



**FEATURES**

- +5V to +48V Output Voltage Range
- 0.9 to 0.95 Power Factor
- No Load Power Consumption < 500 mW
- Comply with CEC, Energy Star, ERP& EISA Efficiency Level V
- Class I with IEC320/C14 AC Inlet



**INPUT & OUTPUT SPECIFICATIONS**

Input Voltage ..... 90 to 264 VAC  
 Input Frequency ..... 47 to 63 Hz  
 Input Current ..... 2.5A (rms) max. @ 90 VAC;  
 ..... 1.0A (rms) max. @ 264 VAC  
 No Load Power ..... <0.5W  
 Output Voltage & Current ..... See table  
 Output Voltage Regulation ...  $\pm 5\%$  max.  
 Ripple and Noise ..... See table  
 Earth Leakage Current ..... <300 $\mu$ A @ 264 VAC  
 Short-Circuit Protection ..... Auto recovery  
 Overload Protection ..... Auto recovery  
 Overvoltage Protection ..... Latch & shutdown, AC recycle

**STANDARDS & COMPLIANCES**

EMC Standards ..... EN 60601-1-2, EN 55011 Class B,  
 FCC Part 18 Class B  
 Safety Standards ..... IEC/EN/UL 60601-1 3rd edition,  
 ANSI/AAMI ES 60601-1:2005,  
 CSA C22.2 No. 60601-1:08  
 Agency Approvals ..... UL, cUL, TUV, CB, CE (LVD)  
 Other Compliances ..... RoHS, CEC, Energy Star, ERP &  
 EISA efficiency level V

**MODELS LIST**

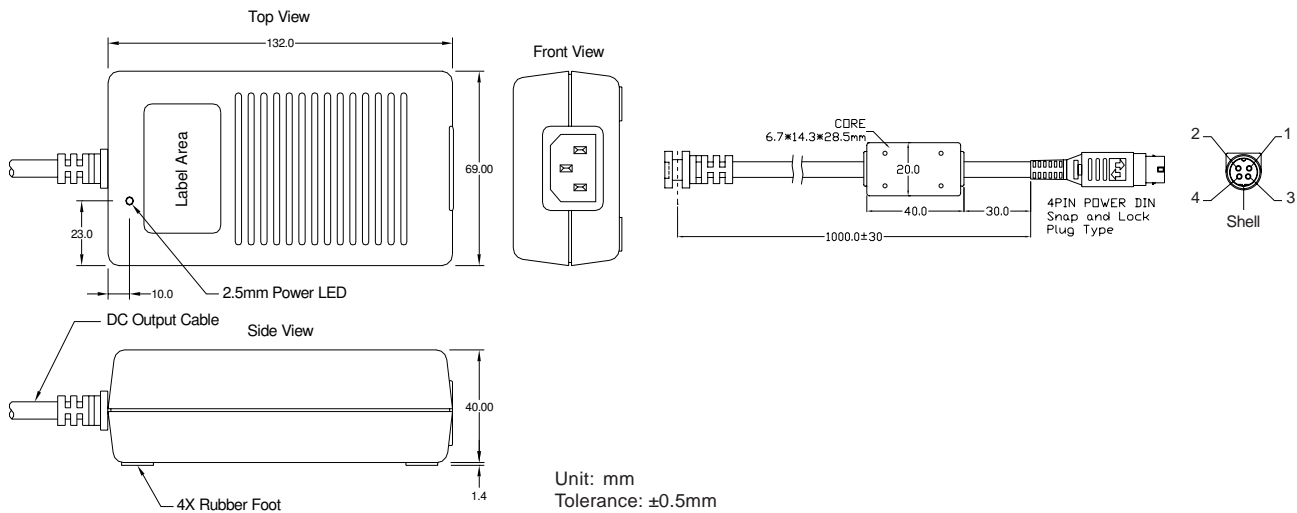
| Product No.     | Output Voltage | Max. Output Current | Output Regulation | Ripple & Noise (Vp-p) <sup>(1)</sup> | Max. Output Power |
|-----------------|----------------|---------------------|-------------------|--------------------------------------|-------------------|
| <b>TMA65-05</b> | 5V             | 8A                  | $\pm 5\%$         | 100mV                                | 40W               |
| <b>TMA65-12</b> | 12V            | 5A                  | $\pm 5\%$         | 120mV                                | 60W               |
| <b>TMA65-15</b> | 15V            | 4A                  | $\pm 5\%$         | 150mV                                | 60W               |
| <b>TMA65-18</b> | 18V            | 3.6A                | $\pm 3\%$         | 180mV                                | 65W               |
| <b>TMA65-24</b> | 24V            | 2.7A                | $\pm 3\%$         | 240mV                                | 65W               |
| <b>TMA65-36</b> | 36V            | 1.8A                | $\pm 3\%$         | 360mV                                | 65W               |
| <b>TMA65-48</b> | 48V            | 1.35A               | $\pm 3\%$         | 480mV                                | 65W               |

Notes:  
 1)Ripple and noise are measured at output within 20 MHz bandwidth with a 10 $\mu$ f electrolytic capacitor in parallel with a 0.1 $\mu$ F ceramic capacitor.

**GENERAL SPECIFICATIONS**

Switching Frequency ..... 63 KHz  
 Efficiency ..... 87% minimum at average load,  
 115 VAC/230 VAC input, except 5V  
 output model  
 Power Factor ..... >0.95 @115 VAC, >0.90 @230 VAC,  
 at full load  
 Hold-up Time ..... >16 ms typical at full load, 115 VAC  
 Inrush Current ..... 50A peak @ 115 VAC, 100A peak @  
 230 VAC, cold start @ 25°C  
 Withstand Voltage ..... >5,656 VDC, input to output,  
 >2,121 VDC, input to ground  
 Operating Temperature ..... 0°C to +70°C ambient  
 Derating ..... Derate from 100% at +51°C  
 linearly to 50% at +70°C  
 Storage Temperature ..... -20°C to +85°C  
 Operating Humidity ..... 20% to 90%  
 MTBF ..... >183K hours at full load and 25°C  
 ambient temperature calculated  
 per MIL-HDBK-217F

### MECHANICAL SPECIFICATIONS (Unit: mm)



| DC OUTPUT CONNECTOR |                 |
|---------------------|-----------------|
| PIN                 | FUNCTION        |
| 1                   | +V              |
| 2                   | RETURN          |
| 3                   | +V              |
| 4                   | RETURN          |
| SHELL               | RETURN & AC GND |

Standard output connector: Kycon P/N KPPX-4P 4-pin circular DIN or equivalent  
 Mating connector: Kycon P/N KPJX-4S-S or equivalent  
 Contact TRUMPower for output connector options.