

## Steam humidifiers of the OEM 3000 series

Technical description and operation instructions for types:

- OEM 3000 K LE with separate electronic control unit
- OEM 3000 K CB with ready-wired control box





## 2. Types: OEM 3000 K CB with a ready-wired control box



### Delivery contents:

- Water assembly with sides made out of non-rusting Aluminium-Zinc, cylinder, filling system, inlet and drainage valves, ready for use.
- 2 meter control cables with mounted plugs
- 2 meter heating cables with fitted electrode plugs
- Control box: ready-wired with contactor, On/Off switch, drainage switch, message-LED, electronic control unit and terminals.

### Versions:

Control voltage:	230V or 24V
Heating voltage:	1 x 230V, 3 x 230V, 3 x 400V, other voltages on request
Control mode:	standard On/Off with humidistat, proportional control as an option
Capacity limitation:	manually, from 20–100% with a potentiometer

### Advantages:

- Ready to connect OEM humidifier thanks to wired control box
- Pluggable proportional adaptor for continuous control from 20–100% capacity (option)
- Efficient drainage operations
- Removable drainage strainer enables an easy flushing of the cylinder
- Current transformer fitted on electronic control unit

### Technical specifications:

Type mark	Type	424	434	824	834	1334	1534	
Heating voltage	V	400 V, 50/ 60 Hz						
Number of phases	~	1	3	1	3	3	3	
Heating current	A	7.6	4.4	15.2	8.8	14.3	16.5	
External fuses p.phase	A	16	10	25	16	20	25	
Type mark	Type	222	422	432	822	832	1332	1532
Heating voltage	V	230 V, 50/ 60 Hz						
Number of phases	~	1	1	3	1	3	3	3
Heating current	A	6.6	13.2	7.6	26.4	15.3	24.8	28.6
External fuses p.phase	A	10	20	16	40	25	40	40
<b>Steam output</b>	<b>kg/h</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>8</b>	<b>13</b>	<b>15</b>
Minimum capacity	kg/h steam	0.4	0.8	0.8	1.6	1.6	2.6	3
Nominal power	kW	1.5	3.0	3.0	6.1	6.1	9.9	11.4
<b>Steam hose</b>								
∅ 22 / 29 mm	qty x m	1	1	1	1	1	1	
∅ 35 / 43 mm	qty x m							1
<b>Condensate hose</b>								
∅ 6 / 10 mm	qty x m	1	1	1	1	1	1	1

## 3. Options for OEM 3000 K, types LE and CB

- Proportional adaptor OEM 3000 codable for 0-10V, 0-16V, 0-20V, 2-10V, 0-5V, 1-5V, 0-2V, 0-20mA, 4-20mA, potentiometer min. 135 Ohm
- Step adapter OEM 3000 for 2, 3 or 4 steps
- 0.6 meter flexible hose G 3/4" x 3/8" for water intake
- Various connection nipples for water intake

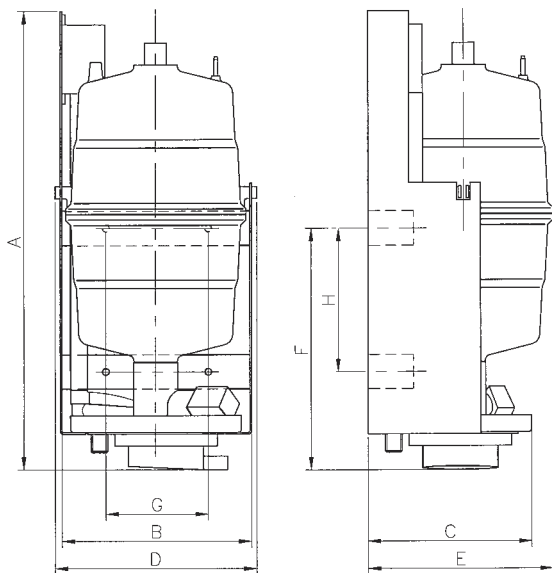
## 4. Installation and operating instructions



All installation and electrical work must be performed by trained personnel. The customer is responsible for verifying their qualifications. For electrical or maintenance work, all power to the humidifier (heating and control voltage) must be switched off.

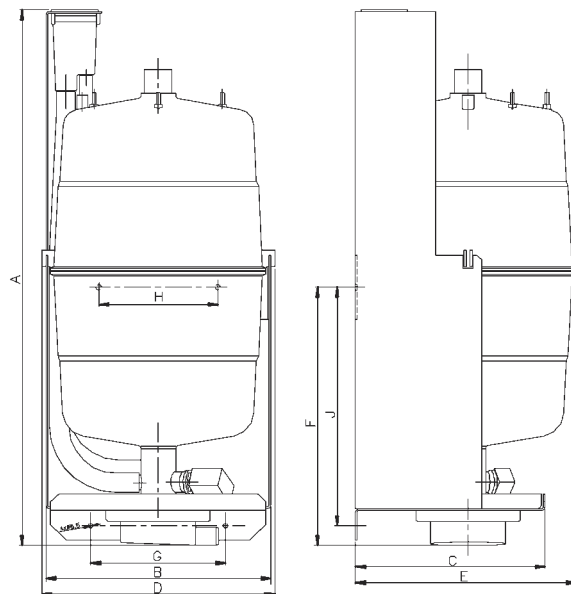
### 4.1 Dimensions of the water assemblies (mm)

2-13 kg/h



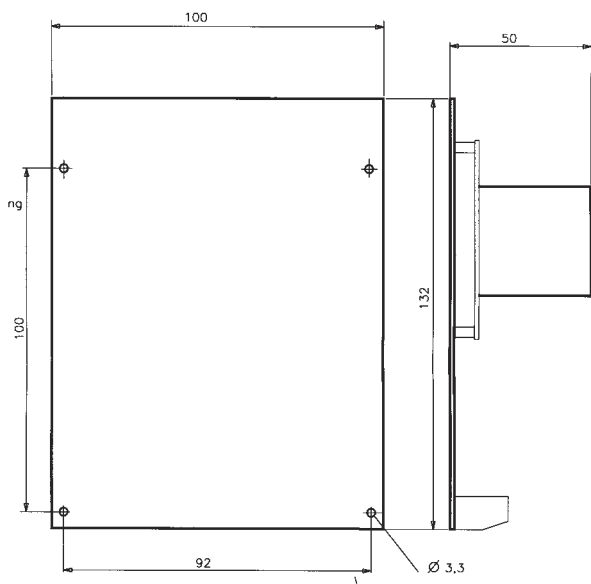
Type	A	B	C	D	E	F	G	H
OEM 2	350	202	167	170	172	253	100	—
OEM 4	415	202	167	170	172	253	100	—
OEM 8	485	212	167	216	191	253	100	—
OEM 13	515	245	192	258	216	268	120	160

15-65 kg/h

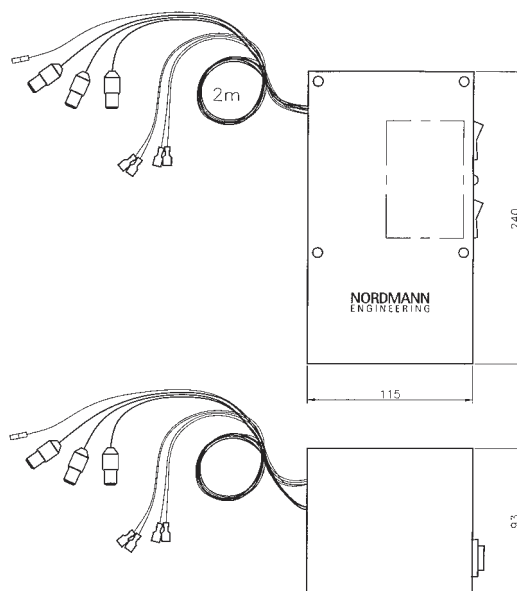


Typ	A	B	C	D	E	F	G	H	J
OEM 15 OEM 23	580	275	210	286	270	285	180	150	258
OEM 32 OEM 45 OEM 65	670	330	237	342	326	322	220	220	295

### 4.2 Dimensions of the electrical parts (mm)



electronic control unit



control box

## 4.3 Fitting the OEM humidifier

We recommend that you fit the humidifier as near as possible (approx. 2 m) to the steam distribution pipe. The steam hose must be protected from kinking and deformities. The steam hose should be the original steam hose supplied by NORDMANN. It is equally important to avoid condensation pockets in the hose. Any curves should have as large a radius as possible.

## 4.4 Water intake and drainage

Please observe local regulations concerning the connection of appliances to the pressure and drainage systems. Operation with normal tap water only. If you intend using treated or demineralized water, consult your NORDMANN representative or the factory beforehand. Water pressure for direct connection: 1–10 bar (0.1–1.0 MPa). We recommend to feed the drainage hose directly into an open funnel in order to guarantee a trouble-free drainage.

## 4.5 Electrical connections



The electrical connections of the control and the heating voltage must be performed by trained personnel. The connections have to be realized according to the wiring diagrams delivered with the OEM humidifier.

For type LE (with separate electronic control unit) a heating cable must be run through the opening of the current transformer (refer to wiring diagram) in order to ensure the current measurement.

For type LE with 24V control voltage, the joined sensor adaptor must also be connected according to the wiring diagram.

**The recommended external fuses per phase are listed in the technical specifications in paragraph 1 and 2.**

## 4.6 Putting the humidifier into operation

After the steam hose, water feed pipe, drainage pipe and electrical cables have all been correctly connected, the OEM humidifier can be put into operation. For types CB, the On/Off switch must be switched on. As soon as the humidistat or the humidity controller demands humidification, the contactor switches on the heating current and soon after, water is fed into the steam cylinder, whereupon fully automatic operation commences. The message-LED lights up green continuously. During the start-up phase, or after a new replacement cylinder has been fitted, the maximum level can be reached. This is a normal occurrence. The length of this phase can differ; it lasts until the cylinder has reached a sufficient concentration.

## 4.7 Cleaning and replacing the steam cylinder



**Before commencing, switch off all power to the humidifier and disconnect the unit from the mains.**

The service life of the steam cylinder depends on both the hours run and the hardness of the water used. We recommend to periodically (every 200–300 hours) flush the cylinder with tap water in order to increase its lifetime. Whenever the message-LED lights up green blinking, the unit can still be run for some days before you need to replace the steam cylinder.

### **Procedure for replacing the steam cylinder**

- Open the drainage valve using the manual drainage button/switch until the cylinder is completely empty. Let the cylinder cool down.
- Disconnect now the control voltage
- Replace the old cylinder by a new one
- Connect the electrode plugs according to the colour dots
- Close the drainage valve and start the humidifier

## 4.8 Messages of operation and deviations via two-colour LED

- |                                 |                                                       |
|---------------------------------|-------------------------------------------------------|
| • green continuous              | steam production                                      |
| • red flash in green            | niveau max. sensor attained                           |
| • red-green, red-green flashing | manual drainage open                                  |
| • green flashing                | cylinder service or exchange*                         |
| • red continuous                | overcurrent*                                          |
| • red flashing                  | absence of water or heating phase*                    |
| • red-red, green-green flashing | electronic control unit not coded (after replacement) |

Resetting by Off/on switching of the unit.

\*These messages are also indicated by the remote indication relay.

Nordmann Engineering AG

✉ Postfach / P.O. Box, CH-4143 Dornach 1 / Switzerland

🏠 Bruggfeldweg 11, CH-4147 Aesch / Switzerland

Tel. +41 61 467 76 66

Fax +41 61 467 76 77

E-mail: [info@nordmann-engineering.com](mailto:info@nordmann-engineering.com)

Internet: [www.nordmann-engineering.com](http://www.nordmann-engineering.com)

**NORDMANN**  
ENGINEERING