

# Heat Load 10U Dummy Server & 40U Dummy Rack

## Introduction



Design & Manufacture

**Long Win Science & Technology Corporation**

No. 7, Shih 2nd Road, Youth Industrial Park,  
Yangmei, Taoyuan County, 32657 Taiwan.

Tel : 886-3-464-3221 Fax : 886-3-496-1307

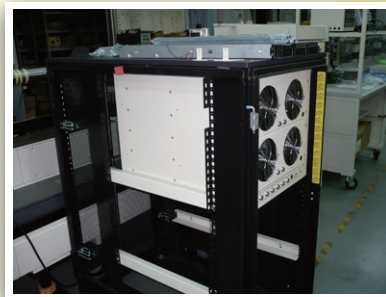
Web Site : <http://www.longwin.com>

E-mail : [longwin@longwin.com](mailto:longwin@longwin.com)

- 1** 40U dummy rack consists of 4 sets of 10U dummy server and a rack which is 42U in height. Here are 3 racks in one row.

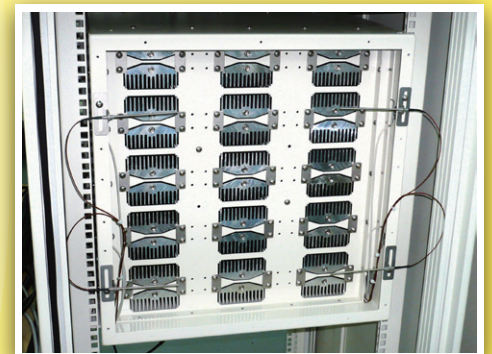


- 2** 10U Chassis with guide track, which can be installed in a standard rack. Here is a 10U dummy server installed on a 24U rack.



- 3** In a 10U dummy server, 5 sets of 800W heating unit are installed

- 3.1** – Each heating unit consists of heaters and fins
- 3.2** – Each heating unit can be modified its heating power, which resolution is 100W.
- 3.3** – Input power: AC220V, single phase, which is modulated by SCR (25A) – PWM.

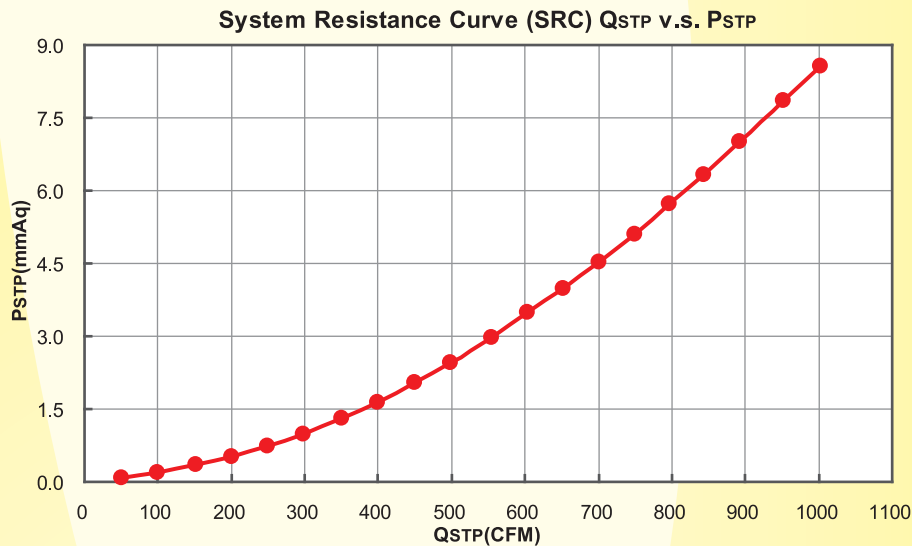


- 4** In a 10U dummy server, there are 4~6 fans in the inlet and their RPM are controlled by 1 set of PWM meter.

- 4.1** – Maximum flow rate: 1000 CFM, which is controlled by fan's voltage
- 4.2** – Flow rate resolution: 50 CFM

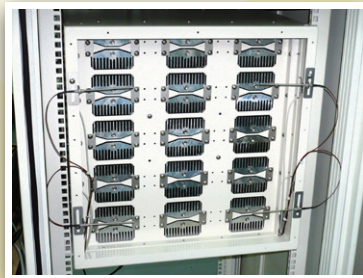


## 5 The flow rate of chassis can be calculated by System Resistance Curve.



## 6 Temperature measurement of each 10U dummy server:

- 6.1 – 12 points on the inlet
- 6.2 – 24 points on the outlet
- 6.3 – Digit display meters
  - a. Accuracy:  $\pm 0.5^{\circ}\text{C}$
  - b. Reading:  $0.1^{\circ}\text{C}$
  - c. With RS-485 interface.



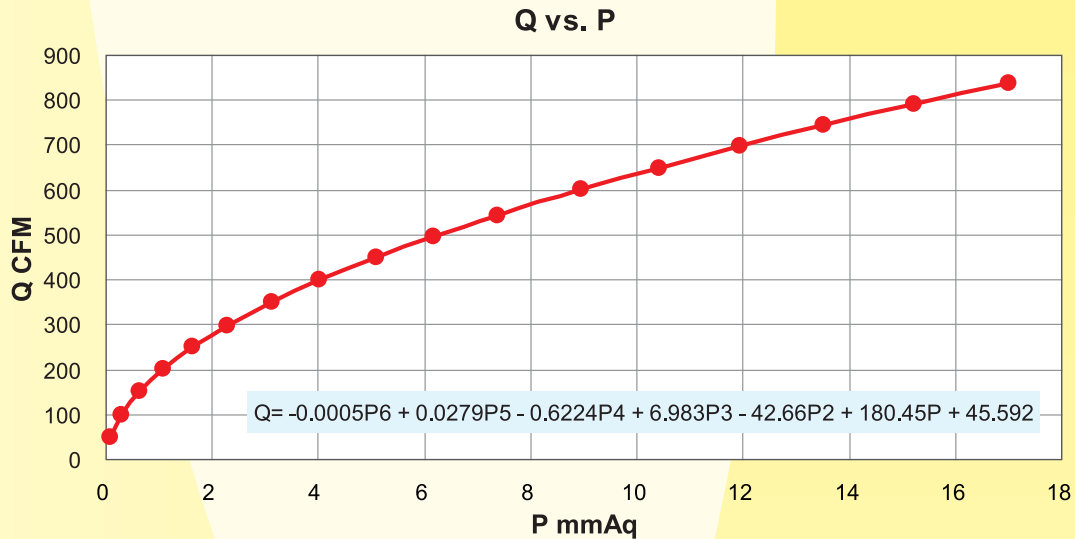
## 7 Power measurement:

- 7.1 – Voltage accuracy:  $\pm 1.0\%$
- 7.2 – Current accuracy:  $\pm 1.0\%$
- 7.3 – power accuracy:  $\pm 1.0\%$
- 7.4 – 2 sets in total; with digit display and RS-485 interface
- 7.5 – Range: 0 ~300 V and 0~5 Amp; maximum power: 1500 VA.



## 8 Pressure measurement:

- 8.1 – Accuracy of differential pressure transducer:  $\pm 0.25\%$ ; Made in USA.
- 8.2 – With digit display and RS-485 interface.
- 8.3 – Range: 0 ~ 12.7 mmAq
- 8.4 – Convert differential pressure to airflow rate

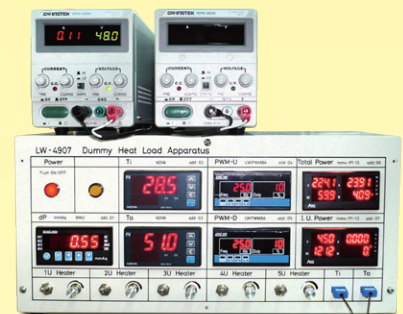


## 9 Over-heating protection (Referred temperature: 180°C)

- 9.1 – With over-current protection for digit meters.

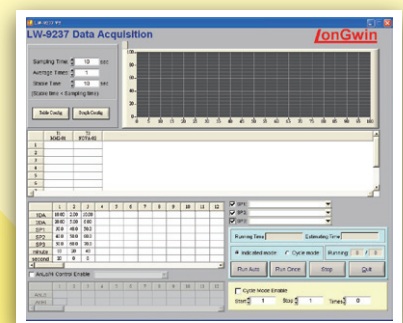
## 10 DC power supply for fan:

- 10.1 – One set of Switching Power Supply DC48V, 10A.



## 11 PC-based data acquisition software: LW-9237 Measuring parameters:

- 11.1 – heating power
- 11.2 – Differential pressure (airflow rate)
- 11.3 – Inlet temperature
- 11.4 – Outlet temperature



## 12 Power source

- 12.1 – For 10U dummy server: AC220V, single phase, 30Amp, 50 / 60 Hz
- 12.2 – For 40U dummy rack: AC220V, three phases, 70 Amp, 50 / 60 Hz.