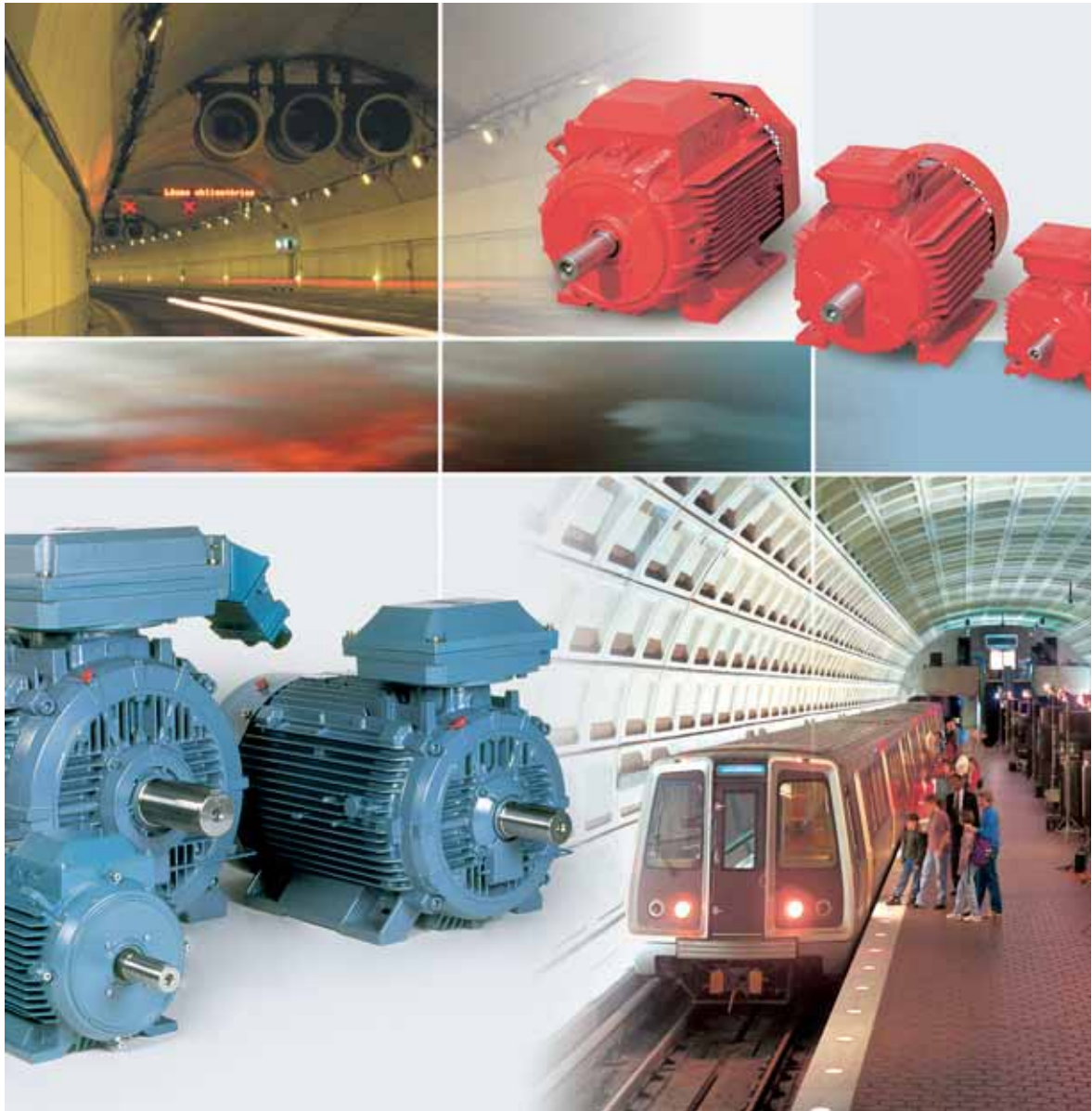


Low Voltage Smoke Venting Motors



New motor range for smoke venting applications

Many solutions for fire protection require smoke-venting fans to move the smoke gases out into the open air. Dual-purpose concept is often used, meaning that the fans can also be used during normal working conditions for standard ventilation.

Smoke venting fans are used in stairwells, shopping malls, public buildings, tunnels, industrial buildings, enclosed car parks and other locations to mitigate the development of a fire. They create smoke-free areas to help with the rescue of people and with fire fighting. They also reduce the spread of smoke and fire to other parts of the building as well as to other buildings and, ultimately, reduce the risk of building collapse.



Application principle

Hot smoke gases rising to the ceiling are evacuated by the fans, while fresh air is replenished further down, creating an area free from smoke at the floor level. Smoke venting fans can also be used for creating differential pressure between areas of a building, to prevent smoke from spreading between them.

Smoke venting fans and the motors driving them are designed to cope with the high temperatures that develop during a fire. Special type of bearings fitted with high temperature grease are used. The motors must be connected using heat resistant cable classified for the appropriate temperature and time.

Smoke venting fans can be placed in the ventilation duct, inside the room that is being protected, or outside the room to push cool air into the room during a fire. Some fans have a dedicated supply system for cooling air.

Fully certified low voltage motor range up to 560 kW

Direct on line (DOL) applications

Frame sizes	80 to 400
Output range	0.55 to 560 kW
Number of poles	2-pole up to 250 size, 4-12 pole up to 400 size single- or two-speed
Frame material	Aluminum or cast iron
Mounting	Vertical mounting on request. Pad-mounting available from 280 size and above.

Variable speed (VSD) applications

Frame sizes	80 to 400
Output range	0.55 to 560 kW
Number of poles	4-12 pole
Frame material	Aluminum or cast iron
Network voltages	Up to 690 V
Frequency	Variable speed range up to 1800 r/min
Mounting	Vertical mounting on request. Pad-mounting available from 280 size and above.

Test procedure

Two methods are used when testing:

- Combined testing – the motor is tested in combination with a fan with specified characteristics
- The motor is loaded with a generator; the permissible load of the motor at high temperature is defined by the certificate.

Unclassified test results

The following test results for ABB's smoke venting motors are not classified according to EU decision 27.08.2003, however the test has been carried out according to EN 12101-3:

- 250°C – 2 hours
- 300°C – 2 hours

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ABB reserves the right to change the design, technical specification and dimensions without prior notice.

Standards and certification


The introduction of the new European Standard, EN 12101-3, (Smoke and Heat Control Systems - Part 3: Specification for powered smoke and heat exhaust ventilators) determines the safety requirements to be fulfilled by motors intended for ventilation systems in closed or underground public spaces and is designed to help protect life and property in the event of fire. The standard became mandatory in new installations from April 1, 2005 (Official Journal of the European Union 17.3.2004). The standard specifies the requirements and test methods for ventilators and motors for use in a powered smoke and heat exhaust ventilation system.

ABB's smoke venting motors comply with the European standard. They are designed to offer maximum performance for venting applications in both normal operation and emergency conditions and have dual purpose certification.

Classification of products

Class	Temperature (°C)	Minimum function duration (min)
EN 12101-3, February 2002:		
F200	200°C	120
F300	300°C	60
F400	400°C	120
Test made in accordance with the EN standards:		
	250°C	120

Certificate examples:



Bellaterra : 16 de Abril de 2002

Expedient número : 22008201 ENGLISH VERSION

Referència del peticionari : ABB Automation Products-División Motore Polígono Industrial S.O. 08192 SANT QUIRZE DEL VALLES (Barcelona)

EXTENSION OF TEST REPORT N°99005234 DATED 07/06/1999.

Report N° 99005234:
Extension report issued on 7/6/1999 to motors range denominated "M3AAW 90-250 y MBT 200-250", from ABB Motors, S.A.


Product:
Three phases squirrel cage asynchronous low voltage motors with shaft height between 90 to 250 mm.

Nominal electrical characteristics:
Feeding through a three phase electrical network of frequencies 50-60 Hz, maximum 700 V.
Outputs up to 55 kW at 50 Hz or 63 kW at 60 Hz.
Speeds lower than or equal to 3600 r/min.
Maximum allowable temperature rise, in class B, must be lower than or equal to 80 K.
The motors can be fed by frequency converters within a maximum ambient temperature of 40 °C. In case of accident, with an increase of the ambient temperature, the motor should be fed by an industrial sinusoidal network.

Construction characteristics.
Motors with Al frames and cast iron end shields
Degree of protection IP55
Insulation class F
Motor without fan IC418
Bearings greased for life with grease Barrierta L55/2

At the date of this report, LGAI owns the ENAC accreditation to certify according to EN 12101-3 July 2001.

This document will not be reproduced otherwise than in full.
This document consists of 3 pages, of which -- from annexes.



laboratoire agréé par le ministère de l'Intérieur et le ministère chargé de la Merne Marchande

FIRE TEST OF BUILDING ELEMENTS
According to the European standard NF EN 12101-3 : 2002-09 and the French Decree dated of August 3rd 1999

CERTIFICATE OF APPROVAL

Subject : Fire tests of a range of electrical motors Ref. M3BFW

Tests n° : 04 - H - 081 Carried out on : March 1st, 2004
04 - H - 086 March 2nd, 2004
04 - G - 082 March 3rd, 2004

Report n° : 04 - G - 082

Sponsor : ABB OY, ELECTRICAL MACHINES LV MOTORS
Strömbergin Pulistie 5A
FIN - 65101 VAASA

Scope : A range of electrical motors of low-voltage, three-phase, asynchronous, closed cage electric motors with the following features :

- + manufacturer : ABB OY, ELECTRICAL MACHINES LV MOTORS
- + reference : M3BFW
- + construction : TEFC
- + frame size : from 160 up to 400
- + electrical ratings up to 540 kW
- + nominal rated voltages supply between 190 V and 490 V
- + rotational speeds : from 4 up to 12 poles and multi speeds motors
- + insulation class/temperature rise class/specifications : H/F-B/EN 60034-1
- + frame and end covers material : cast iron
- + cooling fan material : aluminum (plastic fan allowed)
- + fan cover : steel
- + applications : DOL and VSD (maximal rotational speed 1800 rpm/min)
- + Maximal frequency equal to 60 Hz for both application

Bearings features for frame size motors from 160 mm up to 400 mm :

Bearing type /arrangement /class of fit /lubricant DE :
ball bearing regreassable / locked bearing /CA /UNIREX N2 (ESSO)
Bearing type /arrangement /class of fit /lubricant NDE :
ball bearing regreassable / free bearing /CA / UNIREX N2 (ESSO)

Test procedure : These motors were tested according to the Annexe D, in association with a generator, with a dynamic load calculated according to ISO 281 and defined in the technical file of manufacturer. The dimensioning of the motors took into consideration axial and radial loads, the tests had been performed with a corresponding radial load.

Conclusions : OPERATING TEMPERATURE : **FOUR HUNDRED DEGREES CELSIUS (400° C)**
OPERATING TIME : **ONE HUNDRED AND TWENTY MINUTES (120 min)**
TEMPERATURE CLASS/TIME : **F 400 (120)**
APPLICATION CLASS : **DUAL PURPOSE**

Maizières-lès-Metz, France, July 15th, 2004

Kristelle BISCH
Engineer in Charge of [Signature]

This certificate of test is for information only. Only a full copy of the test report, if any, will give the confirmed test results necessary for the safety of the product.

Voie romaine
Domaine de l'Isard
F-57280 Maizières-lès-Metz
Tel : 33 (0)3 87 51 11 11 Fax: 33 (0)3 87 51 10 58
station@station.ctim.fr
www.ctim.com

Mechanical design

Design

The design utilizes the same durable structure as for process performance motors, meeting the toughest demands from of today's process industry. These motors

use the best materials and constructions methods to achieve the highest quality and reliability. The motor design is also highly adaptable to allow rapid engineering solutions according to customer's specifications.

Bearings

Motors are normally fitted with single-row deep groove ball bearings as listed below.

Axial and radial load should be checked with ABB.

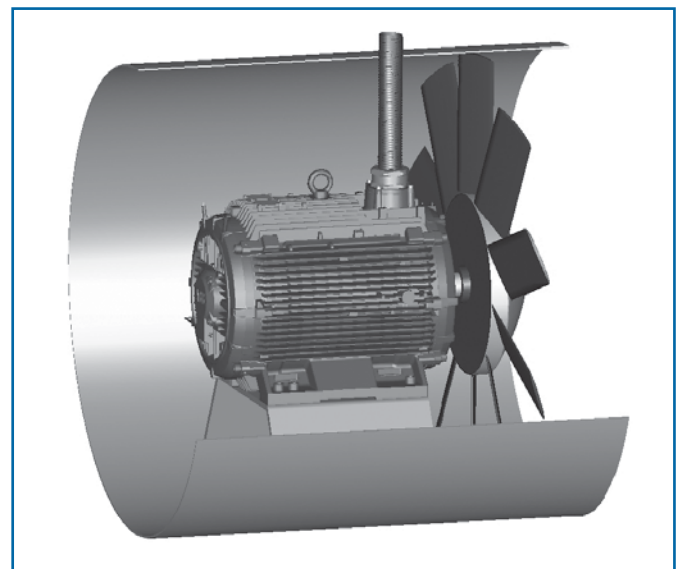
Motor size	Number of poles	Foot- and flange-mounted motor	
		D-end	N-end
M3QAW 80	2-8	6204-2Z/C3	6204-2Z/C3
M3QAW 90	2-8	6205-2Z/C3	6205-2Z/C3
M3QAW 100	2-8	6206-2Z/C3	6206-2Z/C3
M3QAW 112	2-8	6207-2Z/C3	6206-2Z/C3
M3QAW 132	2-8	6208-2Z/C3	6207-2Z/C3
M3AAW 90	2-8	6205-2Z/C3	6204-2Z/C3
M3AAW 100	2-8	6306-2Z/C3	6205-2Z/C3
M3AAW 112	2-8	6206-2Z/C3	6205-2Z/C3
M3AAW 132	2-8	6208-2Z/C3	6206-2Z/C3
M3AAW 160	2-8	6309-2Z/C3	6209-2Z/C3

Motor size	Number of poles	Foot- and flange-mounted motor	
		D-end	N-end
M3AAW 180	2-8	6310-2Z/C3	6209-2Z/C3
M3AAW 200	2-8	6312/C3	6210/C3
M3AAW 225	2-8	6313/C3	6212/C3
M3AAW 250	2-8	6315/C3	6213/C3
M3BPW 280	4-8	6316/C4	6316/C4
M3BPW 315	4-8	6319/C4	6316/C4
M3BPW 355	4-8	6322/C4	6316/C4
M3BPW 400	4-8	6324/C4	6322/C4

Cooling

Smoke venting motors are as standard equipped with it's own cooling fan mounted on the shaft at non-drive end.

Smoke venting motors are, however, often mounted in the airstream inside the ventilation duct, hence can the airstream be utilized to cool the motor. The motor can then supplied without an own fan and fancover. When utilizing this design is it the fan manufacturers responsibility to ensure that cooling is as efficient as it is with the motor's own cooling fan and that there no obstacles or shields that prevents the airflow around the motor.



Example of a motor without cooling fan.

Design with terminal box or with flying leads

Terminal box

Sizes 90-180, aluminum frame

The terminal box is made of aluminum alloy and is located on top of the stator. The lower part of the box is integrated with the stator. It is provided with 2 knockout openings on each side. Sizes 160-180 also have a third smaller opening. Cable glands are not included.

Sizes 200-250, aluminum frame

The terminal box and cover are made of deep drawn steel and mounted on top of the stator. The box is bolted to the stator and is not rotatable. The terminal box is provided with two flange openings, one on each side. On delivery the holes are sealed with plastic plugs. Cable glands are not included.

Sizes 80-132, cast iron frame

The cable entries are tapped in the terminal box frame. Cable glands are not included.

Sizes 280-400, cast iron frame

The terminal box is equipped with cable glands or cable boxes, see catalogue Process performance motors for standard delivery. Motors for 400°C are always equipped with flying leads and come without terminal box.

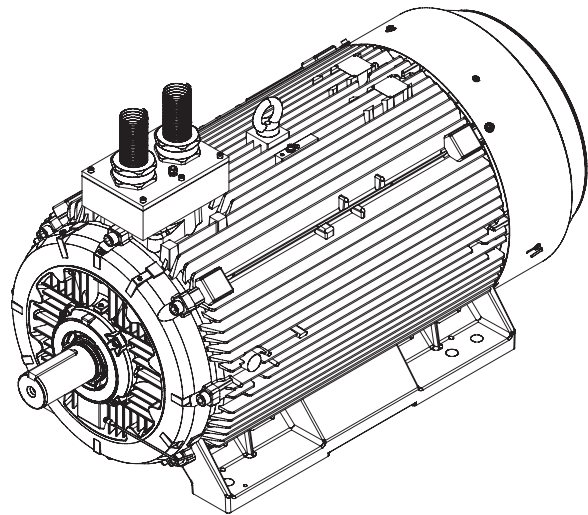
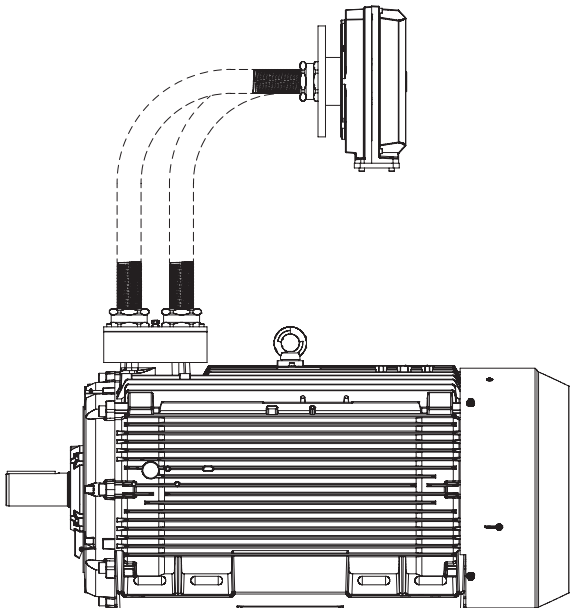
Design with flying leads

Smoke Venting motors from size 280 and above are equipped with the flying leads as a standard. Unless otherwise specified, the length of the flying leads is two meters. Protection class of standard flying leads construction is IP40. However the protection class of the motor frame is IP55 due to sealing of cable entry. On request can the flying leads be equipped with a terminal box.

Smoke venting motors with terminal box mounted on frame for classes F200, F250 and F300 on request.

Frame size	Length of flying leads	Size of cable glands
280	3 m	M63
315	3 m	3"
355	3 m	1-2x3"
400	3 m	2x3"

Examples



Optimized for variable speed applications

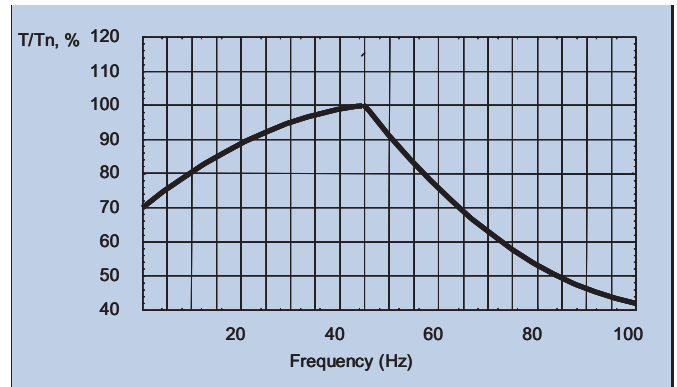
The basic structure of motor sizes 280 - 400 is as standard optimized for variable speed applications. Please see product catalogue BU/Process performance motors GB 03-2005 for details.

In the event of an accident motors up to frame size 250 should be connected to industrial (sinusoidal) net.

Motor loadability with ACS 600/800 frequency converter

Motor sizes 280 and above are equipped with reinforced insulation and insulated N-bearing.

Voltage	Motor size ≥ IEC 280	$P_N \geq 350$ kW or ≥ IEC 400
$U_N \leq 600$ V		- common mode filter
$U_N \leq 690$ V	- dU/dt filter	- dU/dt filter - common mode filter

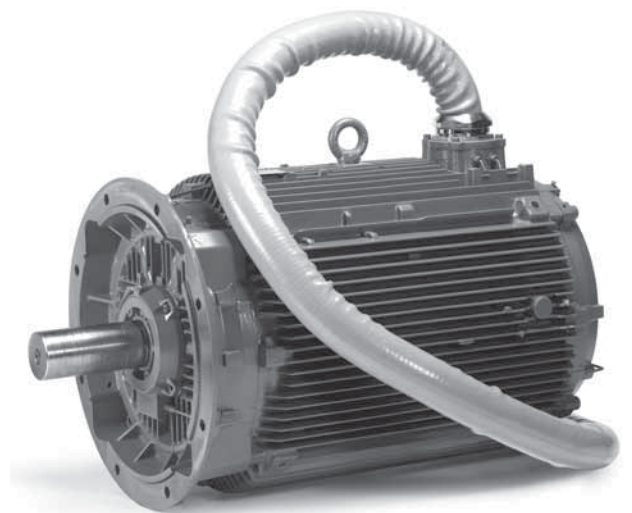


Air ratings

Smoke venting motors are often mounted in the airstream inside the ventilation duct, hence the airstream can be utilized to cool the motor, which can then be supplied without its own fan or fancover.

Due to the high air flow and speed from the fan the motor rating can be increased, while still maintaining the normal temperature rise limitations.

Values in the technical data pages on the following pages are calculated with cooling fan in the motor. Values for air ratings are available from ABB on request.



Example of cast iron motor size 315 with flying leads.

Ordering information

When placing an order, please state the following minimum data in the order, as in the example.

The product code of the motor is composed in accordance with the following example.

Type designation	M3AAW 200 MLA
Pole number	4
Mounting arrangement (IM-code)	IM B3 (IM 1001)
Rated output	30 kW
Product code	202 001-ADE
Axial and radial load and directions.	
Variant codes acc. to needs	

Motor size

A	B	C	D, E, F, G														
M3AAW	112 M	3GAA	202 001 - ADE, 173, 450, etc.														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			<ul style="list-style-type: none"> A Motor type B Motor size C Product code D Code for mounting arrangement E Voltage and frequency code F Generation code followed by variant codes 														

Explanation of the product code

Positions 1 to 4

M3AAW/3GAA =	Totally enclosed motor with aluminum stator frame
M3QAW/3GQA =	Totally enclosed motor with cast iron stator frame
M3BPW/3GBP =	Totally enclosed motor with cast iron stator frame

Positions 5 and 6 - IEC size

08 = 80	16 = 160	28 = 280
09 = 90	18 = 180	31 = 315
10 = 100	20 = 200	35 = 355
11 = 112	22 = 225	40 = 400
13 = 132	25 = 250	

Position 7 - Pole pairs

1 = 2 poles	3 = 6 poles
2 = 4 poles	4 = 8 poles

Positions 8 to 10 - Running number

Position 11 - (dash)

Position 12

Mounting arrangement

A =	Foot-mounted motor, top-mounted terminal box
B =	Flange-mounted motor. Large flange with clearance holes.
D =	Pad mounted.
E =	Flange-mounted (CI integral flange)
H =	Foot- and flange-mounted motor, top-mounted terminal box. Large flange with clearance holes.
N =	Flange-mounted (CI ring flange FF)

Position 13 - Voltage and frequency: See tables below

Position 14 - Generation code A, B, C, D, E

Position 15 - Variant codes

The variant codes for defining the smoke venting classification need to be added to the product code; mentioned on each technical data page.

170	Smoke venting specification, 200°C 2 hours.
171	Smoke venting specification, 300°C 1/2 hours.
173	Smoke venting specification, 200°C 2 hours, VSD use, Class F200 according to EN 12101-3.
386	Smoke venting specification, 200°C 2 hours, VSD use, Class F200 according to EN 12101-3.
392	Smoke venting specification, 250°C 2 hours, DOL use, Class T250 according to French decret 03-08-1999.
393	Smoke venting specification, 250°C 2 hours, VSD use, Class T250 according to French decret 03-08-1999.
172	Smoke venting specification, 300°C 1 hour, DOL use, Class F300 according to EN 12101-3.
387	Smoke venting specification, 300°C 1 hour, VSD use, Class F300 according to EN 12101-3.
174	Smoke venting specification, 400°C 2 hours, DOL use, Class F400 according to EN 12101-3.
389	Smoke venting specification, 400°C 2 hours, VSD use, class F400 according to EN 12101-3.

Code letters for supplementing the product code - Code letter for voltage and frequency

Motor size	Direct start or, with Δ-connection, also Y/Δ-start									
	S	D		H	E	F	T	U	X	
	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	
80-100	220-240 VΔ 380-420 VY	440-480 VY	380-420 VΔ 660-690 VY	440-480 VΔ -	-	500 VΔ ¹⁾	500 VY	660 VΔ ¹⁾	690 VΔ ¹⁾	Other rated voltage, connection or frequency, 690 V maximum
112-132	220-240 VΔ 380-420 VY	- 440-480 VY	380-420 VΔ 660-690 VY	440-480 VΔ -	415 VΔ	500 VΔ 500 VY	660 VΔ	690 VΔ		
160-400	220, 230 VΔ 380,400,415 VY	- 440 VY	380,400,415VΔ 660, 690 VY	440 VΔ -	415 VΔ	500 VΔ	500 VY	660 VΔ	690 VΔ	

¹⁾ On request.

LV Smoke venting motors 200°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Insulation class F, temperature rise class B

Output kW	Motor type	Product code ¹⁾		Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
					Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N			
3000 r/min = 2 poles				400 V 50 Hz				Basic design							
1.5	M3AAW 90 S	3GAA	091 001-••E	2870	80.1	76.2	0.82	3.35	5.5	5	2.4	3.0	0.0019	13	
2.2	M3AAW 90 L	3GAA	091 002-••E	2885	83.6	83.9	0.87	4.37	6.0	7.5	2.5	3.0	0.0024	16	
3	M3AAW 100 L	3GAA	101 001-••E	2900	86.0	84.1	0.88	5.95	7.5	10	2.7	3.6	0.0041	21	
4	M3AAW 112 M	3GAA	111 001-••B	2850	86.0	86.2	0.91	7.4	7.5	13.4	2.8	3.0	0.01	25	
5.5	M3AAW 132 SA	3GAA	131 001-••B	2855	86.0	86.6	0.88	10.5	7.8	18.4	3.2	3.4	0.014	37	
7.5	M3AAW 132 SB	3GAA	131 002-••B	2860	88.0	86.2	0.89	13.9	8.5	25.1	3.4	3.6	0.016	42	
11	M3AAW 160 MA	3GAA	161 101-••D	2930	91.2	91.2	0.88	20	6.3	36	1.9	2.5	0.039	73	
15	M3AAW 160 M	3GAA	161 102-••D	2920	91.7	90.7	0.90	26.5	6.6	49	2.3	2.5	0.047	84	
18.5	M3AAW 160 L	3GAA	161 103-••D	2920	92.4	91.1	0.91	32	7.3	60	2.6	2.7	0.053	94	
22	M3AAW 180 M	3GAA	181 101-••D	2930	92.8	89.2	0.89	38.5	7.2	71	2.5	2.7	0.077	119	
30	M3AAW 200 MLA	3GAA	201 001-••E	2955	93.2	93.2	0.88	53	7.3	97	2.4	3.1	0.15	175	
37	M3AAW 200 MLB	3GAA	201 002-••E	2950	93.6	93.6	0.89	64	7.3	120	2.5	3.2	0.18	200	
45	M3AAW 225 SMB	3GAA	221 001-••E	2960	93.9	93.9	0.88	79	7.3	145	2.5	2.8	0.26	235	
55	M3AAW 250 SMA	3GAA	251 001-••E	2970	94.4	94.1	0.89	95	7.4	177	2.2	2.8	0.49	285	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

Sizes 90-100: 170 Smoke venting specification, 200°C 2 hours.

Sizes 112-250: 173 Smoke venting specification, 200°C 2 hours, DOL use, Class F200 according to EN 12101-3.

386 Smoke venting specification, 200°C 2 hours, VSD use, Class F200 according to EN 12101-3. Includes insulated bearing at N-end.

LV Smoke venting motors 200°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N		
1500 r/min = 4 poles			400 V 50 Hz					Basic design					
1.1	M3AAW 90 S	3GAA 092 001-**-E	1410	77.5	76.4	0.81	2.59	5.0	7.5	2.2	2.7	0.0032	13
1.5	M3AAW 90 L	3GAA 092 002-**-E	1420	80.3	78.1	0.79	3.45	5.0	10	2.4	2.9	0.0043	16
2.2	M3AAW 100 LA	3GAA 102 001-**-E	1430	83.0	82.7	0.81	4.8	5.5	15	2.4	2.9	0.0069	21
3	M3AAW 100 LB	3GAA 102 002-**-E	1430	85.0	83.9	0.81	6.48	5.5	20	2.5	2.9	0.0082	24
4	M3AAW 112 M	3GAA 112 001-**-B	1435	84.5	83.9	0.80	8.6	7.0	26.6	2.9	3.1	0.015	27
5.5	M3AAW 132 S	3GAA 132 001-**-B	1450	87.0	87.7	0.83	11.1	7.3	36.2	2.2	3.0	0.031	40
7.5	M3AAW 132 M	3GAA 132 002-**-B	1450	88.0	88.6	0.83	14.8	7.9	49.4	2.5	3.2	0.038	48
11	M3AAW 160 M	3GAA 162 101-**-D	1470	91.0	91.0	0.80	22.6	8.2	71	3.4	3.9	0.091	94
15	M3AAW 160 L	3GAA 162 102-**-D	1465	91.8	92.0	0.80	30	6.8	97	2.9	3.3	0.091	94
18.5	M3AAW 180 M	3GAA 182 101-**-D	1470	92.3	88.6	0.84	35	7.0	120	3.1	2.7	0.161	124
22	M3AAW 180 L	3GAA 182 102-**-D	1470	92.6	90.8	0.83	41	7.0	143	2.9	2.8	0.191	141
30	M3AAW 200 MLA	3GAA 202 001-**-E	1475	93.4	93.6	0.84	55	7.0	194	2.5	2.8	0.34	205
37	M3AAW 225 SMA	3GAA 222 001-**-E	1480	93.6	93.6	0.84	68	6.6	239	2.4	2.5	0.37	215
45	M3AAW 225 SMB	3GAA 222 002-**-E	1480	94.2	94.2	0.83	83	6.7	290	2.7	2.6	0.42	230
55	M3AAW 250 SMA	3GAA 252 001-**-E	1480	94.6	94.6	0.86	98	7.5	355	2.3	2.8	0.72	275
75	M3BPW 280 SMA	3GBP 282 210-**-G	1484	94.5	²⁾	0.85	135	6.9	483	2.5	2.8	1.25	625
90	M3BPW 280 SMB	3GBP 282 220-**-G	1483	94.8	²⁾	0.86	159	7.2	580	2.5	2.7	1.5	665
110	M3BPW 315 SMA	3GBP 312 210-**-G	1487	95.4	²⁾	0.86	193	7.2	706	2.0	2.5	2.3	900
132	M3BPW 315 SMB	3GBP 312 220-**-G	1487	95.6	²⁾	0.86	232	7.1	848	2.3	2.7	2.6	960
160	M3BPW 315 SMC	3GBP 312 230-**-G	1487	95.7	²⁾	0.85	287	7.2	1028	2.4	2.9	2.9	1000
200	M3BPW 315 MLA	3GBP 312 410-**-G	1486	96.0	²⁾	0.86	351	7.2	1285	2.5	2.9	3.5	1160
250	M3BPW 355 SMA	3GBP 352 210-**-G	1488	96.3	²⁾	0.86	438	7.1	1604	2.3	2.7	5.9	1610
315	M3BPW 355 SMB	3GBP 352 220-**-G	1488	96.5	²⁾	0.86	550	7.3	2022	2.3	2.8	6.9	1780
355	M3BPW 355 SMC	3GBP 352 230-**-G	1487	96.4	²⁾	0.86	616	6.8	2280	2.4	2.7	7.2	1820
400	M3BPW 355 MLA	3GBP 352 410-**-G	1489	96.7	²⁾	0.85	700	6.8	2565	2.3	2.6	8.4	2140
450	M3BPW 355 MLB	3GBP 352 420-**-G	1490	96.7	²⁾	0.86	784	6.9	2884	2.3	2.9	8.4	2140
500	M3BPW 355 LKA	3GBP 352 810-**-G	1490	96.9	²⁾	0.86	875	6.8	3204	2.0	3.0	10	2500
560	M3BPW 355 LKB	3GBP 352 820-**-G	1490	96.7	²⁾	0.85	990	7.2	3589	2.6	2.7	10.6	2600
560	M3BPW 400 LA	3GBP 402 510-**-G	1491	96.9	²⁾	0.85	980	7.4	3587	2.4	3.0	15	3200
560	M3BPW 400 LKA	3GBP 402 810-**-G	1491	96.9	²⁾	0.85	980	7.4	3587	2.4	3.0	15	3200
1500 r/min = 4 poles			400 V 50 Hz					High-output design					
110	M3BPW 280 SMC	3GBP 282 230-**-G	1485	95.3	²⁾	0.86	195	7.6	707	3.0	3.0	1.85	725
250	M3BPW 315 LKA	3GBP 312 810-**-G	1487	95.9	²⁾	0.86	442	7.4	1605	2.5	2.9	4.4	1410
280	M3BPW 315 LKB	3GBP 312 820-**-G	1487	96.1	²⁾	0.86	494	7.6	1798	2.6	3.0	5	1520
315	M3BPW 315 LKC	3GBP 312 830-**-G	1488	96.2	²⁾	0.85	555	7.8	2022	2.6	3.2	5.5	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

Sizes 90-100: 170 Smoke venting specification, 200°C 2 hours.

Sizes 112-400: 173 Smoke venting specification, 200°C 2 hours, DOL use, Class F200 according to EN 12101-3.

386 Smoke venting specification, 200°C 2 hours, VSD use, Class F200 according to EN 12101-3.
Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 200°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N		
1000 r/min = 6 poles			400 V 50 Hz					Basic design					
0.75	M3AAW 90 S	3GAA 093 001-••E	930	71.5	70.7	0.67	2.36	4.0	7.5	1.9	2.3	0.0032	13
1.1	M3AAW 90 L	3GAA 093 002-••E	930	74.4	72.5	0.69	3.25	4.0	11	2.1	2.4	0.0043	16
1.5	M3AAW 100 L	3GAA 103 001-••E	950	80.0	77.0	0.71	3.92	4.5	15	1.9	2.3	0.0082	23
2.2	M3AAW 112 M	3GAA 113 001-••B	940	80.5	79.3	0.74	5.4	5.6	22.3	2.1	2.7	0.015	27
3	M3AAW 132 S	3GAA 133 001-••B	960	84.5	82.7	0.75	6.9	6.1	29.8	2.0	2.6	0.031	39
4	M3AAW 132 MA	3GAA 133 002-••B	960	85.5	83.1	0.78	8.7	7.1	39.7	2.0	2.8	0.038	46
5.5	M3AAW 132 MB	3GAA 133 003-••B	955	86.0	85.0	0.78	11.9	6.9	55	2.2	2.8	0.045	54
7.5	M3AAW 160 M	3GAA 163 101-••D	970	89.3	88.4	0.79	15.4	6.7	74	2.0	2.8	0.089	88
11	M3AAW 160 L	3GAA 163 102-••D	970	89.8	88.5	0.78	23	7.1	109	2.2	2.9	0.107	102
15	M3AAW 180 L	3GAA 183 101-••D	970	90.8	87.2	0.78	31	7.0	148	2.1	3.0	0.217	151
18.5	M3AAW 200 MLA	3GAA 203 001-••E	985	91.1	91.1	0.81	36	7.0	179	2.5	2.7	0.37	165
22	M3AAW 200 MLB	3GAA 203 002-••E	980	91.7	91.7	0.81	43	7.2	214	2.5	2.7	0.43	185
30	M3AAW 225 SMB	3GAA 223 001-••E	985	92.8	92.8	0.83	56	6.6	291	2.5	2.7	0.64	225
37	M3AAW 250 SMA	3GAA 253 001-••E	985	93.7	93.7	0.83	69	7.3	359	2.8	2.8	1.16	280
45	M3BPW 280 SMA	3GBP 283 210-••G	990	94.1	²⁾	0.84	82	7	434	2.5	2.5	1.85	605
55	M3BPW 280 SMB	3GBP 283 220-••G	990	94.2	²⁾	0.84	101	7	531	2.7	2.6	2.2	645
75	M3BPW 315 SMA	3GBP 313 210-••G	992	94.6	²⁾	0.82	141	7.4	722	2.4	2.8	3.2	830
90	M3BPW 315 SMB	3GBP 313 220-••G	992	95.2	²⁾	0.84	163	7.5	866	2.4	2.8	4.1	930
110	M3BPW 315 SMC	3GBP 313 230-••G	991	95.3	²⁾	0.83	202	7.4	1060	2.5	2.9	4.9	1000
132	M3BPW 315 MLA	3GBP 313 410-••G	991	95.5	²⁾	0.83	240	7.5	1272	2.7	3	5.8	1150
160	M3BPW 355 SMA	3GBP 353 210-••G	993	95.8	²⁾	0.83	293	7	1539	2	2.6	7.9	1520
200	M3BPW 355 SMB	3GBP 353 220-••G	993	95.9	²⁾	0.83	360	7.2	1923	2.2	2.7	9.7	1680
250	M3BPW 355 SMC	3GBP 353 230-••G	993	96.2	²⁾	0.82	458	7.4	2404	2.6	2.9	11.3	1820
315	M3BPW 355 MLB	3GBP 353 420-••G	992	96.1	²⁾	0.82	578	7	3032	2.5	2.7	13.5	2180
355	M3BPW 355 LKA	3GBP 353 810-••G	992	96.2	²⁾	0.82	655	7.6	3417	2.7	2.9	15.5	2500
400	M3BPW 355 LKB	3GBP 353 820-••G	992	96.1	²⁾	0.82	740	7.2	3851	2.6	2.6	16.5	2600
400	M3BPW 400 LA	3GBP 403 510-••G	993	96.4	²⁾	0.82	730	7.1	3847	2.3	2.7	17	2900
400	M3BPW 400 LKA	3GBP 403 810-••G	993	96.4	²⁾	0.82	730	7.1	3847	2.3	2.7	17	2900
450	M3BPW 400 LB	3GBP 403 520-••G	994	96.6	²⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150
450	M3BPW 400 LKB	3GBP 403 820-••G	994	96.6	²⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150
500	M3BPW 400 LC	3GBP 403 530-••G	993	96.7	²⁾	0.83	900	7.2	4808	2.5	2.7	22	3300
500	M3BPW 400 LKC	3GBP 403 830-••G	993	96.7	²⁾	0.83	900	7.2	4808	2.5	2.7	22	3300
560	M3BPW 400 LKD	3GBP 403 840-••G	993	96.7	²⁾	0.85	985	7.4	5385	2.4	3	24	3400
560	M3BPW 400 LD	3GBP 403 540-••G	993	96.7	²⁾	0.85	985	7.4	5385	2.4	3	24	3400
1000 r/min = 6 poles			400 V 50 Hz					High-output design					
75	M3BPW 280 SMC	3GBP 283 230-••G	990	94.8	²⁾	0.84	137	7.3	723	2.8	2.7	2.85	725
160	M3BPW 315 LKA	3GBP 313 810-••G	992	95.5	²⁾	0.83	293	7.5	1540	2.6	2.8	7.3	1410
180	M3BPW 315 LKB	3GBP 313 820-••G	992	95.6	²⁾	0.83	330	7.4	1733	2.6	2.8	8.3	1520
200	M3BPW 315 LKC	3GBP 313 830-••G	989	95.4	²⁾	0.84	362	6.8	1931	2.5	2.6	9.2	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

Sizes 90-100: 170 Smoke venting specification, 200°C 2 hours.

Sizes 112-400: 173 Smoke venting specification, 200°C 2 hours, DOL use, Class F200 according to EN 12101-3.

386 Smoke venting specification, 200°C 2 hours, VSD use, Class F200 according to EN 12101-3.

Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 200°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
				Full load 100%	3/4 load 75%		I _N A	I _s / I _N	T Nm	T _s / T _N	T _{max} / T _N		
750 r/min = 8 poles			400 V 50 Hz					Basic design					
0.37	M3AAW 90 S	3GAA 094 001-••E	700	61.5	43.4	0.56	1.6	3.0	5	1.9	2.4	0.0032	13
0.55	M3AAW 90 L	3GAA 094 002-••E	690	62.9	56.4	0.57	2.35	3.0	7.5	1.7	2.1	0.0043	16
0.75	M3AAW 100 LA	3GAA 104 001-••E	700	72.0	63.6	0.59	2.55	3.5	10	2.1	2.7	0.0069	20
1.1	M3AAW 100 LB	3GAA 104 002-••E	700	73.0	68.8	0.64	3.35	3.5	15	2.1	2.7	0.0082	23
1.5	M3AAW 112 M	3GAA 114 001-••B	695	74.5	75.9	0.65	4.5	4.1	20.6	1.9	2.4	0.016	28
2.2	M3AAW 132 S	3GAA 134 001-••B	720	80.5	77.8	0.67	5.9	5.3	29.2	1.6	2.5	0.038	46
3	M3AAW 132 M	3GAA 134 002-••B	720	82.0	79.2	0.68	7.8	5.5	39.8	1.8	2.5	0.045	53
4	M3AAW 160 MA	3GAA 164 101-••D	715	84.1	81.1	0.69	10	5.2	54	2.1	2.4	0.072	75
5.5	M3AAW 160 M	3GAA 164 102-••D	710	84.7	75.0	0.70	13.4	5.4	74	2.4	2.6	0.091	88
7.5	M3AAW 160 L	3GAA 164 103-••D	715	86.3	82.4	0.70	18.1	5.4	100	2.4	2.8	0.131	118
11	M3AAW 180 L	3GAA 184 101-••D	720	88.7	89.0	0.76	23.5	5.9	146	2.4	2.6	0.224	147
15	M3AAW 200 MLA	3GAA 204 001-••E	740	91.1	91.1	0.82	29	7.4	194	1.8	3.0	0.45	175
18.5	M3AAW 225 SMA	3GAA 224 001-••E	730	91.1	91.1	0.79	37	6.2	242	1.9	2.7	0.61	210
22	M3AAW 225 SMB	3GAA 224 002-••E	730	91.5	91.5	0.77	45	6.0	288	1.9	2.7	0.68	225
30	M3AAW 250 SMA	3GAA 254 001-••E	735	92.8	92.8	0.79	59	6.9	390	1.9	2.9	1.25	280
37	M3BPW 280 SMA	3GBP 284 210-••G	741	93.0	²⁾	0.78	74	7.3	477	1.7	3.0	1.85	605
45	M3BPW 280 SMB	3GBP 284 220-••G	741	93.7	²⁾	0.78	90	7.6	580	1.8	3.1	2.2	645
55	M3BPW 315 SMA	3GBP 314 210-••G	742	93.8	²⁾	0.81	104	7.1	708	1.6	2.7	3.2	830
75	M3BPW 315 SMB	3GBP 314 220-••G	741	94.1	²⁾	0.82	141	7.1	968	1.7	2.7	4.1	930
90	M3BPW 315 SMC	3GBP 314 230-••G	741	94.5	²⁾	0.82	167	7.4	1161	1.8	2.7	4.9	1000
110	M3BPW 315 MLA	3GBP 314 410-••G	740	94.7	²⁾	0.83	203	7.3	1420	1.8	2.7	5.8	1150
132	M3BPW 355 SMA	3GBP 354 210-••G	744	95.3	²⁾	0.80	250	7.5	1694	1.5	2.6	7.9	1520
160	M3BPW 355 SMB	3GBP 354 220-••G	744	95.4	²⁾	0.80	305	7.6	2054	1.6	2.6	9.7	1680
200	M3BPW 355 SMC	3GBP 354 230-••G	743	95.5	²⁾	0.80	378	7.4	2570	1.6	2.6	11.3	1820
250	M3BPW 355 MLB	3GBP 354 420-••G	743	95.6	²⁾	0.80	476	7.5	3213	1.6	2.7	13.5	2180
315	M3BPW 355 LKB	3GBP 354 820-••G	742	95.6	²⁾	0.79	600	7.9	4054	1.7	2.7	16.5	2600
315	M3BPW 400 LA	3GBP 404 510-••G	744	96.1	²⁾	0.81	582	7.0	4043	1.2	2.6	17	2900
315	M3BPW 400 LKA	3GBP 404 810-••G	744	96.1	²⁾	0.81	582	7.0	4043	1.2	2.6	17	2900
355	M3BPW 400 LB	3GBP 404 520-••G	743	96.1	²⁾	0.82	650	6.8	4563	1.2	2.5	21	3200
355	M3BPW 400 LKB	3GBP 404 820-••G	743	96.1	²⁾	0.82	650	6.8	4563	1.2	2.5	21	3200
400	M3BPW 400 LC	3GBP 404 530-••G	744	96.3	²⁾	0.82	735	7.4	5134	1.3	2.7	24	3400
400	M3BPW 400 LKC	3GBP 404 830-••G	744	96.3	²⁾	0.82	735	7.4	5134	1.3	2.7	24	3400
750 r/min = 8 poles			400 V 50 Hz					High-output design					
55	M3BPW 280 SMC	3GBP 284 230-••G	741	94.1	²⁾	0.80	105	7.9	709	1.9	3.1	2.85	725
132	M3BPW 315 LKA	3GBP 314 810-••G	740	94.8	²⁾	0.83	243	7.3	1703	1.8	2.6	7.3	1410
150	M3BPW 315 LKB	3GBP 314 820-••G	741	94.9	²⁾	0.83	275	7.7	1933	1.9	2.7	8.3	1520
160	M3BPW 315 LKC	3GBP 314 830-••G	740	94.9	²⁾	0.83	292	7.7	2065	1.9	2.8	9.2	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

Sizes 90-100: 170 Smoke venting specification, 200°C 2 hours.

Sizes 112-400: Smoke venting specification, 200°C 2 hours, DOL use, Class F200 according to EN 12101-3.

386 Smoke venting specification, 200°C 2 hours, VSD use, Class F200 according to EN 12101-3.
Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 250°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Insulation class F, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N			
3000 r/min = 2 poles			400 V 50 Hz					Basic design						
1.5	M3AAW 90 S	3GAA 091 441-••E	2870	80.1	76.2	0.82	3.35	5.5	5	2.4	3.0	0.0019	13	
2.2	M3AAW 90 L	3GAA 091 442-••E	2885	83.6	83.9	0.87	4.37	6.0	7.5	2.5	3.0	0.0024	16	
3	M3AAW 100 L	3GAA 101 441-••E	2900	86.0	84.1	0.88	5.95	7.5	10	2.7	3.6	0.0041	21	
4	M3AAW 112 M	3GAA 111 441-••B	2850	86.0	86.2	0.91	7.4	7.5	13.4	2.8	3.0	0.01	25	
5.5	M3AAW 132 SA	3GAA 131 441-••B	2855	86.0	86.6	0.88	10.5	7.8	18.4	3.2	3.4	0.014	37	
7.5	M3AAW 132 SB	3GAA 131 442-••B	2860	88.0	86.2	0.89	13.9	8.5	25.1	3.4	3.6	0.016	42	
11	M3AAW 160 MA	3GAA 161 441-••D	2930	91.2	91.2	0.88	20	6.3	36	1.9	2.5	0.039	73	
15	M3AAW 160 M	3GAA 161 442-••D	2920	91.7	90.7	0.90	26.5	6.6	49	2.3	2.5	0.047	84	
18.5	M3AAW 160 L	3GAA 161 443-••D	2920	92.4	91.1	0.91	32	7.3	60	2.6	2.7	0.053	94	
22	M3AAW 180 M	3GAA 181 441-••D	2930	92.8	89.2	0.89	38.5	7.2	71	2.5	2.7	0.077	119	
30	M3AAW 200 MLA	3GAA 201 441-••E	2955	93.2	93.2	0.88	53	7.3	97	2.4	3.1	0.15	175	
37	M3AAW 200 MLB	3GAA 201 442-••E	2950	93.6	93.6	0.89	64	7.3	120	2.5	3.2	0.18	200	
45	M3AAW 225 SMB	3GAA 221 441-••E	2960	93.9	93.9	0.88	79	7.3	145	2.5	2.8	0.26	235	
55	M3AAW 250 SMA	3GAA 251 441-••E	2970	94.4	94.1	0.89	95	7.4	177	2.2	2.8	0.49	285	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

392 Smoke venting specification, 250°C 2 hours, DOL use, Class T250 according to French decret 03-08-1999.

393 Smoke venting specification, 250°C 2 hours, VSD use, Class T250 according to French decret 03-08-1999. Includes insulated bearing at N-end.

LV Smoke venting motors 250°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N		
1500 r/min = 4 poles			400 V 50 Hz					Basic design					
1.1	M3AAW 90 S	3GAA 092 441-**-E	1410	77.5	76.4	0.81	2.59	5.0	7.5	2.2	2.7	0.0032	13
1.5	M3AAW 90 L	3GAA 092 442-**-E	1420	80.3	78.1	0.79	3.45	5.0	10	2.4	2.9	0.0043	16
2.2	M3AAW 100 LA	3GAA 102 441-**-E	1430	83.0	82.7	0.81	4.8	5.5	15	2.4	2.9	0.0069	21
3	M3AAW 100 LB	3GAA 102 442-**-E	1430	85.0	83.9	0.81	6.48	5.5	20	2.5	2.9	0.0082	24
4	M3AAW 112 M	3GAA 112 441-**-B	1435	84.5	83.9	0.80	8.6	7.0	26.6	2.9	3.1	0.015	27
5.5	M3AAW 132 S	3GAA 132 441-**-B	1450	87.0	87.7	0.83	11.1	7.3	36.2	2.2	3.0	0.031	40
7.5	M3AAW 132 M	3GAA 132 442-**-B	1450	88.0	88.6	0.83	14.8	7.9	49.4	2.5	3.2	0.038	48
11	M3AAW 160 M	3GAA 162 441-**-D	1470	91.0	91.0	0.80	22.6	8.2	71	3.4	3.9	0.091	94
15	M3AAW 160 L	3GAA 162 442-**-D	1465	91.8	92.0	0.80	30	6.8	97	2.9	3.3	0.091	94
18.5	M3AAW 180 M	3GAA 182 441-**-D	1470	92.3	88.6	0.84	35	7.0	120	3.1	2.7	0.161	124
22	M3AAW 180 L	3GAA 182 442-**-D	1470	92.6	90.8	0.83	41	7.0	143	2.9	2.8	0.191	141
30	M3AAW 200 MLA	3GAA 202 441-**-E	1475	93.4	93.6	0.84	55	7.0	194	2.5	2.8	0.34	205
37	M3AAW 225 SMA	3GAA 222 441-**-E	1480	93.6	93.6	0.84	68	6.6	239	2.4	2.5	0.37	215
45	M3AAW 225 SMB	3GAA 222 442-**-E	1480	94.2	94.2	0.83	83	6.7	290	2.7	2.6	0.42	230
55	M3AAW 250 SMA	3GAA 252 441-**-E	1480	94.6	94.6	0.86	98	7.5	355	2.3	2.8	0.72	275
75	M3BPW 280 SMA	3GBP 282 210-**-G	1484	94.5	²⁾	0.85	135	6.9	483	2.5	2.8	1.25	625
90	M3BPW 280 SMB	3GBP 282 220-**-G	1483	94.8	²⁾	0.86	159	7.2	580	2.5	2.7	1.5	665
110	M3BPW 315 SMA	3GBP 312 210-**-G	1487	95.4	²⁾	0.86	193	7.2	706	2.0	2.5	2.3	900
132	M3BPW 315 SMB	3GBP 312 220-**-G	1487	95.6	²⁾	0.86	232	7.1	848	2.3	2.7	2.6	960
160	M3BPW 315 SMC	3GBP 312 230-**-G	1487	95.7	²⁾	0.85	287	7.2	1028	2.4	2.9	2.9	1000
200	M3BPW 315 MLA	3GBP 312 410-**-G	1486	96.0	²⁾	0.86	351	7.2	1285	2.5	2.9	3.5	1160
250	M3BPW 355 SMA	3GBP 352 210-**-G	1488	96.3	²⁾	0.86	438	7.1	1604	2.3	2.7	5.9	1610
315	M3BPW 355 SMB	3GBP 352 220-**-G	1488	96.5	²⁾	0.86	550	7.3	2022	2.3	2.8	6.9	1780
355	M3BPW 355 SMC	3GBP 352 230-**-G	1487	96.4	²⁾	0.86	616	6.8	2280	2.4	2.7	7.2	1820
400	M3BPW 355 MLA	3GBP 352 410-**-G	1489	96.7	²⁾	0.85	700	6.8	2565	2.3	2.6	8.4	2140
450	M3BPW 355 MLB	3GBP 352 420-**-G	1490	96.7	²⁾	0.86	784	6.9	2884	2.3	2.9	8.4	2140
500	M3BPW 355 LKA	3GBP 352 810-**-G	1490	96.9	²⁾	0.86	875	6.8	3204	2.0	3.0	10	2500
560	M3BPW 355 LKB	3GBP 352 820-**-G	1490	96.7	²⁾	0.85	990	7.2	3589	2.6	2.7	10.6	2600
560	M3BPW 400 LA	3GBP 402 510-**-G	1491	96.9	²⁾	0.85	980	7.4	3587	2.4	3.0	15	3200
560	M3BPW 400 LKA	3GBP 402 810-**-G	1491	96.9	²⁾	0.85	980	7.4	3587	2.4	3.0	15	3200
1500 r/min = 4 poles			400 V 50 Hz					High-output design					
110	M3BPW 280 SMC	3GBP 282 230-**-G	1485	95.3	²⁾	0.86	195	7.6	707	3.0	3.0	1.85	725
250	M3BPW 315 LKA	3GBP 312 810-**-G	1487	95.9	²⁾	0.86	442	7.4	1605	2.5	2.9	4.4	1410
280	M3BPW 315 LKB	3GBP 312 820-**-G	1487	96.1	²⁾	0.86	494	7.6	1798	2.6	3.0	5	1520
315	M3BPW 315 LKC	3GBP 312 830-**-G	1488	96.2	²⁾	0.85	555	7.8	2022	2.6	3.2	5.5	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

- ¹⁾ When ordering please add the following variant code to the product code:
 392 Smoke venting specification, 250°C 2 hours, DOL use, Class T250 according to French decret 03-08-1999.
 393 Smoke venting specification, 250°C 2 hours, VSD use, Class T250 according to French decret 03-08-1999.
 Includes insulated bearing at N-end.

- ²⁾ On request.

LV Smoke venting motors 250°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N		
1000 r/min = 6 poles			400 V 50 Hz					Basic design					
0.75	M3AAW 90 S	3GAA 093 441-**-E	930	71.5	70.7	0.67	2.36	4.0	7.5	1.9	2.3	0.0032	13
1.1	M3AAW 90 L	3GAA 093 442-**-E	930	74.4	72.5	0.69	3.25	4.0	11	2.1	2.4	0.0043	16
1.5	M3AAW 100 L	3GAA 103 441-**-E	950	80.0	77.0	0.71	3.92	4.5	15	1.9	2.3	0.0082	23
2.2	M3AAW 112 M	3GAA 113 441-**-B	940	80.5	79.3	0.74	5.4	5.6	22.3	2.1	2.7	0.015	27
3	M3AAW 132 S	3GAA 133 441-**-B	960	84.5	82.7	0.75	6.9	6.1	29.8	2.0	2.6	0.031	39
4	M3AAW 132 MA	3GAA 133 442-**-B	960	85.5	83.1	0.78	8.7	7.1	39.7	2.0	2.8	0.038	46
5.5	M3AAW 132 MB	3GAA 133 443-**-B	955	86.0	85.0	0.78	11.9	6.9	55	2.2	2.8	0.045	54
7.5	M3AAW 160 M	3GAA 163 441-**-D	970	89.3	88.4	0.79	15.4	6.7	74	2.0	2.8	0.089	88
11	M3AAW 160 L	3GAA 163 442-**-D	970	89.8	88.5	0.78	23	7.1	109	2.2	2.9	0.107	102
15	M3AAW 180 L	3GAA 183 441-**-D	970	90.8	87.2	0.78	31	7.0	148	2.1	3.0	0.217	151
18.5	M3AAW 200 MLA	3GAA 203 441-**-E	985	91.1	91.1	0.81	36	7.0	179	2.5	2.7	0.37	165
22	M3AAW 200 MLB	3GAA 203 442-**-E	980	91.7	91.7	0.81	43	7.2	214	2.5	2.7	0.43	185
30	M3AAW 225 SMB	3GAA 223 441-**-E	985	92.8	92.8	0.83	56	6.6	291	2.5	2.7	0.64	225
37	M3AAW 250 SMA	3GAA 253 441-**-E	985	93.7	93.7	0.83	69	7.3	359	2.8	2.8	1.16	280
45	M3BPW 280 SMA	3GBP 283 210-**-G	990	94.1	²⁾	0.84	82	7	434	2.5	2.5	1.85	605
55	M3BPW 280 SMB	3GBP 283 220-**-G	990	94.2	²⁾	0.84	101	7	531	2.7	2.6	2.2	645
75	M3BPW 315 SMA	3GBP 313 210-**-G	992	94.6	²⁾	0.82	141	7.4	722	2.4	2.8	3.2	830
90	M3BPW 315 SMB	3GBP 313 220-**-G	992	95.2	²⁾	0.84	163	7.5	866	2.4	2.8	4.1	930
110	M3BPW 315 SMC	3GBP 313 230-**-G	991	95.3	²⁾	0.83	202	7.4	1060	2.5	2.9	4.9	1000
132	M3BPW 315 MLA	3GBP 313 410-**-G	991	95.5	²⁾	0.83	240	7.5	1272	2.7	3	5.8	1150
160	M3BPW 355 SMA	3GBP 353 210-**-G	993	95.8	²⁾	0.83	293	7	1539	2	2.6	7.9	1520
200	M3BPW 355 SMB	3GBP 353 220-**-G	993	95.9	²⁾	0.83	360	7.2	1923	2.2	2.7	9.7	1680
250	M3BPW 355 SMC	3GBP 353 230-**-G	993	96.2	²⁾	0.82	458	7.4	2404	2.6	2.9	11.3	1820
315	M3BPW 355 MLB	3GBP 353 420-**-G	992	96.1	²⁾	0.82	578	7	3032	2.5	2.7	13.5	2180
355	M3BPW 355 LKA	3GBP 353 810-**-G	992	96.2	²⁾	0.82	655	7.6	3417	2.7	2.9	15.5	2500
400	M3BPW 355 LKB	3GBP 353 820-**-G	992	96.1	²⁾	0.82	740	7.2	3851	2.6	2.6	16.5	2600
400	M3BPW 400 LA	3GBP 403 510-**-G	993	96.4	²⁾	0.82	730	7.1	3847	2.3	2.7	17	2900
400	M3BPW 400 LKA	3GBP 403 810-**-G	993	96.4	²⁾	0.82	730	7.1	3847	2.3	2.7	17	2900
450	M3BPW 400 LB	3GBP 403 520-**-G	994	96.6	²⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150
450	M3BPW 400 LKB	3GBP 403 820-**-G	994	96.6	²⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150
500	M3BPW 400 LC	3GBP 403 530-**-G	993	96.7	²⁾	0.83	900	7.2	4808	2.5	2.7	22	3300
500	M3BPW 400 LKC	3GBP 403 830-**-G	993	96.7	²⁾	0.83	900	7.2	4808	2.5	2.7	22	3300
560	M3BPW 400 LKD	3GBP 403 840-**-G	993	96.7	²⁾	0.85	985	7.4	5385	2.4	3	24	3400
560	M3BPW 400 LD	3GBP 403 540-**-G	993	96.7	²⁾	0.85	985	7.4	5385	2.4	3	24	3400
1000 r/min = 6 poles			400 V 50 Hz					High-output design					
75	M3BPW 280 SMC	3GBP 283 230-**-G	990	94.8	²⁾	0.84	137	7.3	723	2.8	2.7	2.85	725
160	M3BPW 315 LKA	3GBP 313 810-**-G	992	95.5	²⁾	0.83	293	7.5	1540	2.6	2.8	7.3	1410
180	M3BPW 315 LKB	3GBP 313 820-**-G	992	95.6	²⁾	0.83	330	7.4	1733	2.6	2.8	8.3	1520
200	M3BPW 315 LKC	3GBP 313 830-**-G	989	95.4	²⁾	0.84	362	6.8	1931	2.5	2.6	9.2	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

392 Smoke venting specification, 250°C 2 hours, DOL use, Class T250 according to French decret 03-08-1999.

393 Smoke venting specification, 250°C 2 hours, VSD use, Class T250 according to French decret 03-08-1999.

Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 250°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N		
750 r/min = 8 poles			400 V 50 Hz					Basic design					
0.37	M3AAW 90 S	3GAA 094 441-**-E	700	61.5	43.4	0.56	1.6	3.0	5	1.9	2.4	0.0032	13
0.55	M3AAW 90 L	3GAA 094 442-**-E	690	62.9	56.4	0.57	2.35	3.0	7.5	1.7	2.1	0.0043	16
0.75	M3AAW 100 LA	3GAA 104 441-**-E	700	72.0	63.6	0.59	2.55	3.5	10	2.1	2.7	0.0069	20
1.1	M3AAW 100 LB	3GAA 104 442-**-E	700	73.0	68.8	0.64	3.35	3.5	15	2.1	2.7	0.0082	23
1.5	M3AAW 112 M	3GAA 114 441-**-B	695	74.5	75.9	0.65	4.5	4.1	20.6	1.9	2.4	0.016	28
2.2	M3AAW 132 S	3GAA 134 441-**-B	720	80.5	77.8	0.67	5.9	5.3	29.2	1.6	2.5	0.038	46
3	M3AAW 132 M	3GAA 134 442-**-B	720	82.0	79.2	0.68	7.8	5.5	39.8	1.8	2.5	0.045	53
4	M3AAW 160 MA	3GAA 164 441-**-D	715	84.1	81.1	0.69	10	5.2	54	2.1	2.4	0.072	75
5.5	M3AAW 160 M	3GAA 164 442-**-D	710	84.7	75.0	0.70	13.4	5.4	74	2.4	2.6	0.091	88
7.5	M3AAW 160 L	3GAA 164 443-**-D	715	86.3	82.4	0.70	18.1	5.4	100	2.4	2.8	0.131	118
11	M3AAW 180 L	3GAA 184 441-**-D	720	88.7	89.0	0.76	23.5	5.9	146	2.4	2.6	0.224	147
15	M3AAW 200 MLA	3GAA 204 441-**-E	740	91.1	91.1	0.82	29	7.4	194	1.8	3.0	0.45	175
18.5	M3AAW 225 SMA	3GAA 224 441-**-E	730	91.1	91.1	0.79	37	6.2	242	1.9	2.7	0.61	210
22	M3AAW 225 SMB	3GAA 224 442-**-E	730	91.5	91.5	0.77	45	6.0	288	1.9	2.7	0.68	225
30	M3AAW 250 SMA	3GAA 254 441-**-E	735	92.8	92.8	0.79	59	6.9	390	1.9	2.9	1.25	280
37	M3BPW 280 SMA	3GBP 284 210-**-G	741	93.0	²⁾	0.78	74	7.3	477	1.7	3.0	1.85	605
45	M3BPW 280 SMB	3GBP 284 220-**-G	741	93.7	²⁾	0.78	90	7.6	580	1.8	3.1	2.2	645
55	M3BPW 315 SMA	3GBP 314 210-**-G	742	93.8	²⁾	0.81	104	7.1	708	1.6	2.7	3.2	830
75	M3BPW 315 SMB	3GBP 314 220-**-G	741	94.1	²⁾	0.82	141	7.1	968	1.7	2.7	4.1	930
90	M3BPW 315 SMC	3GBP 314 230-**-G	741	94.5	²⁾	0.82	167	7.4	1161	1.8	2.7	4.9	1000
110	M3BPW 315 MLA	3GBP 314 410-**-G	740	94.7	²⁾	0.83	203	7.3	1420	1.8	2.7	5.8	1150
132	M3BPW 355 SMA	3GBP 354 210-**-G	744	95.3	²⁾	0.80	250	7.5	1694	1.5	2.6	7.9	1520
160	M3BPW 355 SMB	3GBP 354 220-**-G	744	95.4	²⁾	0.80	305	7.6	2054	1.6	2.6	9.7	1680
200	M3BPW 355 SMC	3GBP 354 230-**-G	743	95.5	²⁾	0.80	378	7.4	2570	1.6	2.6	11.3	1820
250	M3BPW 355 MLB	3GBP 354 420-**-G	743	95.6	²⁾	0.80	476	7.5	3213	1.6	2.7	13.5	2180
315	M3BPW 355 LKB	3GBP 354 820-**-G	742	95.6	²⁾	0.79	600	7.9	4054	1.7	2.7	16.5	2600
315	M3BPW 400 LA	3GBP 404 510-**-G	744	96.1	²⁾	0.81	582	7.0	4043	1.2	2.6	17	2900
315	M3BPW 400 LKA	3GBP 404 810-**-G	744	96.1	²⁾	0.81	582	7.0	4043	1.2	2.6	17	2900
355	M3BPW 400 LB	3GBP 404 520-**-G	743	96.1	²⁾	0.82	650	6.8	4563	1.2	2.5	21	3200
355	M3BPW 400 LKB	3GBP 404 820-**-G	743	96.1	²⁾	0.82	650	6.8	4563	1.2	2.5	21	3200
400	M3BPW 400 LC	3GBP 404 530-**-G	744	96.3	²⁾	0.82	735	7.4	5134	1.3	2.7	24	3400
400	M3BPW 400 LKC	3GBP 404 830-**-G	744	96.3	²⁾	0.82	735	7.4	5134	1.3	2.7	24	3400
750 r/min = 8 poles			400 V 50 Hz					High-output design					
55	M3BPW 280 SMC	3GBP 284 230-**-G	741	94.1	²⁾	0.80	105	7.9	709	1.9	3.1	2.85	725
132	M3BPW 315 LKA	3GBP 314 810-**-G	740	94.8	²⁾	0.83	243	7.3	1703	1.8	2.6	7.3	1410
150	M3BPW 315 LKB	3GBP 314 820-**-G	741	94.9	²⁾	0.83	275	7.7	1933	1.9	2.7	8.3	1520
160	M3BPW 315 LKC	3GBP 314 830-**-G	740	94.9	²⁾	0.83	292	7.7	2065	1.9	2.8	9.2	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

392 Smoke venting specification, 250°C 2 hours, DOL use, Class T250 according to French decret 03-08-1999.

393 Smoke venting specification, 250°C 2 hours, VSD use, Class T250 according to French decret 03-08-1999.

Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 300°C 1 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Insulation class F, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N			
3000 r/min = 2 poles			400 V 50 Hz					Basic design						
0.75	M3QAW 80 M2A	3GQA 081 781-••B	2840	75.0	75.5	0.85	1.7	6.1	2.52	2.2	3.0	0.00091	16	
1.1	M3QAW 80 M2B	3GQA 081 782-••B	2855	78.0	77.9	0.85	2.4	7.0	3.68	2.2	2.2	0.00107	17	
1.5	M3AAW 90 S	3GAA 091 461-••E	2870	80.1	76.2	0.82	3.35	5.5	5	2.4	3.0	0.0019	13	
2.2	M3AAW 90 L	3GAA 091 462-••E	2885	83.6	83.9	0.87	4.37	6.0	7.5	2.5	3.0	0.0024	16	
3	M3AAW 100 L	3GAA 101 461-••E	2900	86.0	84.1	0.88	5.95	7.5	10	2.7	3.6	0.0041	21	
4	M3AAW 112 M	3GAA 111 461-••B	2850	86.0	86.2	0.91	7.4	7.5	13.4	2.8	3.0	0.01	25	
5.5	M3AAW 132 SA	3GAA 131 461-••B	2855	86.0	86.6	0.88	10.5	7.8	18.4	3.2	3.4	0.014	37	
7.5	M3AAW 132 SB	3GAA 131 462-••B	2860	88.0	86.2	0.89	13.9	8.5	25.1	3.4	3.6	0.016	42	
11	M3AAW 160 MA	3GAA 161 461-••D	2930	91.2	91.2	0.88	20	6.3	36	1.9	2.5	0.039	73	
15	M3AAW 160 M	3GAA 161 462-••D	2920	91.7	90.7	0.90	26.5	6.6	49	2.3	2.5	0.047	84	
18.5	M3AAW 160 L	3GAA 161 463-••D	2920	92.4	91.1	0.91	32	7.3	60	2.6	2.7	0.053	94	
22	M3AAW 180 M	3GAA 181 461-••D	2930	92.8	89.2	0.89	38.5	7.2	71	2.5	2.7	0.077	119	
30	M3AAW 200 MLA	3GAA 201 461-••E	2955	93.2	93.2	0.88	53	7.3	97	2.4	3.1	0.15	175	
37	M3AAW 200 MLB	3GAA 201 462-••E	2950	93.6	93.6	0.89	64	7.3	120	2.5	3.2	0.18	200	
45	M3AAW 225 SMB	3GAA 221 461-••E	2960	93.9	93.9	0.88	79	7.3	145	2.5	2.8	0.26	235	
55	M3AAW 250 SMA	3GAA 251 461-••E	2970	94.4	94.1	0.89	95	7.4	177	2.2	2.8	0.49	285	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

172 Smoke venting specification, 300°C 1 hour, DOL use, Class F300 according to EN 12101-3.

387 Smoke venting specification, 300°C 1 hour, VSD use, Class F300 according to EN 12101-3. Includes insulated bearing at N-end.

LV Smoke venting motors 300°C 1 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N			
1500 r/min = 4 poles			400 V 50 Hz					Basic design						
0.55	M3QAW 80 M4A	3GQA 082 781-**-B	1410	73.5	71.4	0.72	1.5	5.2	3.73	2.4	2.7	0.00145	16	
0.75	M3QAW 80 M4B	3GQA 082 782-**-B	1415	74.5	75.2	0.75	1.93	6.0	5.06	2.4	2.6	0.00174	17	
1.1	M3AAW 90 S	3GAA 092 461-**-E	1410	77.5	76.4	0.81	2.59	5.0	7.5	2.2	2.7	0.0032	13	
1.5	M3AAW 90 L	3GAA 092 462-**-E	1420	80.3	78.1	0.79	3.45	5.0	10	2.4	2.9	0.0043	16	
2.2	M3AAW 100 LA	3GAA 102 461-**-E	1430	83.0	82.7	0.81	4.8	5.5	15	2.4	2.9	0.0069	21	
3	M3AAW 100 LB	3GAA 102 462-**-E	1430	85.0	83.9	0.81	6.48	5.5	20	2.5	2.9	0.0082	24	
4	M3AAW 112 M	3GAA 112 461-**-B	1435	84.5	83.9	0.80	8.6	7.0	26.6	2.9	3.1	0.015	27	
5.5	M3AAW 132 S	3GAA 132 461-**-B	1450	87.0	87.7	0.83	11.1	7.3	36.2	2.2	3.0	0.031	40	
7.5	M3AAW 132 M	3GAA 132 462-**-B	1450	88.0	88.6	0.83	14.8	7.9	49.4	2.5	3.2	0.038	48	
11	M3AAW 160 M	3GAA 162 461-**-D	1470	91.0	91.0	0.80	22.6	8.2	71	3.4	3.9	0.091	94	
15	M3AAW 160 L	3GAA 162 462-**-D	1465	91.8	92.0	0.80	30	6.8	97	2.9	3.3	0.091	94	
18.5	M3AAW 180 M	3GAA 182 461-**-D	1470	92.3	88.6	0.84	35	7.0	120	3.1	2.7	0.161	124	
22	M3AAW 180 L	3GAA 182 462-**-D	1470	92.6	90.8	0.83	41	7.0	143	2.9	2.8	0.191	141	
30	M3AAW 200 MLA	3GAA 202 461-**-E	1475	93.4	93.6	0.84	55	7.0	194	2.5	2.8	0.34	205	
37	M3AAW 225 SMA	3GAA 222 461-**-E	1480	93.6	93.6	0.84	68	6.6	239	2.4	2.5	0.37	215	
45	M3AAW 225 SMB	3GAA 222 462-**-E	1480	94.2	94.2	0.83	83	6.7	290	2.7	2.6	0.42	230	
55	M3AAW 250 SMA	3GAA 252 461-**-E	1480	94.6	94.6	0.86	98	7.5	355	2.3	2.8	0.72	275	
75	M3BPW 280 SMA	3GBP 282 210-**-G	1484	94.5	²⁾	0.85	135	6.9	483	2.5	2.8	1.25	625	
90	M3BPW 280 SMB	3GBP 282 220-**-G	1483	94.8	²⁾	0.86	159	7.2	580	2.5	2.7	1.5	665	
110	M3BPW 315 SMA	3GBP 312 210-**-G	1487	95.4	²⁾	0.86	193	7.2	706	2.0	2.5	2.3	900	
132	M3BPW 315 SMB	3GBP 312 220-**-G	1487	95.6	²⁾	0.86	232	7.1	848	2.3	2.7	2.6	960	
160	M3BPW 315 SMC	3GBP 312 230-**-G	1487	95.7	²⁾	0.85	287	7.2	1028	2.4	2.9	2.9	1000	
200	M3BPW 315 MLA	3GBP 312 410-**-G	1486	96.0	²⁾	0.86	351	7.2	1285	2.5	2.9	3.5	1160	
250	M3BPW 355 SMA	3GBP 352 210-**-G	1488	96.3	²⁾	0.86	438	7.1	1604	2.3	2.7	5.9	1610	
315	M3BPW 355 SMB	3GBP 352 220-**-G	1488	96.5	²⁾	0.86	550	7.3	2022	2.3	2.8	6.9	1780	
355	M3BPW 355 SMC	3GBP 352 230-**-G	1487	96.4	²⁾	0.86	616	6.8	2280	2.4	2.7	7.2	1820	
400	M3BPW 355 MLA	3GBP 352 410-**-G	1489	96.7	²⁾	0.85	700	6.8	2565	2.3	2.6	8.4	2140	
450	M3BPW 355 MLB	3GBP 352 420-**-G	1490	96.7	²⁾	0.86	784	6.9	2884	2.3	2.9	8.4	2140	
500	M3BPW 355 LKA	3GBP 352 810-**-G	1490	96.9	²⁾	0.86	875	6.8	3204	2.0	3.0	10	2500	
560	M3BPW 355 LKB	3GBP 352 820-**-G	1490	96.7	²⁾	0.85	990	7.2	3589	2.6	2.7	10.6	2600	
560	M3BPW 400 LA	3GBP 402 510-**-G	1491	96.9	²⁾	0.85	980	7.4	3587	2.4	3.0	15	3200	
560	M3BPW 400 LKA	3GBP 402 810-**-G	1491	96.9	²⁾	0.85	980	7.4	3587	2.4	3.0	15	3200	
1500 r/min = 4 poles			400 V 50 Hz					High-output design						
110	M3BPW 280 SMC	3GBP 282 230-**-G	1485	95.3	²⁾	0.86	195	7.6	707	3.0	3.0	1.85	725	
250	M3BPW 315 LKA	3GBP 312 810-**-G	1487	95.9	²⁾	0.86	442	7.4	1605	2.5	2.9	4.4	1410	
280	M3BPW 315 LKB	3GBP 312 820-**-G	1487	96.1	²⁾	0.86	494	7.6	1798	2.6	3.0	5	1520	
315	M3BPW 315 LKC	3GBP 312 830-**-G	1488	96.2	²⁾	0.85	555	7.8	2022	2.6	3.2	5.5	1600	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

172 Smoke venting specification, 300°C 1 hour, DOL use, Class F300 according to EN 12101-3.

387 Smoke venting specification, 300°C 1 hour, VSD use, Class F300 according to EN 12101-3.

Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 300°C 1 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾		Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
					Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N		
1000 r/min = 6 poles														
400 V 50 Hz														
Basic design														
0.37	M3QAW 80 M6A	3GQA	083 781-**-B	930	63.0	63.2	0.66	1.29	5.0	3.8	1.9	2.0	0.00159	17
0.55	M3QAW 80 M6B	3GQA	083 782-**-B	925	65.0	65.1	0.68	1.8	5.0	5.68	1.9	1.8	0.00196	18
0.75	M3AAW 90 S	3GAA	093 461-**-E	930	71.5	70.7	0.67	2.36	4.0	7.5	1.9	2.3	0.0032	13
1.1	M3AAW 90 L	3GAA	093 462-**-E	930	74.4	72.5	0.69	3.25	4.0	11	2.1	2.4	0.0043	16
1.5	M3AAW 100 L	3GAA	103 461-**-E	950	80.0	77.0	0.71	3.92	4.5	15	1.9	2.3	0.0082	23
2.2	M3AAW 112 M	3GAA	113 461-**-B	940	80.5	79.3	0.74	5.4	5.6	22.3	2.1	2.7	0.015	27
3	M3AAW 132 S	3GAA	133 461-**-B	960	84.5	82.7	0.75	6.9	6.1	29.8	2.0	2.6	0.031	39
4	M3AAW 132 MA	3GAA	133 462-**-B	960	85.5	83.1	0.78	8.7	7.1	39.7	2.0	2.8	0.038	46
5.5	M3AAW 132 MB	3GAA	133 463-**-B	955	86.0	85.0	0.78	11.9	6.9	55	2.2	2.8	0.045	54
7.5	M3AAW 160 M	3GAA	163 461-**-D	970	89.3	88.4	0.79	15.4	6.7	74	2.0	2.8	0.089	88
11	M3AAW 160 L	3GAA	163 462-**-D	970	89.8	88.5	0.78	23	7.1	109	2.2	2.9	0.107	102
15	M3AAW 180 L	3GAA	183 461-**-D	970	90.8	87.2	0.78	31	7.0	148	2.1	3.0	0.217	151
18.5	M3AAW 200 MLA	3GAA	203 461-**-E	985	91.1	91.1	0.81	36	7.0	179	2.5	2.7	0.37	165
22	M3AAW 200 MLB	3GAA	203 462-**-E	980	91.7	91.7	0.81	43	7.2	214	2.5	2.7	0.43	185
30	M3AAW 225 SMB	3GAA	223 461-**-E	985	92.8	92.8	0.83	56	6.6	291	2.5	2.7	0.64	225
37	M3AAW 250 SMA	3GAA	253 461-**-E	985	93.7	93.7	0.83	69	7.3	359	2.8	2.8	1.16	280
45	M3BPW 280 SMA	3GBP	283 210-**-G	990	94.1	²⁾	0.84	82	7	434	2.5	2.5	1.85	605
55	M3BPW 280 SMB	3GBP	283 220-**-G	990	94.2	²⁾	0.84	101	7	531	2.7	2.6	2.2	645
75	M3BPW 315 SMA	3GBP	313 210-**-G	992	94.6	²⁾	0.82	141	7.4	722	2.4	2.8	3.2	830
90	M3BPW 315 SMB	3GBP	313 220-**-G	992	95.2	²⁾	0.84	163	7.5	866	2.4	2.8	4.1	930
110	M3BPW 315 SMC	3GBP	313 230-**-G	991	95.3	²⁾	0.83	202	7.4	1060	2.5	2.9	4.9	1000
132	M3BPW 315 MLA	3GBP	313 410-**-G	991	95.5	²⁾	0.83	240	7.5	1272	2.7	3	5.8	1150
160	M3BPW 355 SMA	3GBP	353 210-**-G	993	95.8	²⁾	0.83	293	7	1539	2	2.6	7.9	1520
200	M3BPW 355 SMB	3GBP	353 220-**-G	993	95.9	²⁾	0.83	360	7.2	1923	2.2	2.7	9.7	1680
250	M3BPW 355 SMC	3GBP	353 230-**-G	993	96.2	²⁾	0.82	458	7.4	2404	2.6	2.9	11.3	1820
315	M3BPW 355 MLB	3GBP	353 420-**-G	992	96.1	²⁾	0.82	578	7	3032	2.5	2.7	13.5	2180
355	M3BPW 355 LKA	3GBP	353 810-**-G	992	96.2	²⁾	0.82	655	7.6	3417	2.7	2.9	15.5	2500
400	M3BPW 355 LKB	3GBP	353 820-**-G	992	96.1	²⁾	0.82	740	7.2	3851	2.6	2.6	16.5	2600
400	M3BPW 400 LA	3GBP	403 510-**-G	993	96.4	²⁾	0.82	730	7.1	3847	2.3	2.7	17	2900
400	M3BPW 400 LKA	3GBP	403 810-**-G	993	96.4	²⁾	0.82	730	7.1	3847	2.3	2.7	17	2900
450	M3BPW 400 LB	3GBP	403 520-**-G	994	96.6	²⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150
450	M3BPW 400 LKB	3GBP	403 820-**-G	994	96.6	²⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150
500	M3BPW 400 LC	3GBP	403 530-**-G	993	96.7	²⁾	0.83	900	7.2	4808	2.5	2.7	22	3300
500	M3BPW 400 LKC	3GBP	403 830-**-G	993	96.7	²⁾	0.83	900	7.2	4808	2.5	2.7	22	3300
560	M3BPW 400 LKD	3GBP	403 840-**-G	993	96.7	²⁾	0.85	985	7.4	5385	2.4	3	24	3400
560	M3BPW 400 LD	3GBP	403 540-**-G	993	96.7	²⁾	0.85	985	7.4	5385	2.4	3	24	3400
1000 r/min = 6 poles														
400 V 50 Hz														
High-output design														
75	M3BPW 280 SMC	3GBP	283 230-**-G	990	94.8	²⁾	0.84	137	7.3	723	2.8	2.7	2.85	725
160	M3BPW 315 LKA	3GBP	313 810-**-G	992	95.5	²⁾	0.83	293	7.5	1540	2.6	2.8	7.3	1410
180	M3BPW 315 LKB	3GBP	313 820-**-G	992	95.6	²⁾	0.83	330	7.4	1733	2.6	2.8	8.3	1520
200	M3BPW 315 LKC	3GBP	313 830-**-G	989	95.4	²⁾	0.84	362	6.8	1931	2.5	2.6	9.2	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

172 Smoke venting specification, 300°C 1 hour, DOL use, Class F300 according to EN 12101-3.

387 Smoke venting specification, 300°C 1 hour, VSD use, Class F300 according to EN 12101-3.

Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 300°C 1 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class F, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class B

Output kW	Motor type	Product code ¹⁾	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
				Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N			
750 r/min = 8 poles			400 V 50 Hz					Basic design						
0.18	M3QAW 80 M8A	3GQA 084 781-**-B	700	51.0	50.1	0.60	0.85	3.3	2.46	1.8	1.9	0.00111	16	
0.25	M3QAW 80 M8B	3GQA 084 782-**-B	700	54.5	53.3	0.60	1.11	3.6	3.41	1.8	1.9	0.00326	17	
0.37	M3AAW 90 S	3GAA 094 461-**-E	700	61.5	43.4	0.56	1.6	3.0	5	1.9	2.4	0.0032	13	
0.55	M3AAW 90 L	3GAA 094 462-**-E	690	62.9	56.4	0.57	2.35	3.0	7.5	1.7	2.1	0.0043	16	
0.75	M3AAW 100 LA	3GAA 104 461-**-E	700	72.0	63.6	0.59	2.55	3.5	10	2.1	2.7	0.0069	20	
1.1	M3AAW 100 LB	3GAA 104 462-**-E	700	73.0	68.8	0.64	3.35	3.5	15	2.1	2.7	0.0082	23	
1.5	M3AAW 112 M	3GAA 114 461-**-B	695	74.5	75.9	0.65	4.5	4.1	20.6	1.9	2.4	0.016	28	
2.2	M3AAW 132 S	3GAA 134 461-**-B	720	80.5	77.8	0.67	5.9	5.3	29.2	1.6	2.5	0.038	46	
3	M3AAW 132 M	3GAA 134 462-**-B	720	82.0	79.2	0.68	7.8	5.5	39.8	1.8	2.5	0.045	53	
4	M3AAW 160 MA	3GAA 164 461-**-D	715	84.1	81.1	0.69	10	5.2	54	2.1	2.4	0.072	75	
5.5	M3AAW 160 M	3GAA 164 462-**-D	710	84.7	75.0	0.70	13.4	5.4	74	2.4	2.6	0.091	88	
7.5	M3AAW 160 L	3GAA 164 463-**-D	715	86.3	82.4	0.70	18.1	5.4	100	2.4	2.8	0.131	118	
11	M3AAW 180 L	3GAA 184 461-**-D	720	88.7	89.0	0.76	23.5	5.9	146	2.4	2.6	0.224	147	
15	M3AAW 200 MLA	3GAA 204 461-**-E	740	91.1	91.1	0.82	29	7.4	194	1.8	3.0	0.45	175	
18.5	M3AAW 225 SMA	3GAA 224 461-**-E	730	91.1	91.1	0.79	37	6.2	242	1.9	2.7	0.61	210	
22	M3AAW 225 SMB	3GAA 224 462-**-E	730	91.5	91.5	0.77	45	6.0	288	1.9	2.7	0.68	225	
30	M3AAW 250 SMA	3GAA 254 461-**-E	735	92.8	92.8	0.79	59	6.9	390	1.9	2.9	1.25	280	
37	M3BPW 280 SMA	3GBP 284 210-**-G	741	93.0	²⁾	0.78	74	7.3	477	1.7	3.0	1.85	605	
45	M3BPW 280 SMB	3GBP 284 220-**-G	741	93.7	²⁾	0.78	90	7.6	580	1.8	3.1	2.2	645	
55	M3BPW 315 SMA	3GBP 314 210-**-G	742	93.8	²⁾	0.81	104	7.1	708	1.6	2.7	3.2	830	
75	M3BPW 315 SMB	3GBP 314 220-**-G	741	94.1	²⁾	0.82	141	7.1	968	1.7	2.7	4.1	930	
90	M3BPW 315 SMC	3GBP 314 230-**-G	741	94.5	²⁾	0.82	167	7.4	1161	1.8	2.7	4.9	1000	
110	M3BPW 315 MLA	3GBP 314 410-**-G	740	94.7	²⁾	0.83	203	7.3	1420	1.8	2.7	5.8	1150	
132	M3BPW 355 SMA	3GBP 354 210-**-G	744	95.3	²⁾	0.80	250	7.5	1694	1.5	2.6	7.9	1520	
160	M3BPW 355 SMB	3GBP 354 220-**-G	744	95.4	²⁾	0.80	305	7.6	2054	1.6	2.6	9.7	1680	
200	M3BPW 355 SMC	3GBP 354 230-**-G	743	95.5	²⁾	0.80	378	7.4	2570	1.6	2.6	11.3	1820	
250	M3BPW 355 MLB	3GBP 354 420-**-G	743	95.6	²⁾	0.80	476	7.5	3213	1.6	2.7	13.5	2180	
315	M3BPW 355 LKB	3GBP 354 820-**-G	742	95.6	²⁾	0.79	600	7.9	4054	1.7	2.7	16.5	2600	
315	M3BPW 400 LA	3GBP 404 510-**-G	744	96.1	²⁾	0.81	582	7.0	4043	1.2	2.6	17	2900	
315	M3BPW 400 LKA	3GBP 404 810-**-G	744	96.1	²⁾	0.81	582	7.0	4043	1.2	2.6	17	2900	
355	M3BPW 400 LB	3GBP 404 520-**-G	743	96.1	²⁾	0.82	650	6.8	4563	1.2	2.5	21	3200	
355	M3BPW 400 LKB	3GBP 404 820-**-G	743	96.1	²⁾	0.82	650	6.8	4563	1.2	2.5	21	3200	
400	M3BPW 400 LC	3GBP 404 530-**-G	744	96.3	²⁾	0.82	735	7.4	5134	1.3	2.7	24	3400	
400	M3BPW 400 LKC	3GBP 404 830-**-G	744	96.3	²⁾	0.82	735	7.4	5134	1.3	2.7	24	3400	
750 r/min = 8 poles			400 V 50 Hz					High-output design						
55	M3BPW 280 SMC	3GBP 284 230-**-G	741	94.1	²⁾	0.80	105	7.9	709	1.9	3.1	2.85	725	
132	M3BPW 315 LKA	3GBP 314 810-**-G	740	94.8	²⁾	0.83	243	7.3	1703	1.8	2.6	7.3	1410	
150	M3BPW 315 LKB	3GBP 314 820-**-G	741	94.9	²⁾	0.83	275	7.7	1933	1.9	2.7	8.3	1520	
160	M3BPW 315 LKC	3GBP 314 830-**-G	740	94.9	²⁾	0.83	292	7.7	2065	1.9	2.8	9.2	1600	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

172 Smoke venting specification, 300°C 1 hour, DOL use, Class F300 according to EN 12101-3.

387 Smoke venting specification, 300°C 1 hour, VSD use, Class F300 according to EN 12101-3.

Includes insulated bearing at N-end.

²⁾ On request.

LV Smoke venting motors 400°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Insulation class H, temperature rise class B

Output kW	Motor type	Product code 1) 2)		Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
					Full load 100%	3/4 load 75%		I _N A	I _s /I _N	T Nm	T _s /T _N	T _{max} /T _N			
3000 r/min = 2 poles															
400 V 50 Hz															
Basic design															
0.75	M3QAW 80 M2A	3GQA	081 721-**-B	2840	75.0	75.5	0.85	1.7	6.1	2.52	2.2	3.0	0.00091	16	
1.1	M3QAW 80 M2B	3GQA	081 722-**-B	2855	78.0	77.9	0.85	2.4	7.0	3.68	2.2	2.2	0.00107	17	
1.5	M3QAW 90 S2A	3GQA	091 721-**-B	2850	79.0	79.0	0.87	3.15	7.0	5.03	2.2	2.5	0.00135	21	
2.2	M3QAW 90 L2A	3GQA	091 722-**-B	2850	81.5	81.8	0.86	4.53	7.0	7.37	2.2	3.5	0.00163	24	
3	M3QAW 100 L2A	3GQA	101 721-**-B	2860	83.0	83.2	0.88	5.93	7.0	10.02	2.2	3.0	0.00402	33	
4	M3QAW 112 M2A	3GQA	111 721-**-B	2900	85.0	84.6	0.90	7.55	7.0	13.17	2.2	3.2	0.00671	42	
5.5	M3QAW 132 S2A	3GQA	131 721-**-B	2920	87.5	87.9	0.89	10.2	7.0	17.99	2.2	3.0	0.01241	58	
7.5	M3QAW 132 S2B	3GQA	131 722-**-B	2920	88.5	90.1	0.90	13.6	7.0	24.53	2.2	3.5	0.01491	63	
11	M3AAW 160 MA	3GAA	161 481-**-D	2930	91.2	91.2	0.88	20	6.3	36	1.9	2.5	0.039	73	
15	M3AAW 160 M	3GAA	161 482-**-D	2920	91.7	90.7	0.90	26.5	6.6	49	2.3	2.5	0.047	84	
18.5	M3AAW 160 L	3GAA	161 483-**-D	2920	92.4	91.1	0.91	32	7.3	60	2.6	2.7	0.053	94	
22	M3AAW 180 M	3GAA	181 481-**-D	2930	92.8	89.2	0.89	38.5	7.2	71	2.5	2.7	0.077	119	
30	M3AAW 200 MLA	3GAA	201 481-**-E	2955	93.2	93.2	0.88	53	7.3	97	2.4	3.1	0.15	175	
37	M3AAW 200 MLB	3GAA	201 482-**-E	2950	93.6	93.6	0.89	64	7.3	120	2.5	3.2	0.18	200	
45	M3AAW 225 SMB	3GAA	221 481-**-E	2960	93.9	93.9	0.88	79	7.3	145	2.5	2.8	0.26	235	
55	M3AAW 250 SMA	3GAA	251 481-**-E	2970	94.4	94.1	0.89	95	7.4	177	2.2	2.8	0.49	285	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

1) When ordering please add the following variant code to the product code:

174 Smoke venting specification, 400°C 2 hours, DOL use, Class F400 according to EN 12101-3.

389 Smoke venting specification, 400°C 2 hours, VSD use, Class F400 according to EN 12101-3.

Includes insulated bearing at N-end.

2) For sizes 80 - 132 without fan, use product code 3GQA *** *0**-**B

LV Smoke venting motors 400°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class H, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class F, class B on request

Output kW	Motor type	Product code 1) 2)		Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
					Full load 100%	3/4 load 75%		I _N A	I _s / I _N	T Nm	T _s / T _N	T _{max} / T _N			
1500 r/min = 4 poles															
400 V 50 Hz															
Basic design															
0.55	M3QAW 80 M4A	3GQA	082 721-**-B	1410	73.5	71.4	0.72	1.5	5.2	3.73	2.4	2.7	0.00145	16	
0.75	M3QAW 80 M4B	3GQA	082 722-**-B	1415	74.5	75.2	0.75	1.93	6.0	5.06	2.4	2.6	0.00174	17	
1.1	M3QAW 90 S4A	3GQA	092 721-**-B	1400	77.5	77.8	0.78	2.65	6.0	7.5	2.3	2.4	0.00254	21	
1.5	M3QAW 90 L4A	3GQA	092 722-**-B	1390	78.5	79.2	0.79	3.5	6.0	10.31	2.3	2.6	0.00317	25	
2.2	M3QAW 100 L4A	3GQA	102 721-**-B	1430	81.5	82.3	0.81	4.85	6.0	14.69	2.3	2.7	0.00679	32	
3	M3QAW 100 L4B	3GQA	102 722-**-B	1420	82.8	82.5	0.83	6.3	6.5	20.18	2.3	2.8	0.00862	36	
4	M3QAW 112 M4A	3GQA	112 721-**-B	1430	85.0	84.6	0.82	8.29	6.5	26.71	2.3	2.8	0.01306	45	
5.5	M3QAW 132 S4A	3GQA	132 721-**-B	1430	86.0	87.1	0.85	10.9	6.5	36.73	2.3	2.9	0.02673	60	
7.5	M3QAW 132 M4A	3GQA	132 722-**-B	1440	88.5	88.3	0.85	14.4	6.5	49.74	2.3	2.7	0.03432	73	
11	M3AAW 160 M	3GAA	162 481-**-D	1470	91.0	91.0	0.80	22.6	8.2	71	3.4	3.9	0.091	94	
15	M3AAW 160 L	3GAA	162 482-**-D	1465	91.8	92.0	0.80	30	6.8	97	2.9	3.3	0.091	94	
18.5	M3AAW 180 M	3GAA	182 481-**-D	1470	92.3	88.6	0.84	35	7.0	120	3.1	2.7	0.161	124	
22	M3AAW 180 L	3GAA	182 482-**-D	1470	92.6	90.8	0.83	41	7.0	143	2.9	2.8	0.191	141	
30	M3AAW 200 MLA	3GAA	202 481-**-E	1475	93.4	93.6	0.84	55	7.0	194	2.5	2.8	0.34	205	
37	M3AAW 225 SMA	3GAA	222 481-**-E	1480	93.6	93.6	0.84	68	6.6	239	2.4	2.5	0.37	215	
45	M3AAW 225 SMB	3GAA	222 482-**-E	1480	94.2	94.2	0.83	83	6.7	290	2.7	2.6	0.42	230	
55	M3AAW 250 SMA	3GAA	252 481-**-E	1480	94.6	94.6	0.86	98	7.5	355	2.3	2.8	0.72	275	
75	M3BPW 280 SMA	3GBP	282 210-**-G	1484	94.5	³⁾	0.85	135	6.9	483	2.5	2.8	1.25	625	
90	M3BPW 280 SMB	3GBP	282 220-**-G	1483	94.8	³⁾	0.86	159	7.2	580	2.5	2.7	1.5	665	
110	M3BPW 315 SMA	3GBP	312 210-**-G	1487	95.4	³⁾	0.86	193	7.2	706	2.0	2.5	2.3	900	
132	M3BPW 315 SMB	3GBP	312 220-**-G	1487	95.6	³⁾	0.86	232	7.1	848	2.3	2.7	2.6	960	
160	M3BPW 315 SMC	3GBP	312 230-**-G	1487	95.7	³⁾	0.85	287	7.2	1028	2.4	2.9	2.9	1000	
200	M3BPW 315 MLA	3GBP	312 410-**-G	1486	96.0	³⁾	0.86	351	7.2	1285	2.5	2.9	3.5	1160	
250	M3BPW 355 SMA	3GBP	352 210-**-G	1488	96.3	³⁾	0.86	438	7.1	1604	2.3	2.7	5.9	1610	
315	M3BPW 355 SMB	3GBP	352 220-**-G	1488	96.5	³⁾	0.86	550	7.3	2022	2.3	2.8	6.9	1780	
355	M3BPW 355 SMC	3GBP	352 230-**-G	1487	96.4	³⁾	0.86	616	6.8	2280	2.4	2.7	7.2	1820	
400	M3BPW 355 MLA	3GBP	352 410-**-G	1489	96.7	³⁾	0.85	700	6.8	2565	2.3	2.6	8.4	2140	
450	M3BPW 355 MLB	3GBP	352 420-**-G	1490	96.7	³⁾	0.86	784	6.9	2884	2.3	2.9	8.4	2140	
500	M3BPW 355 LKA	3GBP	352 810-**-G	1490	96.9	³⁾	0.86	875	6.8	3204	2.0	3.0	10	2500	
560	M3BPW 355 LKB	3GBP	352 820-**-G	1490	96.7	³⁾	0.85	990	7.2	3589	2.6	2.7	10.6	2600	
560	M3BPW 400 LA	3GBP	402 510-**-G	1491	96.9	³⁾	0.85	980	7.4	3587	2.4	3.0	15	3200	
560	M3BPW 400 LKA	3GBP	402 810-**-G	1491	96.9	³⁾	0.85	980	7.4	3587	2.4	3.0	15	3200	
1500 r/min = 4 poles															
400 V 50 Hz															
High-output design															
110	M3BPW 280 SMC	3GBP	282 230-**-G	1485	95.3	³⁾	0.86	195	7.6	707	3.0	3.0	1.85	725	
250	M3BPW 315 LKA	3GBP	312 810-**-G	1487	95.9	³⁾	0.86	442	7.4	1605	2.5	2.9	4.4	1410	
280	M3BPW 315 LKB	3GBP	312 820-**-G	1487	96.1	³⁾	0.86	494	7.6	1798	2.6	3.0	5	1520	
315	M3BPW 315 LKC	3GBP	312 830-**-G	1488	96.2	³⁾	0.85	555	7.8	2022	2.6	3.2	5.5	1600	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

174 Smoke venting specification, 400°C 2 hours, DOL use, Class F400 according to EN 12101-3.

389 Smoke venting specification, 400°C 2 hours, VSD use, Class F400 according to EN 12101-3.

Includes insulated bearing at N-end.

²⁾ For sizes 80 - 132 without fan, use product code 3GQA *** *0**B

³⁾ On request.

LV Smoke venting motors 400°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class H, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class F, class B on request

Output kW	Motor type	Product code ^{1) 2)}	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	
				Full load 100%	3/4 load 75%		I _N A	I _s I _N	T Nm	T _s T _N	T _{max} T _N			
1000 r/min = 6 poles														
400 V 50 Hz														
Basic design														
0.37	M3QAW 80 M6A	3GQA 083 721-**-B	930	63.0	63.2	0.66	1.29	5.0	3.8	1.9	2.0	0.00159	17	
0.55	M3QAW 80 M6B	3GQA 083 722-**-B	925	65.0	65.1	0.68	1.8	5.0	5.68	1.9	1.8	0.00196	18	
0.75	M3QAW 90 S6A	3GQA 093 721-**-B	920	71.0	70.2	0.72	2.12	5.0	7.79	2.0	2.3	0.00292	21	
1.1	M3QAW 90 L6A	3GQA 093 722-**-B	920	73.0	73.1	0.74	2.94	5.0	11.42	2.0	2.6	0.00379	25	
1.5	M3QAW 100 L6A	3GQA 103 721-**-B	940	76.0	75.3	0.77	3.78	5.5	15.24	2.0	2.4	0.00999	32	
2.2	M3QAW 112 M6A	3GQA 113 721-**-B	940	80.0	81.2	0.76	5.23	5.5	22.35	2.0	2.3	0.03116	40	
3	M3QAW 132 S6A	3GQA 133 721-**-B	960	82.5	83.5	0.78	6.73	6.5	29.84	2.0	2.4	0.03116	55	
4	M3QAW 132 M6A	3GQA 133 722-**-B	960	84.0	84.2	0.77	8.93	6.5	39.79	2.0	2.9	0.04074	65	
5.5	M3QAW 132 M6B	3GQA 133 723-**-B	960	86.0	85.6	0.79	11.7	6.5	54	2.0	3.0	0.05332	75	
7.5	M3AAW 160 M	3GAA 163 481-**-D	970	89.3	88.4	0.79	15.4	6.7	74	2.0	2.8	0.089	88	
11	M3AAW 160 L	3GAA 163 482-**-D	970	89.8	88.5	0.78	23	7.1	109	2.2	2.9	0.107	102	
15	M3AAW 180 L	3GAA 183 481-**-D	970	90.8	87.2	0.78	31	7.0	148	2.1	3.0	0.217	151	
18.5	M3AAW 200 MLA	3GAA 203 481-**-E	985	91.1	91.1	0.81	36	7.0	179	2.5	2.7	0.37	165	
22	M3AAW 200 MLB	3GAA 203 482-**-E	980	91.7	91.7	0.81	43	7.2	214	2.5	2.7	0.43	185	
30	M3AAW 225 SMB	3GAA 223 481-**-E	985	92.8	92.8	0.83	56	6.6	291	2.5	2.7	0.64	225	
37	M3AAW 250 SMA	3GAA 253 481-**-E	985	93.7	93.7	0.83	69	7.3	359	2.8	2.8	1.16	280	
45	M3BPW 280 SMA	3GBP 283 210-**-G	990	94.1	³⁾	0.84	82	7	434	2.5	2.5	1.85	605	
55	M3BPW 280 SMB	3GBP 283 220-**-G	990	94.2	³⁾	0.84	101	7	531	2.7	2.6	2.2	645	
75	M3BPW 315 SMA	3GBP 313 210-**-G	992	94.6	³⁾	0.82	141	7.4	722	2.4	2.8	3.2	830	
90	M3BPW 315 SMB	3GBP 313 220-**-G	992	95.2	³⁾	0.84	163	7.5	866	2.4	2.8	4.1	930	
110	M3BPW 315 SMC	3GBP 313 230-**-G	991	95.3	³⁾	0.83	202	7.4	1060	2.5	2.9	4.9	1000	
132	M3BPW 315 MLA	3GBP 313 410-**-G	991	95.5	³⁾	0.83	240	7.5	1272	2.7	3	5.8	1150	
160	M3BPW 355 SMA	3GBP 353 210-**-G	993	95.8	³⁾	0.83	293	7	1539	2	2.6	7.9	1520	
200	M3BPW 355 SMB	3GBP 353 220-**-G	993	95.9	³⁾	0.83	360	7.2	1923	2.2	2.7	9.7	1680	
250	M3BPW 355 SMC	3GBP 353 230-**-G	993	96.2	³⁾	0.82	458	7.4	2404	2.6	2.9	11.3	1820	
315	M3BPW 355 MLB	3GBP 353 420-**-G	992	96.1	³⁾	0.82	578	7	3032	2.5	2.7	13.5	2180	
355	M3BPW 355 LKA	3GBP 353 810-**-G	992	96.2	³⁾	0.82	655	7.6	3417	2.7	2.9	15.5	2500	
400	M3BPW 355 LKB	3GBP 353 820-**-G	992	96.1	³⁾	0.82	740	7.2	3851	2.6	2.6	16.5	2600	
400	M3BPW 400 LA	3GBP 403 510-**-G	993	96.4	³⁾	0.82	730	7.1	3847	2.3	2.7	17	2900	
400	M3BPW 400 LKA	3GBP 403 810-**-G	993	96.4	³⁾	0.82	730	7.1	3847	2.3	2.7	17	2900	
450	M3BPW 400 LB	3GBP 403 520-**-G	994	96.6	³⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150	
450	M3BPW 400 LKB	3GBP 403 820-**-G	994	96.6	³⁾	0.82	818	7.4	4323	2.4	2.8	20.5	3150	
500	M3BPW 400 LC	3GBP 403 530-**-G	993	96.7	³⁾	0.83	900	7.2	4808	2.5	2.7	22	3300	
500	M3BPW 400 LKC	3GBP 403 830-**-G	993	96.7	³⁾	0.83	900	7.2	4808	2.5	2.7	22	3300	
560	M3BPW 400 LKD	3GBP 403 840-**-G	993	96.7	³⁾	0.85	985	7.4	5385	2.4	3	24	3400	
560	M3BPW 400 LD	3GBP 403 540-**-G	993	96.7	³⁾	0.85	985	7.4	5385	2.4	3	24	3400	
1000 r/min = 6 poles														
400 V 50 Hz														
High-output design														
75	M3BPW 280 SMC	3GBP 283 230-**-G	990	94.8	³⁾	0.84	137	7.3	723	2.8	2.7	2.85	725	
160	M3BPW 315 LKA	3GBP 313 810-**-G	992	95.5	³⁾	0.83	293	7.5	1540	2.6	2.8	7.3	1410	
180	M3BPW 315 LKB	3GBP 313 820-**-G	992	95.6	³⁾	0.83	330	7.4	1733	2.6	2.8	8.3	1520	
200	M3BPW 315 LKC	3GBP 313 830-**-G	989	95.4	³⁾	0.84	362	6.8	1931	2.5	2.6	9.2	1600	

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

¹⁾ When ordering please add the following variant code to the product code:

174 Smoke venting specification, 400°C 2 hours, DOL use, Class F400 according to EN 12101-3.

389 Smoke venting specification, 400°C 2 hours, VSD use, Class F400 according to EN 12101-3.

Includes insulated bearing at N-end.

²⁾ For sizes 80 - 132 without fan, use product code 3GQA *** *0*-**B

³⁾ On request.

LV Smoke venting motors 400°C 2 hours

Technical data for totally enclosed squirrel cage three phase motors, aluminum or cast iron frame

IP 55, IC 411; Sizes 90-250: Insulation class H, temperature rise class B

Sizes 280-400: Insulation class H, temperature rise class F, class B on request

Output kW	Motor type	Product code 1) 2)	Speed r/min	Efficiency		Power factor cos φ 100%	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg
				Full load 100%	3/4 load 75%		I _N A	I _s / I _N	T Nm	T _s / T _N	T _{max} / T _N		
750 r/min = 8 poles			400 V 50 Hz					Basic design					
0.18	M3QAW 80 M8A	3GQA 084 721-**-B	700	51.0	50.1	0.60	0.85	3.3	2.46	1.8	1.9	0.00111	16
0.25	M3QAW 80 M8B	3GQA 084 722-**-B	700	54.5	53.3	0.60	1.11	3.6	3.41	1.8	1.9	0.00326	17
0.37	M3QAW 90 S8A	3GQA 094 721-**-B	700	62.5	62.1	0.60	1.42	4.4	5.05	1.8	1.9	0.00541	21
0.55	M3QAW 90 L8A	3GQA 094 722-**-B	700	63.5	63.3	0.60	2.07	4.7	7.5	1.8	2.0	0.00756	24
0.75	M3QAW 100 L8A	3GQA 104 721-**-B	700	70.0	70.1	0.64	2.42	5.0	10.23	1.8	2.2	0.00971	31
1.1	M3QAW 100 L8B	3GQA 104 722-**-B	700	71.5	70.3	0.65	3.45	5.0	15.01	1.8	2.4	0.01186	34
1.5	M3QAW 112 M8A	3GQA 114 721-**-B	700	75.0	75.4	0.68	4.27	5.0	20.46	1.8	2.4	0.01559	42
2.2	M3QAW 132 S8A	3GQA 134 721-**-B	710	81.0	81.8	0.70	5.6	5.5	29.59	1.8	2.5	0.03625	56
3	M3QAW 132 M8A	3GQA 134 722-**-B	710	81.0	81.4	0.75	7.13	5.5	40.35	1.8	2.2	0.04141	64
4	M3AAW 160 MA	3GAA 164 481-**-D	715	84.1	81.1	0.69	10	5.2	54	2.1	2.4	0.072	75
5.5	M3AAW 160 M	3GAA 164 482-**-D	710	84.7	75.0	0.70	13.4	5.4	74	2.4	2.6	0.091	88
7.5	M3AAW 160 L	3GAA 164 483-**-D	715	86.3	82.4	0.70	18.1	5.4	100	2.4	2.8	0.131	118
11	M3AAW 180 L	3GAA 184 481-**-D	720	88.7	89.0	0.76	23.5	5.9	146	2.4	2.6	0.224	147
15	M3AAW 200 MLA	3GAA 204 481-**-E	740	91.1	91.1	0.82	29	7.4	194	1.8	3.0	0.45	175
18.5	M3AAW 225 SMA	3GAA 224 481-**-E	730	91.1	91.1	0.79	37	6.2	242	1.9	2.7	0.61	210
22	M3AAW 225 SMB	3GAA 224 482-**-E	730	91.5	91.5	0.77	45	6.0	288	1.9	2.7	0.68	225
30	M3AAW 250 SMA	3GAA 254 481-**-E	735	92.8	92.8	0.79	59	6.9	390	1.9	2.9	1.25	280
37	M3BPW 280 SMA	3GBP 284 210-**-G	741	93.0	³⁾	0.78	74	7.3	477	1.7	3.0	1.85	605
45	M3BPW 280 SMB	3GBP 284 220-**-G	741	93.7	³⁾	0.78	90	7.6	580	1.8	3.1	2.2	645
55	M3BPW 315 SMA	3GBP 314 210-**-G	742	93.8	³⁾	0.81	104	7.1	708	1.6	2.7	3.2	830
75	M3BPW 315 SMB	3GBP 314 220-**-G	741	94.1	³⁾	0.82	141	7.1	968	1.7	2.7	4.1	930
90	M3BPW 315 SMC	3GBP 314 230-**-G	741	94.5	³⁾	0.82	167	7.4	1161	1.8	2.7	4.9	1000
110	M3BPW 315 MLA	3GBP 314 410-**-G	740	94.7	³⁾	0.83	203	7.3	1420	1.8	2.7	5.8	1150
132	M3BPW 355 SMA	3GBP 354 210-**-G	744	95.3	³⁾	0.80	250	7.5	1694	1.5	2.6	7.9	1520
160	M3BPW 355 SMB	3GBP 354 220-**-G	744	95.4	³⁾	0.80	305	7.6	2054	1.6	2.6	9.7	1680
200	M3BPW 355 SMC	3GBP 354 230-**-G	743	95.5	³⁾	0.80	378	7.4	2570	1.6	2.6	11.3	1820
250	M3BPW 355 MLB	3GBP 354 420-**-G	743	95.6	³⁾	0.80	476	7.5	3213	1.6	2.7	13.5	2180
315	M3BPW 355 LKB	3GBP 354 820-**-G	742	95.6	³⁾	0.79	600	7.9	4054	1.7	2.7	16.5	2600
315	M3BPW 400 LA	3GBP 404 510-**-G	744	96.1	³⁾	0.81	582	7.0	4043	1.2	2.6	17	2900
315	M3BPW 400 LKA	3GBP 404 810-**-G	744	96.1	³⁾	0.81	582	7.0	4043	1.2	2.6	17	2900
355	M3BPW 400 LB	3GBP 404 520-**-G	743	96.1	³⁾	0.82	650	6.8	4563	1.2	2.5	21	3200
355	M3BPW 400 LKB	3GBP 404 820-**-G	743	96.1	³⁾	0.82	650	6.8	4563	1.2	2.5	21	3200
400	M3BPW 400 LC	3GBP 404 530-**-G	744	96.3	³⁾	0.82	735	7.4	5134	1.3	2.7	24	3400
400	M3BPW 400 LKC	3GBP 404 830-**-G	744	96.3	³⁾	0.82	735	7.4	5134	1.3	2.7	24	3400
750 r/min = 8 poles			400 V 50 Hz					High-output design					
55	M3BPW 280 SMC	3GBP 284 230-**-G	741	94.1	³⁾	0.80	105	7.9	709	1.9	3.1	2.85	725
132	M3BPW 315 LKA	3GBP 314 810-**-G	740	94.8	³⁾	0.83	243	7.3	1703	1.8	2.6	7.3	1410
150	M3BPW 315 LKB	3GBP 314 820-**-G	741	94.9	³⁾	0.83	275	7.7	1933	1.9	2.7	8.3	1520
160	M3BPW 315 LKC	3GBP 314 830-**-G	740	94.9	³⁾	0.83	292	7.7	2065	1.9	2.8	9.2	1600

The two bullet points in the product code indicate choice of mounting arrangement, voltage and frequency, see ordering information page.

- 1) When ordering please add the following variant code to the product code:
 174 Smoke venting specification, 400°C 2 hours, DOL use, Class F400 according to EN 12101-3.
 389 Smoke venting specification, 400°C 2 hours, VSD use, Class F400 according to EN 12101-3.
 Includes insulated bearing at N-end.
- 2) For sizes 80 - 132 without fan, use product code 3GQA *** *0*-*B
- 3) On request.

Smoke venting motors - Variant codes

Code 1)	Variant	Motor size					
		80-100	112-132	160-180	200-250	280-315	355-400
Balancing							
052	Balancing to Grade A (IEC 60034-14).	S	S	S	S	S	S
417	Balancing to Grade B (IEC 60034-14).	P	P	P	P	P	P
423	Balanced without key.	P	P	P	P	P	P
424	Full key balancing.	P	P	P	P	P	P
Bearings and lubrication							
036	Transport lock for bearings.	M	M	M	M	P	P
041	Bearings regreasable via grease nipples.	NA	M	M	S	S	S
043	SPM nipples. Frame sizes 112-132 only foot-mounted B3.	R	M	M	M	S	S
058	Angular contact ball bearing at D-end, shaft force away from bearing.	NA	NA	NA	NA	R	R
060	Angular contact bearing at D-end, shaft force towards bearing.	NA	NA	NA	NA	R	R
107	Bearing mounted PT100 resistance elements.	R	R	R	R	P	P
194	2Z-bearings greased for life at both ends.	S	S	S	S	NA	NA
420	Bearing mounted PTC thermistors.	R	R	R	R	P	P
796	Grease nipples JIS B 1575 PT 1/8 Type A.	NA	NA	NA	NA	P	P
797	Stainless steel SPM nipples.	R	R	R	R	P	P
798	Stainless steel grease nipples.	R	R	R	R	P	P
Branch standard designs							
170	Smoke venting specification, 200°C 2 hours.	P	P	P	P	NA	NA
171	Smoke venting specification, 300°C 1/2 hours.	P	P	P	P	NA	NA
172	Smoke venting specification, 300°C 1 hour, DOL use, Class F300 according to EN 12101-3.	P	P	P	P	P	P
173	Smoke venting specification, 200°C 2 hours, DOL use, Class F200 according to EN 12101-3.	P	P	P	P	P	P
174	Smoke venting specification, 400°C 2 hours, DOL use, Class F400 according to EN 12101-3.	P	P	P	P	P	P
386	Smoke venting specification, 200°C 2 hours, VSD use, Class F200 according to EN 12101-3.	R	R	R	R	P	P
387	Smoke venting specification, 300°C 1 hour, VSD use, Class F300 according to EN 12101-3.	NA	NA	NA	NA	P	P
389	Smoke venting specification, 400°C 2 hours, VSD use, Class F400 according to EN 12101-3.	NA	NA	NA	NA	P	P
392	Smoke venting specification, 250°C 2 hours, DOL use, Class T250 according to French decret 3-08-1999.	NA	NA	NA	NA	P	P
393	Smoke venting specification, 250°C 2 hours, VSD use, Class T250 according to French decret 3-08-1999.	NA	NA	NA	NA	P	P
142	"Manilla" winding connection. (440 VΔ series, 220 VΔ parallel, 60 Hz).	P	P	P	P	R	R
178	Stainless steel/acid proof bolts.	M	M	M	M	P	P
209	Non-standard voltage or frequency (special winding).	P	P	P	P	P	P
425	Corrosion protected stator and rotor core.	P	P	R	R	P	P
785	Reinforced tropicalisation.	NA	R	R	R	NA	NA
Cooling system							
068	Metal fan.	M	M	M	M	P	P
075	Cooling method IC 418 (without fan).	P	R	R	R	R	R
790	Cast iron fan cover.	NA	NA	NA	NA	P	NA

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Code	Variant ¹⁾	Motor size					
		80-100	112-132	160-180	200-250	280-315	355-400
791	Stainless steel fan cover.	NA	NA	NA	NA	P	P
Coupling							
035	Assembly of customer supplied coupling-half (finish bored and balanced).	NA	NA	NA	NA	P	P
Dimension drawing							
141	Binding dimension drawing.	M	M	M	M	M	M
Drain holes							
076	Draining holes with plugs. Felt plugs.	NA	NA	NA	NA	S	S
448	Draining holes with metal plugs.	NA	NA	NA	NA	R	R
Earthing bolt							
067	External earthing bolt.	M	M	M	M	S	S
Heating elements							
450	Heating element, 100-120 V.	P	P	P	P	P	P
451	Heating element, 200-240 V.	P	P	P	P	P	P
Mounting arrangements							
008	IM 2101 foot/flange mounted, IEC flange, from IM 1001 (B34 from B3).	M	M	NA	NA	NA	NA
009	IM 2001 foot/flange mounted, IEC flange, from IM 1001 (B35 from B3).	M	M	M	M	P	P
047	IM 3601 flange mounted, IEC flange, from IM 3001 (B14 from B5).	M	M	R	NA	NA	NA
048	IM 3001 flange mounted, IEC flange, from IM 3601 (B5 from B14).	M	M	NA	NA	NA	NA
078	IM 3601 flange mounted, DIN C flange.	NA	M/NA	NA	NA	NA	NA
090	IM 2101 foot/flange mounted, DIN C flange, from IM 1001 (B34 from B3).	NA	M/NA	NA	NA	NA	NA
304	PAD mounting according to BS4999-141	NA	NA	NA	NA	P	P
305	Additional lifting lugs for V1, V3, V5, V6, V15 and V36	NA	NA	NA	NA	S	S
Painting							
114	Special paint colour, standard grade.	M	M	M	M	P	P
111	Offshore two-pack polyamide cured epoxy paint 160 mm	NA	NA	NA	NA	P	P
115	Offshore zink primer painting.	NA	NA	NA	NA	P	P
179	Special paint specification.	R	R	R	R	R	R
Protection							
005	Protective roof, vertical motor, shaft down.	M	M	M	M	P	P
072	Radial seal at D-end.	M	M	M	M	P	P
158	Degree of protection IP 65.	P	P	P	P	P	P
211	Weather protected, IP xxW.	NA	NA	NA	NA	P	P
403	Degree of protection IP 56.	P	P	P	P	P	P
404	Degree of protection IP 56, without fan and fan cover.	P	P	P	P	P	P
783	Labyrinth sealing at D-end.	NA	NA	NA	NA	P	S
Rating & instruction plates							
002	Restamping voltage, frequency and output, continuous duty.	M	M	M	M	P	P
135	Mounting of additional identification plate, stainless.	M	M	M	M	P	P
138	Mounting of additional identification plate, aluminum.	M	M	M	M	P	P
139	Additional identification plate delivered loose.	M	M	M	M	P	P
161	Additional rating plate delivered loose.	M	M	M	M	P	P

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Code 1)	Variant	Motor size					
		80-100	112-132	160-180	200-250	280-315	355-400
163	Additional frequency converter rating plate fixed to stator	R	R	R	R	P	P
Shaft & rotor							
069	Two shaft extensions as per basic catalogue. Standard shaft material.	P	P	P	P	P	P
070	One or two special shaft extensions, standard shaft material.	R	R	R	R	P	P
Stator winding temperature sensors							
435	PTC - thermistors (3 in series), 130°C, in stator winding.	P	P	P	P	P	P
436	PTC - thermistors (3 in series), 150°C, in stator winding.	P	P	P	P	S	S
437	PTC - thermistors (3 in series), 170°C, in stator winding.	P	P	P	P	P	P
439	PTC - thermistors (2x3 in series), 150°C, in stator winding.	P	P	P	P	P	P
441	PTC - thermistors (3 in series, 130°C and 3 in series, 150°C, in stator winding.	P	P	P	P	P	P
442	PTC - thermistors (3 in series, 150°C and 3 in series, 170°C, in stator winding.	P	P	P	P	P	P
445	PT100 (1 per phase) in stator winding. Not possible for size 71.	P	P	P	P	P	P
446	PT100 (2 per phase) in stator winding. Not possible for sizes 71-90.	P	P	P	P	P	P
Terminal box							
020	Detached terminal box. Max. ambient temperature for terminal box 250°C.	R	R	R	R	P	P
137	Extended cable connection, low terminal box, "Flying leads".	R	R	R	R		
413	Extended cable connection, no terminal box.	NA	NA	NA	NA	P	P
418	Separate terminal box for temperature detectors.	R	R	R	R	P	P
466	Terminal box at N-end.	R	R	R	R	P	P
Testing							
146	Type test with report for motor from specific delivery batch.	M	M	M	M	P	P
147	Type test with report for motor from specific delivery batch, customer witnessed.	M	M	M	M	P	P
148	Routine test report.	M	M	M	M	P	P
222	Torque/speed curve, type test and multi-point load test with report for motor from specific delivery batch.	M	M	M	M	P	P
760	Vibration level test.	M	M	M	M	P	P
761	Vibration spectrum test.	R	R	R	R	P	P
762	Noise level test.	M	M	M	M	P	P
763	Noise spectrum test.	R	R	R	R	P	P
764	Complete test with ABB frequency converter, available at ABB test field.	R	R	R	R	P	P
Variable speed drives							
704	EMC cable termination	R	R	R	R	P	P
Y/Δ-starting							
117	Terminals for Y/Δ start at both speeds (two speed windings).	P	P	P	P	P	R
118	Terminals for Y/Δ start at high speed (two speed windings).	P	P	P	P	P	R
119	Terminals for Y/Δ start at low speed (two speed windings).	P	P	P	P	P	R

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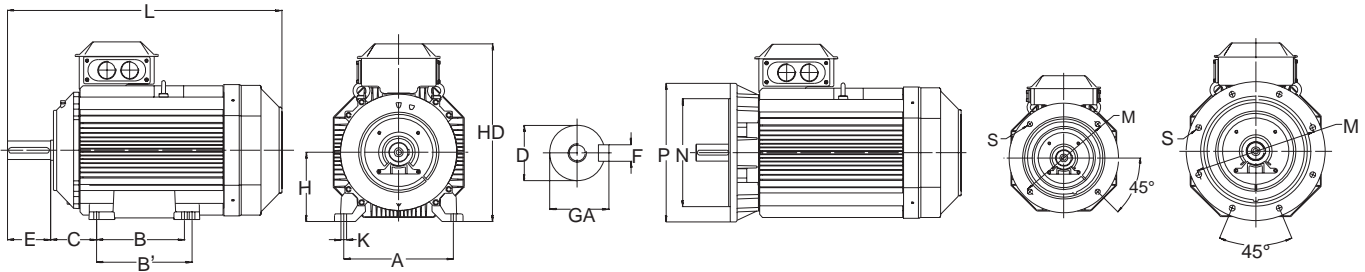
R = On request.
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NA = Not applicable.

Smoke venting motors

Dimension drawings

Foot-mounted: IM B3 (IM1001)

Flange-mounted motor IM B5 (IM 3001)



Motor size	IM 1001, IM B3 AND IM 3001, IM B5										IM 1001, IM B3					IM 3001, IM B5					
	D poles		GA poles		F poles		E poles		L max poles		A	B	B'	C	H	HD	K	M	N	P	S
	2	4-8	2	4-8	2	4-8	2	4-8	2	4-8											
M3AAW 90 S	24	24	27	27	8	8	50	50	282	282	140	100	-	56	90	217	10	165	130	200	12
90 L	24	24	27	27	8	8	50	50	307	307	140	125	-	56	90	217	10	165	130	200	12
100	28	28	31	31	8	8	60	60	349	349	160	140	-	63	100	237	12	215	180	250	15
112	28	28	31	31	8	8	60	60	388	388	190	140	-	70	112	258	12	215	180	250	14.5
132	38	38	41	41	10	10	80	80	481.5	481.5	216	140	178	89	132	296.5	12	265	230	300	14.5
160	42	42	45	45	12	12	110	110	643.5	643.5	254	210	254	108	160	370	15	300	250	350	19
180	48	48	51.5	51.5	14	14	110	110	700.5	700.5	279	241	279	121	180	405	15	300	250	350	19
200	55	55	59	59	16	16	110	110	814	814	318	267	305	133	200	533	18	350	300	400	19
225	55	60	59	64	16	18	110	140	866	891	356	286	311	149	225	578	18	400	350	450	19
250	60	65	64	69	18	18	140	140	875	900	406	311	349	168	250	626	22	500	450	550	19
M3QAW 80	19	19	21.5	21.5	6	6	40	40	285	285	125	100	-	50	80	225	10	165	130	200	12
90 S	24	24	27	27	8	8	50	50	310	310	140	100	-	56	90	235	10	165	130	200	12
90 L	24	24	27	27	8	8	50	50	335	335	140	125	-	56	90	235	10	165	130	200	12
100	28	28	31	31	8	8	60	60	380	380	160	140	-	63	100	270	12	215	180	250	15
112	28	28	31	31	8	8	60	60	380	380	190	140	-	70	112	290	12	215	180	250	15
132 S	38	38	41	41	10	10	80	80	465	465	216	140	-	89	132	330	12	265	230	300	15
132 M	38	38	41	41	10	10	80	80	505	505	216	178	-	89	132	330	12	265	230	300	15
M3BPW 280 SM_	-	75	-	79.5	-	20	-	140	-	1088	457	368	419	190	280	759	24	500	450	550	18
315 SM_	-	80	-	85	-	22	-	170	-	1204	508	406	457	216	315	852	28	600	550	660	23
315 ML_	-	90	-	95	-	25	-	170	-	1315	508	457	508	216	315	852	28	600	550	660	23
315 LK_	-	95	-	95	-	25	-	170	-	1521	508	457	560	216	315	880	28	600	550	660	23
355 SM_	-	100	-	106	-	28	-	210	-	1479	610	500	560	254	355	958	35	740	680	800	23
355 ML_	-	100	-	106	-	28	-	210	-	1584	610	560	630	254	355	958	35	740	680	800	23
355 LK_	-	100	-	106	-	28	-	210	-	1834	610	630	710	254	355	958	35	740	680	800	23
400 L_	-	110	-	126	-	28	-	210	-	1891	710	900	1000	224	400	1045	35	940	880	1000	28
400 LK_	-	100	-	106	-	28	-	210	-	1891	686	710	800	280	400	1045	35	740	680	800	24

IM 3601, IM B14				
Motor size	M	N	P	S
71	85	70	105	M6
80	100	80	120	M6
90	115	95	140	M8
100	130	110	160	M8
112	130	130	160	M10

Tolerances:

A, B	± 0.8
D, DA	ISO k6 < Ø 50 mm ISO m6 > Ø 50 mm
F, FA	ISO h9
H	+0 -0.5
N	ISO j6
C, CA	+ - 0.8

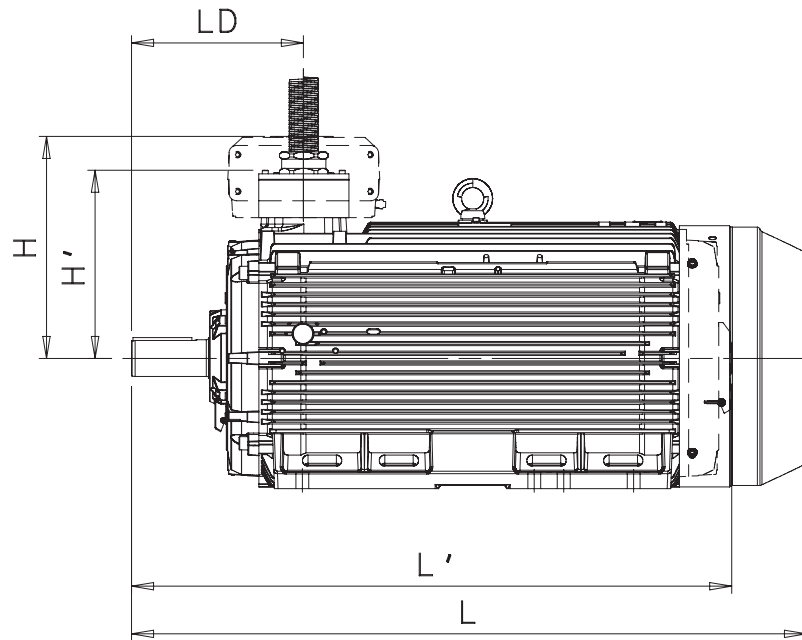
Above table gives the main dimensions in mm.

For detailed drawings please see our web-site
'www.abb.com/motors&drives' or contact us.

Smoke venting motors

Dimension drawings

Main dimensions with/without terminal box and with/without cooling fan



Motor size	Poles	L	L'	LD	H	H	H'	H'
280 SM	2	1088	930	336	482		327	
	4-12	1088	930	336	482		327	
315 SM	2	1174	1013	356	537		359	
	4-12	1204	1043	386	537		359	
315 ML	2	1285	1124	356	537		359	
	4-12	1315	1154	386	537		359	
315 LK	2	1491	1288	356	537		359	
	4-12	1521	1318	386	537		359	
355 SM	2	1409	1202	397	589 ¹⁾	603 ²⁾	407 ³⁾	511 ⁴⁾
	4-12	1479	1272	467	589 ¹⁾	603 ²⁾	407 ³⁾	511 ⁴⁾
355 ML	2	1514	1308	397	589 ¹⁾	603 ²⁾	407 ³⁾	511 ⁴⁾
	4-12	1584	1378	467	589 ¹⁾	603 ²⁾	407 ³⁾	511 ⁴⁾
355 LK	2	1764	1561	397	589 ¹⁾	603 ²⁾	407 ³⁾	511 ⁴⁾
	4-12	1834	1631	467	589 ¹⁾	603 ²⁾	407 ³⁾	511 ⁴⁾
400 L	2	1851	1632	458	645		553	
	4-12	1891	1672	498	645		553	
400 LK	2	1851	1632	458	645		553	
	4-12	1891	1672	498	645		553	

¹⁾ Terminal box 370

²⁾ Terminal box 750

³⁾ With flange, (with 1x cable gland)

⁴⁾ With box, (with 2x cable glands)

Above table gives the main dimensions in mm.

For detailed drawings please see our web-site 'www.abb.com/motors&drives' or contact us.

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General purpose motors for standard applications

- Aluminum motors
- Steel motors
- Cast iron motors
- Open drip proof motors
- Global motors
- Brake motors
- Single phase motors

Process performance motors for more demanding applications

- Aluminum motors
- Cast iron motors
- Motors for high ambient temperatures

NEMA motors

Motors for hazardous areas

- Flameproof motors
- Increased safety motors
- Non-sparking motors
- Dust ignition proof motors

Marine motors

- Aluminum motors
- Steel motors
- Cast iron motors
- Open drip proof motors

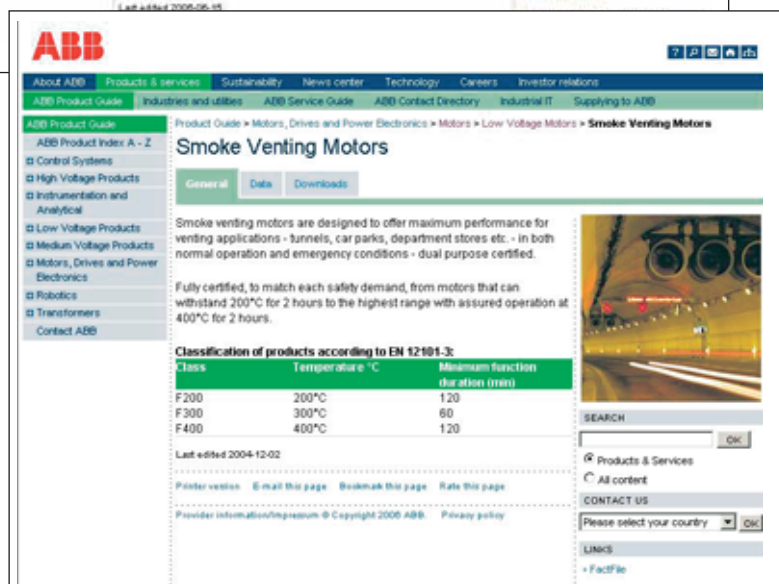
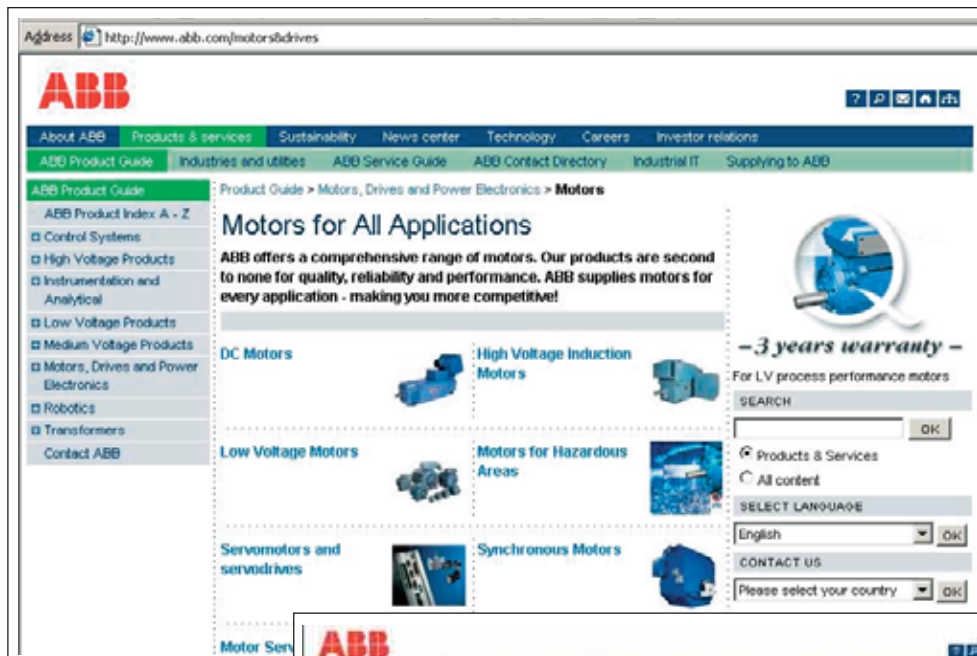
Other applications

- Permanent magnet motors
- High speed motors
- Wind turbine generators
- Smoke venting motors
- Water cooled motors
- Motors for roller table drives

High voltage and synchronous motors and generators

- High voltage cast iron motors
- Induction modular motors
- Slip ring motors
- Motors for hazardous areas
- Servomotors
- Synchronous motors and generators
- DC motors and generators

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Motors for hazardous areas

Marine motors

Other applications

NEMA motors

Permanent magnet motors

>>> Smoke venting motors

Water cooled motors

Fan application motors

Roller table motors

> Generators

Low Voltage Motors

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