



## ■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 40KHz
- 2 years warranty

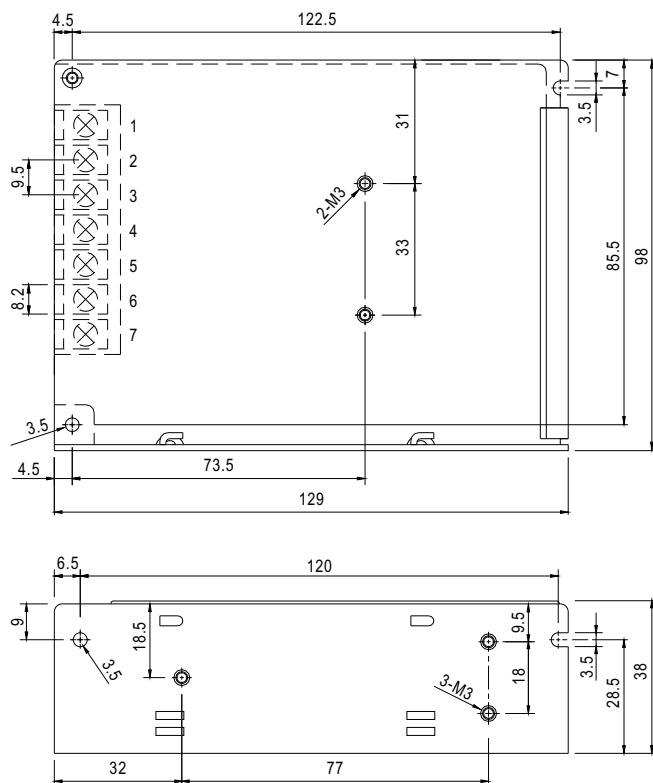


## SPECIFICATION

| MODEL       |                                                                                                                                                                                                                                                                                                                                                  | T-40A                                                                                  |          |          | T-40B                            |          |          | T-40C             |          |          |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------|----------|----------------------------------|----------|----------|-------------------|----------|----------|
| OUTPUT      | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                    | CH1                                                                                    | CH2      | CH3      | CH1                              | CH2      | CH3      | CH1               | CH2      | CH3      |
|             | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                       | 5V                                                                                     | 12V      | -5V      | 5V                               | 12V      | -12V     | 5V                | 15V      | -15V     |
|             | RATED CURRENT                                                                                                                                                                                                                                                                                                                                    | 3A                                                                                     | 2A       | 0.5A     | 3A                               | 2A       | 0.5A     | 3A                | 1.5A     | 0.5A     |
|             | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                    | 0.6 ~ 5A                                                                               | 0.2 ~ 3A | 0.1 ~ 1A | 0.6 ~ 5A                         | 0.2 ~ 3A | 0.1 ~ 1A | 0.6 ~ 5A          | 0.2 ~ 2A | 0.1 ~ 1A |
|             | RATED POWER                                                                                                                                                                                                                                                                                                                                      | 41.5W                                                                                  |          |          | 45W                              |          |          | 45W               |          |          |
|             | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                      | 100mVp-p                                                                               | 120mVp-p | 100mVp-p | 100mVp-p                         | 120mVp-p | 120mVp-p | 100mVp-p          | 120mVp-p | 120mVp-p |
|             | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                               | CH1 : 4.75 ~ 5.5V                                                                      |          |          | CH1 : 4.75 ~ 5.5V                |          |          | CH1 : 4.75 ~ 5.5V |          |          |
|             | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                          | ±2.0%                                                                                  | ±6.0%    | ±8.0%    | ±2.0%                            | ±6.0%    | ±8.0%    | ±2.0%             | ±6.0%    | ±6.0%    |
|             | LINE REGULATION                                                                                                                                                                                                                                                                                                                                  | ±0.5%                                                                                  | ±1.0%    | ±1.0%    | ±0.5%                            | ±1.0%    | ±1.0%    | ±0.5%             | ±1.0%    | ±1.0%    |
|             | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                  | ±0.5%                                                                                  | ±4.0%    | ±6.0%    | ±0.5%                            | ±4.0%    | ±6.0%    | ±0.5%             | ±4.0%    | ±4.0%    |
| INPUT       | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                 | 800ms, 50ms/230VAC                                                                     |          |          | 1600ms, 50ms/115VAC at full load |          |          |                   |          |          |
|             | HOLD UP TIME (Typ.)                                                                                                                                                                                                                                                                                                                              | 70ms/230VAC                                                                            |          |          | 16ms/115VAC at full load         |          |          |                   |          |          |
|             | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                    | 85 ~ 264VAC                                                                            |          |          | 120 ~ 370VDC                     |          |          |                   |          |          |
|             | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                  | 47 ~ 63Hz                                                                              |          |          |                                  |          |          |                   |          |          |
|             | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                | 72%/115VAC                                                                             |          |          | 72%/115VAC                       |          |          | 72%/115VAC        |          |          |
|             | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                | 1.2A/115VAC                                                                            |          |          | 0.7A/230VAC                      |          |          |                   |          |          |
| PROTECTION  | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                            | COLD START 20A/115VAC                                                                  |          |          | 40A/230VAC                       |          |          |                   |          |          |
|             | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                  | <3.5mA / 240VAC                                                                        |          |          |                                  |          |          |                   |          |          |
|             | OVERLOAD                                                                                                                                                                                                                                                                                                                                         | 105 ~ 150%/115VAC rated output power                                                   |          |          |                                  |          |          |                   |          |          |
|             |                                                                                                                                                                                                                                                                                                                                                  | Protection type : Hiccup mode, recovers automatically after fault condition is removed |          |          |                                  |          |          |                   |          |          |
|             | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                     | CH1: 5.75 ~ 6.75V                                                                      |          |          |                                  |          |          |                   |          |          |
|             |                                                                                                                                                                                                                                                                                                                                                  | Protection type : Hiccup mode, recovers automatically after fault condition is removed |          |          |                                  |          |          |                   |          |          |
| ENVIRONMENT | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                    | -10 ~ +60℃ (Refer to output load derating curve)                                       |          |          |                                  |          |          |                   |          |          |
|             | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                 | 20 ~ 90% RH non-condensing                                                             |          |          |                                  |          |          |                   |          |          |
|             | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                          | -20 ~ +85℃, 10 ~ 95% RH                                                                |          |          |                                  |          |          |                   |          |          |
|             | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                | ±0.03%/℃ (0 ~ 50℃) on +5V output                                                       |          |          |                                  |          |          |                   |          |          |
|             | VIBRATION                                                                                                                                                                                                                                                                                                                                        | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                |          |          |                                  |          |          |                   |          |          |
| SAFETY      | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                 | CSA 60950-1, (UL60950-1, IEC60950-1, TUV EN60950-1) approved                           |          |          |                                  |          |          |                   |          |          |
|             | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC                                            |          |          |                                  |          |          |                   |          |          |
|             | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                             | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                              |          |          |                                  |          |          |                   |          |          |
| OTHERS      | MTBF                                                                                                                                                                                                                                                                                                                                             | 305.6K hrs min. MIL-HDBK-217F (25℃)                                                    |          |          |                                  |          |          |                   |          |          |
|             | DIMENSION                                                                                                                                                                                                                                                                                                                                        | 129*98*38mm (L*W*H)                                                                    |          |          |                                  |          |          |                   |          |          |
|             | PACKING                                                                                                                                                                                                                                                                                                                                          | 0.44Kg; 30pcs/14.7Kg/0.86CUFT                                                          |          |          |                                  |          |          |                   |          |          |
| NOTE        | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation. |                                                                                        |          |          |                                  |          |          |                   |          |          |

## Mechanical Specification

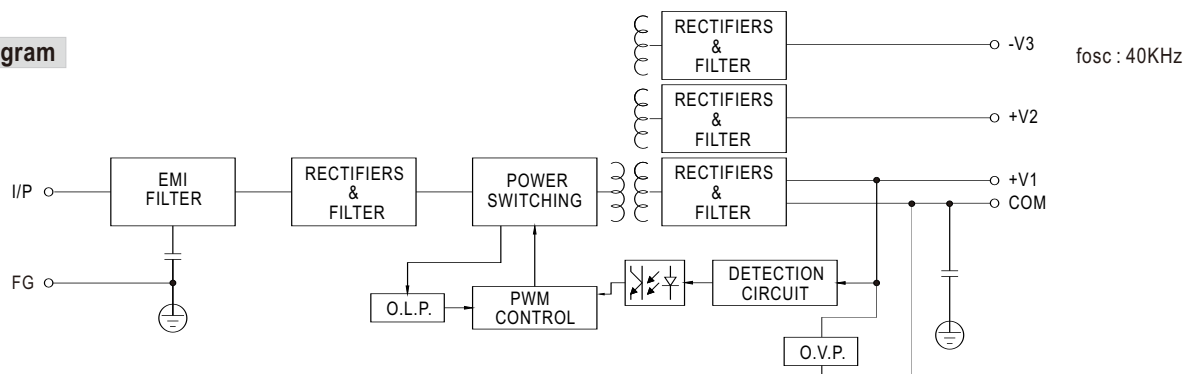
Case No. 903 Unit:mm



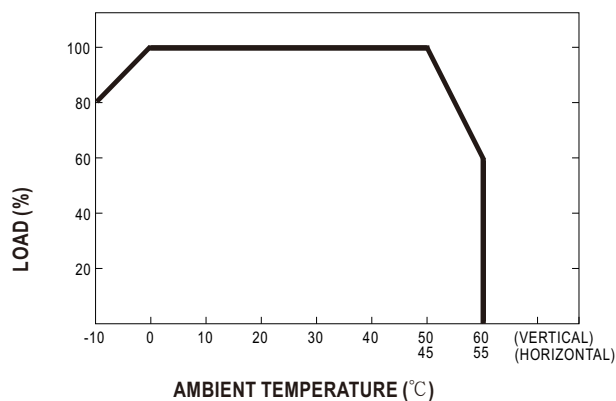
Terminal Pin No. Assignment

| Pin No. | Assignment   | Pin No. | Assignment    |
|---------|--------------|---------|---------------|
| 1       | AC/L         | 5       | DC OUTPUT +V2 |
| 2       | AC/N         | 6       | DC OUTPUT COM |
| 3       | FG $\perp$   | 7       | DC OUTPUT +V1 |
| 4       | DC OUTPUT -V |         |               |

## Block Diagram



## Derating Curve



## Static Characteristics (B)

