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# CUS250LD Series

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LED Broadcast Test Comm

## Single Output 250W Low Profile Power Supplies



| Features | Benefits |
|---|---|
| • High efficiency up to 90% | • Compact convection cooled device |
| • 30mm high | • Slim design for use in panels |
| • Wide range AC input | • Allows global use |
| • Convection cooled | • No fan noise |
| • High grade component selection | • 3 year warranty |

## Specification

| Model | | CUS250LD |
|---|---|---|
| AC Input Voltage (3) | VAC | 85 - 265VAC (300VAC for 5s) |
| Input Frequency | Hz | 47 - 63Hz |
| DC Input Voltage | VDC | 120 - 370VDC (No safety certification) |
| Inrush Current (cold start) | A | 20A at 115VAC, 40A at 230VAC |
| Power Factor (1) | - | Meets EN61000-3-2 (Typical PF 0.98/0.95) |
| Input Current (115/230VAC) | A | 2.8 / 1.4 |
| Temperature Coefficient | - | <0.02%/°C |
| Overcurrent Protection | - | > 105% |
| Overvoltage Protection (2) | V | 3.3V: 4 - 5.25V, 4.2V: 5 - 6.5V, 5V: 5.75 - 7.5V, 12V: 13.8 - 16.2V, 24V: 27.6 - 32.4V |
| Hold Up Time | ms | 20ms |
| Leakage Current (240VAC 60Hz) | mA | <0.75mA |
| Remote Sense | - | No |
| LED Indicator | - | Green LED = On |
| Operating Temperature (3) | °C | -25°C to +70°C. Derate down to 50% load from +40°C to +70°C |
| Storage Temperature | °C | -30°C to +75°C |
| Operating Humidity (non condensing) | % | 30 - 90% RH |
| Storage Humidity (non condensing) | % | 10 - 90% RH |
| Cooling | - | Convection |
| Withstand Voltage | - | Input to Ground 2kVAC, 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$^2$ constant sweep 1 min X, Y, Z for 1 hour |
| Shock | - | < 196.1 m/s$^2$ (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/EN62368-1, 60950-1 (cTUVus), CE Mark |
| Conducted & Radiated EMI | - | EN55022-B, FCC--B |
| Weight (Typ) | g | 700 |
| Size (LxWxH) | mm | 198 x 102 x 30 |
| Warranty | yrs | 3 |

**Notes:**

(1) 115 / 230VAC input
(2) Cycle AC to reset
(3) See derating curves on page 3. Output derating vs input voltage - derate linearly to 80% load from 115VAC to 85VAC input **(not for CUS250LD-3)**

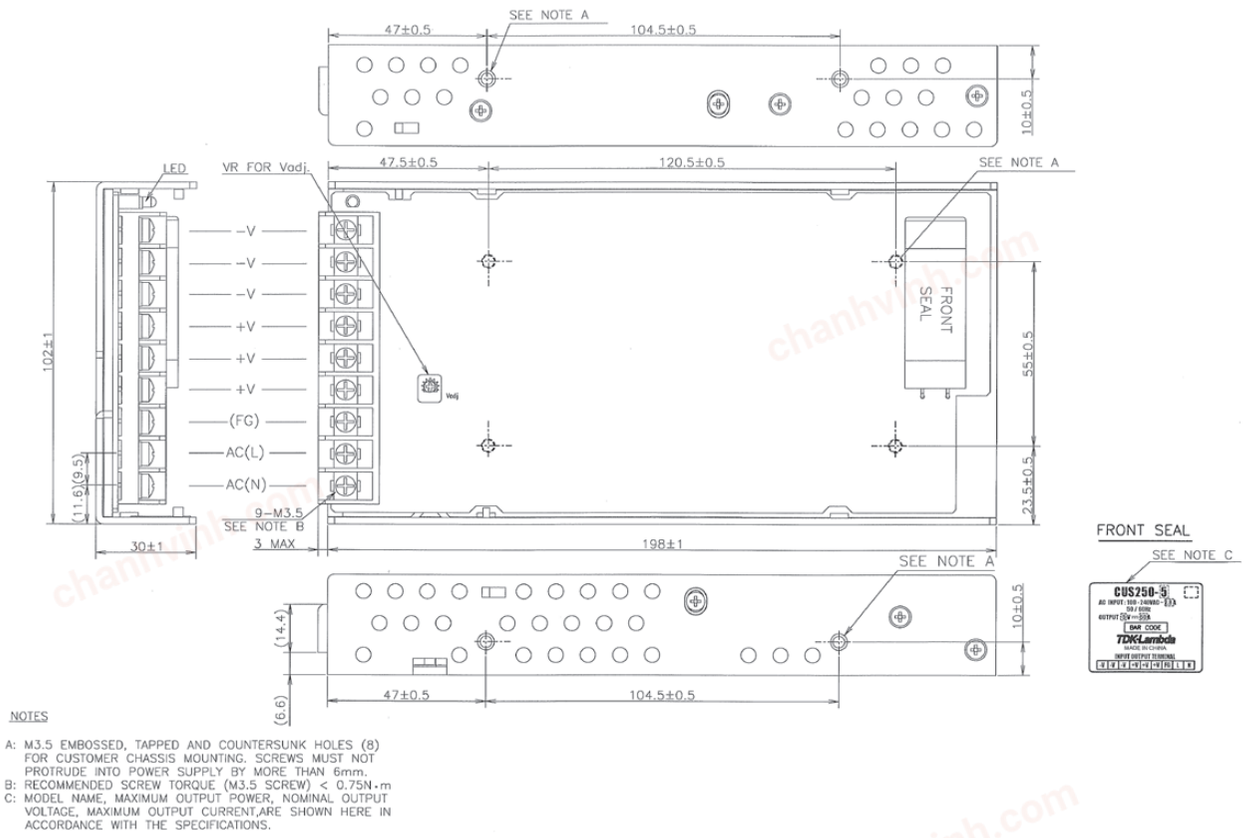
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## Model Selector

| Model | Voltage | Adjust Range (V) | Max Current (A) | Max Power (W) | Load Reg (mV) | Line Reg (mV) | Ripple Noise (mV) | Efficiency (typ) % (1) |
|---|---|---|---|---|---|---|---|---|
| CUS250LD-3 | 3.3V | 2.97 - 3.63 | 50 | 165 | 40 | 20 | 120 | 86 / 88 |
| CUS250LD-4 | 4.2V | 3.78 - 4.62 | 50 | 210 | 40 | 20 | 120 | 87 / 89 |
| CUS250LD-5 | 5V | 4.5 - 5.5 | 50 | 250 | 40 | 20 | 120 | 88 / 90 |
| CUS250LD-12 | 12V | 10.8 - 13.2 | 21 | 252 | 96 | 48 | 120 | 88 / 90 |
| CUS250LD-24 | 24V | 21.6 - 26.4 | 10.5 | 252 | 192 | 96 | 150 | 88 / 90 |

## Outline Drawing CUS250LD Series



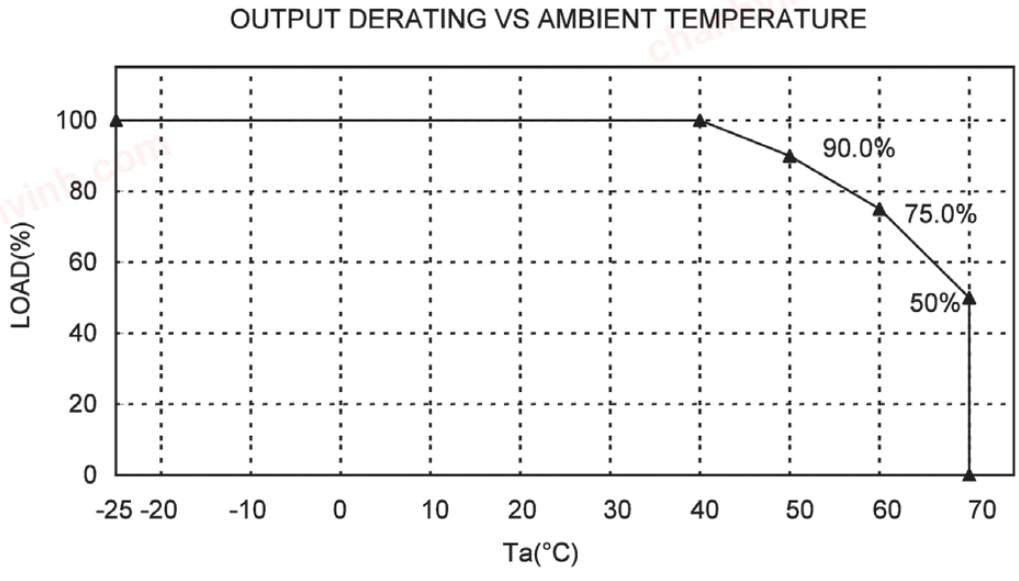

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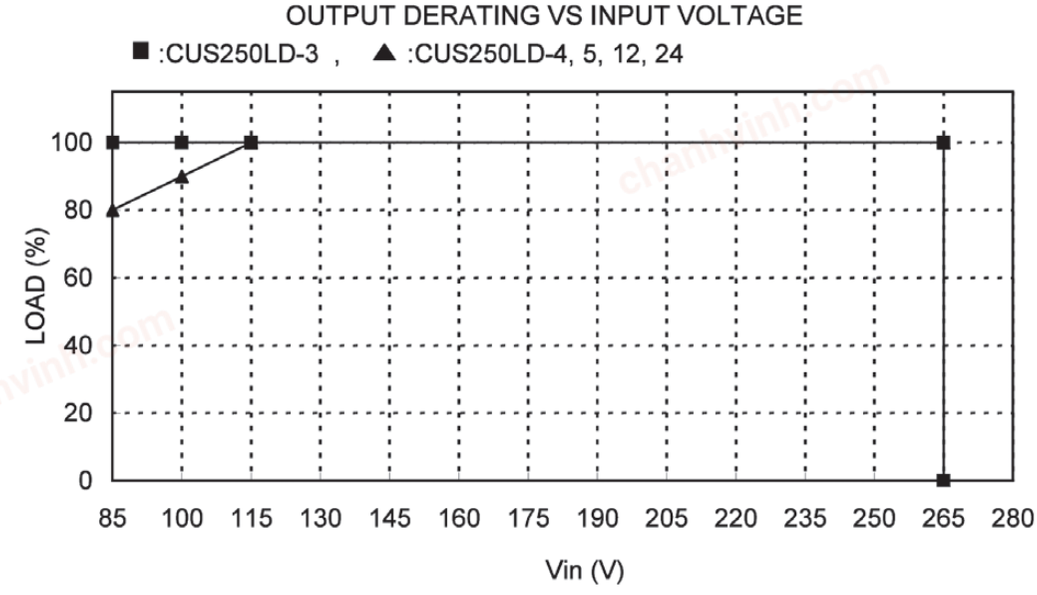
A: M3.5 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (8) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6mm.
B: RECOMMENDED SCREW TORQUE (M3.5 SCREW) < 0.75N·m
C: MODEL NAME, MAXIMUM OUTPUT POWER, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT,ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

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## Output Derating Curve CUS250LD



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For Additional Information, please visit
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