



**SERIES:** 18 ~ 36 W DESK-TOP

**DESCRIPTION:** LEAD ACID BATTERY CHARGER

## FEATURES

- short circuit protection
- reverse polarity protection
- LED indicator
- UL 60950 approved
- meets FCC class B EMI standard
- designed for optimum lead acid battery charging



## MODEL

| MODEL       | output voltage    | output current |            | output wattage |
|-------------|-------------------|----------------|------------|----------------|
|             | nominal<br>(V dc) | min<br>(A)     | max<br>(A) | max<br>(W)     |
| DTB120150UC | 12                | 0              | 1.5        | 18             |
| DTB120225UC | 12                | 0              | 2.25       | 26.4           |
| DTB120300UC | 12                | 0              | 3          | 36             |
| DTB240080UC | 24                | 0              | 0.8        | 19.2           |
| DTB240125UC | 24                | 0              | 1.25       | 30             |
| DTB240150UC | 24                | 0              | 1.5        | 36             |

## PART NUMBER KEY

**DTB120125UC -PXXX- FL - CXX**

Base Number  
example of 12 V dc, 1.25 A

DC Plug type:  
see output plug options  
on page 6

Factory  
Designation

Reserved for custom  
configurations



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## INPUT

| parameter           | conditions/description     | min | nom | max | units |
|---------------------|----------------------------|-----|-----|-----|-------|
| rated input voltage |                            | 100 |     | 240 | V ac  |
| frequency range     |                            | 47  |     | 63  | Hz    |
| rated input current |                            |     |     | 1.5 | A     |
| inrush current      | 120 V ac, cold start, 25°C |     |     | 10  | A     |

## OUTPUT

| parameter                                       | conditions/description |           | min  | nom  | max  | units |
|-------------------------------------------------|------------------------|-----------|------|------|------|-------|
| fast charge<br>(CC mode)<br>LED: red            | output current         | DTB120125 | 1.3  | 1.5  | 1.7  | A     |
|                                                 |                        | DTB120225 | 2.05 | 2.25 | 2.45 | A     |
|                                                 |                        | DTB120300 | 2.7  | 3    | 3.3  | A     |
|                                                 |                        | DTB240080 | 0.65 | 0.8  | 0.95 | A     |
|                                                 |                        | DTB240125 | 1.05 | 1.25 | 1.45 | A     |
|                                                 |                        | DTB240150 | 1.3  | 1.5  | 1.7  | A     |
|                                                 | output voltage         | 12 V      |      |      | 14.7 | V dc  |
|                                                 |                        | 24 V      |      |      | 29   | V dc  |
| continuous charge<br>(CC & CV mode)<br>LED: red | output current         | DTB120125 | 0.55 | 0.75 | 0.95 | A     |
|                                                 |                        | DTB120225 | 0.8  | 1    | 1.2  | A     |
|                                                 |                        | DTB120300 | 1.2  | 1.5  | 1.8  | A     |
|                                                 |                        | DTB240080 | 0.25 | 0.4  | 0.55 | A     |
|                                                 |                        | DTB240125 | 0.4  | 0.6  | 0.8  | A     |
|                                                 |                        | DTB240150 | 0.55 | 0.75 | 0.95 | A     |
|                                                 | output voltage         | 12 V      | 14.3 | 14.5 | 14.7 | V dc  |
|                                                 |                        | 24 V      | 28.5 | 28.8 | 29.1 | V dc  |
| stand-by charge<br>(CC mode)<br>LED: green      | output current         | DTB120125 |      |      | 0.75 | A     |
|                                                 |                        | DTB120225 |      |      | 1    | A     |
|                                                 |                        | DTB120300 |      |      | 1.5  | A     |
|                                                 |                        | DTB240080 |      |      | 0.4  | A     |
|                                                 |                        | DTB240125 |      |      | 0.6  | A     |
|                                                 |                        | DTB240150 |      |      | 0.75 | A     |
|                                                 | output voltage         | 12 V      | 13.5 | 13.7 | 13.9 | V dc  |
|                                                 |                        | 24 V      | 27.1 | 27.4 | 27.7 | V dc  |
| open state<br>(CV mode)<br>LED: green           | output current         | DTB120125 |      | 0    |      | A     |
|                                                 |                        | DTB120225 |      | 0    |      | A     |
|                                                 |                        | DTB120300 |      | 0    |      | A     |
|                                                 |                        | DTB240080 |      | 0    |      | A     |
|                                                 |                        | DTB240125 |      | 0    |      | A     |
|                                                 |                        | DTB240150 |      | 0    |      | A     |
|                                                 | output voltage         | 12 V      | 13.5 | 13.7 | 13.9 | V dc  |
|                                                 |                        | 24 V      | 27.1 | 27.4 | 27.7 | V dc  |

CC: continue current, CV: continue voltage

## CHARGE

| parameter                   | conditions/description                | min | nom | max | units |
|-----------------------------|---------------------------------------|-----|-----|-----|-------|
| reverse polarity protection |                                       |     |     |     |       |
| short circuit protection    | auto recovery                         |     |     |     |       |
| reverse current             |                                       |     |     | 5   | mA    |
| battery type                | charger is good for lead acid battery |     |     |     |       |



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## SAFETY & EMI

| parameter        | conditions/description               | min | nom | max   | units  |
|------------------|--------------------------------------|-----|-----|-------|--------|
| HI-POT           | input to output at 5 mA for 1 minute |     |     | 3,000 | V ac   |
|                  | input to output at 5 mA for 1 minute |     |     | 4,242 | V dc   |
| safety approvals | UL/cUL, CE                           |     |     |       |        |
| EMI standard     | FCC class B                          |     |     |       |        |
| warranty*        | standard warranty length             |     |     | 6     | months |

## ENVIRONMENTAL

| parameter             | conditions/description | min | nom | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| relative humidity     |                        | 8   |     | 95  | %     |
| storage temperature   |                        | -40 |     | 70  | °C    |

\* CUI products are warranted against defect in materials and workmanship. This warranty does not cover damage or wear resulting from accident, misuse, or unauthorized adjustment, modification, or repair. In the event of a defect covered by this warranty, CUI, at its option, will provide repair, replacement, or credit for products that are defective within the warranty period.

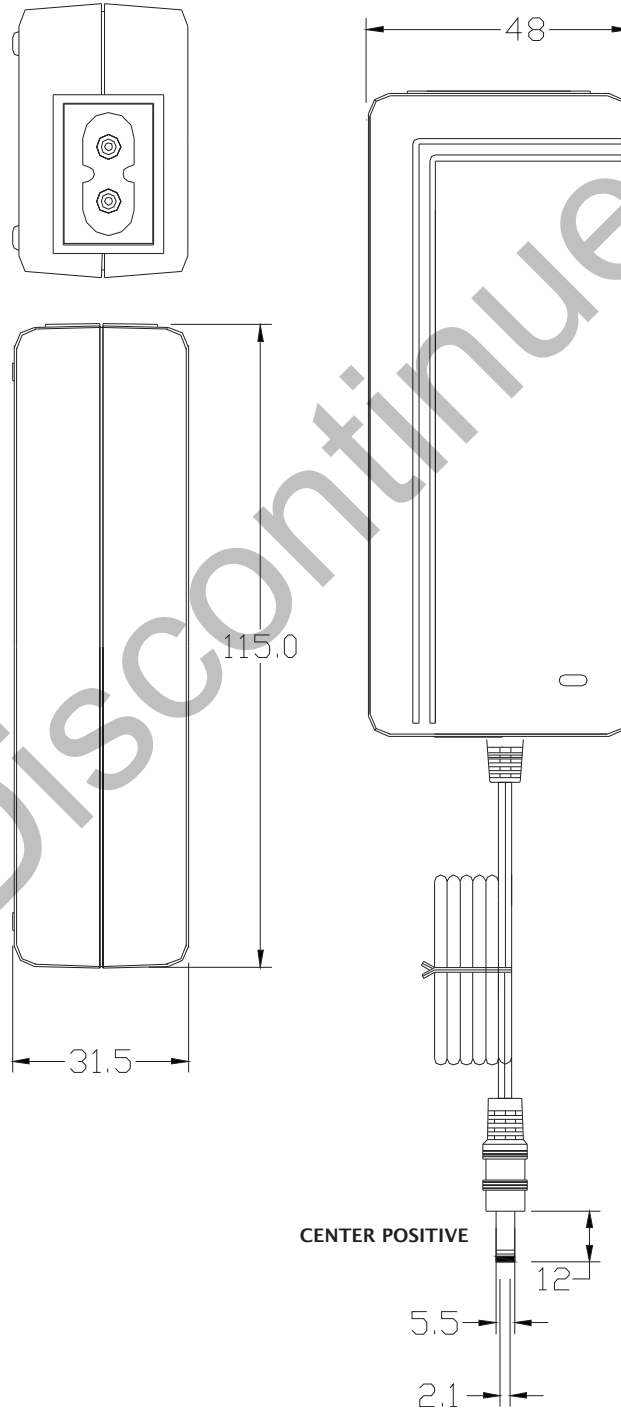


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## MECHANICAL DRAWING (DTB2120150, DTB240080)

|           |                                                        |
|-----------|--------------------------------------------------------|
| ac socket | IEC320/C8                                              |
| dc cord   | UL2468, AWG 24#*2C, black, 1.8 meter with dc connector |
| case      | 115 L x 48 W x 31.5 H mm, tolerance: $\pm 1$ mm        |



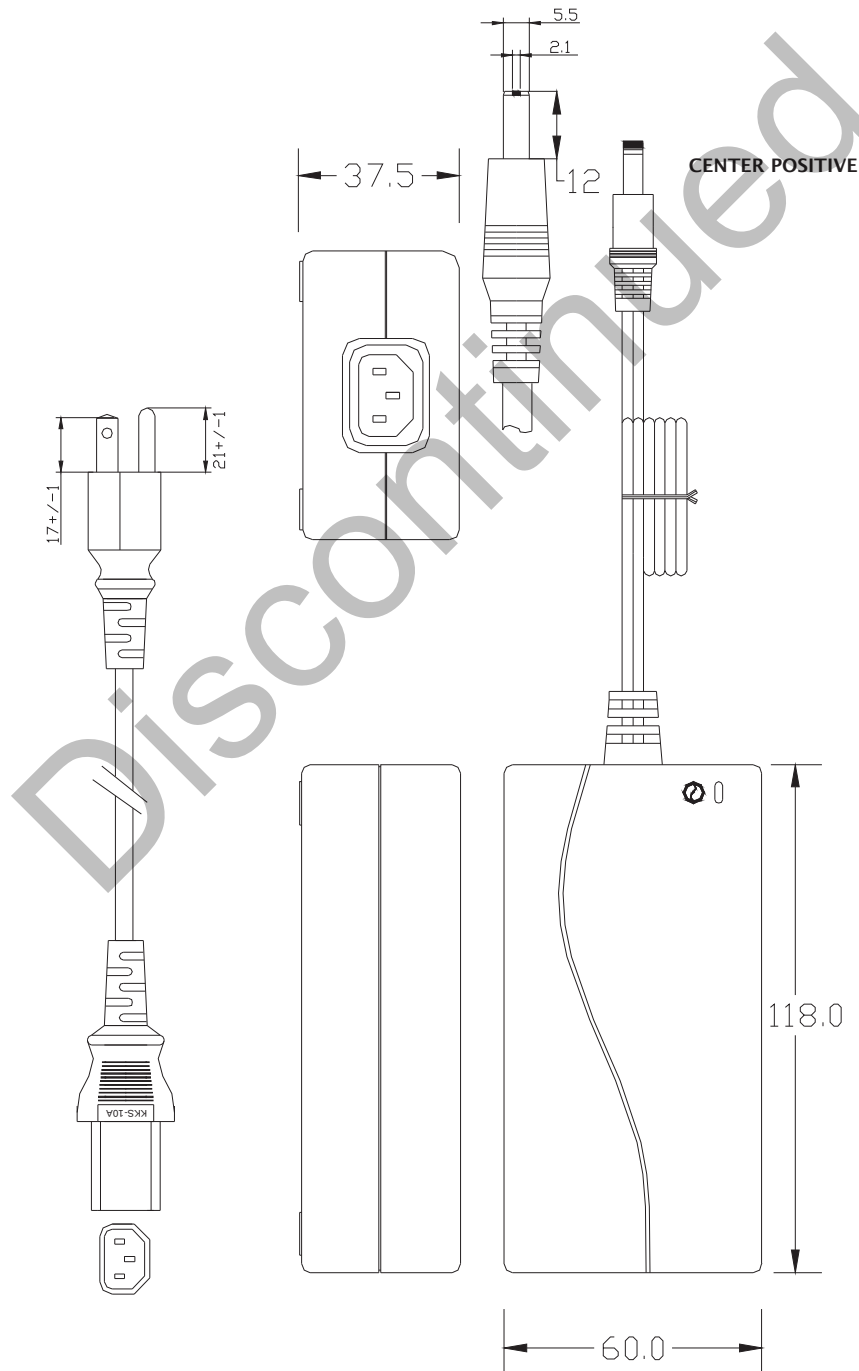


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## MECHANICAL DRAWING (all other models)

|           |                                                        |
|-----------|--------------------------------------------------------|
| ac socket | IEC320                                                 |
| ac cord   | SVT AWG 18*3C, UL 3PIN, 1.8 meter                      |
| dc cord   | UL2468, AWG 20#*2C, black, 1.8 meter with dc connector |
| case      | 118 L x 60 W x 37.5 H mm, tolerance: $\pm 1$ mm        |

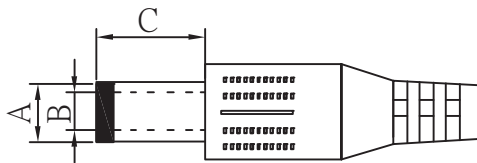


SERIES: 18 ~ 36 W DESK-TOP

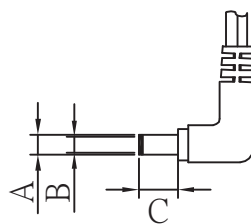
DESCRIPTION: LEAD ACID BATTERY CHARGER

## OUTPUT PLUG OPTIONS

### Standard DC Plug



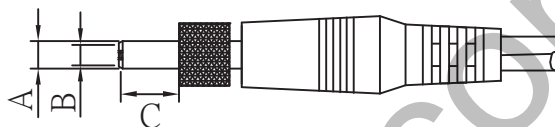
Standard PX



Right Angle PXR

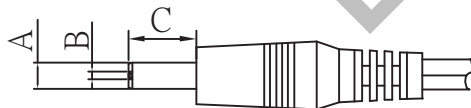
|        | A   | B    | C  | Unit |
|--------|-----|------|----|------|
| P5/P5R | 5.5 | 2.1  | 12 | mm   |
| P6/P6R | 5.5 | 2.5  | 12 | mm   |
| P7/P7R | 3.5 | 1.3  | 10 | mm   |
| P8/P8R | 3.8 | 1.35 | 10 | mm   |
| P9/P9R | 3.8 | 1.05 | 10 | mm   |

### Locking DC Plug

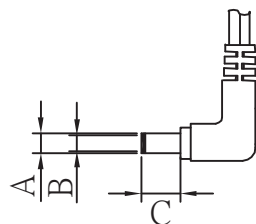


|     | A   | B   | C  | Unit |
|-----|-----|-----|----|------|
| P10 | 5.5 | 2.1 | 12 | mm   |
| P11 | 5.5 | 2.5 | 12 | mm   |

### EIAJ Plugs



Standard PXX



Right Angle PXXR

|          | EIAJ   | A    | B   | C   | Unit |
|----------|--------|------|-----|-----|------|
| P12/P12R | EIAJ-1 | 2.35 | 0.7 | 10  | mm   |
| P13/P13R | EIAJ-2 | 4.0  | 1.7 | 9.5 | mm   |
| P14/P14R | EIAJ-3 | 4.75 | 1.7 | 9.5 | mm   |

Add suffix "P" for center positive: PXXP



Add suffix "N" for center negative: PXXN



\*Contact CUI for additional output plug options.