



SERIES: 20 W DESKTOP

DESCRIPTION: SWITCHING POWER SUPPLY

**FEATURES**

- universal AC input
- regulated output voltage
- short circuit, over load protection
- LED indicator for power on
- meets EISA / efficiency level IV regulations
- custom designs available



| MODEL      | output voltage |  | output current |         | output wattage | ripple       | efficiency level | cord length (mm) |
|------------|----------------|--|----------------|---------|----------------|--------------|------------------|------------------|
|            | nominal (V dc) |  | min (A)        | max (A) | max (W)        | max. (mVp-p) |                  |                  |
| ETS050400U | 5              |  | 0              | 4       | 20             | 150          | IV               | 1000 +150/-0     |
| ETS060330U | 6              |  | 0              | 3.3     | 19.8           | 150          | IV               | 1000 +150/-0     |
| ETS090220U | 9              |  | 0              | 2.2     | 19.8           | 150          | V                | 1830 +150/-0     |
| ETS120200U | 12             |  | 0              | 2       | 24             | 150          | V                | 1830 +150/-0     |
| ETS150133U | 15             |  | 0              | 1.33    | 20             | 150          | V                | 1830 +150/-0     |
| ETS180110U | 18             |  | 0              | 1.1     | 19.8           | 150          | V                | 1830 +150/-0     |
| ETS240100U | 24             |  | 0              | 1       | 24             | 150          | V                | 1830 +150/-0     |

\*full load, 100~240 Vac input, measured at 20MHz bandwidth with a 10 uF electrolytic cap and a 0.1 uF ceramic cap on the output

**PART NUMBER KEY**

**ETS050400U T C - XX - SZ - CXX**

Base Number  
example of 5 V dc, 4.0 A

AC Input Plug:  
blank = IEC 320 C14 plug  
T = IEC 320 C6 plug

Input Cable:  
C = included  
blank = no cable

DC Plug type:  
see output plug options  
on page 5

Factory Designation

Reserved for custom orders



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## INPUT

| parameter                 | conditions/description   | min | nom | max      | units  |
|---------------------------|--|-----|-----|----------|--------|
| rated input voltage       |  | 100 |     | 240      | V ac   |
| input voltage range       |  | 90  |     | 255      | V ac   |
| rated frequency           |  | 50  |     | 60       | Hz     |
| frequency range           |  | 47  |     | 63       | Hz     |
| rated input current       |  |     |     | 0.8      | A      |
| inrush current            | 115 V ac, full load, cold start, 25°C<br>230 V ac, full load, cold start, 25°C |     |     | 30<br>50 | A<br>A |
| no load power consumption | 110 ~ 240 V ac   |     |     | 0.5      | W      |

## OUTPUT

| parameter                | conditions/description            | min  | nom | max  | units |
|--------------------------|-----------------------------------|------|-----|------|-------|
| line regulation          |                                   |      | ±1  |      | %     |
| load regulation          |                                   |      | ±5  |      | %     |
| over voltage protection  | output shut down                  | 110% |     | 140% | V dc  |
| short circuit protection | output shut down and auto-restart |      |     |      |       |

## SAFETY & EMI

| parameter             | conditions/description                         | min | nom | max          | units        |
|-----------------------|--|-----|-----|--------------|--------------|
| HI-POT                | input to output at 10 mA for 1 second          |     |     | 1500<br>2121 | V ac<br>V dc |
| insulation resistance | input to output at 500 V dc                    | 100 |     |              | MΩ           |
| safety approvals      | UL/cUL, CB (IEC60950-1), CE (GS/TUV EN60950-1) |     |     |              |              |
| EMI standard          | FCC part 15 class B, CE (EN55022, EN55024)     |     |     |              |              |
| leakage current       |  |     |     | 3.5          | mA           |
| RoHS compliant        | yes  |     |     |              |              |

## ENVIRONMENTAL

| parameter             | conditions/description | min | nom | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| operating humidity    |                        | 20  |     | 80  | %     |
| storage temperature   |                        | -10 |     | 70  | °C    |
| storage humidity      |                        | 10  |     | 90  | %     |

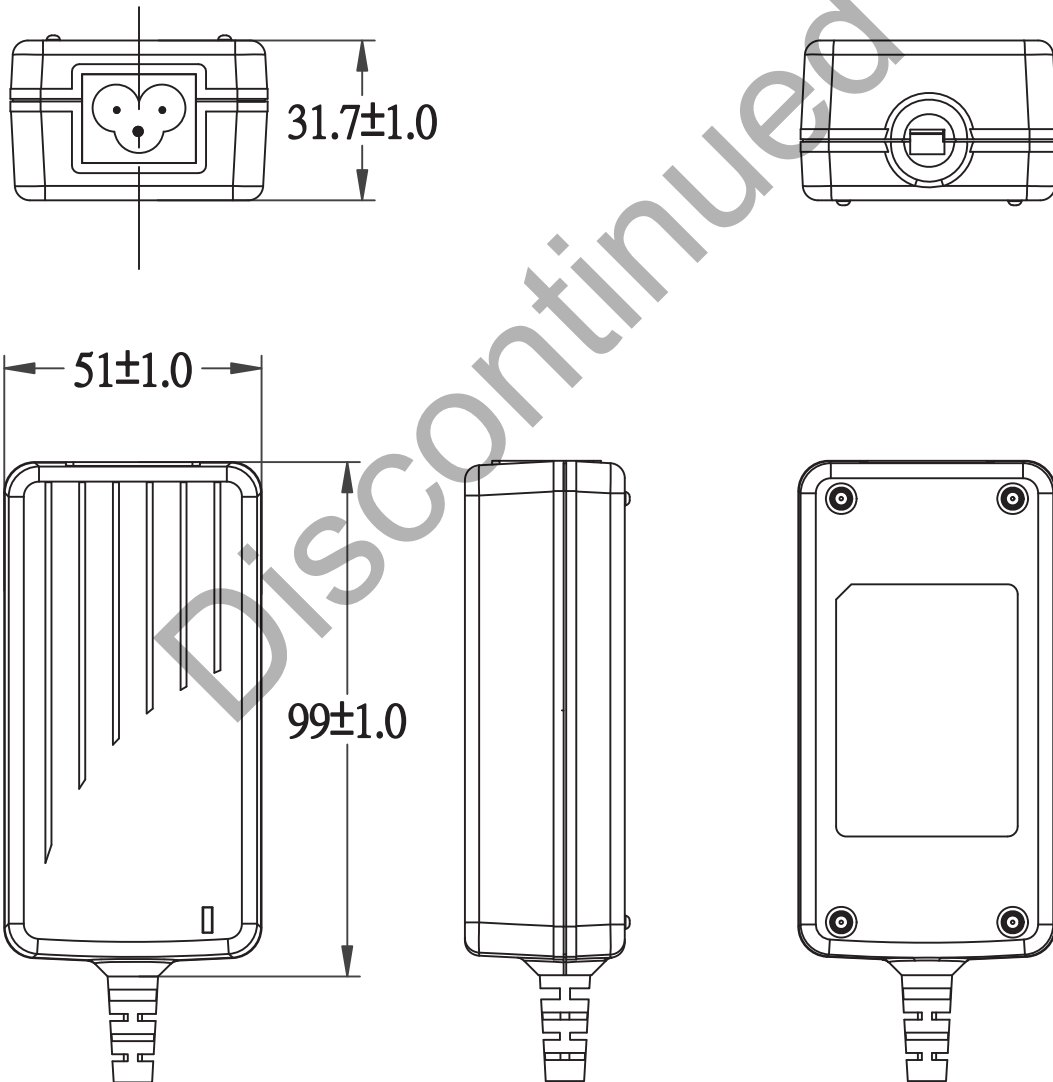


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**MECHANICAL DRAWING**

case size 99 L x 51 W x 31.7 H mm  
tolerance:  $\pm 1$  mm

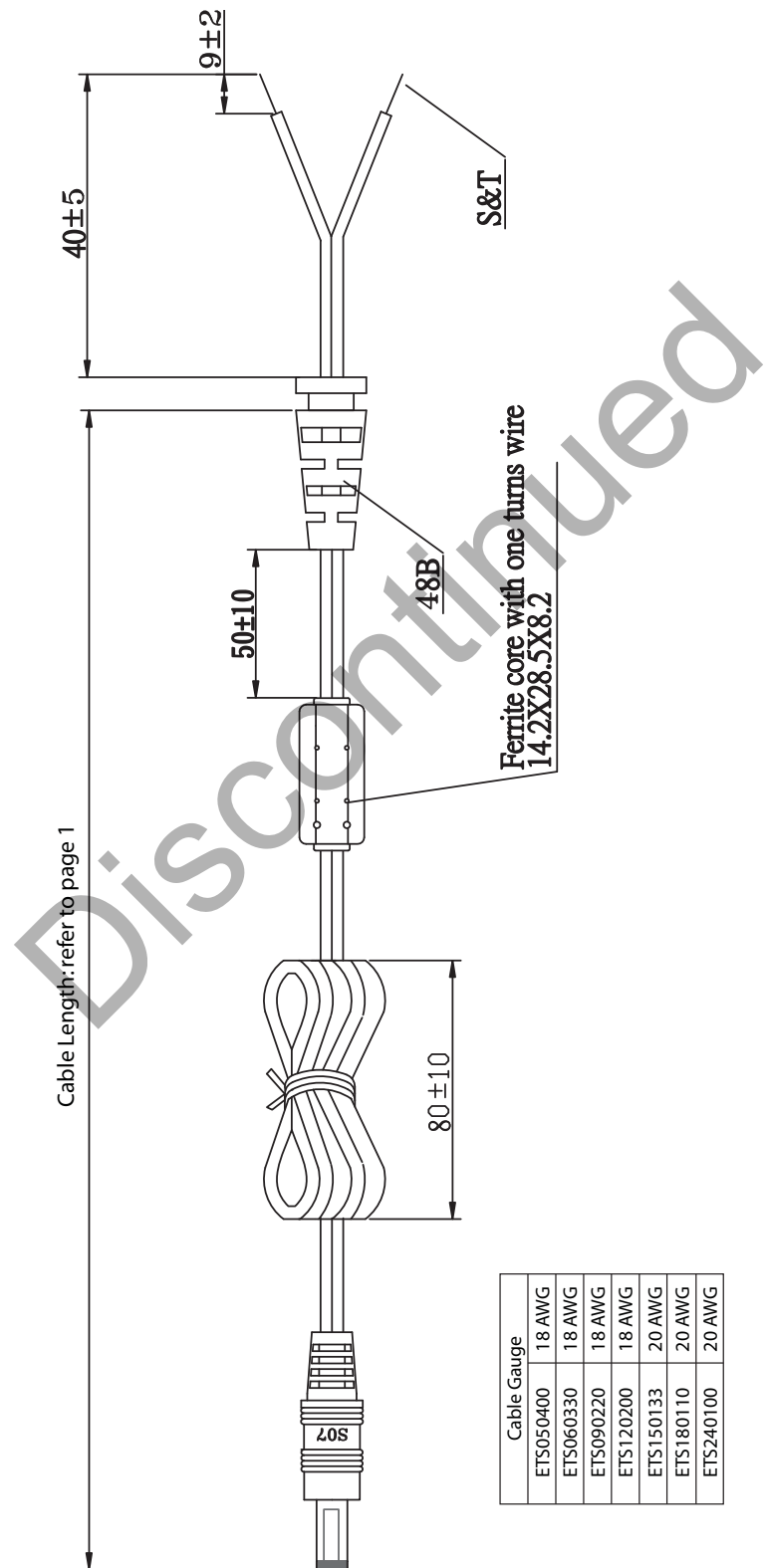




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DC CORD



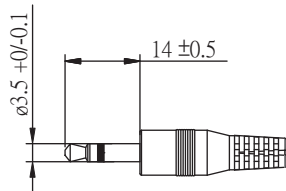


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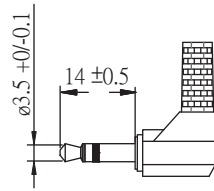
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**OUTPUT PLUG OPTIONS**

**3.5 mm Phono Plug**



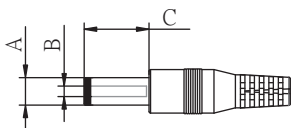
P1



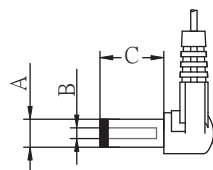
P1R

\*Tip positive

**Standard DC Plug**



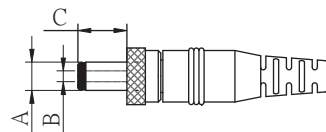
Standard PX



Right Angle PXR

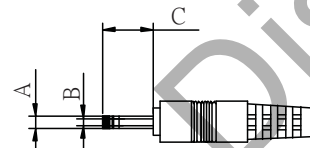
|        | A   | B    | C   | Unit |
|--------|-----|------|-----|------|
| P5/P5R | 5.5 | 2.1  | 9.5 | mm   |
| P6/P6R | 5.5 | 2.5  | 9.5 | mm   |
| P7/P7R | 3.5 | 1.3  | 9.5 | mm   |
| P8/P8R | 3.8 | 1.35 | 9.5 | mm   |
| P9/P9R | 3.8 | 1.05 | 9.5 | mm   |

**Locking DC Plug**

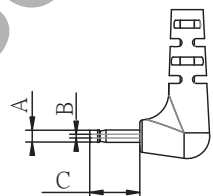


|     | A   | B   | C   | Unit |
|-----|-----|-----|-----|------|
| P10 | 5.5 | 2.1 | 9.5 | mm   |
| P11 | 5.5 | 2.5 | 9.5 | mm   |

**EIAJ Plugs**

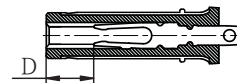


Standard PXX

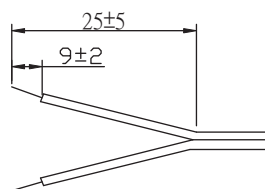


Right Angle PXXR

|          | 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

**PXX X X**

Plug type      Plug angle: "blank" = standard  
R = right angle      Plug polarity: "blank" = N/A  
P = center positive      N = center negative

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\*Contact CUI for additional output plug options.



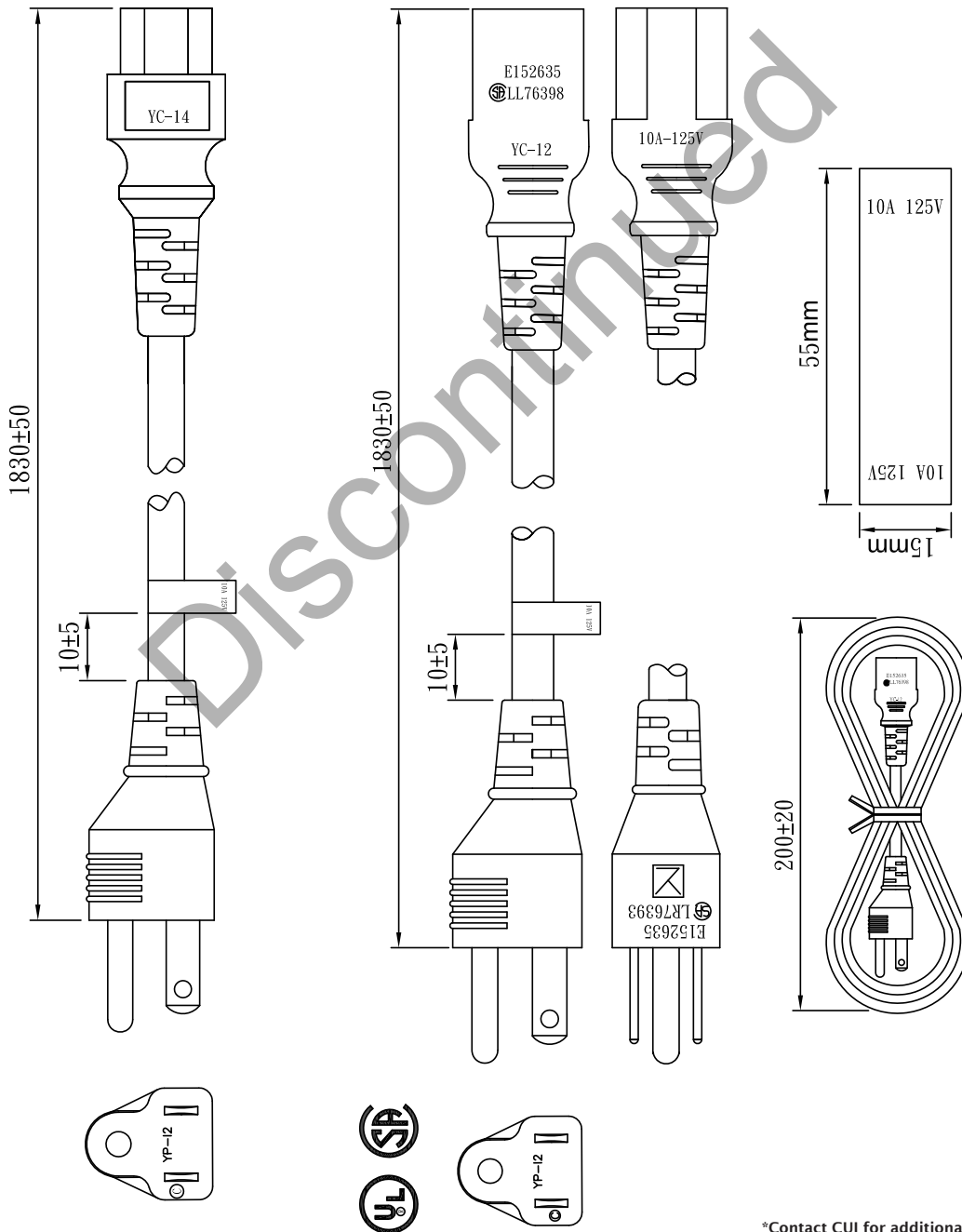
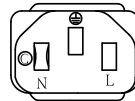
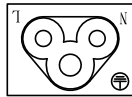
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AC CORD

C6

C14



\*Contact CUI for additional ac cord input blade options.

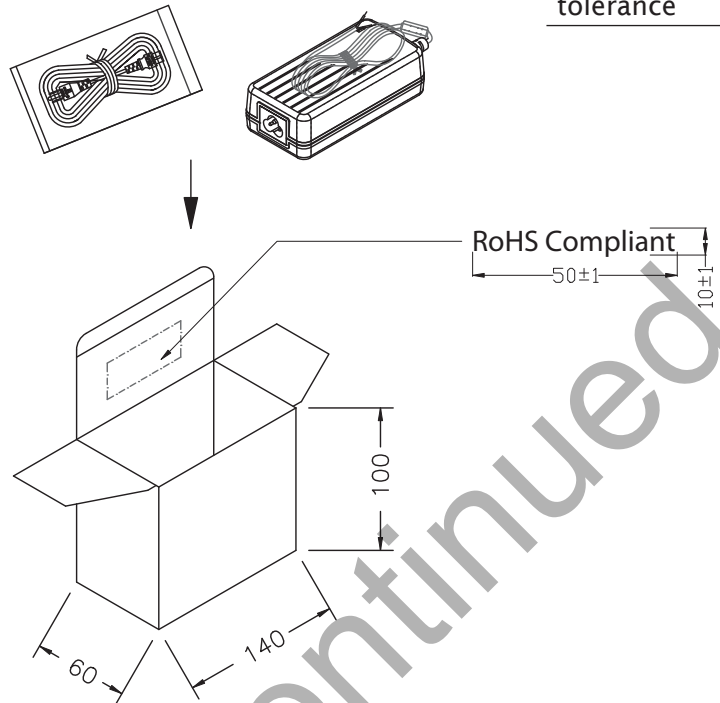


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**INDIVIDUAL PACKAGING**

tolerance  $\pm 1$  mm



**PACKAGING**

tolerance  $+7 / -0$  mm

CARTON SIZE: 445X327X235

Q'TY: 30pcs(15X2)

