



Marine & Offshore

Certificate number: 47563/A2 BV

File number: ACE4/890/1

Product code: 2584H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ABB Sp. z o.o. LV Motors Factory
Aleksandrow Lodzki - POLAND

for the type of product

ASYNCHRONOUS MACHINES (Power below 100kW)

M2AA63 to M2AA250 and M3AA63 to M3AA280 series.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

IEC 60034-1 (2017)

IEC 60034-2-1 (2014)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 21 Mar 2022

For Bureau Veritas Marine & Offshore,

At BV KATOWICE, on 17 Mar 2020,

Wojciech Lubojanski



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=xboicrhkcs>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Totally enclosed squirrel cage three phase low voltage motors for Marine applications.

1.1 - Specifications:

Type:	M2AA 63 to M2AA 250 M3AA 63 to M3AA 280
Frame material:	Aluminium
Ambient temperature:	45°C
Shaft height:	63 to 280
Rated power:	0.055 to 99 kW
Number of poles:	2, 4, 6, 8
Synchronous speed:	750 to 3600RPM
Rated frequency:	50 and 60Hz
Rated voltage:	200 to 690V
Degree of protection:	IP55 - IP56
Insulation class:	F or H
Service duty:	S1 to S9

1.2 - Maximum rated power at S1:

Frame size	Power 2P	Power 4P	Power 6P	Power 8P
63	0,37	0,25	0,15	0,055
71	0,55	0,37	0,25	0,18
80	1,1	0,75	0,55	0,37
90	2,2	1,5	1,1	0,75
100	3	3	1,5	1,5
112	4	4	2,2	1,1
132	18,5	15	5,5	3,8
160	27	22	15	7,5
180	30	30	18,5	11
200	55	45	30	18,5
225	80	64	45	22
250	99	99	55	45
280	99	99	55	45

2. DOCUMENTS AND DRAWINGS :

Low voltage process performance motors specification ref. 9AKK105944 dated Mar.2016.

Low voltage general performance motors specification ref. 9AKK105789 dated Jun.2016.

Marine motors catalog 9AKK106166 dated Oct.2016.

3. TEST REPORTS :

ABB:

- Test report for motor type M3AA 71A 8 and serial number N°: 3GA112707T0908, dated 28 Sep 2011.
- Test report for motor type M2AA 71A 2 and serial number N°: 3GA100307T3702, dated 28 Dec 2011.
- Test report for motor type M3AA 280SMB 6, dated 02 Jan 2016.
- Test report for motor type M3AA 112 MB 4, dated 04 Nov 2015.

4. APPLICATION / LIMITATION :

4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships

4.2 - The installation shall comply with the Manufacturer's recommendation described in the above-referenced documentation.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **ABB Sp. z o.o. LV Motors Factory** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **ABB Sp. z o.o. LV Motors Factory** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **ABB Sp. z o.o. LV Motors Factory** has declared to Bureau Veritas the following production sites:

ABB Sp. z o.o. LV Motors Factory
ul. Placydowska 27
95-070 Aleksandrow Lodzki
POLAND

ABB Oy Motors and Generators
Strömbergin puistotie 5
FI-65320 Vaasa
FINLAND

ABB Shanghai Motors Co., Ltd.
88, Tianning Road,
Minhang Econ & Tech Dev. Zone,
Shanghai
200245 Shanghai
CHINA

6. MARKING OF PRODUCT :

6.1 - Trade name.

6.2 - Date of manufacture and serial number.

6.3 - Equipment type or model identification under which it was type-tested

6.4 - Plate marking in accordance with IEC 60034 series.

7. OTHERS :

7.1 - It is **ABB Sp. z o.o. LV Motors Factory** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 47563/A1 BV issued on 13 Jan 2020 by the Society.

***** END OF CERTIFICATE *****



Marine & Offshore

Certificate number: SMS.W.II./102347/B.0

**BUREAU
VERITAS**

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RECOGNITION FOR BV MODE II SCHEME

ABB Sp. z o.o. LV Motors Factory
Aleksandrow Lodzki - POLAND

Summary of the range of the recognition which is detailed in the subsequent page(s):

Manufacture of asynchronous machines of power below 100 kW, 100 kW and over :

- Marine Non-sparkling Motors , type M3GP
- Marine Motors with cast iron frame, type M3BP,
- Marine Flameproof Motors, type M3JP/M3KP,
- Marine Motors with cast iron frame, type M2BAX,
- Marine Motors with aluminium frame, type M2AA and M3AA.

This certificate is issued to attest that Bureau Veritas Marine & Offshore has performed, at the above company's request and in compliance with the requirements of NR320, a satisfactory assessment of the manufacturing facilities and associated quality procedures related to the range of the recognition.

This certificate will expire on: 17 Jul 2023

For BUREAU VERITAS,

At BV KATOWICE, on 17 Jul 2019,

Wojciech Lubojanski



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF RECOGNITION

1. RANGE OF THE RECOGNITION

The products listed in the table below are to be certified individually or per batch by Bureau Veritas Marine & Offshore in compliance with the applicable requirements (IBV products as defined in NR320).

App. number	Validity date	Item designation	Trade name
11800/D0 BV	07 Jan 2024	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	Marine Non-sparking Motors, type: M3GP.
11801/D0 BV	12 Feb 2023	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	Marine Motors with cast iron frame, type M3BP.
11803/D0 BV	07 Jan 2024	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	Marine Flameproof Motors type, M3JP / KP.
42199/A1 BV	19 Aug 2020	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	M2BAX series.

The products listed in the table below are not required to be certified individually or per batch by Bureau Veritas Marine & Offshore. Their compliance with the approved type is solely certified by the manufacturer using its own format of document and marking to allow traceability to the approved type (HBV products as defined in NR320).

App. number	Validity date	Item designation	Trade name
31672/B0 BV	05 Jul 2024	ASYNCHRONOUS MACHINES (Power below 100kW) - 2584H	Marine Motors with cast iron frame, type M3BP.
42198/A1 BV	10 Oct 2020	ASYNCHRONOUS MACHINES (Power below 100kW) - 2584H	M2BAX series.
47563/A0 BV	21 Mar 2022	ASYNCHRONOUS MACHINES (Power below 100kW) - 2584H	M2AA63 to M2AA250 and M3AA63 to M3AA280 series.

2. LIMITATIONS

The certificates listed in the range of recognition are to be valid, as applicable.

Bureau Veritas Marine & Offshore is to be informed immediately of any modification to manufacturing facilities and associated quality procedures in order to agree on appropriate actions.

ABB Sp. z o.o. LV Motors Factory has to apply for the periodical audits as agreed with Bureau Veritas Marine & Offshore.

3. PERIMETER OF CERTIFICATION

Quality system of following site(s) has been assessed:

ABB Sp. z o.o. LV Motors Factory - Aleksandrow Lodzki - POLAND

4. REMARKS

Nil.

*** END OF CERTIFICATE ***



Marine & Offshore

Certificate number: 31672/B0 BV

File number: ACE04/004/06 & 07

Product code: 2584H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

ABB Oy Motors and Generators
VAASA - FINLAND

for the type of product

ASYNCHRONOUS MACHINES (Power below 100kW)

Marine Motors with cast iron frame, type M3BP.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IEC 60034-1 (2017)

IEC 60092-301 (1995)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 05 Jul 2024

For Bureau Veritas Marine & Offshore,

At BV TURKU (ABO), on 05 Jul 2019,

Roger Robertsson



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

3 phase cage Induction MARINE motors

Cast iron frame

Type: **M3BP 71 to M3BP 280**

Rated voltage:	220 to 690 V
Rated frequency:	50 Hz and 60 Hz
Synchronous speed:	500 to 3600 RPM
Number of poles:	2 to 8
Duty type:	S1, S2 S9 according to IEC standard
Insulation class:	F or H
Temperature rise:	Class B, or F
Ambient temperature:	45°C
Degree of protection:	IP 55 and IP 56

Rated power with S1 and class F temperature rise (90K).

Frame number	Power 2P/60 Hz	Power 2P/50 Hz	Power 4P/60 Hz	Power 4P/50 Hz	Power 6P/60 Hz	Power 6P/50 Hz	Power 8P/60 Hz	Power 8P/50 Hz
71 MA	0.37	0.37		0.25	0.18	0.18	0.09	0.09
71 MB	0.55	0.55		0.37	0.25	0.25	0.12	0.12
80 MA				0.55	0.37	0.37	0.18	0.18
80 MB	0.75	0.75			0.55	0.55	0.25	0.25
80 MC	1.1	1.1						
80 MD				0.75				
90 SLB	1.5	1.5		1.1			0.37	0.37
90 SLC	2.2	2.2			0.75	0.75	0.55	0.55
90 SLD				1.5				
90 SLE					1.1	1.1	0.55	0.55
100 L					1.5	1.5		
100 LA							0.75	0.75
100 LB	3	3					1.1	1.1
100 LC				2.2				
100 LD				3				
112 M							1.5	1.5
112 MB	4	4		4	2.2	2.2		
132 SMA							2.2	2.2
132 SMB	5.5	5.5		5.5	3	3	3	3
132 SMC	7.5	7.5		7.5	4	4		
132 SMF					5.5	5.5		
160 MA	14,5	11					5,2	4
160 M	17,5	15	15,5	11	9,8	7,5	6,4	5,5
160 L	21	18,5	18	15	13	11	8,6	7,5
180 M	26,5	22	22	18,5				
180 L			26	22	17,5	15	13,5	11
200 MLA	35	30			22	18,5	18	15
200 MLB	43	37	38	30	26	22		
225 SMA			44	37			21	18,5
225 SMB	54	45	55	45	35	30	25	22
250 SMA	65	55	65	55	43	37	34	30
280 SMA	90	75	88	75	55	45	43	37
280 SMB		90		90	63	55	55	45

2. DOCUMENTS AND DRAWINGS:

According to documents filed in ACE 04/004/06 & 07, including drawings, description and technical data ABB LV Motors / Cat. BU / Marine Motors / Cast iron EN 12-2006.

Catalog Ref: 9AKK105944 EN, dated Jun 2018.

Technical Data Sheet, dated 28 Nov 2018.

Drawing N° 3GZF101707-1, Rev. D, dated 30 Oct 2013.

Drawing N° 3GZF101709-1, Rev. E, dated 03 Apr 2017.

Drawing N° 3GZF101716-4, Rev. E, dated 13 Oct 2015.

Drawing N° 3GZF101718-2, Rev. C1, dated 16 Jun 2015.

Drawing N° 3GZF101720-4, Rev. D, dated 13 Oct 2015.

Drawing N° 3GZF101722-1, Rev. D, dated 13 Jun 2013.

Drawing N° 3GZF101725-1, Rev. F, dated 18 Nov 2015.

Drawing N° 3GZF101728-E, Rev. E, dated 08 Jul 2011.

Drawing N° 3GZF101728-Q, Rev. C, dated 12 Jul 2011.

Drawing N° 3GZF101731-G, Rev. D, dated 15 Jul 2011.

Drawing N° 3GZF101731-P, Rev. C, dated 13 Jul 2011.

Drawing N° 3GZF101735-C, Rev. E, dated 15 Apr 2013.

Drawing N° 3GZF101740-C, Rev. D, dated 16 Apr 2013.

Drawing N° 3GZF101745-D, Rev. B, dated 22 Apr 2013.

Drawing N° 3GZF101745-E, Rev. C, dated 19 Sep 2016.

Drawing N° 3GZF500708-52, Rev. A, dated 09 Jun 2004.

Drawing N° 3GZF500708-53, Rev. B, dated 04 Jan 2012.

Drawing N° 3GZF500713-15, Rev. A, dated 23 Mar 2004.

Drawing N° 3GZF500713-16, Rev. B1, dated 05 Jan 2012.

3. TEST REPORTS:**Electrical tests**

The type tests have been carried out in the laboratory of the manufacturer according to BV Rules Pt C, Ch 2 Sec 4, table 5.

Type test reports of:

M3BP 280SMC 4 400VD 50 Hz 110 kW, M3BP 280SMC 4 440VD 60 Hz 125 kW, M3BP 280SMB 2 400VD 50 Hz 90 kW, M3BP 280SMB 2 440VD 60 Hz 105 kW,

Tests report N° 1431503-1, dated 31 May 2019.

Tests report N° 1536248-2, dated 31 May 2019.

Tests report N° 1579778-2, dated 31 May 2019.

Tests report N° 1625891-1, dated 31 May 2019.

Tests report N° 1632513-1, dated 31 May 2019.

Tests report N° 1637252-10, dated 23 May 2019.

Tests report N° VTT-S-08452-12, dated 12 Dec 2012.

Tests report N° VTT-S-05519-15, dated 30 May 2016.

4. APPLICATION / LIMITATION:

According to BV Rules for the Classification of Steel Ships and IEC 60092 series.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The ASYNCHRONOUS MACHINES (Power below 100kW) are to be supplied by **ABB Oy Motors and Generators** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **ABB Oy Motors and Generators** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **ABB Oy Motors and Generators** has declared to Bureau Veritas the following production sites:

ABB Oy Motors and Generators
P.O. Box 633
Finland
FI-65101 VAASA
FINLAND

ABB Shanghai Motors Co., Ltd.
88, Tianning Road,
Minhang Econ & Tech Dev. Zone,
Shanghai
200245 Shanghai
CHINA

ABB sp. z o.o.
ul. Placydowska 27
95-070 Aleksandrow Lodzki
POLAND

6. MARKING OF PRODUCT:

- Name plate according to IEC 60034-1.
- Society's brand as relevant

7. OTHERS:

7.1 - It is **ABB Oy Motors and Generators**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 31672/A0 BV issued on 14 Nov 2012 by the Society.

***** END OF CERTIFICATE *****



Marine & Offshore

Certificate number: 11801/D0 BV

File number: ACE 04/004/06 & 07

Product code: 2584I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ABB Oy, Motors and Generators
VAASA - FINLAND

for the type of product

ASYNCHRONOUS MACHINES (Power 100kW and over)
Marine Motors with cast iron frame, type M3BP.

Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60034-1: 2017

IEC 60092-301: 1980, Am. 1: 1994, Am. 2: 1995

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 12 Feb 2023

For Bureau Veritas Marine & Offshore,

At BV TURKU (ABO), on 12 Feb 2018,

Roger Robertsson



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

3 phase cage Induction MARINE motors

Cast iron frame

Type: **M3BP 280 to M3BP 450**

Rated voltage: 220 to 690 V
 Rated frequency: 50 Hz and 60 Hz
 Synchronous speed: 500 to 3600 RPM
 Number of poles: 2 to 12
 Duty type: S1, S2 S9 according to IEC standard
 Insulation class: F or H
 Temperature rise: Class B, or F
 Ambient temperature: 45°C
 Degree of protection: IP 55 and IP 56

Rated power with S1 and class F temperature rise (90K).

Frame number	Max. Power 2P/60 Hz	Max. Power 2P/50 Hz	Max. Power 4P/60 Hz	Max. Power 4P/50 Hz	Max. Power 6P/60 Hz	Max. Power 6P/50 Hz	Max. Power 8P/60 Hz	Max. Power 8P/50 Hz
280 SMB	105	90	105	90	63	55	55	45
280 SMC	110	110	110	110	-	-	55	55
280 MLA	155	132	150	132	105	90	-	-
280 MLB	185	160	185	160	125	110	85	75
315 SMA	125	110	125	110	86	75	63	55
315 SMB	155	132	150	132	105	90	85	75
315 SMC	185	160	185	160	125	110	105	90
315 MLA	230	200	230	200	150	132	125	110
315 LKA	288	250	288	250	185	160	150	132
315 LKB	-	-	322	280	210	180	173	150
315 LKC	335	315	362	315	230	200	185	160
355 SMA	290	250	288	250	195	160	155	132
355 SMB	362	315	362	315	230	200	185	160
355 SMC	410	355	400	355	300	250	230	200
355 MLA	450	400	450	400	-	-	-	-
355 MLB	510	450	500	450	360	315	285	250
355 LKA	-	500	575	500	400	355		
355 LKB	-	560	620	560	440	400	330	300
400 LA	630	560	630	560	450	400	360	315
400 LKA	630	560	630	560	450	400	360	315
400 LB	710	630	710	630	510	450	400	355
400 LKB	710	630	710	630	510	450	400	355
400 LC	780	710	780	710	560	500	450	400
400 LKC	780	710	780	710	560	500	450	400
400 LD	-	-	-	-	630	560	-	-
400 LKD	-	-	-	-	630	560	-	-
450 LA	900	800	900	800	710	630	500	450
450 LB	1000	900	1000	900	800	710	560	500
450 LC	-	-	1100	1000	900	800	630	560
450 LD	-	-	-	-	-	-	710	630

2. DOCUMENTS AND DRAWINGS:

According to documents filed in ACE 04/004/06 & 07, including drawings, description and technical data ABB LV Motors / Cat. BU / Marine Motors / Cast iron EN 12-2006.

3. TEST REPORTS:**Electrical tests**

The type tests have been carried out in the laboratory of the manufacturer according to BV Rules Pt C, Ch 2 Sec 4, table 5.

Type test reports of:

M3BP 280SMC 4 400VD 50 Hz 110 kW, M3BP 280SMC 4 440VD 60 Hz 125 kW, M3BP 280SMB 2 400VD 50 Hz 90 kW, M3BP 280SMB 2 440VD 60 Hz 105 kW, M3BP 315SMC 4 400VD 50 Hz 160 kW, M3BP 315SMC 4 440VD 60 Hz 185 kW, M3BP 315MLA 2 400VD 50 Hz 200 kW, M3BP 315MLA 2 440VD 60 Hz 230 kW, M3BP 315SMA 2, M3BP 355MLA 2, M3BP 355SMA 2, M3BP 355LKB 2, M3BP 400LKB 2, M3BP 355SMA 4, M3BP 355MLA 4, M3BP 355LKA 4, M3BP 355SMA 6, M3BP 355MLB 6, M3BP 400LC 6, M3BP 400LKD 6, M3BP 355SMA 8, M3BP 400LC 8, M3BP 450LC 4 B3 100 KW/50 Hz, M3BP 355SMC 2 B3, M3BP 315SMC 6 V1.

4. APPLICATION / LIMITATION:

According to BV Rules for the Classification of Steel Ships and IEC 60092 series.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 - The above products are to be supplied by **ABB Oy, Motors and Generators, VAASA- FINLAND** in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

5.4 - **ABB Oy, Motors and Generators, VAASA- FINLAND** has declared to Bureau Veritas the following production sites:

**ABB Oy, Motors and Generators
P.O. Box 633
Finland
FI-65101 VAASA
FINLAND**

and

**ABB Shanghai Motors Co., Ltd
88, Tianning Road
Minhang Economic and Technological Development Zone
Shanghai
P.R China**

and

**ABB Sp.z.o.o
27 Placydowska Str
PL-95-070 Aleksandrow Lodzki
Poland**

6. MARKING OF PRODUCT:

- Name plate according to IEC 60034-1.
- Society's brand as relevant

7. OTHERS:

7.1 - It is **ABB Oy, Motors and Generators, VAASA- FINLAND**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate No. 11801/C1 BV issued on 14-Nov-2012 by the Society.

*** END OF CERTIFICATE ***



Marine & Offshore

Certificate number: SMS.W.II./102347/B.0

**BUREAU
VERITAS**

www.veristar.com

RECOGNITION FOR BV MODE II SCHEME

ABB Sp. z o.o. LV Motors Factory
Aleksandrow Lodzki - POLAND

Summary of the range of the recognition which is detailed in the subsequent page(s):

Manufacture of asynchronous machines of power below 100 kW, 100 kW and over :

- Marine Non-sparkling Motors , type M3GP
- Marine Motors with cast iron frame, type M3BP,
- Marine Flameproof Motors, type M3JP/M3KP,
- Marine Motors with cast iron frame, type M2BAX,
- Marine Motors with aluminium frame, type M2AA and M3AA.

This certificate is issued to attest that Bureau Veritas Marine & Offshore has performed, at the above company's request and in compliance with the requirements of NR320, a satisfactory assessment of the manufacturing facilities and associated quality procedures related to the range of the recognition.

This certificate will expire on: 17 Jul 2023

For BUREAU VERITAS,

At BV KATOWICE, on 17 Jul 2019,

Wojciech Lubojanski



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF RECOGNITION

1. RANGE OF THE RECOGNITION

The products listed in the table below are to be certified individually or per batch by Bureau Veritas Marine & Offshore in compliance with the applicable requirements (IBV products as defined in NR320).

App. number	Validity date	Item designation	Trade name
11800/D0 BV	07 Jan 2024	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	Marine Non-sparking Motors, type: M3GP.
11801/D0 BV	12 Feb 2023	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	Marine Motors with cast iron frame, type M3BP.
11803/D0 BV	07 Jan 2024	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	Marine Flameproof Motors type, M3JP / KP.
42199/A1 BV	19 Aug 2020	ASYNCHRONOUS MACHINES (Power 100kW and over) - 2584I	M2BAX series.

The products listed in the table below are not required to be certified individually or per batch by Bureau Veritas Marine & Offshore. Their compliance with the approved type is solely certified by the manufacturer using its own format of document and marking to allow traceability to the approved type (HBV products as defined in NR320).

App. number	Validity date	Item designation	Trade name
31672/B0 BV	05 Jul 2024	ASYNCHRONOUS MACHINES (Power below 100kW) - 2584H	Marine Motors with cast iron frame, type M3BP.
42198/A1 BV	10 Oct 2020	ASYNCHRONOUS MACHINES (Power below 100kW) - 2584H	M2BAX series.
47563/A0 BV	21 Mar 2022	ASYNCHRONOUS MACHINES (Power below 100kW) - 2584H	M2AA63 to M2AA250 and M3AA63 to M3AA280 series.

2. LIMITATIONS

The certificates listed in the range of recognition are to be valid, as applicable.

Bureau Veritas Marine & Offshore is to be informed immediately of any modification to manufacturing facilities and associated quality procedures in order to agree on appropriate actions.

ABB Sp. z o.o. LV Motors Factory has to apply for the periodical audits as agreed with Bureau Veritas Marine & Offshore.

3. PERIMETER OF CERTIFICATION

Quality system of following site(s) has been assessed:

ABB Sp. z o.o. LV Motors Factory - Aleksandrow Lodzki - POLAND

4. REMARKS

Nil.

*** END OF CERTIFICATE ***