## Forced Convection Ovens (Programmable / General)

Specially designed for large volume and fast drying application. (max. 760L and 300℃)

Offering rapid heating performance as well as uniform temperature distribution, these heavy-duty ovens are ideal for obtaining quick test results.







# OF3-75P(HP), OF3-75(H)

with optional viewing window

Standard accessories

**Optional accessories** see page 112

- Wire shelves (2ea for 314L chambers, 3ea for 450/760L chambers)
- · Perforated shelves
- Digital recorders
- Gateway

#### Programmable model (OF3-P/PH) for intelligent program control





- 10 programs available for temperature ramp up and dwell control.
- 10 steps per a program and 99 hours 59 minutes per a step.
- · Stored programs are easily linkable.
- · Programs can be repeated up to 99 cycles.
- Pre-heating and heating time are settable before program starts.

### General model (OF3/H)

### for simple and quick control



Bright VFD display and quick adjustable dial knob

- · Designed for offering the simplest control by user-friendly control panel.
- · Set value and present value are shown on display at once.
- Easy adjustable knob for convenient set values and select functions.
- · Intuitive heating level indication bar.



















#### **Performance**

- Rapid heating performance up to maximum 300℃
- · Microprocessor PID control.
- Three point temperature calibration / Automatic tuning.
- Forced air convection generated by two noiseless and powerful sirocco fans ensures optimal air circulation, temperature uniformity, and short heat-up time.
- · Adjustable dual slide vents for inner vapor circulation.
- Energy efficiency is achieved thanks to optimization of the insulation system.
- Even if the unit is operating at max. temperature, the surface of the unit doesn't allow high temperatures.

#### Convenience

- Optimum model selection is available according to two different types of control panel.
- Intuitive touch screen LCD controller with easy icons and logical menus. (for OF3-P/HP)
- Bright VFD display with quick adjustable dial knob. (for OF3/H)
- Dual wait on/off timer modes. (1 min. to 99 hr. 59 min.)

- Convenient presetting function for 3 most commonly used temperature settings.
- Rounded inner chamber corners for easy cleaning and optimal airflow.
- Threefold tempered-glass window provides clear inside view of the chamber. (optional)
- USB port and RS-232 port for external control and data collection.
- · Casters for easy mobility during installation or relocation.

### Safety

- · Automatic run after power interruption.
- Over-current protection.
- · Triple independent temperature monitor system.
- Temperature deviation alarm (High/Low)
- Electronic temperature limiter (High/Low)
- Mechanical over-temperature limiter (High)
- Alarms for open door status, temperature sensor error and temperature deviation.
- Keypad lock function prevents accidental changes during operation.

| Programmable Model                         |   | OF3-30P                           | OF3-45P                                  | OF3-75P                                  | OF3-30HP                          | OF3-45HP                                 | OF3-75HP                                  |
|--|---|-----------------------------------|--|--|-----------------------------------|--|---|
| Chamber volume (L / cu ft)                 |   | 314 / 11.1                        | 450 / 15.9                               | 760 / 26.8                               | 314 / 11.1                        | 450 / 15.9                               | 760 / 26.8                                |
| Temperaure                                 | Range (℃ / ℉)   | Amb. +10 to 200 / Amb.+18 to 392  |  |  | Amb. +10 to 300 / Amb.+18 to 572  |  |   |
|  | Fluctuation 1) at 100°C (±°C / °F)                    | 0.2 / 0.36                        |  |  | 0.2 / 0.36                        |  |   |
|  | Variation 1) at 100°C (±°C / °F)                      | 2.0 / 3.60                        | 2.2 / 3.96                               | 2.5 / 4.50                               | 2.0 / 3.60                        | 2.2 / 3.96                               | 2.5 / 4.50                                |
| Dimension<br>(WxDxH)                       | Interior (mm / inch)                                  | 645×750×650<br>/ 25.4×29.5×25.6   | 645×750×930<br>/ 25.4×29.5×36.6          | 745×850×1200<br>/ 29.3×33.5×47.2         | 645×750×650<br>/ 25.4×29.5×25.6   | 645×750×930<br>/ 25.4×29.5×36.6          | 745×850×1200<br>/ 29.3×33.5×47.2          |
|  | Exterior (mm / inch)                                  | 850x1100x1235<br>/ 33.5x43.3x48.6 | 850x1100x1525<br>/ 33.5x43.3x60          | 950x1200x1785<br>/ 37.4x47.2x70.3        | 850x1100x1235<br>/ 33.5x43.3x48.6 | 850x1100x1525<br>/ 33.5x43.3x60          | 950x1200x1785<br>/ 37.4x47.2x70.3         |
|  | Net weight (Kg / lbs)                                 | 200 / 440.9                       | 240 / 529.1                              | 300 / 661.4                              | 200 / 440.9                       | 240 / 529.1                              | 300 / 661.4                               |
| Shelves                                    | No. of wire shelf (standard / max.)                   | 2/5                               | 3/8                                      | 3 / 11                                   | 2/5                               | 3/8                                      | 3 / 11                                    |
|  | Max. load per shelf (kg / lbs)                        | 25 / 55.1                         |  |  | 25 / 55.1                         |  |   |
| Electrical requirements (230V, 50/60Hz, A) |   | 1P, 13.2 A                        |  |  |                                   |  |   |
| Cat No.                                    | Solid door  | AAH18615K                         | -  | -  | -                                 | -  | -   |
|  | Window door   | AAH18715K                         | -  | -  | -                                 | -  | -   |
| Electrical requirements (380V, 50Hz)       |   |                                   | 3P, 6.7 A                                | 3P, 9.0 A                                | 3P, 6.7 A                         | 3P, 9.0 A                                | 3P, 10.8 A                                |
| Cat No.                                    | Solid door  | -                                 | AAH186214K                               | AAH186314K                               | AAH196114K                        | AAH196214K                               | AAH196314K                                |
|  | Window door   | -                                 | AAH187214K                               | AAH187314K                               | AAH197114K                        | AAH197214K                               | AAH197314K                                |
|  | General Model   | OF3-30                            | OF3-45                                   | OF3-75                                   | OF3-30H                           | OF3-45H                                  | OF3-75H                                   |
| Chamber volume (L / cu ft)                 |   | 314 / 11.1                        | 450 / 15.9                               | 760 / 26.8                               | 314 / 11.1                        | 450 / 15.9                               | 760 / 26.8                                |
| Temperaure                                 | Range (℃ / ℉)   | Amb. +10 to 200 / Amb.+18 to 392  |  |  | Amb. +10 to 300 / Amb.+18 to 572  |  |   |
|  | Fluctuation 1) at 100°C (±°C / °F)                    | 0.2 / 0.36                        |  |  | 0.2 / 0.36                        |  |   |
|  | Variation 1) at 100°C (±°C / °F)                      | 2.0 / 3.60                        | 2.2 / 3.96                               | 2.5 / 4.50                               | 2.0 / 3.60                        | 2.2 / 3.96                               | 2.5 / 4.50                                |
| Dimension<br>(WxDxH)                       | Interior (mm / inch)                                  | 645×750×650<br>/ 25.4×29.5×25.6   | 645×750×930<br>/ 25.4×29.5×36.6          | 745×850×1200<br>/ 29.3×33.5×47.2         | 645×750×650<br>/ 25.4×29.5×25.6   | 645×750×930<br>/ 25.4×29.5×36.6          | 745×850×1200<br>/ 29.3×33.5×47.2          |
|  | Exterior (mm / inch)                                  | 850x1100x1235<br>/ 33.5x43.3x48.6 | 850x1100x1525<br>/ 33.5x43.3x60          | 950x1200x1785<br>/ 37.4x47.2x70.3        | 850x1100x1235<br>/ 33.5x43.3x48.6 | 850x1100x1525<br>/ 33.5x43.3x60          | 950x1200x1785<br>/ 37.4x47.2x70.3         |
|  | Net weight (Kg / Ibs)                                 | 200 / 440.9                       | 240 / 529.1                              | 300 / 661.4                              | 200 / 440.9                       | 240 / 529.1                              | 300 / 661.4                               |
| Shelves                                    | No. of wire shelf (standard / max.)                   | 2/5                               | 3/8                                      | 3 / 11                                   | 2/5                               | 3/8                                      | 3 / 11                                    |
|  |   | 25 / 55.1                         |  | 25 / 55.1                                |                                   |  |   |
|  | Max. load per shelf (kg / lbs)                        | 25 / 55.1                         |  |  | 25 / 55.1                         |  |   |
| Electrical req                             | uirements (230V, 50/60Hz, A)                          | 25 / 55.1<br>1P, 13.2 A           |  |  | 25 / 55.1                         |  |   |
| ·  |   |                                   | -  | -  | 25 / 55.1                         | -  | -   |
| Electrical requestions Cat No.             | uirements (230V, 50/60Hz, A)                          | 1P, 13.2 A                        | -  | -  | -                                 | -  | -   |
| Cat No.                                    | uirements (230V, 50/60Hz, A) Solid door               | 1P, 13.2 A<br>AAH18215K           | -<br>3P, 6.7 A                           | -<br>3P, 9.0 A                           | 25 / 55.1<br>-<br>-<br>3P, 6.7 A  | -<br>-<br>3P, 9.0 A                      | -<br>-<br>3P, 10.8 A                      |
| Cat No.                                    | uirements (230V, 50/60Hz, A)  Solid door  Window door | 1P, 13.2 A<br>AAH18215K           | -<br>-<br>3P, 6.7 A<br><b>AAH182214K</b> | -<br>-<br>3P, 9.0 A<br><b>AAH182314K</b> | -                                 | -<br>-<br>3P, 9.0 A<br><b>AAH192214K</b> | -<br>-<br>3P, 10.8 A<br><b>AAH192314K</b> |

<sup>1)</sup> Technical data according to DIN 12880.

<sup>\*</sup> CE for 380V, 50hz. \* FDA establishment registered company. FDA listed products.