

## 150-200W Single Output General Purpose Power Supplies

### Features

- ◆ Very low cost
- ◆ Small Size
- ◆ Wide Range AC Input
- ◆ Convection or Fan Cooled
- ◆ Five year warranty
- ◆ 1.6" high (For 1U racking)



### Key Market Segments & Applications



### Specifications

| Model                               |     | LS200 (Enclosed style with internal fan)                                                                                                                  | LS200/L (U channel style - no internal fan) |
|-------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| AC Input Voltage (300VAC for 5s)    | VAC | 85 - 264VAC                                                                                                                                               | 85 - 264VAC (3)                             |
| Input Frequency                     | Hz  | 47 - 63Hz                                                                                                                                                 |                                             |
| DC Input Voltage                    | VDC | 120 - 373VDC*                                                                                                                                             |                                             |
| Inrush Current (230VAC, cold start) | A   | 60                                                                                                                                                        |                                             |
| Power Factor                        | -   | Meets EN61000-3-2, -3 (Typical PF 0.98/0.95)(1)                                                                                                           |                                             |
| Input Current (115/230VAC)          | A   | 3.5 / 1.7 (typical)                                                                                                                                       |                                             |
| Temperature Coefficient             | -   | <0.02%/°C (0 - 50°C)                                                                                                                                      |                                             |
| Overcurrent Protection              | -   | >105% of nominal or peak. Constant current style                                                                                                          |                                             |
| Overvoltage Protection (2)          | V   | 3.3V: 3.8 - 4.45V, 5V: 5.75 - 6.75V, 7.5V: 8.6 - 10.1V, 12V: 15.1 - 17.75V<br>15V: 17.25 - 20.25V, 24V: 30.25 - 35.5V, 36V: 41.4 - 48.6V, 48V: 60 - 69.6V |                                             |
| Overtemperature Protection (2)      | -   | Yes                                                                                                                                                       |                                             |
| Hold Up Time (115/230V input)       | ms  | 20ms                                                                                                                                                      |                                             |
| Leakage Current (230VAC 60Hz)       | mA  | <1mA                                                                                                                                                      |                                             |
| Remote Sense                        | -   | Yes                                                                                                                                                       |                                             |
| Remote On/Off                       | -   | On: 0 - 0.8V; Off: 3 - 12V                                                                                                                                |                                             |
| LED Indicator                       | -   | Green LED = On                                                                                                                                            |                                             |
| Operating Temperature               | °C  | Fan or forced air rating: -25 to +70°C. Derate linearly to 60% load from +50 to +70°C                                                                     |                                             |
| Storage Temperature                 | °C  | -40 to +85°C                                                                                                                                              |                                             |
| Operating Humidity                  | -   | 20 - 90% RH (non condensing)                                                                                                                              |                                             |
| Storage Humidity                    | -   | 10 - 95% RH (non condensing)                                                                                                                              |                                             |
| Cooling                             | -   | Internal Fan (air exhausts from fan end)                                                                                                                  | Convection or customer supplied airflow     |
| Withstand Voltage                   | -   | Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.                                                                        |                                             |
| Isolation Resistance                | -   | >100M at 25°C & 70%RH, Output to Ground 500VDC                                                                                                            |                                             |
| Vibration (non operating)           | -   | 10 - 55Hz: 19.6m/s <sup>2</sup> constant sweep 1 min X, Y, Z for 1 hour                                                                                   |                                             |
| Shock                               | -   | < 196.1 m/s <sup>2</sup> (20G)                                                                                                                            |                                             |
| Immunity                            | -   | IEC61000-4-2, -3, -4, -5, -6, -8, -11                                                                                                                     |                                             |
| Safety Agency Certifications        | -   | IEC/EN/UL/CSA60950-1, IEC/EN/UL/CSA62368-1 and CE Mark                                                                                                    |                                             |
| Conducted & Radiated EMI            | -   | EN55011/EN55022-B, FCC--B                                                                                                                                 |                                             |
| Weight (Typ)                        | g   | 700                                                                                                                                                       | 600                                         |
| Size (LxWxH)                        | in  | 7.8 x 3.9 x 1.61"                                                                                                                                         |                                             |
| Warranty                            | yrs | Five Years                                                                                                                                                |                                             |

Notes:

- (1) 115 / 230VAC input
- (2) Recycle AC to reset
- (3) (Derate linearly to 65% load from 115VAC to 85VAC)

\*Safety certified for AC input only

## Output Ratings

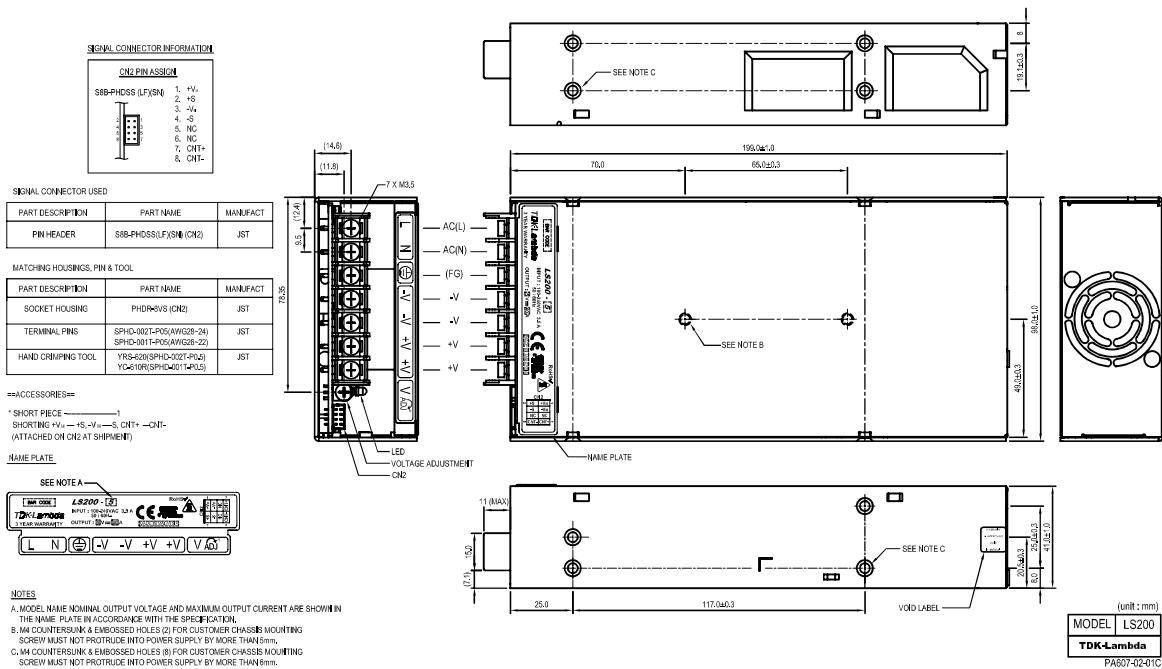
| Model       | Voltage | Adjust Range (V) | Max Current Forced Air(A) <sup>(4)</sup> | Max Current Convect.(A) <sup>(5)</sup> | Peak Current (A) | Load Reg (mV) | Line Reg (mV) | Ripple Noise (mV) | Efficiency (typ) % <sup>(1)</sup> |
|-------------|---------|------------------|------------------------------------------|----------------------------------------|------------------|---------------|---------------|-------------------|-----------------------------------|
| LS200-3.3   | 3.3V    | 3.0 - 3.6        | 40.0                                     | N/A                                    | -                | 40            | 16            | 80                | 67 / 68                           |
| LS200-5     | 5V      | 4.75 - 5.5       | 40.0                                     | N/A                                    | -                | 40            | 20            | 80                | 72 / 75                           |
| LS200-7.5   | 7.5V    | 6.8 - 8.2        | 26.7                                     | N/A                                    | -                | 40            | 20            | 80                | 74 / 77                           |
| LS200-12    | 12V     | 10.8 - 14.4      | 16.7                                     | N/A                                    | -                | 96            | 48            | 120               | 76 / 79                           |
| LS200-15    | 15V     | 13.5 - 16.5      | 13.4                                     | N/A                                    | -                | 120           | 60            | 120               | 80 / 83                           |
| LS200-24    | 24V     | 22 - 28.8        | 8.4                                      | N/A                                    | 10.4             | 192           | 96            | 120               | 82 / 84                           |
| LS200-36    | 36V     | 32 - 40          | 5.6                                      | N/A                                    | 6.9              | 288           | 144           | 150               | 82 / 85                           |
| LS200-48    | 48V     | 42 - 57.6        | 4.2                                      | N/A                                    | -                | 384           | 192           | 200               | 82 / 85                           |
| LS200-3.3/L | 3.3V    | 3.0 - 3.6        | 40.0                                     | 26                                     | -                | 40            | 16            | 80                | 67 / 68                           |
| LS200-5/L   | 5V      | 4.75 - 5.5       | 40.0                                     | 26                                     | -                | 40            | 20            | 80                | 72 / 75                           |
| LS200-7.5/L | 7.5V    | 6.8 - 8.2        | 26.7                                     | 17.3                                   | -                | 40            | 20            | 80                | 74 / 77                           |
| LS200-12/L  | 12V     | 10.8 - 14.4      | 16.7                                     | 11.6                                   | -                | 96            | 48            | 120               | 76 / 79                           |
| LS200-15/L  | 15V     | 13.5 - 16.5      | 13.4                                     | 9.3                                    | -                | 120           | 60            | 120               | 80 / 83                           |
| LS200-24/L  | 24V     | 22 - 28.8        | 8.4                                      | 5.8                                    | 10.4             | 192           | 96            | 120               | 82 / 84                           |
| LS200-36/L  | 36V     | 32 - 40          | 5.6                                      | 3.9                                    | 6.9              | 288           | 144           | 150               | 82 / 85                           |
| LS200-48/L  | 48V     | 42 - 57.6        | 4.2                                      | 2.9                                    | -                | 384           | 192           | 200               | 82 / 85                           |

## Notes

(4) With internal fan version LS200-xx or LS200-xx/L version with external airflow.

(5) See Installation manual for derating curve.

## Outline Drawing



## Other Related Products

|               |                                        |
|---------------|----------------------------------------|
| LS25 - 150    | 25W to 150W low cost                   |
| HWS15 - 1800  | 15W to 1800W limited lifetime warranty |
| SWS300 - 1000 | 300 to 1000W single output             |

## Options

| Suffix | Description                 |
|--------|-----------------------------|
| /L     | No cover or fan (U channel) |
| Blank  | Cover and fan               |

For Additional Information, please visit  
<https://product.tdk.com/info/en/products/power/index.html>

