

## 79-153W Single Output Power Supplies

### Features

- ◆ Convection or Conduction Cooled
- ◆ Up to 206W Peak Power Capability
- ◆ Low 31mm Height
- ◆ -40°C Ambient temperature Start Up



### Key Market Segments & Applications



### Specifications

| Model                                 |         | CUS200LD                                                                                                                                                                |
|---------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC Input Voltage                      | VAC     | 85 - 265VAC <sup>(1)</sup>                                                                                                                                              |
| Input Frequency                       | Hz      | 47 - 63Hz                                                                                                                                                               |
| Inrush Current (cold start)           | A       | 20A at 115VAC, 40A at 230VAC                                                                                                                                            |
| Power Factor                          | -       | Meets EN61000-3-2 (Typical PF 0.95/0.9) <sup>(2)</sup>                                                                                                                  |
| Input Current                         | A       | Varies by model, please see detailed specification on website                                                                                                           |
| Temperature Coefficient               | %/°C    | <0.02%/°C                                                                                                                                                               |
| Overcurrent Protection                | -       | > 101% of peak current rating                                                                                                                                           |
| Overvoltage Protection <sup>(3)</sup> | V       | See model selector                                                                                                                                                      |
| Hold Up Time (115 / 230V input)       | ms      | 20ms typical                                                                                                                                                            |
| Leakage Current                       | mA      | <0.75mA at 265VAC, 60Hz                                                                                                                                                 |
| Ripple and Noise                      | %       | 3.3-7.5V: 120mV, 12-24V: 150mV, 28-48V: 200mV                                                                                                                           |
| Line and Load Regulation              | %       | See model selector                                                                                                                                                      |
| Remote Sense                          | -       | No                                                                                                                                                                      |
| Operating Temperature                 | °C      | -25 to +70°C. Start up at -40°C<br>Convection cooled: Derate linearly to 40% load from +40 to +70°C<br>Conduction cooled: Derate linearly to 40% load from +45 to +70°C |
| Storage Temperature                   | °C      | -40 to +85°C                                                                                                                                                            |
| Humidity (non condensing)             | %RH     | 10 - 95%RH (Operating & Storage)                                                                                                                                        |
| Cooling                               | -       | Convection or Conduction Cooled (Mounted on a 2mm thick aluminium plate 400x400mm)                                                                                      |
| Withstand Voltage                     | -       | Input to Ground 2kVAC, Input to Output 3kVAC, Output to Ground 500VAC                                                                                                   |
| Isolation Resistance                  | MΩ      | >100MΩ 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 (lv 2, 3), -3 (lv3), -4 (lv 3), -5 (lv3, 4), -6 (lv 3), -8 (lv 4), -11                                                                                     |
| Safety Agency Certifications          | -       | IEC/UL/CSA/EN 62368-1, IEC/UL/CSA/EN 60950-1, CE Mark                                                                                                                   |
| Conducted & Radiated EMI              | -       | EN55011-B, EN55032-B, FCC Class B                                                                                                                                       |
| Weight (Typ)                          | g       | 430                                                                                                                                                                     |
| Size (LxWxH)                          | mm (in) | 160 x 62 x 31mm (6.3 x 2.44 x 1.22")                                                                                                                                    |
| Warranty                              | yrs     | Three Years                                                                                                                                                             |

#### Notes:

See specification for conditions and test methods

(1) 4.2V model: Derate linearly to 90% load from 115 to 85VAC input. 5-48V models: Derate linearly to 80% load from 115 to 85VAC input

(2) 115 / 230VAC input

(3) Cycle AC to reset

## Model Selector

| Model        | Output Voltage | Adjust Range (V) | Max Current Convection (A) | Max Power Convection (W) | Max Current Conduction (A) | Max Power Conduction (W) | Peak Current <sup>(4)</sup> (A) | Load Reg (mV) | Line Reg (mV) | Overvoltage    | Efficiency (typ) % <sup>(5)</sup> |
|--------------|----------------|------------------|----------------------------|--------------------------|----------------------------|--------------------------|---------------------------------|---------------|---------------|----------------|-----------------------------------|
| CUS200LD-3   | 3.3V           | 2.97 - 3.63V     | 24A                        | 79.2W                    | 30A                        | 99W                      | 40A                             | 26mV          | 13mV          | 3.8 - 5.44V    | 82 / 83%                          |
| CUS200LD-4   | 4.2V           | 3.78 - 4.62V     | 24A                        | 100.8W                   | 30A                        | 126W                     | 40A                             | 33mV          | 16mV          | 4.83 - 6.51V   | 85 / 87%                          |
| CUS200LD-5   | 5V             | 4.5 - 5.5V       | 24A                        | 120W                     | 30A                        | 150W                     | 40A                             | 40mV          | 20mV          | 5.75 - 7.5V    | 87 / 89%                          |
| CUS200LD-7R5 | 7.5V           | 6.375 - 8.25V    | 16A                        | 120W                     | 20A                        | 150W                     | 26.6A                           | 60mV          | 30mV          | 8.63 - 10.87V  | 88 / 90%                          |
| CUS200LD-12  | 12V            | 10.8 - 13.2V     | 10A                        | 120W                     | 12.5A                      | 150W                     | 16.7A                           | 96mV          | 48mV          | 13.8 - 17.4V   | 87 / 89%                          |
| CUS200LD-15  | 15V            | 13.5 - 16.5V     | 8A                         | 120W                     | 10A                        | 150W                     | 13.4A                           | 120mV         | 60mV          | 17.25 - 21.75V | 87 / 89%                          |
| CUS200LD-24  | 24V            | 21.6 - 26.4V     | 5A                         | 120W                     | 6.3A                       | 151.2W                   | 8.4A                            | 192mV         | 96mV          | 27.6 - 34.8V   | 87 / 89%                          |
| CUS200LD-28  | 28V            | 25.2 - 30.8V     | 4.3A                       | 120.4W                   | 5.4A                       | 151.2W                   | 7.2A                            | 224mV         | 112mV         | 32.2 - 40.6V   | 87 / 90%                          |
| CUS200LD-48  | 48V            | 43.2 - 52.8V     | 2.5A                       | 120W                     | 3.15A                      | 151.2W                   | 4.2A                            | 384mV         | 192mV         | 55.2 - 69.6V   | 88 / 90%                          |

Notes:

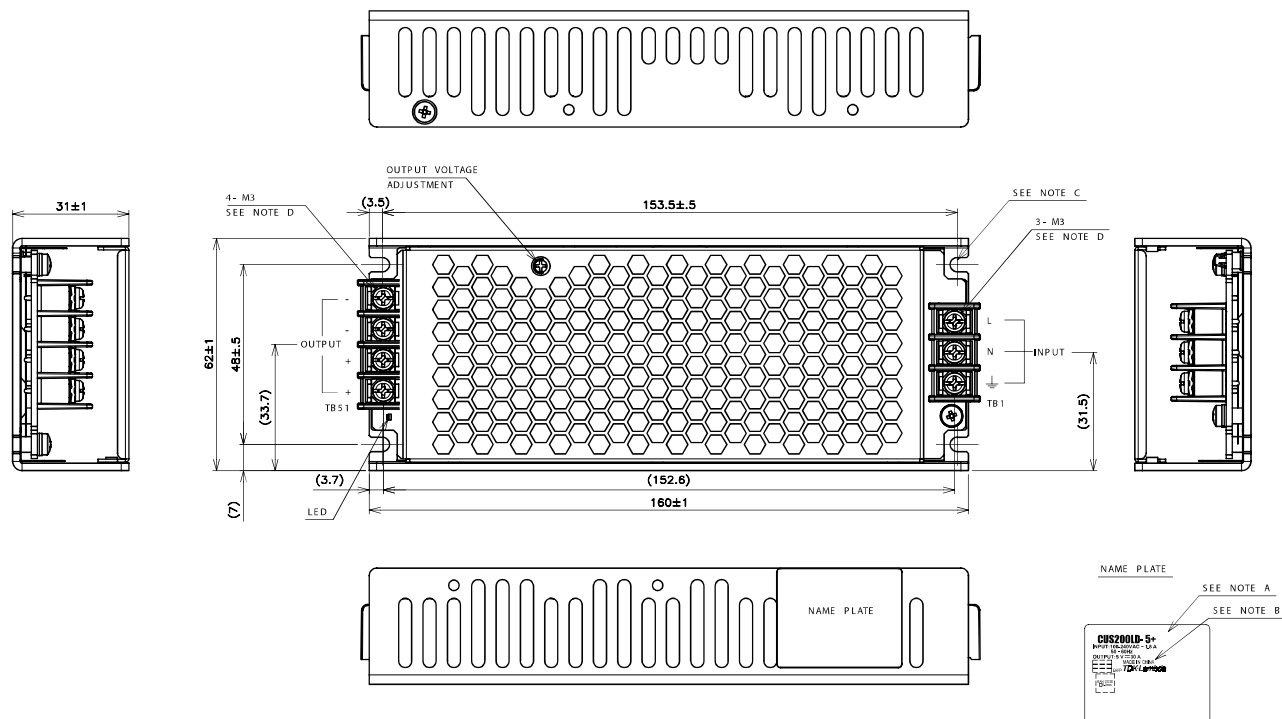
See specification for conditions and test methods

(4) Convection cooling: Peak current for less than 10 seconds, with a duty cycle of <35%

Conduction cooling: Peak current for less than 5 seconds, with a duty cycle of <35%

(5) 115 / 230VAC input. Conduction cooled ratings

## Outline Drawing



For additional information, please visit  
<https://product.tdk.com/en/power/>

