

**Features:**

1. Wide input range (90-528VAC, 100-745VDC)
2. 55\*45\*21mm compact size
3. No load power consumption<0.5W
4. Protection type: short circuit/over load/over voltage
5. Operating temperature range: -40°C to +85°C
6. 3000V isolation voltage
7. 100% high temperature burn-in and function test
8. 3 years warranty

3 years  
Warranty**Selection Guide**

| Model      | Input Voltage           | Rated Power (W) | Output Voltage (V) | Output Current (A) | Ripple & Noise (mVp-p) | Efficiency (%) |
|------------|-------------------------|-----------------|--------------------|--------------------|------------------------|----------------|
| QM10-26B03 | 90-528VAC<br>100-745VDC | 6.6             | 3.3                | 2                  | 50                     | 74             |
| QM10-26B05 |                         | 10              | 5                  | 2                  | 50                     | 75             |
| QM10-26B09 |                         | 10              | 9                  | 1.11               | 50                     | 76             |
| QM10-26B12 |                         | 10              | 12                 | 0.83               | 50                     | 78             |
| QM10-26B15 |                         | 10              | 15                 | 0.66               | 50                     | 80             |
| QM10-26B24 |                         | 10              | 24                 | 0.42               | 50                     | 82             |

## Specifications

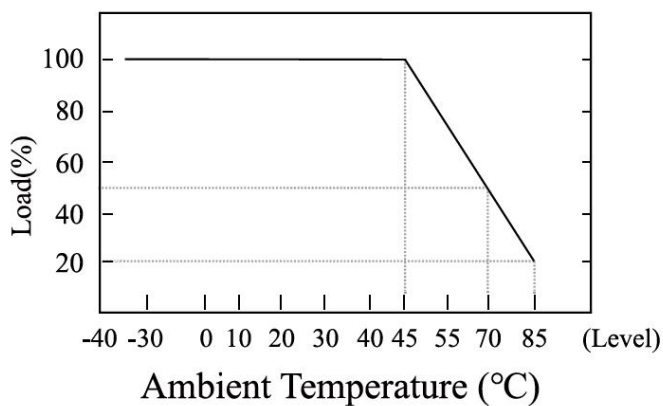
|                        |                                                                                                                                                                                                                                                                          |                                                                                  |          |        |        |        |       |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------|--------|--------|--------|-------|
| OUTPUT                 | Voltage Tolerance                                                                                                                                                                                                                                                        | ±2.0%                                                                            |          |        |        |        |       |
|                        | Line Regulation                                                                                                                                                                                                                                                          | ±1.0%                                                                            |          |        |        |        |       |
|                        | Load Regulation                                                                                                                                                                                                                                                          | ±1.0%                                                                            |          |        |        |        |       |
|                        | Setup, Rise Time (Typ.)                                                                                                                                                                                                                                                  | 2000ms, 50ms/380VAC at full load                                                 |          |        |        |        |       |
|                        | Hold Up Time (Typ.)                                                                                                                                                                                                                                                      | 20ms/380VAC at full load                                                         |          |        |        |        |       |
|                        | Ripple & Noise (Max.) (Note 2.)                                                                                                                                                                                                                                          | 100mV                                                                            |          |        |        |        |       |
| INPUT                  | Voltage Range                                                                                                                                                                                                                                                            | 90-528VAC 100-745VDC                                                             |          |        |        |        |       |
|                        | Frequency Range                                                                                                                                                                                                                                                          | 47-440Hz                                                                         |          |        |        |        |       |
|                        | Current (Typ.)                                                                                                                                                                                                                                                           | 120mA/380VAC 300mA/165VAC                                                        |          |        |        |        |       |
|                        | Inrush Current (Typ.)                                                                                                                                                                                                                                                    | Cold boot 40A/380VAC                                                             |          |        |        |        |       |
|                        | External Fuse Recommended                                                                                                                                                                                                                                                | 2A/500V                                                                          |          |        |        |        |       |
|                        | Leakage Current (Typ.)                                                                                                                                                                                                                                                   | <1mA/380VAC/50Hz                                                                 |          |        |        |        |       |
| PROTECTION             | Over Load                                                                                                                                                                                                                                                                | ≥110% load, recovers automatically after fault condition is removed              |          |        |        |        |       |
|                        | Short Circuit                                                                                                                                                                                                                                                            | Hiccup mode, recovers automatically after fault condition is removed             |          |        |        |        |       |
|                        | Over Voltage (Note 4.)                                                                                                                                                                                                                                                   | Output voltage off or clamp                                                      |          |        |        |        |       |
|                        |                                                                                                                                                                                                                                                                          | Voltage                                                                          | 3.3/5VDC | 9VDC   | 12VDC  | 15VDC  | 24VDC |
|                        | Range                                                                                                                                                                                                                                                                    | ≤7.5VDC                                                                          | ≤15VDC   | ≤16VDC | ≤20VDC | ≤30VDC |       |
| ENVIRONMENT            | Working Temp.                                                                                                                                                                                                                                                            | -40°C to +85°C (Refer to "Derating curve")                                       |          |        |        |        |       |
|                        | Working Humidity                                                                                                                                                                                                                                                         | 85%RH max                                                                        |          |        |        |        |       |
|                        | Storage Temp., Humidity                                                                                                                                                                                                                                                  | -40°C to +85°C, 10-95%RH                                                         |          |        |        |        |       |
|                        | Temp. Coefficient                                                                                                                                                                                                                                                        | 0.03%/ (0-50°C)                                                                  |          |        |        |        |       |
|                        | Vibration                                                                                                                                                                                                                                                                | 10-500Hz, 2G, 10min./1cycle, 60min.each along X, Y, Z axes                       |          |        |        |        |       |
| SAFETY & EMC (NOTE 3.) | Safety Standards                                                                                                                                                                                                                                                         | UL1012, EN62368, UL62368                                                         |          |        |        |        |       |
|                        | Isolation Voltage                                                                                                                                                                                                                                                        | I/P-O/P: 3000VAC I/P-FG: 1500VAC O/P-FG: 500VAC                                  |          |        |        |        |       |
|                        | Isolation Resistance                                                                                                                                                                                                                                                     | I/P-O/P, I/P-FG, O/P-FG: >100M Ohms/500VDC 25°C 70% RH                           |          |        |        |        |       |
|                        | EMC Emission & Immunity                                                                                                                                                                                                                                                  | EN55011, EN55032 (CISPR32) CLASS B (Refer to "Typical Application")              |          |        |        |        |       |
|                        | ESD                                                                                                                                                                                                                                                                      | IEC/EN 61000-4-2 level 4 Contact ±8kV/Air ±15kV (Refer to "Typical Application") |          |        |        |        |       |
|                        | RF                                                                                                                                                                                                                                                                       | IEC/EN 61000-4-3 (Refer to "Typical Application")                                |          |        |        |        |       |
|                        | EFT                                                                                                                                                                                                                                                                      | IEC/EN 61000-4-4 level 4 4kV (Refer to "Typical Application")                    |          |        |        |        |       |
|                        | Surge                                                                                                                                                                                                                                                                    | IEC/EN 61000-4-5 level 4 2kV                                                     |          |        |        |        |       |
| OTHERS                 | MTBF                                                                                                                                                                                                                                                                     | 300K hrs min. MIL-HDBK-217F (25°C)                                               |          |        |        |        |       |
|                        | Dimension                                                                                                                                                                                                                                                                | 55*45*21mm (L*W*H)                                                               |          |        |        |        |       |
|                        | Weight                                                                                                                                                                                                                                                                   | 70g/PCS 8.067kg/Carton                                                           |          |        |        |        |       |
|                        | Package                                                                                                                                                                                                                                                                  | 112PCS/Carton                                                                    |          |        |        |        |       |
|                        | Carton Size                                                                                                                                                                                                                                                              | 360*300*250mm                                                                    |          |        |        |        |       |
| NOTE                   | 1. All parameters not specially mentioned are measured at nominal input, rated load and 25°C of ambient temperature.                                                                                                                                                     |                                                                                  |          |        |        |        |       |
|                        | 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor and connected according to "typical application". Element parameters shall be the same as those measured in the suggestion form. |                                                                                  |          |        |        |        |       |

3. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives.

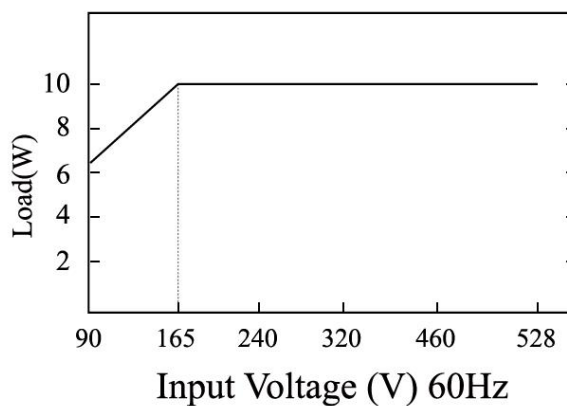
4. This series of overvoltage protection protects the subsequent circuit in case of module abnormality through the peripheral TVS tube.

### Derating Curve

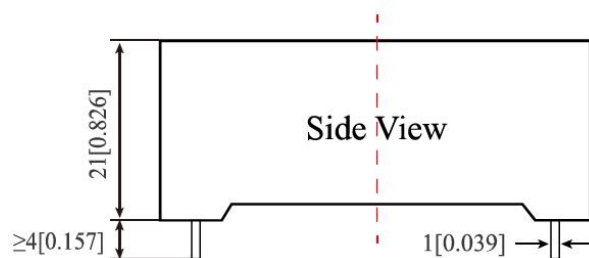
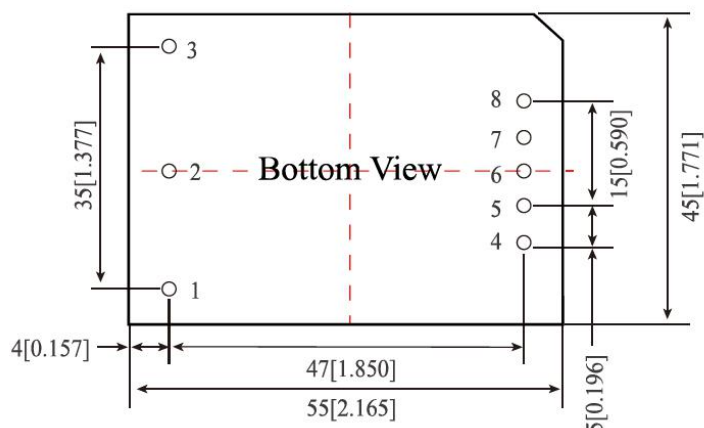
Temperature Derating Curve



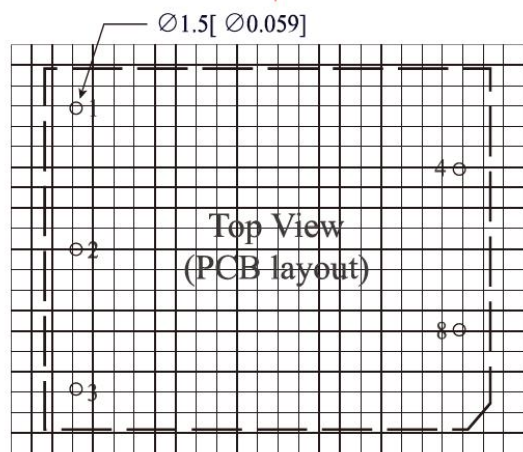
Input Voltage Derating Curve



### Dimensions & Function



Third Angle Projection

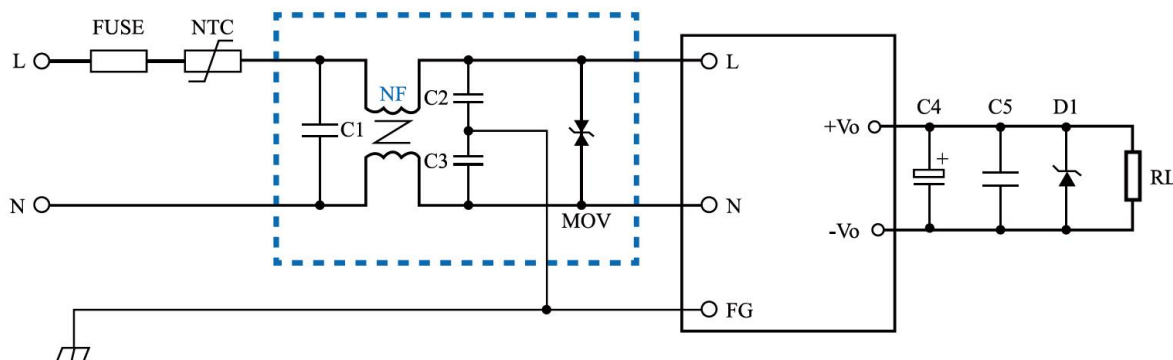


Note: Grid Spacing 2.54 \* 2.54mm

| Pin | Function |
|-----|----------|
| 1   | FG       |
| 2   | AC(N)    |
| 3   | AC(L)    |
| 4   | -Vo      |
| 5   | No Pin   |
| 6   | No Pin   |
| 7   | No Pin   |
| 8   | +Vo      |

NOTE: Unit size: mm[inch] Terminal tolerance:  $\pm 0.1\text{mm}$  Unmarked tolerances:  $\pm 0.5\text{mm}$

### Typical Application



#### NOTE:

1. The output filter capacitor C4 is electrolytic capacitor. It is recommended to use high-frequency low-resistance electrolytic capacitor. Refer to the technical specifications provided by the manufacturers for capacity and current. The voltage drop of capacitor is more than 80%. C5 is to remove high frequency noise.  
D1 is the TVS tube recommended to be used for protecting the post-stage circuit (in case of module abnormality).
2. The dotted box in the figure shows the EMC filter connected to meet the higher EMC requirements. It can be omitted in general applications.

#### List Of Components

| Position<br>Model | FUSE    | NTC                 | NF                                                 | MOV                  | C1        | C2/C3     | C5       | C4        | D1       |
|-------------------|---------|---------------------|----------------------------------------------------|----------------------|-----------|-----------|----------|-----------|----------|
| QM10-26B03        | 2A/500V | Thermistor<br>10D-9 | Common<br>mode<br>inductance<br>3-10mH<br>0.2-0.5A | Varistors<br>14D821K | 104K/600V | 102K/600V | 104K/50V | 470uF/16V | P6KE7.5A |
| QM10-26B05        |         |                     |                                                    |                      |           |           |          | 470uF/16V | P6KE7.5A |
| QM10-26B09        |         |                     |                                                    |                      |           |           |          | 150uF/16V | P6KE15A  |
| QM10-26B12        |         |                     |                                                    |                      |           |           |          | 120uF/16V | P6KE16A  |
| QM10-26B15        |         |                     |                                                    |                      |           |           |          | 120uF/25V | P6KE20A  |
| QM10-26B24        |         |                     |                                                    |                      |           |           |          | 100uF/35V | P6KE30A  |

#### Notes:

1. If the product works under the minimum required load, it cannot guarantee that the performance of the product complies with all the performance indicators in this manual;
2. The maximum capacitive load is tested under the input voltage range and full load condition;
3. Unless otherwise stated, all indexes in this manual are measured at Ta=25°C, humidity <75%RH, nominal input voltage and rated output load;
4. All index testing methods in this manual are based on the enterprise standards of the company;
5. Our company can provide product customization, specific needs can directly contact our technical staff;
6. AMCHARD reserves the right to make changes to the product at any time without notice.