



#### Size:

4.21 x 1.85 x 1.19 inches 107.0 x 47.0 x 30.1 mm

### Applications:

- POS Systems
- AV Equipment
- Industrial PCs
- LED Lighting Applications







## **FEATURES**

- Class I
- RoHS Compliant
- Up to 40 Watts Output Power
- Single Outputs
- 90% High Efficiency
- Free Air Convection Cooling
- ۷I
- 90-264VAC Input Voltage Range

- Approved as Limited Power Source (LPS)
- UL/cUL (UL 60950-1: 2nd edition) and TUV/GS (EN 60950-1: 2nd edition) Safety Approvals
- Meets FCC Part-15 Class B & CISPR-22 Class **B** Emission Limits
- -40°C to +70°C Operating Temperature Range
- Energy Star 2.0, Efficiency Level
   IEC-320-C14 AC Inlet Connector
  - Optional Output Connectors Available

## **DESCRIPTION**

The DTAPU41 series of AC/DC desktop power supplies provides up to 40 Watts of continuous output power in a 4.21 x 1.85 x 1.19 inch package. This series consists of single output models ranging from 5VDC to 48VDC with a 90~264VAC input voltage range and an IEC-320-C14 AC inlet connector. Some features include high efficiency up to 90%, -40°C to +70°C operating temperature range, and over current protection. All units are UL 94V-1, RoHS, and CEC & Energy Star Level VI compliant. This series also meets FCC Part-15 class B and CISPR-22 class B emission limits. All models meet new CE requirements and have UL/cUL (UL 60950-1: 2nd edition) and TUV/GS (EN 60950-1: 2nd edition) safety approvals. All units have been 100% burn-in tested.

| MODEL SELECTION TABLE |                     |                    |                |                  |              |  |  |  |  |
|-----------------------|---------------------|--------------------|----------------|------------------|--------------|--|--|--|--|
| Model Number          | Input Voltage Range | Output Voltage (1) | Output Current | Total Regulation | Output Power |  |  |  |  |
| DTAPU41A-102          | 90~264 VAC          | 5 ~ 5.99 VDC       | 5.00A          | 5%               | 30W          |  |  |  |  |
| DTAPU41A-103          |                     | 6.5 ~ 8 VDC        | 5.00 ~ 3.75A   | 5%               | 30W          |  |  |  |  |
| DTAPU41A-104          |                     | 8 ~ 11 VDC         | 4.375 ~ 3.18 A | 5%               | 35W          |  |  |  |  |
| DTAPU41A-105          |                     | 11 ~ 13 VDC        | 3.64 ~ 3.07 A  | 5%               | 40W          |  |  |  |  |
| DTAPU41A-106          |                     | 13 ~ 16 VDC        | 3.07 ~ 2.50 A  | 5%               | 40W          |  |  |  |  |
| DTAPU41A-107          |                     | 16 ~ 21 VDC        | 2.50 ~ 1.90 A  | 5%               | 40W          |  |  |  |  |
| DTAPU41A-108          |                     | 21 ~ 27 VDC        | 1.90 ~ 1.48 A  | 3%               | 40W          |  |  |  |  |
| DTAPU41A-109          |                     | 27 ~ 33 VDC        | 1.48 ~ 1.21 A  | 3%               | 40W          |  |  |  |  |
| DTAPU41A-110          |                     | 33 ~ 40 VDC        | 1.21 ~ 1.00 A  | 2%               | 40W          |  |  |  |  |
| DTAPU41A-111          |                     | 40 ~ 48 VDC        | 1.00 ~ 0.83 A  | 2%               | 40W          |  |  |  |  |

#### **NOTES**

- 1. The output voltage is specified as a range (ex: 40~48VDC); the customer must specify what they would like the output voltage set at.
- 2. Models DTAPU41A-102~105 need to use AWG#16/4FT output cable in order to meet the total regulation specified. Models DTAPU41A-106~111 need to use AWG#18/4FT output cable in order to meet the total regulation specified. The regulation and efficiency will change if a different output cable is used.
- 3. Optional output connectors are available for this series. Please call factory for ordering details.

Due to advances in technology, specifications are subject to change without notice.



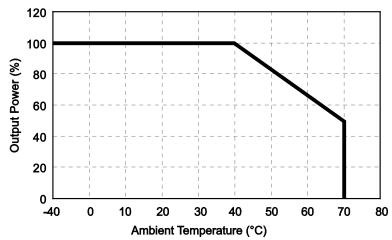
# SPECIFICATIONS: DTAPU41 SERIES

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.

| SPECIFICATION                                   | TEST CONDITIONS  | Min                      | Тур   | Max                    | Unit     |  |
|---|--|--------------------------|---|------------------------|----------|--|
| INPUT SPECIFICATIONS                            |  |                          |   |                        |          |  |
| Input Voltage                                   | Safety Approvals Input Voltage Range                         | 100                      |   | 240                    | VAC      |  |
| •   | Operating Input Voltage Range                                | 90                       |   | 264                    | VAC      |  |
| Input Frequency                                 |  | 47                       |   | 63                     | Hz       |  |
| Input Current                                   | 100VAC, full load  |                          |   | 0.93                   | Α        |  |
| input Guirent                                   | 240VAC, full load  |                          |   | 0.93                   |          |  |
| Inrush Current                                  | 115VAC, full load, 25°C, cold start                          | 40                       |   | 45                     | Α        |  |
| illiusii Cullelii                               | 230VAC, full load, 25°C, cold start                          | 80                       |   | 90                     | _ ^      |  |
| No Load Power Consumption OUTPUT SPECIFICATIONS | 230VAC, no load  |                          |   | 0.3                    | W        |  |
| Output Voltage                                  |  |                          | See T   | able                   |          |  |
| Line Regulation                                 | LL to HL, full load  | 0.5                      |   | 1                      | %        |  |
| oad Regulation 230VAC                           |  | 3                        |   | 7                      | %        |  |
| Output Power                                    |  |                          | See Table   |                        |          |  |
| Output Current                                  |  |                          | See T   | able                   |          |  |
| Ripple & Noise (peak to peak)                   | 90VAC, full load   |                          |   | 1                      | %        |  |
| Hold-up Time                                    | 110VAC, full load  | 10                       |   |                        | ms       |  |
| Start-up Time                                   | 100VAC, full load  |                          |   | 2                      | s        |  |
| Transient Response Time                         | 100VAC, Full load to half load                               |                          |   | 4                      | ms       |  |
| Temperature Coefficient                         | 0~50°C   | -0.04                    |   | +0.04                  | %/°C     |  |
| PROTECTION                                      |  |                          |   |                        |          |  |
| Over Current Protection                         |  | 110                      |   | 150                    | %        |  |
| GENERAL SPECIFICATIONS                          |  |                          |   |                        |          |  |
| Efficiency                                      | 230 VAC, full load   | 83                       |   | 90                     | %        |  |
| Di-l4-i \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\        | Primary to Secondary   | 4242                     |   |                        | \/D0     |  |
| Dielectric Withstanding Voltage                 | Primary to PE  | 2550                     |   |                        | VDC      |  |
| Isolation Resistance                            | Test Voltage = 500VDC  | 50                       |   |                        | ΜΩ       |  |
| Leakage Current                                 | 240VAC/60Hz  |                          |   | 0.75                   | mA       |  |
| <b>ENVIRONMENTAL SPECIFICATI</b>                | ONS  |                          |   |                        |          |  |
| Operating Temperature                           | Derating linearly from 100% Load at 40°C to 50% load at 70°C | -40                      |   | +70                    | °C       |  |
| Storage Temperature                             |  | -40                      |   | +85                    | °C       |  |
| Operating Humidity                              |  | 0                        |   | 95                     | %        |  |
| Storage Humidity                                |  | 0                        |   | 95                     | %        |  |
| Cooling   |  | Free air convection      |   |                        |          |  |
| MTBF  | MIL-HDBK-217F, 25°C  | 100,000                  |   |                        | hours    |  |
| PHYSICAL SPECIFICATIONS                         |  |                          |   |                        |          |  |
| Weight  |  | Approx. 9                | 9.35~9.8  | 8oz (265               | ~280g)   |  |
| Dimensions (L x W x H)                          | nensions (L x W x H)   |                          | 4.21 x 1.85 x 1.19 in<br>(107.0 x 47.0 x 30.1 mm) |                        |          |  |
| AC Inlet  | Inlet  |                          | IEC-320-C14                                       |                        |          |  |
| Output Connector                                |  | Seve                     | ral optio   | ns availa              | ble      |  |
| SAFETY, EMC, & COMPLIANCE                       |  |                          |   |                        |          |  |
| Safety Approvals                                | UL/cUL (UL60950-1: 2 <sup>nd</sup> edition), T               | UV/GS (EN                | 160950-1  | : 2 <sup>nd</sup> edit | ion), CE |  |
| EMI Requirements for CISPR-22                   | 220VAC   | В                        |   |                        | Class    |  |
| EMI Requirements for FCC PART-15                | 110VAC   | В                        |   |                        | Class    |  |
| ompliance RoHS and UL 94V-1                     |  |                          |   |                        |          |  |
| CEC & Energy Star                               |  | CEC and Energy Star 2.0, |   |                        |          |  |
|   |  | Efficiency Level VI      |   |                        |          |  |



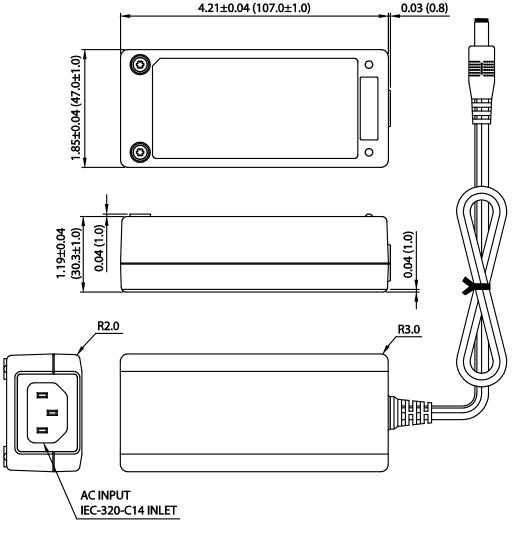
## **DERATING-**



#### **NOTES**

- 1. Operating Temperature: -40 to +70°C
- 2. Derating linearly from 100% load at 40°C to 50% load at 70°C

## MECHANICAL DRAWINGS



#### NOTES:

- 1. Unit: inches (mm)
- 2. Weight: Approx. 9.35~9.88oz (265~280g)
- 3. Optional output connectors available
- 4. All dimensions are for reference only



## **COMPANY INFORMATION**

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001-2008 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

#### Contact **Wall Industries** for further information:

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