	8L
A210 225 M6, 8	64	59	225	25	525	442	168	19	25	691	827	100 A	213	207	M50 x 1.5	8L
A210 250 M2	64	59	250	28	608	484	177	24	30	737	857	200 A	282	242	M63 x 1.5	8L
A210 250 M4, 6, 8	69	59	250	28	608	484	177	24	30	737	857	200 A	282	242	M63 x 1.5	8L
A210 280 S2	69	69	280	32	666	546	206	24	30	801	951	200 A	282	242	M63 x 1.5	8L
A210 280 S4, 6, 8	79.5	69	280	32	666	546	206	24	30	801	951	200 A	282	242	M63 x 1.5	8L
A210 280 M2	69	69	280	32	666	546	206	24	30	847	997	200 A	282	242	M63 x 1.5	8L
A210 280 M4, 6, 8	79.5	69	280	32	666	546	206	24	30	847	997	200 A	282	242	M63 x 1.5	8L

*) Terminal box left/right
 **) upon request

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Size 315

Type of construction IM B3 [IM 1001]



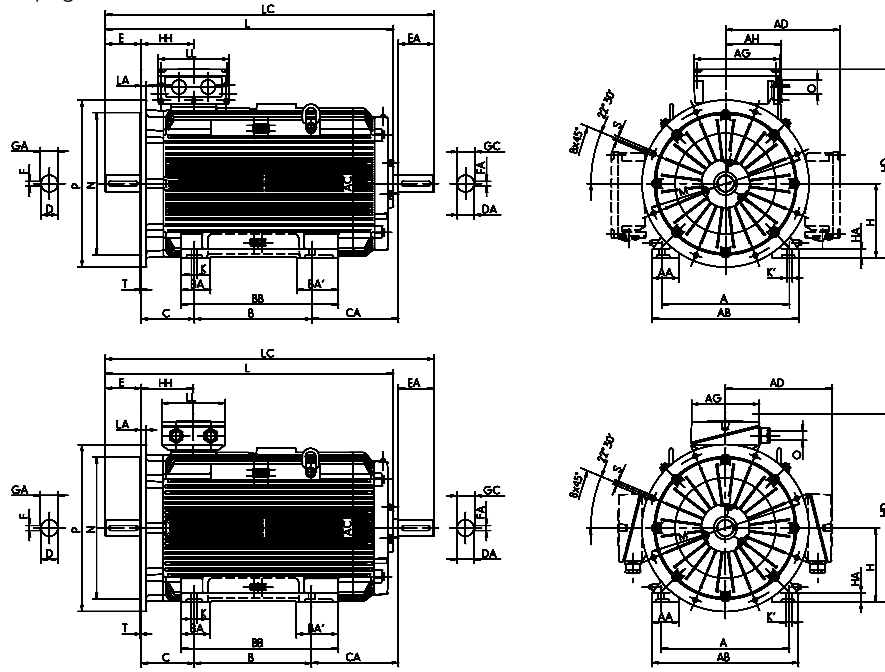
Type designation	Flange size	A	AA	AB	AC	AD	B	BA	BA'	BB	C	CA	D	DA	DB ¹⁾	E	EA	F	FA
		b	n	f	g	g1	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
A210 315 S2	FF 600	508	126	590	550	416	406	120	-	503	216	126	65	65	M20	140	140	18	18
A210 315 S4, 6, 8	FF 600	508	126	590	550	416	406	120	-	503	216	126	80	70	M20	170	140	22	20
A210 315 M2	FF 600	508	126	590	550	416	457	120	-	554	216	130	65	65	M20	140	140	18	18
A210 315 M4, 6, 8	FF 600	508	126	590	550	416	457	120	-	554	216	130	80	70	M20	170	140	22	20
A210 315 MX2	FF 600	508	126	590	550	416	457	120	150	554	216	208	65	65	M20	140	140	18	18
A210 315 MX4	FF 600	508	126	590	550	416	457	120	150	554	216	208	80	70	M20	170	140	22	20
A210 315 MX6, 8	FF 600	508	126	590	550	416	457	120	150	554	216	128	80	70	M20	170	140	22	20
A210 315 MX10, 12	FF 600	508	126	590	550	416	457	120	150	554	216	128	80	70	M20	170	140	22	20
A210 315 MY2	FF 600	508	110	590	610	494	457	120	-	573	216	307	65	65	M20	140	140	18	18
A210 315 MY4, 6, 8	FF 600	508	110	590	610	494	457	120	-	573	216	307	80	70	M20	170	140	22	20
A210 315 L2	FF 600	508	110	590	610	494	508	120	-	624	216	376	65	65	M20	140	140	18	18
A210 315 L4, 6, 8	FF 600	508	110	590	610	494	508	120	-	624	216	376	80	70	M20	170	140	22	20
A210 315 LX2	FF 600	508	110	590	610	494	508	120	-	624	216	496	65	65	M20	140	140	18	18
A210 315 LX4	FF 600	508	110	590	610	494	508	120	-	624	216	496	80	70	M20	170	140	22	20
A210 315 LX6, 8	FF 600	508	110	590	610	494	508	120	-	624	216	376	80	70	M20	170	140	22	20

¹⁾ Centre holes to DIN 332-DS

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
Size 315

Type of construction IM B35 [IM 2001]
Flange dimensions, see page 9/23



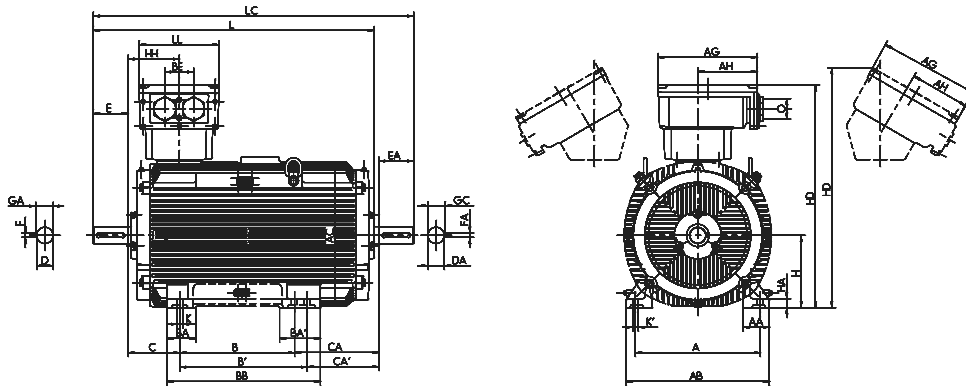
Type designation	GA	GC	H	HA	HD	HD ^{*)}	HH	K	K'	L	LC	TB Type	AG	LL	AH	O
	t	t1	h	c	p	p	A	s	s'	k	k1					
A210 315 S2	69	69	315	44	731	595	211	28	35	879	1026	200 A	282	242	-	M63 x 1.5
A210 315 S4, 6, 8	85	74.5	315	44	731	595	211	28	35	909	1056	200 A	282	242	-	M63 x 1.5
A210 315 M2	69	69	315	44	731	595	211	28	35	934	1081	200 A	282	242	-	M63 x 1.5
A210 315 M4, 6, 8	85	74.5	315	44	731	595	211	28	35	964	1111	200 A	282	242	-	M63 x 1.5
A210 315 MX2	69	69	315	44	731	595	211	28	35	1014	1161	200 A	282	242	-	M63 x 1.5
A210 315 MX4	85	74.5	315	44	731	595	211	28	35	1044	1191	200 A	282	242	-	M63 x 1.5
A210 315 MX6, 8	85	74.5	315	44	731	595	211	28	35	964	1111	200 A	282	242	-	M63 x 1.5
A210 315 MX10, 12	85	74.5	315	44	731	595	211	28	35	964	1111	200 A	282	242	-	M63 x 1.5
A210 315 MY2	69	69	315	44	809	628	230	28	35	1116	1260	400 B	415	340	265	M63 x 1.5
A210 315 MY4, 6, 8	85	74.5	315	44	809	628	230	28	35	1146	1290	400 B	415	340	265	M63 x 1.5
A210 315 L2	69	69	315	44	809	628	230	28	35	1236	1380	400 B	415	340	265	M63 x 1.5
A210 315 L4, 6, 8	85	74.5	315	44	809	628	230	28	35	1266	1410	400 B	415	340	265	M63 x 1.5
A210 315 LX2	69	69	315	44	809	628	230	28	35	1356	1500	400 B	415	340	265	M63 x 1.5
A210 315 LX4	85	74.5	315	44	809	628	230	28	35	1386	1530	400 B	415	340	265	M63 x 1.5
A210 315 LX6, 8	85	74.5	315	44	809	628	230	28	35	1266	1410	400 B	415	340	265	M63 x 1.5

^{*)} Terminal box left/right

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
Size 355

Type of construction IM B3 [IM 1001]



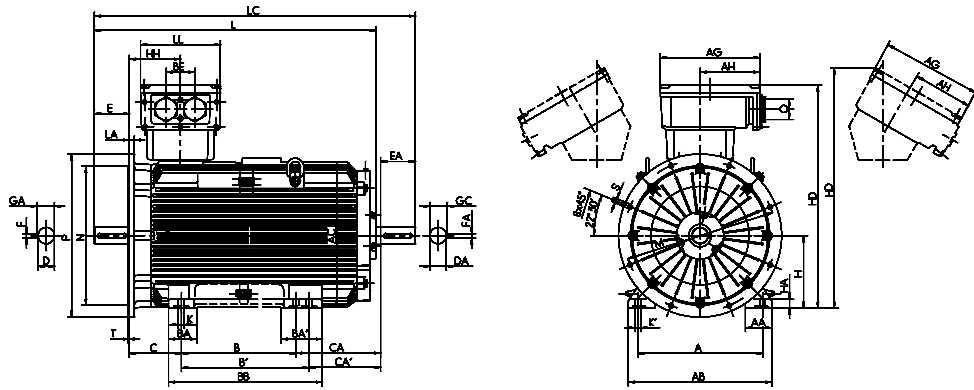
Type designation	Flange size	A	AA	AB	AC	B	BA	BA'	BB	C	CA	D	DA	DB ¹⁾	E	EA	F	FA
		b	n	f	g	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
A220 355 MY2, M2	FF 740	610	130	700	715	560	140	200	750	254	398	80	80	M20	170	170	22	22
A220 355 MY4, 6, 8	FF 740	610	130	700	715	560	140	200	750	254	398	100	80	M24	210	170	28	22
A220 355 M4	FF 740	610	130	700	715	560	140	200	750	254	398	100	80	M24	210	170	28	22
A220 355 M6, 8	FF 740	610	130	700	715	560	140	200	750	254	398	100	80	M24	210	170	28	22
A220 355 MX6, 8	FF 740	610	130	700	715	560	140	200	750	254	518	100	80	M24	210	170	28	22
A220 355 MX2	FF 740	610	130	700	715	560	140	200	750	254	518	80	80	M20	170	170	22	22
A220 355 LY2, L2	FF 740	610	130	700	715	630	140	200	750	254	448	80	80	M20	170	170	22	22
A220 355 MX4	FF 740	610	130	700	715	560	140	200	750	254	448	100	80	M24	210	170	28	22
A220 355 LY4, 6, 8, L4	FF 740	610	130	700	715	630	140	200	750	254	448	100	80	M24	210	170	28	22

¹⁾ Centre holes to DIN 332-DS

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
Size 355

Type of construction IM B35 [IM 2001]
Flange dimensions, see page 9/23



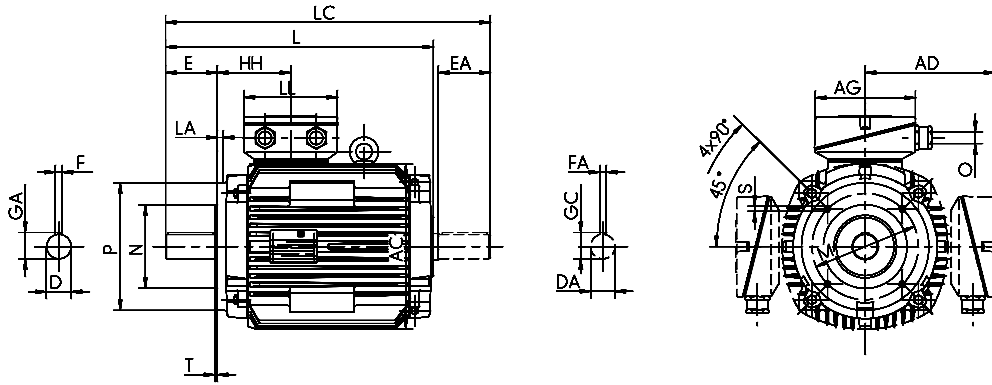
Type designation	GA	GC	H	HA	HD	HD**)	HH	K	K'	L	LC	TB Type	AG	LL	AH	BE	O
	t	t1	h	c	p	p	A	s	s'	k	k1				-		
A220 355 MY2, M2	85	85	355	44	1091	1172	250	28	35	1365	1552	630 A	496	390	301	140	M72 x 2
A220 355 MY4, 6, 8	106	85	355	44	1091	1172	250	28	35	1405	1592	630 A	496	390	301	140	M72 x 2
A220 355 M4	106	85	355	44	1091	1172	250	28	35	1405	1552	630 A	496	390	301	140	M72 x 2
A220 355 M6, 8	106	85	355	44	1091	1172	250	28	35	1405	1592	630 A	496	390	301	140	M72 x 2
A220 355 MX6, 8	106	85	355	44	1091	1172	250	28	35	1525	1712	630 A	496	390	301	140	M72 x 2
A220 355 MX2	85	85	355	44	1091	1172	250	28	35	1485	1672	630 A	496	390	301	140	M72 x 2
A220 355 LY2, L2	85	85	355	44	1091	1172	250	28	35	1485	1672	630 A	496	390	301	140	M72 x 2
A220 355 MX4	106	85	355	44	1091	1172	250	28	35	1525	1712	630 A	496	390	301	140	M72 x 2
A220 355 LY4, 6, 8, L4	106	85	355	44	1091	1172	250	28	35	1525	1712	630 A	496	390	301	140	M72 x 2

** Terminal box left/right

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 280

Type of construction IM B14 [IM 3601]
 Flange dimensions, see page 9/23



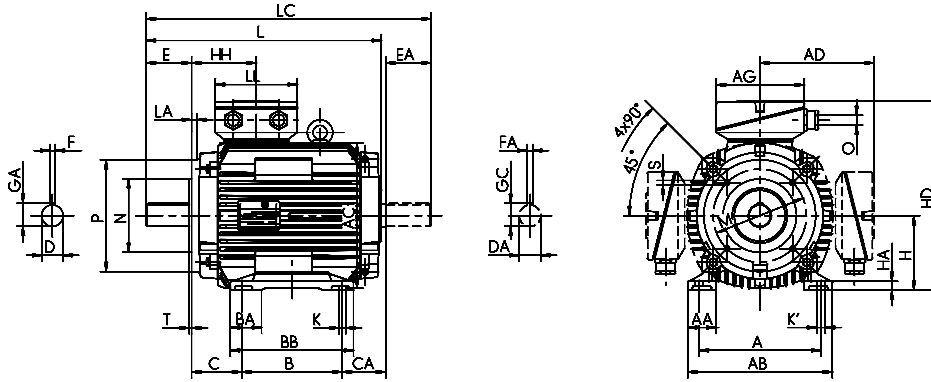
Type designation	Flange size		A	AA	AB	AC	AD	B	BA	BB	C	CA	D	DA	DB ¹⁾	E	EA	F	FA
	small	large	b	n	f	g	g1	a	m	e	w1	w2	d	d1		l	l1	u	u1
A210 63 K2, 4, 6 U	FT 75	FT 100	100	28	128	109	98	80	-	100	40	-	11	11	M4	23	23	4	4
A210 63 G2, 4, 6 U	FT 75	FT 100	100	28	128	109	98	80	-	100	40	-	11	11	M4	23	23	4	4
A210 71 K2, 4, 6, 8 U	FT 85	FT 115	112	32	138	124	104	90	-	116	45	-	14	14	M5	30	30	5	5
A210 71 G2, 4, 6, 8	FT 85	FT 115	112	32	138	124	104	90	-	116	45	-	14	14	M5	30	30	5	5
A210 80 K2, 4, 6, 8 U	FT 100	FT 130	125	38	168	139	111	100	-	125	50	-	19	19	M6	40	40	6	6
A210 80 G2, 4, 6, 8 U	FT 100	FT 130	125	38	168	139	111	100	-	125	50	-	19	19	M6	40	40	6	6
A210 90 S2, 4, 6, 8 U	FT 115	FT 130	140	40	178	157	119	100	-	130	56	-	24	22	M8	50	50	8	6
A210 90 L2, 4, 6, 8 U	FT 115	FT 130	140	40	178	157	119	125	-	155	56	-	24	22	M8	50	50	8	6
A210 100 L2, 4, 6, 8 U	FT 130	FT 165	160	45	192	177	126	140	-	175	63	-	28	24	M10	60	50	8	8
A210 100 LX4, 8 U	FT 130	FT 165	160	32	188	196	136	140	-	171	63	-	28	28	M10	60	60	8	8
A210 112 M2 U	FT 130	FT 165	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 112 M6, 8 U	FT 130	FT 165	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 112 MX2 U	FT 130	FT 165	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 112 M4 U	FT 130	FT 165	190	50	224	196	136	140	-	180	70	-	28	28	M10	60	60	8	8
A210 132 S2T U	FT 130	FT 165	216	50	256	196	155	140	-	180	89	-	38	28	M12	80	60	10	8
A210 132 S4T U	FT 130	FT 165	216	50	256	196	155	140	-	180	89	-	38	28	M12	80	60	10	8
A210 132 S2	FT 130	FT 165	216	50	256	217	178	140	55	180	89	97	38	32	M12	80	80	10	10
A210 132 SX2	FT 130	FT 165	216	50	256	217	178	140	55	180	89	117	38	32	M12	80	80	10	10
A210 132 S4, 6, 8	FT 130	FT 165	216	50	256	217	178	140	55	180	89	97	38	32	M12	80	80	10	10
A210 132 M4	FT 165	FT 215	216	50	256	258	199	178	55	218	89	79	38	38	M12	80	80	10	10
A210 132 MX6	FT 165	FT 215	216	50	256	258	199	178	55	218	89	79	38	38	M12	80	80	10	10
A210 132 M6, 8	FT 130	FT 165	216	50	256	217	178	178	55	218	89	79	38	32	M12	80	80	10	10
A210 160 M2	FT 165	FT 215	254	55	296	258	214	210	60	257	108	76	42	38	M16	110	80	12	10
A210 160 M4, 6, 8	FT 165	FT 215	254	55	296	258	214	210	60	257	108	76	42	38	M16	110	80	12	10
A210 160 MX8	FT 165	FT 215	254	55	296	258	199	210	60	257	108	76	42	38	M16	110	80	12	10
A210 160 MX2	FT 215	FT 265	254	55	296	313	242	210	60	257	108	87	42	42	M16	110	110	12	12
A210 160 L2, 4, 6, 8	FT 215	FT 265	254	55	296	313	242	254	60	301	108	81	42	42	M16	110	110	12	12
A210 180 M4	FT 265	-	279	62	328	313	242	241	65	288	121	81	48	42	M16	110	110	14	12
A210 180 L6, 8	FT 265	-	279	62	328	313	242	279	65	326	121	43	48	42	M16	110	110	14	12

¹⁾ Centre holes to DIN 332-DS

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 280

Type of construction IM B34 [IM 2101]
 Flange dimensions, see page 9/23



Type designation	GA	GC	H	HA	HD	HD**)	HH	K	K'	L	LC	TB Type	AG	LL	0
	t	tl	h	c	p	p	A	s	s'	k	k1				
A210 63 K2, 4, 6 U	12.5	12.5	63	10	161	***)	58	8	8	155	***)	KA 05	92	92	M20 x 1.5
A210 63 G2, 4, 6 U	12.5	12.5	63	10	161	***)	58	8	8	155	***)	KA 05	92	92	M20 x 1.5
A210 71 K2, 4, 6, 8 U	16	16	71	11	175	***)	61	8	8	177	***)	KA 05	92	92	M20 x 1.5
A210 71 G2, 4, 6, 8	16	16	71	11	175	***)	61	8	8	177	***)	KA 05	92	92	M20 x 1.5
A210 80 K2, 4, 6, 8 U	21.5	21.5	80	12	191	***)	67	10	10	217	***)	KA 05	92	92	M20 x 1.5
A210 80 G2, 4, 6, 8 U	21.5	21.5	80	12	191	***)	67	10	10	217	***)	KA 05	92	92	M20 x 1.5
A210 90 S2, 4, 6, 8 U	27	24.5	90	14	210	***)	70	10	10	241	***)	KA 05	92	92	M25 x 1.5
A210 90 L2, 4, 6, 8 U	27	24.5	90	14	210	***)	70	10	10	263	***)	KA 05	92	92	M25 x 1.5
A210 100 L2, 4, 6, 8 U	31	27	100	15	227	***)	75	12	12	289	***)	KA 05	92	92	M25 x 1.5
A210 100 LX4, 8 U	31	31	100	11	237	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5
A210 112 M2 U	31	31	112	18	249	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5
A210 112 M6, 8 U	31	31	112	18	249	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5
A210 112 MX2 U	31	31	112	18	249	***)	77	12	12	348	***)	KA 05	92	92	M25 x 1.5
A210 112 M4 U	31	31	112	18	249	***)	77	12	12	348	***)	KA 05	92	92	M25 x 1.5
A210 132 S2T U	41	31	132	18	287	***)	105	12	12	387	***)	KA 05-13	104	112	M32 x 1.5
A210 132 S4T U	41	31	132	18	287	***)	105	12	12	417	***)	KA 05-13	104	112	M32 x 1.5
A210 132 S2	41	35	132	16	310	257	108	12	12	459	542	25 A	156	145	M32 x 1.5
A210 132 SX2	41	35	132	16	310	257	108	12	12	479	562	25 A	156	145	M32 x 1.5
A210 132 S4, 6, 8	41	35	132	16	310	257	108	12	12	459	542	25 A	156	145	M32 x 1.5
A210 132 M4	41	41	132	16	331	279	114	12	12	481	565	25 A	156	145	M32 x 1.5
A210 132 MX6	41	41	132	16	331	279	114	12	12	481	565	25 A	156	145	M32 x 1.5
A210 132 M6, 8	41	35	132	16	310	257	108	12	12	479	562	25 A	156	145	M32 x 1.5
A210 160 M2	45	41	160	18	374	307	114	15	15	559	643	63 A	193	167	M40 x 1.5
A210 160 M4, 6, 8	45	41	160	18	374	307	114	15	15	559	643	63 A	193	167	M40 x 1.5
A210 160 MX8	45	41	160	18	374	307	114	15	15	559	643	63 A	193	167	M40 x 1.5
A210 160 MX2	45	45	160	18	402	336	138	15	20	571	686	63 A	193	167	M40 x 1.5
A210 160 L2, 4, 6, 8	45	45	160	18	402	336	138	15	20	609	724	63 A	193	167	M40 x 1.5
A210 180 M4	51.5	45	180	20	422	369	138	15	20	609	724	63 A	193	167	M40 x 1.5
A210 180 L6, 8	51.5	45	180	20	422	369	138	15	20	609	724	63 A	193	167	M40 x 1.5

** Terminal box left/right
 *** upon request

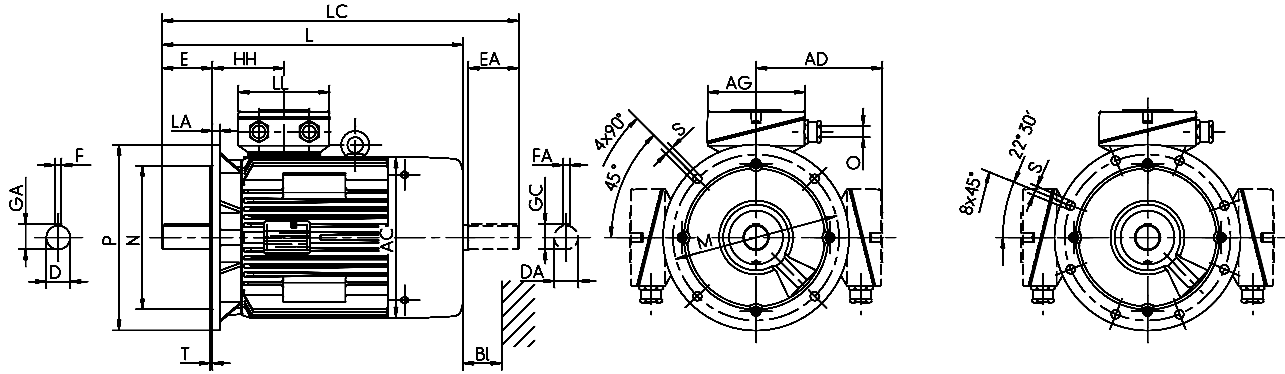
Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 280

Type of construction IM B5 [IM 3001]

Type of construction IM V1 [IM 3011]

Flange dimensions, see page 9/23



Type designation	Flange size	AC	AD	D	DA	DB ^{*)}	E	EA	F	FA	GA	GC	H	HH	L	LC	TB Type	AG	LL	O	Hole pattern
	g	g1	d	d1			l	l1	u	u1	t	t1	h	A	k	k1					
A210 63 K2, 4, 6 U	FF115	109	98	11	11	M4	23	23	4	4	12.5	12.5	63	58	155	***)	KA 05	92	92	M20 x 1.5	4L
A210 63 G2, 4, 6 U	FF115	109	98	11	11	M4	23	23	4	4	12.5	12.5	63	58	155	***)	KA 05	92	92	M20 x 1.5	4L
A210 71 K2, 4, 6, 8 U	FF130	124	104	14	14	M5	30	30	5	5	16	16	71	61	177	***)	KA 05	92	92	M20 x 1.5	4L
A210 71 G2, 4, 6, 8	FF130	124	104	14	14	M5	30	30	5	5	16	16	71	61	177	***)	KA 05	92	92	M20 x 1.5	4L
A210 80 K2, 4, 6, 8 U	FF 165	139	111	19	19	M6	40	40	6	6	21.5	21.5	80	67	217	***)	KA 05	92	92	M20 x 1.5	4L
A210 80 G2, 4, 6, 8 U	FF 165	139	111	19	19	M6	40	40	6	6	21.5	21.5	80	67	217	***)	KA 05	92	92	M20 x 1.5	4L
A210 90 S2, 4, 6, 8 U	FF 165	157	119	24	22	M8	50	50	8	6	27	24.5	90	70	241	***)	KA 05	92	92	M25 x 1.5	4L
A210 90 L2, 4, 6, 8 U	FF 165	157	119	24	22	M8	50	50	8	6	27	24.5	90	70	263	***)	KA 05	92	92	M25 x 1.5	4L
A210 100 L2, 4, 6, 8 U	FF 215	177	126	28	24	M10	60	50	8	8	31	27	100	75	289	***)	KA 05	92	92	M25 x 1.5	4L
A210 100 LX4, 8 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	100	77	314	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 M2 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	112	77	314	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 M6, 8 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	112	77	314	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 MX2 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	112	77	348	***)	KA 05	92	92	M25 x 1.5	4L
A210 112 M4 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	112	77	348	***)	KA 05	92	92	M25 x 1.5	4L
A210 132 S2T U	FF265	196	155	38	28	M12	80	60	10	8	41	31	132	105	387	***)	KA 05-13	104	112	M32 x 1.5	4L
A210 132 S4T U	FF265	196	155	38	28	M12	80	60	10	8	41	31	132	105	417	***)	KA 05-13	104	112	M32 x 1.5	4L
A210 132 S2	FF265	217	178	38	32	M12	80	80	10	10	41	35	132	108	397	486	25 A	156	145	M32 x 1.5	4L
A210 132 SX2	FF265	217	178	38	32	M12	80	80	10	10	41	35	132	108	417	506	25 A	156	145	M32 x 1.5	4L
A210 132 S4, 6, 8	FF265	217	178	38	32	M12	80	80	10	10	41	35	132	108	397	486	25 A	156	145	M32 x 1.5	4L
A210 132 M4	FF265	258	199	38	38	M12	80	80	10	10	41	41	132	114	420	506	25 A	156	145	M32 x 1.5	4L
A210 132 MX6	FF265	258	199	38	38	M12	80	80	10	10	41	41	132	114	420	506	25 A	156	145	M32 x 1.5	4L
A210 132 M6, 8	FF265	217	178	38	32	M12	80	80	10	10	41	35	132	108	417	506	25 A	156	145	M32 x 1.5	4L
A210 160 M2	FF300	258	214	42	38	M16	110	80	12	10	45	41	160	114	498	584	63 A	193	167	M40 x 1.5	4L
A210 160 M4, 6, 8	FF300	258	214	42	38	M16	110	80	12	10	45	41	160	114	498	584	63 A	193	167	M40 x 1.5	4L
A210 160 MX8	FF300	258	199	42	38	M16	110	80	12	10	45	41	160	114	498	584	63 A	193	167	M40 x 1.5	4L
A210 160 MX2	FF300	313	242	42	42	M16	110	110	12	12	45	45	160	138	502	625	63 A	193	167	M40 x 1.5	4L
A210 160 L2, 4, 6, 8	FF300	313	242	42	42	M16	110	110	12	12	45	45	160	138	540	663	63 A	193	167	M40 x 1.5	4L
A210 180 M2	FF300	351	261	48	48	M16	110	110	14	14	51.5	51.5	180	147	562	689	63 A	193	167	M40 x 1.5	4L
A210 180 M4	FF300	313	242	48	42	M16	110	110	14	12	51.5	45	180	138	540	663	63 A	193	167	M40 x 1.5	4L
A210 180 L4	FF300	351	261	48	48	M16	110	110	14	14	51.5	51.5	180	147	607	734	63 A	193	167	M40 x 1.5	4L
A210 180 L6, 8	FF300	313	242	48	42	M16	110	110	14	12	51.5	45	180	138	540	663	63 A	193	167	M40 x 1.5	4L
A210 200 L2, 4, 6, 8	FF 350	351	261	55	48	M20	110	110	16	14	59	51.5	200	147	607	734	63 A	193	167	M40 x 1.5	4L
A210 200 LX6	FF 350	351	261	55	48	M20	110	110	16	14	59	51.5	200	147	607	734	63 A	193	167	M40 x 1.5	4L
A210 200 LX2	FF 350	390	300	55	55	M20	110	110	16	16	59	59	200	168	661	797	100 A	213	207	M50 x 1.5	4L
A210 225 S4, 8	FF 400	390	300	60	55	M20	140	110	18	16	64	59	225	168	691	827	100 A	213	207	M50 x 1.5	8L
A210 225 M2	FF 400	390	300	55	55	M20	110	110	16	16	59	59	225	168	701	837	100 A	213	207	M50 x 1.5	8L
A210 225 M4	FF 400	390	300	60	55	M20	140	110	18	16	64	59	225	168	731	867	100 A	213	207	M50 x 1.5	8L
A210 225 M6, 8	FF 400	390	300	60	55	M20	140	110	18	16	64	59	225	168	691	827	100 A	213	207	M50 x 1.5	8L
A210 250 M2	FF 500	440	358	60	55	M20	140	110	18	16	64	59	250	177	737	857	200 A	282	242	M63 x 1.5	8L
A210 250 M4, 6, 8	FF 500	440	358	65	55	M20	140	110	18	16	69	59	250	177	737	857	200 A	282	242	M63 x 1.5	8L
A210 280 S2	FF 500	490	386	65	65	M20	140	140	18	18	69	69	280	206	801	951	200 A	282	242	M63 x 1.5	8L
A210 280 S4, 6, 8	FF 500	490	386	75	65	M20	140	140	20	18	79.5	69	280	206	801	951	200 A	282	242	M63 x 1.5	8L
A210 280 M2	FF 500	490	386	65	65	M20	140	140	18	18	69	69	280	206	847	997	200 A	282	242	M63 x 1.5	8L
A210 280 M4, 6, 8	FF 500	490	386	75	65	M20	140	140	20	18	79.5	69	280	206	847	997	200 A	282	242	M63 x 1.5	8L

^{*)} Centre holes to DIN 332-DS
^{***)} upon request

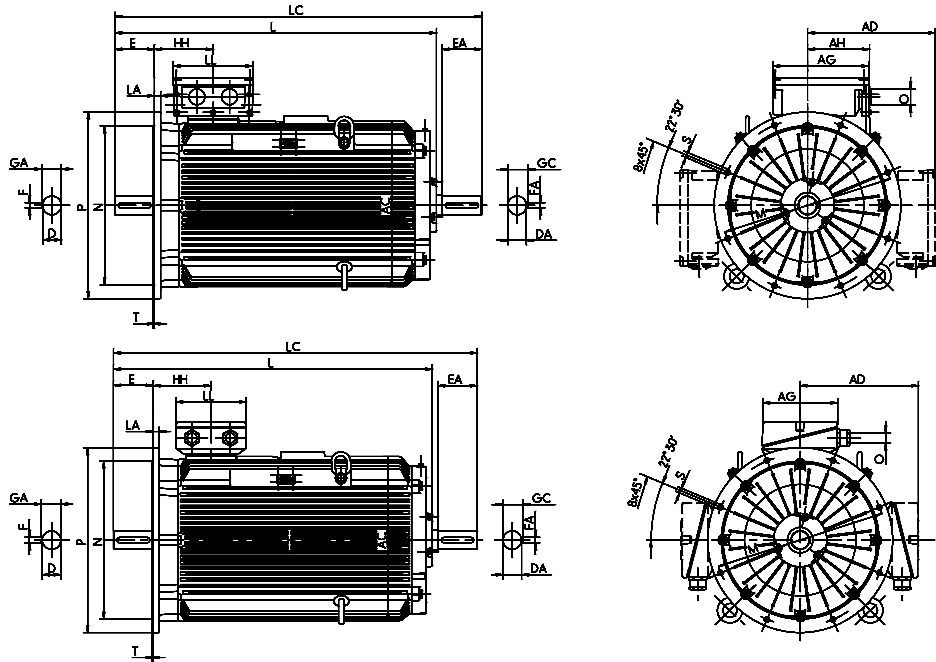
Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
Size 315

Type of construction IM B5 [IM 3001] to Size 315 MY

Type of construction IM V1 [IM 3011]

Flange dimensions, see page 9/23



Type designation	Flange size	AC	AD	D	DA	DB ¹⁾	E	EA	F	FA	GA	GC	H	HH	L	LC	TB Type	AG	LL	AH	O
		g	g1	d	d1		l	l1	u	u1	t	t1	h	A	k	k1		x	z	-	r
A210 315 S2	FF 600	550	416	65	65	M20	140	140	18	18	69	69	315	211	879	1026	200 A	282	242	-	M63 x 1.5
A210 315 S4, 6, 8	FF 600	550	416	80	70	M20	170	140	22	20	85	74.5	315	211	909	1056	200 A	282	242	-	M63 x 1.5
A210 315 M2	FF 600	550	416	65	65	M20	140	140	18	18	69	69	315	211	934	1081	200 A	282	242	-	M63 x 1.5
A210 315 M4, 6, 8	FF 600	550	416	80	70	M20	170	140	22	20	85	74.5	315	211	964	1111	200 A	282	242	-	M63 x 1.5
A210 315 MX2	FF 600	550	416	65	65	M20	140	140	18	18	69	69	315	211	1014	1161	200 A	282	242	-	M63 x 1.5
A210 315 MX4	FF 600	550	416	80	70	M20	170	140	22	20	85	74.5	315	211	1044	1191	200 A	282	242	-	M63 x 1.5
A210 315 MX6, 8	FF 600	550	416	80	70	M20	170	140	22	20	85	74.5	315	211	964	1111	200 A	282	242	-	M63 x 1.5
A210 315 MX10, 12	FF 600	550	416	80	70	M20	170	140	22	20	85	74.5	315	211	964	1111	200 A	282	242	-	M63 x 1.5
A210 315 MY2	FF 600	610	494	65	65	M20	140	140	18	18	69	69	315	230	1116	1260	400 B	415	340	265	M63 x 1.5
A210 315 MY4, 6, 8	FF 600	610	494	80	70	M20	170	140	22	20	85	74.5	315	230	1146	1290	400 B	415	340	265	M63 x 1.5
A210 315 L2	FF 600	610	494	65	65	M20	140	140	18	18	69	69	315	230	1236	1380	400 B	415	340	265	M63 x 1.5
A210 315 L4, 6, 8	FF 600	610	494	80	70	M20	170	140	22	20	85	74.5	315	230	1266	1410	400 B	415	340	265	M63 x 1.5
A210 315 LX2	FF 600	610	494	65	65	M20	140	140	18	18	69	69	315	230	1356	1500	400 B	415	340	265	M63 x 1.5
A210 315 LX4	FF 600	610	494	80	70	M20	170	140	22	20	85	74.5	315	230	1386	1530	400 B	415	340	265	M63 x 1.5
A210 315 LX6, 8	FF 600	610	494	80	70	M20	170	140	22	20	85	74.5	315	230	1266	1410	400 B	415	340	265	M63 x 1.5

¹⁾ Centre holes to DIN 332-DS

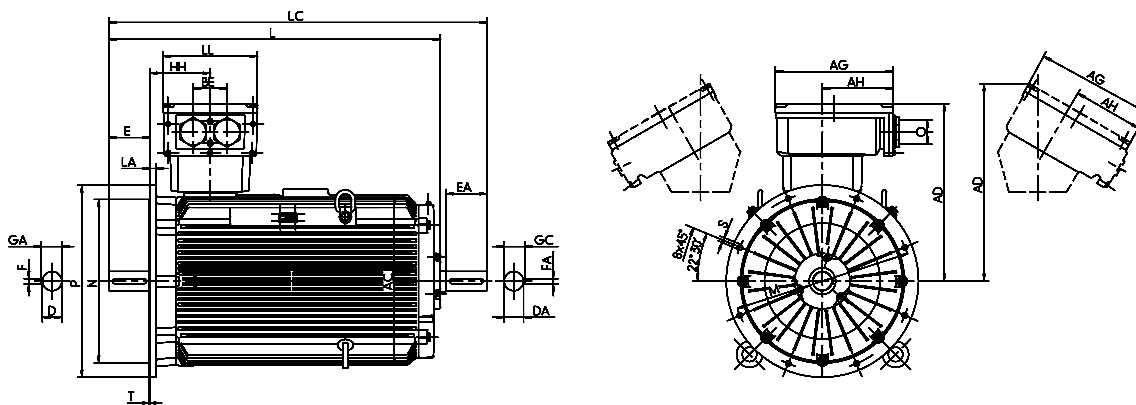
Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Size 355

Type of construction IM B5 [IM 3001]

Type of construction IM V1 [IM 3011]

Flange dimensions, see page 9/23



Type designation	Flange size	AC	AD	AD ¹⁾	D	D ¹⁾	DB ¹⁾	E	EA	F	FA	GA	GC	H	HH	L	LC	TB	AG	LL	AH	BE	O				
		g	g1	g1	d	d1		l	l1	u	u1	t	t1	h	A	k	k1	Type					x	z	-	-	r
A220 355 MY2, M2	FF 740	715	736	817	80	80	M20	170	170	22	22	85	85	355	250	1365	1552	630 A	496	390	301	140	M72 x 2				
A220 355 MY4, 6, 8	FF 740	715	736	817	100	80	M24	210	170	28	22	106	85	355	250	1405	1592	630 A	496	390	301	140	M72 x 2				
A220 355 M4	FF 740	715	736	817	100	80	M24	210	170	28	22	106	85	355	250	1405	1592	630 A	496	390	301	140	M72 x 2				
A220 355 M6, 8	FF 740	715	736	817	100	80	M24	210	170	28	22	106	85	355	250	1405	1592	630 A	496	390	301	140	M72 x 2				
A220 355 MX6, 8	FF 740	715	736	819	100	80	M24	210	170	28	22	106	85	355	327	1525	1712	630 A	496	390	301	140	M72 x 2				
A220 355 MX2	FF 740	715	728	819	80	80	M20	170	170	22	22	85	85	355	327	1485	1712	1000 A	496	390	385	140	M72 x 2				
A220 355 LY2, L2	FF 740	715	728	819	80	80	M20	170	170	22	22	85	85	355	327	1485	1672	1000 A	496	390	385	140	M72 x 2				
A220 355 MX4	FF 740	715	728	819	100	80	M24	210	170	28	22	106	85	355	327	1525	1712	1000 A	496	390	385	140	M72 x 2				
A220 355 LY4, 6, 8, L4	FF 740	715	728	819	100	80	M24	210	170	28	22	106	85	355	327	1525	1712	1000 A	496	390	385	140	M72 x 2				

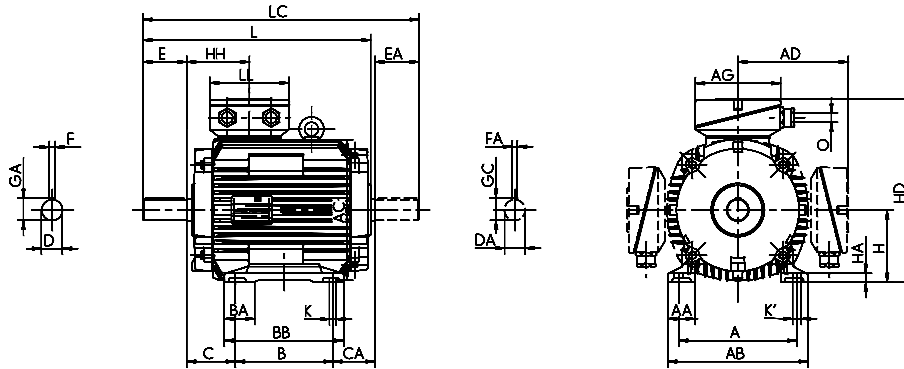
¹⁾ Centre holes to DIN 332-DS

²⁾ Terminal box inclined left/right

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 250

Type of construction IM B3 [IM 1001]



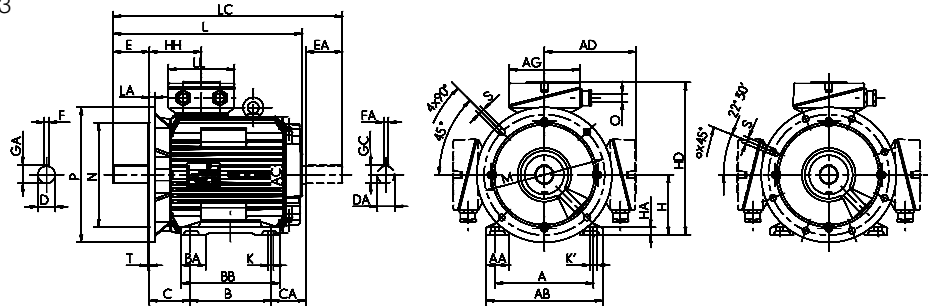
Type designation	Flange size	A	AA	AB	AC	AD	B	BA	BB	C	CA	D	DA	DB ¹⁾	E	EA	F	FA
		G	G1	G1	d	d1		L	L1	u	u1	t	t1	h	A	k	k1	
A200 56 K U	FF 115	90	18	110	109	98	71	-	86	36	-	11	11	M4	23	23	4	4
A200 56 GU	FF 115	90	18	110	109	98	71	-	86	36	-	11	11	M4	23	23	4	4
A200 63 K U	FF 130	100	21	120	124	104	80	-	95	40	-	14	14	M5	30	30	5	5
A200 63 G U	FF 130	100	21	120	124	104	80	-	95	40	-	14	14	M5	30	30	5	5
A200 71 K U	FF 165	112	23	135	139	111	90	-	114	45	-	19	19	M6	40	40	6	6
A200 71 G U	FF 165	112	23	135	139	111	90	-	114	45	-	19	19	M6	40	40	6	6
A200 80 K U	FF 165	125	26	152	157	119	100	-	124	50	-	22	22	M8	50	50	6	6
A200 80 G U	FF 165	125	26	152	157	119	100	-	124	50	-	22	22	M8	50	50	6	6
A200 90 L U	FF 215	140	25	167	177	126	125	-	150	56	-	24	24	M8	50	50	8	8
A200 100 S U	FF 215	160	32	188	196	136	112	-	171	63	-	28	28	M10	60	60	8	8
A200 100 L2, 4 U	FF 215	160	32	188	196	136	140	-	205	63	-	28	28	M10	60	60	8	8
A200 100 L6, 8 U	FF 215	160	32	188	196	136	140	-	171	63	-	28	28	M10	60	60	8	8
A200 100 LX4 U	FF 215	160	40	192	196	136	140	-	175	63	-	28	28	M10	60	60	8	8
A200 112 M2	FF 265	190	45	226	217	178	140	42	172	70	136	32	32	M12	80	80	10	10
A200 112 M4, 6, 8	FF 265	190	45	226	217	178	140	42	172	70	116	32	32	M12	80	80	10	10
A200 112 MX6, 8	FF 265	190	45	226	217	178	140	42	172	70	136	32	32	M12	80	80	10	10
A200 132 S	FF 300	216	50	256	258	199	140	47	180	89	117	38	38	M12	80	80	10	10
A200 132 M	FF 300	216	50	256	258	199	178	47	218	89	127	38	38	M12	80	80	10	10
A200 160 S2	FF 300	254	55	296	313	242	178	56	225	108	119	42	42	M16	110	110	12	12
A200 160 S4, 6, 8	FF 300	254	55	296	313	242	178	56	225	108	119	48	42	M16	110	110	14	12
A200 160 M2	FF 300	254	55	296	313	242	210	56	257	108	125	42	42	M16	110	110	12	12
A200 160 M4, 6, 8	FF 300	254	55	296	313	242	210	56	257	108	125	48	42	M16	110	110	14	12
A200 180 S2	FF 350	279	62	328	351	261	203	65	250	121	145	48	48	M16	110	110	14	14
A200 180 S4, 6, 8	FF 350	279	62	328	351	261	203	65	250	121	145	55	48	M20	110	110	16	14
A200 180 M2	FF 350	279	62	328	351	261	241	65	288	121	152	48	48	M16	110	110	14	14
A200 180 M4, 6, 8	FF 350 ¹⁾	279	62	328	351	261	241	65	288	121	152	55	48	M20	110	110	16	14
A200 200 M2	FF 400	318	70	372	390	300	267	70	322	133	177	55	55	M20	110	110	16	16
A200 200 M4, 6, 8	FF 400	318	70	372	390	300	267	70	322	133	177	60	55	M20	140	110	18	16
A200 200 L2	FF 400	318	70	372	390	300	305	70	360	133	179	55	55	M20	110	110	16	16
A200 200 L4, 6, 8	FF 400	318	70	372	390	300	305	70	360	133	179	60	55	M20	140	110	18	16
A200 225 M2	FF 500	356	75	413	440	324	311	75	368	149	147	55	55	M20	110	110	16	16
A200 225 M4, 6, 8	FF 500	356	75	413	440	324	311	75	368	149	147	65	55	M20	140	110	18	16
A200 250 S2	FF 500	406	84	469	490	386	311	84	374	168	192	65	65	M20	140	140	18	18
A200 250 S4, 6, 8	FF 500	406	84	469	490	386	311	84	374	168	192	75	65	M20	140	140	20	18
A200 250 M2	FF 500	406	84	469	490	386	349	84	412	168	154	65	65	M20	140	140	18	18
A200 250 M4	FF 500	406	84	469	490	386	349	84	412	168	200	75	65	M20	140	140	20	18
A200 250 M6, 8	FF 500	406	84	469	490	386	349	84	412	168	154	65	65	M20	140	140	18	18

¹⁾ Centre holes to DIN 332-DS

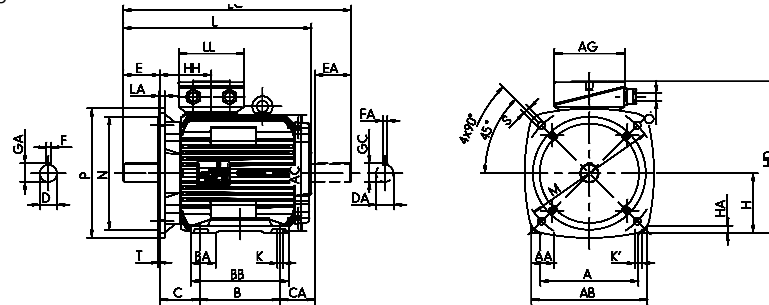
Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 250

Type of construction IM B35 [IM 1001]
 Flange dimensions, see page 9/23



Size 112 to 160 with crowned flange



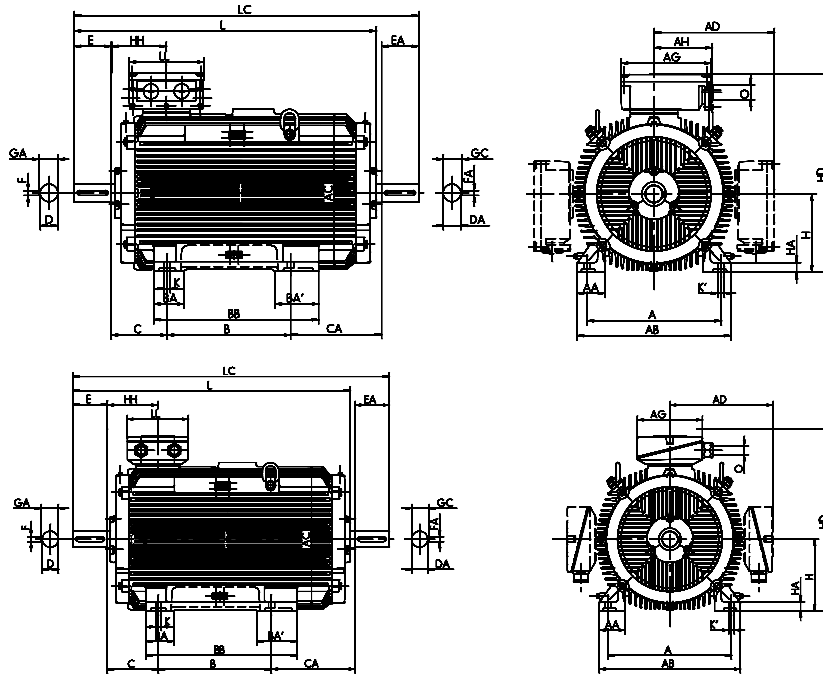
Type designation	GA	GC	H	HA	HD	HD ^{*)}	HH	K	K'	L	LC	TB Type	AG	LL	O	Hole pattern
	t	t1	h	c	p	p	A	s	s'	k	k1					
A200 56 K U	12.5	12.5	56	7	154	***)	58	6	6	155	***)	KA 05	92	92	M20 x 1.5	4L
A200 56 GU	12.5	12.5	56	7	154	***)	58	6	6	155	***)	KA 05	92	92	M20 x 1.5	4L
A200 63 K U	16	16	63	7.5	167	***)	61	7	7	177	***)	KA 05	92	92	M20 x 1.5	4L
A200 63 GU	16	16	63	7.5	167	***)	61	7	7	177	***)	KA 05	92	92	M20 x 1.5	4L
A200 71 K U	21.5	21.5	71	8	182	***)	67	7	7	217	***)	KA 05	92	92	M20 x 1.5	4L
A200 71 GU	21.5	21.5	71	8	182	***)	67	7	7	217	***)	KA 05	92	92	M20 x 1.5	4L
A200 80 K U	24.5	24.5	80	9	200	***)	70	10	10	241	***)	KA 05	92	92	M25 x 1.5	4L
A200 80 GU	24.5	24.5	80	9	200	***)	70	10	10	263	***)	KA 05	92	92	M25 x 1.5	4L
A200 90 L U	27	27	90	9.5	217	***)	75	10	10	279	***)	KA 05	92	92	M25 x 1.5	4L
A200 100 S U	31	31	100	11	237	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5	4L
A200 100 L2, 4 U	31	31	100	11	237	***)	77	12	12	348	***)	KA 05	92	92	M25 x 1.5	4L
A200 100 L6, 8 U	31	31	100	11	237	***)	77	12	12	314	***)	KA 05	92	92	M25 x 1.5	4L
A200 100 LX4 U	31	31	100	15	237	***)	77	12	12	378	***)	KA 05	92	92	M25 x 1.5	4L
A200 112 M2	35	35	112	15	290	237	108	12	12	417	506	25 A	156	145	M32 x 1.5	4L
A200 112 M4, 6, 8	35	35	112	15	290	237	108	12	12	397	486	25 A	156	145	M32 x 1.5	4L
A200 112 MX6, 8	35	35	112	15	290	237	108	12	12	417	506	25 A	156	145	M32 x 1.5	4L
A200 132 S	41	41	132	15	331	279	114	12	12	420	506	25 A	156	145	M32 x 1.5	4L
A200 132 M	41	41	132	15	331	279	114	12	12	468	554	25 A	156	145	M32 x 1.5	4L
A200 160 S2	45	45	160	18	402	336	138	15	20	502	625	63 A	193	167	M40 x 1.5	4L
A200 160 S4, 6, 8	51.5	45	160	18	402	336	138	15	20	502	625	63 A	193	167	M40 x 1.5	4L
A200 160 M2	45	45	160	18	402	336	138	15	20	540	663	63 A	193	167	M40 x 1.5	4L
A200 160 M4, 6, 8	51.5	45	160	18	402	336	138	15	20	540	663	63 A	193	167	M40 x 1.5	4L
A200 180 S2	51.5	51.5	180	20	441	369	147	15	20	562	689	63 A	193	167	M40 x 1.5	4L
A200 180 S4, 6, 8	59	51.5	180	20	441	369	147	15	20	562	689	63 A	193	167	M40 x 1.5	4L
A200 180 M2	51.5	51.5	180	20	441	369	147	15	20	607	734	63 A	193	167	M40 x 1.5	4L
A200 180 M4, 6, 8	59	51.5	180	20	441	369	147	15	20	607	734	63 A	193	167	M40 x 1.5	4L
A200 200 M2	59	59	200	22	500	417	168	19	25	661	797	100 A	213	207	M50 x 1.5	4L
A200 200 M4, 6, 8	64	59	200	22	500	417	168	19	25	691	827	100 A	213	207	M50 x 1.5	4L
A200 200 L2	59	59	200	22	500	417	168	19	25	701	837	100 A	213	207	M50 x 1.5	4L
A200 200 L4, 6, 8	64	59	200	22	500	417	168	19	25	731	867	100 A	213	207	M50 x 1.5	4L
A200 225 M2	59	59	225	25	549	459	177	19	25	707	827	100 A	213	207	M50 x 1.5	8L
A200 225 M4, 6, 8	69	59	225	25	549	459	177	19	25	737	857	100 A	213	207	M50 x 1.5	8L
A200 250 S2	69	69	250	28	636	516	206	24	30	801	951	200 A	213	207	M50 x 1.5	8L
A200 250 S4, 6, 8	79.5	69	250	28	636	516	206	24	30	801	951	200 A	213	207	M50 x 1.5	8L
A200 250 M2	69	69	250	28	636	516	206	24	30	801	951	200 A	213	207	M50 x 1.5	8L
A200 250 M4	79.5	69	250	28	636	516	206	24	30	847	997	200 A	213	207	M50 x 1.5	8L
A200 250 M6, 8	69	69	250	28	636	516	206	24	30	801	951	200 A	213	207	M50 x 1.5	8L

*) Terminal box left/right
 **) upon request

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 280 to 315

Type of construction IM B3 [IM 1001]



Type designation	Flange size	A	AA	AB	AC	AD	B	BA	BA'	BB	C	CA	D	DA	DB ¹⁾	E	EA	F	FA
		b	n	f	g	g1	a	m	m1	e	w1	w2	d	d1		l	l1	u	u1
A200 280 S2	FF 600	457	88	522	550	416	368	94		431	190	188	70	70	M20	140	140	20	20
A200 280 S4, 6, 8	FF 600	457	88	522	550	416	368	94		431	190	188	80	70	M20	170	140	22	20
A200 280 M2	FF 600	457	88	522	550	416	419	94		482	190	192	70	70	M20	140	140	20	20
A200 280 M4, 6, 8	FF 600	457	88	522	550	416	419	94		482	190	192	80	70	M20	170	140	22	20
A200 315 S2	FF 600	508	132	590	550	416	406	120		554	216	259	75	70	M20	140	140	20	20
A200 315 S4	FF 600	508	132	590	550	416	406			554	216	259	90	70	M24	170	140	25	20
A200 315 S6, 8	FF 600	508	132	590	550	416	406			554	216	179	90	70	M24	170	140	25	20
A200 315 M2	FF 600	508	110	590	610	494	457	120		587	216	307	75	75	M20	140	140	20	20
A200 315 M4, 6, 8	FF 600	508	110	590	610	494	457			587	216	307	90	75	M24	170	140	25	20
A200 315 M10, 12	FF 600	508	132	590	550	494	457			554	216	307	90	75	M24	170	140	25	20
A200 315 L2	FF 600	508	110	590	610	494	508	120		624	216	376	75	75	M20	140	140	20	20
A200 315 L4, 6, 8	FF 600	508	110	590	610	494	508			624	216	376	90	75	M24	170	140	25	20
A200 315 LX2	FF 600	508	110	590	610	494	508	120		624	216	496	75	75	M20	140	140	20	20
A200 315 LX4	FF 600	508	110	590	610	494	508			624	216	496	90	75	M24	170	140	25	20
A200 315 LX6, 8	FF 600	508	110	590	610	494	508			624	216	376	90	75	M24	170	140	25	20

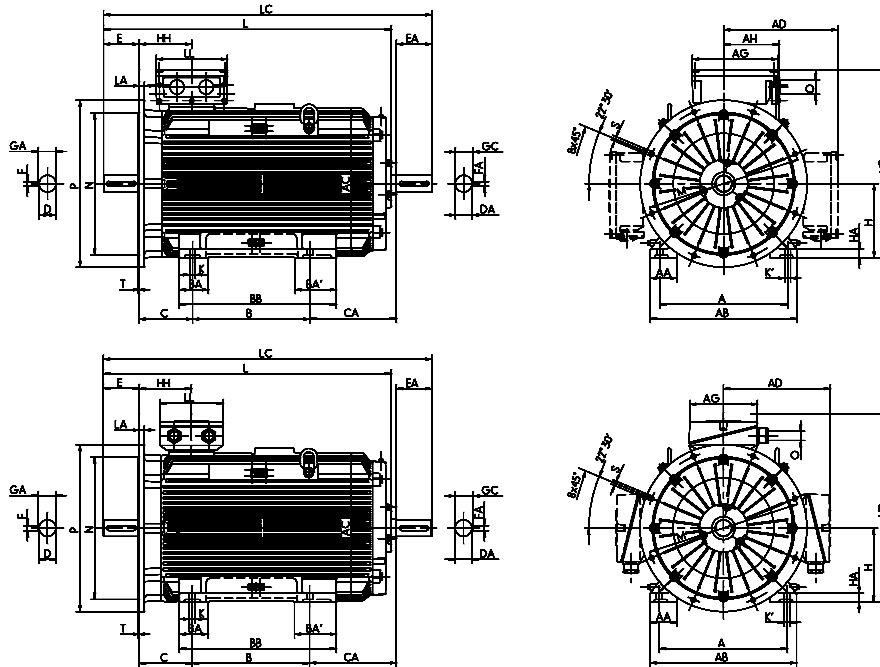
¹⁾ Centre holes to DIN 332-DS

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 280 to 315

Type of construction IM B35 [IM 1001]

Flange dimensions,
 see page 9/23



Type designation	GA	GC	H	HA	HD	HD ^{**}	HH	K	K'	L	LC	TB Type	AG	LL	AH	O
	t	t1	h	c	p	p	A	s	s'	k	k1	x	z	-	r	
A200 280 S2	74.5	74.5	280	40	696	560	211	24	30	879	1026	200 A	282	242	-	M63 x 1.5
A200 280 S4, 6, 8	85	74.5	280	40	696	560	211	24	30	909	1056	200 A	282	242	-	M63 x 1.5
A200 280 M2	74.5	74.5	280	40	696	560	211	24	30	934	1081	200 A	282	242	-	M63 x 1.5
A200 280 M4, 6, 8	85	74.5	280	40	696	560	211	24	30	964	1111	200 A	282	242	-	M63 x 1.5
A200 315 S2	79.5	74.5	315	44	731	595	211	28	35	1014	1161	200 A	282	242	-	M63 x 1.5
A200 315 S4	95	74.5	315	44	731	595	211	28	35	1044	1191	200 A	282	242	-	M63 x 1.5
A200 315 S6, 8	95	74.5	315	44	731	595	211	28	35	964	1111	200 A	282	242	-	M63 x 1.5
A200 315 M2	79.5	79.5	315	44	809	628	230	28	35	1116	1260	400 B	315	294	265	M63 x 1.5
A200 315 M4, 6, 8	95	79.5	315	44	809	628	230	28	35	1146	1290	400 B	315	294	265	M63 x 1.5
A200 315 M10, 12	95	79.5	315	44	809	628	211	28	35	1146	1290	400 B	315	294	265	M63 x 1.5
A200 315 L2	79.5	79.5	315	44	809	628	230	28	35	1236	1380	400 B	315	294	265	M63 x 1.5
A200 315 L4, 6, 8	95	79.5	315	44	809	628	230	28	35	1266	1410	400 B	315	294	265	M63 x 1.5
A200 315 LX2	79.5	79.5	315	44	809	628	230	28	35	1356	1500	400 B	315	294	265	M63 x 1.5
A200 315 LX4	95	79.5	315	44	809	628	230	28	35	1386	1530	400 B	315	294	265	M63 x 1.5
A200 315 LX6, 8	95	79.5	315	44	809	628	230	28	35	1266	1410	400 B	315	294	265	M63 x 1.5

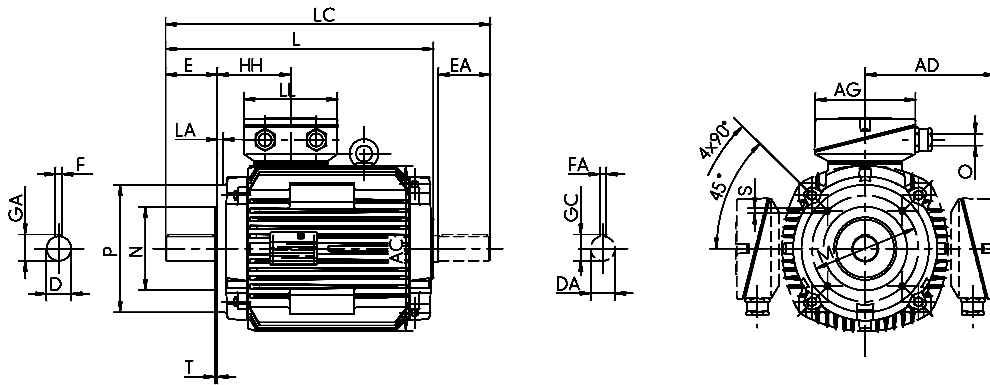
** Terminal box left/right

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 160

Type of construction IM B14 [IM 3601]

Flange dimensions, see page 9/23



Type designation	Flange size		A	AA	AB	AC	AD	B	BA	BB	C	CA	D	DA	DB ¹⁾	E	EA	F	FA
	small	large	b	n	f	g	g1	a	m	e	w1	w2	d	d1		l	l1	u	u1
A200 56 K U	FT 65	FT 100	90	18	110	109	98	71	-	86	36	-	11	11	M4	23	23	4	4
A200 56 GU	FT 65	FT 100	90	18	110	109	98	71	-	86	36	-	11	11	M4	23	23	4	4
A200 63 K U	FT 75	FT 115	100	21	120	124	104	80	-	95	40	-	14	14	M5	30	30	5	5
A200 63 G U	FT 75	FT 115	100	21	120	124	104	80	-	95	40	-	14	14	M5	30	30	5	5
A200 71 K U	FT 85	FT 130	112	23	135	139	111	90	-	114	45	-	19	19	M6	40	40	6	6
A200 71 G U	FT 85	FT 130	112	23	135	139	111	90	-	114	45	-	19	19	M6	40	40	6	6
A200 80 K U	FT 100	FT 130	125	26	152	157	119	100	-	124	50	-	22	22	M8	50	50	6	6
A200 80 G U	FT 100	FT 130	125	26	152	157	119	100	-	124	50	-	22	22	M8	50	50	6	6
A200 90 L U	FT 115	FT 165	140	25	167	177	126	125	-	150	56	-	24	24	M8	50	50	8	8
A200 100 S U	FT 130	FT 165	160	32	188	196	136	112	-	171	63	-	28	28	M10	60	60	8	8
A200 100 L2, 4 U	FT 130	FT 165	160	32	188	196	136	140	-	205	63	-	28	28	M10	60	60	8	8
A200 100 L6, 8 U	FT 130	FT 165	160	32	188	196	136	140	-	171	63	-	28	28	M10	60	60	8	8
A200 100 LX4 U	FT 130	FT 165	160	40	192	196	136	140	-	175	63	-	28	28	M10	60	60	8	8
A200 112 M2	FT 130	FT 165	190	45	226	217	178	140	42	172	70	136	32	32	M12	80	80	10	10
A200 112 M4, 6, 8	FT 130	FT 165	190	45	226	217	178	140	42	172	70	116	32	32	M12	80	80	10	10
A200 112 MX6, 8	FT 130	FT 165	190	45	226	217	178	140	42	172	70	136	32	32	M12	80	80	10	10
A200 132 S	FT 165	FT 215	216	50	256	258	199	140	47	180	89	117	38	38	M12	80	80	10	10
A200 132 M	FT 165	FT 215	216	50	256	258	199	178	47	218	89	127	38	38	M12	80	80	10	10
A200 160 S2	FT 215	FT 265	254	55	296	313	242	178	56	225	108	119	42	42	M16	110	110	12	12
A200 160 S4, 6, 8	FT 215	FT 265	254	55	296	313	242	178	56	225	108	119	48	42	M16	110	110	14	12
A200 160 M2	FT 215	FT 265	254	55	296	313	242	210	56	257	108	125	42	42	M16	110	110	12	12
A200 160 M4, 6, 8	FT 215	FT 265	254	55	296	313	242	210	56	257	108	125	48	42	M16	110	110	14	12

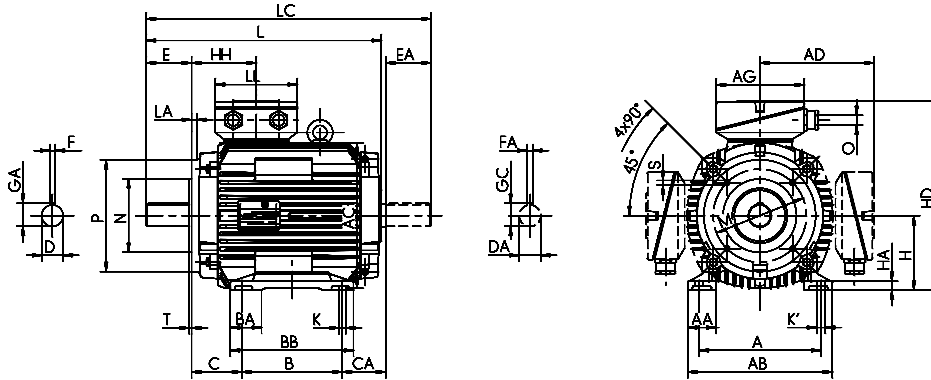
¹⁾ Centre holes to DIN 332-DS

Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
 Sizes 56 to 160

Type of construction IM B34 [IM 2101]

Flange dimensions, see page 9/23



Type designation	GA	GC	H	HA	HD	HD ^{**}	HH	K	K'	L	LC	TB Type	AG	LL	0
	t	t1	h	c	p	p	A	s	s'	k	k1				
A200 56 K U	12.5	12.5	56	7	154	***	58	6	6	155	***	KA 05	92	92	M20 x 1.5
A200 56 G U	12.5	12.5	56	7	154	***	58	6	6	155	***	KA 05	92	92	M20 x 1.5
A200 63 K U	16	16	63	7.5	167	***	61	7	7	177	***	KA 05	92	92	M20 x 1.5
A200 63 G U	16	16	63	7.5	167	***	61	7	7	177	***	KA 05	92	92	M20 x 1.5
A200 71 K U	21.5	21.5	71	8	182	***	67	7	7	217	***	KA 05	92	92	M20 x 1.5
A200 71 G U	21.5	21.5	71	8	182	***	67	7	7	217	***	KA 05	92	92	M20 x 1.5
A200 80 K U	24.5	24.5	80	9	200	***	70	10	10	241	***	KA 05	92	92	M25 x 1.5
A200 80 G U	24.5	24.5	80	9	200	***	70	10	10	263	***	KA 05	92	92	M25 x 1.5
A200 90 L U	27	27	90	9.5	217	***	75	10	10	279	***	KA 05	92	92	M25 x 1.5
A200 100 S U	31	31	100	11	237	***	77	12	12	314	***	KA 05	92	92	M25 x 1.5
A200 100 L2, 4 U	31	31	100	11	237	***	77	12	12	348	***	KA 05	92	92	M25 x 1.5
A200 100 L6, 8 U	31	31	100	11	237	***	77	12	12	314	***	KA 05	92	92	M25 x 1.5
A200 100 LX4 U	31	31	100	15	237	***	77	12	12	378	***	KA 05	92	92	M25 x 1.5
A200 112 M2	35	35	112	15	290	237	108	12	12	417	506	25 A	156	145	M32 x 1.5
A200 112 M4, 6, 8	35	35	112	15	290	237	108	12	12	397	486	25 A	156	145	M32 x 1.5
A200 112 MX6, 8	35	35	112	15	290	237	108	12	12	417	506	25 A	156	145	M32 x 1.5
A200 132 S	41	41	132	15	331	279	114	12	12	420	506	25 A	156	145	M32 x 1.5
A200 132 M	41	41	132	15	331	279	114	12	12	468	554	25 A	156	145	M32 x 1.5
A200 160 S2	45	45	160	18	402	336	138	15	20	502	625	63 A	193	167	M40 x 1.5
A200 160 S4, 6, 8	51.5	45	160	18	402	336	138	15	20	502	625	63 A	193	167	M40 x 1.5
A200 160 M2	45	45	160	18	402	336	138	15	20	540	663	63 A	193	167	M40 x 1.5
A200 160 M4, 6, 8	51.5	45	160	18	402	336	138	15	20	540	663	63 A	193	167	M40 x 1.5

** Terminal box left/right

*** upon request

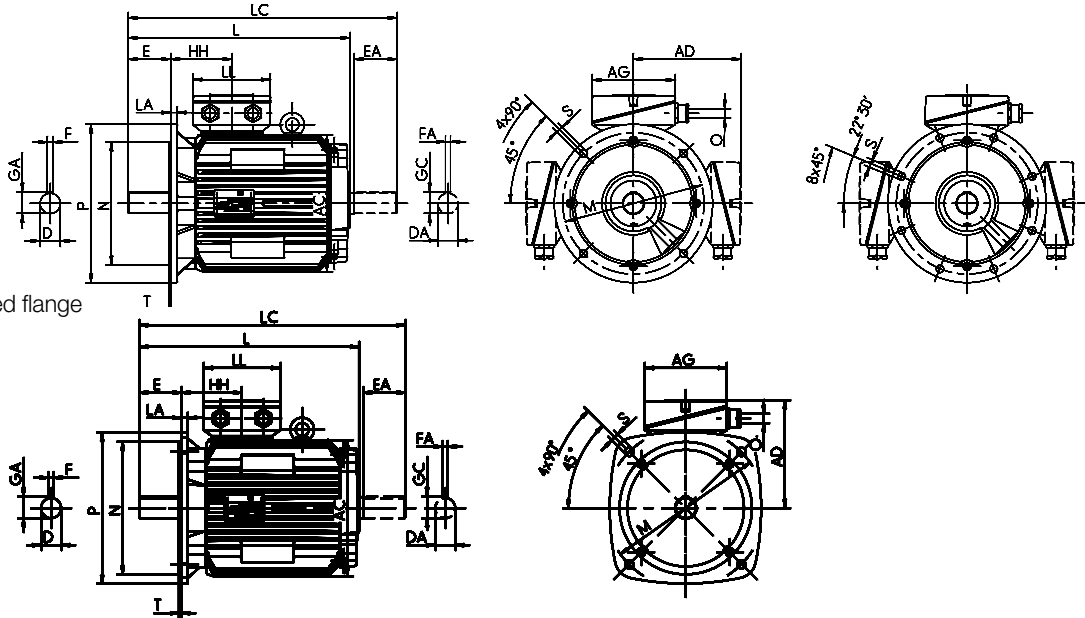
Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
Size 56 to 250

Type of construction IM B5 [IM 3001]

Type of construction IM V1 [IM 3011]

Flange dimensions, see page 9/23



Size 160 with crowned flange

Type designation	Flange size	AC	AD	D	DA	DB ¹⁾	E	EA	F	FA	GA	GC	H	HH	L	LC	TB	Type	AG	LL	O	Hole pattern
		g	g1	d	d1		l	l1	u	u1	t	t1	h	A	k	k1						
A200 56 K U	FF 115	109	98	11	11	M4	23	23	4	4	12.5	12.5	56	58	155	***	KA 05	92	92	M20 x 1.5	4L	
A200 56 GU	FF 115	109	98	11	11	M4	23	23	4	4	12.5	12.5	56	58	155	***	KA 05	92	92	M20 x 1.5	4L	
A200 63 K U	FF 130	124	104	14	14	M5	30	30	5	5	16	16	63	61	177	***	KA 05	92	92	M20 x 1.5	4L	
A200 63 G U	FF 130	124	104	14	14	M5	30	30	5	5	16	16	63	61	177	***	KA 05	92	92	M20 x 1.5	4L	
A200 71 K U	FF 165	139	111	19	19	M6	40	40	6	6	21.5	21.5	71	67	217	***	KA 05	92	92	M20 x 1.5	4L	
A200 71 G U	FF 165	139	111	19	19	M6	40	40	6	6	21.5	21.5	71	67	217	***	KA 05	92	92	M20 x 1.5	4L	
A200 80 K U	FF 165	157	119	22	22	M8	50	50	6	6	24.5	24.5	80	70	241	***	KA 05	92	92	M25 x 1.5	4L	
A200 80 G U	FF 165	157	119	22	22	M8	50	50	6	6	24.5	24.5	80	70	263	***	KA 05	92	92	M25 x 1.5	4L	
A200 90 L U	FF 215	177	126	24	24	M8	50	50	8	8	27	27	90	75	279	***	KA 05	92	92	M25 x 1.5	4L	
A200 100 S U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	100	77	314	***	KA 05	92	92	M25 x 1.5	4L	
A200 100 L2, 4 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	100	77	348	***	KA 05	92	92	M25 x 1.5	4L	
A200 100 L6, 8 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	100	77	314	***	KA 05	92	92	M25 x 1.5	4L	
A200 100 LX4 U	FF 215	196	136	28	28	M10	60	60	8	8	31	31	100	77	378	***	KA 05	92	92	M25 x 1.5	4L	
A200 112 M2	FF 265	217	178	32	32	M12	80	80	10	10	35	35	112	108	417	506	25 A	156	145	M32 x 1.5	4L	
A200 112 M4, 6, 8	FF 265	217	178	32	32	M12	80	80	10	10	35	35	112	108	397	486	25 A	156	145	M32 x 1.5	4L	
A200 112 MX6, 8	FF 265	217	178	32	32	M12	80	80	10	10	35	35	112	108	417	506	25 A	156	145	M32 x 1.5	4L	
A200 132 S	FF 300	258	199	38	38	M12	80	80	10	10	41	41	132	114	420	506	25 A	156	145	M32 x 1.5	4L	
A200 132 M	FF 300	258	199	38	38	M12	80	80	10	10	41	41	132	114	468	554	25 A	156	145	M32 x 1.5	4L	
A200 160 S2	FF 300	313	242	42	42	M16	110	110	12	12	45	45	160	138	502	625	63 A	193	167	M40 x 1.5	4L	
A200 160 S4, 6, 8	FF 300	313	242	48	42	M16	110	110	14	12	51.5	45	160	138	502	625	63 A	193	167	M40 x 1.5	4L	
A200 160 M2	FF 300	313	242	42	42	M16	110	110	12	12	45	45	160	138	540	663	63 A	193	167	M40 x 1.5	4L	
A200 160 M4, 6, 8	FF 300	313	242	48	42	M16	110	110	14	12	51.5	45	160	138	540	663	63 A	193	167	M40 x 1.5	4L	
A200 180 S2	FF 350	351	261	48	48	M16	110	110	14	14	51.5	51.5	180	147	562	689	63 A	193	167	M40 x 1.5	4L	
A200 180 S4, 6, 8	FF 350	351	261	55	48	M20	110	110	16	14	59	51.5	180	147	562	689	63 A	193	167	M40 x 1.5	4L	
A200 180 M2	FF 350	351	261	48	48	M16	110	110	14	14	51.5	51.5	180	147	607	734	63 A	193	167	M40 x 1.5	4L	
A200 180 M4, 6, 8	FF 350 ¹⁾	351	261	55	48	M20	110	110	16	14	59	51.5	180	147	607	734	63 A	193	167	M40 x 1.5	4L	
A200 200 M2	FF 400	390	300	55	55	M20	110	110	16	16	59	59	200	168	661	797	100 A	213	207	M50 x 1.5	4L	
A200 200 M4, 6, 8	FF 400	390	300	60	55	M20	140	110	18	16	64	59	200	168	691	827	100 A	213	207	M50 x 1.5	4L	
A200 200 L2	FF 400	390	300	55	55	M20	110	110	16	16	59	59	200	168	701	837	100 A	213	207	M50 x 1.5	4L	
A200 200 L4, 6, 8	FF 400	390	300	60	55	M20	140	110	18	16	64	59	200	168	731	867	100 A	213	207	M50 x 1.5	4L	
A200 225 M2	FF 500	440	324	55	55	M20	110	110	16	16	59	59	225	177	707	827	100 A	213	207	M50 x 1.5	8L	
A200 225 M4, 6, 8	FF 500	440	324	65	55	M20	140	110	18	16	69	59	225	177	737	857	100 A	213	207	M50 x 1.5	8L	
A200 250 S2	FF 500	490	386	65	65	M20	140	140	18	18	69	69	250	206	801	951	200 A	213	207	M50 x 1.5	8L	
A200 250 S4, 6, 8	FF 500	490	386	75	65	M20	140	140	20	18	79.5	69	250	206	801	951	200 A	213	207	M50 x 1.5	8L	
A200 250 M2	FF 500	490	386	65	65	M20	140	140	18	18	69	69	250	206	801	951	200 A	213	207	M50 x 1.5	8L	
A200 250 M4	FF 500	490	386	75	65	M20	140	140	20	18	79.5	69	250	206	847	997	200 A	213	207	M50 x 1.5	8L	
A200 250 M6, 8	FF 500	490	386	65	65	M20	140	140	18	18	69	69	250	206	801	951	200 A	213	207	M50 x 1.5	8L	

Low voltage electrical machines

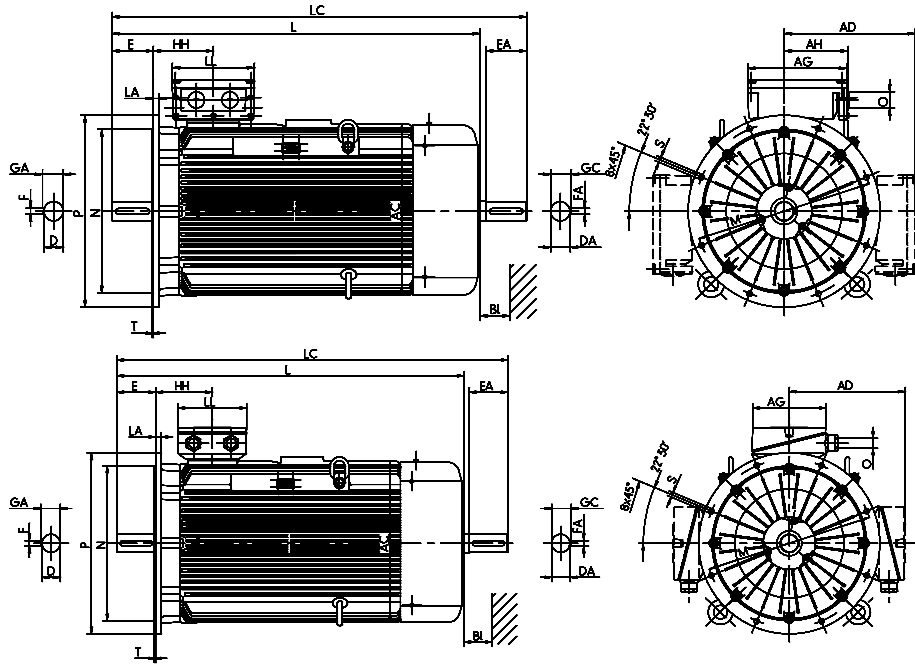
Three-phase roller table motors with squirrel-cage rotor, transnorm light-duty version, for use on a frequency converter

Type of cooling IC 410, non-ventilated version
Size 280, 315

Type of construction IM B5 [IM 3001] to Size 315 M

Type of construction IM V1 [IM 3011]

Flange dimensions, see page 9/23



Type designation	Flange size	AC	AD	D	DA	DB ¹⁾	E	EA	F	FA	GA	GC	H	HH	L	LC	TB Type	AG	LL	AH	O
		g	g1	d	d1		l	l1	u	u1	t	t1	h	A	k	k1		x	z	-	r
A200 280 S2	FF 600	550	416	70	70	M20	140	140	20	20	74.5	74.5	280	211	879	1026	200 A	282	242	-	M63 x 1.5
A200 280 S4. 6. 8	FF 600	550	416	80	70	M20	170	140	22	20	85	74.5	280	211	909	1056	200 A	282	242	-	M63 x 1.5
A200 280 M2	FF 600	550	416	70	70	M20	140	140	20	20	74.5	74.5	280	211	934	1081	200 A	282	242	-	M63 x 1.5
A200 280 M4. 6. 8	FF 600	550	416	80	70	M20	170	140	22	20	85	74.5	280	211	964	1111	200 A	282	242	-	M63 x 1.5
A200 315 S2	FF 600	550	416	75	70	M20	140	140	20	20	79.5	74.5	315	211	1014	1161	200 A	282	242	-	M63 x 1.5
A200 315 S4	FF 600	550	416	90	70	M24	170	140	25	20	95	74.5	315	211	1044	1191	200 A	282	242	-	M63 x 1.5
A200 315 S6. 8	FF 600	550	416	90	70	M24	170	140	25	20	95	74.5	315	211	964	1111	200 A	282	242	-	M63 x 1.5
A200 315 M2	FF 600	610	494	75	75	M20	140	140	20	20	79.5	79.5	315	230	1116	1260	400 A	315	294	265	M63 x 1.5
A200 315 M4. 6. 8	FF 600	610	494	90	75	M24	170	140	25	20	95	79.5	315	230	1146	1290	400 B	315	294	265	M63 x 1.5
A200 315 M10. 12	FF 600	550	494	90	75	M24	170	140	25	20	95	79.5	315	211	1146	1290	400 B	315	294	265	M63 x 1.5
A200 315 L2	FF 600	610	494	75	75	M20	140	140	20	20	79.5	79.5	315	230	1236	1380	400 B	315	294	265	M63 x 1.5
A200 315 L4. 6. 8	FF 600	610	494	90	75	M24	170	140	25	20	95	79.5	315	230	1266	1410	400 B	315	294	265	M63 x 1.5
A200 315 LX2	FF 600	610	494	75	75	M20	140	140	20	20	79.5	79.5	315	230	1356	1500	400 B	315	294	265	M63 x 1.5
A200 315 LX4	FF 600	610	494	90	75	M24	170	140	25	20	95	79.5	315	230	1386	1530	400 B	315	294	265	M63 x 1.5
A200 315 LX6. 8	FF 600	610	494	90	75	M24	170	140	25	20	95	79.5	315	230	1266	1410	400 B	315	294	265	M63 x 1.5

¹⁾ Centre holes to DIN 332-DS

Overview of technical data

Three-phase roller table motors with squirrel-cage rotor, heavy-duty version for converter-fed operation, non-ventilated, Type of cooling IC 410

The most important technical data are summarised in the following table. Further information can be taken from the catalogue section "Introduction" (chapter 1).

Product group	Roller table motors, squirrel-cage rotor, IEC/EN
Series	ARC... version for converter-fed operation
Rated output	0.04 kW to 290 kW
Sizes	112 to 400
Housing material	Grey cast iron
Rated torque	8 Nm to 2560 Nm
Duty types	S7/S9 to IEC/EN 60034-1
Method of connection	Single-speed motors are designed in star-delta configuration as standard.
Stator winding insulation	Thermal class 155, optionally 155 [F(B)], 180 to IEC/EN 60034-1
Degree of protection	IP 55 to IEC/EN 60034-5, optionally IP 56 and higher
Type of cooling	IC 410 (non-ventilated) to IEC/EN 60034-6
Coolant temperature/ installation altitude	Standard -20 °C to +40 °C, Altitude 1000 m above sea level
Rated voltage	Standard voltages to EN 60038 50 Hz: 230 V, 400 V, 500 V, 690 V 60 Hz: 275 V, 460 V, 480 V, 600 V Rated Voltage ranges A to IEC/EN 60034-1
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7
Paint finish	Normal finish "Moderate", colour RAL 7031, blue-grey Special finish "Worldwide", colour RAL 7031, blue-grey
Vibration severity grade	Grade "A" as standard for machines with no special vibration requirements
Shaft ends	to DIN 748 (IEC 60072), balanced with half-key
Sound pressure level	to DIN EN ISO 1680, tolerance + 3 dB, upon request
Limit speeds	Please refer to the section "Limit speeds".
Bearing design	Please refer to the section „Bearings“.
Motor mass	Please refer to the technical selection lists.
Terminal boxes	Please refer to the section "Terminal boxes".
Documentation	An operating and maintenance manual, a terminal plan and a safety data sheet are supplied with each motor.
Tolerances	Please refer to the section "Tolerances" in catalogue section "Introduction", Chapter 1.
Options	Please refer to the section "Overview of modifications" in catalogue section "Introduction", Chapter 1.

Motor selection data

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410

Planning data for switched operation calculations/motor preselection

Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz

Insulation system for \hat{u} max. 1.35 kV; du/dt max. 1.5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff}	M_{eff}	I_B	n_B	η_B	$\cos\varphi_B$	M_{max}	M_{max}/M_{eff}	I_{max}	η_{max}	$\cos\varphi_{max}$	I_0	$\cos\varphi_0$	J	m
	(S1) kW	Nm	400 V A	rpm	referred to P_{eff} %	-	Nm		A	referred to M_{max} %	-	A	-	kgm ²	kg
Synchronous speed 1500 rpm – 4-pole version															
ARC 112 M4	2.3	15	4.7	1465	85.0	0.83	47	3.1	17	79.0	0.85	2.5	0.11	0.015	56
ARC 112 MX4	2.5	16	5.0	1465	85.0	0.85	49	3.0	18	77.0	0.87	2.5	0.10	0.017	63
ARC 112 MZ4	3.0	20	5.9	1460	86.0	0.85	60	3.0	19	75.0	0.88	2.8	0.11	0.020	67
ARC 132 S4	3.0	19	6.6	1480	85.0	0.77	61	3.2	20	84.0	0.81	3.8	0.13	0.028	82
ARC 132 M4	4.4	28	9.2	1475	87.5	0.79	93	3.3	30	82.0	0.89	5.3	0.10	0.035	95
ARC 132 MX4	6.2	40	12.5	1475	88.5	0.80	120	3.0	38	82.0	0.84	6.8	0.08	0.044	105
ARC 160 S4	5.5	35	11.5	1480	88.0	0.80	105	3.0	32	85.0	0.84	6.0	0.13	0.078	130
ARC 160 M4	7.7	50	16.0	1480	89.0	0.79	150	3.0	52	85.0	0.84	8.5	0.11	0.090	144
ARC 160 MX4	8.0	52	17.0	1480	89.5	0.77	160	3.1	52	85.0	0.84	9.5	0.11	0.104	160
ARC 160 L4	10.2	66	20.0	1480	88.5	0.83	200	3.0	68	86.0	0.85	10.0	0.13	0.116	170
ARC 180 S4	8.8	57	18.5	1480	86.0	0.80	175	3.1	55	84.5	0.83	12.0	0.07	0.138	170
ARC 180 M4	11.0	71	22.0	1485	90.5	0.80	215	3.0	72	90.0	0.85	15.0	0.07	0.168	215
ARC 180 L4	14.0	90	27.5	1480	90.5	0.81	270	3.0	80	88.0	0.85	17.0	0.09	0.203	250
ARC 200 M4	15.0	100	29.5	1475	91.0	0.80	307	3.1	94	91.1	0.85	15.0	0.08	0.275	270
ARC 200 L4	18.5	119	35.0	1485	92.5	0.82	367	3.1	115	91.5	0.82	16.0	0.09	0.313	335
ARC 200 LX4	20.0	128	39.5	1485	91.5	0.80	380	3.0	121	83.0	0.84	20.5	0.09	0.356	350
ARC 225 M4	22.0	141	43.0	1485	92.0	0.80	425	3.0	140	92.5	0.86	16.0	0.09	0.525	375
ARC 225 MX4	25.0	161	48.5	1485	91.0	0.82	480	3.0	145	89.0	0.82	20.0	0.09	0.638	420
ARC 250 S4	32.0	205	64.5	1490	93.0	0.77	624	3.0	181	92.5	0.86	31.5	0.07	0.950	520
ARC 250 M4	40.0	257	79.5	1485	93.0	0.78	778	3.0	245	93.7	0.86	33.5	0.08	1.100	580
ARC 280 S4	50.0	319	102.0	1495	93.5	0.76	968	3.0	330	95.0	0.85	40.0	0.08	1.960	830
ARC 280 M4	60.0	384	117.0	1492	94.0	0.79	1169	3.0	380	94.0	0.84	43.5	0.07	2.270	895
ARC 280 MX4	70.0	449	136.0	1490	94.0	0.79	1330	3.0	480	94.0	0.85	58.0	0.05	2.730	1015
ARC 315 M4	95.0	607	172.0	1495	96.0	0.83	1780	2.9	580	95.0	0.87	62.5	0.05	4.820	1300
ARC 315 L4	132.0	845	239.0	1492	96.0	0.83	2040	2.4	680	95.5	0.88	72.0	0.05	5.930	1450
ARC 315 LX4	150.0	961	268.0	1490	96.0	0.84	2884	3.0	980	95.5	0.88	98.0	0.04	6.820	1630
ARC 355 M4	160.0	1022	293.0	1495	95.0	0.83	3066	3.0	1050	95.0	0.79	127.0	0.05	10.000	2500
ARC 400 L4	240.0	1534		1494	upon request		6340	4.1						20.000	3210
ARC 400 LX4	290.0	1854		1494	upon request		7500	4.0						25.000	3460

Synchronous speed 1000 rpm – 6-pole version															
ARC	P_{eff}	M_{eff}	I_B	n_B	η_B	$\cos\varphi_B$	M_{max}	M_{max}/M_{eff}	I_{max}	η_{max}	$\cos\varphi_{max}$	I_0	$\cos\varphi_0$	J	m
	(S1) kW	Nm	A	rpm	referred to P_{eff} %	-	Nm		A	referred to M_{max} %	-	A	-	kgm ²	kg
ARC 112 M6	1.5	15	4.1	975	78.5	0.68	45	3.1	11	74.1	0.84	3.0	0.12	0.018	52
ARC 112 MX6	1.9	19	4.6	975	81.0	0.74	57	3.1	13	77.0	0.82	3.5	0.12	0.023	60
ARC 112 MZ6	2.2	22	5.6	970	81.0	0.70	66	3.1	15	74.0	0.84	4.2	0.10	0.029	62
ARC 132 S6	2.6	25	6.3	980	83.5	0.71	79	3.1	16	78.5	0.83	4.3	0.11	0.043	90
ARC 132 M6	3.5	34	9.3	980	82.5	0.66	103	3.0	24	83.6	0.77	6.5	0.11	0.053	95
ARC 132 MX6	4.2	41	10.5	978	84.0	0.70	130	3.2	28	82.8	0.80	7.0	0.11	0.066	110
ARC 160 S6	4.8	47	11.0	980	85.5	0.75	145	3.1	29	82.8	0.87	6.5	0.11	0.113	120
ARC 160 M6	6.5	63	14.0	985	86.0	0.79	195	3.1	40	84.0	0.84	7.7	0.13	0.145	145
ARC 160 L6	7.0	68	15.5	980	86.5	0.75	205	3.0	43	83.0	0.83	8.0	0.13	0.166	160
ARC 180 S6	7.6	74	15.0	985	89.5	0.81	228	3.1	46	85.6	0.87	7.9	0.15	0.228	190
ARC 180 M6	9.5	92	19.5	985	86.5	0.81	283	3.1	65	84.2	0.87	9.5	0.11	0.268	215
ARC 180 L6	11.0	107	23.0	985	86.0	0.80	320	3.0	70	84.0	0.85	12.0	0.12	0.324	250
ARC 200 M6	12.5	121	25.0	985	89.5	0.81	373	3.1	75	88.7	0.88	13.0	0.11	0.443	315
ARC 200 L6	15.0	145	30.0	985	89.5	0.80	450	3.1	90	88.5	0.88	14.0	0.11	0.514	330
ARC 200 LX6	19.5	189	37.5	985	90.0	0.83	580	3.1	115	88.7	0.88	20.0	0.11	0.620	360
ARC 225 M6	16.5	159	33.0	990	91.0	0.79	496	3.1	95	89.6	0.88	17.0	0.09	0.825	390
ARC 225 MX6	18.0	174		990			535	3.1						0.920	440
ARC 250 S6	22.0	212	43.0	991	91.0	0.81	540	2.5	110	90.7	0.88	24.0	0.08	1.280	465
ARC 250 M6	27.0	260	51.5	991	92.0	0.82	706	2.7	140	91.3	0.88	26.0	0.08	1.480	520
ARC 280 S6	37.0	356	71.5	992	93.5	0.83	1075	3.0	235	89.0	0.80	30.0	0.08	2.630	780
ARC 280 M6	44.0	423	84.0	993	93.5	0.81	1265	3.0	260	92.5	0.87	37.5	0.08	3.330	855
ARC 280 MX6	48.0	461	90.5	995	93.5	0.82	1608	3.5	320	92.5	0.86	45.0	0.07	3.600	890
ARC 315 M6	75.0	721	138.0	993	94.5	0.83	1945	2.7	380	93.9	0.87	55.0	0.06	6.000	1050
ARC 315 L6	90.0	866	164.0	993	94.5	0.84	2140	2.5	450	93.0	0.88	61.0	0.08	6.670	1250
ARC 315 LX6	100.0	962	183.0	993	95.0	0.83	2800	2.9	541	94.0	0.87	72.0	0.06	8.600	1460
ARC 355 M6	140.0	1344	263.0	995	96.0	0.80	4031	3.0	815	94.5	0.80	120.0	0.05	8.200	1650
ARC 355 MX6	160.0	1536	301.0	995	96.0	0.80	4607	3.0	885	96.5	0.80	147.0	0.04	12.800	2200
ARC 400 L6	210.0	2030		995	upon request		6400	3.2						25.000	3120
ARC 400 LX6	240.0	2310		995	upon request		7460	3.2						27.000	3340

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410
 Planning data for switched operation calculations/motor preselection
 Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz
 Insulation system for \hat{u} max. 1.35 kV; du/dt max. 1.5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff} (S1) kW	M_{eff} Nm	I_B 400 V A	n_B rpm	η_B referred to P_{eff} %	$\cos\varphi_B$ -	M_{max} Nm	M_{max}/M_{eff}	I_{max} A	η_{max} referred to M_{max} %	$\cos\varphi_{max}$ -	I_0 A	$\cos\varphi_0$ -	J kgm ²	m kg
	Synchronous speed 750 rpm – 8-pole version														
ARC 112 M8	1.1	14	4.1	725	72.5	0.54	38	2.6	7	71.0	0.78	3.5	0.11	0.018	46
ARC 112 MX8	1.5	20	4.7	725	75.5	0.61	54	2.7	10	72.3	0.81	3.8	0.11	0.023	53
ARC 112 MZ8	1.7	22	5.4	725	75.5	0.60	65	3.0	12	66.0	0.80	4.3	0.11	0.029	62
ARC 132 S8	1.8	24	5.3	730	78.5	0.62	57	2.4	12	77.5	0.78	4.2	0.11	0.043	90
ARC 132 M8	2.5	33	9.0	734	76.0	0.53	87	2.7	15	74.0	0.77	6.0	0.10	0.053	95
ARC 132 MX8	3.0	39	9.4	730	77.0	0.60	110	2.8	20	72.0	0.78	7.0	0.10	0.066	110
ARC 160 S8	3.6	47	9.2	735	83.5	0.68	117	2.5	20	81.0	0.78	6.5	0.10	0.113	120
ARC 160 M8	5.0	65	12.5	730	83.0	0.69	174	2.7	29	82.0	0.79	9.0	0.11	0.145	145
ARC 160 L8	6.5	84	17.5	735	83.0	0.65	225	2.7	38	82.0	0.79	12.0	0.08	0.166	160
ARC 180 S8	6.5	84	16.5	740	87.0	0.66	257	3.1	41	84.0	0.81	12.0	0.08	0.228	180
ARC 180 M8	7.5	97	19.5	740	86.0	0.65	316	3.3	49	86.0	0.82	15.0	0.09	0.268	215
ARC 180 L8	8.0	103	20.0	740	87.0	0.67	325	3.2	55	82.0	0.80	14.0	0.08	0.324	250
ARC 200 M8	9.0	116	20.5	740	87.5	0.72	390	3.4	62	86.0	0.84	13.0	0.09	0.443	315
ARC 200 L8	11.0	143	22.5	735	89.5	0.78	410	2.9	63	87.0	0.84	13.0	0.08	0.514	330
ARC 225 M8	13.0	167	28.0	743	86.3	0.78	480	2.9	74	88.8	0.80	19.0	0.08	0.825	390
ARC 225 MX8	14.0	180					540	3.0						0.920	440
ARC 250 S8	17.5	226	38.0	740	90.5	0.73	590	2.6	90	89.8	0.81	22.0	0.07	1.350	510
ARC 250 M8	22.0	284	47.5	740	90.5	0.74	715	2.5	118	90.7	0.77	28.0	0.07	1.550	560
ARC 280 S8	28.0	359	62.0	745	92.0	0.71	1040	2.9	190	91.8	0.79	36.0	0.06	2.63	780
ARC 280 M8	35.0	449	76.5	745	93.0	0.71	1320	2.9	250	91.6	0.81	48.0	0.06	3.33	855
ARC 280 MX8	37.0	474	82.0	746	92.0	0.71	1685	3.6	290	92.3	0.80	72.0	0.05	3.60	890
ARC 315 M8	55.0	710	113.0	741	93.6	0.75	2100	3.0	306	91.1	0.82	68.0	0.05	6.000	1050
ARC 315 L8	68.0	875	146.0	745	94.4	0.71	2140	2.4	309	94.1	0.82	90.0	0.05	6.760	1250
ARC 315 LX8	85.0	1090	176.0	745	93.0	0.75	2724	2.5	385	92.0	0.82	88.0	0.06	8.710	1460
ARC 355 M8	90.0	1154	187.0	745	94.0	0.74	3461	3.0	520	93.5	0.80	95.0	0.05	9.500	1600
ARC 355 MX8	110.0	1410	228.0	745	94.0	0.74	4230	3.0	630	94.0	0.80	115.0	0.05	13.400	2200
ARC 400 L8	170.0	2176		746	upon request		6450							32.000	3120
ARC 400 LX8	200.0	2560		746	upon request		7750							39.000	3460

Synchronous speed 600 rpm – 10-pole version															
ARC	P_{eff}	M_{eff}	I_B	n_B	η_B	$\cos\varphi_B$	M_{max}	M_{max}/M_{eff}	I_{max}	η_{max}	$\cos\varphi_{max}$	I_0	$\cos\varphi_0$	J	m
ARC 112 M10	0.55	9		570	upon request		25	2.7						0.018	46
ARC 112 MX10	0.8	12	2.9	575	66.5	0.56	35	2.8	6	55.0	0.80			0.023	60
ARC 112 MZ10	0.85	14		570	upon request		40	2.8						0.029	62
ARC 132 S10	1.1	18		575	upon request		49	2.7						0.043	90
ARC 132 M10	1.5	25	5.2	575	78.0	0.53	60	2.4	10	80.0	0.65	4.5	0.09	0.053	95
ARC 132 MX10	1.8	30		575	upon request		75	2.5						0.066	110
ARC 160 S10	2.8	46		575	upon request		115	2.5						0.113	120
ARC 160 M10	3.0	50	8.7	575	80.0	0.62	120	2.4	18	80.0	0.75	6.5	0.11	0.145	145
ARC 160 L10	4.0	66		575	upon request		165	2.5						0.166	155
ARC 180 S10	4.5	73	15.5	590	82.0	0.50	225	3.0	33	82.0	0.75	12.5	0.07	0.228	180
ARC 180 M10	6.5	105	22.0	590	83.5	0.51	315	3.0	47	80.0	0.76			0.268	215
ARC 180 MX10	7.0	116	20.5	575	83.0	0.59	300	2.6	44	81.5	0.75	16.0	0.09	0.324	340
ARC 200 M10	8.5	140		580	upon request		380	2.7						0.443	315
ARC 200 L10	9.0	148		580	upon request		400	2.7						0.514	330
ARC 225 M10	11.0	178	33.0	590	86.5	0.56	480	2.7	84	85.5	0.73	23.5	0.07	0.825	390
ARC 225 MX10	12.0	198		580	upon request		535	2.7						0.920	440
ARC 250 S10	13.5	220		585	upon request		595	2.7						1.280	510
ARC 250 M10	17.0	278		585	upon request		750	2.7						1.480	560
ARC 280 S10	22.5	364		590	upon request		980	2.7						2.630	780
ARC 280 M10	27.5	445		590	upon request		1200	2.7						3.330	855
ARC 280 MX10	37.5	607		590	upon request		1640	2.7						3.600	935
ARC 315 M10	45.0	722	143.0	595	92.5	0.49	2190	3.0	295	93.0	0.70			6.000	1050
ARC 315 L10	55.0	890		590	upon request		2670	3.0						6.670	1250
ARC 315 LX10				590	upon request									6.670	1460
ARC 355 M10	68.0	1091		595	upon request		3274	3.0						9.500	1600
ARC 355 MX10	80.0	1284		595	upon request		3852	3.0						13.400	2200

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410

Planning data for switched operation calculations/motor preselection

Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz

Insulation system for \hat{u} max. 1.35 kV; du/dt max. 1.5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff} (S1) kW	M_{eff} Nm	I_B 400 V A	n_B rpm	η_B referred to P_{eff} %	$\cos\varphi_B$ -	M_{max} Nm	M_{max}/M_{eff}	I_{max} A	η_{max} referred to M_{max} %	$\cos\varphi_{max}$ -	I_0 A	$\cos\varphi_0$ -	J kgm ²	m kg
Synchronous speed 500 rpm – 12-pole version															
ARC 112 M12	0.4	8		475	upon request	20	2.7							0.018	46
ARC 112 MX12	0.6	11		470	upon request	30	2.7							0.023	60
ARC 112 MZ12	0.7	14		470	upon request	40	2.8							0.029	62
ARC 132 S12	0.8	15		480	upon request	40	2.7							0.043	90
ARC 132 M12	1.1	22		480	upon request	60	2.7							0.053	95
ARC 132 MX12	1.3	26	7.5	485	66.0	0.38	67	2.6	12	74.0	0.60	8.0	0.11	0.053	110
ARC 160 S12	1.5	30		475	upon request	80	2.7							0.113	120
ARC 160 M12	2.75	54	13.5	488	71.0	0.42	160	3.0	24	79.5	0.64	12.6	0.10	0.145	145
ARC 160 L12	3.0	60		480	upon request	160	2.7							0.166	155
ARC 180 S12	3.0	60		480	upon request	160	2.7							0.228	180
ARC 180 M12	4.5	90	21.0	480	76.5	0.40	270	3.0	33			20.0	0.08	0.268	215
ARC 180 MX12	5.5	109	24.0	480	81.5	0.41	330	3.0	70			19.5	0.07	0.324	340
ARC 200 M12	6.5	129		480	upon request	350	2.7							0.443	315
ARC 200 L12	7.0	139		480	upon request	375	2.7							0.514	330
ARC 225 M12	8.5	169	35.0	480	81.0	0.43	510	3.0	67			32.5	0.07	0.825	390
ARC 225 MX12	9.0	179		480	upon request	480	2.7							0.920	440
ARC 250 S12	10.0	199		480	upon request	535	2.7							1.280	510
ARC 250 M12	12.0	232	49.0	495	84.5	0.42	625	2.7						1.480	560
ARC 280 S12	18.5	364		485	upon request	985	2.7							2.630	780
ARC 280 M12	22.5	443		485	upon request	1195	2.7							3.330	855
ARC 280 MX12	27.5	541		485	upon request	1460	2.7							3.600	935
ARC 315 M12	37.5	738		485	upon request	1995	2.7							6.000	1050
ARC 315 L12				485	upon request									6.670	1250
ARC 315 LX12	45	886		485	upon request	2390	2.7							6.670	1460
ARC 355 M12	55	1072		490	upon request	2895	2.7							9.500	1600
ARC 355 MX12	66	1286		490	upon request	3475	2.7							13.400	2200
ARC 400 L12	110.00	2110		497	upon request	6000	2.8							37.000	3000
ARC 400L X12	132.00	2550		497	upon request	7320	2.9							45.000	3320

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410
 Planning data for switched operation calculations/motor preselection
 Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz
 Insulation system for \hat{u} max. 1.8 kV; du/dt max. 5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff} (S1) kW	M_{eff} Nm	I_b 500 V A	n_b rpm	η_b referred to P_{eff} %	$\cos\varphi_b$ -	M_{max} Nm	M_{max}/M_{eff}	I_{max} A	η_{max} referred to M_{max} %	$\cos\varphi_{max}$ -	I_0 A	$\cos\varphi_0$ -	J kgm ²	m kg
	Synchronous speed 1500 rpm – 4-pole version														
ARC 112 M4 TU	2.3	15	3.8	1460	83.5	0.84	43	2.9	10	78.0	0.86	2.0	0.12	0.015	56
ARC 112 MX4 TU	2.5	16	4.0	1465	84.0	0.85	46	2.8	15	77.0	0.87	2.1	0.11	0.017	63
ARC 112 MZ4 TU	2.8	18	4.5	1470	85.0	0.84	55	3.0	17	69.0	0.87	3.3	0.11	0.020	67
ARC 132 S4 TU	3.0	19	5.2	1475	85.0	0.78	61	3.1	16	84.0	0.81	2.9	0.12	0.028	82
ARC 132 M4 TU	4.4	28	7.4	1475	87.0	0.79	93	3.3	24	82.0	0.89	4.5	0.10	0.035	95
ARC 132 MX4 TU	5.5	36	9.1	1470	87.0	0.80	110	3.1	27	80.0	0.87	4.8	0.10	0.044	105
ARC 160 S4 TU	5.5	35	8.8	1480	88.0	0.82	105	3.0	28	82.0	0.85	5.0	0.13	0.078	130
ARC 160 M4 TU	7.7	50	12.5	1480	89.0	0.79	150	3.0	42	85.0	0.84	8.5	0.11	0.090	144
ARC 160 MX4 TU	8.0	52	13.5	1480	89.5	0.77	160	3.1	50	85.0	0.83	7.5	0.11	0.104	160
ARC 160 L4 TU	10.2	66	16.0	1480	88.5	0.83	200	3.0	55	86.0	0.85	8.0	0.13	0.116	170
ARC 180 S4 TU	8.8	57	15.0	1480	86.0	0.80	175	3.1	44	84.5	0.83	10.0	0.07	0.138	170
ARC 180 M4 TU	11.0	71	17.5	1485	90.5	0.80	215	3.0	58	90.0	0.85	12.5	0.07	0.168	215
ARC 180 L4 TU	14.0	90	22.0	1480	91.0	0.82	270	3.0	79	88.0	0.85	13.5	0.10	0.203	250
ARC 200 M4 TU	15.0	100	24.0	1475	91.0	0.80	307	3.1	76	91.1	0.85	12.5	0.08	0.275	270
ARC 200 L4 TU	18.5	119	28.0	1485	92.5	0.82	367	3.1	87	91.5	0.82	13.5	0.09	0.313	335
ARC 200 LX4 TU	20.0	128	31.5	1485	91.5	0.80	380	3.0	97	83.0	0.84	17.0	0.09	0.356	350
ARC 225 M4 TU	22.0	141	34.5	1485	92.0	0.80	425	3.0	112	92.5	0.86	13.5	0.09	0.525	375
ARC 225 MX4 TU	25.0	161	38.5	1485	91.0	0.82	480	3.0	116	89.0	0.82	16.5	0.09	0.638	420
ARC 250 S4 TU	32.0	205	51.5	1490	93.0	0.77	624	3.0	145	92.5	0.86	26.3	0.07	0.950	520
ARC 250 M4 TU	40.0	257	63.5	1485	93.0	0.78	778	3.0	196	93.7	0.86	28.0	0.08	1.100	580
ARC 280 S4 TU	50.0	319	81.0	1495	93.5	0.76	968	3.0	264	95.0	0.85	33.5	0.08	1.960	830
ARC 280 M4 TU	60.0	384	93.5	1492	94.0	0.79	1169	3.0	304	94.0	0.84	36.5	0.07	2.270	895
ARC 280 MX4 TU	70.0	449	109.0	1490	94.0	0.79	1330	3.0	384	94.0	0.85	48.5	0.05	2.730	1015
ARC 315 M4 TU	95.0	607	138.0	1495	96.0	0.83	1780	2.9	464	95.0	0.87	52.0	0.05	4.820	1300
ARC 315 L4 TU	132.0	845	191.0	1492	96.0	0.83	2040	2.4	544	95.5	0.88	60.0	0.05	5.930	1450
ARC 315 LX4 TU	150.0	961	215.0	1490	96.0	0.84	2884	3.0	784	95.5	0.88	82.0	0.04	6.820	1630
ARC 355 M4 TU	160.0	1022	234.0	1495	95.0	0.83	3066	3.0	850	95.0	0.79	106.0	0.05	10.000	2500
ARC 400 L4 TU	240.0	1534		1494	upon request		6340	4.1						20.000	3210
ARC 400 LX 4 TU	290.0	1854		1494	upon request		7500	4.0						25.000	3460

Synchronous speed 1000 rpm – 6-pole version															
ARC 112 M6 TU	1.5	15	3.3	975	77.0	0.69	52	2.9	9	74.1	0.84	2.4	0.12	0.018	52
ARC 112 MX6 TU	1.9	19	3.9	975	78.0	0.73	50	2.7	10	77.0	0.82	2.7	0.12	0.023	60
ARC 112 MZ6 TU	2.2	22	4.2	970	81.0	0.74	60	2.8	11	74.0	0.84	3.1	0.11	0.029	62
ARC 132 S6 TU	2.6	25	5.7	980	80.0	0.66	79	3.1	14	76.0	0.85	4.2	0.13	0.043	90
ARC 132 M6 TU	3.5	34	6.5	975	81.0	0.77	103	3.1	19	83.6	0.77	4.5	0.13	0.053	95
ARC 132 MX6 TU	4.2	41	8.0	975	83.0	0.73	130	3.0	23	82.8	0.80	5.0	0.11	0.066	110
ARC 160 S6 TU	4.8	47	8.6	980	85.5	0.75	145	3.1	25	82.8	0.87	5.5	0.11	0.113	120
ARC 160 M6 TU	6.5	63	11.0	980	86.0	0.78	195	3.1	32	84.0	0.84	6.5	0.12	0.145	145
ARC 160 L6 TU	7.0	68	12.5	980	85.5	0.75	205	3.0	35	83.0	0.81	6.7	0.13	0.166	160
ARC 180 S6 TU	7.6	73	12.5	980	85.5	0.82	200	2.7	32	84.0	0.88	6.5	0.15	0.228	180
ARC 180 M6 TU	9.5	92	16.0	985	86.5	0.80	283	3.1	48	84.2	0.87	8.0	0.12	0.268	215
ARC 180 L6 TU	11.0	107	18.5	985	86.0	0.80	320	3.0	56	84.0	0.85	10.0	0.12	0.324	250
ARC 200 M6 TU	12.5	121	20.0	985	89.5	0.81	373	3.1	60	88.7	0.88	11.0	0.11	0.443	315
ARC 200 L6 TU	15.0	145	24.0	985	89.5	0.80	450	3.1	72	88.5	0.88	12.0	0.11	0.514	330
ARC 200 LX6 TU	19.5	189	31.0	985	90.0	0.83	580	3.1	92	88.7	0.88	17.0	0.12	0.620	360
ARC 225 M6 TU	16.5	159	26.5	990	91.0	0.79	496	3.1	76	89.6	0.88	14.0	0.09	0.825	390
ARC 225 MX6 TU	18.0	174		990			535	3.1						0.920	440
ARC 250 S6 TU	22.0	212	34.5	991	91.0	0.81	540	2.5	88	90.7	0.88	20.0	0.08	1.280	465
ARC 250 M6 TU	27.0	260	41.5	991	92.0	0.82	706	2.7	112	91.3	0.88	22.0	0.08	1.480	520
ARC 280 S6 TU	37.0	356	71.5	992	93.5	0.83	1075	3.0	235	89.0	0.80	30.0	0.08	2.630	780
ARC 280 M6 TU	44.0	424	66.5	992	93.5	0.82	1265	3.0	208	92.5	0.87	34.0	0.07	3.330	855
ARC 280 MX6 TU	48.0	461	72.5	995	93.5	0.82	1608	3.5	256	92.5	0.86	37.5	0.07	3.600	890
ARC 315 M6 TU	75.0	721	110.0	993	94.5	0.83	1945	2.7	304	93.9	0.87	46.0	0.06	6.000	1050
ARC 315 L6 TU	90.0	866	131.0	993	94.5	0.84	2140	2.5	360	93.0	0.88	51.0	0.08	6.670	1250
ARC 315 LX6 TU	100.0	962	146.0	993	95.0	0.83	2800	2.9	433	94.0	0.87	60.0	0.06	8.600	1460
ARC 355 M6 TU	140.0	1344	210.0	995	96.0	0.80	4031	3.0	652	94.5	0.80	100.0	0.05	8.200	1650
ARC 355 MX6 TU	160.0	1536	241.0	995	96.0	0.80	4607	3.0	708	96.5	0.80	123.0	0.04	12.800	2200
ARC 400 L6 TU	210.0	2030		995	upon request		6400	3.2						25.000	3120
ARC 400 LX6 TU	240.0	2310		995	upon request		7460	3.2						27.000	3340

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410

Planning data for switched operation calculations/motor preselection

Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz

Insulation system for \hat{u} max. 1.8 kV; du/dt max. 5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff} (S1) kW	M_{eff} Nm	I_B 500 V A	n_B rpm	η_B referred to P_{eff} %	$\cos\varphi_B$ -	M_{max} Nm	M_{max}/M_{eff}	I_{max} A	η_{max} referred to M_{max} %	$\cos\varphi_{max}$ -	I_0 A	$\cos\varphi_0$ -	J kgm ²	m kg
Synchronous speed 750 rpm – 8-pole version															
ARC 112 M8 TU	0.9	12	2.7	725	70.5	0.55	32	2.7	8	70.0	0.79	2.3	0.13	0.018	46
ARC 112 MX8 TU	1.3	17	3.2	725	73.5	0.63	45	2.6	9	71.5	0.82	2.6	0.13	0.023	53
ARC 112 MZ8 TU	1.5	20	3.7	720	74.5	0.63	48	2.4	10	64.0	0.81	3.0	0.12	0.029	62
ARC 132 S8 TU	1.8	24	4.4	730	75.0	0.63	57	2.4	10	77.5	0.78	3.0	0.11	0.043	90
ARC 132 M8 TU	2.5	33	6.0	730	74.5	0.65	87	2.7	13	74.0	0.77	4.5	0.11	0.053	95
ARC 132 MX8 TU	3.0	39	7.7	730	75.0	0.60	110	2.8	16	72.0	0.78	6.0	0.11	0.066	110
ARC 160 S8 TU	3.6	47	7.6	735	83.0	0.66	117	2.5	25	81.0	0.78	6.5	0.10	0.113	120
ARC 160 M8 TU	5.0	65	10.5	735	83.5	0.65	174	2.7	23	79.0	0.80	7.5	0.10	0.145	145
ARC 160 L8 TU	6.5	85	13.5	730	83.0	0.66	225	2.6	31	78.0	0.79	9.0	0.09	0.166	160
ARC 180 S8 TU	6.5	84	13.0	740	87.0	0.66	257	3.1	33	84.0	0.81	10.0	0.08	0.228	190
ARC 180 M8 TU	7.5	97	15.5	740	86.0	0.65	316	3.3	39	86.0	0.82	12.5	0.09	0.268	215
ARC 180 L8 TU	8.0	103	16.0	740	87.0	0.67	325	3.2	44	82.0	0.80	11.5	0.08	0.324	250
ARC 200 M8 TU	9.0	116	16.5	740	87.5	0.72	390	3.4	50	86.0	0.84	11.0	0.09	0.443	315
ARC 200 L8 TU	11.0	143	18.0	735	89.5	0.78	410	2.9	51	87.0	0.84	11.0	0.08	0.514	330
ARC 225 M8 TU	13.0	167	22.5	743	86.3	0.78	480	2.9	60	88.8	0.80	17.0	0.08	0.825	390
ARC 225 MX8 TU	14.0	180					540	3.0						0.920	440
ARC 250 S8 TU	17.5	226	30.5	740	90.5	0.73	590	2.6	72	89.8	0.81	18.5	0.07	1.350	510
ARC 250 M8 TU	22.0	284	38.0	740	90.5	0.74	715	2.5	95	90.7	0.77	24.0	0.07	1.550	560
ARC 280 S8 TU	28.0	359	49.5	745	92.0	0.71	1040	2.9	152	91.8	0.79	30.0	0.06	2.63	780
ARC 280 M8 TU	35.0	449	61.0	745	93.0	0.71	1320	2.9	200	91.6	0.81	40.0	0.06	3.33	855
ARC 280 MX8 TU	37.0	474	65.5	746	92.0	0.71	1685	3.6	232	92.3	0.80	60.0	0.05	3.60	890
ARC 315 M8 TU	55.0	710	90.5	741	93.6	0.75	2100	3.0	245	91.1	0.82	57.0	0.05	6.000	1050
ARC 315 L8 TU	68.0	875	117.0	745	94.4	0.71	2140	2.4	248	94.1	0.82	75.0	0.05	6.760	1250
ARC 315 LX8 TU	85.0	1090	141.0	745	93.0	0.75	2724	2.5	308	92.0	0.82	73.5	0.06	8.710	1460
ARC 355 M8 TU	90.0	1154	149.0	745	94.0	0.74	3461	3.0	416	93.5	0.80	79.0	0.05	9.500	1600
ARC 355 MX8 TU	110.0	1410	183.0	745	94.0	0.74	4230	3.0	504	94.0	0.80	96.0	0.05	13.400	2200
ARC 400 L8 TU	170.0	2176		746	upon request		6450							32.000	3120
ARC 400 LX8 TU	200.0	2560		746	upon request		7750							39.000	3460

Synchronous speed 600 rpm – 10-pole version															
ARC 112 M10 TU	0.45	8		570	upon request		22	2.7						0.018	46
ARC 112 MX10 TU	0.61	10		575	upon request		28	2.8						0.023	60
ARC 112 MZ10 TU	0.70	12		570	upon request		33	2.8						0.029	62
ARC 132 S10 TU	1.0	17		575	upon request		46	2.7						0.043	90
ARC 132 M10 TU	1.30	22		575	upon request		60	2.5						0.053	95
ARC 132 MX10 TU	1.6	27		575	upon request		67	2.5						0.066	110
ARC 160 S10 TU	2.8	46		575	upon request		115	2.5						0.113	120
ARC 160 M10 TU	3.00	50	8.7	575	80.0	0.62	120	2.4	18	80.0	0.75	6.5	0.11	0.145	145
ARC 160 L10 TU	4.0	66		575	upon request		165	2.5						0.166	155
ARC 180 S10 TU	4.50	73	15.5	590	82.0	0.50	225	3.0	33	82.0	0.75	12.5	0.07	0.228	180
ARC 180 M10 TU	6.50	105	22.0	590	83.5	0.51	315	3.0	47	80.0	0.76			0.268	215
ARC 180 L10 TU	7.00	116	20.5	575	83.0	0.59	300	2.6	44	81.5	0.75	16.0	0.09	0.324	340
ARC 200 M10 TU	8.5	140		580	upon request		380	2.7						0.443	315
ARC 200 L10 TU	9.0	148		580	upon request		400	2.7						0.514	330
ARC 225 M10 TU	11.0	178	33.0	590	86.5	0.56	480	2.7	84	85.5	0.73	23.5	0.07	0.825	390
ARC 225 MX10 TU	12.0	198		580	upon request		535	2.7						0.920	440
ARC 250 S10 TU	13.5	220		585	upon request		595	2.7						1.280	510
ARC 250 M10 TU	17.0	278		585	upon request		750	2.7						1.480	560
ARC 280 S10 TU	22.5	364		590	upon request		980	2.7						2.630	780
ARC 280 M10 TU	27.5	445		590	upon request		1200	2.7						3.330	855
ARC 280 MX10 TU	37.5	607		590	upon request		1640	2.7						3.600	935
ARC 315 M10 TU	45.0	722	143.0	595	92.5	0.49	2190	3.0	295	93.0	0.70			6.000	1050
ARC 315 L10 TU	55.0	890		590	upon request		2670	3.0						6.670	1250
ARC 315 LX10 TU				590	upon request									6.670	1460
ARC 355 M10 TU	68.0	1091		595	upon request		3274	3.0						9.500	1600
ARC 355 MX10 TU	80.0	1284		595	upon request		3852	3.0						13.400	2200

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410

Planning data for switched operation calculations/motor preselection

Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz

Insulation system for \hat{u} max. 1.8 kV; du/dt max. 5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff} (S1) kW	M_{eff} Nm	I_B 500 V A	n_B rpm	η_B referred to P_{eff} %	$\cos\varphi_B$ -	M_{max} Nm	M_{max}/M_{eff}	I_{max} A	η_{max} referred to M_{max} %	$\cos\varphi_{max}$ -	I_0 A	$\cos\varphi_0$ -	J kgm ²	m kg
	Synchronous speed 500 rpm – 12-pole version														
ARC 112 M12 TU	0.3	6		475	upon request		16	2.7						0.018	46
ARC 112 MX12 TU	0.5	10		470	upon request		27	2.7						0.023	60
ARC 112 MZ12 TU	0.6	12		470	upon request		33	2.8						0.029	62
ARC 132 S12 TU	0.8	16		480	upon request		43	2.7						0.043	90
ARC 132 M12 TU	1.0	20		480	upon request		54	2.7						0.053	95
ARC 132 MX12 TU	1.2	24		485	upon request		65	2.7						0.053	110
ARC 160 S12 TU	1.5	30		475	upon request		80	2.7						0.113	120
ARC 160 M12 TU	2.75	54	10.5	488	71.0	0.42	160	3.0	24	79.5	0.64	12.6	0.10	0.145	145
ARC 160 L12 TU	3.0	60		480	upon request		160	2.7						0.166	155
ARC 180 S12 TU	3.0	60		480	upon request		160	2.7						0.228	180
ARC 180 M12 TU	4.5	90	17.0	480	76.5	0.40	270	3.0	33			20.0	0.08	0.268	215
ARC 180 L12 TU	5.5	109	19.0	480	81.5	0.41	330	3.0	70			19.5	0.07	0.324	340
ARC 200 M12 TU	6.5	129		480	upon request		350	2.7						0.443	315
ARC 200 L12 TU	7.0	139		480	upon request		375	2.7						0.514	330
ARC 225 M12 TU	8.5	169	28.0	480	81.0	0.43	510	3.0	67			32.5	0.07	0.825	390
ARC 225 MX12 TU	9.0	179		480	upon request		480	2.7						0.920	440
ARC 250 S12 TU	10.0	199		480	upon request		535	2.7						1.280	510
ARC 250 M12 TU	12.0	232	39.0	495	84.5	0.42	625	2.7						1.480	560
ARC 280 S12 TU	18.5	364		485	upon request		985	2.7						2.630	780
ARC 280 M12 TU	22.5	443		485	upon request		1195	2.7						3.330	855
ARC 280 MX12 TU	27.5	541		485	upon request		1460	2.7						3.600	935
ARC 315 M12 TU	37.5	738		485	upon request		1995	2.7						6.000	1050
ARC 315 L12 TU				485	upon request									6.670	1250
ARC 315 LX12 TU	45	886		485	upon request		2390	2.7						6.670	1460
ARC 355 M12 TU	55	1072		490	upon request		2895	2.7						9.500	1600
ARC 355 MX12 TU	66	1286		490	upon request		3475	2.7						13.400	2200
ARC 400 L12 TU	110.00	2110	240	497	93.0	0.57	6000	2.8	630	93.5	0.74	215.0	0.04	37.000	3000
ARC 400 LX12 TU	132.00	2550	287	497	93.0	0.57	7320	2.9	770	92.4	0.75	260.0	0.04	45.000	3320

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410
 Planning data for switched operation calculations/motor preselection
 Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz
 Insulation system for \hat{u} max. 2.5 kV; du/dt max. 5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff} (S1) kW	M_{eff} Nm	I_B 690 V A	n_B rpm	η_B referred to P_{eff} %	$\cos\varphi_B$ -	M_{max} Nm	M_{max}/M_{eff}	I_{max} A	η_{max} referred to M_{max} %	$\cos\varphi_{max}$ -	I_0 A	$\cos\varphi_0$ -	J kgm ²	m kg
Synchronous speed 1500 rpm – 4-pole version															
ARC 112 M4 TV	1.5	10	1.8	1470	82.0	0.85	27	2.8	5	69.5	0.90	1.1	0.13	0.015	56
ARC 112 MX4 TV	1.9	12		1478			43	3.5						0.017	63
ARC 112 MZ4 TV	2.3	15		1475			52	3.5						0.020	67
ARC 132 S4 TV	2.5	16	3.4	1477	82.0	0.76	49	3.0	10	75.0	0.89	2.0	0.14	0.028	82
ARC 132 M4 TV	3.5	23	4.4	1477	84.5	0.78	70	3.1	12	80.0	0.90	2.6	0.12	0.035	95
ARC 132 MX4 TV	4.4	28		1475			90	3.2						0.044	105
ARC 160 S4 TV	4.4	28	5.4	1480	86.0	0.80	90	3.2	16	84.0	0.85	3.2	0.15	0.078	130
ARC 160 M4 TV	5.5	35	6.7	1480	87.5	0.79	105	3.0	19	85.0	0.85	3.5	0.13	0.090	144
ARC 160 MX4 TV	6.5	42	8.0	1480	87.0	0.78	125	3.0	23	83.0	0.83	4.5	0.12	0.104	150
ARC 160 L4 TV	7.5	48	8.6	1480	87.0	0.84	150	3.1	26	86.0	0.84	4.0	0.16	0.116	170
ARC 180 S4 TV	8.0	51	9.5	1485	90.0	0.78	160	3.1	28	87.0	0.85	5.0	0.08	0.138	170
ARC 180 M4 TV	10.0	64	12.0	1485	89.0	0.78	190	3.0	33	87.0	0.85	7.0	0.10	0.168	215
ARC 180 L4 TV	12.0	77		1480			230	3.0						0.203	250
ARC 200 M4 TV	14.0	90	15.5	1485	91.5	0.82	270	3.0	46	88.0	0.85	7.5	0.09	0.275	270
ARC 200 L4 TV	15.0	96	16.5	1485	92.0	0.82	285	3.0	49	88.0	0.84	8.0	0.09	0.313	335
ARC 200 LX4 TV	18.5	119	22.0	1490	90.0	0.79	365	3.1	64	88.0	0.84	10.5	0.10	0.356	350
ARC 225 M4 TV	20.0	129	22.5	1485	92.0	0.81	380	3.0	67	89.0	0.84	10.5	0.08	0.525	375
ARC 225 MX4 TV	22.0	141		1485			425	3.0						0.638	420
ARC 250 S4 TV	25.0	160	29.0	1490	92.5	0.78	480	3.0	85	91.0	0.79	13.0	0.09	0.950	520
ARC 250 M4 TV	32.0	205	38.5	1490	93.0	0.75	624	3.0	110	92.5	0.79	19.0	0.07	1.100	580
ARC 280 S4 TV	40.0	256	45.5	1490	93.0	0.79	778	3.0	139	93.0	0.80	22.5	0.06	1.960	830
ARC 280 M4 TV	50.0	320	55.0	1490	93.5	0.81	968	3.0	175	92.0	0.78	24.0	0.07	2.270	895
ARC 280 MX4 TV	60.0	385	68.5	1490	93.0	0.79	1169	3.0	199	91.0	0.85	34.0	0.06	2.730	1015
ARC 315 M4 TV	70.0	449	72.5	1490	95.0	0.85	1330	3.0	280	93.0	0.80	25.5	0.07	4.820	1300
ARC 315 L4 TV	95.0	607	98.0	1495	95.5	0.85	1780	2.9	310	93.0	0.80	30.0	0.06	5.930	1450
ARC 315 LX4 TV	110.0	705	112.0	1490	95.5	0.86	2040	2.9	350	93.0	0.81	36.0	0.06	6.820	1630
ARC 355 M4 TV	132.0	843	134.0	1495	95.5	0.86	2530	3.0	430	84.5	0.80	56.0	0.06	10.000	2500
ARC 400 L4 TV	150.0	959		1494	upon request		6340	4.1						20.000	3210
ARC 400 LX 4 TV	160.0	1023		1494	upon request		7500	4.0						25.000	3460
Synchronous speed 1000 rpm – 6-pole version															
ARC 112 M6 TV	1.0	10	1.9	980	68.5	0.63	27	2.7	5	63.0	0.87	1.7	0.15	0.018	52
ARC 112 MX6 TV	1.3	13	2.3	980	73.0	0.64	38	3.0	6	65.0	0.87	1.9	0.13	0.023	60
ARC 112 MZ6 TV	1.7	17		975			43	2.6						0.029	62
ARC 132 S6 TV	2.2	21	3.5	985	77.0	0.68	46	3.1	10	69.0	0.83	2.7	0.13	0.043	90
ARC 132 M6 TV	2.6	25	3.8	980	78.0	0.73	79	3.1	11	71.0	0.85	2.6	0.16	0.053	95
ARC 132 MX6 TV	3.5	34	5.1	975	81.5	0.71	103	3.0	14	73.5	0.84	3.5	0.12	0.066	110
ARC 160 S6 TV	4.2	41	5.9	980	82.0	0.73	130	3.2	17	76.0	0.87	3.8	0.13	0.113	120
ARC 160 M6 TV	4.8	47	7.0	985	82.0	0.70	145	3.1	18	80.0	0.87	4.3	0.15	0.145	145
ARC 160 L6 TV	5.5	54	7.4	980	83.5	0.74	160	3.0	20	80.0	0.88	4.0	0.15	0.166	155
ARC 180 S6 TV	7.0	68	8.8	985	84.5	0.79	205	3.0	25	80.0	0.88	4.2	0.13	0.228	180
ARC 180 M6 TV	7.6	74	9.4	985	85.0	0.80	228	3.1	27	79.5	0.88	5.6	0.13	0.268	215
ARC 180 L6 TV	8.5	82	10.5	985	85.0	0.80	250	3.0	31	77.0	0.88	6.3	0.12	0.324	340
ARC 200 M6 TV	11.0	107	13.5	985	86.0	0.80	320	3.0	37	84.0	0.88	7.0	0.13	0.443	315
ARC 200 L6 TV	12.5	121	14.5	985	88.0	0.82	373	3.1	43	83.0	0.88	7.5	0.13	0.514	330
ARC 200 LX6 TV	15.0	145	17.0	985	88.0	0.85	450	3.1	66	83.0	0.88	12.0	0.11	0.620	360
ARC 225 M6 TV	15.0	145	17.5	990	89.0	0.81	450	3.1	55	84.0	0.85	9.0	0.09	0.825	390
ARC 225 MX6 TV	16.5	159		990			535	3.4						0.920	440
ARC 250 S6 TV	22.0	212	34.5	991	91.0	0.81	540	2.5	88	90.7	0.88		0.08	1.280	465
ARC 250 M6 TV	27.0	260	41.5	991	92.0	0.82	706	2.7	112	91.3	0.88	22.0	0.08	1.480	520
ARC 280 S6 TV	37.0	356	57.5	992	94.0	0.79	1075	3.0	184	93.1	0.88	27.0	0.05	2.630	780
ARC 280 M6 TV	44.0	424	66.5	992	93.5	0.82	1265	3.0	208	92.5	0.87	34.0	0.07	3.330	855
ARC 280 MX6 TV	48.0	461	72.5	995	93.5	0.82	1608	3.5	256	92.5	0.86	37.5	0.07	3.600	890
ARC 315 M6 TV	75.0	721	110.0	993	94.5	0.83	1945	2.7	304	93.9	0.87	46.0	0.06	6.000	1050
ARC 315 L6 TV	90.0	866	131.0	993	94.5	0.84	2140	2.5	360	93.0	0.88	51.0	0.08	6.670	1250
ARC 315 LX6 TV	100.0	962	146.0	993	95.0	0.83	2800	2.9	433	94.0	0.87	60.0	0.06	8.600	1460
ARC 355 M6 TV	140.0	1344	210.0	995	96.0	0.80	4031	3.0	652	94.5	0.80	100.0	0.05	8.200	1650
ARC 355 MX6 TV	160.0	1536	241.0	995	96.0	0.80	4607	3.0	708	96.5	0.80	123.0	0.04	12.800	2200
ARC 400 L6 TV	210.0	2030		995	upon request		6400	3.2						25.000	3120
ARC 400 LX6 TV	240.0	2310		995	upon request		7460	3.2						27.000	3340

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410
 Planning data for switched operation calculations/motor preselection
 Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz
 Insulation system for \hat{u} max. 2.5 kV; du/dt max. 5 kV/ μ s

ARC	Equivalent S1 output						Transient peak load (max. 10 s)					No load			
	P_{eff} (S1) kW	M_{eff} Nm	I_B 690 V A	n_B rpm	η_B referred to P_{eff} %	$\cos\varphi_B$ -	M_{max} Nm	M_{max}/M_{eff}	I_{max} A	η_{max} referred to M_{max} %	$\cos\varphi_{max}$ -	I_0 A	$\cos\varphi_0$ -	J kgm ²	m kg
Synchronous speed 750 rpm – 8-pole version															
ARC 112 M8 TV					upon request									0.018	46
ARC 112 MX8 TV					upon request									0.023	53
ARC 112 MZ8 TV					upon request									0.029	62
ARC 132 S8 TV					upon request									0.043	90
ARC 132 M8 TV					upon request									0.053	95
ARC 132 MX8 TV					upon request									0.066	110
ARC 160 S8 TV	3.0	39	4.5	735	82.0	0.68	110	2.8	12	81.0	0.78	3.7	0.10	0.113	120
ARC 160 M8 TV	3.6	47	5.6	736	82.0	0.66	117	2.5	12	81.5	0.80	4.1	0.11	0.145	145
ARC 160 L8 TV	4.0	52		735			140	2.7						0.166	155
ARC 180 S8 TV	5.5	71	8.7	740	83.0	0.64	210	3.0	21	79.0	0.82	6.5	0.11	0.228	190
ARC 180 M8 TV	6.5	84	9.5	735	83.0	0.69	240	2.8	22	80.0	0.85	6.5	0.09	0.268	215
ARC 180 L8 TV	7.5	97		740			316	3.2						0.324	340
ARC 200 M8 TV	8.0	103	11.0	740	86.0	0.70	325	3.1	29	83.0	0.84	7.5	0.09	0.443	315
ARC 200 L8 TV	9.0	116	12.0	740	88.0	0.70	390	2.9	33	84.0	0.85	8.5	0.08	0.514	330
ARC 225 M8 TV	13.0	167	22.5	743	86.3	0.78	480	2.9	60	88.8	0.80	17.0	0.08	0.825	390
ARC 225 MX8 TV	14.0	180					540	3.0						0.920	440
ARC 250 S8 TV	17.5	226	30.5	740	90.5	0.73	590	2.6	72	89.8	0.81	18.5	0.07	1.350	510
ARC 250 M8 TV	22.0	284	38.0	740	90.5	0.74	715	2.5	95	90.7	0.77	24.0	0.07	1.550	560
ARC 280 S8 TV	28.0	359	49.5	745	92.0	0.71	1040	2.9	152	91.8	0.79	30.0	0.06	2.63	780
ARC 280 M8 TV	35.0	449	61.0	745	93.0	0.71	1320	2.9	200	91.6	0.81	40.0	0.06	3.33	855
ARC 280 MX8 TV	37.0	474	65.5	746	92.0	0.71	1685	3.6	232	92.3	0.80	60.0	0.05	3.60	890
ARC 315 M8 TV	55.0	710	90.5	741	93.6	0.75	2100	3.0	245	91.1	0.82	57.0	0.05	6.000	1050
ARC 315 L8 TV	68.0	875	117.0	745	94.4	0.71	2140	2.4	248	94.1	0.82	75.0	0.05	6.760	1250
ARC 315 LX8 TV	85.0	1090	141.0	745	93.0	0.75	2724	2.5	308	92.0	0.82	73.5	0.06	8.710	1460
ARC 355 M8 TV	90.0	1154	149.0	745	94.0	0.74	3461	3.0	416	93.5	0.80	79.0	0.05	9.500	1600
ARC 355 MX8 TV	110.0	1410	183.0	745	94.0	0.74	4230	3.0	504	94.0	0.80	96.0	0.05	13.400	2200
ARC 400 L8 TV	170.0	2176		746	upon request		6450							32.000	3120
ARC 400 LX8 TV	200.0	2560		746	upon request		7750							39.000	3460

Use of motor parameters for voltages and frequencies other than 400 V, 50 Hz

Operating point $U_B, f_B > f_n$

$$\begin{aligned}
 P_B &\approx P_{eff} \\
 n_B &\approx (f_B/50) \times n \\
 M_B &\approx (50/f_B) \times M_{eff} \\
 M_{B,max} &\approx (50/f_B) \times M_{max} \\
 I_{0,B} &\approx (400/U_B) \times (f_B/50) \times I_0 \\
 I_{n,B} &\approx (400/U_B) \times \sqrt{(f_B/50)} \times I_n \\
 I_{max,B} &\approx (400/U_B) \times (f_B/50) \times I_{max} \\
 \cos\varphi_{0,B} &\approx \cos\varphi_0 \\
 \cos\varphi_{n,B} &\approx \sqrt{(50/f_B)} \times \cos\varphi_{n,B} \\
 \cos\varphi_{max,B} &\approx \cos\varphi_{max}
 \end{aligned}$$

Operating point $U_B, f_B < f_n$

$$\begin{aligned}
 P_B &\approx (f_B/50) \times P_{eff} \\
 n_B &\approx (f_B/50) \times n \\
 M_B &\approx M_{eff} \\
 M_{B,max} &\approx M_{max} \\
 I_{0,B} &\approx (400/U_B) \times (f_B/50) \times I_0 \\
 I_{n,B} &\approx (400/U_B) \times (f_B/50) \times I_n \\
 I_{max,B} &\approx (400/U_B) \times (f_B/50) \times I_{max} \\
 \cos\varphi_{0,B} &\approx \cos\varphi_0 \\
 \cos\varphi_{n,B} &\approx \cos\varphi_{n,B} \\
 \cos\varphi_{max,B} &\approx \cos\varphi_{max}
 \end{aligned}$$

Parameters:

P_{eff} [kW]	Effective power output (equivalent S1 output)
M_{eff} [Nm]	Effective torque
I_n [A]	Current at equivalent S1 output
n_n [rpm]	Speed at equivalent S1 output
η_n [%]	Efficiency at equivalent S1 output
$\cos\varphi_n$ [rpm]	Power factor at equivalent S1 output
M_k/M_n [-]	Relative breakdown torque
M_{max} [Nm]	Max. acceleration torque
M_{max}/M_{eff} [-]	Max. acceleration torque relative to effective torque
η_{max} [%]	Efficiency at max. acceleration torque
$\cos\varphi_{max}$ [-]	Power factor at max. acceleration torque
I_0 [A]	No-load current
$\cos\varphi_0$ [-]	No-load power factor

Depending on the motor type, the increasing iron losses at frequencies above 50 Hz may lead to a greater temperature rise in the windings and thus necessitate an output reduction.

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410
 Planning data for switched operation calculations/motor preselection
 Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz

ARC	Transient peak load (max. 10 s)												J	m
	50 Hz			40 Hz			30 Hz			20 Hz				
	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A		
Synchronous speed	1500 rpm			1200 rpm			900 rpm			600 rpm				
ARC 112 M4	15	47	4.7	16	49	4.0	17	52	3.2	18	56	2.3	0.015	56
ARC 112 MX4	16	49		17	51		18	54		19	59		0.017	63
ARC 112 MZ4	20	60		21	63		22	66		24	72		0.020	67
ARC 132 S4	19	61	6.6	20	64	5.5	21	67	4.3	23	73	3.1	0.028	82
ARC 132 M4	28	93	9.2	29	98	7.5	31	102	6.0	34	112	4.4	0.035	95
ARC 132 MX4	40	120		42	126		44	132		48	144		0.044	105
ARC 160 S4	35	105	11.5	36	110	9.2	39	116	7.4	42	126	5.3	0.078	130
ARC 160 M4	50	150	16.0	52	158	13.2	55	165	10.5	60	180	7.6	0.090	144
ARC 160 MX4	52	160	16.5	54	168	13.9	57	176	11.0	62	192	8.0	0.104	150
ARC 160 L4	66	200	20.0	69	210	16.8	73	220	13.3	79	240	9.6	0.116	170
ARC 180 S4	57	175	18.5	59	184	15.3	63	193	12.3	68	210	8.8	0.138	170
ARC 180 M4	71	215	22.0	74	226	18.4	78	237	14.5	85	258	10.5	0.168	215
ARC 180 MX4	90	270		94	284		99	297		108	324		0.203	250
ARC 200 M4	100	307	29.5	104	322	25.5	110	338	20.2	120	368	14.7	0.275	270
ARC 200 L4	119	367	35.0	124	385	29.5	131	404	23.3	143	440	17.0	0.313	335
ARC 200 LX4	128	380	39.5	133	399	32.7	141	418	26.0	154	456	19.0	0.356	350
ARC 225 M4	141	425	43.0	147	446	35.9	155	468	28.4	169	510	20.6	0.525	375
ARC 225 MX4	161	480		167	504		177	528		193	576		0.638	420
ARC 250 S4	205	624	59.0	213	655	49.1	226	686	39.0	246	749	28.3	0.950	520
ARC 250 M4	257	778	73.0	267	817	60.6	283	856	48.2	308	934	35.0	1.100	580
ARC 280 S4	319	968	102.0	332	1016	84.5	351	1065	67.0	383	1162	48.7	1.960	830
ARC 280 M4	384	1169	117.0	399	1227	96.9	422	1286	76.9	461	1403	56.0	2.270	895
ARC 280 MX4	449	1330	136.0	467	1397	113.3	494	1463	89.9	539	1596	65.4	2.730	1015
ARC 315 M4	607	1780	172.0	631	1869	143.1	668	1958	113.7	728	2136	82.6	4.820	1300
ARC 315 L4	845	2040	239.0	879	2142	199.0	930	2244	157.9	1014	2448	114.8	5.930	1450
ARC 315 LX4	961	2884	268.0	1000	3028	223.4	1058	3172	177.3	1154	3461	128.9	6.820	1630
ARC 355 M4	1022	3066	291.0	1063	3219	243.7	1124	3373	193.3	1226	3679	140.5	10.000	2500
ARC 400 L4	1534	6340	415.0	1596	6657	344.8	1688	6974	273.5	1841	7608	198.9	20.000	3210
ARC 400 LX4	1854	7500	500.0	1928	7875	416.1	2039	8250	330.1	2224	9000	240.0	25.000	3460
Synchronous speed	1000 rpm			800 rpm			600 rpm			400 rpm				
ARC 112 M6	15	45	4.1	15	47	3.3	16	50	2.7	18	54	2.0	0.018	52
ARC 112 MX6	19	57	4.6	19	60	3.7	20	63	3.0	22	68	2.2	0.023	60
ARC 112 MZ6	22	66		22	69		24	73		26	79		0.029	62
ARC 132 S6	25	79	6.3	26	83	5.2	28	87	4.2	30	95	3.0	0.043	90
ARC 132 M6	34	103	9.3	35	108	7.6	38	113	6.2	41	124	4.5	0.053	95
ARC 132 MX6	41	130	10.5	43	137	8.6	45	143	6.8	49	156	4.9	0.066	110
ARC 160 S6	47	145	11.0	49	152	9.1	51	160	7.1	56	174	5.2	0.113	120
ARC 160 M6	63	195	14.0	66	205	11.6	70	215	9.2	76	234	6.7	0.145	145
ARC 160 L6	68	205		71	215		75	226		82	246		0.166	155
ARC 180 S6	74	228	15.0	77	239	12.6	81	251	10.0	88	274	7.2	0.228	180
ARC 180 M6	92	283	19.5	96	297	16.4	101	311	12.9	111	340	9.5	0.268	215
ARC 180 MX6	107	320		111	336		117	352		128	384		0.324	340
ARC 200 M6	121	373	25.0	126	392	20.7	133	410	16.4	145	448	11.9	0.443	315
ARC 200 L6	145	450	30.0	151	473	25.1	160	495	20.0	175	540	14.6	0.514	330
ARC 200 LX6	189	580	37.0	197	609	31.0	208	638	24.6	227	696	17.9	0.620	360
ARC 225 M6	159	496	33.0	166	521	27.6	175	546	21.9	191	595	15.9	0.825	390
ARC 225 MX6	174	535		181	562		191	589		208	642		0.920	440
ARC 250 S6	212	540	43.0	220	567	35.9	233	594	28.5	254	648	20.7	1.280	465
ARC 250 M6	260	706	51.5	271	741	43.0	286	777	34.1	312	847	24.8	1.480	520
ARC 280 S6	356	1075	71.5	370	1129	59.5	392	1183	47.3	427	1290	34.4	2.630	780
ARC 280 M6	424	1265	83.0	441	1328	69.0	466	1392	54.7	508	1518	39.7	3.330	855
ARC 280 MX6	461	1608	90.5	479	1688	75.2	507	1769	59.7	553	1930	43.4	3.600	935
ARC 315 M6	721	1945	138.0	750	2042	114.8	793	2140	91.0	866	2334	66.3	6.000	1050
ARC 315 L6	866	2140	167.0	900	2247	139.2	952	2354	110.4	1039	2568	80.3	6.670	1250
ARC 315 LX6	960	2800	191.0	998	2940	158.8	1056	3080	126.0	1152	3360	91.7	8.600	1460
ARC 355 M6	1344	4031	263.0	1397	4233	218.8	1478	4434	173.6	1612	4837	126.3	8.200	1650
ARC 355 MX6	1536	4607	301.0	1597	4837	250.2	1689	5068	198.4	1843	5528	144.4	12.800	2200
ARC 400 L6	2030	6400	380.0	2111	6720	319.4	2233	7040	253.4	2436	7680	184.3	25.000	3120
ARC 400 LX6	2310	7460	440.0	2402	7833	367.9	2541	8206	291.9	2772	8952	212.3	27.000	3340

Three-phase roller table motors with squirrel-cage rotor für use on a frequency converter, series ARC

Non-ventilated with surface cooling, IC 410

Planning data for switched operation calculations/motor preselection

Duty type S9, thermal class F, degree of protection IP 55, rated frequency 50 Hz

ARC	Transient peak load (max. 10 s)												J	m
	50 Hz			40 Hz			30 Hz			20 Hz				
	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A	M _{eff} Nm	M _{max} Nm	I _{eff} 400 V A		
Synchronous speed	750 rpm			600 rpm			450 rpm			300 rpm				
ARC 112 M8	14	38	4.1	15	40	3.4	16	42	2.7	17	46	1.9	0.018	46
ARC 112 MX8	20	54	4.7	20	57	3.8	21	59	3.0	23	65	2.2	0.023	60
ARC 112 MZ8	22	65		23	68		24	72		26	78		0.029	62
ARC 132 S8	24	57	5.3	24	60	4.4	26	63	3.5	28	68	2.5	0.043	90
ARC 132 M8	33	87	9.0	34	91	7.5	36	96	5.9	39	104	4.3	0.053	95
ARC 132 MX8	39	110		41	116		43	121		47	132		0.066	110
ARC 160 S8	47	117	9.2	49	123	7.7	52	129	6.1	56	140	4.4	0.113	120
ARC 160 M8	65	174	12.5	68	183	10.5	72	191	8.3	78	209	6.0	0.145	145
ARC 160 L8	95	255		99	268		105	281		114	306		0.166	155
ARC 180 S8	84	257	16.5	87	270	13.6	92	283	10.8	101	308	7.9	0.228	180
ARC 180 M8	97	316	19.5	101	332	16.2	107	348	12.8	116	379	9.3	0.268	215
ARC 180 MX8	103	325		107	341		113	358		124	390		0.324	340
ARC 200 M8	116	390	20.5	121	410	17.2	128	429	13.6	139	468	9.9	0.443	315
ARC 200 L8	143	410	22.5	149	431	19.0	157	451	15.0	172	492	10.9	0.514	330
ARC 225 M8	167	480	28.0	174	504	23.2	184	528	18.4	200	576	13.3	0.825	390
ARC 225 MX8	180	540		187	567		198	594		216	648		0.920	440
ARC 250 S8	226	590	38.0	235	620	31.8	249	649	25.3	271	708	18.4	1.350	510
ARC 250 M8	284	715	47.5	295	751	39.4	312	787	31.3	341	858	22.8	1.550	560
ARC 280 S8	359	1040	62.0	373	1092	51.4	395	1144	40.9	431	1248	29.7	2.63	780
ARC 280 M8	449	1320	76.5	467	1386	63.7	494	1452	50.5	538	1584	36.7	3.33	855
ARC 280 L8	474	1685	82.0	493	1769	68.1	521	1854	54.0	568	2022	39.2	3.60	935
ARC 315 M8	710	2100	113.0	738	2205	94.2	781	2310	74.8	852	2520	54.4	6.000	1050
ARC 315 L8	875	2140	145.0	910	2247	122.3	963	2354	97.1	1050	2568	70.6	6.760	1250
ARC 315 LX8	1090	2724		1133	2860		1199	2996		1308	3269		8.710	1460
ARC 355 M8	1154	3461	145.0	1200	3634	155.4	1269	3807	123.2	1384	4153	89.6	9.500	1600
ARC 355 MX8	1410	4230	145.0	1466	4442	189.8	1551	4653	150.6	1692	5076	109.6	13.400	2200
ARC 400 L8	2176	6450	345.0	2263	6773	286.5	2394	7095	227.3	2612	7740	165.3	32.000	3120
ARC 400 LX8	2560	7750	405.0	2663	8138	336.8	2816	8525	267.1	3072	9300	194.2	39.000	3460

Bearings

Series ARC

Type	D-end								N-end	
	Anti-friction bearing	γ-ring	Radial shaft seal 1	Sealing grease amount in g	Radial shaft seal 2	Bushing	Bushing	Disc spring	Anti-friction bearing	Fixed bearing
ARC 112 M, MX	6207 C3	9RB 35 FKM	40 x 62 x 7	-	-	IR 35 x 40 x 17 EGS	72	-	6207 C3	N-end
ARC 132 S, M	6308 C3	9RB 40 FKM	45 x 65 x 8	50	-	IR 40 x 45 x 17 EGS	90	-	6308 C3	
ARC 160 S, M	6310 C3	9RB 50 FKM	55 x 75 x 7	70	55 x 85 x 8	IR 50 x 55 x 20 EGS	110	-	6309 C3	
ARC 180 S, M	6312 C3	9RB 60 FKM	70 x 90 x 7	80	70 x 100 x 10	IR 60 x 70 x 25 EGS	-	130	6310 C3	
ARC 200 S, M, L, LX	6313 C3	9RB 65 FKM	72 x 95 x 10	90	72 x 100 x 10	IR 65 x 72 x 25 EGS	-	140	6312 C3	
ARC 225 M	6314 C3	9RB 70 FKM	80 x 100 x 7	100	80 x 110 x 10	IR 70 x 80 x 30 EGS	-	150	6313 C3	
ARC 250 S, M	6316 C3	9RB 80 FKM	90 x 110 x 7.5	110	90 x 120 x 12	IR 80 x 90 x 30 EGS	-	170	6314 C3	
ARC 280 S, M	6317 C3	9RB 85 FKM	95 x 120 x 12	120	95 x 125 x 12	IR 85 x 90 x 36 EGS	-	180	6316 C3	
ARC 315 M, MX	6320 C3	9RB 95 FKM	105 x 130 x 12	130	105 x 140 x 12	IR 95 x 105 x 36 x EGS	215	6317 C3		
ARC 315 L, LX										
ARC 355 M, MX, LY, L	6324 C3	9RB 110 FKM	125 x 150 x 15	150	125 x 160 x 12	IR 110 x 125 x 40 EGS	-	260	6317 C3	
ARC 400 L, LX	6324 C3	9RB 110 FKM	125 x 150 x 15	150	125 x 160 x 12	IR 110 x 125 x 40 EGS	-	260	6321 C3	

Lubricating grease Berutox FH28KN (KHC1R-30 DIN 51825)

^{*)} Special version with insulated bearing on N-end

Series ARB

Type	Anti-friction bearing D-end and N-end	Fixed bearing
ARB 22, ARB 33	6306 S1 C5	N-end
ARB 54, ARB 65	6306 S1 C5	N-end

Lubricating grease Berutox FH28KN (KHC1R-30 DIN 51825)

Limit speeds

If motors are operated at above the rated speed, the limit values of the anti-friction bearings, the strength of the rotating parts, critical rotor speeds and the circumferential speed of the fans must be observed.

The limit speeds specified in the table below may already require precautionary measures such as special fans, special bearings or special balancing.

Type	Synchronous speed at 50 Hz		
	1500 rpm	1000 rpm	750 rpm
ARC 112	3600	2400	1800
ARC 132	3600	2400	1800
ARC 160	3000	2000	1500
ARC 180	3000	2000	1500
ARC 200	3000	2000	1500
ARC 225	3000	2000	1500
ARC 250	3000	2000	1500
ARC 280	3000	2000	1500
ARC 315	3000	2000	1500
ARC 355	3000	2000	1500
ARC 400	3000	2000	1500
ARB 22, 33	3600	2400	1800
ARB 54, 65	3000	2000	1500

Terminal boxes

Motor type	Terminal box	Material	Length	Width	Height	Standard cable gland	Max. cable diameter	Terminal mounting	Thread of terminal stud	Thread of protective conductor	Figure
			AG	LL	-	o	Ø max				
ARC 112	25 A	GG15	143	134	70	M32 x 1.5	Ø 21 mm	K1M5	M5	KB*	01
ARC 132	25 A	GG15	143	134	70	M32 x 1.5	Ø 21 mm	K1M5	M5	KB*	01
ARC 160	25 A	GG15	143	134	70	M32 x 1.5	Ø 21 mm	K1M5	M5	KB*	01
ARC 180	63 A	GG15	175	162	81	M40 x 1.5	Ø 28 mm	K1M6	M6	KB*	01
ARC 200	100 A	GG15	213	207	101	M50 x 1.5	Ø 35 mm	K1M8	M8	M8	01
ARC 225	100 A	GG15	213	207	101	M50 x 1.5	Ø 35 mm	K1M8	M8	M8	01
ARC 250	200 A	GG15	282	242	131	M63 x 1.5	Ø 45 mm	K1M10	M10	M10	01
ARC 280	200 A	GG15	282	242	131	M63 x 1.5	Ø 45 mm	K1M10	M10	M10	01
ARC 315	200 A	GG15	282	242	131	M63 x 1.5	Ø 45 mm	K1M10	M10	M10	01
ARC 355	400 A	GG15	311	297	152	M63 x 1.5	Ø 45 mm	KM12	M12	M10	02
ARC 400	400 B	GG15	415	340	176	M63 x 1.5	Ø 45 mm	KM16	M16	Tab	02
ARB		GG15	130	130		M32 x 1.5	Ø 21 mm	KBS6	M6	M6	non

KB* ... Terminal clamp

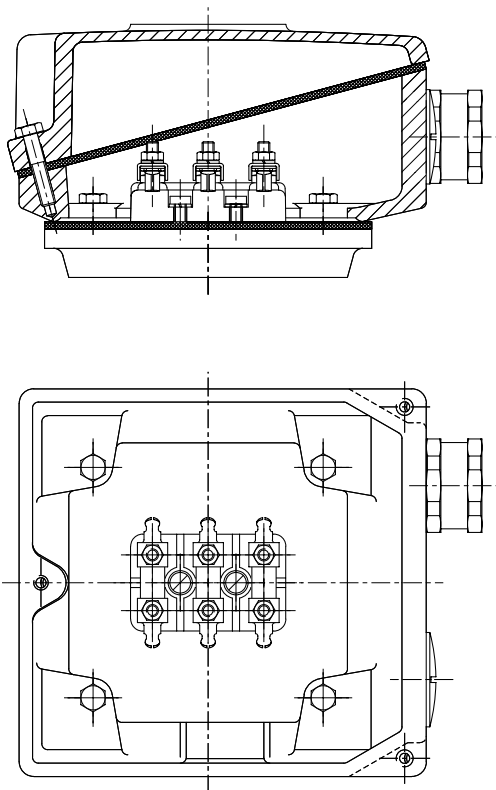


Figure 01

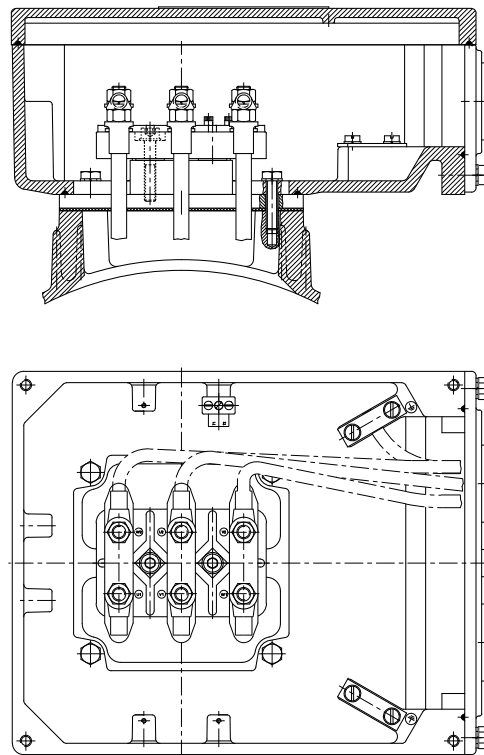


Figure 02

Dimensions

Notes concerning dimensions

Dimension designations in accordance with EN 50347 and IEC 60072
Flange sizes in the dimension tables are specified in accordance with DIN 42948.

VEM motors GmbH reserves the right to modify technical data without prior notice. The dimensions shown in catalogues may not be up to date. Binding dimensional data can be requested from the VEM sales organisation.

All dimensions in mm

Flange dimensions

Flanges with threaded holes

Flange type to E DIN EN 50347	Flange type to DIN 42948	LA c_1	M e_1	N b_1	P a_1	S s_1	T f_1
FT 65	C 80	6.5	65	50	80	M5	2.5
FT 75	C 90	8	75	60	90	M5	2.5
FT 85	C 105	8.5	85	70	105	M6	2.5
FT 100	C 120	8	100	80	120	M6	3
FT 115	C 140	10	115	95	140	M8	3
FT 130	C 160	10	130	110	160	M8	3.5
FT 165	C 200	12	165	130	200	M10	3.5
FT 215	C 250	12	215	180	250	M12	4

Flanges with through-holes

Flange type to E DIN EN 50347	Flange type to DIN 42948	LA c_1	M e_1	N b_1	P a_1	S s_1	T f_1
FF 100	A 120	9	100	80	120	7	3
FF 115	A 140	9	115	95	140	9	3
FF 130	A 160	9	130	110	160	9	3.5
FF 165	A 200	10	165	130	200	11	3.5
FF 215	A 250	11	215	180	250	14	4
FF 265	A 300	12	265	230	300	14	4
FF 300	A 350	13	300	250	350	18	5
FF 350	A 400	15	350	300	400	18	5
FF 400	A 450	16	400	350	450	18	5
FF 500	A 550	18	500	450	550	18	5
FF 600	A 660	22	600	550	660	22	6
FF 740	A 800	25	740	680	800	22	6
FF 940	A1000	25	940	880	1000	28	6
FF 1080	A1150	32	1080	1000	1150	28	6

According to DIN EN 50347, the different sizes of FF flanges possess through-holes, while FT flanges possess threaded holes. The flange designations A and C defined in DIN 42948 remain valid.

Flange assignments which deviate from the standard are specified in the flange assignment tables.

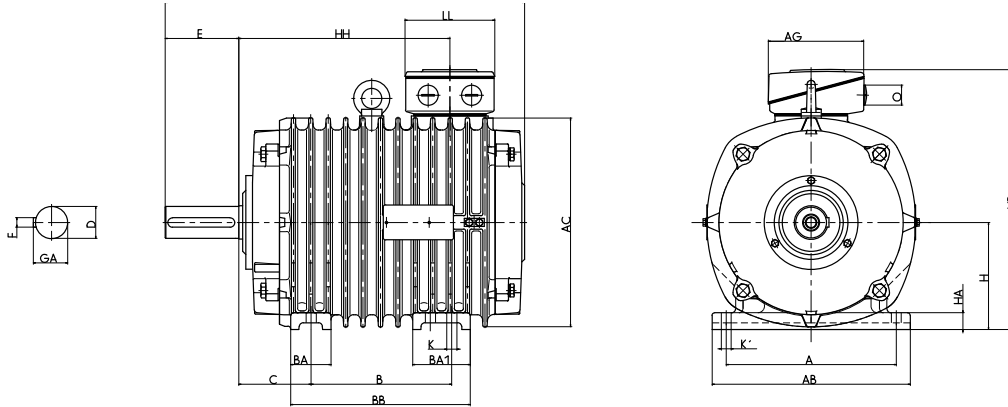
For tolerances for the dimension N (b_1), refer to the corresponding dimension tables LA (c_1) depth of engagement

Three-phase roller table motors with squirrel-cage rotor

Series ARC

with surface cooling, type of cooling IC 410, degree of protection IP 55

Type of construction IM B3 [IM 1001]



Type designation	- B5	A b	AB f	AC g	B a	BA m	BA1 m1	BB e	C w1	CA w2	D d	DA d1	DB ¹⁾ -	E l	EA l1
ARC 112 M	A300	190	226	217	140	55	55	190	70	170	32	32	M12	80	80
ARC 132 S	A350	216	256	258	140	60	87	232	89	216	38	38	M12	80	80
ARC 132 M	A350	216	256	258	178	60	87	232	89	178	38	38	M12	80	80
ARC 160 S	A350	254	296	313	178	60	87	268	108	152	48	42	M16	110	110
ARC 160 M	A350	254	296	313	210	60	87	268	108	120	48	42	M16	110	110
ARC 160 MX	A350	254	296	313	210	60	112	320	108	172	48	42	M16	110	110
ARC 160 L	A350	254	296	313	254	60	112	320	108	128	48	42	M16	110	110
ARC 180 S	A400	279	328	351	203	70	124	321	121	186	55	48	M20	110	110
ARC 180 M	A400	279	328	351	241	70	124	321	121	148	55	48	M20	110	110
ARC 180 L	A400	279	328	351	279	70	70	350	121	230	55	48	M20	110	110
ARC 200 M	A450	318	372	390	267	75	117	380	133	298	60	55	M20	140	110
ARC 200 L	A450	318	372	390	305	75	117	380	133	277	60	55	M20	140	110
ARC 225 M	A550	356	413	440	311	80	80	390	149	225	65	55	M20	140	110
ARC 250 S	A550	406	469	490	311	85	130	437	168	231	75	65	M20	140	140
ARC 250 M	A550	406	469	490	349	85	130	437	168	193	75	65	M20	140	140
ARC 280 S	A660	457	522	550	368	100	140	516	190	252	80	70	M20	170	140
ARC 280 M	A660	457	522	550	419	100	140	516	190	201	80	70	M20	170	140
ARC 315 M	A660	508	590	616	457	120	155	622	216	432	90	75	M24	170	140
ARC 315 L	A660	508	590	616	508	120	155	622	216	394	90	75	M24	170	140
ARC 355 MY	A800	610	700	715	560	125	163	733	254	386	100	80	M24	210	170
ARC 355 M	A800	610	700	715	560	125	163	733	254	386	100	80	M24	210	170
ARC 355 MX	A800	610	700	715	560	125	163	733	254	386	100	80	M24	210	170
ARC 355 L	A800	610	700	715	630	125	163	733	254	316	100	80	M24	210	170
ARC 400 L	A1000	686	810	800	710	212	293	1053	280	450	110	90	M24	210	170

¹⁾ Centre holes to DIN 332-DS

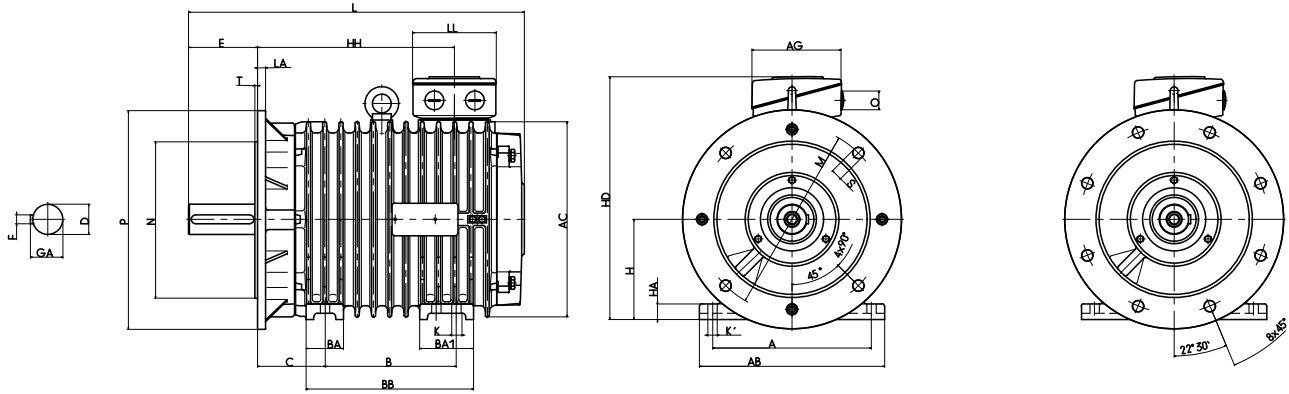
Three-phase roller table motors with squirrel-cage rotor

Series ARC

with surface cooling, type of cooling IC 410, degree of protection IP 55

Type of construction IM B35 [IM 2001]

Flange dimensions, see page 9/57



Type designation	F u	FA u1	GA t	GC t1	H h	HA c	HD p	K s	K' s'	L k	LC k1	TB Type	AG x	LL z	O	Hole pattern
ARC 112 M	10	10	35	35	112	18	292	12	12	450	540	25 A	143	134	M32 x 1.5	4L
ARC 132 S	10	10	41	41	132	20	332	12	12	515	605	25 A	143	134	M32 x 1.5	4L
ARC 132 M	10	10	41	41	132	20	332	12	12	515	605	25 A	143	134	M32 x 1.5	4L
ARC 160 S	14	12	51.5	45	160	25	390	15	15	540	658	25 A	143	134	M32 x 1.5	4L
ARC 160 M	14	12	51.5	45	160	25	390	15	15	540	658	25 A	143	134	M32 x 1.5	4L
ARC 160 MX	14	12	51.5	45	160	25	390	15	15	592	710	25 A	143	134	M32 x 1.5	4L
ARC 160 L	14	12	51.5	45	160	25	390	15	15	592	710	25 A	143	134	M32 x 1.5	4L
ARC 180 S	16	14	59	51.5	180	25	441	15	15	610	730	63 A	175	162	M40 x 1.5	4L
ARC 180 M	16	14	59	51.5	180	25	441	15	15	610	730	63 A	175	162	M40 x 1.5	4L
ARC 180 L	16	14	59	51.5	180	25	441	15	15	694	814	63 A	175	162	M40 x 1.5	4L
ARC 200 M	18	16	64	59	200	27	500	19	19	845	965	100 A	213	207	M50 x 1.5	8L
ARC 200 L	18	16	64	59	200	27	500	19	19	845	965	100 A	213	207	M50 x 1.5	8L
ARC 225 M	18	16	69	59	225	30	551	19	19	815	935	100 A	213	207	M50 x 1.5	8L
ARC 250 S	20	18	79.5	69	250	33	638	24	24	840	990	200 A	282	242	M63 x 1.5	8L
ARC 250 M	20	18	79.5	69	250	33	638	24	24	840	990	200 A	282	242	M63 x 1.5	8L
ARC 280 S	22	20	85	74.5	280	40	700	24	24	970	1120	200 A	282	242	M63 x 1.5	8L
ARC 280 M	22	20	85	74.5	280	40	700	24	24	970	1120	200 A	282	242	M63 x 1.5	8L
ARC 315 M	25	20	95	79.5	315	44	757	28	28	1275	1415	200 A	282	242	M63 x 1.5	8L
ARC 315 L	25	20	95	79.5	315	44	757	28	35	1275	1415	200 A	282	242	M63 x 1.5	8L
ARC 355 MY	28	22	106	85	355	50	915	28	35	1400	1580	400 A	311	294	M63 x 1.5	8L
ARC 355 M	28	22	106	85	355	50	915	28	35	1400	1580	400 A	311	294	M63 x 1.5	8L
ARC 355 MX	28	22	106	85	355	50	915	28	35	1400	1580	400 A	311	294	M63 x 1.5	8L
ARC 355 L	28	22	106	85	355	50	915	28	35	1400	1580	400 A	311	294	M63 x 1.5	8L
ARC 400 L	28	25	116	95	400	55	1006	35	35	1630	1820	400 B	415	340	M63 x 1.5	8L

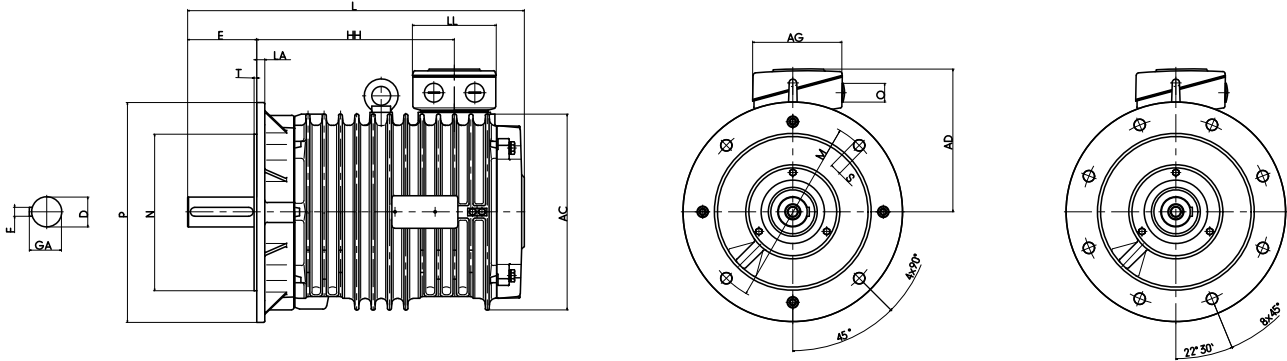
Three-phase roller table motors with squirrel-cage rotor

Series ARC
with surface cooling, type of cooling IC 410, degree of protection IP 55

Type of construction IM B5 [IM 3001] to size 250

Type of construction IM V1 [IM 3011]

Flange dimensions, see page 9/57



Type designation	-	AC	D	DA	DB ¹⁾	E	EA	F	FA	GA	GC	H	HA	L	LC	LD	TB	Type	AG	LL	O	Hole pattern
	B5	g	d	d1	-	l	l1	u	u1	t	t1	h	c	k	k1	A						
ARC 112 M	A300	217	32	32	M12	80	80	10	10	35	35	112	18	450	540	-	25 A	143	134	M32 x 1.5	4L	
ARC 132 S	A350	258	38	38	M12	80	80	10	10	41	41	132	20	515	605	-	25 A	143	134	M32 x 1.5	4L	
ARC 132 M	A350	258	38	38	M12	80	80	10	10	41	41	132	20	515	605	-	25 A	143	134	M32 x 1.5	4L	
ARC 160 S	A350	313	48	42	M16	110	110	14	12	51.5	45	160	25	540	658	-	25 A	143	134	M32 x 1.5	4L	
ARC 160 M	A350	313	48	42	M16	110	110	14	12	51.5	45	160	25	540	658	-	25 A	143	134	M32 x 1.5	4L	
ARC 160 MX	A350	313	48	42	M16	110	110	14	12	51.5	45	160	25	592	710	-	25 A	143	134	M32 x 1.5	4L	
ARC 160 L	A350	313	48	42	M16	110	110	14	12	51.5	45	160	25	592	710	-	25 A	143	134	M32 x 1.5	4L	
ARC 180 S	A400	351	55	48	M20	110	110	16	14	59	51.5	180	25	610	730	-	63 A	175	162	M40 x 1.5	4L	
ARC 180 M	A400	351	55	48	M20	110	110	16	14	59	51.5	180	25	610	730	-	63 A	175	162	M40 x 1.5	4L	
ARC 180 L	A400	351	55	48	M20	110	110	16	14	59	51.5	180	25	694	814	-	63 A	175	162	M40 x 1.5	4L	
ARC 200 M	A450	390	60	55	M20	140	110	18	16	64	59	200	27	845	965	-	100 A	213	207	M50 x 1.5	8L	
ARC 200 L	A450	390	60	55	M20	140	110	18	16	64	59	200	27	845	965	-	100 A	213	207	M50 x 1.5	8L	
ARC 225 M	A550	440	65	55	M20	140	110	18	16	69	59	225	30	815	935	-	100 A	213	207	M50 x 1.5	8L	
ARC 250 S	A550	490	75	65	M20	140	140	20	18	79.5	69	250	33	840	990	-	200 A	282	242	M63 x 1.5	8L	
ARC 250 M	A550	490	75	65	M20	140	140	20	18	79.5	69	250	33	840	990	-	200 A	282	242	M63 x 1.5	8L	
ARC 280 S	A660	550	80	70	M20	170	140	22	20	85	74.5	280	40	970	1120	-	200 A	282	242	M63 x 1.5	8L	
ARC 280 M	A660	550	80	70	M20	170	140	22	20	85	74.5	280	40	970	1120	-	200 A	282	242	M63 x 1.5	8L	
ARC 315 M	A660	616	90	75	M24	170	140	25	20	95	79.5	315	44	1275	1415	-	200 A	282	242	M63 x 1.5	8L	
ARC 315 L	A660	616	90	75	M24	170	140	25	20	95	79.5	315	44	1275	1415	-	200 A	282	242	M63 x 1.5	8L	
ARC 355 MY	A800	715	100	80	M24	210	170	28	22	106	85	355	50	1400	1580	-	400 A	311	294	M63 x 1.5	8L	
ARC 355 M	A800	715	100	80	M24	210	170	28	22	106	85	355	50	1400	1580	-	400 A	311	294	M63 x 1.5	8L	
ARC 355 MX	A800	715	100	80	M24	210	170	28	22	106	85	355	50	1400	1580	-	400 A	311	294	M63 x 1.5	8L	
ARC 355 L	A800	715	100	80	M24	210	170	28	22	106	85	355	50	1400	1580	-	400 A	311	294	M63 x 1.5	8L	
ARC 400 L	A1000	800	110	90	M24	210	170	28	25	116	95	400	55	1630	1820	-	400 B	415	340	M63 x 1.5	8L	

Overview of technical data

Three-phase roller table motors with squirrel-cage rotor, heavy-duty version for mains operation, non-ventilated, type of cooling IC 410

The most important technical data are summarised in the following table. Further information can be taken from the catalogue section "Introduction" (chapter 1).

Product group	Squirrel-cage rotor, IEC/EN
Rated output	ARB... 0.4 kW to 5.5 kW
Sizes	ARB...22 (132), 33 (125), 54 (170) and 65 (200)
Housing material	Grey cast iron
Rated torque	8 Nm to 77 Nm
Duty types	S4/S5 to IEC/EN 60034-1
Method of connection	Single-speed motors are designed in star-delta configuration as standard.
Stator winding insulation	Thermal class 155, optionally 155 [F(B)], 180 to IEC/EN 60034-1
Degree of protection	IP 55 to IEC/EN 60034-5, optionally IP 56 and higher
Type of cooling	IC 410 (non-ventilated) to IEC/EN 60034-6
Coolant temperature/ installation altitude	Standard -20 °C to +40 °C, Altitude 1000 m above sea level
Rated voltage	Standard voltages to EN 60038 50 Hz: 230 V, 400 V, 500 V, 690 V 60 Hz: 275 V, 460 V, 480 V, 600 V Rated Voltage ranges A to IEC/EN
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7
Paint finish	Normal finish "Moderate", colour RAL 7031, blue-grey Special finish "Worldwide", colour RAL 7031, blue-grey
Vibration severity grade	Grade "A" as standard for machines with no special vibration requirements
Shaft ends	to DIN 748 (IEC 60072), balanced with half-key
Limit speeds	Please refer to the section of "Limit speeds" in catalogue section "Motors for converter-fed operation", Chapter 4.
Bearing design	Please refer to the section "Bearings".
Motor mass	Please refer to the technical selection lists.
Terminal boxes	Please refer to the section "Terminal boxes".
Documentation	An operating and maintenance manual, a terminal plan and a safety data sheet are supplied with each motor.
Tolerances	Please refer to the section "Tolerances" in catalogue section "Introduction", Chapter 1.
Options	Please refer to the section "Overview of modifications" in catalogue section "Introduction", Chapter 1.

Motor selection data

Three-phase roller table motors with squirrel-cage rotor for direct on-line starting, series ARB

Non-ventilated with surface cooling, type of cooling IC 410, duty type S1, continuous duty, thermal class H, degree of protection IP 44/IP 54, 50 Hz

Type	P	M _n	n	I _a	B	Ma	t _k	J	m	
	kW	Nm	rpm	at 400 V A	IP 44 kgm ² /h	IP 54 kgm ² /h	min	kgm ²	kg	
Synchronous speed 1500 rpm – 4-pole version										
ARB 22/4	1.1	8	1330	12	200	150	7.0	0.0140	60	
ARB 33/4	2.2	15	1430	37	260	200	4.0	0.0430	90	
Synchronous speed 1000 rpm – 6-pole version										
ARB 22/6	0.8	9	850	7	330	250	13.0	0.0140	60	
ARB 33/6	1.5	15	940	21	570	440	10.0	0.0430	90	
ARB 54/6	5.5	56	930	76	1400	1000	5.5	0.2330	200	
Synchronous speed 750 rpm – 8-pole version										
ARB 22/8	0.6	9	650	7	480	370	20.0	0.0140	60	
ARB 33/8	1.1	15	690	13	740	580	14.0	0.0430	90	
ARB 54/8	4.0	56	680	49	1700	1300	5.5	0.2330	200	
ARB 65/8	5.5	75	700	67	2450	1900	10.0	0.5750	290	
Synchronous speed 600 rpm – 10-pole version										
ARB 33/10	0.8	14	530	8	1100	860	40.0	0.0430	90	
ARB 54/10	3.0	52	555	36	2600	2000	18.0	0.2330	200	
ARB 65/10	4.0	68	560	58	3600	2800	7.5	0.5750	290	
Synchronous speed 500 rpm – 12-pole version										
ARB 33/12	0.4	8	460	7	1600	1200	55.0	0.0430	90	
ARB 54/12	2.2	47	450	24	4000	3100	27.0	0.2330	200	
ARB 65/12	3.0	63	455	32	5100	4000	20.0	0.5750	290	
Synchronous speed 375 rpm – 16-pole version										
ARB 54/16	1.1	31	340	18	5100	4000	115.0	0.2330	200	
ARB 65/16	2.2	60	350	33	8500	6600	200	0.5750	290	
Synchronous speed 250 rpm – 24-pole version										
ARB 54/24	0.8	40	190	12	7000	5400	100.0	0.2330	200	
ARB 65/24	1.5	68	210	25	13500	10600	175	0.5750	290	
Synchronous speed 500/1000 rpm – 12/6-pole version										
ARB 54/12	2.5	54	440	26	3000	2300	135	10.0	0.2330	200
-6	4.0	42	920	43	750	600	100	2.2		
ARB 65/12	3.7	77	460	43	5200	4000	210	12.0	0.5750	290
-6	5.0	50	950	41	1500	1100	170	3.5		

t_k... max. permissible blocking period

B... Acceleration factor

B = J_G × z × k [kgm²/h]

J_G... Total moment of inertia in kgm² for motor + roller + load. referred to the motor shaft

z... Switching frequency in starts per hour

k... Factor to account for switched operation. k = 1 for simple starting. k = 4 for reversing

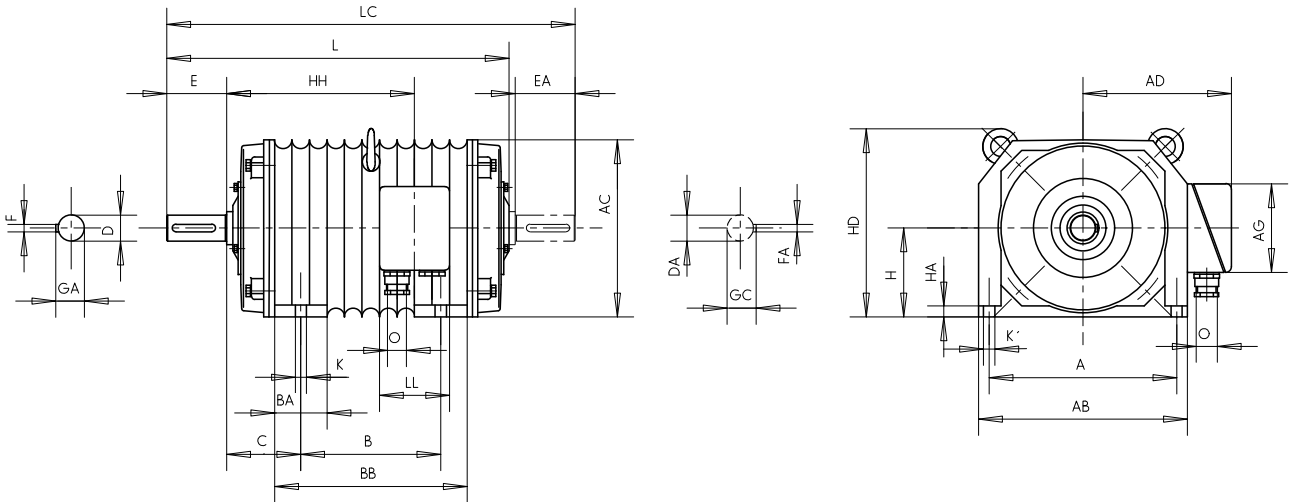
Dimensions

Three-phase roller table motors with squirrel-cage rotor

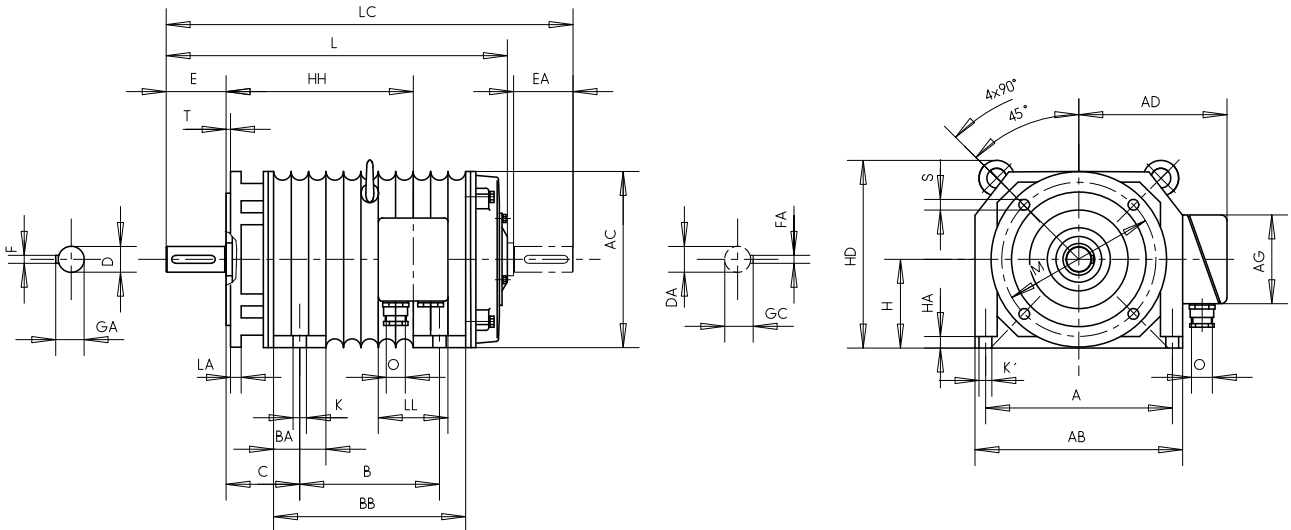
Series ARB

with surface cooling, type of cooling IC 410, degree of protection IP 55

Type of construction IM B3 [IM 1001]



Type of construction IM B35 [IM 2001]



Type designation	-	A	AB	AC	AD	B	BA	BA1	BB	C	CA	D	DA	DB ¹⁾	E	EA	F	FA
	B5	b	f	g	g1	a	m	m1	e	w1	w2	d	d1	-	l	l1	u	u1
ARB 22	A195	216	268	194	180	178	64	-	242	130	130	24	24	M12	50	50	8	8
ARB 33	A250a	230	280	236	210	250	85	-	335	123	123	28	28	M12	60	60	8	8
ARB 54	A300a	320	390	330	245	270	90	-	360	164	164	38	38	M12	80	80	10	10
ARB 65	A350a	370	450	380	280	315	77	-	392	187.5	188	48	48	M16	110	110	14	14

¹⁾ Centre holes to DIN 332-DS

Type designation	GA	GC	H	HA	HD	K	K'	L	LC	HH	TB Type	AG	LL	O	Hole pattern
	t	t1	h	c	p	s	s'	k	k1	A					
ARB 22	27	27	132	20	245	13	13	487	538	294	ARB	130	130	M32 x 1.5	4L
ARB 33	31	31	125	25	266	15	15	552	616	347	ARB	130	130	M32 x 1.5	4L
ARB 54	41	41	170	32	361	22	22	660	758	421	ARB	130	130	M32 x 1.5	4L
ARB 65	52	52	200	32	400	22	22	770	910	485	ARB	130	130	M32 x 1.5	4L

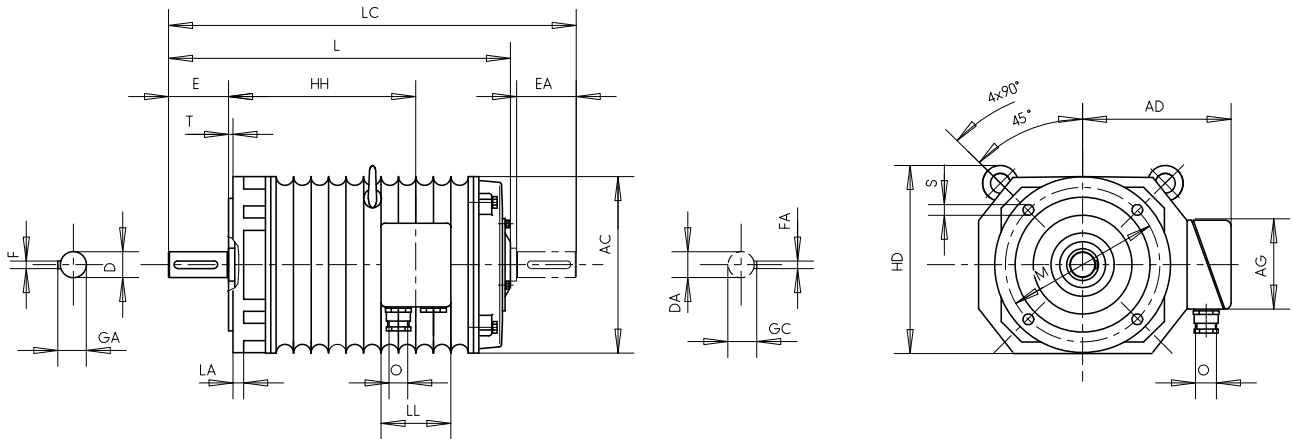
Three-phase roller table motors with squirrel-cage rotor

Series ARB

with surface cooling, type of cooling IC 410, degree of protection IP 55

Type of construction IM B5 [IM 3001] to size 280

Type of construction IM V1 [IM 3011]



Type designation	-	AC	AD	D	DA	DB ¹⁾	E	EA	F	FA	GA	GC	H	HA	L	LC	LD	TB Type	AG	LL	O	Hole pattern
	B5	g	g1	d	d1	-	l	l1	u	u1	t	t1	h	c	k	k1	A					
ARB 22	A195	194	180	24	24	M12	50	50	8	8	27	27	132	20	487	538	294	ARB	130	130	M32 x 1.5	4L
ARB 33	A250a	236	210	28	28	M12	60	60	8	8	31	31	125	25	552	616	347	ARB	130	130	M32 x 1.5	4L
ARB 54	A300a	330	245	38	38	M12	80	80	10	10	41	41	170	32	660	758	421	ARB	130	130	M32 x 1.5	4L
ARB 65	A350a	380	280	48	48	M16	110	110	14	14	52	52	200	32	770	910	485	ARB	130	130	M32 x 1.5	4L

Overview of technical data

Three-phase roller table motors with squirrel-cage rotor, welded steel, transnorm, type of cooling IC 410, 411, 416, 71W (31W)

The most important technical data are summarised in the following table. Further information can be taken from the catalogue section "Introduction" (chapter 1).

Product group	Roller table motors, squirrel-cage rotor, IEC
Series	DS..
Rated output	100 kW to 1500 kW
Sizes	355 to 630
Housing material	Sheet steel, with welded radial ribs or double jacket for type of cooling IC 31, IC 71
Rated torque	1000 Nm to 15000 Nm
Method of connection	Single-speed motors are designed in star-delta configuration as standard.
Stator winding insulation	Thermal class 155, optionally 155 [F(B)], 180 to IEC/EN 60034-1
Degree of protection	IP 55 to IEC/EN 60034-5, optionally IP 56 and higher
Type of cooling	IC 411 [self-ventilated], IC 416 [forced ventilation], IC 410 [non-ventilated] oder IC 31 [water-jacket cooling] to IEC/EN 60034-6
Coolant temperature/ installation altitude	Standard -20 °C to +40 °C, Altitude 1000 m above sea level
Rated voltage	Standard voltages to EN 60038 50 Hz: 230 V, 400 V, 500 V, 690 V 60 Hz: 275 V, 460 V, 480 V, 600 V Rated Voltage ranges A and B to IEC/EN 60034-1
Types of construction	IM B3, IM B35, IM B5 and derived types to IEC/EN 60034-7
Paint finish	Normal finish "Moderate", colour RAL 7031, blue-grey Special finish "Worldwide", colour RAL 7031, blue-grey
Vibration severity grade	Grade "A" as standard for machines with no special vibration requirements
Shaft ends	to DIN 748 (IEC 60072), balanced with half-key
Sound pressure level	to DIN EN ISO 1680, tolerance +3 dB, upon request
Limit speeds	upon request
Bearing design	upon request
Motor mass	upon request
Terminal boxes	upon request
Documentation	An operating and maintenance manual, a terminal plan and a safety data sheet are supplied with each motor.
Tolerances	Please refer to the section "Tolerances" in catalogue section "Introduction", Chapter 1.
Options	Please refer to the section "Overview of modifications" in catalogue section "Introduction", Chapter 1.

Motor selection data

Welded steel three-phase asynchronous motors for rolling mills

Overview of sizes and outputs

Type of cooling IC 411 [self-ventilated], IC 416 [forced ventilation], IC 410 [non-ventilated] and IC 31 [water-jacket cooling]
 duty type S1, thermal class 155 [F], degree of protection IP 55,
 rated voltage 690 V, rated frequency 50 Hz

Type of cooling	IC 411		IC 416		IC 410		IC 31	
Size	P _B [kW]	Type	P _B [kW]	Type	P _B [kW]	Type	P _B [kW]	Type
Synchronous speed 1500 rpm – 4-pole version								
355 M	340	DS 355 M...-4	340	DSf 355 M...-4	155	DSo 355 M...-4	340	DSWM 355 M...-4
355 L	400	DS 355 L...-4	400	DSf 355 L...-4	190	DSo 355 L...-4	400	DSWM 355 L...-4
400 M	490	DS 400 M...-4	490	DSf 400 M...-4	220	DSo 400 M...-4	490	DSWM 400 M...-4
400 L	550	DS 400 L...-4	550	DSf 400 L...-4	265	DSo 400 L...-4	550	DSWM 400 L...-4
450 S	610	DS 450 S...-4	610	DSf 450 S...-4	275	DSo 450 S...-4	610	DSWM 450 S...-4
450 M	770	DS 450 M...-4	770	DSf 450 M...-4	325	DSo 450 M...-4	770	DSWM 450 L...-4
450 L	840	DS 450 L...-4	840	DSf 450 L...-4	360	DSo 450 L...-4	840	DSWM 450 L...-4
500 M	960	DS 500 M...-4	960	DSf 500 M...-4	385	DSo 500 M...-4	960	DSWM 500 M...-4
500 L	1200	DS 500 L...-4	1200	DSf 500 L...-4	480	DSo 500 L...-4	1200	DSWM 500 L...-4
Synchronous speed 1000 rpm – 6-pole version								
355 M	280	DS 355 M...-6	280	DSf 355 M...-6	130	DSo 355 M...-6	280	DSWM 355 M...-6
355 L	330	DS 355 L...-6	330	DSf 355 L...-6	160	DSo 355 L...-6	330	DSWM 355 L...-6
400 M	410	DS 400 M...-6	410	DSf 400 M...-6	180	DSo 400 M...-6	410	DSWM 400 M...-6
400 L	460	DS 400 L...-6	460	DSf 400 L...-6	220	DSo 400 L...-6	460	DSWM 400 L...-6
450 S	510	DS 450 S...-6	510	DSf 450 S...-6	230	DSo 450 S...-6	510	DSWM 450 S...-6
450 M	640	DS 450 M...-6	640	DSf 450 M...-6	270	DSo 450 M...-6	640	DSWM 450 L...-6
450 L	700	DS 450 L...-6	700	DSf 450 L...-6	300	DSo 450 L...-6	700	DSWM 450 L...-6
500 M	800	DS 500 M...-6	800	DSf 500 M...-6	320	DSo 500 M...-6	800	DSWM 500 M...-6
500 L	1000	DS 500 L...-6	1000	DSf 500 L...-6	400	DSo 500 L...-6	1000	DSWM 500 L...-6
560 L	1120	DS 560 L...-6	1120	DSf 560 L...-6			1350	DSWM 560 L...-6
630 L							1500	DSWM 630 L...-6
Synchronous speed 750 rpm – 8-pole version								
355 M	210	DS 355 M...-8	210	DSf 355 M...-8	100	DSo 355 M...-8	210	DSWM 355 M...-8
355 L	250	DS 355 L...-8	250	DSf 355 L...-8	120	DSo 355 L...-8	250	DSWM 355 L...-8
400 M	310	DS 400 M...-8	310	DSf 400 M...-8	135	DSo 400 M...-8	310	DSWM 400 M...-8
400 L	350	DS 400 L...-8	350	DSf 400 L...-8	165	DSo 400 L...-8	350	DSWM 400 L...-8
450 S	380	DS 450 S...-8	380	DSf 450 S...-8	175	DSo 450 S...-8	380	DSWM 450 S...-8
450 M	480	DS 450 M...-8	480	DSf 450 M...-8	205	DSo 450 M...-8	480	DSWM 450 L...-8
450 L	530	DS 450 L...-8	530	DSf 450 L...-8	225	DSo 450 L...-8	530	DSWM 450 L...-8
500 M	600	DS 500 M...-8	600	DSf 500 M...-8	240	DSo 500 M...-8	600	DSWM 500 M...-8
500 L	750	DS 500 L...-8	750	DSf 500 L...-8	300	DSo 500 L...-8	750	DSWM 500 L...-8
560 L	840	DS 560 L...-8	840	DSf 560 L...-8			1010	DSWM 560 L...-8
630 L							1120	DSWM 630 L...-8

VEM Holding GmbH

Pirnaer Landstraße 176
01257 Dresden
Germany

Sales

Low voltage department

Tel. +49 3943 68-3127
Fax +49 3943 68-2440
E-mail: low-voltage@vem-group.com

High voltage department

Tel. +49 351 208-3237
Fax +49 351 208-1108
E-mail: high-voltage@vem-group.com

Drive systems department

Tel. +49 351 208-1180
Fax +49 351 208-1185
E-mail: drive-systems@vem-group.com

VEM Service

Tel. +49 351 208-3237
Fax +49 351 208-1108
E-mail: service@vem-group.com



For detailed information
please visit our website.

www.vem-group.com