

## - Power The World with Highest Efficiency



# ENH-2170

### Features

- **700W Output, Active PFC**
- **Protections:** OVP, OPP, SCP, OTP
- **Reliability:** MTBF 100,000 hrs @ 25°C, Full Load
- **High Efficiency:** Meet **80+ Gold** (87% @ 115Vac, Full Load)
- **Safety Approval:** cUL, Nemko, CB, CCC
- **Warranty:** 1-year manufacturer



### Input Specification

| Parameter                  | Conditions/Description                                                         | Min. | Normal  | Max. | Units |
|----------------------------|--------------------------------------------------------------------------------|------|---------|------|-------|
| Input Voltage Range        | Universal Input                                                                | 90   | 100-240 | 264  | V(ac) |
| Input Frequency Range      |                                                                                | 47   | 60/50   | 63   | Hz    |
| Input Current              | Measured at 90 Vac / 264 Vac input, full load output                           |      | 9/4.5   |      | A     |
| Inrush Current             | Measured at 50A@115Vrms / 100A@ 230Vac (25°C ambient temperature, cold start). |      |         |      | A     |
| Efficiency (Meet 80+ Gold) | Measured at 115 Vac @ Full Load                                                |      | 87      |      | %     |

### Output Specification

| Parameter            | Conditions/Description                                                      | Voltage Regulation |          |          | Ripple Noise<br>(mVp-p) | Output Current (Amps) |        |      |      |       |
|----------------------|-----------------------------------------------------------------------------|--------------------|----------|----------|-------------------------|-----------------------|--------|------|------|-------|
|                      |                                                                             | Range              | Min. (V) | Max. (V) |                         | Min.                  | Normal | Max. | Peak | Units |
| +3.3VDC              |                                                                             | +/-5%              | 3.14     | 3.47     | 50                      | 0.5                   | -      | 22   | -    |       |
| +5VDC                |                                                                             | +/-5%              | 4.75     | 5.25     | 50                      | 0.3                   | -      | 22   | -    |       |
| +12VDC               |                                                                             | +/-5%              | 11.4     | 12.6     | 120                     | 0.5                   | -      | 58   | -    |       |
| -12VDC               |                                                                             | +/-10%             | -10.8    | -13.2    | 120                     | 0                     | -      | 0.3  | -    |       |
| +5VSB                |                                                                             | +/-5%              | 4.75     | 5.25     | 50                      | 0.1                   | -      | 3.5  | -    |       |
| Voltage Hold-Up Time | Measured at 115Vac/60Hz or 230Vac/50Hz/90% load after power source removed. |                    |          |          | 17                      |                       |        |      |      | mSec  |
| Output Rise Time     |                                                                             |                    |          |          |                         |                       |        | 10   |      | mSec  |

Total combined output of +3.3V and +5V can not exceed **150W**.  
The maximum peak total DC outputs power shall not exceed **700W**.

### Environmental Specification

| Parameter             | Conditions/Description                                                       | Min.                                | Normal | Max. | Units     |
|-----------------------|------------------------------------------------------------------------------|-------------------------------------|--------|------|-----------|
| MTBF                  | Calculated via MIL-HDBK-217F @ 25°C ambient temperature , Full load, 110 Vac | 100,000                             |        |      | Hours     |
| Operating Temperature | Full load                                                                    | 0                                   |        | 50   | °C        |
| Storage Temperature   |                                                                              | -20                                 |        | 70   | °C        |
| Relative Humidity     | Non-Condensing                                                               | 5                                   |        | 95   | %         |
| Dimension             | Length x Width x Height                                                      | 200 x 100 x 70 / 7.87 x 3.94 x 2.76 |        |      | mm / inch |
| Cooling Fan           | 12VDC                                                                        | 60                                  |        |      | mm        |
| ROHS                  | European Directive 2002/95/EC                                                |                                     |        |      |           |

### Reliability Protection

| Parameter        | Conditions/Description                                   | Recovery Mode                                                 |
|------------------|----------------------------------------------------------|---------------------------------------------------------------|
| Overload         | Transit to current limit mode if output over 110% - 160% | Shut Down Output, Auto recover once reset AC power-on by user |
| Over Voltage     |                                                          | Shut Down Output, Auto recover once reset AC power-on by user |
| Short Circuit    |                                                          | Shut Down Output, Auto Recover once faults conditions removed |
| Over Temperature |                                                          | Shut Down Output, Auto Recover once faults conditions removed |

### Safety & EMC Compliance

| Category                   | Standard                       | Comment      |
|----------------------------|--------------------------------|--------------|
| SAFETY                     | cUL, Nemko, CB, CCC            | Approved     |
| EMI Conduction & Radiation |                                | Compliance   |
| Harmonic Current Emissions | EN61000-3-2                    | Compliance   |
| EMS Immunity               | Voltage Fluctuation            | EN61000-3-3  |
|                            | Electrostatic Discharge (ESD)  | EN61000-4-2  |
|                            | Radiated Susceptibility        | EN61000-4-3  |
|                            | Fast Transients / Burst - EFT  | EN61000-4-4  |
|                            | Input Line Surge Immunity      | EN61000-4-5  |
|                            | Conducted Susceptibility       | EN61000-4-6  |
|                            | Power Frequency Magnetic Field | EN61000-4-8  |
|                            | Voltage Dips                   | EN61000-4-11 |

IPC2U



Server

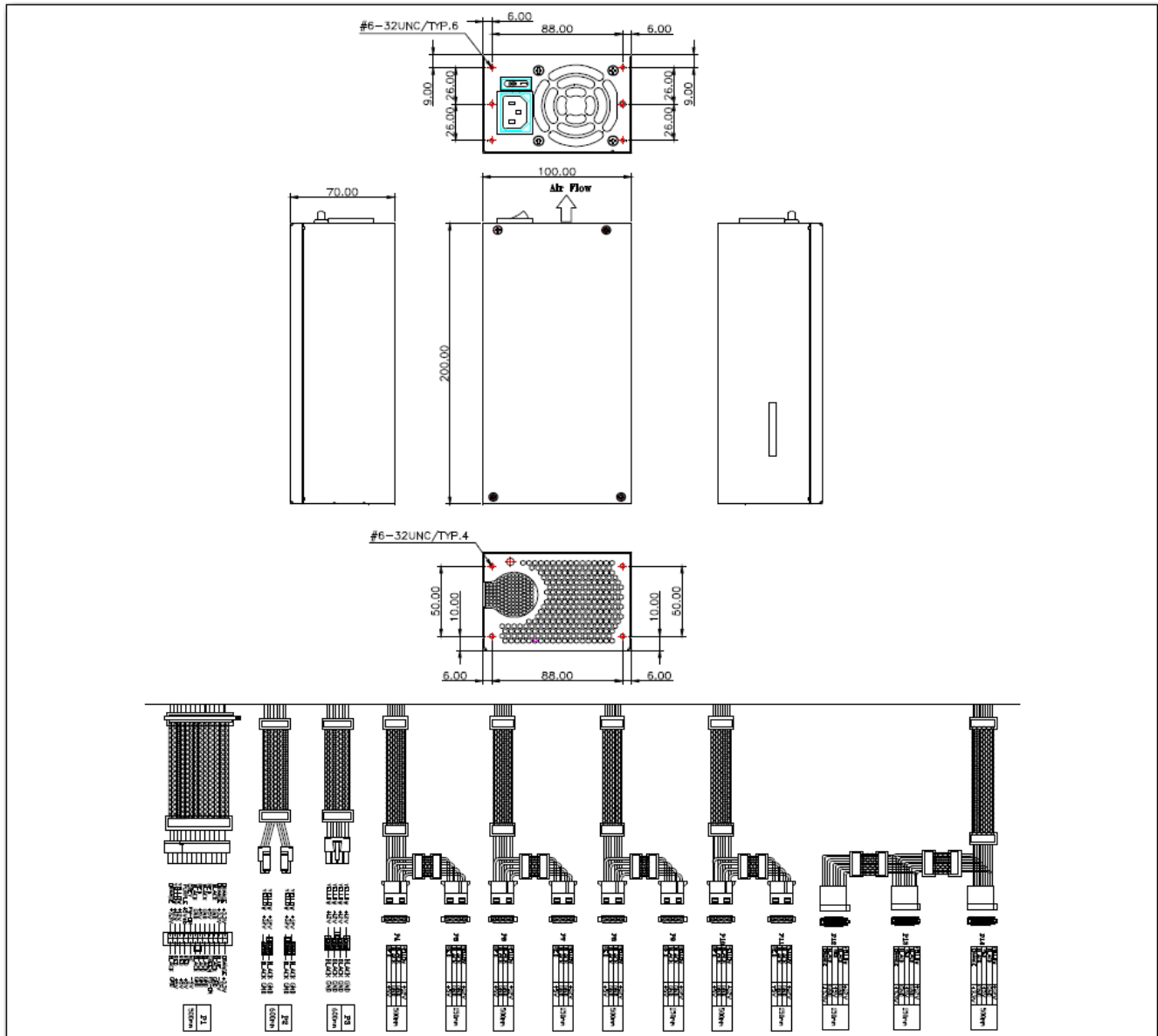


Industrial  
Panel PC



Kiosk

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|         |                                |
|---------|--------------------------------|
| P1      | Molex 39-01-2245 or equivalent |
| P2      | Molex 39-01-2085 or equivalent |
| P3      | Molex 39-01-2085 or equivalent |
| P4~P11  | Molex 8981-04P or equivalent   |
| P12~P14 | Molex 88751 or equivalent SATA |

### Notes

1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheet are no longer controlled by Enhance Electronics, refer to <http://www.enhanceusa.com> for the most current product specifications.
2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured.
3. Mechanical drawings (model No. ENH-2170) is for reference only. The cable wire configuration may vary from other custom designed models as picture showing. Please contact your sales representative for detail.
4. Specifications are for reference only. All specifications are measured at an ambient temperature of 25°C, humidity 65%, 230Vac nominal input voltage and at rated output load unless otherwise specified.