

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electrical Equipment

with type designation(s)
iVario Cooking Center LMX.100 and LMX.200

Issued to

RATIONAL Wittenheim SAS
Wittenheim, Haut Rhin, France

is found to comply with
DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.
see 'Product description' on page 2

Issued at **Hamburg** on **2021-02-12**

This Certificate is valid until **2026-02-11**.

DNV GL local station: **France CMC**

Approval Engineer: **Matthias Schmidt**

for **DNV GL**

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Harald Pauli
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Multifunctional commercial cooking center for cooking, boiling, baking, frying, deep-frying and pressure cooking.

Type LMX.100 iVario Cooking System
Type LMX.200 iVario Cooking System with pressure cooking

Rated power input (kW):

Rated voltage	LMX.100.AE		LMX.100.BE		LMX.100.CE		LMX.100.DE	
	LMX.200.AE		LMX.200.BE		LMX.200.CE		LMX.200.DE	
3 AC 230V /	18.2	13.7	27.3	20.5	27.3	20.5	41.0	34.2
3 AC 240V	19.6	14.7	29.4	22.1	29.4	22.1	44.1	36.8
3 AC 440V /	16.9	12.7	25.3	19.0	25.3	19.0	37.9	31.6
3 AC 480V	19.6	14.7	29.4	22.1	29.4	22.1	44.2	36.8
3 AC 200V	17.0	12.8	25.5	19.2	25.5	19.2	38.3	31.9
3 AC 208V	15.3	11.5	22.9	17.2	22.9	17.2	34.4	28.7
3 AC 220V	16.9	12.7	25.3	19.0	25.3	19.0	38.0	31.6
3 AC 400V	18.2	13.7	27.3	20.5	27.3	20.5	41.0	34.2
3 AC 415V	19.4	14.6	29.1	21.9	29.1	21.9	43.7	36.4
3N AC 400V	18.2	13.7	27.3	20.5	27.3	20.5	41.0	34.2
3N AC 415V	19.6	14.7	29.4	22.1	29.4	22.1	44.1	36.8
Capacity (volume)	2 x 17 l		2 x 25 l		100 l		150 l	
Capacity (area)	2 x 13 dm²		2 x 19 dm²		39 dm²		59 dm²	
Steam pressure	300 mbar							
Water supply	¾" pressure hose							
Water drain	DN40 / DN50 (T>65°C)							
Material	1.4301							
Degree of protection	IPX5							

For shipboard installation of the multifunctional commercial cooking center the following modifications have been carried out:

- Installation of an additional temperature limiter
- For shipboard installation feet made from stainless steel shall be used
- Possibility for mechanical fixing of the fixed/adjustable feet to the floor

Application/Limitation

Applied rules and design codes:

- DNV GL RU SHIP Pt.4 Ch.8 Sec.8 'Cooking and other galley equipment' (Edition July 2020)
- DNV GL RU SHIP Pt. 4 Ch.1 Sec.3, Table 3 'List, rolling, trim and pitch' (Edition July 2020)
- SOLAS Reg II-2 / 10.6.4 'Deep-fat cooking equipment'

The construction of the multifunctional commercial cooking center is based on the following standards:

- EN 55014-1:2017
- EN 55014-2:2015
- EN 61000-3-11:2001-04
- EN 61000-3-12:2012-06
- EN 62233:2008
- EN 60335-2-39:2003+A1:2004+A2:2008
IEC 60335-2-39:2002+A1
- EN 60335-2-36:2002+A1:2004+A2:2008+A11:2012
IEC 60335-2-36:2017
- EN 60335-2-37:2002+A1:2008+A11:2012
IEC 60335-2-37:2017
- EN 60335-2-47:2003+A1:2008+A11:2012
IEC 60335-2-47:2002+A1+A2
- EN 60335-1:2012+A11:2014+A13:2017
IEC 60335-1:2010+A1+A2

The multifunctional commercial cooking center is to be installed in closed areas.

It has been tested without requirements to cold, salt, mist and vibrations.

This DNV GL type approval is based on the certificates and reports (see type approval documentation) for onshore use. These certificates are to be prolonged in due time to have always valid certificates available.

Type Approval documentation

Multifunctional commercial cooking center Type LMX.100 and LMX.200, each in size AE, BE, CE and DE:

Tests carried out

Assessment of the manufacturer has been carried out according to the type approval assessment report dd. 2021-01-19.

Test reports:

- Static inclination test up to 22.5° has been carried out (see test report 994 dd. 2021-01-15 issued by Messrs. Rational)

Marking of product

For traceability of this type approval the products are at least to be marked with:

- Name and domicile of the manufacturer
- Manufacturer's type designation and serial number
- Year of manufacture
- Rated voltage
- Rated power input.

Periodical assessment

The objective of the periodical assessment is to verify that the conditions for the type approval (TA) have not been altered.

The main scope of the periodical assessment will normally include:



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Certificate No: **TAE0000485**

- Verification of the TA applicant's production and quality system with regard to ensuring continued consistent production of the TA products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products
- Review of TA documentation and that this is still used as basis for the production
- Review of possible changes in the design, the materials and the performance of the product
- Verification of the product marking.

For retention of the TA certificate in its validity period the periodical assessment will be carried out every two years.

Unscheduled assessment for retention of the certificate may be carried out when there is reason to believe that the TA applicant has not adhered to the obligations stipulated in the TA certificate.