

# Warewashing green&clean multi-rinse Rack Type, Ventless heat pump, ZERO LIME Device, electric, 150r/h,right>left

ITEM #		
MODEL #		
NAME #		
SIS #		
AIA#		



535002 (EMR15NERV)

Multi Rinse Rack Type
Dishwasher, 150 racks/hour,
electric, Right>Left, ventless
heat pump, constant rinse,
self cleaning, ZERO LIME
Device, CLEAR BLUE
Filtering System, WASHSAFE CONTROL, touch
screen, variable speeds,
insulated doors, WRAS/
Watermark app

# **Short Form Specification**

### Item No.

Unit to be multi-rinse rack type dishwasher. Operating direction left to right or right to left. Featured built-in Ventless Heat pump captures energy from the extracted air to heat up incoming cold water to wash tank and boiler. ZERO LIME device automatically de-scales the whole hydraulic circuit and all washing & rinsing chambers. Multi-rinse area with built-in Wash-Safe Control system and rinse booster pump augrantees constant rinse pressure. CLEAR BLUE filtering system removes majority of soil from the wash water to ensure clean water for long time. Maximum Water Contact (MWC) wash arms are positioned along the full length of the wash tank. Powerful wash pump and specially designed wash spray arms guarantee cleaning. Washing is done with water circulating at 55-65°C. Final rinsing is done with clean water heated up to 85°C that is re-used in several phases in pre-rinse at around 70°C. Multi-rinse with double rinse tanks and multi rinse arms re-uses rinsing water several times to ensure hygiene on washed wares. Constant 0.4 liter/ rack rinse water consumption of cold water in any conveyor speed. Three conveyor speeds are selectable by the operator, one for maximum capacity, one compliant to DIN 10510 and one certified according to NSF/ANSI 3. Intuitive touch screen control panel provides easy communication on different levels. Large counter-balance door in all tanks has heat and noise insulation with easy internal access. Easy drain of water done through control panel. Standard end of the day self cleaning cycle and sanitation cycle both including internal side of the door. Modularity allows split delivery, customization and upgrade on-site and over time.

### APPROVAL:

### **Main Features**

- CLEAR BLUE filtering system removes soil from the wash water providing cleaner water and highly active detergent thus ensuring better washing performance and lower running costs.
- Built-in WASH-SAFE CONTROL system raises water temperature to 85°C to sanitize the rinse water. No external boiler is required. Built-in air break and rinse booster pump ensure constant temperature and pressure throughout the rinsing cycle regardless of the inlet water condition.
- Deep drawn pressed wash tank with fully rounded corners, sloped towards the drain to prevent dirt build up provides fast drainage in only a few minutes. Pressed wash tank with no welded points offer a guaranteed water tight solution.
- Three conveyor speeds can be selected through the control panel by the operator and customized on site
- Maximum Water Contact (MWC) wash arms are positioned along the full length of the wash tank.
- Multi-rinse arms in combination with double rinse tanks re-use final rinsing water in several phases to ensure hygiene and complete detergent removal on the washed wares.
- Built-in drain valve in the tanks allows automatic dump and fill to refresh the water in the tank without any interruption of the washing process.
- Intuitive touch screen control panel features userfriendly display to easily operate the machine and to monitor machine status. Three different levels of interaction are available each show relevant messages and information to the operator, the general maintenance staff and the authorized service partners.
- Automatic drain, clean and sanitize cycles featured as standard. The internal chambers, including the internal doors are completely cleaned or sanitized avoiding bacteria proliferation for maximum hygiene and reducing manual work/ time for operator.
- Self-draining wash pumps provide maximum hygiene and all wash and rinse zones drain automatically at the push of a button.
- All internal components: wash and rinse arms, tank filters, curtains can be easily removed for cleaning.
- IP25 protection against water jets, solid objects and small animals (larger than 6 mm).
- Large counter balanced inspection doors allow unrestricted all-round access to the wash and rinse area. Door is insulated with injected foam. This adds strength as well as reduces noise and heat loss.
- Adjustable feet for full access underneath the machine for cleaning.
- Splashhoods at both entrance and exit avoid water spilling outside the machine.
- Unit equipped with USB port making it simple to read data such as machine identification, counters and consumption, components, devices and alarm logs. Machine parameters can be uploaded and downloaded and firmware updated.
- Automatic back-up mode is activated when a





Warewashing green&clean multi-rinse Rack Type, Ventless heat pump, ZERO LIME Device, electric, 150r/h,

failure occurs. Guided troubleshooting for fast fixes including 300 precises notifications and 23 easy-to-follow Included Accessories processes.

## Construction

- Modularity design allows the machine not only be Optional Accessories disassembled for delivery and re-assembled at customer's site, but also to be customized and upgraded on-site and
- All main components made in heavy duty anti-corrosive 304 type stainless steel: external front, side panels and internal chambers, wash and rinse arms, doors and rack transportation system.
- Dishwasher structure is held together with a solid 50 x 50 mm stainless steel frame to provide long-term sturdiness.
- All electric components are put in one IP65 central box isolated from water and steam to ensure high reliability
- External pre-arrangement for inlet water, drain water, detergent & rinse aid connections for fast and easy • Medium drying zone with door for installation on both sides of the unit.
- The unit is built on modularity concept for easy to add prewash, wash and up to 2 dryer modules onsite.
- Table-to-table length, 1780mm.

# Sustainability

- Built-in Ventless Heat Pump transfers the heat captured from the extracted air to heat up incoming cold water to both fill the water tank and rinse, thus saving significantly energy. The humidity, volume and temperature of the exhaust air is reduced dramatically at the same time so no ventilation hood is needed for the machine (depending on local regulation and condition in compliance with VDI 2052).
- ZERO LIME Device as a fully automatic cycle ensures total scale removal from the boiler, the hydraulic circuit, the • washing chamber and the rinsing chamber allowing ultimate performances and lower energy consumption • Kit electronic connection for thanks to highly efficient heating elements.
- Multi-rinse technology guarantees rinse water consumption of 0.4 liters/rack regardless of the conveyor speed to ensure low energy, water, detergent and rinse aid consumption.
- Maximum capacity per hour of 150 racks easy to switch to
   HACCP cable connection for Rack DIN 10510 or NSF ANSI 3 compliant speed.
- All chambers without internal pipes and therefore no
   Kit water softener and reverse osmosis PNC 865494 hidden dirt traps.
- Auto-start/stop equipped in different zones ensures that Ethernet board (NIU-LAN) for the zone runs only when a rack is passing through it. This reduces water, energy, chemical consumption and noise.

<ul> <li>1 of Kit delime for rack type</li> </ul>	PNC 865282
• 1 of Kit water meter	PNC 865286

- Medium hot air blower zone without PNC 534056 door for green&clean Multi Rinse Rack Type Dishwasher • Medium pre-wash zone for PNC 535033
- green&clean Multi Rinse Rack Type Dishwasher with Ventless Heat Pump, ZERO LIME Device, WRAS/Watermark approval
- Large pre-wash zone for green&clean PNC 535035 Multi Rinse Rack Type Dishwasher with Ventless Heat Pump, ZERO LIME Device, WRAS/Watermark approval.

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PNC 865235

- PNC 535038 green&clean Multi Rinse Rack Type Dishwasher PNC 865232
- Kit to adapt motorized table with green&clean Rack Type - Europe, UK, M.E., Africa, Asia, Latin America, Oceania
- Connection bracket for plain undershelf and grid undershelf (to be used if roller conveyor is connected directly to Rack Type Dishwasher with splash hood)
- Inclined extension table for roller PNC 865253 conveyor
- PNC 865254 Inclined extension table for splash hood
- Kit water softener for Rack Type PNC 865284 dishwasher
- PNC 865290 motorized table and remote pre-wash
- Kit of splash panel to change on the PNC 865291 splash hood for 90° and 180° curve table
- PNC 865490 Type dishwasher
- for Rack Type Dishwasher
- PNC 922696 green&clean Rack Type Dishwashers



### Warewashing green&clean multi-rinse Rack Type, Ventless heat pump, ZERO LIME Device, electric, 150r/h, right>left

### **Electric**

Supply voltage:

**535002 (EMR15NERV)** 380-415 V/3N ph/50 Hz

**Default Installed Power:** 22.4 kW **Electrical power min:** 15.4 kW

When the machine runs at DIN 10510 compliant speed.

**Energy consumption:** 18.2 kWh

At average working conditions.

Wash tank heating

elements: 7 kW

Triple tank heating

elements: 3.5 kW
Boiler heating elements: 3.5 kW
Wash pump size: 1.5 kW

Rinse pump size (final, duo,

triple): 0.55 / 0.32 / 0.32 kW

Water:

Inlet water line size:G 3/4"Inlet cold water line size:G 3/4"Drain line size:50mmInlet water supply pressure:2-6 bar

Inlet water supply temperature (wash and

rinse): 5 - 65°C

The higher the temperature, the faster the warm-up.

Recommended temperature: 50°C.

Inlet water supply

temperature (rinse and pre-

wash):  $5 - 30 \, ^{\circ}\text{C}$ Inlet water supply hardness:  $0 \, ^{\circ}\text{H} \, / \, 0 \, ^{\circ}\text{dH}$ 

When below 7°fH/4°dH special detergent and rinse aid

are needed.

Flow rate of wash pump: 500 l/h
Peak rate of drain flow: 1.8 l/s
Wash tank size: 70 l
Duo rinse tank size: 20 l
Triple rinse tank size: 20 l
Rinse water consumption:

# **Key Information:**

Productivity per hour (max.

speed): 150 racks/2700dishes

Productivity per hour (DIN

compliant speed):

114 racks/2052 dishes

Productivity per hour (NSF

compliant speed):

96 racks/1728 dishes

Wash Temperature: 55 - 65 °C

Duo rinse temperature: 75-80 °C

Final rinse temperature: 85 °C

Triple rinse temperature: 70 - 75 °C

External dimensions, Width: 2380 mm

For transportation purpose only, the height can be reduced to 2000mm by adjusting the feet and removing

the fan on the top.

External dimensions, Depth: 895 mm

For transportation purpose only, the depth can be reduced to 795mm by removing the control box and the door handles.

External dimensions, Height: 2100 mm
Height with door open: 2100 mm
Charging hole size (width): 530 mm
Charging hole size (height): 490 mm

Net weight: 570 kg

Shipping weight: 675 kg

Shipping height: 2270 mm

Shipping width: 1040 mm

Shipping depth: 2570 mm

Shipping volume: 6.07 m³

Reference on mused to measure the noise:

IEC60335-2-58 annex AA.

Table to table distance: 2380 mm

Air Emission:

Air flow (top, exit):  $700 / 0 \text{ m}^3/\text{h}$ Air temperature:  $25 - 0 ^{\circ}\text{C}$ Air humidity (top, exit):  $95 / 0 ^{\circ}\text{ r.h.}$ 

The data is measured at exhaust points at 25°C and 60% r.h. ambient conditions, 18°C inlet water temperature and

refer only to the machine.

Latent heat: 3400 W Sensible heat: 3300 W

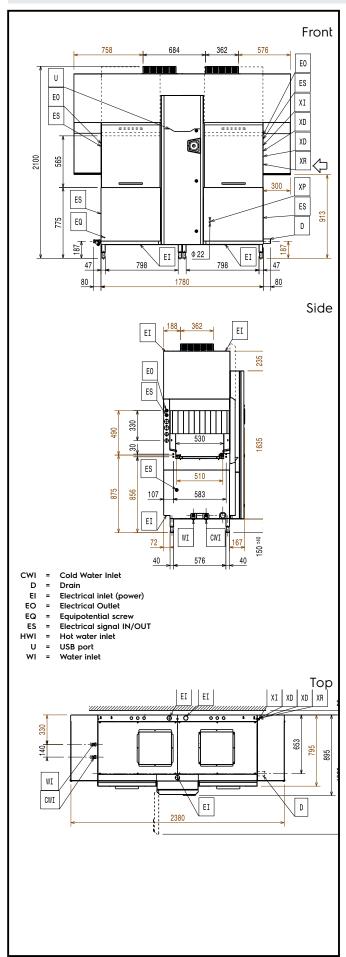
According to VDI 2052, this model does not require any dedicated ventilation hood. General ventilation for the room should still be provided in accordance with UNI ISO EN 7730 norm, VDI 2052 guideline and DW/172 UK regulation or local regulations.

# Sustainability

Rinse water consumption at

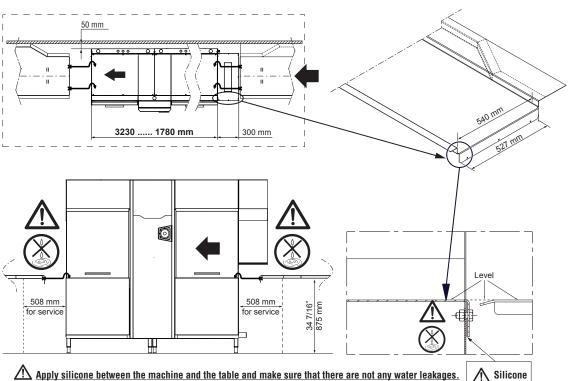
max. speed: 60 l/h
Noise level: <62 dBA





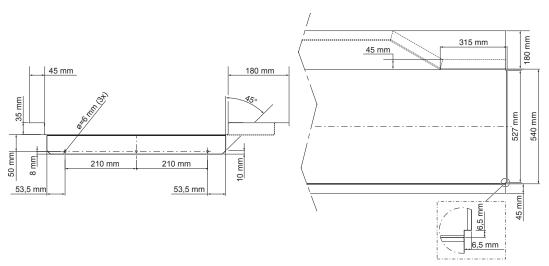


# RECOMMENDED TABLE CONNECTION



Apply silicone between the machine and the table and make sure that there are not any water leakages.





All tables must be connected to the dishwashing units according to local regulations and industry standards which may differ from the recommendations herein suggested. Electrolux Professional is not liable for any failure in complying with local design standards.

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