

TDK-Lambda**DPP120-960 Series****120W, 240W, 480W & 960W 3 Phase DIN Rail Mount Power Supplies****Features**

- ◆ Low Cost
- ◆ 12V, 24V or 48V Outputs
- ◆ Wide Range 340 to 575VAC Input
- ◆ Parallel Function Switch (240 & 480W)
- ◆ Current Share (960W)
- ◆ -40⁽³⁾ to +71°C Operation

**Key Market Segments & Applications**

Industrial



RoHS

Specifications

| Model | | DPP120-xx-3 | DPP240-xx-3 | DPP480-xx-3 | DPP960-xx-3 |
|-------------------------------------|-------|---|--|---------------------|----------------------|
| AC Input Voltage range (1) | VAC | 340 - 575VAC, three phase | | | |
| Input Frequency | Hz | 47 - 63Hz | | | |
| DC Input Voltage range | VDC | 480 - 820VDC* | | | |
| Inrush Current (380-480VAC) | A | 10A | 20A | 20A | 30A |
| Power Factor (2) | - | 0.55 | 0.55 | 0.65 | 0.8 |
| Input Current (400VAC) (typ) | A | 0.36A | 0.65A | 1.1A | 1.72A |
| Output Voltage Accuracy | % | -0, +1% of Nominal | | | |
| Line Regulation | % | ±1% | | | |
| Load Regulation | % | ±1% (±5% when set in parallel mode) | | | |
| Ripple and Noise (20MHz BW) | mV | 100mV | 100mV | 100mV | 80mV |
| Overcurrent Protection (Typ) | - | 115 - 135% | 120 - 140% | 110 - 135% | 110 - 130% |
| Overvoltage Protection | V | See model selector | | | |
| Overtemperature Protection | - | Yes, auto recovery | | | |
| Hold Up Time (380-480VAC) | ms | > 20ms | > 20ms | > 20ms | > 15ms |
| Parallel operation (up to 90% load) | - | - | Set in parallel (droop) mode - up to 2 units | | |
| LED Indicators | - | Green LED = On, Red LED = DC Output Low | | | |
| DC Good Relay (24V models only) | - | 0.3A rated normally open relay contacts, closes when output is above 17.6 - 19.4V | | | |
| Operating Temperature | - | -40 ⁽³⁾ to +71°C (Derate linearly 2.5%/°C from 61 to 71°C, 3.5%/°C for DPP960)" | | | |
| Storage Temperature | - | -40 to +85°C | | | |
| Operating Humidity (non condensing) | - | 20 - 95% RH | | | |
| Cooling | - | Convection. Recommend 1" clearance on all sides | | | |
| Withstand Voltage | - | Input to Output 3kVAC, Input to Ground 1.5kVAC for 1 min. | | | |
| Isolation Resistance | - | >100M at 25°C & 70%RH, Output to Ground 500VDC | | | |
| Vibration | - | IEC 60068-2-6. 10- 500Hz, 2G on X, Y & Z axes | | | |
| Shock | - | IEC 60068-2-27. Half sinewave, 4G, 22ms, 3 times each face | | | |
| Vibration (Operating) | - | IEC 60068-2-6 (Mounting by rail: Random wave, 10-500 Hz, 2G, ea. along X, Y, Z axes 10 min/cycle, 60 min) | | | |
| Shock (Operating) | - | IEC 60068-2-27 (Half sine wave, 4G, 22ms, 3 axes, 6 Faces, 3 times for each face) | | | |
| Safety Agency Approvals | - | UL508 Listed, UL60950-1, EN60950-1, CE | | | |
| Conducted & Radiated EMI | - | EN55022 class B | | | |
| Immunity | - | IEC 61000-4-2, -3, 4, -5, -6, -8, -11 | | | |
| Weight (Typ) | g | 800g | 1100g | 1720g | 3400g |
| Size (LxWxH) | mm | 112 x 74 x 124mm | 112 x 89 x 124mm | 112 x 150 x 124mm | 112 x 275.8 x 126.2 |
| Size (LxWxH) | in | 4.41 x 2.91 x 4.88" | 4.41 x 3.5 x 4.88" | 4.41 x 5.91 x 4.88" | 4.41 x 10.86 x 4.97" |
| Switching Frequency | kHz | 70kHz | 25kHz | 80kHz | 52kHz |
| MTBF (Bellcore Issue 6 @40°C, GB) | Hours | 527,000 | 488,000 | 411,000 | 352,000 |
| Case material | - | Metal | | | |
| Warranty | yrs | Three years | | | |

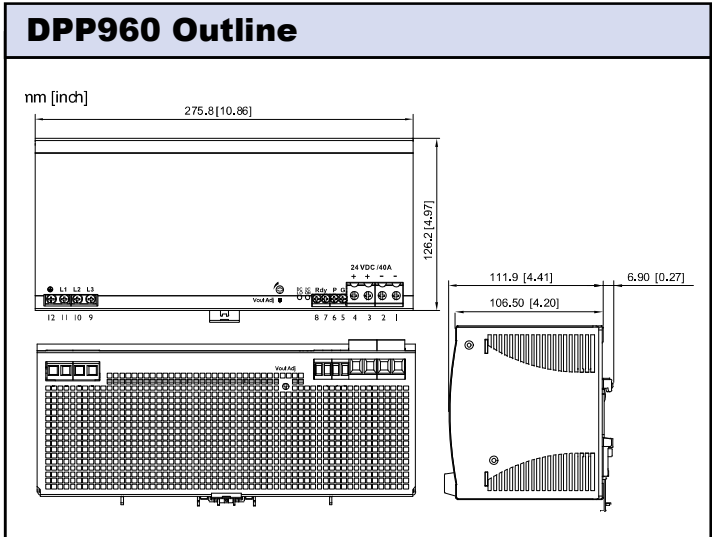
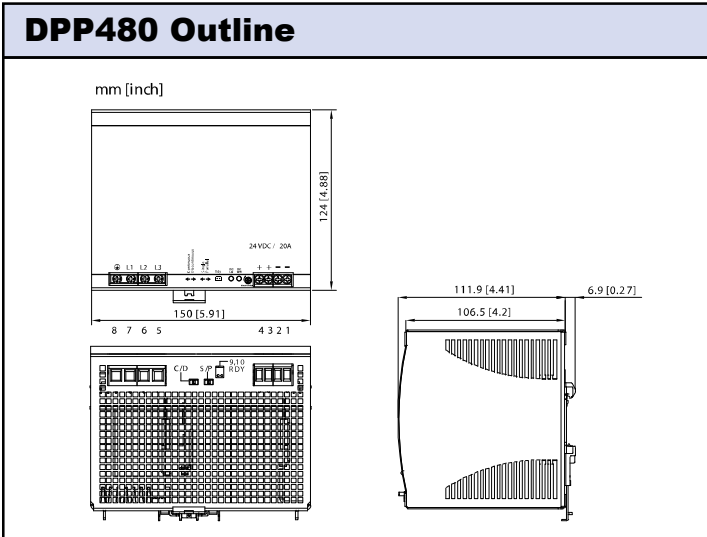
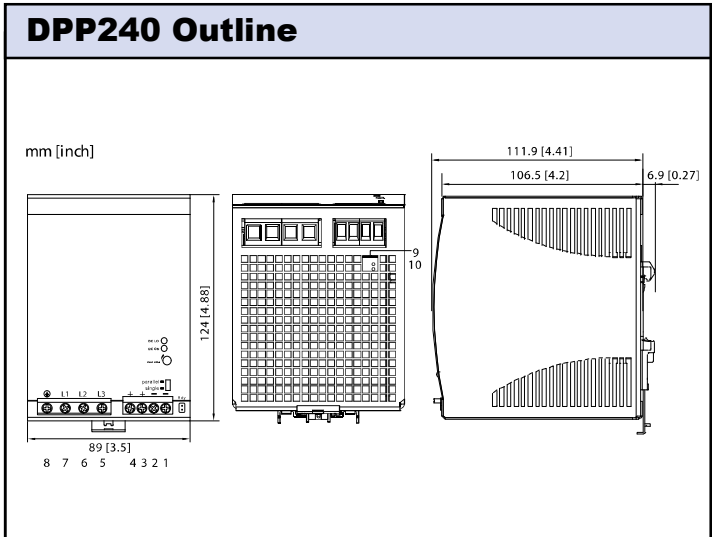
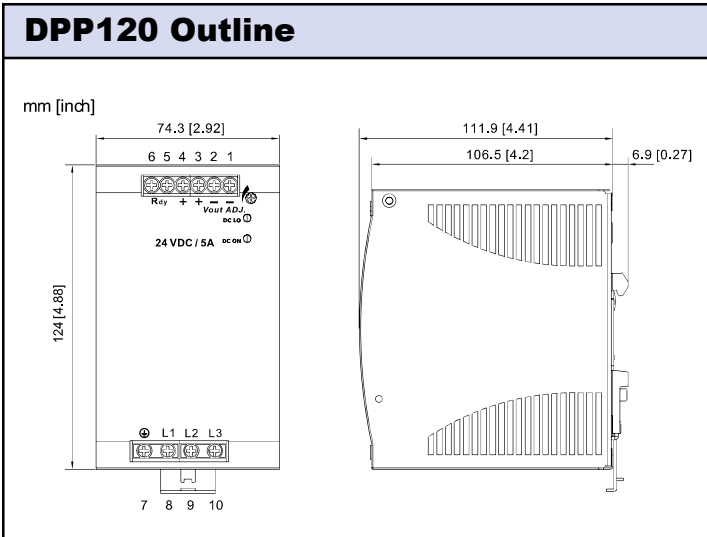
(1) Bi-phase input is permissible, but output load must be derated to 75% load

*Safety certified for AC input only

(2) Passive, meets EN61000-3-2

(3) DPP480 -30°C

| Model Selector | | | | | |
|----------------|-------------|------------------|--------------------|-----------------|----------------|
| Model | Voltage (V) | Adjust Range (V) | Output Current (A) | Overvoltage (V) | Efficiency (%) |
| DPP120-12-3 | 12V | 11.4 - 14.5V | 10A | 14.5 - 17.4V | 87% |
| DPP120-24-3 | 24V | 22.5 - 28.5V | 5A | 30 - 33V | 89% |
| DPP240-24-3 | 24V | 22.5 - 28.5V | 10A | 30 - 33V | 90% |
| DPP480-24-3 | 24V | 22.5 - 28.5V | 20A | 30 - 33V | 90% |
| DPP960-24-3 | 24V | 22.5 - 28.5V | 40A | 30 - 33V | 92% |
| DPP240-48-3 | 48V | 47 - 56V | 5A | 60 - 68V | 91% |
| DPP480-48-3 | 48V | 47 - 56V | 10A | 60 - 68V | 91% |
| DPP960-48-3 | 48V | 47 - 56V | 20A | 60 - 68V | 93% |



Other DIN Rail Products

| | |
|-----|--------------------------|
| DPP | 15W to 480W |
| DSP | 10W to 100W low profile |
| DLP | 75W to 240W single phase |

Snap-on Mounting: snap onto DIN Rail TS35/7.5 or TS35/15. (no tools required)

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





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