

Spec sheet

iCombi® Classic 20-half size E/G



Description

- > Combi-steamer in accordance with DIN 18866 for most cooking methods used in commercial kitchens for optional use of steam and convection, individually, one after the other, or combined.

Ventilation approvals: The electrical appliance conforms to the EPA 202 test in accordance with ANSI/NFPA 96 "Ventilation Control and Fire Protection of Commercial Cooking Operations" Refer to UL Listing KNLZ.E148536 (America) or KNLZ7.E148536 (Canada).

Unit description and functions

Cooking functions

- > ClimaPlus: The active climate management in the cooking cabinet, which constantly measures and controls the humidity and guarantees effective dehumidification, combined with high productivity, cooking quality and low energy consumption. Humidity can be adjusted in increments of 10% and monitored via the digital display for precise manual cooking
- > Dynamic air circulation in the cooking cabinet through 3 reversing high-performance fan propellers with five fan speeds that can be programmed manually. The optimal energy yield results in excellent uniformity and short cooking times.
- > High-performance steam generator for optimal steaming performance even at low temperatures below 212°F
- > Integrated, maintenance-free fat separation system without an additional fat filter
- > Cool-down function for quick cooling of the cooking cabinet via a fan propeller
- > Core temperature measurement via core temperature probe and optional positioning aid (accessories)
- > Delta-T cooking for extremely gentle preparation with minimal cooking losses
- > Digital temperature display, can be set to °C or °F, displays target and actual values
- > Cooking cabinet humidity and time displayed digitally; displays target and actual values
- > Individual programming of up to 100 single or multi-stage cooking programs with up to 12 steps
- > Individual adjustment of the cooking parameters time, temperature and humidity for a program step during ongoing operation
- > Easy transfer of cooking programs to other cooking systems via USB stick.
- > Integrated hand shower with automatic retraction and switchable spray/jet function
- > Energy-saving, long-lasting LED lighting in the cooking cabinet, with excellent color fidelity to allow quick determination of cooking progress
- > No-charge 4-hour RATIONAL certified chef assistance program

Capacity

- > Twenty (20) Half-size sheet pans or
- > Twenty (20) Steam table pans or
- > Twenty (20) 1/1 GN
- > Mobile oven rack with 2 1/2 inch rack spacing and tandem casters (63 mm)
- > Handle holder for mobile rack
- > Large selection of accessories for various cooking procedures, such as grilling, braising or baking
- > For use with 1/1, 1/2, 2/3, 1/3 GN accessories and optional baker's standard accessories (400 x 600 mm)

Combi-steamer mode

- > Steaming 86 °F - 266 °F
- > Convection 86 °F - 572 °F
- > Combination of steam and convection 86 °F - 572 °F

ClimaPlus

- > Climate management – humidity measurement and control
- > Humidity setting in 10-% increments

Occupational and operating safety

- > Electronic safety temperature limiter for steam generator and convection heating
- > Integrated fan wheel brake
- > Use of Active Green cleaning tabs and Care tabs (solid cleaning agent) for ideal occupational safety levels
- > HACCP data memory and output via USB
- > Tested according to national and international standards for unsupervised operation
- > Maximum tray height 63 inch when using RATIONAL mobile oven rack with 20 trays, 2 4/8 inch rack spacing (loss of USPHS certification)

Networking

- > Integrated, IP-protected USB interface for local data exchange
- > Optional integrated IP-protected Ethernet interface
- > Optional integrated Wi-Fi interface (incl. Ethernet interface)

Cleaning and care

- > Automatic, water pressure-independent cleaning and maintenance system for cooking cabinet and steam generator
- > Care system: Automatic cleaning and descaling of the steam generator
- > 4 cleaning programs of varying degrees for unsupervised cleaning, even overnight
- > Easy and intuitive operation of the cleaning programs: Display of the selected cleaning program, the recommended quantity of tabs and the remaining cleaning time
- > Safe ending of the cleaning in the event of a power failure with no cleaning agent left in the cooking cabinet
- > Use of phosphate and phosphorous-free Active Green cleaner tabs and care tabs
- > Unit door with rear-ventilated double glass panel and hinged inner pane for easy cleaning
- > Inside and outside material: stainless steel DIN 1.4301, seamless hygienic cooking cabinet with rounded corners and optimized air flow

- > Glass and stainless steel surfaces allow easy, safe external cleaning; IPX5-class protection against spraying water in all directions

Operation

- > 4.3 inch TFT color display and softkeys for easy and intuitive operation. Operating modes and functions are visually highlighted
- > Easy operation and exact settings through a central dial with push function
- > Acoustic prompts and visual messages when user action is required
- > Recirculating hoods (accessories) with situational adjustment of extraction power and service message transmission.

Installation, maintenance and environment

- > Professional installation by RATIONAL-certified technicians recommended
- > Rear in-direct floor drain with air gap is required, and should be supplied in alignment with local code.
- > Adaptation to the installation site (height above sea level) through automatic calibration
- > Operation without water softener and without additional manual descaling possible
- > Flush-mounted installation *
- > Double-pane glass door with integrated sealing mechanism for minimal energy losses
- > Service diagnostic system with automatic service message display
- > Regular maintenance is recommended. Maintenance according to manufacturer recommendations available from RATIONAL service partners
- > 2-year RATIONAL warranty including parts, labor, and travel and 5-year steam generator warranty**
- > * See the installation or planner manual for details
- > ** Terms and conditions apply, see manufacturer warranty statement at www.rational-online.com

Options

- > Mobile rack and air baffle for baker's standard accessories (400 x 600 mm)
- > MarineLine – ship version
- > SecurityLine – prison / security version
- > MobilityLine - mobile version (available to order as a separate accessory)
- > HeavyDutyLine – particularly resilient version
- > Integrated fat drain
- > Safety door lock
- > Protection for control panel
- > Lockable control panel
- > Integrated, IP-protected Ethernet interface
- > Integrated Wi-Fi interface (incl. Ethernet interface)

Technical specifications

Dimensions and weights

| Dimensions (W x H x D) | |
|--------------------------------------|---------------------------------|
| Cooking system (body) | 34 1/2 x 71 1/8 x 33 3/8 inches |
| Cooking system (total) | 34 1/2 x 73 3/4 x 35 7/8 inches |
| Cooking system with packaging | 39 5/8 x 80 3/8 x 39 7/8 inches |
| Maximum working height of top level* | ≤ 5 ft. 2 7/8 inches |

* when using a RATIONAL mobile rack, Size 20-half size with 20 levels, level spacing 62 mm

| Weights | |
|--|--------|
| Maximum load size per level | 33 lb |
| Maximum total load capacity | 198 lb |
| Weight - electric unit without packaging | 542 lb |
| Weight - electric unit with packaging | 622 lb |
| Weight - gas unit without packaging | 589 lb |
| Weight - gas unit with packaging | 670 lb |

Electrical connection conditions

| Voltage 3 ph 208 V / 240 V | |
|----------------------------|----------------------------------|
| Connected loads - electric | 37.2 kW |
| Steam power | 36 kW |
| Convection power | 36 kW |
| Breaker | 125 A |
| Connection impedance | 0.09 Ω |
| Running AMPS | 103.3 A (208 V) / 89.5 A (240 V) |
| Cable diameter | AWG 2 194°F |

| Voltage 3 ph 440 V / 480 V | |
|----------------------------|---------------------------------|
| Connected loads - electric | 37.2 kW |
| Steam power | 36 kW |
| Convection power | 36 kW |
| Breaker | 60 A |
| Connection impedance | 0.09 Ω |
| Running AMPS | 48.8 A (440 V) / 44.7 A (480 V) |
| Cable diameter | AWG 4 140°F |

Not supplied with cable connection

Connected loads - gas

| Natural gas G20 | |
|-----------------------------------|--------------------|
| Nominal heat load, total | 159500 BTU |
| Nominal heat load, Steam mode | 144500 BTU |
| Nominal heat load, Hot Air mode | 159500 BTU |
| Required connection flow pressure | 6.5 – 10 inch w.c. |
| Liquid gas | |
| Nominal heat load, total | 156000 BTU |
| Nominal heat load, Steam mode | 141000 BTU |
| Nominal heat load, Hot Air mode | 156000 BTU |
| Required connection flow pressure | 10 – 15 inch w.c. |

1" female NPT gas shut-off valve

Additional gas types and voltages available on request

Connected loads - gas

| Voltage 1 ph 208 V | |
|-----------------------|--------|
| Connected loads - gas | 1.3 kW |
| Breaker | 15 A |
| Running AMPS | 6.3 A |

| Voltage 1 ph 120 V | |
|-----------------------|--------|
| Connected loads - gas | 1.3 kW |
| Breaker | 15 A |
| Running AMPS | 10.8 A |

All gas units are supplied with a 6 ft cord.

Connection conditions water

| | |
|--------------------------------------|---------------|
| Water inlet (pressure hose), each | 3/4" |
| Water pressure (flow pressure), each | 14.5-87.0 psi |
| Maximum flow rate per cooking system | 3 gal/min |
| Water drain, each | 2" OD |
| Max short-term amount of wastewater | 0.11 gal/sec |

Use only high-temperature resistant drain pipe

Water quality requirements

Untreated water can be 0 to 24.5 gr/gal (0 to 420ppm) hardness. We do not recommend treated water hardness < 5 gr/gal (86ppm) because the water could be corrosive. Sodium ion exchangers are not recommended; H+ Ion exchange systems are recommended. Water that does not meet the following minimum standards will require the proper conditioning

| Contaminant | Water Requirements | If > than recommended |
|-----------------------------|--------------------------|-----------------------|
| Sand / Particles | < 15 µm | Particle filter |
| Chlorine (Cl ₂) | < 0.012 gr/gal (0.2 ppm) | Active carbon filter |
| Chloride (Cl ⁻) | < 4.68 gr/gal (80 ppm) | RO |

Connected loads - exhaust air and thermal load

| | |
|------------------------|----------|
| Latent heat load | 6492 BTU |
| Sensible heat emission | 8639 BTU |
| Sound level (electric) | 60 dBA |
| Sound level (gas) | 65 dBA |

Connection loads - data

| | |
|---------------------|-------------------|
| LAN data interface | RJ45 |
| WiFi data interface | IEEE 802.11 a/g/n |

Minimum distances at installation

Clearance Requirements

To facilitate servicing, we recommend leaving a 20" (500 mm) gap on the left-hand side of the unit. If there is not 20" (500 mm) left side clearance available, provisions for moving the unit to the left for service access must be made. Such provisions include, but are not limited to, having quick connections (water, gas, etc.) and lengthened electrical connections with flexible cords.

If there are no external heat sources acting on the unit, there should be at least 2" (50 mm) of clearance on either side of the unit. On the back, single units and electric Combi-Duo vent pipe can be mounted flush with the wall. 2" rear clearance from the gas Combi-Duo exhaust gas box. If a high temperature heat source is on the left or right side of the unit, clearance of at least 14" (350 mm) must be maintained on the respective side. This clearance may be reduced to 2" (50 mm) if a heat shield is used (see accessories).

Recommended clearance from unobstructed rear exhaust pipes and any surface collecting grease or flammable material; 16" (400 mm) gas, 10" (254 mm) electric. It is recommended to have a hood overhang of 6" (150 mm) to 18" (450 mm) at the front of the unit and 6" (150 mm) on the sides if installed at the end of the cooking line. Please refer to the Installation Manual for additional technical data and for instructions on installation and setup.

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Installation conditions

- > Observe all local and country-specific standards and regulations regarding the installation and operation of industrial cooking appliances. The local standards and regulations for interior ventilation systems must also be taken into account.

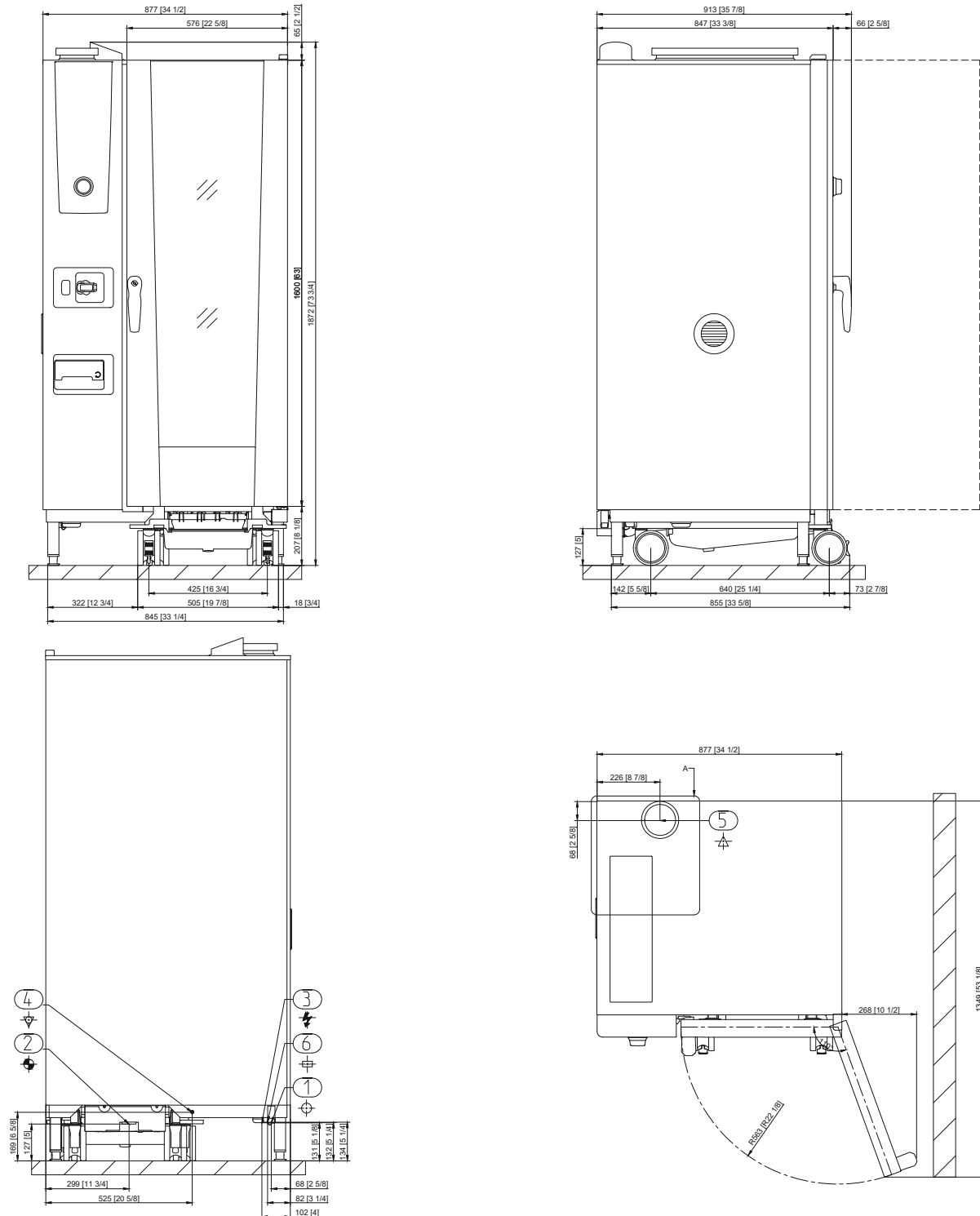
Approvals



NSF Certification

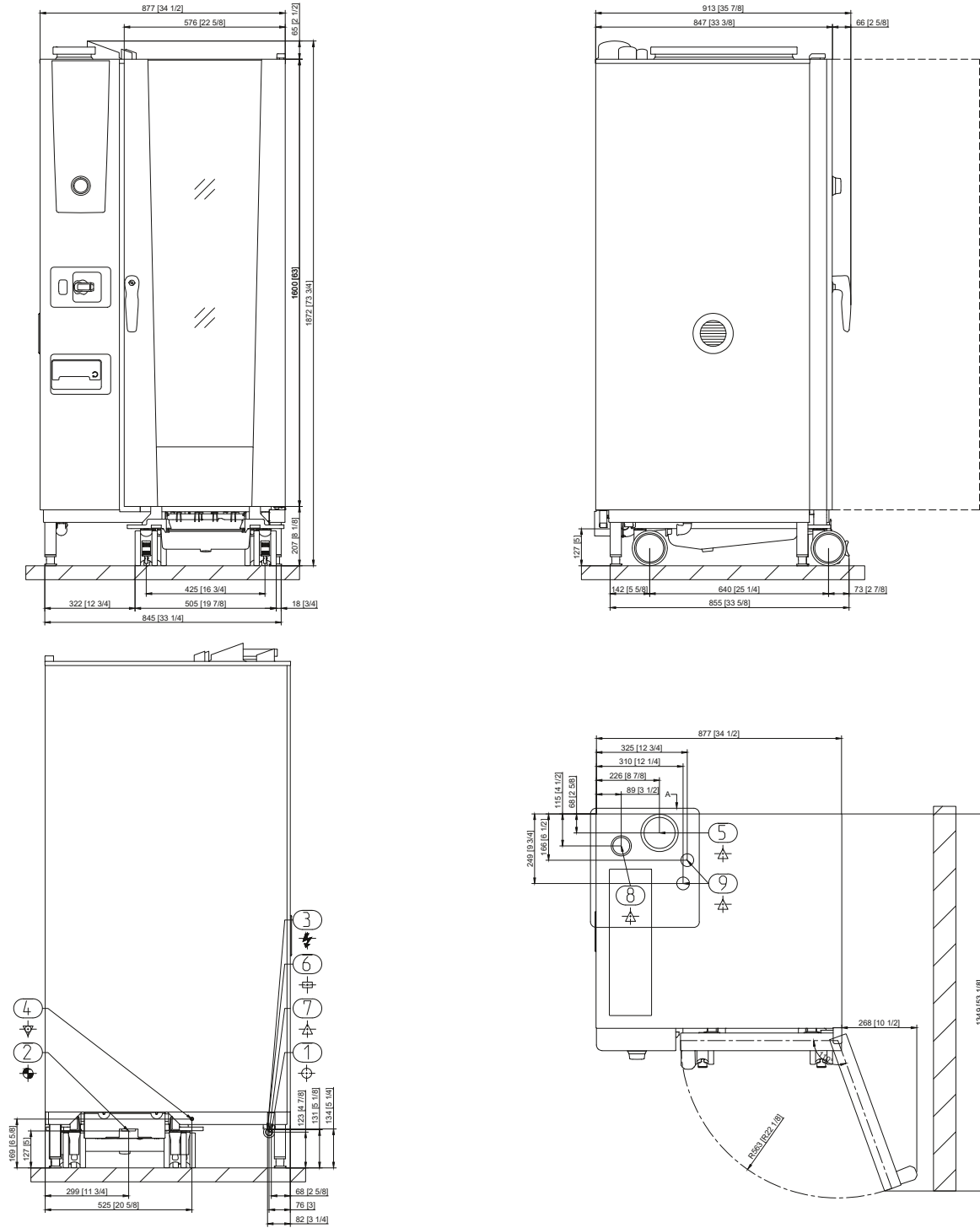
iCombi Pro (LM100) and iCombi Classic (LM200) are NSF-certified, shown on the NSF list.

Technical drawing, electrical



| | |
|---|-----------------------|
| 1 | Water inlet |
| 2 | Water drain |
| 3 | Electrical connection |
| 4 | Equipotential bonding |
| 5 | Ventilation pipe |
| 6 | Ethernet interface |

Technical drawing, gas



| | |
|---|-------------------------------|
| 1 | Water inlet |
| 2 | Water drain |
| 3 | Electrical connection |
| 4 | Equipotential bonding |
| 5 | Ventilation pipe |
| 6 | Ethernet interface |
| 7 | Gas connection |
| 8 | Exhaust pipe gas (steam) |
| 9 | Exhaust pipe gas (convection) |

Accessories

| Accessories | Item number |
|--|---|
| RATIONAL Active Green cleaning agent tabs – guarantee the best cleaning performance | Item no. 56.01.535 |
| RATIONAL Care tabs – effectively prevent limescale deposits | Item no. 56.00.562 |
| Condensation breaker – diverts steam and vapors to an existing exhaust air system Sizes 20-half size and 20-full size | Item no. 60.75.326 |
| Ramp – evens out inclines (up to 3%) allowing mobile rack to be rolled in smoothly Size 20-half size | Item no. 60.21.262 |
| Mobile oven rack and mobile plate oven rack – for simple loading outside the cooking system | See Cooking Systems and Accessories catalog |
| Heat shield – for installing a unit near a heat source, e.g. a grill - Size 20-half size | Item no. 60.75.829 |
| Mobile catering stand - especially for heavy mobile catering usage | Item no. 60.21.336 |
| RATIONAL USB stick – to securely transfer cooking programs and HACCP data | Item no. 42.00.162 |
| RATIONAL Double Water Filter - for Combi Duo 6-full size/6-full size and 6-full size/10-full size or if used for more than 2 units | Item no. 1900.1150US |
| RATIONAL Single Water Filter - for all single models and Combi-Duo XS/XS, 6-half size/6-half size and 6-half size/10-half size | Item no. 1900.1154US |

We offer a wide range of cooking accessories to help you achieve ideal cooking results; for more information, please consult our accessories brochure, ask your dealer, or visit www.rational-online.com

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