



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX LCIE 21.0021X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-12-23

Applicant: **Svend Hoyer A/S**  
Over Hadstenvvej 38-42  
DK-8370  
Hadsten  
Denmark

Equipment: **Three phase cage induction motors**

Optional accessory:

Type of Protection: **Ex ec/tc**

Marking: Ex ec IIC T3 Gc  
Ex tc IIIB T120°C Dc  
IECEX LCIE 21.0021X  
See attachment for full marking

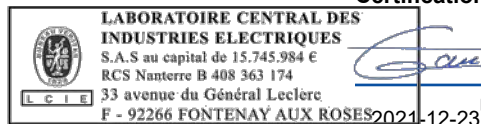
Approved for issue on behalf of the IECEx  
Certification Body:

**Julien GAUTHIER**

Position:

**Certification Officer**

Signature:  
(for printed version)



Date:

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Certificate issued by:

**Laboratoire Central des Industries Electriques (LCIE)**  
**33 Avenue du General Leclerc**  
**FR-92260 Fontenay-aux-Roses**  
**France**





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Date of issue: 2021-12-23

Issue No: 0

Manufacturer: **Svend Hoyer A/S**  
Over Hadstenvvej 38-42  
DK-8370  
Hadsten  
**Denmark**

Additional manufacturing locations: **Svend Hoyer Power Transmission Ningbo Co., LTD.**  
No. 19, JingWu Middle Road, Beilun District  
Ningbo Zhejiang 315821  
**China**

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[FR/LCIE/ExTR21.0044/00](#)

Quality Assessment Reports:

[IT/CES/QAR14.0004/04](#)

[NL/CNEX/QAR20.0004/00](#)



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Certificate No.: **IECEX LCIE 21.0021X**

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Date of issue: 2021-12-23

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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Hoyer three-phase cage induction motors series HMC2.

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

- The entries of the equipment shall be equipped with certified cable glands or blanking elements with compatible modes of protection for the intended use.
- All accessories associated to the motor to ensure smooth operation and safety shall provide a recognized protection type adapted to the specific use .
- When breather and drain devices will be used, they shall be certified for the intended used..
- User shall regularly look after good bearing conditions, and shall not exceed the life time defined by manufacturer's instructions. Manufacturer's instructions concerning plastic seals and O'rings shall also be respected.
- When required in order to minimize the risk of hazards caused by electrostatic charges, clean the motor only with a wet rag or by non-frictional means..
- The associated ratings for duties S2 to S9 are adjusted to ensure a winding temperature rise equal or below the temperature rise of specific duty S1.

## **Annex:**

[IECEX LCIE 21.0021 X Annex.pdf](#)



## Annex 01 to Certificate IECEX LCIE 21.0021 X issue 00



### FULL EQUIPMENT DESCRIPTION

The three-phase asynchronous motor series HMC2 with squirrel-cage are manufactured in cast iron of frame sizes IEC 90 355 type of protection Ex ec and Ex tc.  
They can be self-ventilated or with forced cooling.  
The motors are manufactured with efficiency class IE2 and according to IEC 60034-30 standard.

### MARKING

Svend HOYER A/S or



Address: ...

Type : HMC2

Serial number: ...

Year of construction: ...

II 3 G D

Ex ec IIC T3 Gc

Ex tc IIIB T120°C Dc

LCIE 21 ATEX 1015 X

IECEX LCIE 21.0021X

-20°C ≤ Tamb ≤ +40°C

WARNING - DO NOT OPEN WHEN AN EXPLOSIVE DUST ATMOSPHERE IS PRESENT

WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - CLEAN ONLY WITH A WET CLOTH.

Ratings:

Voltage: ... V (1)

Max. input power: ... W (1)

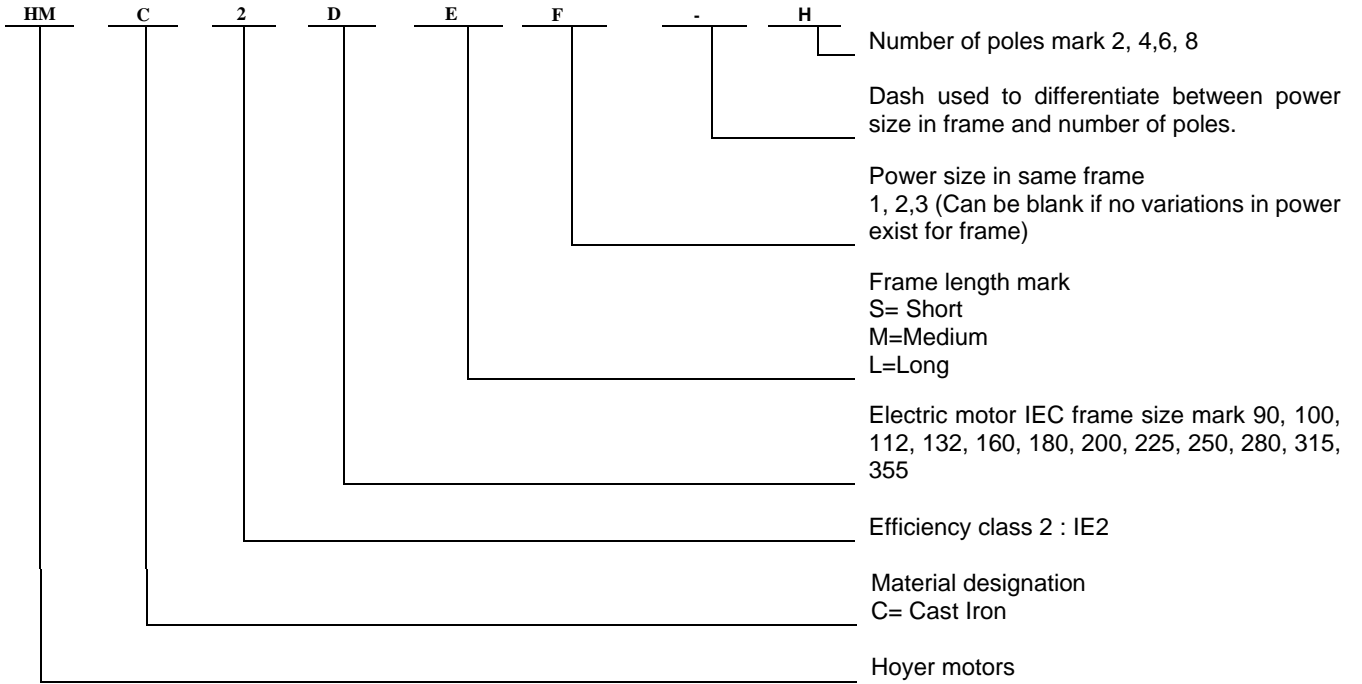
Max. output power: ... W (1)

Max. Current: ... A (1)

Frequency: ... Hz (1)

(1) See tables in section "RATINGS".

### RANGE DETAILS



**RATINGS**

Poles	Frame Size	Max. output power (kW)		Max. Current (A)		Reference drawing
		50Hz	60Hz	50Hz 400V	60Hz 440V	
2	90	1.5	1.74	3.1	3.3	RM19-04-90
		2.2	2.55	4.45	4.7	RM19-04-90
	100	3	3.5	5.65	6	RM19-04-100
	112	4	4.65	7.55	8	RM19-04-112
	132	5.5	6.4	10	10.6	RM19-04-132
		7.5	8.75	13.6	14.4	RM19-04-132
	160	11	12.8	19.4	20.6	RM19-04-160
		15	17.4	26	27.5	RM19-04-160
		18.5	21.6	31.5	33.5	RM19-04-160
	180	22	25.5	37.5	40	RM19-04-160
		22	25.5	39	41.5	RM19-04-180
		30	35	50.5	53.5	RM19-04-180
	200	30	35	52.5	55.5	RM19-04-200
		37	43	63.5	67.5	RM19-04-200
		45	52.5	76	80.5	RM19-04-200
	225	45	52.5	77	81.5	RM19-04-225
		55	64	93	98	RM19-04-225
	250	55	64	96	102	RM19-04-250
		75	87.5	128	134	RM19-04-250
	280	75	87.5	126	134	RM19-04-280
		90	104	150	158	RM19-04-280
		110	128	180	190	RM19-04-280
	315	110	128	184	194	RM19-04-315
		132	154	218	230	RM19-04-315
		160	186	260	275	RM19-04-315
		200	232	325	345	RM19-04-315
	355	250	290	410	435	RM19-04-315
		250	290	410	430	RM19-04-355
315		365	515	545	RM19-04-355	
		355	415	600	635	RM19-04-355
4	90	1.1	1.28	2.48	2.6	RM19-04-90
		1.5	1.74	3.25	3.4	RM19-04-90
	100	2.2	2.55	4.6	4.85	RM19-04-100
		3	3.5	6.1	6.4	RM19-04-100
	112	4	4.65	8.5	8.9	RM19-04-112
	132	5.5	6.4	10.8	11.4	RM19-04-132
		7.5	8.75	14.2	15	RM19-04-132
	160	11	12.8	20.2	21.2	RM19-04-160
		15	17.4	27	28.5	RM19-04-160
		18.5	21.6	34	35.5	RM19-04-160
	180	18.5	21.6	34	35.5	RM19-04-180
		22	25.5	40.5	42.5	RM19-04-180
		30	35	53	56	RM19-04-180
	200	30	35	53	56	RM19-04-200
		37	43	65.5	69	RM19-04-200
	225	37	43	64.5	68	RM19-04-225
		45	52.5	77.5	81.5	RM19-04-225
		55	64	99.5	104	RM19-04-225
	250	55	64	95.5	100	RM19-04-250
		75	87.5	130	136	RM19-04-250
	280	75	87.5	126	134	RM19-04-280
		90	104	150	158	RM19-04-280
		110	128	190	200	RM19-04-280

Poles	Frame Size	Max. output power (kW)		Max. Current (A)		Reference drawing
		50Hz	60Hz	50Hz 400V	60Hz 440V	
4	315	110	128	190	198	RM19-04-315
		132	154	226	236	RM19-04-315
		160	186	275	290	RM19-04-315
		200	232	340	355	RM19-04-315
	355	250	290	420	440	RM19-04-315
		250	290	425	445	RM19-04-355
		315	365	525	555	RM19-04-355
		355	415	595	625	RM19-04-355
6	90	0.75	0.87	2.08	2.16	RM19-04-90
		1.1	1.74	3.65	3.8	RM19-04-90
	100	1.5	1.74	3.65	3.8	RM19-04-100
	112	2.2	2.55	5.4	5.55	RM19-04-112
		3	3.5	7	7.25	RM19-04-132
		4	4.65	9.2	9.25	RM19-04-132
	132	5.5	6.4	12.4	12.8	RM19-04-132
		7.5	8.75	16.2	17	RM19-04-160
		11	12.8	23.2	24.2	RM19-04-160
	160	15	17.4	30	31	RM19-04-180
		18.5	21.6	36.5	38	RM19-04-200
	200	22	25.5	42	44	RM19-04-200
		30	35	54.5	57.5	RM19-04-200
		30	35	58	60.5	RM19-04-225
	225	37	43	66.5	70	RM19-04-225
		37	43	65	68.5	RM19-04-255
	250	45	52.5	78	82	RM19-04-255
		45	52.5	81	85	RM19-04-280
	280	55	64	98	102	RM19-04-280
		75	87.5	134	140	RM19-04-280
	315	75	87.5	136	142	RM19-04-315
		90	104	164	172	RM19-04-315
		110	128	200	208	RM19-04-315
		132	154	234	246	RM19-04-315
		160	154	275	238	RM19-04-315
	355	160	186	280	295	RM19-04-355
		200	232	345	365	RM19-04-355
		250	290	430	450	RM19-04-355
8	160	4	4.65	9.4	9.8	RM19-04-160
		5.5	6.4	12.2	12.6	RM19-04-160
		7.5	8.75	16.2	16.8	RM19-04-160
	180	11	12.8	23.8	24.8	RM19-04-180
	200	15	17.4	31	32.5	RM19-04-200
	225	18.5	21.6	37.5	39	RM19-04-225
		22	25.5	43.5	45.5	RM19-04-225
	250	30	35	59.5	62	RM19-04-250
		37	43	72.5	76	RM19-04-280
	280	45	52.5	88	92	RM19-04-280
		55	64	104	110	RM19-04-315
	315	75	87.5	142	150	RM19-04-315
		90	104	170	178	RM19-04-315
		110	128	208	218	RM19-04-315
		132	154	248	260	RM19-04-355
	355	160	186	300	310	RM19-04-355
		200	232	375	390	RM19-04-355

Voltage supply : up to 630 V <sup>(1)</sup>  
 Frequency: 50 Hz or 60 Hz or both.  
 Duty: S1 ... S9 <sup>(2)</sup>



## Annex 01 to Certificate IECEX LCIE 21.0021 X issue 00



<sup>(1)</sup> The values of current/power indicated in the tables above are for voltages 400V/50Hz and 440V/60Hz. For the other voltages the winding shall be calculated proportionally to the voltage to maintain same output power and the same current values as in the tables above.

<sup>(2)</sup> : The associated ratings for duties S2 to S9 are adjusted to ensure a winding temperature rise below the temperature rise of specific duty S1

### ROUTINE TESTS

Dielectric strength test related to type of protection “e”:

According to clause 7.1 of IEC 60079-7, each Ex e motor shall be submitted to a dielectric strength test carried out in accordance with 6.1.