# Industrial Fine Oven 500 deg.C, Forced Convection

|                                   |                             | DH650               |  |
|-----------------------------------|-----------------------------|---------------------|--|
|                                   | m 11 - 11 - 1               | <b>T</b> . <b>1</b> |  |
| Operating temp. range             | Temp. distribution accuracy | Internal capacity   |  |
| Room temp. +10 deg.C to 500 deg.C | +/-5 deg.C (at 500 deg.C)   | 216L                |  |

A high temperature fine oven for heating at up to 500 deg.C



- A fine oven with the highest heating temperature 500 deg.C.
- Allows quick cooling in the unit with the exhaust damper.
- Four-fold overheat preventive functions (automatic overheat prevention, heater room overheat prevention, overheat prevention in the bath, and temperature fuse) assure the optimal safety. The product also facilitates the self diagnostic function, the alarm history monitoring function, the key lock function and an over-current electric leakage breaker.
- Abundant functions (external communication that supports RS485/FORWARD, external alarm, time-up, output on the logger) allow upgrading of the system according to the specific application.

| Specifications                       |   |  |  |
|--------------------------------------|---|--|--|
| Product code                         | 211140  |  |  |
| Model                                | DH650   |  |  |
| System                               | Forced convection   |  |  |
| Performance <sup>*1</sup>            |   |  |  |
| Operating temp.<br>range             | Room temp. +10 deg.C to 500 deg.C   |  |  |
| Temp. adjustment<br>accuracy         | +/-0.2 deg.C (at 360 deg.C)   |  |  |
| Temp. distribution accuracy          | +/-3 deg.C (at 300 deg.C), +/-5 deg.C (at 500 deg.C)  |  |  |
| Time to attain max. temp.            | 60 min.   |  |  |
| Configuration                        |   |  |  |
| Interior/external<br>material        | Stainless steel plate 2t/electrogalvanized steel (epoxy/melamine coated)  |  |  |
| Heater/heat<br>insulator             | SUS pipe, glass wool, ceramic fiber   |  |  |
| Heater capacity                      | 7.8 kW  |  |  |
| Fan                                  | Propeller fan   |  |  |
| Fan motor                            | Condenser motor 20W   |  |  |
| Exhaust port                         | I.D. 50 mm (with damper) One on the back rear   |  |  |
| Heater control                       | SSR control   |  |  |
| Sensor                               | K-thermocouple (both for temperature controller and overheat preventive unit)   |  |  |
| Damper                               | Manual convection and ventilation   |  |  |
| Function                             |   |  |  |
| Safety functions                     | Self diagnostic function (temp. sensor error, heater disconnection, SSR short-circuit, automatic overheat prevention, and other functions of CR5) key lock, program lock, independent overheat protection within the bath, independent heater room overheat prevention, over-current electric leakage breaker, temp. fuse, alarm terminal |  |  |
| Other functions                      | Standard functions: RS485 external communication (supports FORWARD),<br>external alarm, time-up, and output on the logger   |  |  |
| Standards                            |   |  |  |
| Power supply<br>(50/60Hz)            | Three phase: AC200V, 23A  |  |  |
| Internal capacity                    | 216 L   |  |  |
| External dimensions <sup>*2</sup>    | 1,350 x 950 x 1,300 mm (W x D x H)  |  |  |
| Internal dimensions                  | 600 x 600 x 600 mm (W x D x H)  |  |  |
| Equipment weight                     | Approx. 250 kg  |  |  |
| Shelves (included)                   | Stainless steel wire x 3, shelf pegs x 6  |  |  |
| Shelf loading                        | Approx. 30 kg/each  |  |  |
| Number of shelf<br>steps/shelf pitch | 9 steps/60mm  |  |  |

\*1 Conditions: Temperature and humidity: 23 deg.C+/-5 deg.C, 65%RH+/-20% (no load) \*2 External dimensions do not include protrusions.

### Control panel CR5

#### **Major functions**

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# **Operation** modes

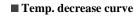
- 1. Fixed operation
- 2. Fixed auto stop operation
- 3. Fixed quick auto stop operation
- 4. Fixed auto start operation
- 5. Program operation
- 6. Program auto start operation

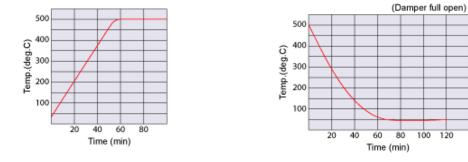
#### Useful functions

Wind amount adjustment function (10 steps) Automatic open/close damper function Display switching during operation Heater output operation amount display Program name setting

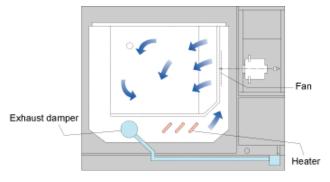
- Operation guide function, etc.

### Temp. rise curve





## Construction diagram



# ■ Shelf (stainless steel wire)



### Optional items

| Description  |       | Product Code |
|--|-------|--------------|
| RS485-232C conversion adaptor  | DH650 | 281126       |
| Application software FORWARD   | DH650 | 281501       |
| Wire shelf/shelf peg   | DH650 | 211064       |
| Cable port of I.D. 25 mm   | DH650 | 281508       |
| Cable port of I.D. 50 mm   | DH650 | 281509       |
| RM hybrid recorder (6 Ch)  | DH650 | 281017       |
| PHR video chart recorder (6 Ch)                                      | DH650 | 281019       |
| T-thermocouple sensor for recorder 2m                                | DH650 | 281554       |
| T-thermocouple sensor for recorder 2m (with calibration certificate) | DH650 | 281555       |

#### Dimensional drawing (mm)

