


**SERIES:** 12 W WALL PLUG - UK BLADE | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

- up to 12 W power
- universal input (90~264 Vac)
- single regulated output from 5~12 V
- over voltage, over current, and short circuit protections
- TUV safety approvals
- level V efficiency
- custom designs available



| MODEL        | output voltage<br>(Vdc) | output current<br>max<br>(A) | output power<br>max<br>(W) | ripple and noise <sup>1</sup><br>max<br>(mVp-p) | efficiency level |
|--------------|-------------------------|------------------------------|----------------------------|-------------------------------------------------|------------------|
| EPSA050250UB | 5                       | 2.5                          | 12                         | 50                                              | V                |
| EPSA120100UB | 12                      | 1                            | 12                         | 120                                             | V                |

Notes: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, each output terminated with 10  $\mu$ F aluminum electrolytic and 0.1  $\mu$ F ceramic capacitors.

**PART NUMBER KEY**

**EPSA050250UB - XX - EJ - CXX**

Base Number  
example of 5 Vdc, 2.5 A

DC Plug Type

Factory Designation

Reserved for Custom Configurations

## INPUT

| parameter      | conditions/description            | min | nom | max | units |
|----------------|-----------------------------------|-----|-----|-----|-------|
| voltage        |                                   | 90  |     | 264 | Vac   |
| frequency      |                                   | 47  |     | 63  | Hz    |
| current        |                                   |     |     | 0.4 | A     |
| inrush current | at 115 Vac, full load, cold start |     |     | 30  |       |

## OUTPUT

| parameter       | conditions/description           | min | nom | max | units |
|-----------------|----------------------------------|-----|-----|-----|-------|
| line regulation |                                  |     | ±5  |     | %     |
| load regulation |                                  |     | ±5  |     | %     |
| start-up        |                                  |     |     | 2   | s     |
| hold-up         | at 110 Vac, 50 Hz, 80% max. load | 10  |     |     | ms    |

## PROTECTIONS

| parameter                | conditions/description            | min | nom | max | units |
|--------------------------|-----------------------------------|-----|-----|-----|-------|
| over voltage protection  | output shut down                  |     |     |     |       |
| over current protection  |                                   |     |     | 200 | %     |
| short circuit protection | output shut down and auto restart |     |     |     |       |

## SAFETY & COMPLIANCE

| parameter            | conditions/description                                                                    | min | nom | max     | units |
|----------------------|-------------------------------------------------------------------------------------------|-----|-----|---------|-------|
| isolation voltage    | input to output at 10 mA for 2 seconds                                                    |     |     | 3,000   | Vac   |
| isolation resistance | input to output at 500 Vdc                                                                | 10  |     |         | MΩ    |
| safety approvals     | EN 60950-1, CE                                                                            |     |     |         |       |
| EMI/EMC              | EN 55022 Class B, AS/NZS CISPR 22 Class B, EN 61000-3-(2,3), IEC 61000-4-(2,3,4,5,6,8,11) |     |     |         |       |
| leakage current      |                                                                                           |     |     | 0.25    | mA    |
| RoHS compliant       | yes                                                                                       |     |     |         |       |
| MTBF                 | at full load, 25°C, Telcordia SR-332, Issue 2                                             |     |     | 300,000 | hours |

## ENVIRONMENTAL

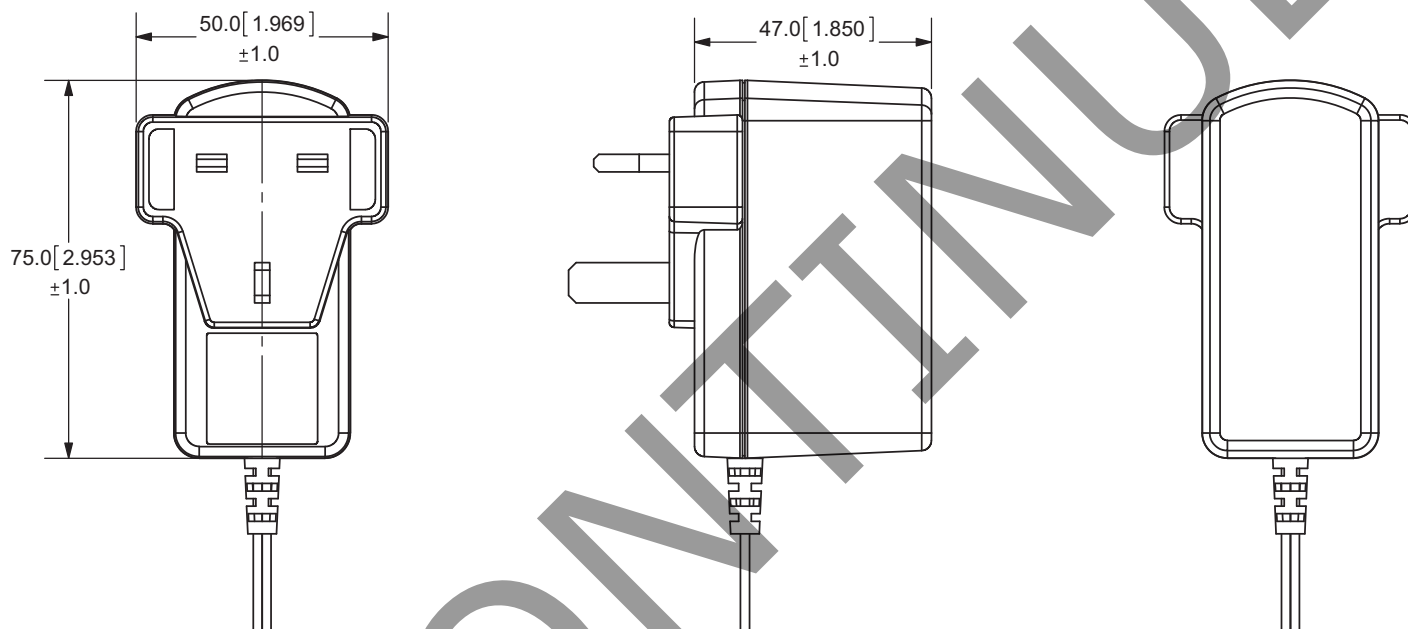
| parameter             | conditions/description | min | nom | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| storage temperature   |                        | -25 |     | 85  | °C    |
| operating humidity    |                        | 10  |     | 95  | %     |
| storage humidity      |                        | 10  |     | 95  | %     |

## MECHANICAL

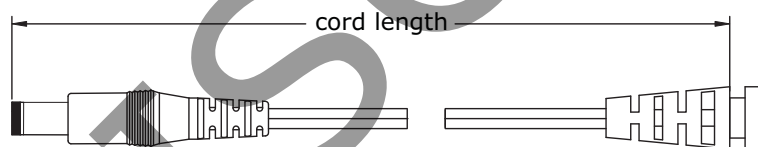
| parameter  | conditions/description                  | min | typ | max | units |
|------------|-----------------------------------------|-----|-----|-----|-------|
| dimensions | 2.953 x 1.969 x 1.850 (75 x 50 x 47 mm) |     |     |     | inch  |
| input plug | fixed UK                                |     |     |     |       |

## MECHANICAL DRAWING

units: mm[inch]



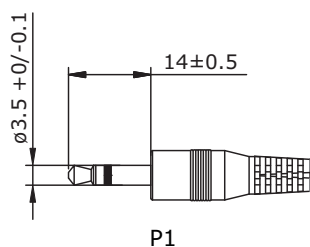
## DC CORD



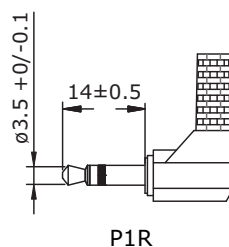
| MODEL NO.    | CABLE GAUGE | CORD LENGTH      |
|--------------|-------------|------------------|
| EPSA050250UB | 18 AWG      | 1,500 mm ±30     |
| EPSA120100UB | 22 AWG      | 1,500 mm +50/-30 |

## OUTPUT PLUG OPTIONS

### 3.5 mm Phono Plug



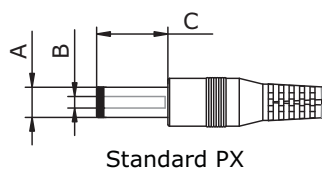
P1



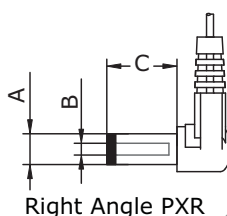
P1R

\*Tip positive

### Standard DC Plug



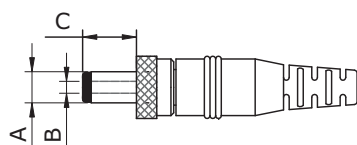
Standard PX



Right Angle PXR

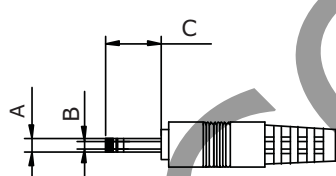
|        | A   | B    | C   | Unit |
|--------|-----|------|-----|------|
| P5/P5R | 5.5 | 2.1  | 9.5 | mm   |
| P6/P6R | 5.5 | 2.5  | 9.5 | mm   |
| P7/P7R | 3.5 | 1.35 | 9.5 | mm   |
| P8/P8R | 3.8 | 1.35 | 9.5 | mm   |
| P9/P9R | 3.8 | 1.05 | 9.5 | mm   |

### Locking DC Plug

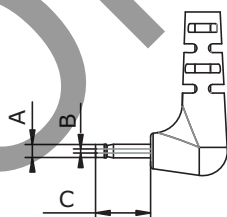


|     | A   | B   | C   | Unit |
|-----|-----|-----|-----|------|
| P10 | 5.5 | 2.1 | 9.5 | mm   |
| P11 | 5.5 | 2.5 | 9.5 | mm   |

### EIAJ Plugs

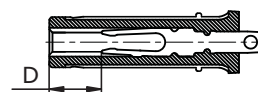


Standard PXX

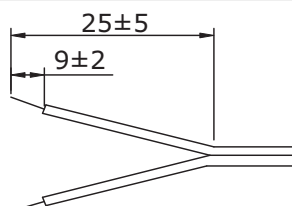


Right Angle PXXR

|          | EIAJ   | A    | B   | C   | D   | Unit |
|----------|--------|------|-----|-----|-----|------|
| P12/P12R | EIAJ-1 | 2.35 | 0.7 | 9.5 | NA  | mm   |
| P13/P13R | EIAJ-2 | 4.0  | 1.7 | 9.5 | 5.0 | mm   |
| P14/P14R | EIAJ-3 | 4.75 | 1.7 | 9.5 | 5.0 | mm   |



### Stripped and Tinned



### DC PLUG TYPE

**ST**

Stripped and Tinned

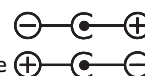
**PXXXX**

Plug Type

Plug Angle:  
"Blank" = Standard  
R = Right Angle

Plug Polarity:  
"Blank" = N/A  
P = Center Positive

N = Center Negative



\*Contact CUI for additional output plug options.

## REVISION HISTORY

| rev. | description                                                                              | date       |
|------|------------------------------------------------------------------------------------------|------------|
| 1.0  | initial release                                                                          | 03/08/2010 |
| 1.01 | updated output plug options                                                              | 11/11/2010 |
| 1.02 | new template applied                                                                     | 01/24/2012 |
| 1.03 | V-Infinity branding removed, P7/P7R B dimension updated, safety and EMI/EMC data updated | 08/21/2012 |

The revision history provided is for informational purposes only and is believed to be accurate.

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