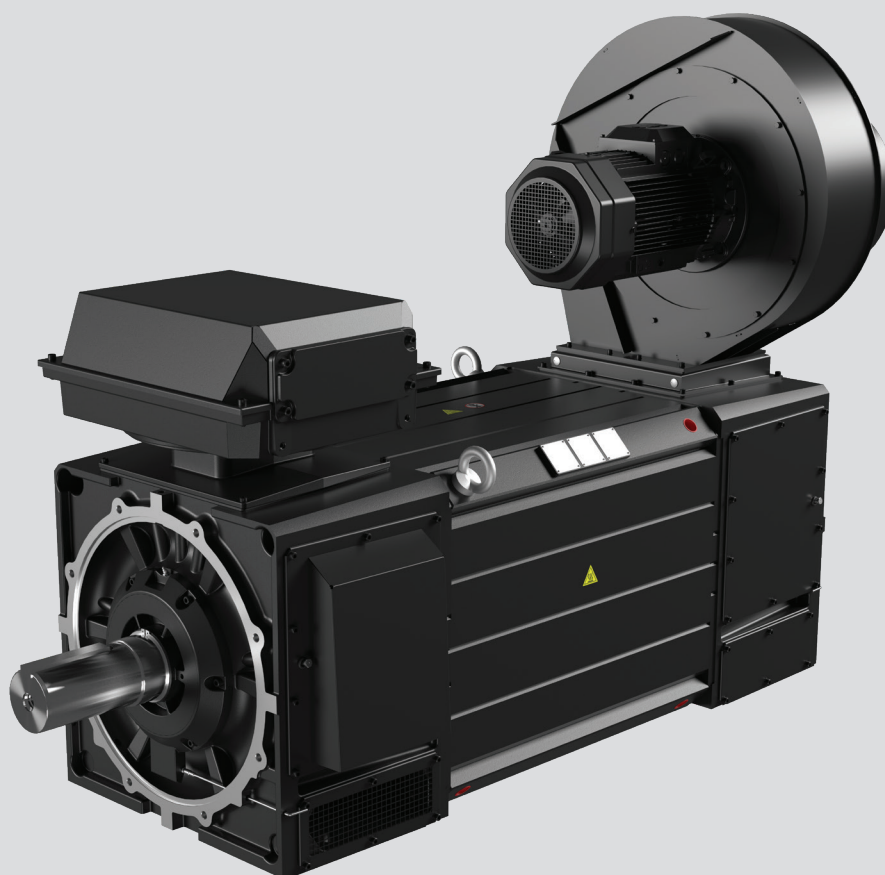

CATALOG | OCTOBER 2022

Low voltage

High Dynamic Performance motors



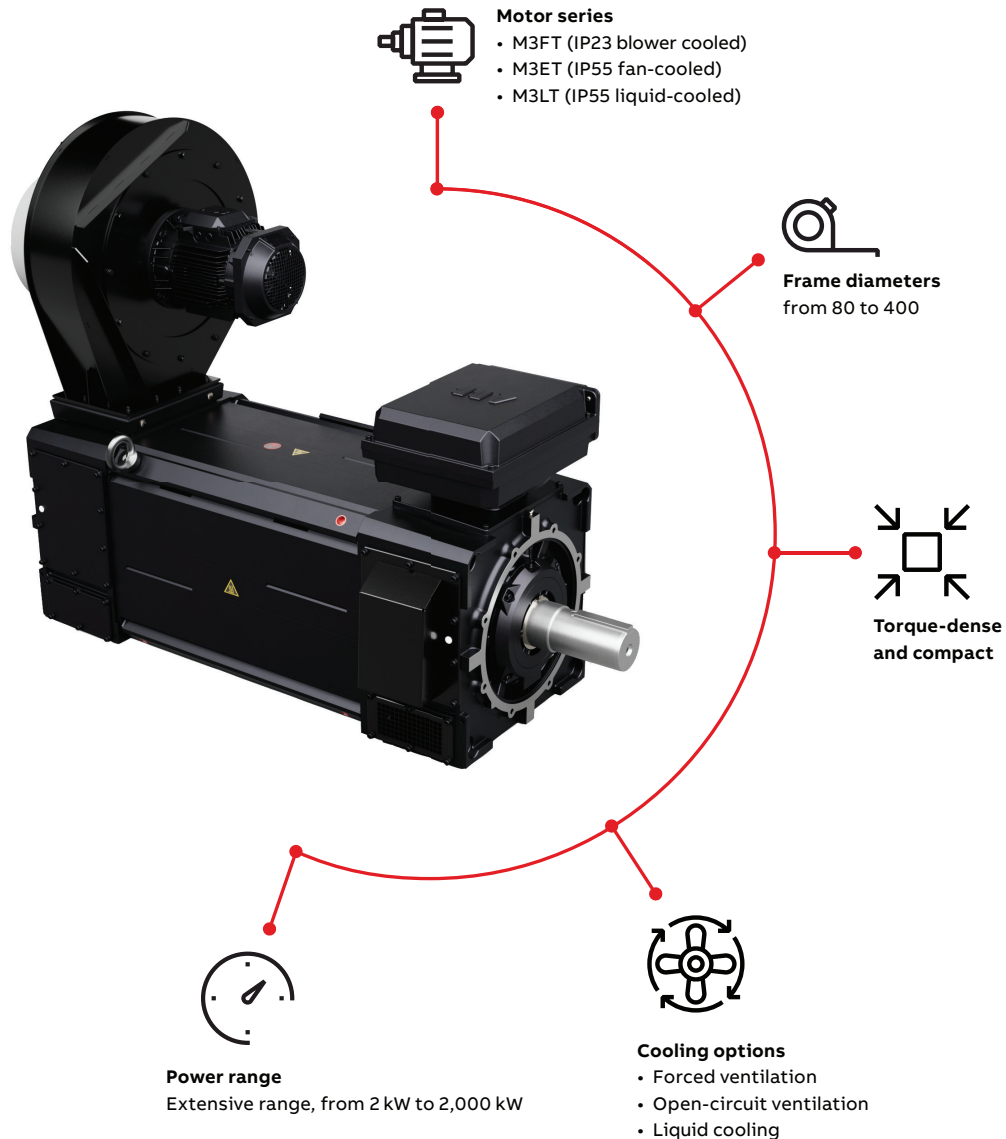
With expertise, and a comprehensive portfolio of products and life-cycle services, we help value-minded industrial customers their energy efficiency and productivity.

Low voltage High Dynamic Performance motors

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High Dynamic Performance (HDP) motors

Full range of machinery motors optimized for high power density



Extensive range for machine builders

ABB's powerful HDP motors are available in a wide range of frame sizes, enabling you to get everything you need from one supplier

- ABB's HDP motors are offered in frame sizes 80 to 400 up to megawatt-class, with liquid-cooled and high-speed variants available in selected frame sizes
- ABB's HDP motors have a very high power density, which means that they provide more power to the machine applications – given a certain motor size – than conventional machine motors (e.g. Process performance motors)
- ABB's HDP motors are the optimal solution for high-torque machine applications such as extruders, cranes, test benches, etc.

Precise motor control

ABB is particularly renowned for its optimized motor and variable-speed drive (VSD) packages, providing precise motor control and maneuvering capabilities in a wide variety of variable-speed applications throughout general industry including pumps, fans and compressors.

High-torque applications

Excellent control and maneuvering capabilities are, of course, also attractive to machine builders and their customers in high-torque applications such as extruders, wire drawing machines, test benches and cranes – and well provided by packages combining ABB's High Dynamic Performance (HDP) motors and VSDs into complete solutions.

A history from DC to AC

Historically, industrial machinery was driven by DC motors on account of their superb speed control. However, with the emergence of variable speed drives (VSD) in the 1980s, it became possible to control the speed of AC motors, making them a viable alternative technology.

Ever since, specialized AC motors with square cross-section frame design, such as ABB's HDP motors, have been gradually replacing DC motors. The square frame design and a high overload capacity give HDP motors an excellent dynamic response due to the low moment of inertia.

Based on simple induction technology, specialized AC motors have proven more cost effective and service friendly than the previous DC motors – and today dominate the market both for retrofitting and for new machine designs.

Why to choose ABB's HDP motors?

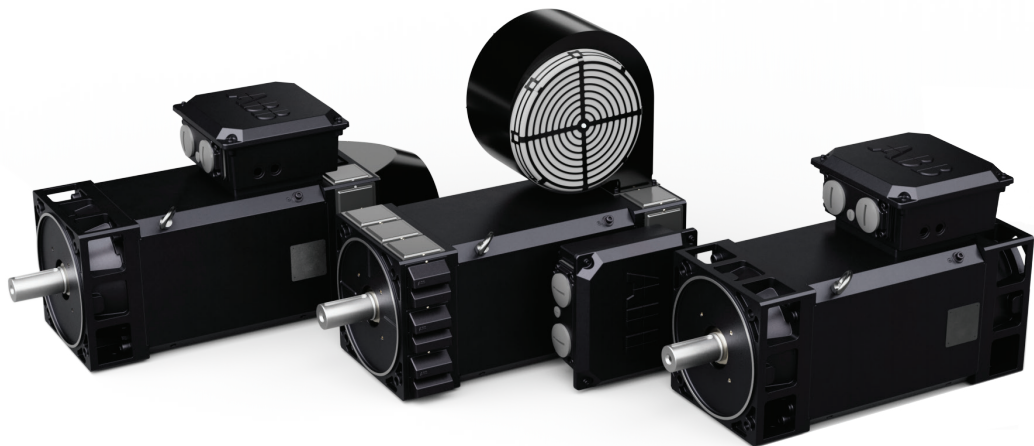


Figure 2: Three variants of ABB's HDP motor in frame size 160 with different cooling arrangements. From left: air cooled (ET - IP55) with axial fan, air cooled (FT - IP23) with radial blower, liquid-cooled (LT - IP55).

Frame-size and technology range

Motor series	 80 90 100 112 132 160 180 200 225 250 280 315 355 400 													
	80	90	100	112	132	160	180	200	225	250	280	315	355	400
M3ET (IP55 fan-cooled)	●		●		●	●	●	●	●	●	●	●	●	
M3FT (IP23 blower cooled)			●		●	●	●	●	●	●	●	●	●	●
M3LT (IP55 liquid-cooled)	●		●		●	●	●							

Figure 3: Frame sizes range from 80 to 400 with outputs from 2 kW to 2,000 kW. Different cooling options are available, including liquid cooling, depending on frame size.

1 A replacement for every machine

The first OEM requirement that any motor provider must be able to meet is an extensive product range. Frame sizes for machine motors are relatively fixed and “standardized,” and replacement motor providers must be able to respond with a model that fits the machine type in question. ABB provides drop-in replacement HDP motors for every commonly requested frame size.

2 Technology variants for special needs

With its upgraded HDP motor range, ABB can offer machine builders frame sizes between 80 and 400, and output capacities up to two megawatts – as well as alternative designs variants such as high-speed and liquid-cooled motors. All motors are designed for use with a VSD, and ABB can provide matching motor and VSD packages across the frame-size range – along with professional support and services on a global basis.

3 Extending your offering

ABB's HDP motor and VSD solutions create new opportunities for machine builders to improve and extend their customer offering. Thanks to ABB motors very high-power density, machine builders are offered a dual benefit: designing more compact new machines while boosting the performance of existing machine types using more powerful replacement motors.

Performance and compactness

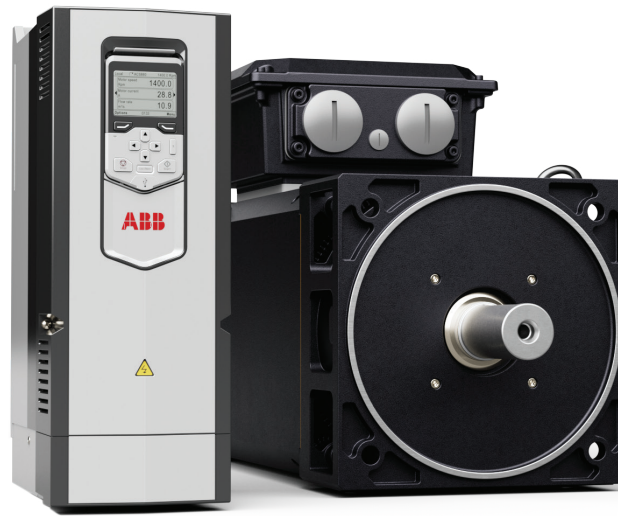


Figure 4: ABB HDP motors are always used with a drive. They are developed and tested as a system solution together with a matching VSD to ensure optimum motor control and machine maneuvering.

ABB has long been pushing the motor power density frontline through repeated technology innovation and cooling breakthroughs. Our motors are universally acknowledged as the most compact in general industry. With our re-engineered HDP motor range, we also invite machine builders to benefit from our high-power density.

Machine builders benefit from the exceptionally high-power density of ABB's HDP motors in two ways:

1 Retrofitting opportunities:

In retrofitting, i.e. in motor replacement projects, it's important to match the frame size of the existing motor with a minimum of additional engineering work. ABB's full range of drop-in replacement motors add value through their superior power density. With the same speed and torque as the old motor higher power density, an ABB HDP motor will boost machine performance and offer machine builders a strong new competitive edge.

2 New machine-design opportunities:

Due to floor-space constraints, machine compactness is an increasingly important product differentiator requested by machine builders and their customers. The compactness of the motor can have a significant impact on the compactness of the machine itself, depending on machine type and category. A high-power density means OEMs can design more compact machines by selecting a motor of a smaller frame size than compared to previous generation for a given output.

Superb control and maneuvering

Optimized motor and drive operation

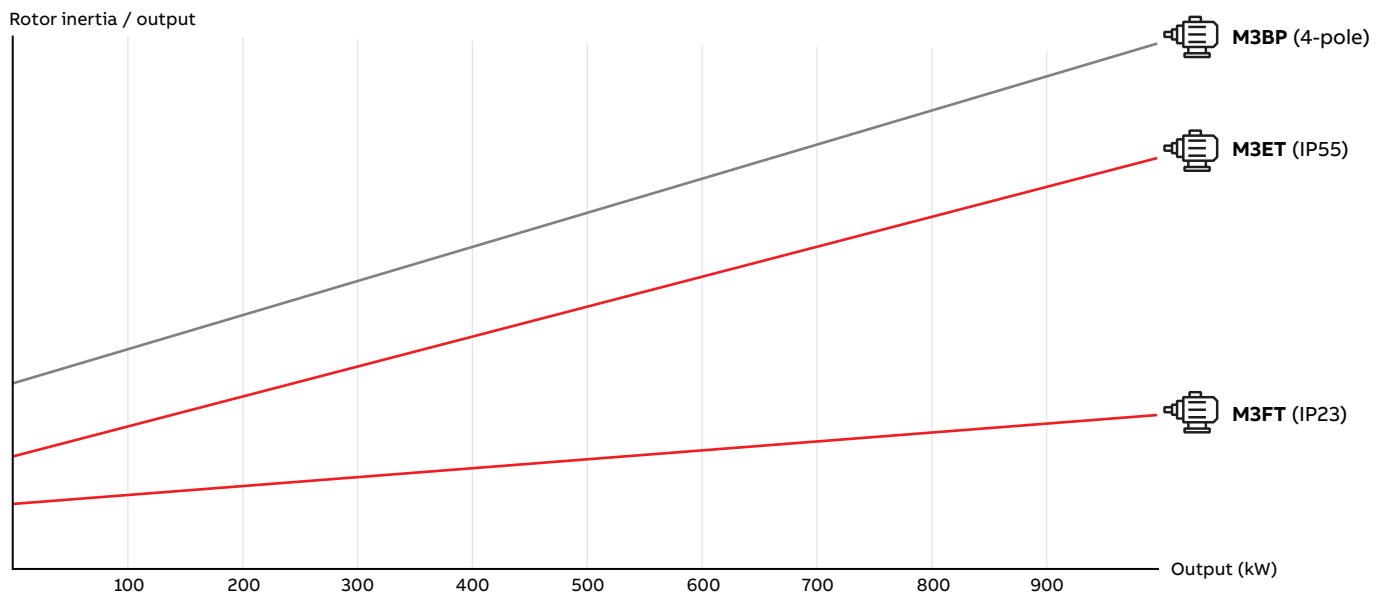


Figure 5: The chart shows a comparison between the inertia of two ABB HDP-motor variants and a comparable ABB Process performance motor (M3BP) at different outputs (figures based on a speed of 1,500 rpms).

ABB's packaged solutions, containing motor and matching VSD, are optimized as complete drive systems. They excel in motor control and enable precise maneuvering of any type or size of machinery.

1 Lab tested performance

Machine builder must be able to expect the drive system to provide excellent motor control and maneuvering, reliably and consistently. ABB's HDP motors draw heavily on a long tradition of developing, testing and optimizing motor and VSD together as complete drive system solutions. The matching of motor and drive is inherent in every variable speed application motor from ABB. Optimized on system level, these solutions are also highly energy efficient.

2 Making full use of VSD capabilities

To make full use of ABB's VSDs – including flexibility to optimize processes and control, reliability to reduce downtime, and efficiency to reduce energy use and carbon emissions – the motor's technology solution must be up to the challenge. ABB's HDP motors are designed to enable fast motion control and high maneuvering precision due to their low inertia and high overload capacity. Low-inertia motors can more successfully shift rotational direction to enable, for example, faster back-and-forth machine motion.

Flexible motor solutions

Adapted to customer needs



Figure 6: Space constraints in the end user application may be a cause to customize the motor, e.g. re-positioning the terminal box.

Even a complete motor range, including technology variants such as liquid-cooled and high-speed motors, may not be sufficient to meet all the specific needs of thousands of machine types and sizes in the market. ABB therefore offers customization of its HDP motors.

1 Modular platform

ABB keeps a limited, yet sufficiently large, number of standardized components in stock to enable design flexibility. This allows us to meet most machine-building requirements without extending delivery times. When developing our HDP motor range, we made sure to include all the commonly requested frame sizes and technology variants such as liquid-cooled, high-speed and megawatt class alternatives.

2 Customization

Further design flexibility is achieved by developing adjustable key components. Examples include flexible mounting of the terminal box, which makes it easy to connect cables regardless of machine-specific space constraints, and programmable encoders which allow OEMs and end-users to adapt to changing needs instead of keeping a set of encoders in stock.

3 Easy installation

Installation friendliness is another prioritized part of ABB's manufacturing philosophy. It must be easy to install, for example, a replacement motor into an existing machine without excessive engineering work. ABB has considered installation simplicity in everything from making connection points easily accessible to simple installation of accessories, such as cooling fans, encoders and brakes, whether of ABB or third-party make.

Availability and delivery precision

Across the globe



Figure 7: ABB has an extensive portfolio of global services to meet OEM and end-customer needs.

Unrestricted global use

ABB HDP motors are compliant with the IEC 60034 standard and hence prepared for unrestricted global use. All frame sizes, technology variants and customizations are available to machine builders worldwide, and support is provided to OEMs and end users through ABB's global services organization.

ABB has been a leading provider of electric motors for more than 130 years. Millions of ABB motors are currently in operation in numerous industrial applications worldwide, and appreciated for their simple, yet advanced, modular design, reliability and longevity.

High Dynamic Performance motors with variable speed drives

Full range of products to meet your motor and machine control needs



Figure 8: ABB offers a comprehensive range of high performance products dedicated to crane applications, that need fast motion control and precise maneuvering.

A wide selection of ABB drives and programmable logic controllers is available for HDP motors and machine control. Our drive products offer flexible choices ranging from different enclosure alternatives and safety features to control performance. Most of the drives are equipped with direct torque control (DTC) enabling premium motor control, even without a feedback device. The AC500 range of PLCs offers a scalable platform for machine control with powerful programming and supervision software. Automation Builder is a new PC suite integrating PLC and drive programming with many other useful features for engineering productivity.

Variable speed drives

ABB ACS880 drives



Figure 9: ABB ACS880 drives

The low voltage ACS880 drives are compatible with virtually all of your processes, automation systems, users and business requirements. The extensive power and voltage range, high flexibility and performance as well as the long lifetime and robust design make ACS880 drives the optimal choice for a wide range of industrial applications. The ACS880 drives are available as single drives, drive modules and multi-drives, including ultra-low harmonic drive and regenerative drive variants.

ACS880 series – Uncompromised productivity

- Wide power and voltage range – from 0.55 to 6000 kW and 200 to 690 V
- Compatible with virtually all AC motors including permanent magnet and highly efficient synchronous reluctance motors

- Premium motor control with DTC giving e.g. accurate speed and torque control throughout the speed range even without a feedback device
- Extensive functional safety offering
- Connectivity to all automation networks and remote monitoring solutions

For further information, see new.abb.com/drives/low-voltage-ac/industrial-drives and new.abb.com/drives/low-voltage-ac/machinery

Variable speed drives

ABB servo drives



Figure 10: ABB MicroFlex e190 and MotiFlex e180 servo drives

MicroFlex e190 and MotiFlex e180 drives deliver versatile motion control performance, capability and dependability to power machine innovations. Flexible connectivity with Ethernet and motor feedback technologies is highly integrated and optimized for demanding motion applications.

MicroFlex e190 MotiFlex e180 series – Powering machine innovations

- Single/three-phase operation voltage from 200 to 240 VAC/ 480VAC
- Software selectable Ethernet protocols including EtherCAT, POWERLINK, Modbus TCP/IP, EtherNet/IP and PROFINET IO
- Advanced motion programming language Mint for multitask controls such as communication, logic, motion and HMI interaction
- Supports the HIPERFACE DSL one cable solution
- 200% and 300% overload capacity up to 3 s
- Integrates the safe torque off (STO) function which complies with the standard EN 61800-5-2
- Flexible options for function expansion

Variable speed drives

ABB's PLC Automation products



Figure 11: ABB programmable logic controllers (PLCs)

Programmable Logic Controllers PLCs - For high performance and flexibility

- The AC500-eCo, AC500, AC500-XC and AC500-S scalable PLC ranges provide solutions for small, medium and high-end applications
- The AC500 PLC platform offers different performance levels and is the ideal choice for high availability, extreme environments, condition monitoring, motion control or safety solutions

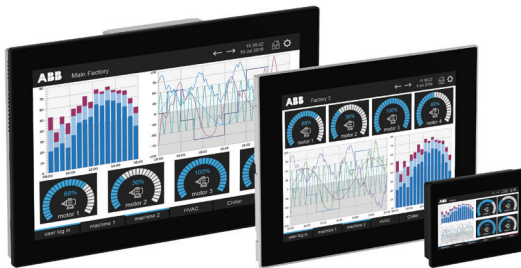


Figure 12: HMI (human-machine interface)

HMI (human-machine interface) - Clear in touch with productivity

- CP600-eCo, CP600 and CP600-Pro control panels offer a wide range of features and functionalities for maximum operability
- ABB control panels are distinguished by their robustness and easy usability, providing all the relevant information from production plants and machines at one single touch

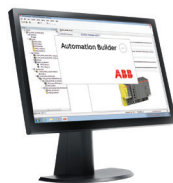
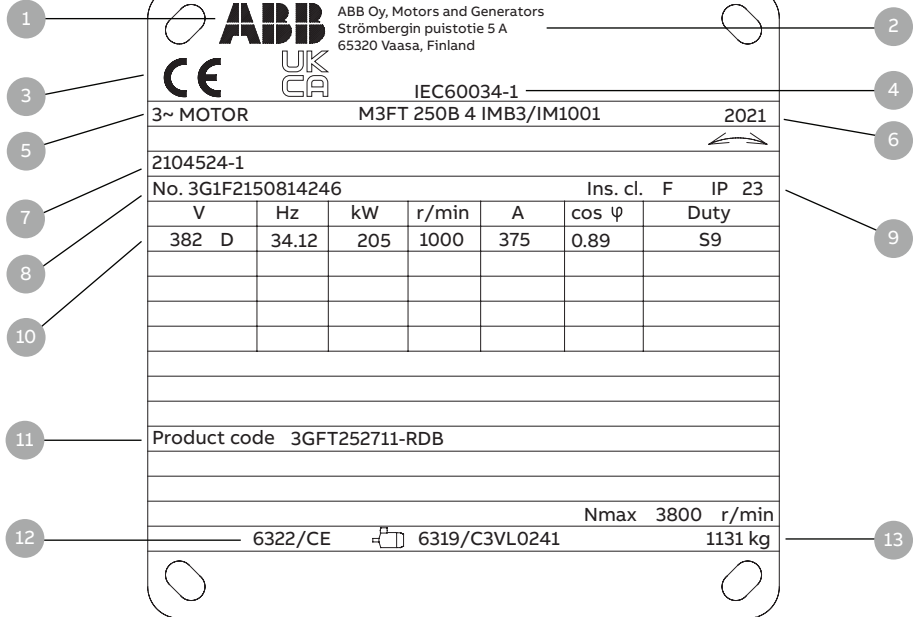


Figure 13: ABB Ability™ Automation Builder

ABB Ability™ Automation Builder

- Is the integrated software suite for machine builders and system integrators requiring state-of-the-art productive machine and system automation
- Combines the tools required for configuring, programming, debugging and maintaining automation projects from one



- 1 ABB logo
- 2 Manufacturing place
- 3 CE mark on Ecodesign approved motors UKCA mark on UK approved motors
- 4 Manufacturing standard
- 5 Product description
- 6 Manufacturing year
- 7 Factory order reference number
- 8 Serial number
- 9 Insulation class, IP protection class
- 10 Voltage, Frequency, output, speed, current, power factor, duty
- 11 Product code
- 12 Bearing type
- 13 Weight

Ordering information

Explanation of the product code

Motor type	Motor size	Product code	Mounting arrangement code, Voltage and frequency code, Generation code	Variant codes
M3FT	355A	3GFT 352 711 - ·UB		002, etc.
		1 2 3 4 5 6 7 8 9 10 11 12 13 14		

Positions 1 to 4

3GET:	High Dynamic Performance IP55 motors
3GFT:	High Dynamic Performance IP23 motors
3GLT:	High Dynamic Performance IP55 liquid-cooled motors

Positions 5 and 6 - IEC size

08:	80
10:	100
13:	132
16:	160
18:	180
20:	200
22:	225
25:	250
28:	280
31:	315
35:	355
40:	400

Position 7 - Pole pairs

2:	4 poles
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Position 8

7:	For all motors
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Position 9 - Stator package length

1:	A
2:	B
3:	C
4:	D
5:	E
6:	F

Position 10 - Nominal speed (r/min)

0:	500
1:	1000
2:	1500
3:	1750
4:	2000
5:	2500
6:	3000
7:	3500
8:	4000

Position 11

-(dash)	
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Position 12 - Mounting arrangement (marked with black dot in data tables)

A:	Foot-mounted, top-mounted terminal box
H:	Foot/flange mounted, terminal box top mounted
S:	Foot/flange mounted, terminal box RHS seen from D-end
R:	Foot mounted, terminal box RHS seen from D-end

Position 13 - Voltage and frequency (marked with black dot in data tables)

D:	400 VΔ 50Hz
C:	460 VΔ 60Hz
P:	460 VY 60Hz
U:	690 VΔ 50 Hz
Y:	690 VY 60Hz

Position 14 - Design code

A, B, C, D...Q = Design code must be, if needed, followed by variant codes

Technical data

High Dynamic Performance IP55 motors for 400 V

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
3000 rpm			Network: 400 V											
3.6	M3ET 80A 4	3GET082716--B	3000	360	86.0	0.76	9.0	11.5	4.0	0.00461	22	68		
4.5	M3ET 80B 4	3GET082726--B	3000	370	86.5	0.76	10.6	14.3	4.2	0.00525	24	68		
5.7	M3ET 80C 4	3GET082736--B	3000	340	87.4	0.75	15.0	18.1	4.5	0.00675	28	68		
6.5	M3ET 100A 4	3GET102716--B	3000	330	91.3	0.74	17.0	20.7	5.1	0.0147	45	71		
9.5	M3ET 100B 4	3GET102726--B	3000	340	92.0	0.75	23.5	30.2	5.3	0.0187	52	71		
12.5	M3ET 100C 4	3GET102736--B	3000	340	92.2	0.75	31.2	39.8	5.3	0.0229	60	71		
15	M3ET 100D 4	3GET102746--B	3000	345	92.4	0.77	35.9	47.8	5.2	0.027	69	71		
18	M3ET 100E 4	3GET102756--B	3000	345	92.5	0.75	44.1	57.3	5.4	0.0312	77	71		
18.5	M3ET 132A 4	3GET132716--B	3000	300	92.0	0.81	47.5	58.9	4.8	0.0816	82	76		
25	M3ET 132B 4	3GET132726--B	3000	320	92.3	0.81	60.0	79.6	5.1	0.0995	93	76		
30	M3ET 132C 4	3GET132736--B	3000	310	92.6	0.81	74.4	95.5	5.4	0.118	106	76		
38	M3ET 132D 4	3GET132746--B	3000	320	92.7	0.81	90.6	121	5.8	0.154	131	76		
49	M3ET 132E 4	3GET132756--B	3000	320	92.9	0.82	116	156	5.7	0.19	155	76		
42	M3ET 160A 4	3GET162716--B	3000	320	93.3	0.81	102	134	5.4	0.227	202	77		
49	M3ET 160B 4	3GET162726--B	3000	340	93.5	0.81	111	156	5.6	0.268	226	77		
59	M3ET 160C 4	3GET162736--B	3000	335	93.6	0.81	134	188	6.0	0.33	259	77		
67	M3ET 160D 4	3GET162746--B	3000	340	93.7	0.81	151	213	6.2	0.39	293	77		
65	M3ET 180A 4	3GET182716--B	3000	310	93.3	0.80	159	207	7.6	0.436	389	80		
77	M3ET 180B 4	3GET182726--B	3000	295	93.5	0.80	196	245	7.9	0.536	443	80		
87	M3ET 180C 4	3GET182736--B	3000	280	93.5	0.81	232	277	8.2	0.636	495	80		
103	M3ET 200A 4	3GET202716--B	3000	382	93.9	0.91	182	328	2.8	1.29	628	80		
117	M3ET 200B 4	3GET202726--B	3000	382	94.0	0.91	207	372	2.8	1.49	695	80		
134	M3ET 200C 4	3GET202736--B	3000	382	94.2	0.91	236	427	3.1	1.68	763	80		
2000 rpm			Network: 400 V											
2.8	M3ET 80A 4	3GET082714--B	2000	370	82.7	0.75	7.1	13.4	3.6	0.00461	22	68		
3.4	M3ET 80B 4	3GET082724--B	2000	345	83.3	0.74	9.4	16.2	3.8	0.00525	24	68		
4.4	M3ET 80C 4	3GET082734--B	2000	360	84.4	0.75	11.2	21.0	3.9	0.00675	28	68		
5	M3ET 100A 4	3GET102714--B	2000	335	89.9	0.74	13.2	23.9	4.5	0.0147	45	70		
7	M3ET 100B 4	3GET102724--B	2000	335	90.6	0.75	17.9	33.4	4.7	0.0187	52	70		
9.5	M3ET 100C 4	3GET102734--B	2000	350	90.8	0.75	23.3	45.4	4.8	0.0229	60	70		
12	M3ET 100D 4	3GET102744--B	2000	340	90.9	0.77	29.5	57.3	4.6	0.027	69	70		
14	M3ET 100E 4	3GET102754--B	2000	350	91.1	0.77	33.1	66.9	4.7	0.0312	77	70		
14.5	M3ET 132A 4	3GET132714--B	2000	320	90.6	0.82	35.2	69.2	4.3	0.0816	82	75		
19.5	M3ET 132B 4	3GET132724--B	2000	320	91.1	0.81	47.3	93.2	4.6	0.0995	93	75		
23.5	M3ET 132C 4	3GET132734--B	2000	330	91.5	0.81	55.1	112	4.8	0.118	106	75		
30	M3ET 132D 4	3GET132744--B	2000	320	91.9	0.82	71.7	143	5.1	0.154	131	75		
40	M3ET 132E 4	3GET132754--B	2000	340	92.0	0.82	90.3	191	5.3	0.19	155	75		
36	M3ET 160A 4	3GET162714--B	2000	325	92.6	0.80	86.3	172	5.0	0.227	202	76		
43	M3ET 160B 4	3GET162724--B	2000	340	92.8	0.79	99.9	205	5.5	0.268	226	76		
52	M3ET 160C 4	3GET162734--B	2000	320	93.1	0.79	128	248	5.8	0.33	259	76		
60	M3ET 160D 4	3GET162744--B	2000	340	93.3	0.79	139	286	6.2	0.39	293	76		
54	M3ET 180A 4	3GET182714--B	2000	300	93.2	0.80	137	258	7.0	0.436	389	79		
67	M3ET 180B 4	3GET182724--B	2000	290	93.5	0.80	175	320	7.4	0.536	443	79		
77	M3ET 180C 4	3GET182734--B	2000	290	93.6	0.80	200	368	7.6	0.636	495	79		
95	M3ET 200A 4	3GET202714--B	2000	382	94.3	0.89	172	455	3.2	1.29	628	80		
108	M3ET 200B 4	3GET202724--B	2000	382	94.5	0.90	192	515	3.2	1.49	695	80		
112	M3ET 200C 4	3GET202734--B	2000	382	94.5	0.91	197	535	2.9	1.68	763	80		
116	M3ET 225A 4	3GET222714--B	2000	382	94.9	0.88	210	554	3.5	1.48	800	76		
158	M3ET 225B 4	3GET222724--B	2000	382	94.8	0.90	280	754	2.9	1.8	912	76		
195	M3ET 225C 4	3GET222734--B	2000	382	95.2	0.90	344	931	3.0	2.15	1030	76		
193	M3ET 250A 4	3GET252714--B	2000	382	95.0	0.89	345	922	3.2	2.54	1163	92		
258	M3ET 250B 4	3GET252724--B	2000	382	95.5	0.89	459	1232	3.2	3.29	1372	92		
322	M3ET 250C 4	3GET252734--B	2000	382	95.4	0.90	567	1538	3.1	3.66	1515	92		
320	M3ET 280A 4	3GET282714--B	2000	370	96.4	0.89	582	1528	3.1	3.8	1800	88		
370	M3ET 280B 4	3GET282724--B	2000	370	96.6	0.88	679	1766	3.4	4.2	1950	88		

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current		Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A		T _N Nm	T _{max} T _N			
1750 rpm			Network: 400 V										
173	M3ET 250A 4	3GET252713---B	1750	382	95.0	0.88	313		944	3.5	2.54	1163	92
230	M3ET 250B 4	3GET252723---B	1750	382	95.2	0.90	406		1255	3.2	3.29	1372	92
287	M3ET 250C 4	3GET252733---B	1750	382	95.2	0.90	506		1566	3.0	3.66	1515	92
295	M3ET 280A 4	3GET282713---B	1750	370	96.4	0.88	543		1610	3.3	3.8	1800	88
345	M3ET 280B 4	3GET282723---B	1750	370	96.5	0.87	641		1882	3.3	4.2	1950	88
400	M3ET 280C 4	3GET282733---B	1750	370	96.4	0.89	728		2182	3.2	5.2	2200	88
430	M3ET 315A 4	3GET312713---B	1750	370	96.0	0.88	795		2346	4.1	6.6	2200	88
1500 rpm			Network: 400 V										
2.2	M3ET 80A 4	3GET082712---B	1500	355	79.2	0.74	6.1		14.0	3.3	0.00461	22	68
2.7	M3ET 80B 4	3GET082722---B	1500	355	79.6	0.74	7.4		17.2	3.4	0.00525	24	68
3.5	M3ET 80C 4	3GET082732---B	1500	355	81.2	0.73	9.7		22.3	3.8	0.00675	28	68
4	M3ET 100A 4	3GET102712---B	1500	345	88.6	0.76	10.2		25.5	4.2	0.0147	45	70
5.5	M3ET 100B 4	3GET102722---B	1500	345	89.3	0.76	13.9		35.0	4.5	0.0187	52	70
7.5	M3ET 100C 4	3GET102732---B	1500	345	89.5	0.76	19.0		47.7	4.5	0.0229	60	70
9.5	M3ET 100D 4	3GET102742---B	1500	350	89.6	0.78	23.0		60.5	4.3	0.027	69	70
11	M3ET 100E 4	3GET102752---B	1500	355	89.9	0.76	26.3		70.0	4.4	0.0312	77	70
11	M3ET 132A 4	3GET132712---B	1500	320	88.9	0.80	27.6		70.0	4.0	0.0816	82	74
15	M3ET 132B 4	3GET132722---B	1500	320	89.0	0.81	36.0		95.5	3.8	0.0995	93	74
18.5	M3ET 132C 4	3GET132732---B	1500	345	90.0	0.80	42.6		118	4.5	0.118	106	74
23.5	M3ET 132D 4	3GET132742---B	1500	330	90.4	0.81	55.5		149	4.6	0.154	131	74
30	M3ET 132E 4	3GET132752---B	1500	340	90.9	0.80	69.2		191	5.0	0.19	155	74
30	M3ET 160A 4	3GET162712---B	1500	325	91.5	0.80	73.2		191	4.7	0.227	202	76
35	M3ET 160B 4	3GET162722---B	1500	325	91.9	0.80	85.8		222	5.1	0.268	226	76
45	M3ET 160C 4	3GET162732---B	1500	325	92.1	0.80	109		286	5.2	0.33	259	76
50	M3ET 160D 4	3GET162742---B	1500	320	92.5	0.80	123		317	5.4	0.39	293	76
48	M3ET 180A 4	3GET182712---B	1500	320	92.6	0.80	115		306	5.9	0.436	389	79
58	M3ET 180B 4	3GET182722---B	1500	325	92.9	0.81	135		370	6.1	0.536	443	79
67	M3ET 180C 4	3GET182732---B	1500	315	93.2	0.79	164		426	6.8	0.636	495	79
75	M3ET 200A 4	3GET202712---B	1500	382	94.0	0.89	135		478	3.2	1.29	628	80
85	M3ET 200B 4	3GET202722---B	1500	382	94.3	0.90	151		541	3.2	1.49	695	80
95	M3ET 200C 4	3GET202732---B	1500	382	94.4	0.90	168		601	3.1	1.68	763	80
95	M3ET 225A 4	3GET222712---B	1500	382	94.5	0.88	173		605	3.4	1.48	800	76
132	M3ET 225B 4	3GET222722---B	1500	382	94.7	0.88	239		840	3.5	1.8	912	76
160	M3ET 225C 4	3GET222732---B	1500	382	94.9	0.89	286		1019	3.4	2.15	1030	76
150	M3ET 250A 4	3GET252712---B	1500	382	94.8	0.89	269		955	3.1	2.54	1163	92
200	M3ET 250B 4	3GET252722---B	1500	382	95.1	0.89	357		1273	3.3	3.29	1372	92
250	M3ET 250C 4	3GET252732---B	1500	382	95.0	0.90	442		1592	3.0	3.66	1515	92
265	M3ET 280A 4	3GET282712---B	1500	370	95.9	0.87	496		1687	3.1	3.8	1800	88
315	M3ET 280B 4	3GET282722---B	1500	370	96.0	0.87	589		2005	3.2	4.2	1950	88
370	M3ET 280C 4	3GET282732---B	1500	370	96.0	0.88	684		2355	3.1	5.2	2200	88
400	M3ET 315A 4	3GET312712---B	1500	370	96.2	0.86	755		2546	4.3	6.6	2200	88
450	M3ET 315B 4	3GET312722---B	1500	370	96.3	0.88	829		2865	4.0	7.8	2450	88
540	M3ET 315C 4	3GET312732---B	1500	370	96.5	0.90	970		3438	4.2	9.6	2800	88
700	M3ET 355B 4	3GET352722---B	1500	370	96.4	0.88	1275		4456	3.0	12.7	3900	91
1000 rpm			Network: 400 V										
3	M3ET 100A 4	3GET102711---B	1000	360	84.5	0.76	7.7		28.7	3.6	0.0147	45	70
4	M3ET 100B 4	3GET102721---B	1000	340	85.6	0.76	10.7		38.3	3.9	0.0187	52	70
5.5	M3ET 100C 4	3GET102731---B	1000	335	85.7	0.77	14.6		52.5	3.8	0.0229	60	70
6.5	M3ET 100D 4	3GET102741---B	1000	335	86.3	0.78	17.1		62.2	3.9	0.027	69	70
7.5	M3ET 100E 4	3GET102751---B	1000	335	86.7	0.76	20.1		71.7	4.2	0.0312	77	70
7.5	M3ET 132A 4	3GET132711---B	1000	335	85.4	0.80	18.8		71.5	3.8	0.0816	82	74
11	M3ET 132B 4	3GET132721---B	1000	340	86.0	0.81	26.5		105	3.7	0.0995	93	74
12.5	M3ET 132C 4	3GET132731---B	1000	340	86.9	0.81	29.9		119	4.0	0.118	106	74
16.2	M3ET 132D 4	3GET132741---B	1000	335	88.1	0.80	39.5		155	4.5	0.154	131	74
22	M3ET 132E 4	3GET132751---B	1000	345	88.4	0.81	51.0		210	4.5	0.19	155	74
22	M3ET 160A 4	3GET162711---B	1000	335	88.7	0.80	53.4		210	4.3	0.227	202	76
26	M3ET 160B 4	3GET162721---B	1000	325	89.5	0.80	65.0		248	4.7	0.268	226	76
30	M3ET 160C 4	3GET162731---B	1000	330	90.3	0.80	73.2		286	5.1	0.33	259	76
37	M3ET 160D 4	3GET162741---B	1000	355	90.5	0.81	82.5		352	5.0	0.39	293	76
35	M3ET 180A 4	3GET182711---B	1000	340	90.9	0.79	80.8		333	5.6	0.436	389	80
40	M3ET 180B 4	3GET182721---B	1000	315	91.4	0.80	98.3		382	6.0	0.536	443	79
47	M3ET 180C 4	3GET182731---B	1000	320	91.7	0.80	113		449	6.2	0.636	495	79
51	M3ET 200A 4	3GET202711---B	1000	382	93.0	0.89	93		487	2.9	1.29	628	80
58	M3ET 200B 4	3GET202721---B	1000	382	93.8	0.90	104		554	3.0	1.49	695	80
65	M3ET 200C 4	3GET202731---B	1000	382	93.4	0.91	116		621	2.8	1.68	763	80

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
65	M3ET 225A 4	3GET222711---B	1000	382	93.5	0.88	119	621	3.3	1.48	800	76		
91	M3ET 225B 4	3GET222721---B	1000	382	93.8	0.88	167	869	3.4	1.8	912	76		
108	M3ET 225C 4	3GET222731---B	1000	382	93.6	0.90	194	1032	3.0	2.15	1030	76		
102	M3ET 250A 4	3GET252711---B	1000	382	93.8	0.90	183	975	2.9	2.54	1163	92		
136	M3ET 250B 4	3GET252721---B	1000	382	94.1	0.90	243	1299	2.9	3.29	1372	92		
170	M3ET 250C 4	3GET252731---B	1000	382	94.3	0.90	303	1624	2.7	3.66	1515	92		
180	M3ET 280A 4	3GET282711---B	1000	370	94.7	0.87	341	1719	3.2	3.8	1800	88		
210	M3ET 280B 4	3GET282721---B	1000	370	94.8	0.87	398	2005	3.2	4.2	1950	88		
250	M3ET 280C 4	3GET282731---B	1000	370	94.9	0.88	467	2387	3.2	5.2	2200	88		
265	M3ET 315A 4	3GET312711---B	1000	370	94.4	0.87	504	2530	4.2	6.6	2200	88		
300	M3ET 315B 4	3GET312721---B	1000	370	94.5	0.89	557	2865	4.1	7.8	2450	88		
360	M3ET 315C 4	3GET312731---B	1000	370	94.5	0.90	660	3438	3.8	9.6	2800	88		
420	M3ET 315D 4	3GET312741---B	1000	370	94.6	0.91	761	4011	3.8	11.3	3150	88		
470	M3ET 355B 4	3GET352721---B	1000	370	95.4	0.89	864	4488	3.1	12.7	3900	91		
500	M3ET 355C 4	3GET352731---B	1000	370	95.5	0.90	908	4775	3.1	14.3	4300	91		

* IEC 60034-2 -1; 2014

Technical data

High Dynamic Performance IP55 motors for 690 V

Output, kW	Type designation	Product code	Max. Speed at full power r/min	Efficiency* at Full load 100 %	Power factor cos j	Current	Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pressure level L _{PA} dB
						I _N A	T _N Nm	T _{max} T _N			
2000 rpm			Network: 690 V								
320	M3ET 280A 4	3GET282714---B	2000	96.3	0.89	337	1528	3.1	3.8	1800	88
370	M3ET 280B 4	3GET282724---B	2000	96.5	0.88	393	1766	3.4	4.2	1950	88
430	M3ET 280C 4	3GET282734---B	2000	96.4	0.90	447	2053	3.0	5.2	2200	88
1750 rpm			Network: 690 V								
295	M3ET 280A 4	3GET282713---B	1750	96.3	0.88	314	1610	3.3	3.8	1800	88
345	M3ET 280B 4	3GET282723---B	1750	96.4	0.87	371	1882	3.3	4.2	1950	88
400	M3ET 280C 4	3GET282733---B	1750	96.3	0.89	421	2182	3.2	5.2	2200	88
430	M3ET 315A 4	3GET312713---B	1750	95.9	0.88	460	2346	4.1	6.6	2200	88
490	M3ET 315B 4	3GET312723---B	1750	96.0	0.90	512	2674	3.8	7.8	2450	88
590	M3ET 315C 4	3GET312733---B	1750	96.3	0.90	614	3219	4.2	9.6	2800	88
690	M3ET 315D 4	3GET312743---B	1750	96.4	0.91	710	3765	4.1	11.3	3150	88
770	M3ET 355B 4	3GET352723---B	1750	96.5	0.87	827	4202	2.9	12.7	3900	91
830	M3ET 355C 4	3GET352733---B	1750	96.7	0.87	890	4529	3.2	14.3	4300	91
1500 rpm			Network: 690 V								
265	M3ET 280A 4	3GET282712---B	1500	95.8	0.87	287	1687	3.1	3.8	1800	88
315	M3ET 280B 4	3GET282722---B	1500	95.9	0.87	341	2005	3.2	4.2	1950	88
370	M3ET 280C 4	3GET282732---B	1500	95.9	0.88	396	2355	3.1	5.2	2200	88
400	M3ET 315A 4	3GET312712---B	1500	96.1	0.86	437	2546	4.3	6.6	2200	88
450	M3ET 315B 4	3GET312722---B	1500	96.2	0.89	474	2865	4.0	7.8	2450	88
540	M3ET 315C 4	3GET312732---B	1500	96.4	0.90	562	3438	4.2	9.6	2800	88
630	M3ET 315D 4	3GET312742---B	1500	96.5	0.90	654	4011	3.9	11.3	3150	88
700	M3ET 355B 4	3GET352722---B	1500	96.3	0.88	745	4456	3.0	12.7	3900	91
750	M3ET 355C 4	3GET352732---B	1500	96.5	0.88	800	4775	3.2	14.3	4300	91
1000 rpm			Network: 690 V								
180	M3ET 280A 4	3GET282711---B	1000	94.6	0.87	198	1719	3.2	3.8	1800	88
210	M3ET 280B 4	3GET282721---B	1000	94.7	0.87	230	2005	3.2	4.2	1950	88
250	M3ET 280C 4	3GET282731---B	1000	94.8	0.88	270	2387	3.2	5.2	2200	88
265	M3ET 315A 4	3GET312711---B	1000	94.3	0.87	291	2530	4.2	6.6	2200	88
300	M3ET 315B 4	3GET312721---B	1000	94.4	0.89	322	2865	4.1	7.8	2450	88
360	M3ET 315C 4	3GET312731---B	1000	94.4	0.90	382	3438	3.8	9.6	2800	88
420	M3ET 315D 4	3GET312741---B	1000	94.5	0.91	440	4011	3.8	11.3	3150	88
470	M3ET 355B 4	3GET352721---B	1000	95.3	0.89	500	4488	3.1	12.7	3900	91
500	M3ET 355C 4	3GET352731---B	1000	95.4	0.90	525	4775	3.1	14.3	4300	91

* IEC 60034-2 -1; 2014

Technical data

High Dynamic Performance IP55 motors for 460 V

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current			Torque		Rotor inertia J = 1/4 GD² kgm²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
3600 rpm			Network: 460 V											
4	M3ET 80A 4	3GET082716--B	3600	420	87.0	0.75	8.5	10.6	4.3	0.00461	22	68		
5	M3ET 80B 4	3GET082726--B	3600	420	87.5	0.76	10.5	13.3	4.3	0.00525	24	68		
6.2	M3ET 80C 4	3GET082736--B	3600	390	88.4	0.75	14.1	16.4	4.7	0.00675	28	68		
7	M3ET 100A 4	3GET102716--B	3600	380	91.5	0.75	15.6	18.6	5.4	0.0147	45	72		
10.3	M3ET 100B 4	3GET102726--B	3600	390	91.9	0.76	21.9	27.4	5.4	0.0187	52	72		
13.5	M3ET 100C 4	3GET102736--B	3600	390	92.1	0.76	28.6	35.8	5.5	0.0229	60	72		
15.8	M3ET 100D 4	3GET102746--B	3600	395	92.3	0.77	32.4	42.0	5.5	0.027	69	72		
19	M3ET 100E 4	3GET102756--B	3600	395	92.4	0.77	39.2	50.5	5.7	0.0312	77	72		
20	M3ET 132A 4	3GET132716--B	3600	345	92.2	0.81	43.9	53.1	5.0	0.0816	82	77		
27	M3ET 132B 4	3GET132726--B	3600	370	92.5	0.81	55.2	71.6	5.3	0.0995	93	77		
32	M3ET 132C 4	3GET132736--B	3600	355	92.7	0.81	68.0	84.9	5.6	0.118	106	77		
40.1	M3ET 132D 4	3GET132746--B	3600	365	92.8	0.81	83.3	106	6.1	0.154	131	77		
52	M3ET 132E 4	3GET132756--B	3600	370	93.0	0.81	104	137	6.2	0.19	155	77		
45.2	M3ET 160A 4	3GET162716--B	3600	365	93.3	0.83	93.9	120	5.5	0.227	202	78		
52	M3ET 160B 4	3GET162726--B	3600	390	93.4	0.83	100	137	5.8	0.268	226	78		
63	M3ET 160C 4	3GET162736--B	3600	380	93.6	0.84	125	167	6.1	0.33	259	78		
70	M3ET 160D 4	3GET162746--B	3600	385	93.6	0.84	136	184	6.4	0.39	293	78		
68	M3ET 180A 4	3GET182716--B	3600	335	93.2	0.84	150	180	7.0	0.436	389	80		
79	M3ET 180B 4	3GET182726--B	3600	315	93.3	0.85	184	209	7.3	0.536	443	80		
86	M3ET 180C 4	3GET182736--B	3600	295	93.3	0.85	214	228	7.6	0.636	495	80		
3400 rpm			Network: 460 V											
107	M3ET 200A 4	3GET202716--B	3400	441	94.0	0.9	166	300	2.8	1.29	628	83		
120	M3ET 200B 4	3GET202726--B	3400	441	93.9	0.9	186	337	2.8	1.49	695	83		
137	M3ET 200C 4	3GET202736--B	3400	441	94.0	0.9	212	385	3.1	1.68	763	83		
2400 rpm			Network: 460 V											
3.2	M3ET 80A 4	3GET082714--B	2400	425	84.5	0.75	6.9	12.7	3.8	0.00461	22	68		
3.9	M3ET 80B 4	3GET082724--B	2400	400	85.0	0.74	9.1	15.5	4.0	0.00525	24	68		
5	M3ET 80C 4	3GET082734--B	2400	420	86.0	0.74	10.9	19.9	4.2	0.00675	28	68		
5.6	M3ET 100A 4	3GET102714--B	2400	390	90.7	0.75	12.3	22.3	4.7	0.0147	45	70		
7.8	M3ET 100B 4	3GET102724--B	2400	390	91.2	0.75	16.9	31.1	5.0	0.0187	52	70		
10.6	M3ET 100C 4	3GET102734--B	2400	410	91.4	0.74	22.0	42.2	5.1	0.0229	60	70		
13.2	M3ET 100D 4	3GET102744--B	2400	400	91.6	0.76	27.5	52.5	5.0	0.027	69	70		
15.4	M3ET 100E 4	3GET102754--B	2400	405	91.7	0.78	30.8	61.3	4.9	0.0312	77	70		
16	M3ET 132A 4	3GET132714--B	2400	375	91.4	0.81	32.6	63.7	4.6	0.0816	82	76		
21.3	M3ET 132B 4	3GET132724--B	2400	370	91.9	0.81	43.7	84.9	4.9	0.0995	93	76		
25.5	M3ET 132C 4	3GET132734--B	2400	385	92.2	0.81	50.5	102	5.2	0.118	106	76		
32.8	M3ET 132D 4	3GET132744--B	2400	378	92.6	0.81	65.9	131	5.7	0.154	131	76		
43.6	M3ET 132E 4	3GET132754--B	2400	395	92.7	0.81	83.2	173	5.7	0.19	155	76		
39	M3ET 160A 4	3GET162714--B	2400	375	93.0	0.82	80.3	155	5.2	0.227	202	76		
46.5	M3ET 160B 4	3GET162724--B	2400	390	93.3	0.82	92.3	185	5.6	0.268	226	77		
56	M3ET 160C 4	3GET162734--B	2400	375	93.5	0.81	117	223	5.7	0.33	259	77		
65	M3ET 160D 4	3GET162744--B	2400	400	93.6	0.8	128	259	6.0	0.39	293	77		
58	M3ET 180A 4	3GET182714--B	2400	345	93.3	0.82	127	229	7.4	0.436	389	79		
71	M3ET 180B 4	3GET182724--B	2400	315	93.6	0.85	164	281	7.0	0.536	443	79		
80	M3ET 180C 4	3GET182734--B	2400	320	93.7	0.84	184	318	7.5	0.636	495	79		
2300 rpm			Network: 460 V											
100	M3ET 200A 4	3GET202714--B	2300	441	94.3	0.88	158	415	3.2	1.29	628	83		
113	M3ET 200B 4	3GET202724--B	2300	441	94.6	0.89	176	469	3.2	1.49	695	83		
117	M3ET 200C 4	3GET202734--B	2300	441	94.5	0.9	180	486	2.9	1.68	763	83		
125	M3ET 225A 4	3GET222714--B	2300	441	94.9	0.87	198	519	3.5	1.48	800	79		
171	M3ET 225B 4	3GET222724--B	2300	441	94.9	0.89	265	810	2.9	1.8	912	76		
208	M3ET 225C 4	3GET222734--B	2300	441	95.2	0.89	321	864	3.0	2.15	1030	79		
210	M3ET 250A 4	3GET252714--B	2300	441	95.0	0.88	329	872	3.2	2.54	1163	95		
280	M3ET 250B 4	3GET252724--B	2300	441	95.4	0.89	432	1163	3.2	3.29	1372	95		
352	M3ET 250C 4	3GET252734--B	2300	441	95.5	0.9	536	1461	3.0	3.66	1515	95		

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current			Torque T_N Nm	Rotor inertia $J = 1/4$ GD^2 kgm ²	Weight kg	Sound pres- sure level L_{PA} dB
							I_N A	T_N Nm	T_{max} T_N				
2000 rpm			Network: 460 V										
192	M3ET 250A 4	3GET252713---B	2000	441	95.1	0.88	300	917	3.5	2.54	1163	95	
248	M3ET 250B 4	3GET252723---B	2000	441	95.3	0.89	383	1184	3.3	3.29	1372	95	
310	M3ET 250C 4	3GET252733---B	2000	441	95.3	0.9	473	1480	3.0	3.66	1515	95	
320	M3ET 280A 4	3GET282714---B	2000	430	96.4	0.89	501	1528	3.1	3.8	1800	88	
370	M3ET 280B 4	3GET282724---B	2000	430	96.6	0.88	585	1766	3.4	4.2	1950	88	
1800 rpm			Network: 460 V										
2.6	M3ET 80A 4	3GET082712---B	1800	410	81.6	0.75	6.0	13.8	3.5	0.00461	22	68	
3.2	M3ET 80B 4	3GET082722---B	1800	415	81.9	0.74	7.4	17.0	3.6	0.00525	24	68	
4	M3ET 80C 4	3GET082732---B	1800	410	83.4	0.73	9.4	21.2	4.0	0.00675	28	68	
4.6	M3ET 100A 4	3GET102712---B	1800	400	89.2	0.76	9.8	24.4	4.4	0.0147	45	70	
6.3	M3ET 100B 4	3GET102722---B	1800	405	90.0	0.75	13.4	33.4	4.8	0.0187	52	70	
8.5	M3ET 100C 4	3GET102732---B	1800	405	90.3	0.74	18.3	45.1	4.9	0.0229	60	70	
10.8	M3ET 100D 4	3GET102742---B	1800	410	90.5	0.77	22.0	57.3	4.6	0.027	69	70	
12.9	M3ET 100E 4	3GET102752---B	1800	420	90.7	0.76	25.6	68.5	4.7	0.0312	77	70	
12.8	M3ET 132A 4	3GET132712---B	1800	375	89.7	0.81	26.7	67.9	4.1	0.0816	82	74	
17.3	M3ET 132B 4	3GET132722---B	1800	390	90.2	0.81	34.2	91.9	4.3	0.0995	93	74	
20.8	M3ET 132C 4	3GET132732---B	1800	405	90.8	0.8	40.1	111	4.8	0.118	106	74	
26.7	M3ET 132D 4	3GET132742---B	1800	390	91.2	0.81	52.3	142	5.0	0.154	131	74	
35.5	M3ET 132E 4	3GET132752---B	1800	400	91.5	0.82	67.4	188	5.1	0.19	155	74	
34	M3ET 160A 4	3GET162712---B	1800	380	92.1	0.82	69.9	180	4.9	0.227	202	76	
39	M3ET 160B 4	3GET162722---B	1800	375	92.4	0.82	80.8	207	5.2	0.268	226	76	
50	M3ET 160C 4	3GET162732---B	1800	380	92.8	0.82	102	265	5.0	0.33	259	76	
56	M3ET 160D 4	3GET162742---B	1800	375	93.1	0.82	115	297	5.3	0.39	293	76	
53	M3ET 180A 4	3GET182712---B	1800	375	93.0	0.82	108	281	6.9	0.436	389	78	
64	M3ET 180B 4	3GET182722---B	1800	380	93.3	0.83	126	339	7.1	0.536	443	78	
74	M3ET 180C 4	3GET182732---B	1800	370	93.4	0.8	153	390	8.0	0.636	495	78	
1750 rpm			Network: 460 V										
295	M3ET 280A 4	3GET282713---B	1750	430	96.4	0.88	467	1610	3.3	3.8	1800	88	
345	M3ET 280B 4	3GET282723---B	1750	430	96.5	0.87	552	1882	3.3	4.2	1950	88	
400	M3ET 280C 4	3GET282733---B	1750	430	96.4	0.89	626	2182	3.2	5.2	2200	88	
430	M3ET 315A 4	3GET312713---B	1750	430	96.0	0.88	683	2346	4.1	6.6	2200	88	
1725 rpm			Network: 460 V										
81	M3ET 200A 4	3GET202712---B	1725	441	94.1	0.88	128	448	3.2	1.29	628	83	
91	M3ET 200B 4	3GET202722---B	1725	441	94.4	0.89	142	504	3.2	1.49	695	83	
102	M3ET 200C 4	3GET202732---B	1725	441	94.5	0.89	159	565	3.1	1.68	763	83	
101	M3ET 225A 4	3GET222712---B	1725	441	94.6	0.87	161	559	3.4	1.48	800	79	
141	M3ET 225B 4	3GET222722---B	1725	441	94.7	0.87	224	781	3.5	1.8	912	79	
173	M3ET 225C 4	3GET222732---B	1725	441	95.0	0.88	271	958	3.4	2.15	1030	79	
162	M3ET 250A 4	3GET252712---B	1725	441	94.9	0.88	254	897	3.1	2.54	1163	95	
218	M3ET 250B 4	3GET252722---B	1725	441	95.2	0.89	337	1207	3.3	3.29	1372	95	
270	M3ET 250C 4	3GET252732---B	1725	441	95.1	0.9	413	1495	3.0	3.66	1515	95	
1500 rpm			Network: 460 V										
265	M3ET 280A 4	3GET282712---B	1500	430	95.9	0.87	427	1687	3.1	3.8	1800	88	
315	M3ET 280B 4	3GET282722---B	1500	430	96.0	0.87	506	2005	3.2	4.2	1950	88	
370	M3ET 280C 4	3GET282732---B	1500	430	96.0	0.88	588	2355	3.1	5.2	2200	88	
400	M3ET 315A 4	3GET312712---B	1500	430	96.2	0.86	649	2546	4.3	6.6	2200	88	
450	M3ET 315B 4	3GET312722---B	1500	430	96.3	0.88	713	2865	4.0	7.8	2450	88	
540	M3ET 315C 4	3GET312732---B	1500	430	96.5	0.9	835	3438	4.2	9.6	2800	88	
700	M3ET 355B 4	3GET352722---B	1500	430	96.4	0.88	1110	4456	3.0	12.7	3900	91	
1200 rpm			Network: 460 V										
3.5	M3ET 100A 4	3GET102711---B	1200	425	85.9	0.76	7.5	27.8	4.0	0.0147	45	70	
4.7	M3ET 100B 4	3GET102721---B	1200	400	87.0	0.74	10.5	37.4	4.2	0.0187	52	70	
6.5	M3ET 100C 4	3GET102731---B	1200	400	87.1	0.73	14.6	51.8	4.2	0.0229	60	70	
7.6	M3ET 100D 4	3GET102741---B	1200	390	87.7	0.77	16.6	60.5	4.1	0.027	69	70	
8.8	M3ET 100E 4	3GET102751---B	1200	395	88.1	0.73	19.8	70.1	4.5	0.0312	77	70	
8.9	M3ET 132A 4	3GET132711---B	1200	390	86.7	0.8	18.5	70.8	3.9	0.0816	82	74	
12.8	M3ET 132B 4	3GET132721---B	1200	400	87.5	0.8	25.6	102	4.2	0.0995	93	74	
14.8	M3ET 132C 4	3GET132731---B	1200	405	88.2	0.8	29.1	118	4.3	0.118	106	74	
19	M3ET 132D 4	3GET132741---B	1200	390	89.1	0.8	38.5	151	4.7	0.154	131	74	
25.2	M3ET 132E 4	3GET132751---B	1200	405	89.5	0.81	48.7	201	4.8	0.19	155	74	
25.5	M3ET 160A 4	3GET162711---B	1200	395	89.9	0.81	52.1	203	4.6	0.227	202	76	
30	M3ET 160B 4	3GET162721---B	1200	380	90.5	0.81	63.2	239	4.9	0.268	226	76	
35	M3ET 160C 4	3GET162731---B	1200	395	91.2	0.8	71.6	278	5.0	0.33	259	76	
43	M3ET 160D 4	3GET162741---B	1200	415	91.4	0.83	80.6	342	4.7	0.39	293	76	
41	M3ET 180A 4	3GET182711---B	1200	400	91.8	0.81	78.9	326	6.2	0.436	389	78	

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current			Torque		Rotor inertia J = 1/4 GD² kgm²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
47	M3ET 180B 4	3GET182721---B	1200	370	92.2	0.83	96.0	374	6.5	0.536	443	78		
55	M3ET 180C 4	3GET182731---B	1200	375	92.4	0.83	110	437	6.8	0.636	495	78		
1150 rpm			Network: 460 V											
55	M3ET 200A 4	3GET202711---B	1150	441	93.2	0.88	88.0	457	2.9	1.29	628	83		
62	M3ET 200B 4	3GET202721---B	1150	441	93.9	0.89	97.0	515	3.0	1.49	695	83		
70	M3ET 200C 4	3GET202731---B	1150	441	93.5	0.9	109	581	2.8	1.68	763	83		
70	M3ET 225A 4	3GET222711---B	1150	441	93.6	0.87	113	581	3.3	1.48	800	79		
98	M3ET 225B 4	3GET222721---B	1150	441	93.8	0.87	157	814	3.4	1.8	912	79		
116	M3ET 225C 4	3GET222731---B	1150	441	93.8	0.89	182	963	3.0	2.15	1030	79		
111	M3ET 250A 4	3GET252711---B	1150	441	93.9	0.89	174	922	3.1	2.54	1163	95		
149	M3ET 250B 4	3GET252721---B	1150	441	94.2	0.9	230	1237	3.1	3.29	1372	95		
184	M3ET 250C 4	3GET252731---B	1150	441	94.4	0.9	284	1528	2.7	3.66	1515	95		
1000 rpm			Network: 460 V											
180	M3ET 280A 4	3GET282711---B	1000	430	94.7	0.87	294	1719	3.2	3.8	1800	88		
210	M3ET 280B 4	3GET282721---B	1000	430	94.8	0.87	342	2005	3.2	4.2	1950	88		
250	M3ET 280C 4	3GET282731---B	1000	430	94.9	0.88	402	2387	3.2	5.2	2200	88		
265	M3ET 315A 4	3GET312711---B	1000	430	94.4	0.87	433	2530	4.2	6.6	2200	88		
300	M3ET 315B 4	3GET312721---B	1000	430	94.5	0.89	479	2865	4.1	7.8	2450	88		
360	M3ET 315C 4	3GET312731---B	1000	430	94.5	0.9	568	3438	3.8	9.6	2800	88		
420	M3ET 315D 4	3GET312741---B	1000	430	94.6	0.91	655	4011	3.8	11.3	3150	88		
470	M3ET 355B 4	3GET352721---B	1000	430	95.4	0.89	743	4488	3.1	12.7	3900	91		
500	M3ET 355C 4	3GET352731---B	1000	430	95.5	0.9	780	4775	3.1	14.3	4300	91		

* IEC 60034-2 -1; 2014

Technical data

High Dynamic Performance IP23 motors for 400 V

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current		Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pressure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N				
3000 rpm			Network: 400 V										
12	M3FT 100A 4	3GFT102716---B	3000	375	90.8	0.76	27.1	38.2	3.6	0.0147	49	72	
16.5	M3FT 100B 4	3GFT102726---B	3000	380	91.2	0.76	36.5	52.5	3.7	0.0187	56	72	
20.5	M3FT 100C 4	3GFT102736---B	3000	370	91.6	0.77	45.8	65.3	3.8	0.0229	65	72	
24	M3FT 100D 4	3GFT102746---B	3000	380	91.8	0.78	51.8	76.4	3.9	0.027	72	72	
29	M3FT 100E 4	3GFT102756---B	3000	380	92.0	0.77	63.1	92.3	4.0	0.0312	80	72	
37	M3FT 132A 4	3GFT132716---B	3000	370	91.4	0.81	76.4	118	3.7	0.0816	92	78	
48	M3FT 132B 4	3GFT132726---B	3000	380	91.8	0.82	94.0	153	3.8	0.0995	102	78	
58	M3FT 132C 4	3GFT132736---B	3000	370	92.1	0.83	118	185	4.0	0.118	115	78	
75	M3FT 132D 4	3GFT132746---B	3000	380	92.3	0.83	148	239	4.2	0.154	140	78	
90	M3FT 132E 4	3GFT132756---B	3000	380	92.6	0.84	176	286	4.5	0.19	165	78	
80	M3FT 160A 4	3GFT162716---B	3000	370	93.2	0.84	160	255	3.9	0.227	209	84	
92	M3FT 160B 4	3GFT162726---B	3000	380	93.4	0.88	175	293	3.8	0.268	232	84	
107	M3FT 160C 4	3GFT162736---B	3000	370	93.6	0.88	209	341	4.1	0.33	266	84	
124	M3FT 160D 4	3GFT162746---B	3000	370	93.7	0.89	239	395	4.0	0.39	300	84	
132	M3FT 180A 4	3GFT182716---B	3000	380	93.8	0.82	259	420	5.6	0.436	384	79	
155	M3FT 180B 4	3GFT182726---B	3000	365	94.0	0.82	317	493	6.2	0.536	436	79	
185	M3FT 180C 4	3GFT182736---B	3000	360	94.1	0.82	385	588	6.5	0.636	490	79	
195	M3FT 200A 4	3GFT202716---B	3000	382	93.8	0.91	346	621	2.2	1.29	681	92	
224	M3FT 200B 4	3GFT202726---B	3000	382	94.1	0.91	396	713	2.5	1.49	747	92	
277	M3FT 200C 4	3GFT202736---B	3000	382	94.5	0.91	487	882	2.8	1.68	814	92	
2000 rpm			Network: 400 V										
8.8	M3FT 100A 4	3GFT102714---B	2000	375	87.9	0.77	20.2	42.1	3.1	0.0147	49	72	
12	M3FT 100B 4	3GFT102724---B	2000	380	88.8	0.75	28.0	57.3	3.5	0.0187	56	72	
15	M3FT 100C 4	3GFT102734---B	2000	380	89.3	0.76	33.7	71.8	3.5	0.0229	65	72	
17.5	M3FT 100D 4	3GFT102744---B	2000	370	89.8	0.76	40.3	83.6	3.7	0.027	72	72	
20.5	M3FT 100E 4	3GFT102754---B	2000	380	90.0	0.77	45.4	97.9	3.7	0.0312	80	72	
27	M3FT 132A 4	3GFT132714---B	2000	380	89.1	0.82	54.6	129	3.2	0.0816	92	77	
35	M3FT 132B 4	3GFT132724---B	2000	370	89.8	0.84	72.2	167	3.4	0.0995	102	77	
43	M3FT 132C 4	3GFT132734---B	2000	380	90.1	0.85	85.6	205	3.5	0.118	115	77	
57	M3FT 132D 4	3GFT132744---B	2000	370	90.6	0.86	115	272	3.6	0.154	140	77	
70	M3FT 132E 4	3GFT132754---B	2000	380	90.8	0.86	137	334	3.8	0.19	165	77	
63	M3FT 160A 4	3GFT162714---B	2000	370	91.9	0.84	131	301	3.7	0.227	209	84	
75	M3FT 160B 4	3GFT162724---B	2000	380	92.3	0.83	149	358	3.5	0.268	232	84	
90	M3FT 160C 4	3GFT162734---B	2000	360	92.7	0.84	189	430	3.8	0.33	266	84	
105	M3FT 160D 4	3GFT162744---B	2000	370	92.8	0.86	210	501	3.7	0.39	300	84	
105	M3FT 180A 4	3GFT182714---B	2000	370	93.1	0.79	220	501	5.5	0.436	384	79	
132	M3FT 180B 4	3GFT182724---B	2000	360	93.3	0.79	285	629	5.9	0.536	436	79	
160	M3FT 180C 4	3GFT182734---B	2000	365	93.5	0.80	335	762	5.9	0.636	490	79	
184	M3FT 200A 4	3GFT202714---B	2000	382	93.9	0.90	329	879	2.5	1.29	681	92	
212	M3FT 200B 4	3GFT202724---B	2000	382	94.3	0.90	378	1012	2.7	1.49	747	92	
263	M3FT 200C 4	3GFT202734---B	2000	382	94.5	0.91	463	1256	2.8	1.68	814	92	
242	M3FT 225A 4	3GFT222714---B	2000	382	94.2	0.90	431	1156	2.3	1.48	851	87	
292	M3FT 225B 4	3GFT222724---B	2000	382	94.3	0.90	520	1394	2.3	1.8	963	87	
370	M3FT 225C 4	3GFT222734---B	2000	382	95.0	0.90	654	1767	2.5	2.15	1104	87	
386	M3FT 250A 4	3GFT252714---B	2000	382	95.1	0.88	698	1843	2.6	2.54	1131	88	
515	M3FT 250B 4	3GFT252724---B	2000	382	95.0	0.90	911	2459	2.2	3.29	1340	88	
605	M3FT 250C 4	3GFT252734---B	2000	382	95.2	0.90	1068	2889	2.4	3.66	1483	88	
1750 rpm			Network: 400 V										
345	M3FT 250A 4	3GFT252713---B	1750	382	95.0	0.88	624	1883	2.5	2.54	1131	88	
460	M3FT 250B 4	3GFT252723---B	1750	382	95.1	0.88	831	2510	2.7	3.29	1340	88	
560	M3FT 250C 4	3GFT252733---B	1750	382	95.1	0.88	1013	3056	2.8	3.66	1483	88	
590	M3FT 280A 4	3GFT282713---B	1750	370	95.7	0.86	1119	3219	1.8	3.8	1750	88	
650	M3FT 280B 4	3GFT282723---B	1750	370	96.0	0.87	1214	3547	2.0	4.2	1900	88	
720	M3FT 280C 4	3GFT282733---B	1750	370	96.2	0.88	1327	3929	2.2	5.2	2150	88	
1500 rpm			Network: 400 V										
6.6	M3FT 100A 4	3GFT102712---B	1500	380	85.8	0.80	14.9	42.1	3.0	0.0147	49	72	

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current			Torque		Rotor inertia J = 1/4 GD² kgm²	Weight kg	Sound pressure level L _{pa} dB
							I _N A	T _N Nm	T _{max} T _N					
9	M3FT 100B 4	3GFT102722---B	1500	380	86.8	0.79	20.2	57.3	3.2	0.0187	56	72		
12	M3FT 100C 4	3GFT102732---B	1500	375	87.0	0.79	27.2	76.5	3.2	0.0229	65	72		
14	M3FT 100D 4	3GFT102742---B	1500	380	87.6	0.80	31.0	89.2	3.3	0.027	72	72		
16	M3FT 100E 4	3GFT102752---B	1500	380	88.4	0.77	36.1	102	3.4	0.0312	80	72		
22	M3FT 132A 4	3GFT132712---B	1500	380	86.2	0.84	45.7	140	2.8	0.0816	92	77		
27	M3FT 132B 4	3GFT132722---B	1500	380	87.0	0.85	55.0	172	2.9	0.0995	102	77		
33	M3FT 132C 4	3GFT132732---B	1500	380	87.5	0.86	67.0	210	3.0	0.118	115	77		
43	M3FT 132D 4	3GFT132742---B	1500	380	88.3	0.85	86.5	273	3.3	0.154	140	77		
53	M3FT 132E 4	3GFT132752---B	1500	380	88.9	0.85	106	337	3.5	0.19	165	77		
52	M3FT 160A 4	3GFT162712---B	1500	375	90.3	0.82	109	330	3.3	0.227	209	84		
62	M3FT 160B 4	3GFT162722---B	1500	375	90.6	0.81	130	394	3.4	0.268	232	84		
72	M3FT 160C 4	3GFT162732---B	1500	370	91.3	0.81	153	457	3.8	0.33	266	84		
82	M3FT 160D 4	3GFT162742---B	1500	370	91.8	0.81	174	521	4.8	0.39	300	84		
90	M3FT 180A 4	3GFT182712---B	1500	380	91.8	0.81	184	573	4.8	0.435	384	79		
110	M3FT 180B 4	3GFT182722---B	1500	380	92.2	0.83	219	701	4.8	0.536	436	79		
132	M3FT 180C 4	3GFT182732---B	1500	380	92.5	0.80	271	841	5.5	0.636	490	79		
146	M3FT 200A 4	3GFT202712---B	1500	382	93.5	0.89	265	930	3.0	1.29	681	92		
175	M3FT 200B 4	3GFT202722---B	1500	382	93.7	0.90	314	1114	2.9	1.49	747	92		
202	M3FT 200C 4	3GFT202732---B	1500	382	94.0	0.90	361	1286	3.1	1.68	814	92		
202	M3FT 225A 4	3GFT222712---B	1500	382	93.9	0.88	369	1286	2.7	1.48	851	87		
243	M3FT 225B 4	3GFT222722---B	1500	382	93.9	0.90	435	1547	2.5	1.8	963	87		
295	M3FT 225C 4	3GFT222732---B	1500	382	94.1	0.90	526	1878	2.6	2.15	1104	87		
300	M3FT 250A 4	3GFT252712---B	1500	382	94.1	0.89	542	1906	2.2	2.54	1131	88		
400	M3FT 250B 4	3GFT252722---B	1500	382	94.9	0.89	717	2547	2.6	3.29	1340	88		
480	M3FT 250C 4	3GFT252732---B	1500	382	94.6	0.89	863	3056	2.6	3.66	1483	88		
520	M3FT 280A 4	3GFT282712---B	1500	370	95.4	0.86	990	3310	1.9	3.8	1750	88		
570	M3FT 280B 4	3GFT282722---B	1500	370	95.6	0.87	1070	3629	2.0	4.2	1900	88		
630	M3FT 280C 4	3GFT282732---B	1500	370	95.8	0.88	1166	4011	2.8	5.2	2150	88		
700	M3FT 315A 4	3GFT312712---B	1500	370	95.3	0.89	1288	4456	2.0	6.6	2100	88		
1000 rpm			Network: 400 V											
4.4	M3FT 100A 4	3GFT102711---B	1000	380	81.0	0.79	10.2	42.1	2.6	0.0147	49	72		
6	M3FT 100B 4	3GFT102721---B	1000	380	82.3	0.75	14.8	57.4	3.1	0.0187	56	72		
8	M3FT 100C 4	3GFT102731---B	1000	380	82.7	0.73	20.1	76.6	3.1	0.0229	65	72		
9.5	M3FT 100D 4	3GFT102741---B	1000	380	83.6	0.75	23.5	90.9	3.3	0.027	72	72		
11	M3FT 100E 4	3GFT102751---B	1000	380	83.8	0.72	27.9	105	3.4	0.0312	80	72		
14.2	M3FT 132A 4	3GFT132711---B	1000	375	81.0	0.86	30.6	135	2.4	0.0816	92	75		
18	M3FT 132B 4	3GFT132721---B	1000	375	82.9	0.85	38.5	172	2.7	0.0995	102	77		
22	M3FT 132C 4	3GFT132731---B	1000	380	83.4	0.86	45.9	210	2.7	0.118	115	77		
28.4	M3FT 132D 4	3GFT132741---B	1000	375	85.2	0.84	59.9	271	3.2	0.154	140	77		
36	M3FT 132E 4	3GFT132751---B	1000	380	85.7	0.85	74.9	344	3.2	0.19	165	77		
35	M3FT 160A 4	3GFT162711---B	1000	380	87.2	0.81	75.2	334	3.9	0.227	209	84		
42	M3FT 160B 4	3GFT162721---B	1000	370	87.9	0.80	92.7	401	4.2	0.268	232	84		
49	M3FT 160C 4	3GFT162731---B	1000	380	88.9	0.80	104	467	3.7	0.33	266	84		
56	M3FT 160D 4	3GFT162741---B	1000	380	89.0	0.85	113	534	4.0	0.39	300	84		
60	M3FT 180A 4	3GFT182711---B	1000	380	89.4	0.82	123	573	4.3	0.435	384	79		
80	M3FT 180B 4	3GFT182721---B	1000	380	89.9	0.81	165	762	4.6	0.536	436	79		
92	M3FT 180C 4	3GFT182731---B	1000	380	90.2	0.82	187	878	4.7	0.636	490	79		
101	M3FT 200A 4	3GFT202711---B	1000	382	91.7	0.90	185	965	2.7	1.29	681	92		
120	M3FT 200B 4	3GFT202721---B	1000	382	92.1	0.90	219	1146	2.8	1.49	747	92		
137	M3FT 200C 4	3GFT202731---B	1000	382	92.5	0.90	249	1308	3.0	1.68	814	92		
140	M3FT 225A 4	3GFT222711---B	1000	382	92.2	0.88	261	1337	2.4	1.48	851	87		
175	M3FT 225B 4	3GFT222721---B	1000	382	92.7	0.87	328	1671	2.7	1.8	963	87		
205	M3FT 225C 4	3GFT222731---B	1000	382	92.9	0.89	375	1958	2.7	2.15	1104	87		
205	M3FT 250A 4	3GFT252711---B	1000	382	93.0	0.89	375	1958	2.4	2.54	1131	88		
272	M3FT 250B 4	3GFT252721---B	1000	382	93.2	0.90	491	2598	2.3	3.29	1340	88		
330	M3FT 250C 4	3GFT252731---B	1000	382	93.5	0.89	600	3152	2.5	3.66	1483	88		
340	M3FT 280A 4	3GFT282711---B	1000	370	93.8	0.86	658	3247	2.0	3.8	1750	88		
370	M3FT 280B 4	3GFT282721---B	1000	370	93.9	0.87	707	3533	2.0	4.2	1900	88		
420	M3FT 280C 4	3GFT282731---B	1000	370	94.4	0.88	789	4011	2.3	5.2	2150	88		
470	M3FT 315A 4	3GFT312711---B	1000	370	93.7	0.90	870	4488	2.2	6.6	2100	88		
550	M3FT 315B 4	3GFT312721---B	1000	370	94.1	0.90	1014	5252	2.6	7.8	2350	88		
640	M3FT 315C 4	3GFT312731---B	1000	370	94.7	0.90	1172	6112	3.0	9.6	2700	88		
750	M3FT 315D 4	3GFT312741---B	1000	370	95.0	0.90	1369	7162	3.2	11.3	3050	88		
800	M3FT 355A 4	3GFT352711---B	1000	370	93.9	0.88	1510	7640	2.0	11.6	3400	91		
880	M3FT 355B 4	3GFT352721---B	1000	370	93.9	0.89	1643	8404	2.0	12.7	3700	91		
1000	M3FT 355C 4	3GFT352731---B	1000	370	94.5	0.88	1876	9550	2.5	14.3	4100	91		

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pressure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
500 rpm					Network: 400 V									
240	M3FT 315A 4	3GFT312710---B	500	370	89.7	0.90	464	4584	2.3	6.6	2100	88		
280	M3FT 315B 4	3GFT312720---B	500	370	90.2	0.91	533	5348	2.4	7.8	2350	88		
330	M3FT 315C 4	3GFT312730---B	500	370	90.8	0.91	623	6303	2.5	9.6	2700	88		
380	M3FT 315D 4	3GFT312740---B	500	370	91.4	0.92	705	7258	2.6	11.3	3050	88		
420	M3FT 355A 4	3GFT352710---B	500	370	90.4	0.88	824	8022	2.0	11.6	3400	91		
460	M3FT 355B 4	3GFT352720---B	500	370	90.4	0.89	873	8786	2.0	12.7	3700	91		
520	M3FT 355C 4	3GFT352730---B	500	370	89.1	0.90	1012	9932	1.8	14.3	4100	91		
560	M3FT 400B 4	3GFT402720---B	500	370	92.9	0.86	1090	10695	1.9	24	4550	91		
630	M3FT 400C 4	3GFT402730---B	500	370	92.6	0.87	1220	12033	1.8	27	4950	91		
700	M3FT 400D 4	3GFT402740---B	500	370	92.4	0.87	1360	13370	1.7	32	5500	91		

* IEC 60034-2 -1; 2014

Technical data

High Dynamic Performance IP23 motors for 690 V

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
2000 rpm			Network: 690 V											
650	M3FT 280A 4	3GFT282714---B	2000	640	96.0	0.87	702	3103	1.9	3.8	1750	88		
740	M3FT 280B 4	3GFT282724---B	2000	640	96.3	0.86	806	3533	2.3	4.2	1900	88		
810	M3FT 280C 4	3GFT282734---B	2000	640	96.4	0.88	861	3867	2.3	5.2	2150	88		
1750 rpm			Network: 690 V											
810	M3FT 315A 4	3GFT312713---B	1750	640	95.6	0.89	859	4420	2.1	6.6	2100	88		
950	M3FT 315B 4	3GFT312723---B	1750	640	96.1	0.90	991	5184	2.3	7.8	2350	88		
1100	M3FT 315C 4	3GFT312733---B	1750	640	96.7	0.89	1153	6002	2.8	9.6	2700	88		
1250	M3FT 315D 4	3GFT312743---B	1750	640	96.9	0.90	1293	6821	3.0	11.3	3050	88		
1350	M3FT 355A 4	3GFT352713---B	1750	640	95.8	0.89	1428	7367	1.9	11.6	3400	91		
1500	M3FT 355B 4	3GFT352723---B	1750	640	96.0	0.89	1583	8185	2.0	12.7	3700	91		
1700	M3FT 355C 4	3GFT352733---B	1750	640	96.3	0.89	1790	9277	2.2	14.3	4100	91		
1800	M3FT 400B 4	3GFT402723---B	1750	640	96.5	0.87	1940	9822	1.8	24	4550	91		
2000	M3FT 400C 4	3GFT402733---B	1750	640	96.8	0.87	2140	10913	2.0	27	4950	91		
1500 rpm			Network: 690 V											
700	M3FT 315A 4	3GFT312712---B	1500	640	95.2	0.89	745	4456	2.0	6.6	2100	88		
820	M3FT 315B 4	3GFT312722---B	1500	640	95.5	0.90	860	5220	2.0	7.8	2350	88		
950	M3FT 315C 4	3GFT312732---B	1500	640	95.9	0.90	993	6048	2.4	9.6	2700	88		
1100	M3FT 315D 4	3GFT312742---B	1500	640	96.7	0.90	1140	7003	3.0	11.3	3050	88		
1200	M3FT 355A 4	3GFT352712---B	1500	640	95.6	0.88	1287	7640	1.9	11.6	3400	91		
1320	M3FT 355B 4	3GFT352722---B	1500	640	95.8	0.89	1397	8404	2.1	12.7	3700	91		
1500	M3FT 355C 4	3GFT352732---B	1500	640	96.0	0.88	1602	9550	2.2	14.3	4100	91		
1600	M3FT 400B 4	3GFT402722---B	1500	640	96.2	0.86	1745	10186	1.7	24	4550	91		
1800	M3FT 400C 4	3GFT402732---B	1500	640	96.4	0.86	1960	11459	1.7	27	4950	91		
2000	M3FT 400D 4	3GFT402742---B	1500	640	96.9	0.86	2160	12732	2.4	32	5500	91		
1000 rpm			Network: 690 V											
470	M3FT 315A 4	3GFT312711---B	1000	640	93.6	0.90	504	4488	2.2	6.6	2100	88		
550	M3FT 315B 4	3GFT312721---B	1000	640	94.0	0.90	587	5252	2.6	7.8	2350	88		
640	M3FT 315C 4	3GFT312731---B	1000	640	94.6	0.90	678	6112	3.0	9.6	2700	88		
750	M3FT 315D 4	3GFT312741---B	1000	640	94.9	0.90	792	7162	3.2	11.3	3050	88		
800	M3FT 355A 4	3GFT352711---B	1000	640	93.8	0.88	875	7640	2.0	11.6	3400	91		
880	M3FT 355B 4	3GFT352721---B	1000	640	93.8	0.89	950	8404	2.0	12.7	3700	91		
1000	M3FT 355C 4	3GFT352731---B	1000	640	94.4	0.88	1086	9550	2.3	14.3	4100	91		
1100	M3FT 400B 4	3GFT402721---B	1000	640	95.1	0.86	1210	10504	1.7	24	4550	91		
1200	M3FT 400C 4	3GFT402731---B	1000	640	95.2	0.86	1320	11459	1.7	27	4950	91		
1350	M3FT 400D 4	3GFT402741---B	1000	640	95.2	0.87	1470	12892	1.7	32	5500	91		

* IEC 60034-2 -1; 2014

Technical data

High Dynamic Performance IP23 motors for 460 V

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
3600 rpm			Network: 460 V											
13	M3FT 100A 4	3GFT102716--B	3600	435	91.3	0.78	24.4	34.5	3.8	0.0147	49	73		
18	M3FT 100B 4	3GFT102726--B	3600	440	91.8	0.78	33.1	47.7	4.0	0.0187	56	72		
22	M3FT 100C 4	3GFT102736--B	3600	430	91.9	0.79	41.1	58.3	4.1	0.0229	65	72		
25.8	M3FT 100D 4	3GFT102746--B	3600	440	92.3	0.79	46.7	68.4	4.2	0.027	72	72		
31	M3FT 100E 4	3GFT102756--B	3600	440	92.4	0.79	56.5	82.2	4.3	0.0312	80	72		
40	M3FT 132A 4	3GFT132716--B	3600	430	92.0	0.82	71.6	106	4.0	0.0816	92	79		
52	M3FT 132B 4	3GFT132726--B	3600	440	92.3	0.83	89.1	138	4.0	0.0995	102	79		
61	M3FT 132C 4	3GFT132736--B	3600	430	92.6	0.82	108	160	4.5	0.118	115	79		
78	M3FT 132D 4	3GFT132746--B	3600	440	92.9	0.83	134	207	4.7	0.154	140	79		
94	M3FT 132E 4	3GFT132756--B	3600	440	93.1	0.83	160	249	4.9	0.19	165	79		
85	M3FT 160A 4	3GFT162716--B	3600	435	93.6	0.83	145	225	3.9	0.227	209	84		
96	M3FT 160B 4	3GFT162726--B	3600	440	93.7	0.86	158	255	4.1	0.268	232	84		
110	M3FT 160C 4	3GFT162736--B	3600	435	94.0	0.85	185	292	4.5	0.33	266	84		
129	M3FT 160D 4	3GFT162746--B	3600	430	94.0	0.87	215	342	4.6	0.39	300	84		
135	M3FT 180A 4	3GFT182716--B	3600	430	93.8	0.82	235	358	6.0	0.436	384	79		
156	M3FT 180B 4	3GFT182726--B	3600	410	94.0	0.82	285	414	6.5	0.536	436	79		
182	M3FT 180C 4	3GFT182736--B	3600	400	94.0	0.81	333	483	6.9	0.636	490	79		
3400 rpm			Network: 460 V											
210	M3FT 200A 4	3GFT202716--B	3400	441	93.8	0.91	322	590	2.2	1.29	681	95		
235	M3FT 200B 4	3GFT202726--B	3400	441	94.1	0.90	364	660	2.5	1.49	747	95		
287	M3FT 200C 4	3GFT202736--B	3400	441	94.6	0.90	442	806	2.8	1.68	814	95		
2400 rpm			Network: 460 V											
10.2	M3FT 100A 4	3GFT102714--B	2400	435	89.2	0.79	19.2	40.5	3.2	0.0147	49	73		
13.9	M3FT 100B 4	3GFT102724--B	2400	440	90.1	0.78	26.1	55.2	3.5	0.0187	56	72		
17.3	M3FT 100C 4	3GFT102734--B	2400	440	90.5	0.80	31.7	68.7	3.5	0.0229	65	72		
20	M3FT 100D 4	3GFT102744--B	2400	430	90.8	0.79	37.7	79.5	3.8	0.027	72	72		
24	M3FT 100E 4	3GFT102754--B	2400	440	92.3	0.80	43.4	95.4	3.7	0.0312	80	72		
31.2	M3FT 132A 4	3GFT132714--B	2400	440	90.1	0.84	53.8	124	3.3	0.0816	92	78		
40	M3FT 132B 4	3GFT132724--B	2400	430	90.8	0.84	70.3	159	3.5	0.0995	102	78		
48	M3FT 132C 4	3GFT132734--B	2400	440	91.1	0.84	81.8	191	3.6	0.118	115	78		
65	M3FT 132D 4	3GFT132744--B	2400	440	91.7	0.84	110	258	3.9	0.154	140	78		
78	M3FT 132E 4	3GFT132754--B	2400	440	91.7	0.85	131	310	4.0	0.19	165	78		
71	M3FT 160A 4	3GFT162714--B	2400	440	92.8	0.82	124	282	3.6	0.227	209	84		
84	M3FT 160B 4	3GFT162724--B	2400	440	93.0	0.84	142	332	3.6	0.268	232	84		
99	M3FT 160C 4	3GFT162734--B	2400	425	93.4	0.82	177	394	4.9	0.33	266	84		
114	M3FT 160D 4	3GFT162744--B	2400	440	93.6	0.83	194	453	4.9	0.39	300	84		
118	M3FT 180A 4	3GFT182714--B	2400	430	93.5	0.80	211	469	5.7	0.436	384	79		
145	M3FT 180B 4	3GFT182724--B	2400	415	93.7	0.80	268	576	6.0	0.536	436	79		
174	M3FT 180C 4	3GFT182734--B	2400	425	93.8	0.80	314	691	6.3	0.636	490	79		
2300 rpm			Network: 460 V											
195	M3FT 200A 4	3GFT202714--B	2300	441	94.0	0.89	306	810	2.5	1.29	681	95		
223	M3FT 200B 4	3GFT202724--B	2300	441	94.4	0.89	348	926	2.7	1.49	747	95		
275	M3FT 200C 4	3GFT202734--B	2300	441	94.6	0.90	423	1142	2.8	1.68	814	95		
258	M3FT 225A 4	3GFT222714--B	2300	441	94.3	0.89	402	1071	2.3	1.48	851	90		
310	M3FT 225B 4	3GFT222724--B	2300	441	94.3	0.90	478	1287	2.3	1.8	963	90		
388	M3FT 225C 4	3GFT222734--B	2300	441	95.2	0.89	600	1611	2.5	2.15	1104	90		
416	M3FT 250A 4	3GFT252714--B	2300	441	95.1	0.87	658	1728	2.6	2.54	1131	91		
553	M3FT 250B 4	3GFT252724--B	2300	441	95.2	0.90	849	2296	2.2	3.29	1340	91		
635	M3FT 250C 4	3GFT252734--B	2300	441	95.3	0.89	977	2637	2.4	3.66	1483	91		
2000 rpm			Network: 460 V											
375	M3FT 250A 4	3GFT252713--B	2000	441	95.1	0.88	587	1791	2.5	2.54	1131	91		
497	M3FT 250B 4	3GFT252723--B	2000	441	95.2	0.87	787	2373	2.7	3.29	1340	91		
590	M3FT 250C 4	3GFT252733--B	2000	441	95.2	0.87	934	2817	2.8	3.66	1483	91		
1800 rpm			Network: 460 V											
7.9	M3FT 100A 4	3GFT102712--B	1800	440	87.2	0.81	14.7	41.9	3.1	0.0147	49	72		
10.8	M3FT 100B 4	3GFT102722--B	1800	440	88.1	0.83	20.0	57.3	3.2	0.0187	56	72		

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current	Torque	Rotor inertia J = 1/4 GD² kgm²	Weight kg	Sound pres- sure level L _{PA} dB	
							I _N A	T _N Nm				T _{max} T _N
13.8	M3FT 100C 4	3GFT102732---B	1800	435	88.6	0.79	26.2	73.2	3.4	0.0229	65	72
16	M3FT 100D 4	3GFT102742---B	1800	440	89.1	0.79	29.7	84.8	3.5	0.027	72	72
18.5	M3FT 100E 4	3GFT102752---B	1800	440	89.3	0.81	33.7	98.1	3.5	0.0312	80	72
25	M3FT 132A 4	3GFT132712---B	1800	440	87.6	0.84	44.1	133	3.1	0.0816	92	77
31	M3FT 132B 4	3GFT132722---B	1800	440	88.2	0.85	53.6	165	3.0	0.0995	102	77
37	M3FT 132C 4	3GFT132732---B	1800	440	88.9	0.86	63.3	196	3.1	0.118	115	77
49	M3FT 132D 4	3GFT132742---B	1800	440	89.5	0.85	83.8	259	3.4	0.154	140	77
61	M3FT 132E 4	3GFT132752---B	1800	440	89.9	0.86	103	323	3.6	0.19	165	77
59	M3FT 160A 4	3GFT162712---B	1800	440	91.5	0.81	105	313	3.4	0.227	209	84
70	M3FT 160B 4	3GFT162722---B	1800	435	91.8	0.82	124	372	4.2	0.268	232	84
83	M3FT 160C 4	3GFT162732---B	1800	435	92.3	0.81	148	441	4.6	0.33	266	84
96	M3FT 160D 4	3GFT162742---B	1800	430	92.6	0.82	171	510	4.8	0.39	300	84
100	M3FT 180A 4	3GFT182712---B	1800	440	92.6	0.82	174	530	5.0	0.435	384	79
124	M3FT 180B 4	3GFT182722---B	1800	440	92.9	0.83	210	657	4.9	0.536	436	79
150	M3FT 180C 4	3GFT182732---B	1800	440	93.1	0.81	261	795	5.6	0.636	490	79
1750 rpm			Network: 460 V									
590	M3FT 280A 4	3GFT282713---B	1750	430	95.7	0.86	963	3219	1.8	3.8	1750	88
650	M3FT 280B 4	3GFT282723---B	1750	430	96.0	0.87	1045	3547	2.0	4.2	1900	88
720	M3FT 280C 4	3GFT282733---B	1750	430	96.2	0.88	1142	3929	2.2	5.2	2150	88
810	M3FT 315A 4	3GFT312713---B	1750	430	95.7	0.89	1277	4420	2.1	6.6	2100	88
1725 rpm			Network: 460 V									
160	M3FT 200A 4	3GFT202712---B	1725	441	93.6	0.88	255	886	3.0	1.29	681	95
190	M3FT 200B 4	3GFT202722---B	1725	441	93.8	0.89	298	1052	2.9	1.49	747	95
217	M3FT 200C 4	3GFT202732---B	1725	441	94.2	0.89	339	1201	3.1	1.68	814	95
218	M3FT 225A 4	3GFT222712---B	1725	441	94.0	0.87	349	1207	2.7	1.48	851	90
258	M3FT 225B 4	3GFT222722---B	1725	441	94.1	0.89	403	1428	2.5	1.8	963	90
311	M3FT 225C 4	3GFT222732---B	1725	441	94.2	0.89	486	1722	2.6	2.15	1104	90
325	M3FT 250A 4	3GFT252712---B	1725	441	94.3	0.89	508	1799	2.2	2.54	1131	91
435	M3FT 250B 4	3GFT252722---B	1725	441	95.1	0.88	681	2408	2.6	3.29	1340	91
520	M3FT 250C 4	3GFT252732---B	1725	441	94.8	0.88	817	2879	2.6	3.66	1483	91
1500 rpm			Network: 460 V									
520	M3FT 280A 4	3GFT282712---B	1500	430	95.4	0.86	851	3310	1.9	3.8	1750	88
570	M3FT 280B 4	3GFT282722---B	1500	430	95.6	0.87	920	3629	2.0	4.2	1900	88
630	M3FT 280C 4	3GFT282732---B	1500	430	95.8	0.88	1003	4011	2.8	5.2	2150	88
700	M3FT 315A 4	3GFT312712---B	1500	430	95.3	0.89	1110	4456	2.0	6.6	2100	88
820	M3FT 315B 4	3GFT312722---B	1500	430	95.6	0.90	1170	5220	2.0	7.8	2350	88
1200 rpm			Network: 460 V									
5.3	M3FT 100A 4	3GFT102711---B	1200	440	83.0	0.82	10.1	42.2	2.7	0.0147	49	72
7.2	M3FT 100B 4	3GFT102721---B	1200	440	84.4	0.76	14.6	57.3	3.3	0.0187	56	72
9.6	M3FT 100C 4	3GFT102731---B	1200	430	84.8	0.78	19.6	76.3	3.2	0.0229	65	72
11.3	M3FT 100D 4	3GFT102741---B	1200	435	87.8	0.77	22.9	89.8	3.4	0.027	72	72
13	M3FT 100E 4	3GFT102751---B	1200	425	85.9	0.77	26.6	104	3.4	0.0312	80	72
17	M3FT 132A 4	3GFT132711---B	1200	435	82.6	0.86	31.0	135	2.6	0.0816	92	75
21.5	M3FT 132B 4	3GFT132721---B	1200	435	84.4	0.86	38.7	171	2.7	0.0995	102	77
26.4	M3FT 132C 4	3GFT132731---B	1200	440	84.8	0.87	46.4	210	3.0	0.118	115	77
34	M3FT 132D 4	3GFT132741---B	1200	440	86.6	0.85	60.1	271	3.3	0.154	140	77
43	M3FT 132E 4	3GFT132751---B	1200	440	86.9	0.86	74.5	342	3.3	0.19	165	77
42	M3FT 160A 4	3GFT162711---B	1200	440	88.7	0.82	75.5	334	3.1	0.227	209	84
50	M3FT 160B 4	3GFT162721---B	1200	430	89.4	0.82	92.2	397	3.4	0.268	232	84
58	M3FT 160C 4	3GFT162731---B	1200	440	90.2	0.82	103	460	4.3	0.33	266	84
66	M3FT 160D 4	3GFT162741---B	1200	440	90.2	0.86	112	524	3.5	0.39	300	84
72	M3FT 180A 4	3GFT182711---B	1200	440	90.3	0.83	124	572	4.2	0.435	384	79
93	M3FT 180B 4	3GFT182721---B	1200	440	90.9	0.82	162	738	4.7	0.536	436	79
108	M3FT 180C 4	3GFT182731---B	1200	440	91.1	0.83	186	859	4.8	0.636	490	79
1150 rpm			Network: 460 V									
112	M3FT 200A 4	3GFT202711---B	1150	441	91.8	0.89	180	930	2.7	1.29	681	95
130	M3FT 200B 4	3GFT202721---B	1150	441	92.2	0.90	205	1080	2.8	1.49	747	95
150	M3FT 200C 4	3GFT202731---B	1150	441	92.6	0.89	239	1245	3.0	1.68	814	95
152	M3FT 225A 4	3GFT222711---B	1150	441	92.4	0.87	248	1262	2.4	1.48	851	90
188	M3FT 225B 4	3GFT222721---B	1150	441	92.9	0.86	308	1561	2.7	1.8	963	90
216	M3FT 225C 4	3GFT222731---B	1150	441	93.0	0.88	346	1794	2.7	2.15	1104	90
223	M3FT 250A 4	3GFT252711---B	1150	441	93.3	0.88	356	1852	2.4	2.54	1131	91
299	M3FT 250B 4	3GFT252721---B	1150	441	93.4	0.90	468	2483	2.3	3.29	1340	91
360	M3FT 250C 4	3GFT252731---B	1150	441	93.7	0.88	572	2988	2.5	3.66	1483	91
1000 rpm			Network: 460 V									
420	M3FT 280C 4	3GFT282731---B	1000	430	94.4	0.88	679	4011	2.3	5.2	2150	88

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
470	M3FT 315A 4	3GFT312711---B	1000	430	93.7	0.90	749	4488	2.2	6.6	2100	88		
550	M3FT 315B 4	3GFT312721---B	1000	430	94.1	0.90	872	5252	2.6	7.8	2350	88		
640	M3FT 315C 4	3GFT312731---B	1000	430	94.7	0.90	1008	6112	3.0	9.6	2700	88		
750	M3FT 315D 4	3GFT312741---B	1000	430	95.0	0.90	1178	7162	3.2	11.3	3050	88		
800	M3FT 355A 4	3GFT352711---B	1000	430	93.9	0.88	1300	7640	2.0	11.6	3400	91		
880	M3FT 355B 4	3GFT352721---B	1000	430	93.9	0.89	1414	8404	2.0	12.7	3700	91		
1000	M3FT 355C 4	3GFT352731---B	1000	430	94.5	0.88	1615	9550	2.5	14.3	4100	91		
1100	M3FT 400B 4	3GFT402721---B	1000	430	95.2	0.86	1804	10504	1.7	24	4550	91		
1200	M3FT 400C 4	3GFT402731---B	1000	430	95.3	0.86	1970	11459	1.7	27	4950	91		
500 rpm			Network: 460 V											
240	M3FT 315A 4	3GFT312710---B	500	430	89.7	0.90	400	4584	2.3	6.6	2100	88		
280	M3FT 315B 4	3GFT312720---B	500	430	90.2	0.91	452	5348	2.4	7.8	2350	88		
330	M3FT 315C 4	3GFT312730---B	500	430	90.8	0.91	536	6303	2.5	9.6	2700	88		
380	M3FT 315D 4	3GFT312740---B	500	430	91.4	0.92	607	7257	2.6	11.3	3050	88		
420	M3FT 355A 4	3GFT352710---B	500	430	90.4	0.88	709	8022	2.0	11.6	3400	91		
460	M3FT 355B 4	3GFT352720---B	500	430	90.4	0.89	768	8786	2.0	11.7	3700	91		
520	M3FT 355C 4	3GFT352730---B	500	430	89.1	0.90	871	9932	1.8	14.3	4100	91		
560	M3FT 400B 4	3GFT402720---B	500	430	92.9	0.86	940	10695	1.9	24	4550	91		
630	M3FT 400C 4	3GFT402730---B	500	430	92.6	0.87	1000	12033	1.8	27	4950	91		
700	M3FT 400D 4	3GFT402740---B	500	430	92.4	0.87	1170	13370	1.7	32	5500	91		

* IEC 60034-2 -1; 2014

Technical data

High Dynamic Performance IP55 liquid-cooled motors for 400 V

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current	Torque		Rotor inertia $J = 1/4$ GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N			
3000 rpm			Network: 400 V									
4.2	M3LT 80A 4	3GLT082716---B	3000	380	86.80	0.77	9.5	13.4	3.8	0.00461	21	66
5.5	M3LT 80B 4	3GLT082726---B	3000	380	87.00	0.79	12.1	17.5	3.6	0.00525	22	66
7.5	M3LT 80C 4	3GLT082736---B	3000	380	87.90	0.74	17.3	23.9	4.3	0.00675	27	66
10.8	M3LT 100A 4	3GLT102716---B	3000	350	91.20	0.80	24.5	34.4	3.4	0.0147	42	71
14.8	M3LT 100B 4	3GLT102726---B	3000	355	91.60	0.80	32.9	47.1	3.7	0.0187	50	71
18.5	M3LT 100C 4	3GLT102736---B	3000	350	91.90	0.81	41.6	58.9	3.8	0.0229	58	71
21.5	M3LT 100D 4	3GLT102746---B	3000	360	92.10	0.81	46.9	68.4	3.9	0.027	66	71
26	M3LT 100E 4	3GLT102756---B	3000	360	92.30	0.80	56.9	82.8	4.0	0.0312	75	71
24.5	M3LT 132A 4	3GLT132716---B	3000	330	91.90	0.82	57.1	77.9	4.4	0.0816	79	73
31.5	M3LT 132B 4	3GLT132726---B	3000	345	92.30	0.82	69.9	100	4.7	0.0995	89	73
37	M3LT 132C 4	3GLT132736---B	3000	330	92.50	0.82	85.7	118	5.0	0.118	102	73
47	M3LT 132D 4	3GLT132746---B	3000	340	92.70	0.81	106	150	5.4	0.154	127	73
60	M3LT 132E 4	3GLT132756---B	3000	350	92.90	0.81	131	191	5.6	0.19	152	73
55	M3LT 160A 4	3GLT162716---B	3000	340	93.10	0.82	122	175	4.7	0.227	196	76
64	M3LT 160B 4	3GLT162726---B	3000	355	93.30	0.84	134	204	4.7	0.268	220	76
78	M3LT 160C 4	3GLT162736---B	3000	355	93.40	0.83	164	248	5.2	0.33	253	76
90	M3LT 160D 4	3GLT162746---B	3000	360	93.50	0.84	185	286	5.2	0.39	287	76
90	M3LT 180A 4	3GLT182716---B	3000	345	93.70	0.81	194	286	6.8	0.436	379	78
110	M3LT 180B 4	3GLT182726---B	3000	330	93.90	0.82	245	349	7.0	0.536	432	78
125	M3LT 180C 4	3GLT182736---B	3000	320	93.90	0.81	289	398	7.6	0.636	485	78
2000 rpm			Network: 400 V									
3.3	M3LT 80A 4	3GLT082714---B	2000	380	83.40	0.78	7.6	15.8	3.2	0.00461	21	66
4.5	M3LT 80B 4	3GLT082724---B	2000	375	83.70	0.75	10.9	21.5	3.4	0.00525	22	66
5.7	M3LT 80C 4	3GLT082734---B	2000	380	84.60	0.79	12.8	27.2	3.3	0.00675	27	66
8.2	M3LT 100A 4	3GLT102714---B	2000	365	88.80	0.79	18.7	39.2	3.2	0.0147	42	70
11.2	M3LT 100B 4	3GLT102724---B	2000	370	89.60	0.77	25.5	53.5	3.6	0.0187	50	70
13.8	M3LT 100C 4	3GLT102734---B	2000	370	90.00	0.79	30.8	65.9	3.6	0.0229	58	70
16.2	M3LT 100D 4	3GLT102744---B	2000	360	90.00	0.79	37.0	77.4	3.8	0.027	66	70
19	M3LT 100E 4	3GLT102754---B	2000	370	90.60	0.79	41.8	90.7	3.8	0.0312	75	70
19	M3LT 132A 4	3GLT132714---B	2000	350	90.20	0.82	42.2	90.7	3.9	0.0816	79	72
24.5	M3LT 132B 4	3GLT132724---B	2000	345	90.80	0.82	55.2	117	4.3	0.0995	89	72
28.5	M3LT 132C 4	3GLT132734---B	2000	355	91.30	0.81	62.7	136	4.6	0.118	102	72
38	M3LT 132D 4	3GLT132744---B	2000	350	91.70	0.82	83.8	181	4.9	0.154	127	72
47	M3LT 132E 4	3GLT132754---B	2000	360	91.80	0.81	101	225	5.1	0.19	152	72
45	M3LT 160A 4	3GLT162714---B	2000	350	92.30	0.80	101	215	4.7	0.227	196	75
53	M3LT 160B 4	3GLT162724---B	2000	360	92.60	0.80	115	253	5.0	0.268	220	75
65	M3LT 160C 4	3GLT162734---B	2000	340	92.80	0.80	149	310	4.7	0.33	253	75
75	M3LT 160D 4	3GLT162744---B	2000	355	93.00	0.81	162	358	4.8	0.39	287	75
75	M3LT 180A 4	3GLT182714---B	2000	335	93.40	0.80	170	358	6.3	0.436	379	77
95	M3LT 180B 4	3GLT182724---B	2000	325	93.60	0.80	220	453	6.6	0.536	432	77
110	M3LT 180C 4	3GLT182734---B	2000	330	93.80	0.80	251	525	7.0	0.636	485	77
1500 rpm			Network: 400 V									
2.7	M3LT 80A 4	3GLT082712---B	1500	380	80.10	0.75	6.7	17.2	3.1	0.00461	21	66
3.4	M3LT 80B 4	3GLT082722---B	1500	380	80.20	0.76	8.4	21.7	3.0	0.00525	22	66
4.5	M3LT 80C 4	3GLT082732---B	1500	380	81.80	0.75	11.1	28.6	3.3	0.00675	27	66
6.3	M3LT 100A 4	3GLT102712---B	1500	375	86.70	0.80	14.3	40.1	3.1	0.0147	42	70
8.5	M3LT 100B 4	3GLT102722---B	1500	375	87.90	0.79	19.3	54.2	3.3	0.0187	50	70
11	M3LT 100C 4	3GLT102732---B	1500	370	88.20	0.78	25.4	70.0	3.4	0.0229	58	70
13	M3LT 100D 4	3GLT102742---B	1500	375	88.70	0.79	29.2	82.9	3.5	0.027	66	70
15	M3LT 100E 4	3GLT102752---B	1500	375	89.00	0.77	34.0	95.5	3.5	0.0312	75	70
15	M3LT 132A 4	3GLT132712---B	1500	350	88.60	0.81	34.2	95.4	3.5	0.0816	79	71
18.5	M3LT 132B 4	3GLT132722---B	1500	335	89.40	0.82	41.1	118	3.8	0.0995	89	71
22	M3LT 132C 4	3GLT132732---B	1500	365	90.10	0.80	48.1	140	4.2	0.118	102	71
30	M3LT 132D 4	3GLT132742---B	1500	360	90.40	0.81	65.3	191	4.3	0.154	127	71

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos ϕ	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
37	M3LT 132E 4	3GLT132752---B	1500	360	90.80	0.81	80.1	236	4.5	0.19	152	71		
37	M3LT 160A 4	3GLT162712---B	1500	340	91.20	0.81	84.9	235	4.2	0.227	196	74		
43	M3LT 160B 4	3GLT162722---B	1500	335	91.50	0.81	99.8	273	4.3	0.268	220	74		
53	M3LT 160C 4	3GLT162732---B	1500	335	91.80	0.81	122	337	4.6	0.33	253	74		
63	M3LT 160D 4	3GLT162742---B	1500	340	92.20	0.81	143	400	4.4	0.39	287	74		
65	M3LT 180A 4	3GLT182712---B	1500	350	92.60	0.80	141	414	5.6	0.436	379	77		
80	M3LT 180B 4	3GLT182722---B	1500	355	92.90	0.82	168	509	5.2	0.536	432	77		
95	M3LT 180C 4	3GLT182732---B	1500	345	92.60	0.83	208	605	5.8	0.636	485	77		
1000 rpm			Network: 400 V											
4	M3LT 100A 4	3GLT102711---B	1000	380	83.20	0.78	10.0	38.3	2.9	0.0147	42	70		
5.5	M3LT 100B 4	3GLT102721---B	1000	360	84.20	0.79	13.6	52.6	3.1	0.0187	50	70		
7.5	M3LT 100C 4	3GLT102731---B	1000	360	84.20	0.78	18.6	71.7	3.1	0.0229	58	70		
9.5	M3LT 100D 4	3GLT102741---B	1000	370	84.40	0.77	23.1	90.9	3.1	0.027	66	70		
11	M3LT 100E 4	3GLT102751---B	1000	365	84.70	0.77	27.1	105	3.2	0.0312	75	70		
11	M3LT 132A 4	3GLT132711---B	1000	370	84.60	0.81	24.6	105	3.1	0.0816	79	71		
14	M3LT 132B 4	3GLT132721---B	1000	370	85.90	0.80	31.6	133	3.4	0.0995	89	71		
16.8	M3LT 132C 4	3GLT132731---B	1000	375	86.60	0.80	36.8	160	3.6	0.118	102	71		
22	M3LT 132D 4	3GLT132741---B	1000	365	87.70	0.80	49.3	210	3.9	0.154	127	71		
28	M3LT 132E 4	3GLT132751---B	1000	375	88.20	0.80	60.4	267	4.1	0.19	152	71		
25	M3LT 160A 4	3GLT162711---B	1000	345	88.90	0.81	58.5	238	4.0	0.227	196	74		
30	M3LT 160B 4	3GLT162721---B	1000	355	89.50	0.80	72.0	285	4.3	0.268	220	74		
37	M3LT 160C 4	3GLT162731---B	1000	350	90.10	0.80	84.9	352	4.6	0.33	253	74		
45	M3LT 160D 4	3GLT162741---B	1000	375	90.30	0.81	94.8	429	4.2	0.39	287	74		
45	M3LT 180A 4	3GLT182711---B	1000	355	90.70	0.81	96.8	429	5.0	0.436	379	77		
55	M3LT 180B 4	3GLT182721---B	1000	345	91.20	0.81	122	524	4.9	0.536	432	77		
65	M3LT 180C 4	3GLT182731---B	1000	350	91.50	0.81	141	619	5.2	0.636	485	77		

* IEC 60034-2 -1; 2014

Technical data

High Dynamic Performance IP55 liquid-cooled motors for 460 V

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current			Torque T _N Nm	Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N				
3600 rpm			Network: 460 V										
4.6	M3LT 80A 4	3GLT082716--B	3600	430	87.5	0.77	9.0	12.2	3.9	0.00461	21	67	
6.1	M3LT 80B 4	3GLT082726--B	3600	430	87.8	0.80	11.6	16.2	3.7	0.00525	22	67	
8.3	M3LT 80C 4	3GLT082736--B	3600	430	88.7	0.76	16.4	22.0	4.4	0.00675	27	68	
11.7	M3LT 100A 4	3GLT102716---B	3600	410	91.6	0.79	22.4	31.0	3.7	0.0147	42	70	
16	M3LT 100B 4	3GLT102726---B	3600	415	92.1	0.80	30.1	42.4	4.0	0.0187	50	70	
20	M3LT 100C 4	3GLT102736---B	3600	410	92.3	0.80	38.0	53.0	4.1	0.0229	58	70	
23	M3LT 100D 4	3GLT102746---B	3600	420	92.5	0.81	42.9	61.0	4.3	0.027	66	71	
27	M3LT 100E 4	3GLT102756---B	3600	420	92.6	0.80	50.8	71.6	4.5	0.0312	75	71	
25	M3LT 132A 4	3GLT132716---B	3600	370	92.0	0.81	52.4	66.3	4.6	0.0816	79	74	
32.5	M3LT 132B 4	3GLT132726---B	3600	390	92.4	0.81	64.4	86.2	5.0	0.0995	89	74	
38	M3LT 132C 4	3GLT132736--B	3600	375	92.7	0.81	78.4	101	5.3	0.118	102	74	
48.5	M3LT 132D 4	3GLT132746---B	3600	375	92.9	0.82	97.8	129	5.3	0.154	127	74	
62	M3LT 132E 4	3GLT132756---B	3600	400	93.2	0.81	119	164	6.0	0.19	152	74	
57	M3LT 160A 4	3GLT162716---B	3600	390	92.9	0.82	111	151	5.0	0.227	196	76	
65	M3LT 160B 4	3GLT162726---B	3600	415	93.3	0.82	118	172	5.3	0.268	220	76	
80	M3LT 160C 4	3GLT162736--B	3600	405	93.4	0.83	148	212	5.5	0.33	253	76	
92	M3LT 160D 4	3GLT162746---B	3600	405	93.5	0.84	167	244	5.4	0.39	287	76	
91	M3LT 180A 4	3GLT182716---B	3600	390	93.8	0.80	176	241	7.2	0.436	379	78	
110	M3LT 180B 4	3GLT182726---B	3600	382	93.8	0.79	219	292	7.8	0.536	432	78	
122	M3LT 180C 4	3GLT182736---B	3600	355	93.8	0.81	257	323	7.9	0.636	485	78	

2400 rpm			Network: 460 V											
3.8	M3LT 80A 4	3GLT082714---B	2400	435	85.0	0.79	7.5			15.1	3.3	0.00461	21	66
5.1	M3LT 80B 4	3GLT082724---B	2400	430	85.4	0.76	10.5			20.3	3.5	0.00525	22	66
6.4	M3LT 80C 4	3GLT082734---B	2400	435	86.2	0.79	12.4			25.5	3.5	0.00675	27	66
9.3	M3LT 100A 4	3GLT102714---B	2400	425	89.9	0.78	17.8			37.0	3.4	0.0147	42	68
12.8	M3LT 100B 4	3GLT102724---B	2400	430	90.6	0.78	24.3			50.9	3.7	0.0187	50	68
15.8	M3LT 100C 4	3GLT102734---B	2400	430	91.0	0.79	29.4			62.8	3.7	0.0229	58	68
18.5	M3LT 100D 4	3GLT102744---B	2400	420	91.4	0.79	35.4			73.6	3.9	0.027	66	70
22	M3LT 100E 4	3GLT102754---B	2400	435	91.5	0.79	40.5			87.5	3.9	0.0312	75	70
20.5	M3LT 132A 4	3GLT132714---B	2400	410	91.0	0.80	39.4			81.5	4.3	0.0816	79	73
27	M3LT 132B 4	3GLT132724---B	2400	405	91.6	0.80	52.4			107	4.6	0.0995	89	73
31	M3LT 132C 4	3GLT132734---B	2400	410	92.0	0.80	59.1			123	4.9	0.118	102	73
41.5	M3LT 132D 4	3GLT132744---B	2400	405	92.4	0.81	79.3			165	5.2	0.154	127	73
53	M3LT 132E 4	3GLT132754---B	2400	420	92.6	0.81	96.7			209	5.4	0.19	152	73
50	M3LT 160A 4	3GLT162714---B	2400	405	92.5	0.80	96.2			199	4.8	0.227	196	75
58	M3LT 160B 4	3GLT162724---B	2400	415	92.7	0.80	108			231	4.7	0.268	220	75
72	M3LT 160C 4	3GLT162734---B	2400	390	92.9	0.81	141			286	4.8	0.33	253	75
83	M3LT 160D 4	3GLT162744---B	2400	415	93.1	0.81	153			330	5.9	0.39	287	76
83	M3LT 180A 4	3GLT182714---B	2400	390	93.7	0.80	161			330	6.5	0.436	379	77
103	M3LT 180B 4	3GLT182724---B	2400	385	93.8	0.79	205			409	7.2	0.536	432	77
119	M3LT 180C 4	3GLT182734---B	2400	385	94.0	0.80	234			473	7.4	0.636	485	77
1800 rpm			Network: 460 V											
3.2	M3LT 80A 4	3GLT082712---B	1800	440	82.2	0.76	6.7			17.0	3.2	0.00461	21	66
4	M3LT 80B 4	3GLT082722---B	1800	440	82.3	0.76	8.3			21.2	3.2	0.00525	22	66
5.3	M3LT 80C 4	3GLT082732---B	1800	440	83.7	0.75	11.1			28.1	3.4	0.00675	27	66
7.5	M3LT 100A 4	3GLT102712---B	1800	440	88.1	0.78	14.1			39.8	3.2	0.0147	42	68
10	M3LT 100B 4	3GLT102722---B	1800	435	89.0	0.79	18.8			53.0	3.4	0.0187	50	68
12.7	M3LT 100C 4	3GLT102732---B	1800	430	89.4	0.77	24.5			67.3	3.6	0.0229	58	68
15	M3LT 100D 4	3GLT102742---B	1800	435	89.9	0.79	28.2			79.6	3.7	0.027	66	70
17.5	M3LT 100E 4	3GLT102752---B	1800	440	90.1	0.79	32.2			92.9	3.7	0.0312	75	70
17.5	M3LT 132A 4	3GLT132712---B	1800	410	89.5	0.81	33.6			92.8	3.7	0.0816	79	71
22	M3LT 132B 4	3GLT132722---B	1800	420	90.3	0.82	40.9			117	3.9	0.0995	89	71

Output kW	Type designation	Product code	Max. Speed at full power r/min	Motor volt- age, V	Effi- ciency* at Full load 100 %	Power factor cos j	Current			Torque		Rotor inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pres- sure level L _{PA} dB
							I _N A	T _N Nm	T _{max} T _N					
25.5	M3LT 132C 4	3GLT132732...B	1800	430	90.9	0.80	47.0	135	4.4	0.118	102	71		
34	M3LT 132D 4	3GLT132742...B	1800	420	91.2	0.81	62.9	180	4.5	0.154	127	71		
43	M3LT 132E 4	3GLT132752...B	1800	430	91.6	0.81	78.3	228	4.9	0.19	152	71		
42	M3LT 160A 4	3GLT162712...B	1800	400	91.7	0.81	81.7	222	4.4	0.227	196	74		
49	M3LT 160B 4	3GLT162722...B	1800	395	92.0	0.81	96.2	260	4.2	0.268	220	74		
60	M3LT 160C 4	3GLT162732...B	1800	395	92.3	0.81	117	318	4.5	0.33	253	74		
71	M3LT 160D 4	3GLT162742...B	1800	400	92.5	0.81	137	376	5.5	0.39	287	74		
72	M3LT 180A 4	3GLT182712...B	1800	410	93.2	0.80	133	382	6.0	0.436	379	77		
90	M3LT 180B 4	3GLT182722...B	1800	415	93.5	0.82	161	477	6.0	0.536	432	77		
105	M3LT 180C 4	3GLT182732...B	1800	405	93.6	0.80	196	556	6.7	0.636	485	77		
1200 rpm			Network: 460 V											
5	M3LT 100A 4	3GLT102711...B	1200	440	84.3	0.79	9.7	39.8	2.9	0.0147	42	68		
6.7	M3LT 100B 4	3GLT102721...B	1200	420	85.6	0.78	13.6	53.3	3.2	0.0187	50	68		
9	M3LT 100C 4	3GLT102731...B	1200	420	85.8	0.77	18.5	71.6	3.2	0.0229	58	68		
11	M3LT 100D 4	3GLT102741...B	1200	430	86.3	0.77	22.3	87.3	3.4	0.027	66	70		
12.7	M3LT 100E 4	3GLT102751...B	1200	425	86.7	0.76	26.2	101	3.5	0.0312	75	70		
12.8	M3LT 132A 4	3GLT132711...B	1200	430	86.2	0.81	24.1	102	3.3	0.0816	79	71		
16	M3LT 132B 4	3GLT132721...B	1200	430	87.5	0.80	30.4	127	3.7	0.0995	89	71		
19	M3LT 132C 4	3GLT132731...B	1200	435	88.1	0.81	35.2	151	3.9	0.118	102	71		
25.5	M3LT 132D 4	3GLT132741...B	1200	425	88.9	0.81	47.9	203	4.1	0.154	127	71		
32.5	M3LT 132E 4	3GLT132751...B	1200	435	89.4	0.81	59.1	258	4.3	0.19	152	71		
30	M3LT 160A 4	3GLT162711...B	1200	405	89.8	0.81	58.8	238	4.1	0.227	196	74		
35	M3LT 160B 4	3GLT162721...B	1200	395	90.4	0.80	70.7	278	4.1	0.268	220	74		
44	M3LT 160C 4	3GLT162731...B	1200	410	90.8	0.81	84.5	349	4.2	0.33	253	74		
53	M3LT 160D 4	3GLT162741...B	1200	440	91.0	0.81	93.7	421	4.3	0.39	287	74		
53	M3LT 180A 4	3GLT182711...B	1200	415	91.5	0.82	95.8	421	5.1	0.436	379	77		
65	M3LT 180B 4	3GLT182721...B	1200	405	92.0	0.81	121	517	5.6	0.536	432	77		
77	M3LT 180C 4	3GLT182731...B	1200	420	92.3	0.80	140	612	6.1	0.636	485	77		

* IEC 60034-2 -1; 2014

Variant codes

High Dynamic Performance IP55 motors

Variant codes specify additional options and features to the standard motor. The desired features are listed as three-digit variant codes in the motor order. Note also that there are variants that cannot be used together.

Code/Variants	Frame size										
	80	100	132	160	180	200	225	250	280	315	355
Administration											
100 Special design according to quotation (production orders).	-	-	-	-	-	•	•	•	-	-	-
529 Customer witnessed visual inspection of complete order line.	•	•	•	•	•	•	•	-	•	•	•
531 Sea freight packing	•	•	•	•	•	•	•	-	•	•	•
533 Wooden sea freight packing	-	-	-	-	-	-	-	-	•	•	•
590 Mounting of customer supplied part other than coupling.	•	•	•	•	•	•	•	-	•	•	•
683 Prepared for ABB Ability Smart Sensor	•	•	•	•	•	•	•	•	•	•	•
684 ABB Ability Smart sensor mounted	•	•	•	•	•	•	•	•	•	•	•
999 Case specific design requiring a quotation	•	•	•	•	•	•	•	•	-	-	-
Balancing											
417 Vibration acc. to Grade B (IEC 60034-14).	•	•	•	•	•	•	•	-	•	•	•
423 Balanced without key.	•	•	•	•	•	•	•	-	•	•	•
424 Full-key balancing	•	•	•	•	•	•	•	-	•	•	•
Bearings and Lubrication											
036 Transport lock for bearings.	•	•	•	•	•	•	•	•	-	-	-
037 Roller bearing at D-end.	•	•	•	•	•	•	•	-	-	-	-
041 Bearings regreasable via grease nipples.	-	•	•	○	○	○	○	○	○	○	○
043 SPM compatible nipples for vibration measurement	•	•	•	○	○	○	○	○	○	○	○
057 2RS bearings at both ends.	•	•	•	•	•	•	•	-	-	-	-
107 Pt100 2-wire in bearings.	-	-	-	•	•	•	•	•	•	•	•
130 Pt100 3-wire in bearings.	-	-	-	•	•	•	•	•	•	•	•
194 2Z bearings greased for life at both ends.	○	○	○	•	•	•	•	-	-	-	-
420 Bearing mounted PTC thermistors.	-	-	-	-	-	-	-	-	•	•	•
640 High speed ball bearing at D-end.	•	•	•	•	•	•	•	-	-	-	-
641 High speed roller bearing at D-end.	•	•	•	•	•	•	•	-	-	-	-
654 Provision for vibration sensors (M8x1)	•	•	•	•	•	•	•	-	•	•	•
795 Lubrication information plate	-	-	-	•	•	•	•	-	○	○	○
797 Stainless steel SPM nipples	•	•	•	•	•	•	•	-	•	•	•
798 Stainless steel grease nipples	-	-	-	•	•	•	•	-	•	•	•
Brakes											
638 Standard spring brake.	•	•	•	•	•	•	•	•	-	-	-
639 Improved torque spring brake.	•	•	•	•	•	•	-	-	-	-	-
Branch standard designs											
178 Stainless steel / acid proof bolts.	•	•	•	•	•	•	•	-	•	•	•
204 Jacking bolts for foot mounted motors.	-	-	-	-	-	-	-	-	•	•	•
209 Non-standard voltage or frequency, (special winding).	•	•	•	•	•	•	•	•	•	•	•
425 Corrosion protected stator and rotor core.	•	•	•	•	•	•	•	•	•	•	•
Cooling system											
642 Radial fan mounted on RHS (seen from D-end).	-	-	-	-	-	-	-	•	•	•	•
643 Radial fan mounted on LHS (seen from D-end).	-	-	-	-	-	-	-	•	•	•	•
Coupling											
035 Assembly of customer supplied coupling-half.	-	-	-	-	-	-	-	-	•	•	•
Documentation											
141 Binding 2D main dimension drawing.	•	•	•	•	•	•	•	-	•	•	•
370 Motor model drawing in 3D	•	•	•	•	•	•	•	•	•	•	•
374 Binding 2D motor detailed drawing	•	•	•	•	•	•	•	-	•	•	•
536 Photos of manufactured motors	•	•	•	•	•	•	•	-	•	•	•
537 Advanced data sheet	•	•	•	•	•	•	•	-	•	•	•
722 Rotor dimension drawing (incl. torsional stiffness).	•	•	•	•	•	•	•	-	•	•	•
777 Premium documentation package	•	•	•	•	•	•	•	-	•	•	•
Earthing Bolt											
067 External earthing bolt.	•	•	•	○	○	○	○	-	○	○	○
Heating elements											
450 Heating element, 100-120 V	•	•	•	•	•	•	•	-	•	•	•
451 Heating element, 200 - 240 V	•	•	•	•	•	•	•	•	•	•	•
Insulation system											

		Frame size										
Code/Variants		80	100	132	160	180	200	225	250	280	315	355
405	Special winding insulation for frequency converter supply.	●	●	●	●	●	●	●	●	●	●	●
Mounting arrangements												
009	IM 2001 foot/flange mounted, IEC flange, from IM 1001 (B35 from B3).	○	○	○	-	-	●	●	●	-	-	-
066	Modified for specified mounting position differing from IM B3 (1001), IM B5 (3001), B14 (3601), IM B35 (2001), IM B34 (2101)	●	●	●	●	●	●	●	●	●	●	●
305	Additional lifting lugs.	-	-	●	●	●	●	●	-	●	●	●
320	IM2001 foot/flat bottom flange mounted, from IM1001 (B35 flat bot- tom flange from B3)	○	○	○	○	○	○	○	●	-	-	-
Painting												
105	Paint thickness report.	●	●	●	●	●	●	●	-	●	●	●
111	Painting system C3,durability Medium	●	●	●	●	●	●	●	-	●	●	●
114	Special paint color, standard grade	●	●	●	●	●	●	●	●	●	●	●
168	Primer paint only.	●	●	●	●	●	●	●	-	●	●	●
Protection												
072	Radial seal at D-end. Not possible for 2-pole , 280 and 315 frames	●	●	●	●	●	-	-	-	-	-	-
783	Labyrinth sealing at D-end.	-	-	-	●	●	○	○	-	○	○	○
784	Gamma-seal at D-end.	●	●	●	○	○	-	-	-	-	-	-
Rating & instruction plates												
002	Restamping voltage, frequency and output, continuous duty.	●	●	●	●	●	●	●	●	●	●	●
004	Additional text on std rating plate (max 12 digits on free text line).	●	●	●	●	●	●	●	-	●	●	●
095	Restamping output (maintained voltage, frequency), intermittent duty.	●	●	●	●	●	●	●	-	●	●	●
126	Tag plate	●	●	●	●	●	●	●	-	●	●	●
135	Mounting of additional identification plate, stainless.	●	●	●	●	●	●	●	-	●	●	●
139	Additional identification plate delivered loose.	●	●	●	●	●	●	●	-	●	●	●
159	Additional plate with text "Made in"	●	●	●	●	●	●	●	-	●	●	●
160	Additional rating plate affixed.	●	●	●	●	●	●	●	-	●	●	●
161	Additional rating plate delivered loose.	●	●	●	●	●	●	●	-	●	●	●
Shaft & rotor												
069	Two shaft extensions according to catalog drawings.	●	●	●	●	●	●	●	-	●	●	●
070	Special shaft extension at D-End, standard shaft material	-	-	-	-	-	-	-	●	-	-	-
Standards and Regulations												
586	Fulfilling UK Conformity Assessment (UKCA) requirements.	-	-	-	-	-	-	-	●	-	-	-
Stator winding temperature sensors												
123	Bimetal detectors, break type (NCC), (3 in series), 170 °C, in stator winding	●	●	●	●	●	●	●	-	●	●	●
445	Pt100 2-wire in stator winding, 1 per phase	●	●	●	●	●	●	●	●	●	●	●
446	Pt100 2-wire in stator winding, 2 per phase	-	-	-	●	●	●	●	-	●	●	●
502	Pt100 3-wire in stator winding, 1 per phase	-	-	-	-	-	-	-	●	-	-	-
Terminal box												
020	Detached terminal box.	-	-	●	●	●	●	●	-	●	●	●
021	Terminal box LHS (seen from D-end).	●	●	●	●	●	●	●	●	●	●	●
022	Cable entry LHS (seen from D-end).	-	-	-	-	-	-	-	-	●	●	●
180	Terminal box RHS (seen from D-end).	○	○	○	○	○	○	○	○	●	●	●
230	Standard metal cable gland.	●	●	●	●	●	●	●	-	●	●	●
375	Standard plastic cable gland	●	●	●	●	●	●	●	-	-	-	-
466	Terminal box at N-end.	○	○	○	○	○	○	○	-	●	●	●
468	Cable entry from D-end.	○	○	○	○	○	○	○	-	●	●	●
469	Cable entry from N-end.	●	●	●	●	●	●	●	-	●	●	●
554	Cast iron flange for cable glands drilled and tapped according to order.	●	●	●	●	●	●	●	-	●	●	●
557	Nickel plated cable glands mounted according to order.	●	●	●	●	●	●	●	-	●	●	●
727	Stainless steel flange for cable glands drilled and tapped according to order.	-	-	-	●	●	●	●	-	●	●	●
731	Two standard metal cable glands.	●	●	●	●	●	●	●	-	●	●	●
743	Non-drilled cast iron flange for cable glands	-	-	-	●	●	●	●	-	●	●	●
744	Stainless steel non-drilled flange for cable glands.	-	-	-	●	●	●	●	-	●	●	●
745	Painted steel flange equipped with nickel plated brass cable glands	-	-	-	●	●	●	●	-	●	●	●
746	Stainless steel cable flange equipped with standard nickel plated brass cable glands	-	-	-	●	●	●	●	-	●	●	●
Testing												
148	Routine test report.	●	●	●	●	●	●	●	●	●	●	●
150	Customer witnessed testing. Specify test procedure with other codes.	●	●	●	●	●	●	●	-	●	●	●
560	Shaft voltage test, for one motor from specific delivery batch.	●	●	●	●	●	●	●	-	●	●	●
561	Overspeed test,for one motor from specific delivery batch	●	●	●	●	●	●	●	-	●	●	●
562	Overvoltage test, for one motor from specific delivery batch.	●	●	●	●	●	●	●	-	●	●	●
760	Vibration level test	●	●	●	●	●	●	●	-	●	●	●
761	Vibration spectrum test for one motor from specific delivery batch.	●	●	●	●	●	●	●	-	●	●	●
762	Noise level test for one motor from specific delivery batch.	●	●	●	●	●	●	●	-	●	●	●
763	Noise spectrum test for one motor from specific delivery batch.	-	-	-	●	●	●	●	-	●	●	●
Variable speed drives												

		Frame size										
Code/Variants		80	100	132	160	180	200	225	250	280	315	355
182	Mounting of non-listed pulse tachometer.	-	-	-	-	-	-	-	•	-	-	-
479	Mounting of other type of pulse tachometer with shaft extension, tachometer not included.	•	•	•	•	•	•	•	-	•	•	•
588	Shaft grounding device	-	-	•	•	•	•	•	-	-	-	-
632	1024 Pulse tachometer, HTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
633	1024 Pulse tachometer, TTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
634	2048 Pulse tachometer, HTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
635	2048 Pulse tachometer, TTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
637	2048 pulse tachometer, sincos 1 Vpp (Heidenhain ERN1387).	•	•	•	•	•	•	•	•	•	•	•
658	Special tachometer mounted, price category 1	•	•	•	•	•	•	•	-	•	•	•
659	Special tachometer mounted, price category 2	•	•	•	•	•	•	•	-	•	•	•
660	Special tachometer mounted, price category 3	•	•	•	•	•	•	•	-	•	•	•
702	Insulated bearings at both ends	•	•	•	•	•	•	•	-	-	-	-
704	EMC cable entry.	•	•	•	•	•	•	•	•	•	•	•

○ = Included as standard | • = Available as option | - = Not applicable

Variant codes

High Dynamic Performance IP23 motors

Variant codes specify additional options and features to the standard motor. The desired features are listed as three-digit variant codes in the motor order. Note also that there are variants that cannot be used together.

		Frame size										
Code/Variants		100	132	160	180	200	225	250	280	315	355	400
Administration												
100	Special design according to quotation (production orders).	-	-	-	-	●	●	●	-	-	-	-
529	Customer witnessed visual inspection of complete order line.	●	●	●	●	●	●	-	-	-	-	-
531	Sea freight packing	●	●	●	●	●	●	-	-	-	-	-
533	Wooden sea freight packing	-	-	-	-	-	-	-	-	-	-	-
590	Mounting of customer supplied part other than coupling.	●	●	●	●	●	●	-	-	-	-	-
683	Prepared for ABB Ability Smart Sensor	●	●	●	●	●	●	●	●	●	●	●
684	ABB Ability Smart sensor mounted	●	●	●	●	●	●	●	●	●	●	●
999	Case specific design requiring a quotation	●	●	●	●	●	●	●	●	●	●	●
Balancing												
417	Vibration acc. to Grade B (IEC 60034-14).	●	●	●	●	●	●	-	-	-	-	-
423	Balanced without key.	●	●	●	●	●	●	-	-	-	-	-
424	Full-key balancing	●	●	●	●	●	●	-	-	-	-	-
Bearings and Lubrication												
036	Transport lock for bearings.	●	●	●	●	●	●	●	●	○	○	○
037	Roller bearing at D-end.	●	●	●	●	●	●	-	-	-	-	-
041	Bearings regreasable via grease nipples.	●	●	○	○	○	○	○	○	○	○	○
043	SPM compatible nipples for vibration measurement	●	●	○	○	○	○	○	○	○	○	○
057	2RS bearings at both ends.	●	●	●	●	●	●	-	-	-	-	-
107	Pt100 2-wire in bearings.	-	-	●	●	●	●	●	●	●	●	●
130	Pt100 3-wire in bearings.	-	-	●	●	●	●	●	●	●	●	●
194	2Z bearings greased for life at both ends.	○	○	●	●	●	●	-	-	-	-	-
420	Bearing mounted PTC thermistors.	-	-	-	-	-	-	-	-	-	-	-
640	High speed ball bearing at D-end.	●	●	●	●	●	●	-	-	-	-	-
641	High speed roller bearing at D-end.	●	●	●	●	●	●	-	-	-	-	-
654	Provision for vibration sensors (M8x1)	●	●	●	●	●	●	-	-	-	-	-
795	Lubrication information plate	-	-	●	●	●	●	-	-	-	-	-
797	Stainless steel SPM nipples	●	●	●	●	●	●	-	-	-	-	-
798	Stainless steel grease nipples	-	-	●	●	●	●	-	-	-	-	-
Brakes												
638	Standard spring brake.	●	●	●	●	●	●	●	-	-	-	-
639	Improved torque spring brake.	●	●	●	●	●	-	-	-	-	-	-
Branch standard designs												
178	Stainless steel / acid proof bolts.	●	●	●	●	●	●	-	-	-	-	-
204	Jacking bolts for foot mounted motors.	-	-	-	-	-	-	-	-	-	-	-
209	Non-standard voltage or frequency, (special winding).	●	●	●	●	●	●	●	●	●	●	●
425	Corrosion protected stator and rotor core.	●	●	●	●	●	●	●	●	●	●	●
Cooling system												
642	Radial fan mounted on RHS (seen from D-end.	●	●	●	●	●	●	●	-	-	-	-
643	Radial fan mounted on LHS (seen from D-end).	●	●	●	●	●	●	●	-	-	-	-
Coupling												
035	Assembly of customer supplied coupling-half.	-	-	-	-	-	-	-	-	-	-	-
Documentation												
141	Binding 2D main dimension drawing.	●	●	●	●	●	●	-	-	-	-	-
370	Motor model drawing in 3D	●	●	●	●	●	●	●	●	●	●	●
374	Binding 2D motor detailed drawing	●	●	●	●	●	●	-	-	-	-	-
536	Photos of manufactured motors	●	●	●	●	●	●	-	-	-	-	-
537	Advanced data sheet	●	●	●	●	●	●	-	-	-	-	-
722	Rotor dimension drawing (incl. torsional stiffness).	●	●	●	●	●	●	-	-	-	-	-
777	Premium documentation package	●	●	●	●	●	●	-	-	-	-	-
Earthing Bolt												
067	External earthing bolt.	●	●	○	○	○	○	-	-	-	-	-
Heating elements												
450	Heating element, 100-120 V	●	●	●	●	●	●	-	-	-	-	-
451	Heating element, 200 - 240 V	●	●	●	●	●	●	●	●	●	●	●
Insulation system												

		Frame size										
Code/Variants		100	132	160	180	200	225	250	280	315	355	400
405	Special winding insulation for frequency converter supply.	●	●	●	●	●	●	●	●	●	●	●
Mounting arrangements												
009	IM 2001 foot/flange mounted, IEC flange, from IM 1001 (B35 from B3).	○	○	○	○	●	●	●	-	-	-	-
066	Modified for specified mounting position differing from IM B3 (1001), IM B5 (3001), B14 (3601), IM B35 (2001), IM B34 (2101)	●	●	●	●	●	●	●	●	●	●	●
305	Additional lifting lugs.	-	●	●	●	●	●	-	-	-	-	-
320	IM2001 foot/flat bottom flange mounted, from IM1001 (B35 flat bot- tom flange from B3)	○	○	○	○	○	○	●	-	-	-	-
Painting												
105	Paint thickness report.	●	●	●	●	●	●	-	-	-	-	-
111	Painting system C3,durability Medium	●	●	●	●	●	●	-	-	-	-	-
114	Special paint color, standard grade	●	●	●	●	●	●	●	●	●	●	●
168	Primer paint only.	●	●	●	●	●	●	-	-	-	-	-
Protection												
072	Radial seal at D-end. Not possible for 2-pole , 280 and 315 frames	●	●	●	●	-	-	-	-	-	-	-
783	Labyrinth sealing at D-end.	-	-	●	●	○	○	-	-	-	-	-
784	Gamma-seal at D-end.	●	●	○	○	-	-	-	-	-	-	-
Rating & instruction plates												
002	Restamping voltage, frequency and output, continuous duty.	●	●	●	●	●	●	●	●	●	●	●
004	Additional text on std rating plate (max 12 digits on free text line).	●	●	●	●	●	●	-	-	-	-	-
095	Restamping output (maintained voltage, frequency), intermittent duty.	●	●	●	●	●	●	-	-	-	-	-
126	Tag plate	●	●	●	●	●	●	-	-	-	-	-
135	Mounting of additional identification plate, stainless.	●	●	●	●	●	●	-	-	-	-	-
139	Additional identification plate delivered loose.	●	●	●	●	●	●	-	-	-	-	-
159	Additional plate with text "Made in"	●	●	●	●	●	●	-	-	-	-	-
160	Additional rating plate affixed.	●	●	●	●	●	●	-	-	-	-	-
161	Additional rating plate delivered loose.	●	●	●	●	●	●	-	-	-	-	-
Shaft & rotor												
069	Two shaft extensions according to catalog drawings.	●	●	●	●	●	●	-	-	-	-	-
070	Special shaft extension at D-End, standard shaft material	-	-	-	-	-	-	●	●	●	●	●
Standards and Regulations												
586	Fulfilling UK Conformity Assessment (UKCA) requirements.	-	-	-	-	-	-	●	●	●	●	●
Stator winding temperature sensors												
123	Bimetal detectors, break type (NCC), (3 in series), 170 °C, in stator winding	●	●	●	●	●	●	-	-	-	-	-
445	Pt100 2-wire in stator winding, 1 per phase	●	●	●	●	●	●	●	●	●	●	●
446	Pt100 2-wire in stator winding, 2 per phase	-	-	●	●	●	●	-	-	-	-	-
502	Pt100 3-wire in stator winding, 1 per phase	-	-	-	-	-	-	●	●	●	●	●
Terminal box												
020	Detached terminal box.	-	●	●	●	●	●	-	-	-	-	-
021	Terminal box LHS (seen from D-end).	●	●	●	●	●	●	●	●	●	●	●
022	Cable entry LHS (seen from D-end).	-	-	-	-	-	-	-	-	-	-	-
180	Terminal box RHS (seen from D-end).	○	○	○	○	●	○	○	●	●	●	●
230	Standard metal cable gland.	●	●	●	●	●	●	-	-	-	-	-
375	Standard plastic cable gland	●	●	●	●	●	●	-	-	-	-	-
466	Terminal box at N-end.	○	○	○	○	○	○	-	-	-	-	-
468	Cable entry from D-end.	○	○	○	○	○	○	-	-	-	-	-
469	Cable entry from N-end.	●	●	●	●	●	●	-	-	-	-	-
554	Cast iron flange for cable glands drilled and tapped according to order.	●	●	●	●	●	●	-	-	-	-	-
557	Nickel plated cable glands mounted according to order.	●	●	●	●	●	●	-	-	-	-	-
727	Stainless steel flange for cable glands drilled and tapped according to order.	-	-	●	●	●	●	-	-	-	-	-
731	Two standard metal cable glands.	●	●	●	●	●	●	-	-	-	-	-
743	Non-drilled cast iron flange for cable glands	-	-	●	●	●	●	-	-	-	-	-
744	Stainless steel non-drilled flange for cable glands.	-	-	●	●	●	●	-	-	-	-	-
745	Painted steel flange equipped with nickel plated brass cable glands	-	-	●	●	●	●	-	-	-	-	-
746	Stainless steel cable flange equipped with standard nickel plated brass cable glands	-	-	●	●	●	●	-	-	-	-	-
Testing												
148	Routine test report.	●	●	●	●	●	●	●	●	●	●	●
150	Customer witnessed testing. Specify test procedure with other codes.	●	●	●	●	●	●	-	-	-	-	-
560	Shaft voltage test, for one motor from specific delivery batch.	●	●	●	●	●	●	-	-	-	-	-
561	Overspeed test,for one motor from specific delivery batch	●	●	●	●	●	●	-	-	-	-	-
562	Overvoltage test, for one motor from specific delivery batch.	●	●	●	●	●	●	-	-	-	-	-
760	Vibration level test	●	●	●	●	●	●	-	-	-	-	-
761	Vibration spectrum test for one motor from specific delivery batch.	●	●	●	●	●	●	-	-	-	-	-
762	Noise level test for one motor from specific delivery batch.	●	●	●	●	●	●	-	-	-	-	-
763	Noise spectrum test for one motor from specific delivery batch.	-	-	●	●	●	●	-	-	-	-	-
Variable speed drives												

		Frame size										
Code/Variants		100	132	160	180	200	225	250	280	315	355	400
182	Mounting of non-listed pulse tachometer.	-	-	-	-	-	-	•	•	•	•	•
479	Mounting of other type of pulse tachometer with shaft extension, tachometer not included.	•	•	•	•	•	•	-	-	-	-	-
588	Shaft grounding device	-	•	•	•	•	•	-	-	-	-	-
632	1024 Pulse tachometer, HTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
633	1024 Pulse tachometer, TTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
634	2048 Pulse tachometer, HTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
635	2048 Pulse tachometer, TTL (L&L RHI 593).	•	•	•	•	•	•	•	•	•	•	•
637	2048 pulse tachometer, sincos 1 Vpp (Heidenhain ERN1387).	•	•	•	•	•	•	•	•	•	•	•
658	Special tachometer mounted, price category 1	•	•	•	•	•	•	-	-	-	-	-
659	Special tachometer mounted, price category 2	•	•	•	•	•	•	-	-	-	-	-
660	Special tachometer mounted, price category 3	•	•	•	•	•	•	-	-	-	-	-
702	Insulated bearings at both ends	•	•	•	•	•	•	-	-	-	-	-
704	EMC cable entry.	•	•	•	•	•	•	•	•	•	•	•

○ = Included as standard | • = Available as option | - = Not applicable

Variant codes

High Dynamic Performance IP55 liquid-cooled motors

Variant codes specify additional options and features to the standard motor. The desired features are listed as three-digit variant codes in the motor order. Note also that there are variants that cannot be used together.

Code/Variants	Frame size				
	80	100	132	160	180
Administration					
100 Special design according to quotation (production orders).	-	-	-	-	-
529 Customer witnessed visual inspection of complete order line.	•	•	•	•	•
531 Sea freight packing	•	•	•	•	•
533 Wooden sea freight packing	-	-	-	-	-
590 Mounting of customer supplied part other than coupling.	•	•	•	•	•
683 Prepared for ABB Ability Smart Sensor	•	•	•	•	•
684 ABB Ability Smart sensor mounted	•	•	•	•	•
999 Case specific design requiring a quotation	•	•	•	•	•
Balancing					
417 Vibration acc. to Grade B (IEC 60034-14).	•	•	•	•	•
423 Balanced without key.	•	•	•	•	•
424 Full-key balancing	•	•	•	•	•
Bearings and Lubrication					
036 Transport lock for bearings.	•	•	•	•	•
037 Roller bearing at D-end.	•	•	•	•	•
041 Bearings regreasable via grease nipples.	-	•	•	○	○
043 SPM compatible nipples for vibration measurement	•	•	•	○	○
057 2RS bearings at both ends.	•	•	•	•	•
107 Pt100 2-wire in bearings.	-	-	-	•	•
130 Pt100 3-wire in bearings.	-	-	-	•	•
194 2Z bearings greased for life at both ends.	○	○	○	•	•
420 Bearing mounted PTC thermistors.	-	-	-	-	-
640 High speed ball bearing at D-end.	•	•	•	•	•
641 High speed roller bearing at D-end.	•	•	•	•	•
654 Provision for vibration sensors (M8x1)	•	•	•	•	•
795 Lubrication information plate	-	-	-	•	•
797 Stainless steel SPM nipples	•	•	•	•	•
798 Stainless steel grease nipples	-	-	-	•	•
Brakes					
638 Standard spring brake.	•	•	•	•	•
639 Improved torque spring brake.	•	•	•	•	•
Branch standard designs					
178 Stainless steel / acid proof bolts.	•	•	•	•	•
204 Jacking bolts for foot mounted motors.	-	-	-	-	-
209 Non-standard voltage or frequency, (special winding).	•	•	•	•	•
425 Corrosion protected stator and rotor core.	•	•	•	•	•
Coupling					
035 Assembly of customer supplied coupling-half.	-	-	-	-	-
Documentation					
141 Binding 2D main dimension drawing.	•	•	•	•	•
370 Motor model drawing in 3D	•	•	•	•	•
374 Binding 2D motor detailed drawing	•	•	•	•	•
536 Photos of manufactured motors	•	•	•	•	•
537 Advanced data sheet	•	•	•	•	•
722 Rotor dimension drawing (incl. torsional stiffness).	•	•	•	•	•
777 Premium documentation package	•	•	•	•	•
Earthing Bolt					
067 External earthing bolt.	•	•	•	○	○
Heating elements					
450 Heating element, 100-120 V	•	•	•	•	•
451 Heating element, 200 - 240 V	•	•	•	•	•
Insulation system					
405 Special winding insulation for frequency converter supply.	•	•	•	•	•
Mounting arrangements					
009 IM 2001 foot/flange mounted, IEC flange, from IM 1001 (B35 from B3).	○	○	○	○	○

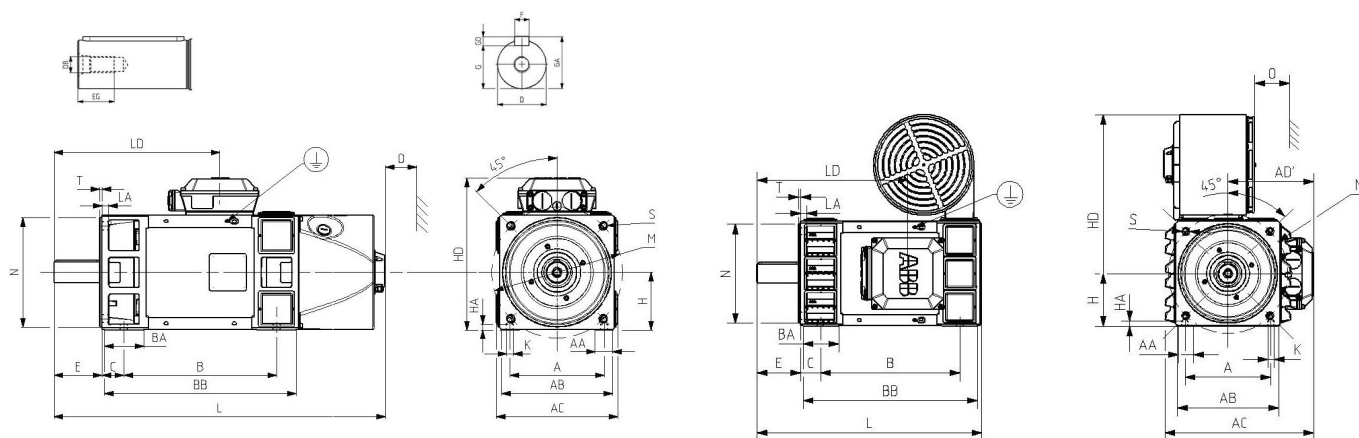
Code/Variants		Frame size				
		80	100	132	160	180
066	Modified for specified mounting position differing from IM B3 (1001), IM B5 (3001), B14 (3601), IM B35 (2001), IM B34 (2101)	•	•	•	•	•
305	Additional lifting lugs.	-	-	•	•	•
320	IM2001 foot/flat bottom flange mounted, from IM1001 (B35 flat bottom flange from B3)	○	○	○	○	○
Painting						
105	Paint thickness report.	•	•	•	•	•
111	Painting system C3,durability Medium	•	•	•	•	•
114	Special paint color, standard grade	•	•	•	•	•
168	Primer paint only.	•	•	•	•	•
Protection						
072	Radial seal at D-end. Not possible for 2-pole , 280 and 315 frames	•	•	•	•	•
783	Labyrinth sealing at D-end.	-	-	-	•	•
784	Gamma-seal at D-end.	•	•	•	○	○
Rating & instruction plates						
002	Restamping voltage, frequency and output, continuous duty.	•	•	•	•	•
004	Additional text on std rating plate (max 12 digits on free text line).	•	•	•	•	•
095	Restamping output (maintained voltage, frequency), intermittent duty.	•	•	•	•	•
126	Tag plate	•	•	•	•	•
135	Mounting of additional identification plate, stainless.	•	•	•	•	•
139	Additional identification plate delivered loose.	•	•	•	•	•
159	Additional plate with text "Made in"	•	•	•	•	•
160	Additional rating plate affixed.	•	•	•	•	•
161	Additional rating plate delivered loose.	•	•	•	•	•
Shaft & rotor						
069	Two shaft extensions according to catalog drawings.	•	•	•	•	•
070	Special shaft extension at D-End, standard shaft material	-	-	-	-	-
Standards and Regulations						
586	Fulfilling UK Conformity Assessment (UKCA) requirements.	-	-	-	-	-
Stator winding temperature sensors						
123	Bimetal detectors, break type (NCC), (3 in series), 170 °C, in stator winding	•	•	•	•	•
445	Pt100 2-wire in stator winding, 1 per phase	•	•	•	•	•
446	Pt100 2-wire in stator winding, 2 per phase	-	-	-	•	•
502	Pt100 3-wire in stator winding, 1 per phase	-	-	-	-	-
Terminal box						
020	Detached terminal box.	-	-	•	•	•
021	Terminal box LHS (seen from D-end).	•	•	•	•	•
022	Cable entry LHS (seen from D-end).	-	-	-	-	-
180	Terminal box RHS (seen from D-end).	○	○	○	○	○
230	Standard metal cable gland.	•	•	•	•	•
375	Standard plastic cable gland	•	•	•	•	•
466	Terminal box at N-end.	○	○	○	○	○
468	Cable entry from D-end.	○	○	○	○	○
469	Cable entry from N-end.	•	•	•	•	•
554	Cast iron flange for cable glands drilled and tapped according to order.	•	•	•	•	•
557	Nickel plated cable glands mounted according to order.	•	•	•	•	•
727	Stainless steel flange for cable glands drilled and tapped according to order.	-	-	-	•	•
731	Two standard metal cable glands.	•	•	•	•	•
743	Non-drilled cast iron flange for cable glands	-	-	-	•	•
744	Stainless steel non-drilled flange for cable glands.	-	-	-	•	•
745	Painted steel flange equipped with nickel plated brass cable glands	-	-	-	•	•
746	Stainless steel cable flange equipped with standard nickel plated brass cable glands	-	-	-	•	•
Testing						
148	Routine test report.	•	•	•	•	•
150	Customer witnessed testing. Specify test procedure with other codes.	•	•	•	•	•
560	Shaft voltage test, for one motor from specific delivery batch.	•	•	•	•	•
561	Overspeed test,for one motor from specific delivery batch	•	•	•	•	•
562	Overvoltage test, for one motor from specific delivery batch.	•	•	•	•	•
760	Vibration level test	•	•	•	•	•
761	Vibration spectrum test for one motor from specific delivery batch.	•	•	•	•	•
762	Noise level test for one motor from specific delivery batch.	•	•	•	•	•
763	Noise spectrum test for one motor from specific delivery batch.	-	-	-	•	•
Variable speed drives						
182	Mounting of non-listed pulse tacho.	-	-	-	-	-
479	Mounting of other type of pulse tacho with shaft extension, tacho not included.	•	•	•	•	•
588	Shaft grounding device	-	-	•	•	•
632	1024 Pulse tacho, HTL (L&L RHI 593).	•	•	•	•	•
633	1024 Pulse tacho, TTL (L&L RHI 593).	•	•	•	•	•
634	2048 Pulse tacho, HTL (L&L RHI 593).	•	•	•	•	•

Code/Variants		Frame size				
		80	100	132	160	180
635	2048 Pulse tachometer, TTL (L&L RHI 593).	•	•	•	•	•
637	2048 pulse tachometer, sinos 1 Vpp (Heidenhain ERN1387).	•	•	•	•	•
658	Special tachometer mounted, price category 1	•	•	•	•	•
659	Special tachometer mounted, price category 2	•	•	•	•	•
660	Special tachometer mounted, price category 3	•	•	•	•	•
702	Insulated bearings at both ends	•	•	•	•	•
704	EMC cable entry.	•	•	•	•	•

○ = Included as standard | • = Available as option | - = Not applicable

Dimension drawings

High Dynamic Performance motors, sizes 80-180



	po-	Foot-mounted: IM B3 (IM 1001)																								
Motor size	les	A	AA	AB	AC	AD	B	BA	BB	C	D	DB	GD	E	EG	F	G	GA	H	HA	HD	HD'	K	L	LA	LD
M3ET 80 A	4	125	26	147	173	87	197	56	259	38	24	M8	7	50	19	8	20	27	80	9	210		10	511	13	205
M3ET 80 B	4	125	26	147	173	87	212	56	274	38	24	M8	7	50	19	8	20	27	80	9	210		10	526	13	220
M3ET 80 C	4	125	26	147	173	87	247	56	309	38	24	M8	7	50	19	8	20	27	80	9	210		10	561	13	255
M3LT 80 A	4	125	27	147	166	87	197	57	259	38	24	M8	7	50	19	8	20	27	80	9	210		10	327	13	205
M3LT 80 B	4	125	27	147	166	87	212	57	274	38	24	M8	7	50	19	8	20	27	80	9	210		10	342	13	220
M3LT 80 C	4	125	27	147	166	87	247	57	309	38	24	M8	7	50	19	8	20	27	80	9	210		10	377	13	255
M3FT 100 A	4	160	30	188	305	183	282	68.5	363	40	38	M12	8	80	36	10	33	41	100	8.5	462		12	446	12.25	275
M3FT 100 B	4	160	30	188	305	183	282	68.5	363	40	38	M12	8	80	36	10	33	41	100	8.5	462		12	446	12.25	275
M3FT 100 C	4	160	30	188	305	183	322	68.5	403	40	38	M12	8	80	36	10	33	41	100	8.5	462		12	486	12.25	315
M3FT 100 D	4	160	30	188	305	183	362	68.5	443	40	38	M12	8	80	36	10	33	41	100	8.5	462		12	526	12.25	355
M3FT 100 E	4	160	30	188	305	183	402	68.5	483	40	38	M12	8	80	36	10	33	41	100	8.5	462		12	566	12.25	395
M3ET 100 A	4	160	30	188	209	104.5	282	68.5	363	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	630	12.25	275
M3ET 100 B	4	160	30	188	209	104.5	282	68.5	363	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	630	12.25	275
M3ET 100 C	4	160	30	188	209	104.5	322	68.5	403	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	670	12.25	315
M3ET 100 D	4	160	30	188	209	104.5	362	68.5	443	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	710	12.25	355
M3ET 100 E	4	160	30	188	209	104.5	402	68.5	483	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	750	12.25	395
M3LT 100 A	4	160	30	188	198	99	282	68.5	363	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	446	12.25	275
M3LT 100 B	4	160	30	188	198	99	282	68.5	363	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	446	12.25	275
M3LT 100 C	4	160	30	188	198	99	322	68.5	403	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	486	12.25	315
M3LT 100 D	4	160	30	188	198	99	362	68.5	443	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	526	12.25	355
M3LT 100 E	4	160	30	188	198	99	402	68.5	483	40	38	M12	8	80	36	10	33	41	100	8.5	283		12	566	12.25	395
M3FT 132 A	4	216	40	254	374	215	316	90	404	50	48	M16	9	110	36	14	42.5	51.5	132	13	532		16	531	15.5	345
M3FT 132 B	4	216	40	254	374	215	316	90	404	50	48	M16	9	110	36	14	42.5	51.5	132	13	532		16	531	15.5	345
M3FT 132 C	4	216	40	254	374	215	351	90	439	50	48	M16	9	110	36	14	42.5	51.5	132	13	532		16	566	15.5	380
M3FT 132 D	4	216	40	254	374	215	421	90	509	50	48	M16	9	110	36	14	42.5	51.5	132	13	532		16	636	15.5	450
M3FT 132 E	4	216	40	254	374	215	491	90	579	50	48	M16	9	110	36	14	42.5	51.5	132	13	532		16	706	15.5	520
M3ET 132 A	4	216	40	254	278	139	316	90	404	50	48	M16	9	110	36	14	42.5	51.5	132	13.5	347		16	724	15.5	345
M3ET 132 B	4	216	40	254	278	139	316	90	404	50	48	M16	9	110	36	14	42.5	51.5	132	13.5	347		16	724	15.5	345
M3ET 132 C	4	216	40	254	278	139	351	90	439	50	48	M16	9	110	36	14	42.5	51.5	132	13.5	347		16	759	15.5	380
M3ET 132 D	4	216	40	254	278	139	421	90	509	50	48	M16	9	110	36	14	42.5	51.5	132	13.5	347		16	829	15.5	450
M3ET 132 E	4	216	40	254	278	139	491	90	579	50	48	M16	9	110	36	14	42.5	51.5	132	13.5	347		16	899	15.5	520
M3LT 132 A	4	216	40	254	262	131	316	90	404	50	48	M16	9	110	36	14	42.5	51.5	132	13	347		16	531	15.5	345
M3LT 132 B	4	216	40	254	262	131	316	90	404	50	48	M16	9	110	36	14	42.5	51.5	132	13	347		16	531	15.5	345
M3LT 132 C	4	216	40	254	262	131	351	90	439	50	48	M16	9	110	36	14	42.5	51.5	132	13	347		16	566	15.5	380
M3FT 132 D	4	216	40	254	262	131	421	90	509	50	48	M16	9	110	36	14	42.5	51.5	132	13	347		16	639	15.5	450
M3FT 132 E	4	216	40	254	262	131	491	90	579	50	48	M16	9	110	36	14	42.5	51.5	132	13	347		16	706	15.5	520
M3FT 160 A	4	254	50	300	514	323	393	100	493	64	55	M16	10	110	36	16	49	59	160	16	702		18	636	17.5	418
M3FT 160 B	4	254	50	300	514	323	438	100	538	64	55	M16	10	110	36	16	49	59	160	16	702		18	681	17.5	463
M3FT 160 C	4	254	50	300	514	323	503	100	603	64	55	M16	10	110	36	16	49	59	160	16	702		18	746	17.5	528
M3FT 160 D	4	254	50	300	514	323	568	100	668	64	55	M16	10	110	36	16	49	59	160	16	702		18	811	17.5	593
M3ET 160 A	4	254	50	300	332	166	393	100	493	64	55	M16	10	110	36	16	49	59	160	16	483		18	829	17.5	420
M3ET 160 B	4	254	50	300	332	166	438	100	538	64	55	M16	10	110	36	16	49	59	160	16	483		18	874	17.5	465

		Foot-mounted: IM B3 (IM 1001)																								
Motor size	Po- les	A	AA	AB	AC	AD	B	BA	BB	C	D	DB	GD	E	EG	F	G	GA	H	HA	HD	HD'	K	L	LA	LD
M3ET 160 C	4	254	50	300	332	166	503	100	603	64	55	M16	10	110	36	16	49	59	160	16	483		18	939	17.5	530
M3ET 160 D	4	254	50	300	332	166	568	100	668	64	55	M16	10	110	36	16	49	59	160	16	483		18	1004	17.5	595
M3LT 160 A	4	254	50	300	316	158	393	100	493	64	55	M16	10	110	36	16	49	59	160	16	483		18	636	17.5	420
M3LT 160 B	4	254	50	300	316	158	438	100	538	64	55	M16	10	110	36	16	49	59	160	16	483		18	681	17.5	465
M3LT 160 C	4	254	50	300	316	158	503	100	603	64	55	M16	10	110	36	16	49	59	160	16	483		18	746	17.5	530
M3LT 160 D	4	254	50	300	316	158	568	100	668	64	55	M16	10	110	36	16	49	59	160	16	483		18	811	17.5	595
M3FT 180 A	4	279	100	336	552	342	492	155	703	121	65	M20	11	140	42	18	59	70	180	16.5	767		19	877	24.5	604
M3FT 180 B	4	279	100	336	552	342	572	155	783	121	65	M20	11	140	42	18	59	70	180	16.5	767		19	957	24.5	684
M3FT 180 C	4	279	100	336	552	342	652	155	863	121	65	M20	11	140	42	18	59	70	180	16.5	767		19	1037	24.5	764
M3ET 180 A	4	279	100	336	370	185	492	155	703	121	65	M20	11	140	42	18	59	70	180	16.5	522		19	1102	24.5	606
M3ET 180 B	4	279	100	336	370	185	572	155	783	121	65	M20	11	140	42	18	59	70	180	16.5	522		19	1182	24.5	686
M3ET 180 C	4	279	100	336	370	185	652	155	863	121	65	M20	11	140	42	18	59	70	180	16.5	522		19	1262	24.5	766
M3LT 180 A	4	279	100	336	354	177	492	155	703	121	65	M20	11	140	42	18	59	70	180	16.5	522		19	879	24.5	606
M3LT 180 B	4	279	100	336	354	177	572	155	783	121	65	M20	11	140	42	18	59	70	180	16.5	522		19	959	24.5	686
M3LT 180 C	4	279	100	336	354	177	652	155	863	121	65	M20	11	140	42	18	59	70	180	16.5	522		19	1039	24.5	766

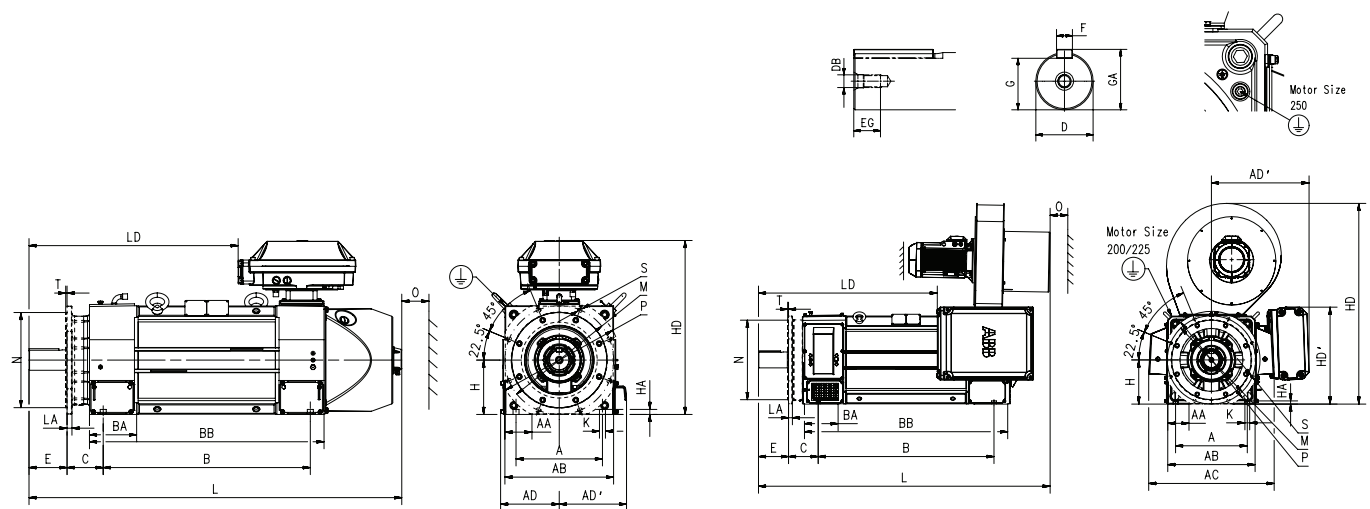
		Foot- and flange-mounted: IM B35 (IM 2001)					
Motor size	Poles	M	N	O	P	S	T
M3ET 80 A	4	165	130	100	N/A	12	3.5
M3ET 80 B	4	165	130	100	N/A	12	3.5
M3ET 80 C	4	165	130	100	N/A	12	3.5
M3LT 80 A	4	165	130	N/A	N/A	12	3.5
M3LT 80 B	4	165	130	N/A	N/A	12	3.5
M3LT 80 C	4	165	130	N/A	N/A	12	3.5
M3FT 100 A	4	215	180	100	N/A	14.5	4
M3FT 100 B	4	215	180	100	N/A	14.5	4
M3FT 100 C	4	215	180	100	N/A	14.5	4
M3FT 100 D	4	215	180	100	N/A	14.5	4
M3FT 100 E	4	215	180	100	N/A	14.5	4
M3ET 100 A	4	215	180	100	N/A	14.5	4
M3ET 100 B	4	215	180	100	N/A	14.5	4
M3ET 100 C	4	215	180	100	N/A	14.5	4
M3ET 100 D	4	215	180	100	N/A	14.5	4
M3ET 100 E	4	215	180	100	N/A	14.5	4
M3LT 100 A	4	215	180	N/A	N/A	14.5	4
M3LT 100 B	4	215	180	N/A	N/A	14.5	4
M3LT 100 C	4	215	180	N/A	N/A	14.5	4
M3LT 100 D	4	215	180	N/A	N/A	14.5	4
M3LT 100 E	4	215	180	N/A	N/A	14.5	4
M3FT 132 A	4	300	250	100	N/A	18.5	5
M3FT 132 B	4	300	250	100	N/A	18.5	5
M3FT 132 C	4	300	250	100	N/A	18.5	5
M3FT 132 D	4	300	250	100	N/A	18.5	5
M3FT 132 E	4	300	250	100	N/A	18.5	5
M3ET 132 A	4	300	250	100	N/A	18.5	5
M3ET 132 B	4	300	250	100	N/A	18.5	5
M3ET 132 C	4	300	250	100	N/A	18.5	5
M3ET 132 D	4	300	250	100	N/A	18.5	5
M3ET 132 E	4	300	250	100	N/A	18.5	5
M3LT 132 A	4	300	250	100	N/A	18.5	5
M3LT 132 B	4	300	250	100	N/A	18.5	5
M3LT 132 C	4	300	250	100	N/A	18.5	5
M3FT 132 D	4	300	250	100	N/A	18.5	5
M3FT 132 E	4	300	250	100	N/A	18.5	5
M3FT 160 A	4	350	300	100	N/A	18.5	5
M3FT 160 B	4	350	300	100	N/A	18.5	5
M3FT 160 C	4	350	300	100	N/A	18.5	5
M3FT 160 D	4	350	300	100	N/A	18.5	5
M3ET 160 A	4	350	300	100	N/A	18.5	5
M3ET 160 B	4	350	300	100	N/A	18.5	5
M3ET 160 C	4	350	300	100	N/A	18.5	5
M3ET 160 D	4	350	300	100	N/A	18.5	5
M3LT 160 A	4	350	300	100	N/A	18.5	5
M3LT 160 B	4	350	300	100	N/A	18.5	5
M3LT 160 C	4	350	300	100	N/A	18.5	5
M3LT 160 D	4	350	300	100	N/A	18.5	5
M3FT 180 A	4	350	300	100	N/A	18.5	5
M3FT 180 B	4	350	300	100	N/A	18.5	5
M3FT 180 C	4	350	300	100	N/A	18.5	5

Foot- and flange-mounted: IM B35 (IM 2001)							
Motor size	Poles	M	N	O	P	S	T
M3ET 180 A	4	350	300	100	N/A	18.5	5
M3ET 180 B	4	350	300	100	N/A	18.5	5
M3ET 180 C	4	350	300	100	N/A	18.5	5
M3LT 180 A	4	350	300	100	N/A	18.5	5
M3LT 180 B	4	350	300	100	N/A	18.5	5
M3LT 180 C	4	350	300	100	N/A	18.5	5

Tolerances:	
A, B	± 0.8
D	ISO m6
F	ISO h9
H	+0 -1.0
N	ISO j6 (280)
	ISO js6 (315-400)
C	± 0.8

Dimension drawings

High Dynamic Performance motors, sizes 200-250



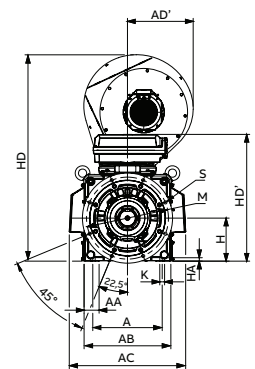
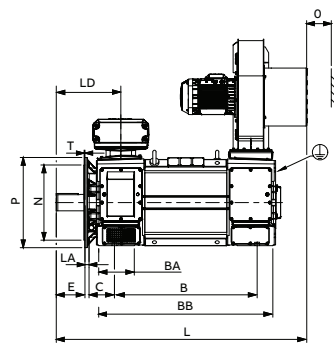
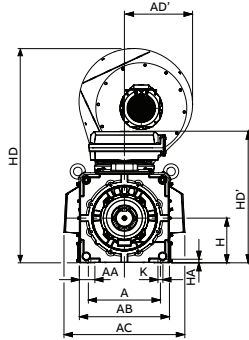
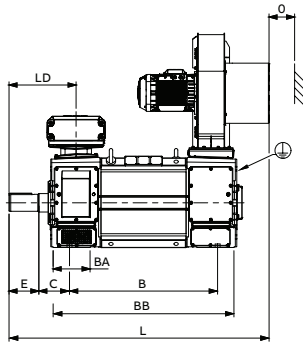
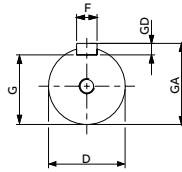
		Foot-mounted: IM B3 (IM 1001)																								
Motor size	Po- les	A	AA	AB	AC	AD	B	BA	BB	C	D	DB	GD	E	EG	F	G	GA	H	HA	HD	HD'	K	L	LA	LD
M3FT 200 A	4	318	87	399	544	463	688	190	824	133	75	M20	NA	140	42	20	67.5	79.5	200	16	1038	448	22	1274	NA	657
M3FT 200 B	4	318	87	399	544	463	758	190	894	133	75	M20	NA	140	42	20	67.5	79.5	200	16	1038	448	22	1344	NA	727
M3FT 200 C	4	318	87	399	544	463	828	190	964	133	75	M20	NA	140	42	20	67.5	79.5	200	16	1038	448	22	1414	NA	797
M3ET200 A	4	318	100	400	216	248	622	174	723	133	75	M20	NA	140	42	20	67.5	79.5	200	18.5	640	NA	22	1232	NA	630
M3ET200 B	4	318	100	400	216	248	692	174	793	133	75	M20	NA	140	42	20	67.5	79.5	200	18.5	640	NA	22	1302	NA	700
M3ET200 C	4	318	100	400	216	248	762	174	863	133	75	M20	NA	140	42	20	67.5	79.5	200	18.5	640	NA	22	1372	NA	770
M3FT 225 A	4	356	125	439	575	497	761	220	899	149	75	M20	NA	140	42	20	67.5	79.5	225	21	1083	453	18.5	1344	NA	743
M3FT 225 B	4	356	125	439	575	497	856	220	994	149	75	M20	NA	140	42	20	67.5	79.5	225	21	1083	453	18.5	1439	NA	838
M3FT 225 C	4	356	125	439	575	497	956	220	1094	149	75	M20	NA	140	42	20	67.5	79.5	225	21	1073	453	18.5	1539	NA	938
M3ET 225 A	4	356	125	440	236	248	701	196	803	149	75	M20	NA	140	42	20	67.5	79.5	225	20	709	709	18.5	1356	22	692
M3ET 225 B	4	356	125	440	236	248	796	196	898	149	75	M20	NA	140	42	20	67.5	79.5	225	20	709	709	18.5	1451	22	787
M3ET 225 C	4	356	125	440	236	248	896	196	998	149	75	M20	NA	140	42	20	67.5	79.5	225	20	709	709	18.5	1551	22	887
M3FT/ET 250 A	4	406	116	496	905.5	552	755	190	910	168	90	M20	14	170	42	25	81	95	250	18	928	696	27	1316	22	761
M3FT/ET 250 B	4	406	116	496	905.5	552	895	190	1050	168	90	M20	14	170	42	25	81	95	250	18	928	696	27	1456	22	901
M3FT/ET 250 C	4	406	116	496	905.5	552	995	190	1150	168	90	M20	14	170	42	25	81	95	250	18	928	696	27	1556	22	1001

Foot- and flange-mounted: IM B35 (IM 2001)							
Motor size	Poles	M	N	O	P	S	T
M3FT/ET 200 A	4	400	350	100	450	18.5	5
M3FT/ET 200 B	4	400	350	100	450	18.5	5
M3FT/ET 200 C	4	400	350	100	450	18.5	5
M3FT/ET 225 A	4	500	450	100	550	18.5	5
M3FT/ET 225 B	4	500	450	100	550	18.5	5
M3FT/ET 225 C	4	500	450	100	550	18.5	5
M3FT/ET 250 A	4	500	450	100	550	18.5	5
M3FT/ET 250 B	4	500	450	100	550	18.5	5
M3FT/ET 250 C	4	500	450	100	550	18.5	5

Tolerances:	
A, B	± 0.8
D	ISO m6
F	ISO h9
H	+0 -1.0
N	ISO j6 (280)
	ISO js6 (315-400)
C	± 0.8

Dimension drawings

High Dynamic Performance motors, sizes 280-400



														Foot- and flange-mounted: IM B35 (IM 2001)						
		Foot-mounted: IM B3 (IM 1001)																		
Motor size	Poles	A	B	BB	C	D	E	F	GA	H	HD	HD'	K	L	M	N	O	P	S	T
M3ET/FT 280 A	4	457	834	1014	190	100	210	28	106	280	1445	863	28	1610	500	450	180	550	18	5
M3ET/FT 280 B	4	457	894	1074	190	100	210	28	106	280	1445	863	28	1670	500	450	180	550	18	5
M3ET/FT 280 C	4	457	994	1174	190	100	210	28	106	280	1445	863	28	1770	500	450	180	550	18	5
M3ET/FT 315 A	4	508	944	1174	216	120	210	32	127	315	1510	928	35	1733	600	550	180	660	23	6
M3ET/FT 315 B	4	508	1044	1274	216	120	210	32	127	315	1510	928	35	1833	600	550	180	660	23	6
M3ET/FT 315 C	4	508	1194	1424	216	120	210	32	127	315	1510	928	35	1983	600	550	180	660	23	6
M3ET/FT 315 D	4	508	1344	1574	216	120	210	32	127	315	1510	928	35	2133	600	550	180	660	23	6
M3ET/FT 355 A	4	610	1154	1414	254	120	210	32	127	355	1682	1085	35	1993	740	680	180	800	23	6
M3ET/FT 355 B	4	610	1224	1484	254	120	210	32	127	355	1682	1085	35	2063	740	680	180	800	23	6
M3ET/FT 355 C	4	610	1324	1584	254	120	210	32	127	355	1682	1085	35	2163	740	680	180	800	23	6
M3FT 400 B	4	686	1366	1684	280	140	250	36	148	400	1748	1187	42	2256	940	880	180	1000	28	6
M3FT 400 C	4	686	1466	1784	280	140	250	36	148	400	1748	1187	42	2356	940	880	180	1000	28	6
M3FT 400 D	4	686	1616	1934	280	140	250	36	148	400	1748	1187	42	2506	940	880	180	1000	28	6

Tolerances:	
A, B	± 0.8
D	ISO m6
F	ISO h9
H	+0 -1.0
N	ISO j6 (280)
	ISO js6 (315-400)
C	± 0.8

Motors in brief

High Dynamic Performance motors, IP55 (M3ET) series

Motor size		80	100	132	160	180	200	225	250	280	315	355
Stator	Material	Extruded aluminum frame					Electrical steel, steel					
	Paint colour shade	RAL 9005/ Jet black										
End-shields	Material	LPDC Aluminum					Cast iron					
	Paint colour shade	RAL 9005/ Jet black										
Feet		Integrated in end shields										
Bearings	D-end	6305- ZZ/C3	6308- ZZ/C3	6310- ZZ/C3	6312- ZZ/C3	6314- ZZ/C3	6315/C3	6319/C3	6322/C3	6322/C3	6326M/C3	
	N-end	6305- ZZ/C3	6308- ZZ/C3	6310- ZZ/C3	6312- ZZ/C3	6314- ZZ/C3	6314/ C3VL0241	6316/ C3VL0241	6319/ C3VL0241	6316/ C3VL0241	6322/ C3VL0241	
Axially-locked bearings	Inner bearing cover	As standard, locked ad D-end. Floating ND-end.										
Bearing seal	D-end	Gamma ring as standard					Labyrinth seal					
	N-end	Gamma ring as standard					Labyrinth seal					
Lubrication		ZZ/ZZ permanently lubricated bearings					Regreasable bearings, regreasing nipples, M10x1					
Rating plate	Material	Stainless steel										
Terminal box	Frame material	Die cast aluminum					Cast iron					
	Cover material	Die cast aluminum					Cast iron					
	Cover screws material	Steel 8.8, zinc electroplated										
Connections	Cable-entries	Blind flange										
	Terminals	3 terminals for connection with cable lugs					6 terminals for connection with cable lugs					
Fan cover	Material	Steel										
	Paint colour shade	RAL 9005/ Jet black										
Stator winding	Material	Copper										
	Insulation	Insulation class H										
	Winding protection	3 PTC thermistors as standard 150°C					3 PTC thermistors as standard 170°C					
Rotor winding	Material	Presure die-cast aluminum										
Balancing		Half-key balancing as standard										
Key ways		Closed keyways					Open keyways					
Drain holes							B3 none and B35 STD					
External earthing bolt		M6	M8	M10	M16		M10x1		M10x25			
Enclosure		IP 55										
Cooling method		IC416							IC06			

Motors in brief

High Dynamic Performance motors, IP23 (M3FT) series

Motor size		100	132	160	180	200	225	250	280	315	355	400
Stator	Material	Extruded aluminum frame				Electrical steel, steel						
	Paint colour shade	RAL 9005/ Jet black										
End-shields	Material	LPDC Aluminum			Cast iron							
	Paint colour shade	RAL 9005/ Jet black										
Feet		Integrated in end shields										
Bearings	D-end	6308-2Z/C3	6310-2Z/C3	6312-2Z/C3	6314-2Z/C3	6315/C3	6319/C3	6322/C3	6322/C3	6326M/C3	6330M/C3	
	N-end	6308-2Z/C3	6310-2Z/C3	6312-2Z/C3	6314-2Z/C3	6314/C3VL0241	6316/C3VL0241	6319/C3VL0241	6316/C3VL0241	6322/C3VL0241	6326M/C4VL0241	
Axially-locked bearings	Inner bearing cover	As standard, locked ad D-end. Floating ND-end.										
Bearing seal	D-end	Gamma ring as standard				Labyrinth seal						
	N-end	Gamma ring as standard				Labyrinth seal						
Lubrication		2Z/ZZ permanently lubricated bearings				Regreasable bearings, regreasing nipples, M10x1						
Rating plate	Material	Stainless steel										
Terminal box	Frame material	Die cast aluminum			Cast iron							
	Cover material	Die cast aluminum				Cast iron						
	Cover screws material	Steel 8.8, zinc electroplated										
Connections	Cable-entries	Blind flange										
	Terminals	3 terminals for connection with cable lugs				6 terminals for connection with cable lugs						
Fan cover	Material	Steel										
	Paint colour shade	RAL 9005/ Jet black										
Stator winding	Material	Copper										
	Insulation	Insulation class H										
	Winding protection	3 PTC thermistors as standard 150°C				3 PTC thermistors as standard 170°C						
Rotor winding	Material	Presure die-cast aluminum										
Balancing		Half-key balancing as standard										
Key ways		Closed keyways				Open keyways						
Drain holes		B3 none and B35 STD										
External earthing bolt		M8	M10	M16	M16	M10x1			M10x25			
Enclosure		IP 23										
Cooling method		IC06										

Motors in brief

High Dynamic Performance motors, IP55 liquid-cooled (M3LT) series

Motor size		80	100	132	160	180
Stator	Material	Extruded aluminum frame				
	Paint colour shade	RAL 9005/ Jet black				
End-shields	Material	LPDC Aluminum				Cast iron
	Paint colour shade	RAL 9005/ Jet black				
Feet		Integrated in end shields				
Bearings	D-end	6305-2Z/C3	6308-2Z/C3	6310-2Z/C3	6312-2Z/C3	6314-2Z/C3
	N-end	6305-2Z/C3	6308-2Z/C3	6310-2Z/C3	6312-2Z/C3	6314-2Z/C3
Axially-locked bearings	Inner bearing cover	As standard, locked ad D-end. Floating ND-end.				
Bearing seal	D-end	Gamma ring as standard				
	N-end	Gamma ring as standard				
Lubrication		2Z/ZZ permanently lubricated bearings				
Rating plate	Material	Stainless steel				
Terminal box	Frame material	Die cast aluminum				Cast iron
	Cover material	Die cast aluminum				Cast iron
	Cover screws material	Steel 8.8, zinc electroplated				
Connections	Cable-entries	Blind flange				
	Terminals	3 terminals for connection with cable lugs				
Stator winding	Material	Copper				
	Insulation	Insulation class H				
	Winding protection	3 PTC thermistors as standard 150°C				
Rotor winding	Material	Pressure die-cast aluminum				
Balancing		Half-key balancing as standard				
Key ways		Closed keyways				
Drain holes						
External earthing bolt		M6	M8	M10	M16	M16
Enclosure		IP 55				
Cooling method		IC71W				

Total product offering

Motors, generators with a complete portfolio of services



IEC motors

- Low voltage motors
- High voltage induction and synchronous motors
- Marine motors
- Motors for explosive atmospheres
- Motors for food and beverage
- Motors for variable speed drives
- Permanent magnet motors
- Synchronous reluctance motors
- Traction motors
- Motors for heavy electric vehicles

NEMA motors

- Low voltage motors
- High voltage induction and synchronous motors
- Marine motors
- Motors for explosive atmospheres
- Motors for variable speed drives
- Permanent magnet motors
- Servomotors
- Washdown motors

Generators

- Generators for wind turbines
- Generators for diesel and gas engine power plants
- Generators for steam and gas turbine power plants
- Generators for marine applications
- Generators for industrial applications
- Generators for traction applications
- Synchronous condensers for reactive power compensation

Life cycle services

ABB's portfolio of drives

Optimal solution for you



Being able to rely on the continuous high performance and efficiency of your operations is something you want to take for granted. ABB variable-frequency drives are made with all this in mind, established upon more than 40 years of experience and backed by a broad range of life cycle services.

ABB drives help you to optimize your processes and systems with state-of-the-art motor control technology, resulting in increased energy efficiency, better product quality, and reduced operating costs with higher output, less downtime, and reduced need for maintenance. All ABB drives are designed for easy selection, ordering, installation and use, and they offer integrated safety features, giving you more time to focus on what matters for you and your business.

Our portfolio offers low-voltage AC and DC drives, medium-voltage AC drives, and motion control drives spanning the fractional-kilowatt to multi-megawatt power level. There is a drive available for essentially every industry and application and for all types of motors, in environments ranging from water utility facilities to clean electrical rooms, and to harsh coal mines and windy offshore platforms to food and beverage production. This wide product range allows you to select the best-fitting drive solution, providing maximum reliability and efficiency for every need.

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