



Marine & Offshore

Certificate number: 41774/B0 BV

File number: ACE4/884/1

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

CELMA INDUKTA S.A.
CIESZYN - POLAND

for the type of product

ASYNCHRONOUS MACHINES (Power below 100kW)

m2S(K,L)g, (┐,2 ,3, 4)SIE(K,L)...(-M), mSS(K,L)h,g, mSSP(K,L)h,g, mSSB(K,L)h,g, PS(K,L)h,g, Sg(K,L)h,g, and multi-speed motors.

Three phase induction motors.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.
IEC 60034 series (2017).

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: 09 Dec 2025

For Bureau Veritas Marine & Offshore,

At BV KATOWICE, on 09 Dec 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.veristarp.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=yImrnaaqxb>

BV Mod. Ad.E 530 June 2017

This certificate consists of 9 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

The **m2S(K,L)g**, (**2, 3, 4**)**SIE(K,L)...**(-M), **mSS(K,L)h,g**, **mSSP(K,L)h,g**, **mSSB(K,L)h,g**, **PS(K,L)h,g**, **Sg(K,L)h,g**, and **multi-speed motors** are three phase Cage Induction Marine Motors

1.1 - Specifications:

Frame material	: Cast iron and aluminium frames
Number of poles	: 2 to 8 #for single-speed motors#, 2 to 16 #for multi-speed motors)
Height of frame	: 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315
Power suply	: Up to 690V 50Hz or 60Hz
Enclosure cooling	: Up to IP66 – IC411 & IC416 & IC418 & IC410
Ambient temperature	: Up to 50°C
Duty type	: S1, S2, S3, S4, S6
Insulation class	: F or H
Temperature rise	: B or F

*: Monuting form on feet; on flange #K#; on feet with flange #L#

1.2 - Approval range:

mSS(K,L)h,g								
Motor type	kW 2 poles 50Hz	kW 2 poles 60Hz	kW 4 poles 50Hz	kW 4 poles 60Hz	kW 6 poles 50Hz	kW 6 poles 60Hz	kW 8 poles 50Hz	kW 8 poles 60Hz
mSSh 90S	1.5	1.7	1.1	1.3	0.75	0.90	0.37	0.45
mSSh 90L	2.2	2.5	1.5	1.8	1.10	1.30	0.55	0.65
mSSg 100L	3.0	3.4	/	/	1.50	1.80	/	/
mSSg 100L A	/	/	2.2	2.6	/	/	0.75	0.90
mSSg 100L B	/	/	3.0	3.6	/	/	1.10	1.30
mSSg 112M	4.0	4.6	4.0	4.8	2.20	2.60	1.50	1.80
mSSg 132S	/	/	5.5	6.6	3.00	3.60	2.20	2.60
mSSg 132S A	5.5	6.3	/	/	/	/	/	/
mSSg 132S B	7.5	8.6	/	/	/	/	/	/
mSSg 132M	/	/	7.5	9.0	/	/	3.00	3.50
mSSg 132M A	/	/	/	/	4.00	4.80	/	/
mSSg 132M B	/	/	/	/	5.50	6.60	/	/
mSSg 160M	/	/	11.0	13.2	7.50	9.00	/	/
mSSg 160M A	11.0	12.7	/	/	/	/	4.00	4.80
mSSg 160M B	15.0	17.2	/	/	/	/	5.50	6.60
mSSg 160L	18.5	21.3	15.0	18.0	11.00	13.20	7.50	9.00
mSSg 180M	22.0	25.3	18.5	22.2	/	/	/	/
mSSg 180L	/	/	22.0	26.4	15.00	18.00	11.00	13.20
mSSP(K,L)h,g								
mSSPh 90S	/	/	1.1	1.3	/	/	/	/
mSSPh 90L	/	/	1.5	1.8	/	/	/	/
mSSPg 100L	/	/	/	/	/	/	/	/
mSSPg 100L A	/	/	/	/	/	/	/	/
mSSPg 100L B	/	/	/	/	/	/	1.4	1.6
mSSPg 112M	/	/	/	/	/	/	/	/
mSSPg 132S	/	/	5.5	6.6	/	/	/	/
mSSPg 132S A	/	/	/	/	/	/	/	/
mSSPg 132S B	/	/	/	/	/	/	/	/
mSSPg 132M	/	/	/	/	/	/	/	/
mSSPg 132M A	/	/	/	/	/	/	/	/
mSSPg 132M B	/	/	/	/	5.5	6.6	/	/
mSSPg 160M	/	/	6.0	7.2	/	/	/	/
mSSPg 160M A	/	/	9.0	10.8	/	/	/	/
mSSPg 160M B	/	/	15.0	18.0	/	/	/	/
mSSPg 160L	/	/	9.0	10.8	/	/	/	/
mSSPg 180M	/	/	/	/	/	/	/	/
mSSPg 180L	/	/	30.0	36.0	/	/	/	/

mSSB(K,L)h,g								
mSSBh 90S	1.5	1.7	1.1	1.3	0.75	0.90	0.37	0.45
mSSBh 90L	2.2	2.5	1.5	1.8	1.10	1.30	0.55	0.65
mSSBg 100L	3.0	3.4	/	/	1.50	1.80	/	/
mSSBg 100L A	/	/	2.2	2.6	/	/	0.75	0.90
mSSBg 100L B	/	/	3.0	3.6	/	/	1.10	1.30
mSSBg 112M	4.0	4.6	4.0	4.8	2.20	2.60	1.50	1.80
mSSBg 132S	/	/	5.5	6.6	3.00	3.60	2.20	2.60
mSSBg 132S A	5.5	6.3	/	/	/	/	/	/
mSSBg 132S B	7.5	8.6	/	/	/	/	/	/
mSSBg 132M	/	/	7.5	9.0	/	/	3.00	3.60
mSSBg 132M A	/	/	/	/	4.00	4.80	/	/
mSSBg 132M B	/	/	/	/	5.50	6.60	/	/
mSSBg 160M	/	/	11.0	13.2	7.50	9.00	/	/
mSSBg 160M A	11.0	12.7	/	/	/	/	4.00	4.80
mSSBg 160M B	15.0	17.2	/	/	/	/	5.50	6.60
mSSBg 160L	18.5	21.3	15.0	18.0	11.00	13.20	7.50	9.00
mSSBg 180M	22.0	25.3	18.5	22.2	/	/	/	/
mSSBg 180L	/	/	22.0	26.4	15.00	18.00	11.00	13.20
EEF2								
Sh 90S	1.5	1.8	1.1	1.3	0.75	0.9	0.37	0.4
Sh 90L	2.2	2.6	1.5	1.8	1.1	1.3	0.55	0.7
Sg 100L	3.0	3.6	/	/	1.5	1.8	/	/
Sg 100L A	/	/	2.2	2.6	/	/	0.75	0.9
Sg 100L B	/	/	3.0	3.6	/	/	1.1	1.3
Sg 112M	4.0	4.8	4.0	4.8	2.2	2.6	1.5	1.8
Sg 132S	/	/	5.5	6.6	3.0	3.6	2.2	2.6
Sg 132S A	5.5	6.6	/	/	/	/	/	/
Sg 132S B	7.5	9.0	/	/	/	/	/	/
Sg 132M	/	/	7.5	9.0	/	/	3.0	3.6
Sg 132M A	/	/	/	/	4.0	4.8	/	/
Sg 132M B	/	/	/	/	5.5	6.6	/	/
Sg 160M	/	/	11.0	13.2	7.5	9.0	/	/
Sg 160M A	11.0	13.2	/	/	/	/	4.0	4.8
Sg 160M B	15.0	18.0	/	/	/	/	5.5	6.6
Sg 160L	18.5	22.2	15.0	18.0	11.0	13.2	7.5	9.0
Sg 180M	22.0	26.4	18.5	22.2	/	/	/	/
Sg 180L	/	/	22.0	26.4	15.0	18.0	11.0	13.2
PROGRESSIVE								
PSh 90L	3.0	3.6	2.2	2.6	1.5	1.8	/	/
PSg 100L	4.0	4.8	4.0	4.8	1.8	2.2	/	/
PSg 100L A	/	/	/	/	2.2	2.6	/	/
PSg 112M	5.5	6.6	/	/	3.0	3.6	1.8	2.2
PSg 112M A	6.0	7.2	5.5	6.6	/	/	/	/
PSg 112M B	7.5	9.0	/	/	/	/	/	/
PSg 132M	9.2	11.0	9.2	11.0	7.5	9.0	4.0	4.8
PSg 132S	11.0	13.2	/	/	/	/	/	/
PSg 132M A	11.0	13.2	11.0	13.2	/	/	/	/
PSg 160L	22.0	26.4	18.5	22.2	15.0	18.0	/	/
PSg 180L	30.0	36.0	30.0	36.0	18.5	22.2	/	/
IE2								
2SIE90S	1.5	1.8	1.1	1.3	0.8	0.9	/	/
2SIE90L	2.2	2.6	1.5	1.8	1.1	1.3	/	/
2SIE100L	3.0	3.6	/	/	1.5	1.8	/	/
2SIE100L A	/	/	2.2	2.6	/	/	/	/
2SIE100L B	/	/	3.0	3.6	/	/	/	/
2SIE112M	4.0	4.8	4.0	4.7	2.2	2.6	/	/
2SIE132S	/	/	5.5	6.6	3.0	3.6	/	/
2SIE132S A	5.5	6.6	/	/	/	/	/	/
2SIE132S B	7.5	9.0	/	/	/	/	/	/

2SIE132M	/	/	7.5	9.0	/	/	/	/
2SIE132M A	/	/	/	/	4.0	4.8	/	/
2SIE132M B	/	/	/	/	5.5	6.6	/	/
2SIE160M	/	/	11.0	13.2	7.5	9.0	/	/
2SIE160M A	11.0	13.2	/	/	/	/	/	/
2SIE160M B	15.0	18.0	/	/	/	/	/	/
2SIE160L	18.5	22.2	15.0	18.0	11.0	13.2	/	/
2SIE180M	22.0	26.4	18.5	22.2	/	/	/	/
2SIE180L	/	/	22.0	26.4	15.0	18.0	/	/
PROGRESSIVE IE2								
2SIE90L A	3.0	/	1.8	/	/	/	/	/
2SIE100L A	4.0	/	/	/	1.9	/	/	/
2SIE112M A	5.5	/	5.5	/	3.0	/	/	/
2SIE112M B	7.5	/	/	/	/	/	/	/
2SIE132M	9.2	/	/	/	/	/	/	/
2SIE132M A	11.0	/	9.2	/	/	/	/	/
2SIE160L A	22.0	/	/	/	/	/	/	/
2SIE180L	30.0	/	/	/	/	/	/	/
2SIE180L A	/	/	30.0	/	18.5	/	/	/
IE3								
3SIE90S	1.5	1.8	1.1	1.3	0.75	0.9	/	/
3SIE90L	2.2	3.0	1.5	1.8	1.1	1.3	/	/
3SIE100L	3.0	4.0	/	/	1.5	1.8	/	/
3SIE100L A	/	/	2.2	3.0	/	/	/	/
3SIE100L B	/	/	3.0	4.0	/	/	/	/
3SIE112M	4.0	4.8	4.0	4.7	2.2	2.6	/	/
3SIE132S	/	/	5.5	6.6	3.0	3.6	/	/
3SIE132S A	5.5	7.5	/	/	/	/	/	/
3SIE132S B	7.5	9.0	/	/	/	/	/	/
3SIE132M	/	/	7.5	9.0	/	/	/	/
3SIE132M A	/	/	/	/	4.0	4.8	/	/
3SIE132M B	/	/	/	/	5.5	6.6	/	/
3SIE160M	/	/	11.0	13.2	7.5	9.0	/	/
3SIE160M A	11.0	13.2	/	/	/	/	/	/
3SIE160MB	15.0	18.0	/	/	/	/	/	/
3SIE160L	18.5	25.0	15.0	18.0	11.0	13.2	/	/
3SIE180M	22.0	26.4	18.5	25.0	/	/	/	/
3SIE180L	/	/	22.0	26.4	15.0	18.0	/	/
PROGRESSIVE IE3								
3SIE132M	9.2	11.0	/	/	/	/	/	/
3SIE132S	11.0	13.2	/	/	/	/	/	/
3SIE132M A	11.0	13.2	9.2	11.0	/	/	/	/
3SIE132M B	/	/	11.0	13.2	/	/	/	/
3SIE160L A	22.0	26.4	18.5	22.2	/	/	/	/
IE4								
4SIE90S2	1,5	/	/	/	/	/	/	/
4SIE90L2	2,2	/	/	/	/	/	/	/
4SIE100L2	3,0	/	/	/	/	/	/	/
4SIE112M2	4,0	/	/	/	/	/	/	/
4SIE132S2A	5,5	/	/	/	/	/	/	/
4SIE132S2B	7,5	/	/	/	/	/	/	/
4SIE160M2A	11,0	/	/	/	/	/	/	/
4SIE160M2B	15,0	/	/	/	/	/	/	/
4SIE160L2	18,5	/	/	/	/	/	/	/
4SIE180M2	22,0	/	/	/	/	/	/	/
4SIE90S4	/	/	1,1	/	/	/	/	/
4SIE90L4	/	/	1,5	/	/	/	/	/
4SIE100LA4	/	/	2,2	/	/	/	/	/
4SIE100L4B	/	/	3,0	/	/	/	/	/

4SIE112M4	/	/	4,0	/	/	/	/	/	/
4SIE132S4	/	/	5,5	/	/	/	/	/	/
4SIE132M4	/	/	7,5	/	/	/	/	/	/
4SIE160M4	/	/	11,0	/	/	/	/	/	/
4SIE160L4	/	/	15,0	/	/	/	/	/	/
4SIE180M4	/	/	18,5	/	/	/	/	/	/
4SIE180L4	/	/	22,0	/	/	/	/	/	/
4SIE90S6	/	/	/	0,75	/	/	/	/	/
4SIE90L6	/	/	/	1,1	/	/	/	/	/
4SIE100L6	/	/	/	1,5	/	/	/	/	/
4SIE112M6	/	/	/	2,2	/	/	/	/	/
4SIE132S6	/	/	/	3,0	/	/	/	/	/
4SIE132M6A	/	/	/	4,0	/	/	/	/	/
4SIE132M6B	/	/	/	5,5	/	/	/	/	/
4SIE160M6	/	/	/	7,5	/	/	/	/	/
4SIE160L6	/	/	/	11,0	/	/	/	/	/
4SIE180L6	/	/	/	15,0	/	/	/	/	/
4SIE90S8	/	/	/	/	/	0,37	/	/	/
4SIE90L8	/	/	/	/	/	0,55	/	/	/
4SIE100L8A	/	/	/	/	/	0,75	/	/	/
4SIE100L8B	/	/	/	/	/	1,1	/	/	/
4SIE112M8	/	/	/	/	/	1,5	/	/	/
4SIE132S8	/	/	/	/	/	2,2	/	/	/
4SIE132M8	/	/	/	/	/	3,0	/	/	/
4SIE160M8A	/	/	/	/	/	4,0	/	/	/
4SIE160M8B	/	/	/	/	/	5,5	/	/	/
4SIE160L8	/	/	/	/	/	7,5	/	/	/
4SIE180L8	/	/	/	/	/	11,0	/	/	/

Multispeed motor											
Motor type	kW 4/2 poles 50Hz	kW 6/4 poles 50Hz	kW 8/4 poles 50Hz	kW 8/6 poles 60Hz	kW 6/2 poles 50Hz	kW 8/2 poles 60Hz	kW 12/6 poles 50Hz	kW 6/4/2 poles 50Hz	kW 8/4/2 poles 50Hz	kW 8/6/4 poles 50Hz	kW 12/8/6/4 poles 50Hz
Sh 90S	1,1/1,4	0,63/0,90	0,37/0,75	/	/	0,28/1,10	/	/	/	/	/

Sh 90L	1,4/2,0	0,75/1,20	0,55/1,00	/	/	0,37/1,50	/	/	/	/	/
PSh 90L	1,6/2,4	/	/	/	/	/	/	/	/	/	/
Sg 100L	/	/	/	/	0,7/2,2	0,50/2,20	/	/	/	/	/
Sg 100L A	2,0/2,6	0,90/1,30	0,70/1,25	/	/	/	/	/	/	/	/
Sg 100L B	2,5/3,3	1,20/1,70	0,90/1,70	/	/	/	/	/	/	/	/

Sg 112M	3,3/4,5	1,60/2,40	1,60/3,00	1,2/1,6	/	/	0,70/1,60	/	/	/	/
PSg 112M	4,7/5,9	/	1,80/3,50	/	/	/	/	/	/	/	/
Sg 132S	4,7/5,7	2,50/3,50	2,50/4,20	/	/	/	/	/	/	1,5/2,0/3,0	/
Sg 132M	6,0/7,2	3,10/4,70	3,20/5,40	/	/	1,10/4,0	/	/	/	2,1/2,6/3,9	/
Sg 132M B	6,2/7,5	/	/	/	/	/	/	/	/	/	/
PSg 132M	7,5/10,0	/	/	/	/	/	1,8/4,0	/	/	/	/
Sg 160M	10,0/12,0	5,20/7,40	4,70/8,40	/	/	/	2,6/5,5	4,0/6,2/7,7	4,0/6,2/7,7	3,5/4,6/6,4	1,7/2,6/3,4/4,9
Sg 160L	13,0/16,0	7,0/10,80	7,20/12,00	/	/	/	3,8/7,7	5,5/11,1/14,9	5,5/11,1/14,9	4,7/5,9/8,1	2,4/3,5/4,9/6,7
Sg 180M	14,5/19,5	/	/	/	/	/	/	/	/	/	/
Sg 180L	17,5/24,0	8,50/13,0	10,00/15,80	8,0/11,0	/	4,7/18,5	/	/	/	6,0/7,3/10,5	/
Sg 132S_Q	/	1,4/4,2	/	/	/	/	/	/	/	/	/
Sg 132M_Q	/	2,0/5,9	/	/	/	/	/	/	/	/	/
Sg 160M_Q	3,0/10,5	3,3/9,4	1,1/8,0	/	/	/	/	/	/	/	/
Sg 160L_Q	4,0/15,0	4,4/12,0	1,5/11,0	/	/	/	/	/	/	/	/
Sg 180M_Q	5,0/17,0	/	/	/	/	/	/	/	/	/	/
Sg 180L_Q	/	5,0/14,5	2,2/15,0	/	/	/	/	/	/	/	/
Sh 90S_W	0,33/1,4	0,28/0,80	0,22/1,0	0,24/0,48	/	/	/	/	/	/	/
Sh 90L_W	0,50/2,0	0,37/1,1	0,33/1,30	0,33/0,66	/	/	/	/	/	/	/

Sg 100L_W	/	/	0,44/1,8	/	/	/	/	/	/	/	/
Sg 100L_AW	0,70/2,6	0,6/1,7	0,5/2,0	0,45/0,90	/	/	/	/	/	/	/
Sg 100L_BW	0,85/3,3	0,75/2,2	2,65/2,60	0,60/1,25	/	/	/	/	/	/	/
Sg 112M_W	1,2/4,8	0,9/3,0	0,75/3,0	1,0/1,8	/	/	/	0,3/1,6	/	/	/
Sg 112M_WB	/	/	0,9/3,6	/	/	/	/	/	/	/	/
Sg 132S_W	1,3/5,2	1,2/3,4	1,0/4,0	0,9/2,2	/	/	/	/	/	/	/
Sg 132S_WB	1,5/5,9	/	1,1/4,5	/	/	/	/	/	/	/	/
Sg 132M_W	1,8/7,1	1,7/4,5	1,4/5,3	/	/	/	/	/	/	/	/

Sg 132M_WB	2,0/8,0	/	1,4/6,1	/	/	/	/	/	/	/	/
Sg 132M_AW	/	/	/	1,5/3,3	/	/	/	/	/	/	/
Sg 132M_BW	/	/	/	1,7/4,0	/	/	/	/	/	/	/
Sg 160M_W	2,7/11,0	2,5/6,7	2,0/7,8	/	/	/	/	/	/	/	/
Sg 160L_W	4,0/15,0	3,3/10,0	3,0/11,5	/	/	/	1,0/5,5	/	/	/	/
Sg 180M_W	5,0/19,5	/	/	/	/	/	/	/	/	/	/
Sg 180L_W	6,0/24,0	6,2/13,0	3,9/15,9	/	/	/	/	/	/	/	/

Motor type	kW 2 poles 50Hz	kW 2 poles 60Hz	kW 4 poles 50Hz	kW 4 poles 60Hz	kW 6 poles 50Hz	kW 6 poles 60Hz	kW 8 poles 50Hz	kW 8 poles 60Hz
m2Sg 200L	/	/	30	36	/	/	15	18
m2Sg 200L A	30	36	/	/	18,5	22,2	/	/
m2Sg 200L B	37	44	/	/	22	26,4	/	/
m2Sg 200L z	/	/	/	/	/	/	18,5	22,2
m2Sg 200L Az	/	/	37	44	/	/	/	/
m2Sg 200L Bz	45	54	45	54	30	36	/	/
m2Sg 225S	/	/	37	44	/	/	18,5	22,2
m2Sg 225M	45	54	45	54	30	36	22	26,4
m2Sg 225M Az	/	/	/	/	37	44	/	/
m2Sg 225M z	55	66	55	66	45	54	30	36
m2Sg 250M	55	66	55	66	37	44	30	36
m2Sg 250M z	75	90	75	90	/	/	37	44
m2Sg 250M Az	/	/	/	/	45	54	/	/
m2Sg 250M Bz	/	/	/	/	55	66	/	/
m2Sg 280S	75	90	75	90	45	54	37	44
m2Sg 280M	90	/	90	/	55	66	45	54
m2Sg 280M z	/	/	/	/	75	90	55	66
m2Sg 315S	/	/	/	/	75	90	55	66
m2Sg 315M A	/	/	/	/	90	/	75	90
m2Sg 315M B	/	/	/	/	/	/	90	/
2SIE 200L -M	/	/	30	36	/	/	15	18
2SIE 200L A -M	30	36	/	/	18,5	22,2	/	/
2SIE 200L B -M	37	44	/	/	22	26,4	/	/
2SIE 200L C -M	45	54	37	44	30	36	/	/
2SIE 200L D -M	55	66	45	54	37	44	/	/
2SIE 225S -M	/	/	37	44	/	/	18,5	22,2
2SIE 225M -M	45	54	45	54	30	36	22	26,4
2SIE 225M C -M	55	66	55	66	37	44	/	/
2SIE 225M D -M	75	90	75	90	45	54	/	/
2SIE 250M -M	55	66	55	66	37	44	30	36
2SIE 250M C -M	75	90	75	90	45	54	/	/
2SIE 250M D -M	90	/	90	/	55	66	/	/
2SIE 280S -M	75	90	75	90	45	54	37	44
2SIE 280M -M	90	/	90	/	55	66	45	54

Motor type	kW 2 poles 50Hz	kW 2 poles 60Hz	kW 4 poles 50Hz	kW 4 poles 60Hz	kW 6 poles 50Hz	kW 6 poles 60Hz	kW 8 poles 50Hz	kW 8 poles 60Hz
2SIE 280M C -M	/	/	/	/	75	90	/	/
2SIE 280M D -M	/	/	/	/	90	/	/	/
2SIE 315S -M	/	/	/	/	75	90	55	66
2SIE 315M A -M	/	/	/	/	90	/	75	90
2SIE 315M B -M	/	/	/	/	/	/	90	/
3SIE 200L -M	/	/	30	36	/	/	15	18
3SIE 200L A -M	30	36	/	/	18,5	22,2	/	/
3SIE 200L B -M	37	44	/	/	22	26,4	/	/
3SIE 200L C -M	45	54	37	44	30	36	/	/
3SIE 200L D -M	55	66	45	54	37	44	/	/
3SIE 225S -M	/	/	37	44	/	/	18,5	22,2
3SIE 225M -M	45	54	45	54	30	36	22	26,4
3SIE 225M C -M	55	66	55	66	37	44	/	/
3SIE 225M D -M	75	90	75	90	45	54	/	/
3SIE 250M	55	66	55	66	37	44	30	36
3SIE 250M C -M	75	90	75	90	45	54	/	/
3SIE 250M D -M	/	/	90	/	55	66	/	/
3SIE 280S -M	75	90	75	90	45	54	37	44
3SIE 280M -M	90	/	90	/	55	66	45	54
3SIE 280M C -M	/	/	/	/	75	90	/	/
3SIE 280M D -M	/	/	/	/	90	/	/	/
3SIE 315S -M	/	/	/	/	75	90	55	66
3SIE 315M A -M	/	/	/	/	90	/	75	90
3SIE 315M B -M	/	/	/	/	/	/	90	/

Motor type	kW 2 poles 50Hz	kW 2 poles 60Hz	kW 4 poles 50Hz	kW 4 poles 60Hz	kW 6 poles 50Hz	kW 6 poles 60Hz	kW 8 poles 50Hz	kW 8 poles 60Hz
4SIE 200L -M	/	/	30	36	/	/	15	18
4SIE 200L A -M	30	36	/	/	18,5	22,2	/	/
4SIE 200L B -M	37	44	/	/	22	26,4	/	/
4SIE 200L C -M	45	54	37	44	30	36	/	/
4SIE 200L D -M	55	66	45	54	37	44	/	/
4SIE 225S -M	/	/	37	44	/	/	18,5	22,2
4SIE 225M -M	45	54	45	54	30	36	22	26,4
4SIE 225M C -M	55	66	55	66	37	44	/	/
4SIE 225M D -M	75	90	75	90	45	54	/	/
4SIE 250M	55	66	55	66	37	44	30	36
4SIE 250M C -M	75	90	75	90	45	54	/	/
4SIE 250M D -M	/	/	90	/	55	66	/	/
4SIE 280S -M	75	90	75	90	45	54	37	44
4SIE 280M -M	90	/	90	/	55	66	45	54
4SIE 280M C -M	/	/	/	/	75	90	/	/
4SIE 280M D -M	/	/	/	/	90	/	/	/
4SIE 315S -M	/	/	/	/	75	90	55	66
4SIE 315M A -M	/	/	/	/	90	/	75	90
4SIE 315M B -M	/	/	/	/	/	/	90	/

1.2 - Multi-speed motors

Motor type	kW 4/2 poles 50Hz	kW 6/4 poles 50Hz	kW 8/4 poles 50Hz	kW 8/6 poles 50Hz	kW 12/4 poles 50Hz	kW 12/6 50Hz	kW 12/8 poles 50Hz
m2Sg 200L	26/33 8/32	16/23 9/26	17/27 7/28	/	5/19,5	/	/
m2Sg 200L A	/	/	/	12/6	/	/	/
m2Sg 200L B	/	/	/	14,5/19	/	/	/
m2Sg 225S	30/38 9,5/38	21/30 12/33	22/32 8/32	17,5/23	/	10/18,5	/
m2Sg 225M	36/45 11/44	25/35 13/37	26/37 9/36	21/28	9/27	12/22	/
m2Sg 250M	51/62 16/64	30/45 15/45	34/49 12/48	24/31	/	/	/

Motor type	kW 4/2 poles 50Hz	kW 6/4 poles 50Hz	kW 8/4 poles 50Hz	kW 8/6 poles 50Hz	kW 12/4poles 50Hz	kW 12/6poles 50Hz	kW 12/8 poles 50Hz
m2Sg 250M z	/	/	37/53	/	/	/	/
m2Sg 250M W	/	/	/	/	/	7,5/30	/
m2Sg 280S	63/73 18/72	45/65 22/65	46/60 15/60	33/44	/	21/38	/
m2Sg 280M	75/90 23/90	52/77 25/75	60/80 20/80	42/55	/	26/44	20/22
m2Sg 315M	/	/	/	55/75	/	33/67	/
m2Sg 315M A	/	62/96	20/75	/	/	/	/
m2Sg 315M B	/	75/90	22/90	/	/	/	/

Motor type	kW 16/8 poles 50Hz	kW 8/4/2 poles 50Hz	kW 8/6/4 poles 50Hz	kW 12/6/4 poles 50Hz	kW 12/8/6 poles 50Hz	kW 12/8/6/4 poles 50Hz
m2Sg 200L	2,5/11	/	12,5/14,5/21	/	/	/
m2Sg 225S	/	/	16/20/26	/	/	8/11/19/21
m2Sg 225M	4,4/18,5	15/25/35	20/23/26	/	/	/
m2Sg 250M	10/18,5	/	24/27/38	9/19/25	/	/
m2Sg 280S	/	/	29/38/47	/	/	/
m2Sg 280M	/	/	34/42/55	/	/	/
m2Sg 315S	/	/	40/50/60	/	/	27/35/45/55
m2Sg 315M	/	/	/	/	30/35/60	/

2. DOCUMENTS AND DRAWINGS :

Manuals ref. D4-034.104. & D4-034.190 issue III.

For B0 version :

Specification ref. KK-41-01 Ed. 1.

3. TEST REPORTS :**CELMA INDUKTA:**

- Tests report No. 10/NJ-1/2013, dated June.2013.
- Tests report No. 28/NJ1/2013, dated Nov.2013.
- Tests report No. 27/NJ1/2013, dated Oct.2013.

KDB:

- IP66 test report for S(K,L)g motors No. ew. T-5671, dated Dec 05, 2006
- IP66 test report for SIE(K,L)g motors No. KD-4.2/6582/2011, dated Nov 16, 2011.

For B0 version :**CELMA INDUKTA:**

- Tests report No. 23/JL/2020, dated Sep 11, 2020.
- Tests report No. 22/JL/2020, dated Sep 11, 2020.
- Tests report No. 21/JL/2020, dated Sep 11, 2020.

4. APPLICATION / LIMITATION :

BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **CELMA INDUKTA S.A.** 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 - **CELMA INDUKTA S.A.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

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 - On the nameplate there may be additional prefixes and suffixes in the type name of the motor for additional identification of the motors that are approved by this certificate.

7. OTHERS :

7.1 - It is **CELMA INDUKTA S.A.** 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° 41774/A0 BV issued on 07 Aug 2015 by the Society.

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