

# Industrial Adapter Power Delivery Series

## Single Output 45W Data Sheet



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### Description

This series is class 1, single-output AC to DC 45W green adapter with C6 inlet type. It can be operated from AC 90V~264V with high efficiency performance for various ITE, industrial and networking application. It also complies world-wide Safety and EMC regulations.

### Features

- \* Full AC input voltage design with C6 socket
- \* Full Protections: Short-circuit/ Over-voltage/ Over-current/ Over temperature operating.
- \* Energy efficiency level VI compliance
- \* Slim and compact in size
- \* Universal USB Type-C DC plug
- \* IEC/EN 62368 design compliance
- \* Up to 5000 meters operating altitude (note #4)
- \* High reliability



### Electrical Specification

| Model Name                          | PA-1450-50VN                  |        |        |        |        |
|-------------------------------------|-------------------------------|--------|--------|--------|--------|
| Output                              |                               |        |        |        |        |
| Rated power                         | 45W                           |        |        |        |        |
| Rated voltage                       | 5V                            | 9V     | 12V    | 15V    | 20V    |
| Rated current                       | 3A                            | 3A     | 3A     | 3A     | 2.5A   |
| Ripple & Noise(max.) (note #1)      | <180mV                        | <210mV | <180mV | <180mV | <300mV |
| Line & load regulation              | ±5%                           |        |        |        |        |
| Hold-up time(min.)                  | 10ms                          |        |        |        |        |
| Timing: AC ON delay / rising (max.) | 3 sec / 30ms                  |        |        |        |        |
| Input                               |                               |        |        |        |        |
| Rated voltage range                 | 100~240Vac                    |        |        |        |        |
| Operated voltage range              | 90~264Vac                     |        |        |        |        |
| Current range (max.)                | 1.3A/90Vac                    |        |        |        |        |
| Inrush current (typ.)               | No component damaged (<12*t). |        |        |        |        |
| Frequency range                     | 50-60Hz                       |        |        |        |        |
| Leakage current (max.)              | 50μA at 240Vac/50Hz           |        |        |        |        |

|                            |   |         |       |       |            |
|----------------------------|---|---------|-------|-------|------------|
| Efficiency (min.) (note#2) | 88.85%@20V  |         |       |       |            |
| Protection Function        |   |         |       |       |            |
| Over voltage (max)         | 5V  | 9V      | 12V   | 15V   | 20V        |
|                            | 7.5Vdc  | 13.5Vdc | 16Vdc | 20Vdc | 26Vdc      |
| Over current (max.)        | 5V  | 9V      | 12V   | 15V   | 20V        |
|                            | Auto Recovery3.1-3.9A   |         |       |       | 2.4-2.925A |
| Short circuit at O/P       | No damage, auto recovery when fault is removed                                  |         |       |       |            |
| Over temperature           | Latch off when OTP protection triggers off                                      |         |       |       |            |
| Others                     |   |         |       |       |            |
| MTBF (min.) (note#3)       | 100K hours @ rated load   |         |       |       |            |
| Environment                |   |         |       |       |            |
| Temperature                | (operating) 0~35℃ / (storage) -20~85℃   |         |       |       |            |
| Humidity                   | (operating) 10~90% RH non-condensing / (storage) 5~95% RH                       |         |       |       |            |
| Altitude (max.)            | 5000 meters   |         |       |       |            |
| Mechanical                 |   |         |       |       |            |
| Dimension                  | 94.0(L)*40.0(W)*26.5mm(H)   |         |       |       |            |
| Weight (typ.)              | 168g  |         |       |       |            |
| Safety                     |   |         |       |       |            |
| Standard                   | CB/IEC62368-1,UL62368-1,EN62368-1,<br>CCC GB4943.1,PSE J62368-1,BSMI CNS15598-1 |         |       |       |            |
| Withstand voltage          | Input-Output: 4242VDC   |         |       |       |            |
| Isolation resistance(min.) | Input-Output: 30Mohm @ 500VDC, 25℃, 70%RH                                       |         |       |       |            |
| EMC                        |   |         |       |       |            |
| EN55032 (CISPR32)          | Conducted EMI: class B / Radiated EMI: class B                                  |         |       |       |            |
| FCC                        | Conducted EMI: class B / Radiated EMI: class B                                  |         |       |       |            |
| EN61000-3-2                | Harmonic distortion: Class A (Pin < 75W)  |         |       |       |            |
| EN61000-4-2                | ESD: ±8KV contact discharge / ±15KV contact discharge                           |         |       |       |            |
| EN61000-4-3                | Radiated RF immunity: 3V/m  |         |       |       |            |
| EN61000-4-4                | EFT: ±1KV (AC port)   |         |       |       |            |
| EN61000-4-5                | Surge: ±2KV DM / ±4KV CM  |         |       |       |            |
| EN61000-4-6                | Conducted RF immunity: 3V/m   |         |       |       |            |
| EN61000-4-8                | Magnetic field immunity: 4A/m   |         |       |       |            |
| EN61000-4-11               | Voltage dip immunity  |         |       |       |            |

## Notes

#1: All specification defined at 230Vac/50Hz, rated power and 25°C ambient temperature if not mentioned specifically.

- #2: Ripple noise is measured by a 30cm length, twisted wires with 0.47uF MLCC & 47uF low ESR capacitor.
- #3: Calculated by Telcordia SR332 at 25°C ambient temperature.
- #4: When operating altitude is higher than 2000m, the environment temperature derating factor is 0.36°C/100m.

Mechanical Specification

