**TUHS10**

**AC-DC Power Supplies PCB Mount Type**

**TUHS10 F05**

**Ordering Information**

<table>
<thead>
<tr>
<th></th>
<th>TUH</th>
<th>S</th>
<th>10</th>
<th>F</th>
<th>05</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Series name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Single output</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>Output wattage</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>Universal Input</td>
<td></td>
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<tr>
<td>5</td>
<td>Output voltage</td>
<td></td>
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</tbody>
</table>

![Image](https://via.placeholder.com/150)

Class II

Avoid short circuit between +BC and -BC. It may cause the failure of inside components.

To use TUHS, external components are required. Refer to the instruction manual for details.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TUHS10F05</th>
<th>TUHS10F12</th>
<th>TUHS10F24</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX OUTPUT WATTAGE [W]</td>
<td>10.00</td>
<td>10.80</td>
<td>10.80</td>
</tr>
<tr>
<td>DC OUTPUT</td>
<td>5V 2A</td>
<td>12V 0.9A</td>
<td>24V 0.45A</td>
</tr>
</tbody>
</table>

### INPUT

- **VOLTAGE [V]**
  - AC85 - 264 1φ, DC120 - 370
- **CURRENT [A]**
  - AC 100V: 0.25typ (Io=100%)
  - AC 200V: 0.14typ (Io=100%)
- **FREQUENCY [Hz]**
  - 50/60 (47 - 63)
- **EFFICIENCY [%]**
  - AC 100V: 81typ
  - AC 200V: 82typ
- **INRUSH CURRENT**
  - Limited by external components

### OUTPUT

- **VOLTAGE [V]**
  - 5
  - 12
  - 24
- **CURRENT [A]**
  - 2
  - 0.9
  - 0.45
- **LINE REGULATION [mV]**
  - 20max
- **LOAD REGULATION [mV]**
  - 40max
  - 100max
  - 150max
- **RIPPLE [mVpp]**
  - 120max
  - 160max
  - 200max
- **RIPPLE NOISE [mVpp]**
  - 400max
  - 500max
  - 600max
- **TEMPERATURE REGULATION [mV]**
  - 0 to +70°C: 100max
  - -40 to +70°C: 150max
- **DRIFT [mV]**
  - 20max
  - 48max
  - 96max
- **OUTPUT VOLTAGE SETTING [V]**
  - 4.90 - 5.30
  - 11.40 - 12.60
  - 23.00 - 25.00

**PROTECTION CIRCUIT AND OTHERS**

- **OVERCURRENT PROTECTION**
  - Works over 105% of rating and recover automatically
- **OVERVOLTAGE PROTECTION [V]**
  - 5.50 - 8.00
  - 13.20 - 19.20
  - 23.60 - 28.40

**ISOLATION**

- **INPUT-OUTPUT**
  - AC3000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)
- **OPERATING TEMP., HUMID. AND ALTITUDE**
  - -40 to +85°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) max
- **STORAGE TEMP., HUMID. AND ALTITUDE**
  - -40 to +100°C, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max
- **VIBRATION**
  - 10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis
- **IMPACT**
  - 196.1m/s² (20G), 11ms, once each along X, Y and Z axis

**SAFETY AND NOISE REGULATIONS**

- **AGENCY APPROVALS**
  - UL60950-1, C-UL (CSA60950-1), EN60950-1
- **CONDUCTED NOISE**
  - Complies with FCC-B, VCCI-B, CISPR-B, EN55022-B
- **HARMONIC ATTENUATOR**
  - Complies with IEC61000-3-2 (Class A) (Not built-in to active filter)

**OTHERS**

- **CASE SIZE/WEIGHT**
  - 33.0X15.0X22.0mm [1.3X0.6X0.86 inches] (W×H×D) / 25g max
- **COOLING METHOD**
  - Convection / Forced air

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*1 Refer to instruction manual for measuring method of electric characteristics.
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated value.
*3 Do not ground secondly circuit, in case of a standard adapted.
*4 Measured with 47µF capacitor as Cbc.
External view

- **AC1**
- **AC2**

**Name Plate**

- **+BC**
- **-BC**

- **+Vout**
- **-Vout**

**Dimensions in mm:**
- **5.08** [1.1]
- **6.4** [0.51]
- **9.38** [0.37]
- **12.9** [0.51]
- **28** [1.1]

**Dimensions in mm, [ ]=inches:**
- **0.2**
- **0.25**
- **0.51**
- **0.25**
- **0.02**

**Div. : 0.2inch**

**Tolerance:** ±0.5 [±0.02]

- **Weight:** 25g max
- **Case material:** PBT
- **Pin material:** Copper
- **Plating treatment of pin:** Lead free plating
- **Dimensions in mm, [ ]=inches**

**Recommending size for processing PCB (TOP VIEW)**

- **28** [1.1]
- **12** [0.48]
- **9.38** [0.37]
- **5.08** [0.2]
- **6.4** [0.25]

**Dimensions in:**
- **mm**
- **[inch]**

**TUHS-7**