

## Features:

1. Extra wide input voltage range (200-1500VDC)
2. Size: 89\*63\*25mm
3. No-load power consumption<0.6W
4. Input under voltage/reverse connection prevention, output short circuit/over load/over voltage protection
5. Operating temperature range -40°C to +70°C
6. 4000VAC isolation voltage
7. 100% high temperature aging and testing
8. 5 years warranty



## Selection Guide

| Model         | Input Voltage | Rated Power (W) | Output Voltage (V) | Output Current (A) | Ripple & Noise (mVp-p) | Efficiency (%) |
|---------------|---------------|-----------------|--------------------|--------------------|------------------------|----------------|
| PV-DP15-29B05 | 200-1500VDC   | 10              | 5                  | 2                  | 100                    | 76             |
| PV-DP15-29B12 |               | 15              | 12                 | 1.25               | 100                    | 78             |
| PV-DP15-29B15 |               | 15              | 15                 | 1                  | 100                    | 80             |
| PV-DP15-29B24 |               | 15              | 24                 | 0.625              | 100                    | 83             |

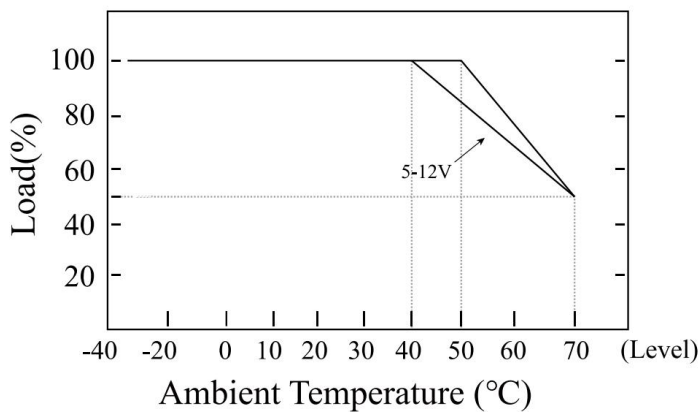
### Specifications

|                        |                                 |  |       |        |        |        |
|------------------------|---------------------------------|--|-------|--------|--------|--------|
| OUTPUT                 | Voltage Tolerance               | ±1.0% (±1.5% max)  |       |        |        |        |
|                        | Line Regulation                 | ±0.25%   |       |        |        |        |
|                        | Load Regulation                 | ±0.25%   |       |        |        |        |
|                        | Setup, Rise Time (Typ.)         | 2000ms/900VDC at full load   |       |        |        |        |
|                        | Hold Up Time (Typ.)             | 20ms/900VDC at full load   |       |        |        |        |
|                        | Ripple & Noise (Max.) (Note 2.) | 150mV  |       |        |        |        |
| INPUT                  | Voltage Range                   | 200-1500VDC  |       |        |        |        |
|                        | Nominal Voltage                 | 900VDC   |       |        |        |        |
|                        | Current (Typ.)                  | 120mA/200VDC 30mA/900VDC 16mA/1500VDC  |       |        |        |        |
|                        | Inrush Current (Typ.)           | 30A/200VDC 90A/1500VDC   |       |        |        |        |
|                        | External Fuse Recommended       | 4A/1500V   |       |        |        |        |
| PROTECTION             | Under Voltage                   | Under voltage protection point: 130-175V, under voltage release point: 155-200V  |       |        |        |        |
|                        | Reverse Connection Prevention   | Support  |       |        |        |        |
|                        | Over Load                       | ≥120% load, self-recovery after troubleshooting                                  |       |        |        |        |
|                        | Short Circuit                   | Hiccup mode, self-recovery after troubleshooting                                 |       |        |        |        |
|                        | Over Voltage (Note 4.)          | Voltage  | 5VDC  | 12VDC  | 15VDC  | 24VDC  |
|                        |                                 | Range  | ≤8VDC | ≤20VDC | ≤20VDC | ≤30VDC |
| ENVIRONMENT            | Working Temp.                   | -40°C to +70°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                | EN62109-1, BS EN62109-1  |       |        |        |        |
|                        | Isolation Voltage               | I/P-O/P: 4000VAC   |       |        |        |        |
|                        | Isolation Resistance            | I/P-O/P: >100M Ohms/500VDC 25°C 70% RH   |       |        |        |        |
|                        | EMC Emission & Immunity         | EN55011, EN55032 (CISPR32) CLASS B   |       |        |        |        |
|                        | 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 3 2kV (Refer to "Typical Application")                    |       |        |        |        |
|                        | Surge                           | IEC/EN 61000-4-5 level 4 1kV (2KV Refer to "Typical Application")                |       |        |        |        |
| OTHERS                 | MTBF                            | 300K hrs min. MIL-HDBK-217F (25°C)   |       |        |        |        |
|                        | Dimension                       | 89*63*25mm (L*W*H)   |       |        |        |        |
|                        | Weight                          | 180g/PCS 9kg/Carton  |       |        |        |        |
|                        | Package                         | 48 PCS/Carton  |       |        |        |        |
|                        | Carton Size                     | 360*300*250mm  |       |        |        |        |

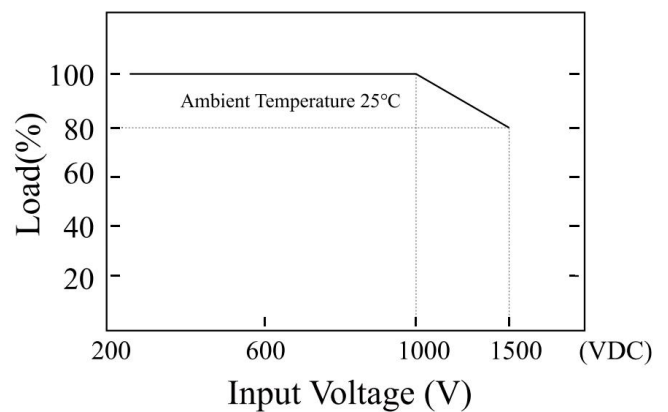
|      |  |
|------|--|
| NOTE | 1. All parameters not specially mentioned, are measured when TA=25°C, humidity<75%, input nominal voltage and output rated load.   |
|      | 2. Measurement method of ripple & noise: Parallel line test method shall be adopted. Meanwhile, 0.1uF high-frequency ceramic capacitor and one 47uF electrolytic capacitor shall be connected in parallel at the terminal for measurement under 20Mhz bandwidth and connected according to "typical application". Element parameters shall be the same as those measured in the table. |
|      | 3. The power supply is regarded as a component in the system, and electromagnetic compatibility shall be confirmed in combination with the terminal equipment.   |
|      | 4. This series of overvoltage protection protects the subsequent circuit in case of module abnormality through the peripheral TVS tube.  |

### Typical Characteristics Curve

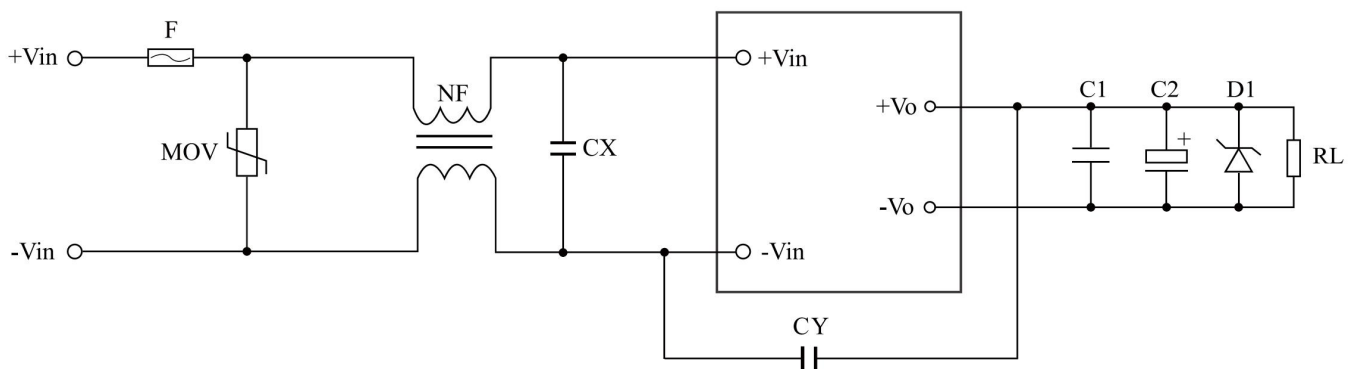
Temperature Derating Curve



Input Voltage Derating Curve



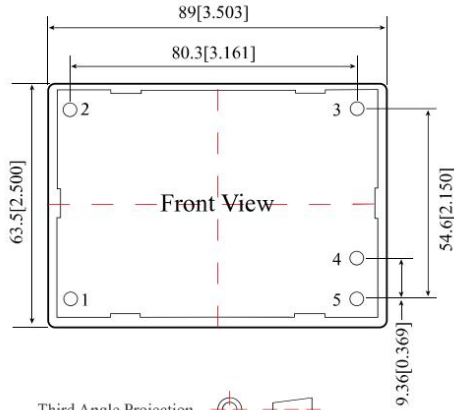
### Typical Application



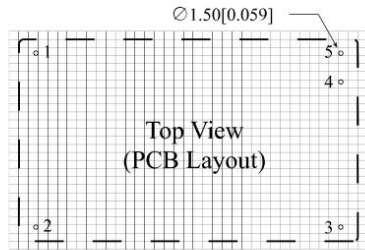
| Position<br>Model | F<br>(Optional) | MOV<br>(Required)    | NF                                     | CX         | CY         | C1(Optional)                       | C2(Optional)     | D1<br>(Optional) |
|-------------------|-----------------|----------------------|--|------------|------------|------------------------------------|------------------|------------------|
| PV-DP15-29B05     | 4A/1500V        | Varistors<br>20D162K | Common<br>mode<br>inductance<br>1-10mH | 224K/2000V | 222K/2000V | 104K/50V<br>(Ceramic<br>capacitor) | 100uF-1000uF/16V | P6KE7.5A         |
| PV-DP15-29B12     |                 |                      |  |            |            |                                    | 100uF-1000uF/16V | P6KE20A          |
| PV-DP15-29B15     |                 |                      |  |            |            |                                    | 100uF-1000uF/25V | P6KE20A          |
| PV-DP15-29B24     |                 |                      |  |            |            |                                    | 100uF-1000uF/35V | P6KE30A          |

### Mechanical Specification

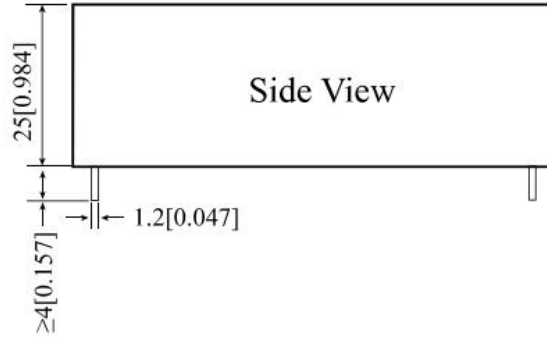
Standard type package



Third Angle Projection

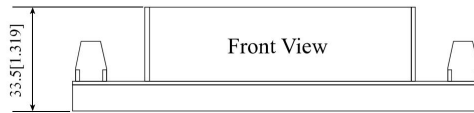
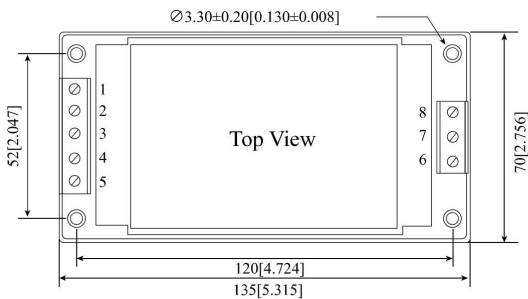


Note: Grid Spacing 2.54 \* 2.54mm



| Pin | Function |
|-----|----------|
| 1   | -Vin     |
| 2   | +Vin     |
| 3   | NC       |
| 4   | -Vo      |
| 5   | +Vo      |

Wire-type package



| Pin | Function |
|-----|----------|
| 1   | -Vin     |
| 2   | NC       |
| 3   | NC       |
| 4   | NC       |
| 5   | +Vin     |
| 6   | NC       |
| 7   | -Vo      |
| 8   | +Vo      |

NOTE: Unit size: mm[inch] Unmarked tolerances: ±0.5mm

### 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.

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