2022 HY20 INTELLIGENT TOUCH SCREEN HOT RUNNER CONTROLLER

TOPOWER™
Topower Electronic Technology Co.,Ltd
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Product Introduction

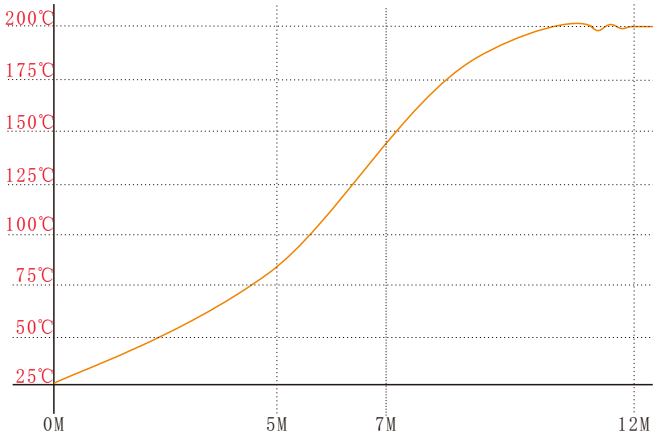
Functions&Features of HY20 series

- Easy-using Men-machine interface
- Linkage automatic heat preservation of injection molding
- Temperature data import and export function
- Temperature display of ambient internal
- LAN network control (Optional)
- Work signal indicator monitoring
- New humanized design with better coating process
- Excellent heat dissipation design
- Free-tool maintenance
- Dust-proof structure design
- Multi-language supporting
- Temperature record storage and viewing

All the hot runner controller of Topower choose FUZZY PIDD control technical, it suit for any heating model automatically without any tuning parameter and improve the work efficiency.

- Sensing--10 times sampling frequency per second, the hot runner controller can test thermocouple precisely.
- Controlling- If the temperature deviation over 0.5℃ of setting temperature, FUZZY PIDD algorithm will adjust automatically. The PID2 second derivative can monitor the changing rate of real temperature , it can limit or remove the redundant or insufficient by adjusting the heating output.
- Start-up---Choosing phase start-up output, it can reach final limitation via linear, precise output proportion of each heater.

Heating Curve Diagram



Notice: The heating curve testing parameter is heating power is 300W, setting temperature is 200℃ and other default function parameter.

New External Radiating Design

The module adapts high-pressure cast aluminum alloy as the external radiating parts, the surface is treated with cathode black oxidation to improve heat absorption and heat dissipation efficiency and enhance the stability and reliability of hot runner controller module.

Reasonable Circuit Design

All PCD inner the cabinet are choose high-end black PCB printing, it can effectively prevent insulation deterioration and corrosion caused by external environmental factors such as dust and moisture. The strong current and weak current inside the cabinet are laid out separately, so that the system has better anti-interference ability and runs more stable.

Free-tool Screws Maintenance

HY20 adapts tool-free thumb screws and plug-in module design, the device can be maintained without any tools.

Function Instruction

Convenient operation.(Graphical human-machine interface)

There is difference between actual operation and industry specification. The HY20 graphical human-machine interface design make the user to operate more easily.

Newest Appearance Design

Topower adhere to the design concept of people oriented. From the whole structure to each small screws, dedicate , convenient details display in everywhere.

Good Radiating Design

Compare to the other model, the radiating size of HY20 is about 20% larger. Large area external aluminum radiating module and fans make the inner temperature within reasonable range, it can keep the device be stable and longer service life.

Auto Insulation Function

The hot runner controller can monitor the operation of injection molding machine according to the injection cycle time , if there is any abnormal, the hot runner controller will stop to heat and enter into insulation situation, it can reduce the risk of mold damaging and plastic material burned.

Input&Output Mold Data

The setting mold temperature data can be saved to U disk via USB port.

Remote control in LAN (optional)

Through LAN network port of the device, it can be accessed and operated remotely in the local area network.

Temperature Record Save And View

The user can save and view the heating record. It can help user to analysis the abnormal phenomenon.。

Multilingual

HY20 support language custom-made service. The present system language support Chinese and English.

Breaker Lock Function

HY20 can lock the power switch to prevent the non-professional man operation.

Dust-proof Screen

There is quick disassemble dust-proof screen in radiating port, it could isolate the dust and keep clean in the side of device.

Free-tool Screws Maintenance

HY20 adapts tool-free thumb screws, compatible with the plug-in module, it improves the maintenance efficiency and reduces the maintenance cost to the greatest extent.

Built-in Work Signal Lamp

The signal lamp color will be changed in different work situation. The user could judge the work situation according to the current signal lamp: green (normal) , red(abnormal), yellow (standby or stop).

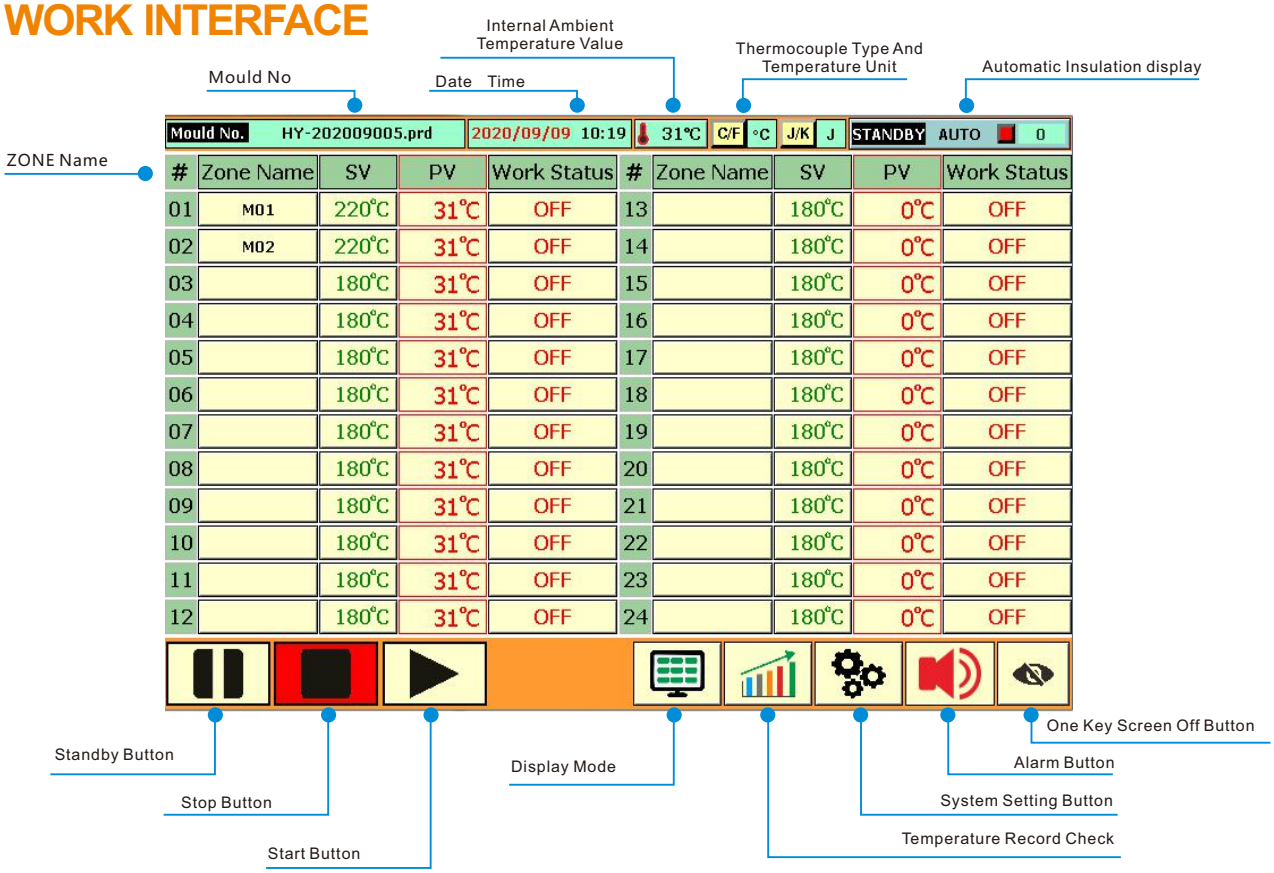
Red Light Indicating: A Red flashing and buzzer alarm;
B The steady red light indicates that the device is in shutdown state;

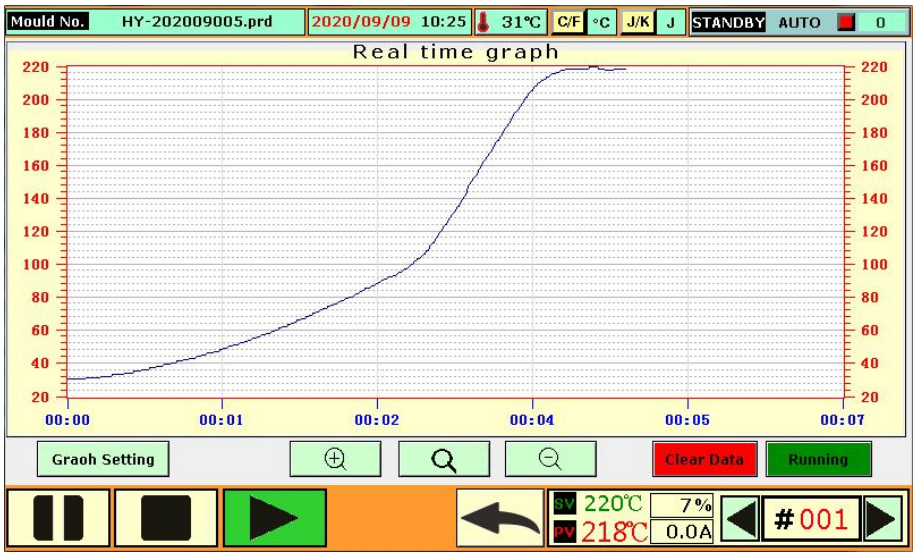
Green Light Indicating: The steady green light indicates that the device is working normally;

Yellow Light Indicating: A: Flashing yellow light indicates that the device is in standby state ;
B: The steady yellow light indicates that the device is in soft-start heating state.

Man-Machine Interface

WORK INTERFACE





WORK INTERFACE

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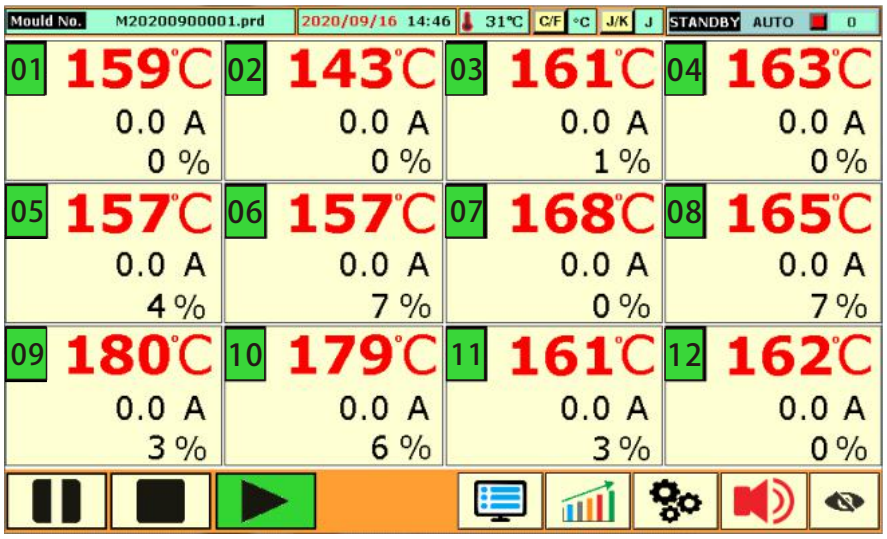
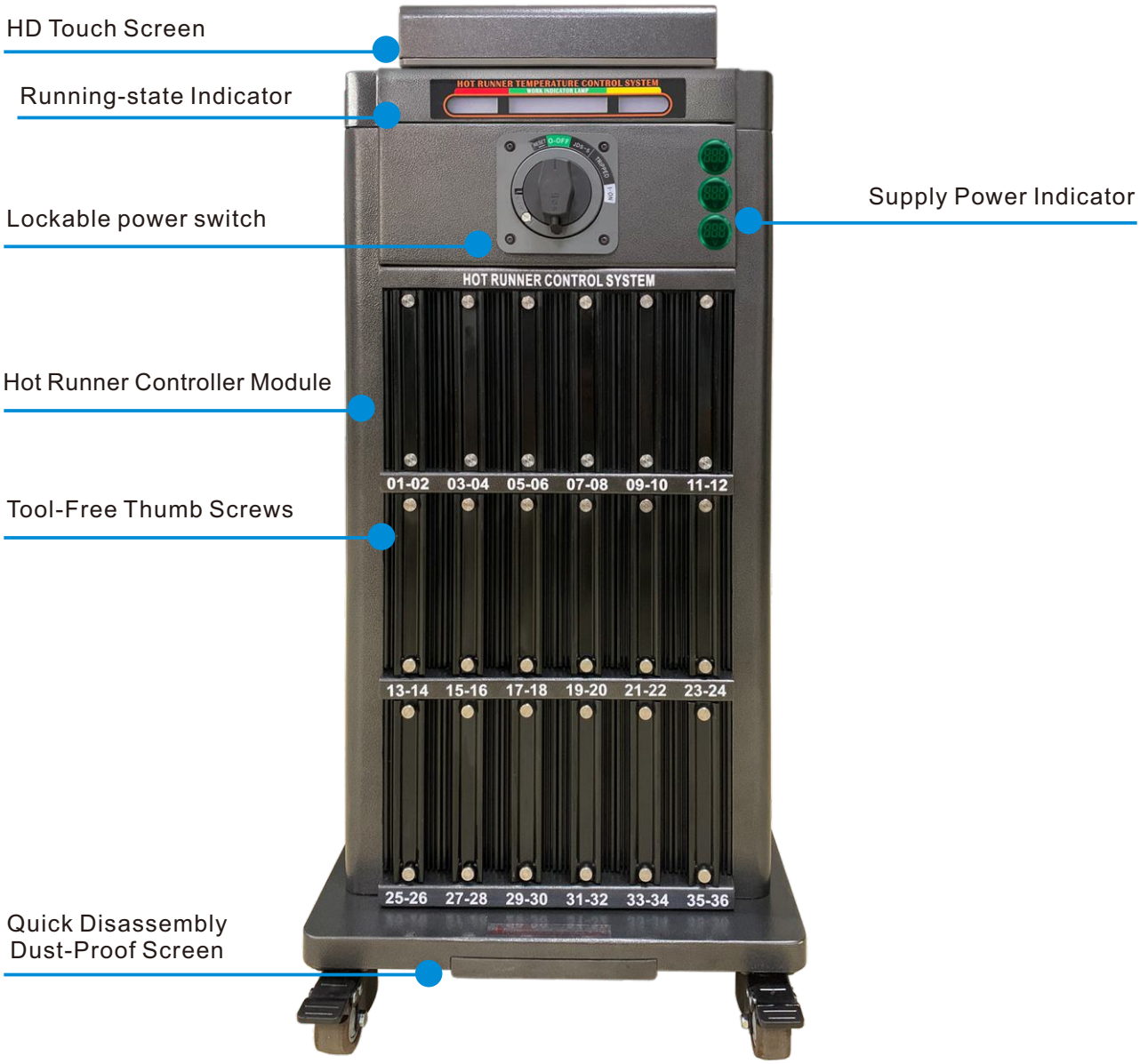
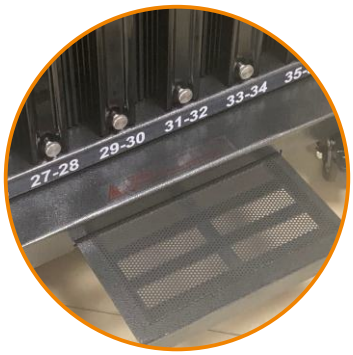


Front Side Description



Hot Runner Controller Module

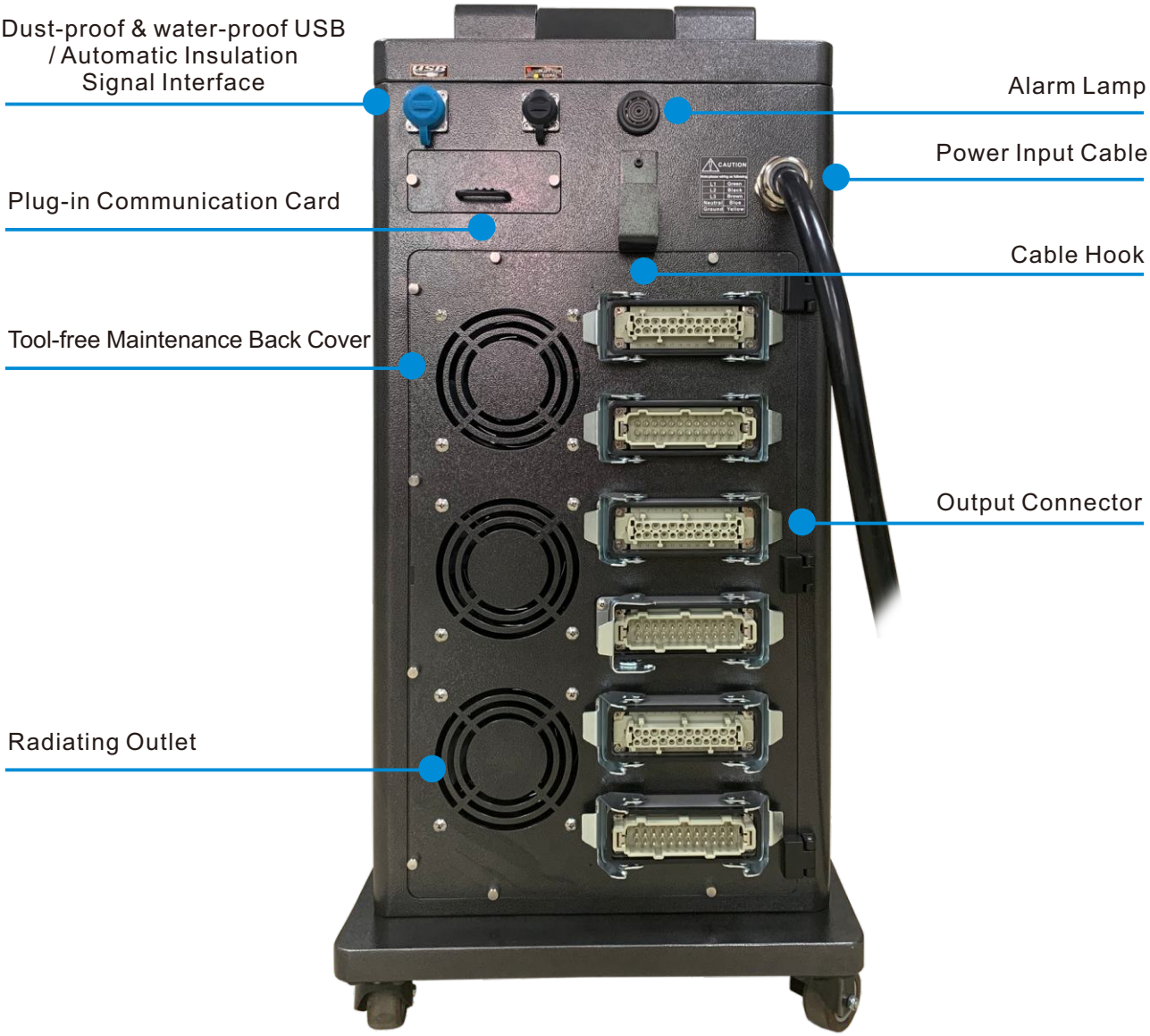


Quick Disassembly
Dust-Proof Screen

Lockable power switch

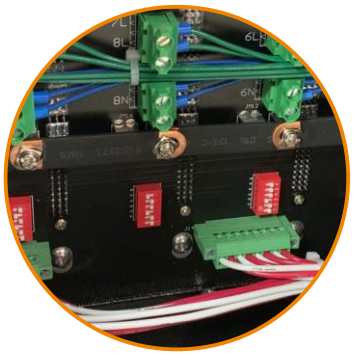
Details Display

Back Side Description



Plug-in Communication Card

Dust-proof & water-proof USB / Automatic Insulation Signal Interface



Internal Wiring Diagram

Product Specification

HY20 Product Specification

Property

Temp Control Precision： +/- 1%
Repeat Temp Control Precision: +/- 0.1%
Temp Control Stable Precision： +/- 1%
T/C Cold Junction Compensation： ≤+1℃ Temp Coefficient
Temp Control Range: K Type 45-450℃, J Type 45-450℃
Thermocouple Type : J type or K type
Temp Unit:℃/℉
Control Mode: PID /PIDD Digital Control
Sampling Frequency: 10HZ(100ms)
Thermocouple Compensation: Dynamic Tracking
Work Mode: Auto/Manual/Standby

Electric

Input Power: Three Phases Five Wires(380VAC)/ Three Phases Four Wires(220VAC)
Temperature Control Module Work Power:100-240VAC
Frequency:50-60HZ
Single Zone Output Power:3600Max(240VAC)
Single Zone Output Current: 15A MAX(240VAC)
Supply Power Protection Range: Undervoltage 175VAC , Overvoltage 275VAC
Single Zones Output Current: 15A MAX (240VAC)

Application Ambient

Relative Humidity: 10%-90%RH,Non-corrosive, No Strong Electromagnetic Radiation Occasion
Ambient Temperature: 0-55℃
Transport And Save Ambient Temperature Range:-40-70℃

Connection

Cable Standard Plug: Metal PG Or M Metric
Connector Type： HE-006\HE-010\HE-016\HE-024\H-048\DME Standard
Cable Type: Standard Cable/ J Type Temp Compensation Cable/Outer Covering Cable
Connection Cable Length: 4mt
Custom-made Service