



# Virtuoso VE

Electro Boiler  
Humidification

Distributor:

**HUMIDITY**  
SOLUTIONS

Get in touch for more information

01372 571200

[humiditysolutions.co.uk](http://humiditysolutions.co.uk)

[info@humiditysolutions.co.uk](mailto:info@humiditysolutions.co.uk)

**Vapac**



# Virtuoso VE

## Electro **Boiler** Humidification

VIRTUOSO VE incorporates an intelligent combination of feeding, boiling and draining to operate efficiently, minimising wastage of water and energy. The unique Pulsed Energy control provides infinitely variable steam output from 8% up to 100% of full capacity.

The unit features a touch screen display panel which is designed with user interaction in mind. It is easy for the user or engineer to gain instant information about the performance of the humidifier.

### Room Distribution Unit (RDU)

An optional room distribution unit is available for models up to 9 Kg/hr (VE05-1P, VE09-1P and VE09-3P); being ideal for applications where air handling units or ducts are unavailable. The RDU can be either directly fixed to the humidifier or remote mounted within the room.



**Energy Efficient** - fully automatic water concentration and foam control software minimise water consumption whilst maintaining consistent performance throughout the cylinder's life.

**Simple Integration** - via touchscreen display including connection via Modbus.

**Precise Steam Production** - built in Proportional + Integral controller as standard.

**Advanced Foaming Control** - the unit detects and manages foam, optimising water level control.



### STEAM OUTPUT+ELECTRICAL REQUIREMENTS

| Model   | Max Steam Output (kg/hr) | Number of cylinders and steam outlets | Dia of Steam Outlets (mm) | Voltage (V) | Electrical Supply | Max Power Rating (kW) | FLC Range per Cylinder (A) | Max Fuse Rating Range (A) |
|---------|--------------------------|---------------------------------------|---------------------------|-------------|-------------------|-----------------------|----------------------------|---------------------------|
| VE05-1P | 5                        | 1                                     | 35                        | 230         | 1 phase           | 3.78                  | 19.5                       | 32                        |
| VE09-1P | 9                        | 1                                     | 35                        | 230         | 1 phase           | 6.76                  | 35.5                       | 63                        |
| VE09-3P | 9                        | 1                                     | 35                        | 400         | 3 phase           | 6.79                  | 20.5                       | 32                        |
| VE18-3P | 18                       | 1                                     | 35                        | 400         | 3 phase           | 13.48                 | 23.5                       | 32                        |
| VE30-3P | 30                       | 1                                     | 54                        | 400         | 3 phase           | 22.38                 | 39.0                       | 50                        |
| VE45-3P | 45                       | 1                                     | 54                        | 400         | 3 phase           | 33.85                 | 59.0                       | 80                        |
| VE60-3P | 60                       | 2                                     | 54                        | 400         | 2 x 3 phase       | 2 x 44.81             | 2 x 36.5                   | 2 x 50                    |
| VE90-3P | 90                       | 2                                     | 54                        | 400         | 2 x 3 phase       | 2 x 67.50             | 2 x 55.0                   | 2 x 80                    |

It is possible for the units to be operated at differing voltages to those stated above; if required, this should be set by the service engineer at the time of commissioning. Full details are given in the separate service engineers manual.

All 3 phase measured at 400V

# Virtuoso VE

## Electrode Humidification

### FEATURES

**7 Capacities** 5 - 90 Kg/hr steam generation

**Close Control + Comfort Control from one version** Pulsed Energy control (8 - 100%)

**Electrical Supply Options** 400v 3 phase (VE09 to VE90)  
230v 1 phase (VE05 and VE09 only)

**User Display** User friendly touch screen giving operational status and access to service, engineers and commissioning modes

**Control Features** Can be controlled directly from a duct or room mounted humidity sensor (by others) or an external demand signal (e.g. from a BMS)

**Control Network** Can be connected to BMS systems (BACnet and Modbus compatible)

**Run and Alarm Interface** Volt free contact (VFC) interfaces

#### Drain Pump

Positive removal of scale from cylinder reducing maintenance frequency

#### Steam Accessories

Steam hose  
Steam distribution pipes  
Condense separators

#### Optional Accessories

Range of disposable and cleanable steam cylinders to suit all types of mains water qualities  
Range of different length steam distribution pipes  
Controlling room and duct sensors  
High limit humidistats and pressure differential switches for safety interlock  
Room distribution units for direct air applications

**A full range of compatible accessories is available on request**

### TECHNICAL DATA

| Operating Limits   | Water Supply  | Water and Drain Connections                   |
|--|---|---|
| Ambient Air Temperature 5°C to 35°C<br>Supply Water Temperature 1°C to 30°C<br>Duct Pressure: +2000 to -600 Pa | Conductivity: 100 to 1000µs/cm   pH: 7.3 to 8.0<br>Supply Pressure: 1.5 to 8.0 bar<br>Hardness: 50 to 500 ppm | Supply Water: ¾" BSP<br>Drain Outlet: 35mm OD |

### DIMENSIONS+WEIGHTS

| Model       | Cabinet Size | Dimensions  |            |            | Dry Weight (kg) (*2) | Wet Weight (kg) (*3) | Connections    |               |
|-------------|--------------|-------------|------------|------------|----------------------|----------------------|----------------|---------------|
|             |              | Height (mm) | Width (mm) | Depth (mm) |                      |                      | Water (BSP OD) | Drain (mm OD) |
| VE05-1P     | A            | 730 (*1)    | 505        | 335        | 27.1                 | 32.6                 | ¾"             | 35            |
| VE09-1P/-3P | A            | 730 (*1)    | 505        | 335        | 27.1                 | 34.1                 | ¾"             | 35            |
| VE18-3P     | A            | 730         | 505        | 335        | 27.1                 | 38.6                 | ¾"             | 35            |
| VE30-3P     | B            | 815         | 595        | 430        | 34.8                 | 62.8                 | ¾"             | 35            |
| VE45-3P     | B            | 815         | 595        | 430        | 34.8                 | 62.8                 | ¾"             | 35            |
| VE60-3P     | C            | 815         | 1050       | 430        | 56.1                 | 112.1                | 2 x ¾"         | 35            |
| VE90-3P     | C            | 815         | 1050       | 430        | 56.1                 | 112.1                | 2 x ¾"         | 35            |

(\*1) Unit height for VE05/09 with optional RDU fitted is 950mm

(\*2) Dry weight is the weight of the unit as delivered

(\*3) Wet weight is the weight of the unit in operation (i.e. filled with water)

# Virtuoso VE

Electrode **Boiler**  
Humidification

GB/APAC/VIRTUOSO VE/001/0324



**Vapac**

MADE IN BRITAIN

Manufactured by

**NGH**  
NORTEK GLOBAL HVAC™