

## 100-150W AC-DC External Power Supplies

<https://product.tdk.com/en/power/dt-d>  
<https://www.emea.lambda.tdk.com/dt150>



Industrial



Broadcast



Test



COMM

Ranging from 100 to 150W, these DT100/150-D external power supplies are certified to UL/CSA/EN/IEC62368-1 and comply with DoE Level VI Efficiency. In addition to satisfying Energy Efficiency Level VI with an average efficiency of greater than 89% and an off-load power draw of less than 150mW, the products also meet EU Tier 2 requirements. All units meet EN55032-B, FCC Class B conducted & radiated emissions and EN55024 immunity standards.

| Features                                      | Benefits                                    |
|-----------------------------------------------|---------------------------------------------|
| • EU CoC Tier 2 & DoE Level VI Compliant      | • Meets US and EU Energy Saving Legislation |
| • Wide Range AC Input (90-264VAC)             | • Global Operation                          |
| • >89% Average Efficiency                     | • Consumes Less Energy                      |
| • Rugged Non-Vented Enclosure                 | • Suitable for Harsh Industrial Environment |
| • Alternative Connectors and Cable Assemblies | • Flexible System Integration               |

| Model Selector |                    |                     |                   |                            |                       |                          |
|----------------|--------------------|---------------------|-------------------|----------------------------|-----------------------|--------------------------|
| Model          | Output Voltage (V) | Maximum Current (A) | Maximum Power (W) | Overvoltage Protection (V) | Output Regulation (%) | Ripple & Noise (mVpk-pk) |
| DT100PW120D    | 12                 | 8.34                | 100               | 13.2 - 15.6                | ±5                    | 240                      |
| DT100PW160D    | 16                 | 6.25                | 100               | 17.6 - 20.8                | ±5                    | 320                      |
| DT100PW190D    | 19                 | 5.27                | 100               | 20.9 - 24.7                | ±5                    | 380                      |
| DT100PW240D    | 24                 | 4.17                | 100               | 26.4 - 31.2                | ±3                    | 480                      |
| DT100PW360D    | 36                 | 2.78                | 100               | 39.6 - 46.8                | ±3                    | 480                      |
| DT100PW480D    | 48                 | 2.09                | 100               | 52.8 - 62.4                | ±3                    | 480                      |
| DT150PW120D    | 12                 | 11.67               | 140               | 13.2 - 15.6                | ±5                    | 240                      |
| DT150PW160D    | 16                 | 9.38                | 150               | 17.6 - 20.8                | ±5                    | 320                      |
| DT150PW190D    | 19                 | 7.90                | 150               | 20.9 - 24.7                | ±5                    | 380                      |
| DT150PW240D    | 24                 | 6.25                | 150               | 26.4 - 31.2                | ±3                    | 480                      |
| DT150PW360D    | 36                 | 4.17                | 150               | 39.6 - 46.8                | ±3                    | 480                      |
| DT150PW480D    | 48                 | 3.13                | 150               | 52.8 - 62.4                | ±3                    | 480                      |

| DT | 100PW                                                                 | 240                                                                                                                                                                                                         | D |
|----|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|    | <div>100 100W Output Power</div> <div>150 140/150W Output Power</div> | <div>120 12V Output Voltage</div> <div>160 16V Output Voltage</div> <div>190 19V Output Voltage</div> <div>240 24V Output Voltage</div> <div>360 36V Output Voltage</div> <div>480 48V Output Voltage</div> |   |

| Specifications                        |                  |                                                                            |
|---------------------------------------|------------------|----------------------------------------------------------------------------|
| Model                                 |                  | DT100/150-D                                                                |
| <b>Input</b>                          |                  |                                                                            |
| Input Voltage range                   | Vac              | 90 - 264                                                                   |
| Input Frequency                       | Hz               | 47 - 63                                                                    |
| Input Current (90Vac)                 | A                | 2.5                                                                        |
| Inrush Current at 230Vac (Cold Start) | A                | <150 (25°C ambient)                                                        |
| Leakage Current (264Vac 60Hz)         | uA               | <600                                                                       |
| Power Factor                          | -                | Typically 0.9 at full load, 230VAC (Meets EN61000-3-2)                     |
| No Load Power Consumption             | mW               | <150                                                                       |
| Hold Up Time (typ) at 115Vac Input    | ms               | 16                                                                         |
| Efficiency                            | %                | >89 Avg. Active Efficiency (1)                                             |
| Conducted & Radiated EMI              | -                | EN55032-B, FCC Part 15 Class B                                             |
| Immunity                              | -                | EN55024                                                                    |
| Safety Agency Certifications          | -                | UL/CSA/EN/IEC62368-1, UL/CSA/EN/IEC60950-1, CE Mark (LVD, EMC and RoHS)    |
| <b>Output</b>                         |                  |                                                                            |
| Voltage Accuracy                      | %                | ±1                                                                         |
| Output Voltage Adjustment             | -                | None                                                                       |
| Switching Frequency (Full Load)       | kHz              | 45 - 55                                                                    |
| Total Regulation                      | -                | See Model Selector Table                                                   |
| Ripple & Noise (2)                    | -                | See Model Selector Table                                                   |
| Temperature Coefficient               | %/°C             | ±0.05                                                                      |
| Minimum Load                          | -                | No minimum load required                                                   |
| Overcurrent Protection                | %                | 110 - 160 (Auto-Recovery)                                                  |
| Overvoltage Protection                | -                | See Model Selector Table (Cycle input power to reset)                      |
| Short Circuit Protection              | -                | Continuous - Hiccup Mode (Auto Recovery)                                   |
| Parallel Operation                    | -                | Not possible                                                               |
| <b>Environmental</b>                  |                  |                                                                            |
| Operating Temperature                 | °C               | -20 to +60, de-rate linearly to 50% load from 40 to 60                     |
| Storage Temperature                   | °C               | -20 to +85                                                                 |
| Humidity (non condensing)             | %RH              | 20 - 90                                                                    |
| Cooling                               | -                | Convection                                                                 |
| Altitude                              | m                | 2,000                                                                      |
| Withstand Voltage (For 1 minute)      | Vac              | Input to Ground 1,500, Input to Output 3,000, Output to Ground 500VDC (3)  |
| IP Rating                             | -                | IPX0                                                                       |
| Vibration (non-operating)             | m/s <sup>2</sup> | 23.52 (10 - 55Hz: constant sweep 1 min X, Y, Z for 1 hour)                 |
| Shock                                 | m/s <sup>2</sup> | <196.1 (20G)                                                               |
| <b>Other</b>                          |                  |                                                                            |
| Weight (Typ)                          | g                | 780                                                                        |
| Size (LxWxH)                          | mm               | 170 x 85 x 44                                                              |
| Size (LxWxH)                          | Inches           | 6.70 x 3.35 x 1.73                                                         |
| AC Input Connector                    | -                | IEC 320-C14 (Accepts IEC 320-C13)                                          |
| DC Output Connector                   | -                | Kycon KPPx-4P or equivalent Pins 1 & 2: -Vout, Pins 3 & 4: +Vout           |
| Cable Length & Thickness              | -                | 1050mm; 12 to 16V Models: UL2464 #16 AWG, 19 to 48V Models: UL2464 #18 AWG |
| MTBF (MIL-HNBK, 100% load, 25°C)      | hrs              | 140,000                                                                    |
| Warranty                              | yrs              | 3                                                                          |

## Notes

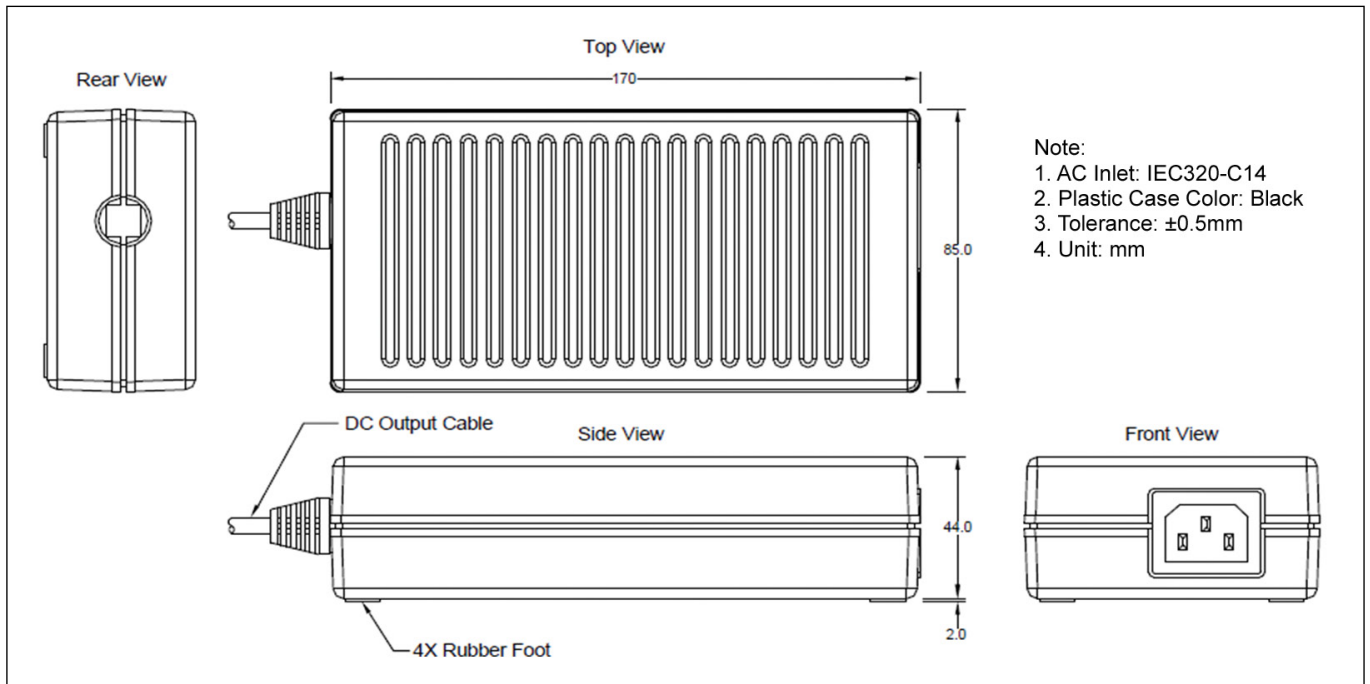
See website for detailed specifications, test methods and installation manual

(1) Measured at 25%, 50%, 75% and 100% load conditions

(2) Ripple and noise is measured at 20MHz BW. Add 0.1uF ceramic capacitor and 10uF Electrolytic capacitor in parallel across the output

(3) Versions available for output to be internally connected to ground. Contact local sales office.

## Outline Drawing



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