

SERIES: 18 W MULTI-BLADE

DESCRIPTION: SWITCHING POWER SUPPLY

## FEATURES

- universal AC input
- regulated output voltage
- interchangeable input blade
- short circuit, over load protection
- meets EISA / efficiency level IV regulations
- custom designs available



| MODEL     | output voltage    | output current |            | output wattage | ripple*         | efficiency level | cord length<br>(mm) |
|-----------|-------------------|----------------|------------|----------------|-----------------|------------------|---------------------|
|           | nominal<br>(V dc) | min<br>(A)     | max<br>(A) | max<br>(W)     | max.<br>(mVp-p) |                  |                     |
| EMS050320 | 5                 | 0              | 3.2        | 16             | 150             | IV               | 1000 +150/-0        |
| EMS060300 | 6                 | 0              | 3          | 18             | 150             | IV               | 1000 ±100           |
| EMS070257 | 7                 | 0              | 2.57       | 19.25          | 150             | IV               | 1830 +150/-0        |
| EMS090200 | 9                 | 0              | 2          | 18             | 150             | IV               | 1830 +150/-0        |
| EMS120150 | 12                | 0              | 1.5        | 18             | 150             | IV               | 1830 +150/-0        |
| EMS150120 | 15                | 0              | 1.2        | 18             | 150             | V                | 1830 +150/-0        |
| EMS180100 | 18                | 0              | 1          | 18             | 150             | V                | 1830 +150/-0        |
| EMS200090 | 20                | 0              | 0.9        | 18             | 150             | IV               | 1830 +150/-0        |
| EMS240075 | 24                | 0              | 0.75       | 18             | 240             | V                | 1830 +150/-0        |

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

## PART NUMBER KEY

**EMS050320 - XX - SZ - CXX**

Base Number  
example of 5 V dc, 3.2 A

DC Plug type:  
see output plug options  
on page 5

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  |
| input voltage range       |                                       | 90  |     | 264 | V ac  |
| rated frequency           |                                       | 50  |     | 60  | Hz    |
| frequency range           |                                       | 47  |     | 63  | Hz    |
| rated input current       |                                       |     |     | 0.6 | A     |
| inrush current            | 115 V ac, full load, cold start, 25°C |     |     | 30  | A     |
|                           | 230 V ac, full load, cold start, 25°C |     |     | 60  | A     |
| no load power consumption | 100 ~ 240 V ac input                  |     |     | 0.3 | W     |

## OUTPUT

| parameter                | conditions/description            | min  | nom | max  | units |
|--------------------------|-----------------------------------|------|-----|------|-------|
| line regulation          |                                   |      | ±1  |      | %     |
| load regulation          |                                   |      | ±6  |      | %     |
| 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 minute          |     |     | 3000 | V ac  |
|                       |                                                |     |     | 4242 | 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       |                                                |     |     | 0.25 | mA    |
| RoHS compliant        | yes                                            |     |     |      |       |
| LPS power supply      | yes                                            |     |     |      |       |

## ENVIRONMENTAL

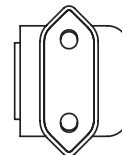
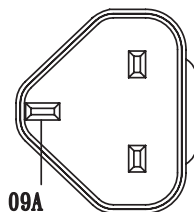
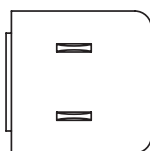
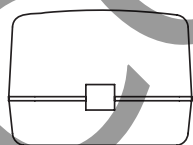
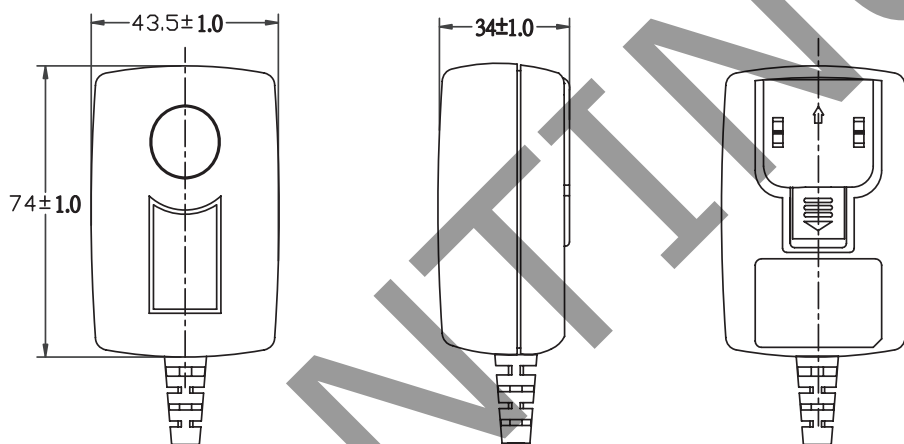
| parameter             | conditions/description | min | nom | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| operating humidity    |                        | 20  |     | 80  | %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

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## MECHANICAL DRAWING

|            |                                                   |
|------------|---------------------------------------------------|
| input plug | interchangeable input blade<br>(UL, UK, VDE, SAA) |
| case size  | 74 L x 43.5 W x 34 H mm<br>tolerance: $\pm 1$ mm  |

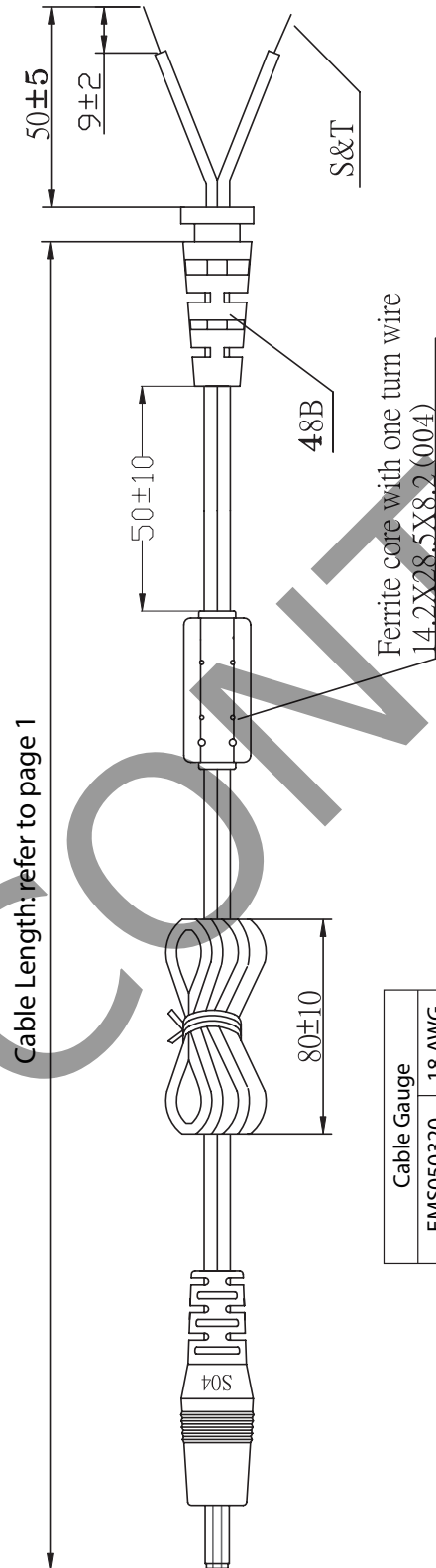




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## DC CORD



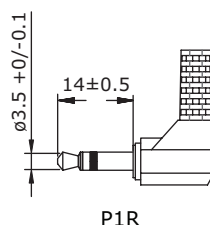
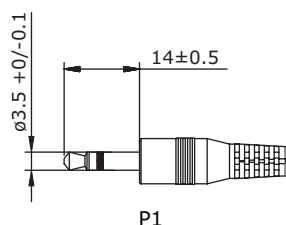
| Cable Gauge |        |
|-------------|--------|
| EMS050320   | 18 AWG |
| EMS060300   | 18 AWG |
| EMS070257   | 18 AWG |
| EMS090200   | 18 AWG |
| EMS120150   | 20 AWG |
| EMS150120   | 20 AWG |
| EMS180100   | 20 AWG |
| EMS200090   | 20 AWG |
| EMS240075   | 20 AWG |

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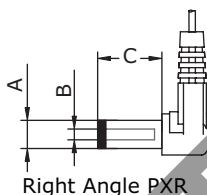
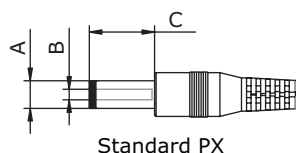
## OUTPUT PLUG OPTIONS

### 3.5 mm Phono Plug



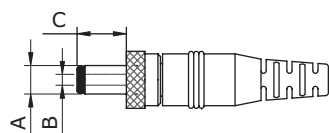
\*Tip positive

### Standard DC Plug



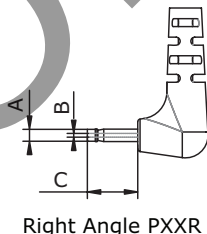
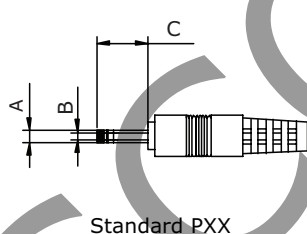
|        | A   | B    | C   | Unit |
|--------|-----|------|-----|------|
| P5/P5R | 5.5 | 2.1  | 9.5 | mm   |
| P6/P6R | 5.5 | 2.5  | 9.5 | mm   |
| P7/P7R | 3.5 | 1.35 | 9.5 | mm   |
| P8/P8R | 3.8 | 1.35 | 9.5 | mm   |
| P9/P9R | 3.8 | 1.05 | 9.5 | mm   |

### Locking DC Plug

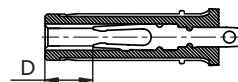


|     | A   | B   | C   | Unit |
|-----|-----|-----|-----|------|
| P10 | 5.5 | 2.1 | 9.5 | mm   |
| P11 | 5.5 | 2.5 | 9.5 | mm   |

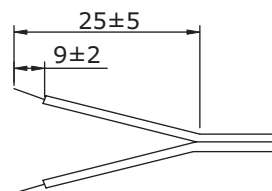
### EIAJ Plugs



|          | 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

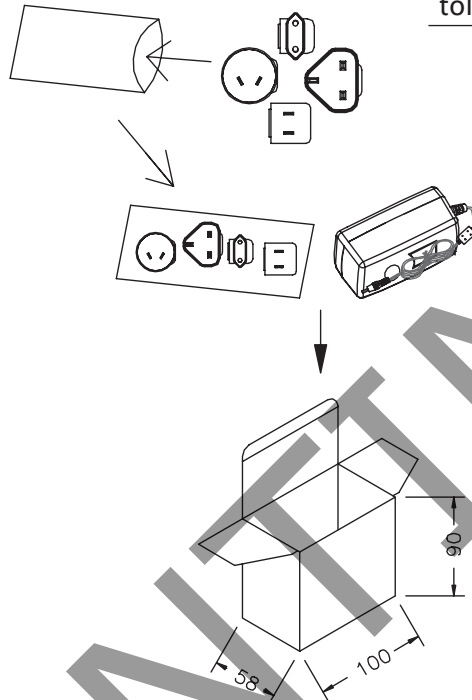

 \*Contact CUI for additional output plug options.  
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## INDIVIDUAL PACKAGING



tolerance  $\pm 1$  mm

## PACKAGING

tolerance  $+7 / -0$  mm

CARTON SIZE: 485X428X210mm  
Q'TY: 60pcs(20x3x1)

