

## 15-100W, 5-48V Output DIN Rail Mount Power Supplies

### Features

- ◆ Low Cost
- ◆ Universal Input
- ◆ NEC NFPA70 Class 2<sup>(2)</sup>
- ◆ UL508 Listed
- ◆ Class 1, Division 2 (ISA 12.12)<sup>(3)</sup>
- ◆ -10 to +71°C Operation



### Key Market Segments & Applications



Industrial



RoHS

| Specifications                |       |   |                     |                     |                             |
|-------------------------------|-------|---|---------------------|---------------------|-----------------------------|
| Model                         |       | DPP15   | DPP25/30            | DPP50               | DPP100                      |
| AC Input Voltage range        | VAC   | 85 - 264VAC   |                     |                     | 85 - 132VAC<br>176 - 264VAC |
| Input Frequency               | Hz    | 47 - 63Hz   |                     |                     |                             |
| DC Input Voltage range        | -     | 90 - 375VDC*  |                     |                     | 210 - 375VDC*               |
| Inrush Current (115 / 230VAC) | A     | <35A  | 35 / 45A            | 35 / 50A            | 35 / 55A                    |
| Power Factor                  | -     | Meets EN61000-3-2 Class A   |                     |                     |                             |
| Input Current (230VAC)        | A     | 0.25  | 0.4                 | 0.7                 | 1.2                         |
| Leakage Current               | mA    | <0.75mA, 265VAC, 63Hz   |                     |                     |                             |
| Output Voltage Accuracy       | %     | ±1% (24V outputs preset at 24.5V)   |                     |                     |                             |
| Line Regulation               | %     | < 0.5%  |                     |                     |                             |
| Load Regulation               | %     | < 0.5%  |                     |                     |                             |
| Ripple and Noise              | mV    | 50mV  |                     |                     |                             |
| Overcurrent Protection (Typ)  | -     | >110% (fold forward type)   |                     |                     |                             |
| Overvoltage Protection        | V     | 120 - 137.5%  |                     |                     |                             |
| Hold Up Time (115VAC input)   | ms    | > 20ms  |                     |                     |                             |
| Parallel switch               | -     | No  |                     |                     | Yes                         |
| LED Indicator                 | -     | Green LED = On  |                     |                     |                             |
| Operating Temperature         | °C    | -10* to +71°C (Derate linearly 5%/°C from 61 to 71°C) * -25°C start up, DPP25-50 only   |                     |                     |                             |
| Storage Temperature           | °C    | -25 to +85°C  |                     |                     |                             |
| Operating Humidity            | -     | 20 - 90% RH (non condensing)  |                     |                     |                             |
| Cooling (1)                   | -     | Convection  |                     |                     |                             |
| Withstand Voltage             | -     | Input to Output 3kVAC for 1 min.  |                     |                     |                             |
| Shock                         | -     | Half sine wave, 4G, 22ms, 3 times per face, X, Y, Z   |                     |                     |                             |
| Vibration                     | -     | 10-500Hz (20 min sweep) 0.002G <sup>2</sup> /Hz, 1 Grms acceleration X, Y, Z, 1 hour  |                     |                     |                             |
| Isolation Resistance          | -     | >100M at 25C & 70%RH, Output to Ground 500VDC   |                     |                     |                             |
| Safety Agency Approvals       | -     | UL60950-1, UL508, NEC Class 2 <sup>(2)</sup> , EN60950-1, CE Mark, ISA 12.12 <sup>(3)</sup>   |                     |                     |                             |
| Emissions                     | -     | EN55011, EN55022 class B Radiated & Conducted, EN61000-6-3  |                     |                     |                             |
| Immunity                      | -     | EN61000-6-2, EN61000-4-2 Level 4, EN61000-4-3, EN61000-4-6 Level 3, EN61000-4-4 Level 4 (I/P) Level 3 (O/P), EN61000-4-5 Level 3, EN61000-4-8, EN61000-4-11 |                     |                     |                             |
| Weight (Typ)                  | g     | 130   | 260                 | 390                 |                             |
| Size (LxWxH)                  | mm    | 96.8 x 22.9 x 75mm  | 91 x 45 x 75mm      | 96.8 x 72.6 x 75mm  |                             |
| Size (LxWxH)                  | in    | 3.81 x 0.9 x 2.95"  | 3.58 x 1.77 x 2.95" | 3.81 x 2.86 x 2.95" |                             |
| Case material                 | -     | Flame Retardant Polycarbonate (UL94 V-0)  |                     |                     |                             |
| MTBF (MIL-HDBK-217F, GF25)    | Hours | 287,000   | >288,000            | 269,000             | 239,000                     |
| Warranty                      | yrs   | Three years   |                     |                     |                             |

(1) Recommend 1" clearance on all sides.

(2) See model selector. Evaluated to NEC NFPA70 Class 2 output per UL1310.

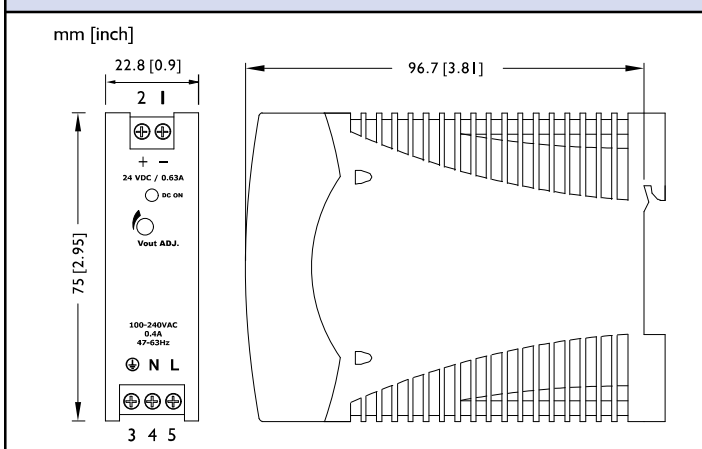
(3) See model selector.

\*Safety certified for AC input only

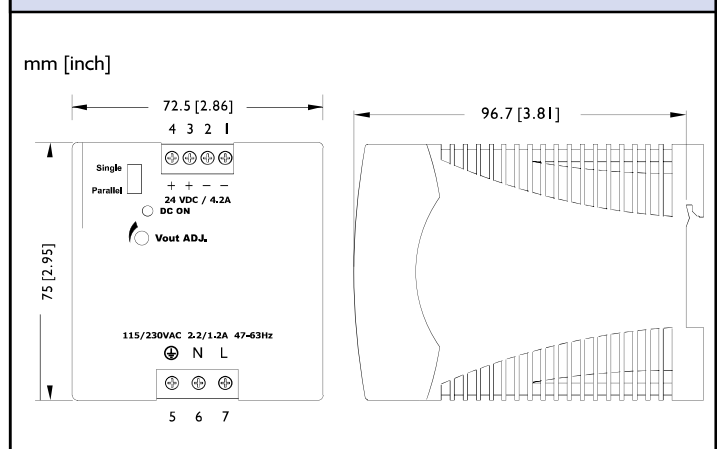
## Model Selector

| Model     | Voltage (V) | Voltage Adjust (V) | Current (A) | Power (W) | Effic. (typ) % | UL1310 Class 2 | ISA12.12 Class 1 Div 2 |
|-----------|-------------|--------------------|-------------|-----------|----------------|----------------|------------------------|
| DPP25-5   | 5           | 5-6                | 5.0         | 25        | 78             | -              | Yes                    |
| DPP30-12  | 12          | 9.9-12.1           | 2.5         | 30        | 83             | Yes            | Yes                    |
| DPP50-15  | 15          | 11.9-15.1          | 3.4         | 50        | 85             | Yes            | Yes                    |
| DPP15-24  | 24          | 22.5-28.5          | 0.63        | 15        | 81             | Yes            | -                      |
| DPP30-24  | 24          | 22.5-28.5          | 1.3         | 30        | 84             | Yes            | Yes                    |
| DPP50-24  | 24          | 22.5-28.5          | 2.1         | 50        | 86             | Yes            | Yes                    |
| DPP100-24 | 24          | 22.5-28.5          | 4.2         | 100       | 87             | -              | -                      |
| DPP50-48  | 48          | 48-56              | 1.05        | 50        | 87             | Yes            | Yes                    |

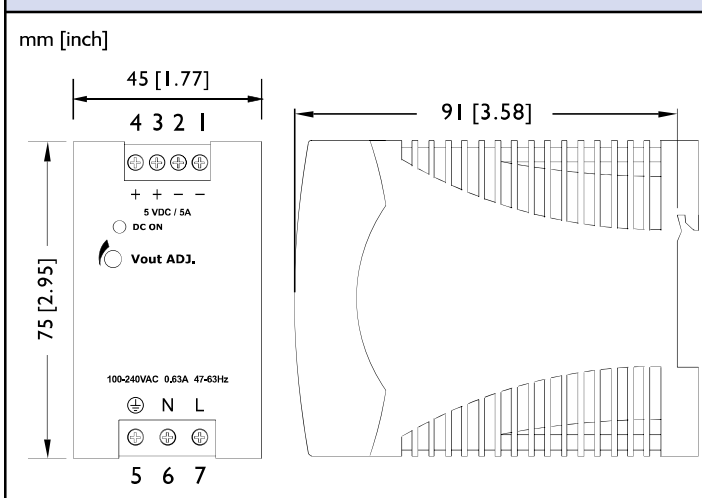
## DPP15 Outline



## DPP100 Outline



## DPP25-DPP50 Outline



## Installation:

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

**Cooling** - Normal Convection

**Clearance** - 25mm all sides

**Connection** - Use copper wire 0.5-2.5mm<sup>2</sup> (AWG24-12)

## Other DIN Rail Products

|          |  |
|----------|--|
| DSP/DPP  | 10W to 480W power supplies                 |
| DLP      | 75W to 240W power supplies                 |
| DLP-PU   | Redundancy Module (20A)                    |
| R Series | 3A to 30A single & three phase EMI Filters |

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

