

120W - 480W Single Output DIN Rail Mount Power Supplies

Features

- ◆ High Efficiency
- ◆ Narrow Width
- ◆ Curve B, Conducted & Radiated EMI
- ◆ Up to 7 Year eCap-Life
- ◆ 3 Year Warranty



Key Market Segments & Applications

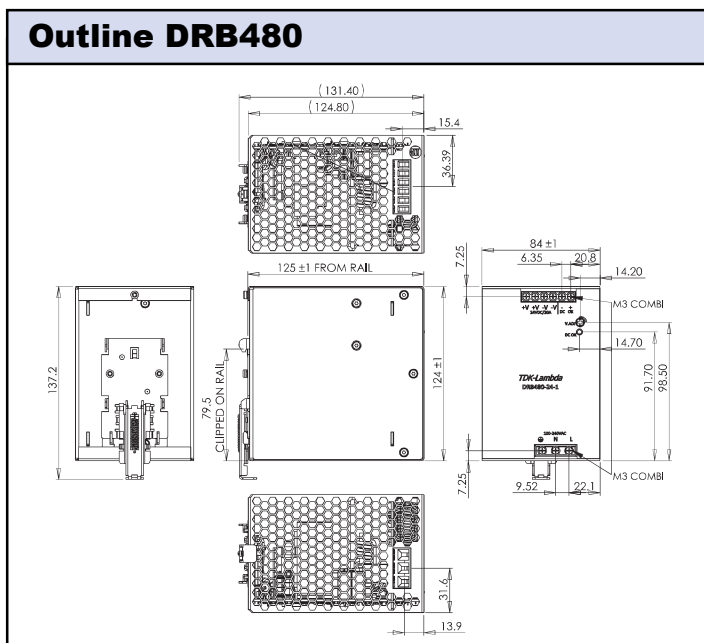
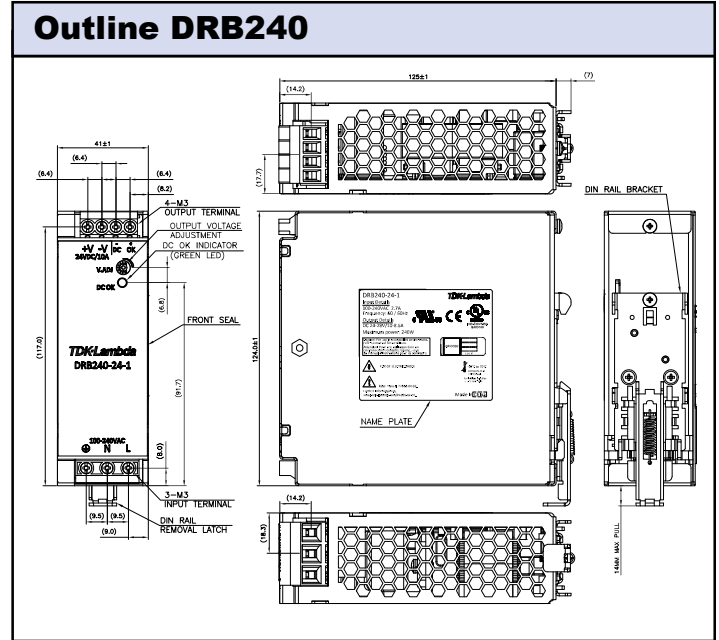
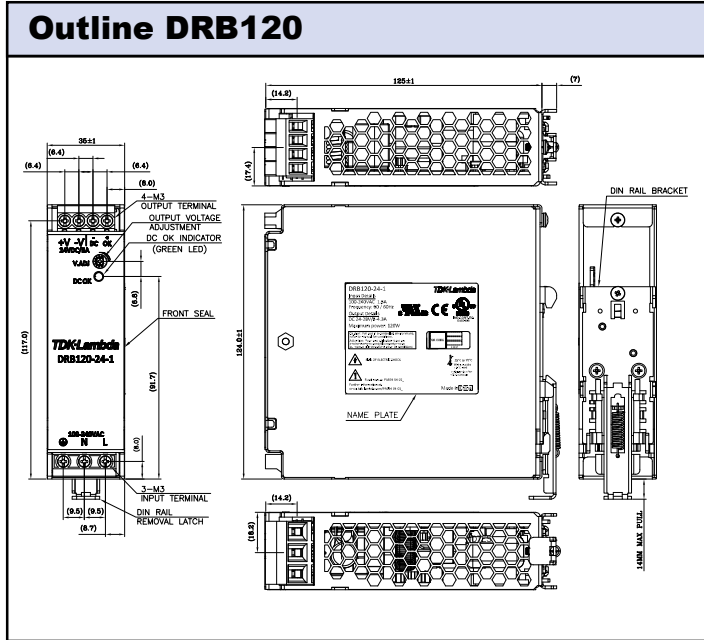


| Specifications | | DRB120-24-1 | DRB240-24-1 | DRB480-24-1 | DRB480-48-1 |
|--|------|--|------------------------|-------------------------|-------------|
| Input Voltage Range | VAC | 85 - 264 (withstands 300VAC for 5s) | | 90 - 264 ⁽¹⁾ | |
| Input Frequency | Hz | 47 - 63 | | | |
| Inrush Current (Cold Start) | A | 55A (Typical at 230VAC) | | <40A (at 264VAC) | |
| Power Factor (115/230VAC) ⁽²⁾ | - | 0.98 / 0.92 | | >0.98 / 0.96 | |
| Input Current | A | 1.2 / 0.7 (115/230VAC) | 2.4 / 1.4 (115/230VAC) | 5 / 2.5 (115/230VAC) | |
| Leakage Current 264VAC 63Hz | mA | <1 | | <1.7 | |
| Line Regulation | % | <0.1 | | | |
| Load Regulation | % | <1 | | | |
| Ripple and Noise | % | <1 | | | |
| Temperature Coefficient | %/°C | ±0.02 | | | |
| Overcurrent Protection | A | >6.06 | >12.12 | 21 - 29 | 10.5 - 15 |
| Overvoltage Protection ⁽³⁾ | V | 30 - 35 | 30 - 35 | 30V ±2% | 57V ±4% |
| Overtemperature Protection | - | Yes | | | |
| Hold Up Time | ms | 20 | 20 | >16 | >16 |
| No-load Power Consumption | W | <1 | <1.5 | <5 | <5 |
| Efficiency (120 / 230VAC) | % | See Model Selector | | | |
| Average efficiency (230VAC) | % | >87 | | | |
| LED Indicator | - | Green LED = DC is OK | | | |
| DC OK Signal | - | Optocoupler; ON when Vout >80% of nominal output. 50V, 5mA maximum (20mA for DRB480) | | | |
| Operating Temperature | °C | DRB120/240: -25°C to +70°C. Start up at -40°C. (Derate linearly to 50% load from 55°C to 70°C) DRB480: -20°C to +70°C. Start up at -40°C. (Derate linearly to 62.5% load from 50°C to 70°C) | | | |
| Storage Temperature | °C | -40°C to +85°C | | | |
| Humidity (non condensing) | % RH | 5 - 95%RH (Operating and storage) | | | |
| Parallel operation | - | No | | | |
| Series operation ⁽⁴⁾ | - | Yes | | | |
| Cooling | - | Convection | | | |
| Withstand Voltage (for 1 minute) | VAC | Input to Output 3kVAC, Input to GND 1.5kVAC, Output to GND 500VAC | | | |
| Isolation Resistance | MΩ | >100MΩ at 25°C, 70%RH & 500VDC | | | |
| Vibration (Non operating) | - | 120/240W: 2G, 10 to 55Hz, 480W: 2G, IEC 60068-2-6, 10 to 500Hz | | | |
| Shock | - | 120/240W: 20G, IEC 60068-2-27, half-sine, 22ms, 3 x each axis on DIN rail, 480W: 5G | | | |
| Safety agency certifications | - | UL508, IEC/EN/UL/CSA60950-1, CE Mark (LVD, EMC, RoHS2) Also 120/240W: UL/CSA62368-1, Built to meet EN62368-1, IEC/EN62477-1 OVC III | | | |
| Conducted & radiated EMI | - | EN55011-B, EN55032-B, CISPR11-B, CISPR22-B, EN61204-3 Class A | | | |
| Immunity | - | EN61000-4-2 (Ivl 3), -3 (Ivl 3), -4 (Ivl 3), -5 (Ivl 3), -6 (Ivl 3), -8 (Ivl 4), -11 | | | |
| Line Dips | - | SEMI-F47 (200VAC input) | | | |
| Weight (typ) | g | 500 | 750 | 1000 | |
| Size (W x H x D) | mm | 35 x 124 x 125 | 41 x 124 x 125 | 84 x 124 x 125 | |
| Case material | - | Metal | | | |
| Warranty | yrs | 3 | | | |

- Notes: (1) Derate linearly to 92.5% load from 100 to 90VAC
 (2) EN61000-3-2 Class A
 (3) Cycle input voltage to reset
 (4) See installation manual

| Model | Output Voltage (V) | Output Adjust Range (V) | Max Output Current (A) | Max Output Power (W) | Peak Output Current ⁽⁵⁾ | Peak Output Power ⁽⁵⁾ | Efficiency (120 / 230VAC) |
|-------------|--------------------|-------------------------|------------------------|----------------------|------------------------------------|----------------------------------|---------------------------|
| DRB120-24-1 | 24V | 24 - 28V | 5A | 120W | 6A | 144W | 91 / 93% (Typ) |
| DRB240-24-1 | 24V | 24 - 28V | 10A | 240W | 12A | 288W | 91 / 93% (Typ) |
| DRB480-24-1 | 24V | 24 - 26.4V | 20A | 480W | - | - | >90 / 92% |
| DRB480-48-1 | 48V | 48 - 52.8V | 10A | 480W | - | - | >90 / 92% |

Notes: (5) <10s, Duty Cycle < 35%



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

