

Industrial Adapter 24V Series



Single Output 180W Active PFC Data Sheet

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Description

This series is class 1, single-output AC to DC 180W green adapter with C6 inlet type. It can be operated from AC 90V~264V with good 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
- * Withstand 300Vac surge voltage for 5 seconds
- * Full Protections: Short-circuit/ Over-voltage/ Over-current/ Over temperature operating.
- * Energy efficiency level VI compliance
- * Slim and compact in size
- * IEC/EN 62368-1 design compliance
- * Up to 5000 meters operating altitude (note #4)



Electrical Specification

| Model Name | PA-1181-28E5 |
|-------------------------------------|------------------------------------|
| Output | |
| Rated power | 180W |
| Rated voltage | 24V |
| Rated current | 7.5A |
| Ripple & Noise(max.) (note #2) | 480mV |
| Line & load regulation | ±5% |
| Hold-up time(typ.) | 10ms |
| Timing: AC ON delay / rising (max.) | 3 sec / 30ms |
| Input | |
| Rated voltage range | 100~240Vac |
| Operated voltage range | 90~264Vac, 300Vac for 5 sec |
| Current range (max.) | 2.34A/100Vac |
| Inrush current | No component damaged ($<I^2*t$). |
| Frequency range | 50-60Hz |
| Leakage current (max.) | 0.1mA at 240Vac |

| | |
|----------------------------|--|
| Average efficiency (min.) | 89% |
| Protection Function | |
| Over voltage (max.) | 150% of rated voltage, latch-off protection. |
| Over current (max.) | 160% of rated current, latch-off protection. |
| Short circuit at O/P | No damage, latch-off protection. |
| Over temperature | No damage, latch-off protection. |
| Others | |
| MTBF (min.) (note#3) | 500K hours @ rated load |
| Environment | |
| Temperature (note#5) | (operating) -20~40°C / (storage) -40~85°C |
| Humidity | (operating) 10~90% RH non-condensing / (storage) 5~95% RH |
| Altitude (max.) | 5000 meters |
| Mechanical | |
| Dimension | 155.0(L)*76.0(W)*30.6(H) mm |
| Vibration | 10~500 Hz, 5G 20min./1cycle per axis for all axes (X, Y, Z) |
| Weight (typ.) | 585g |
| Safety | |
| Standard | CB/IEC62368-1,TUV62368-1,UL62368-1,EN62368-1, CCC GB4943.1,PSE J62368-1,BSMI CNS15598-1,KC60950-1 |
| Withstand voltage | Input-Output: 4242VDC / Input-FG: 2150VDC |
| Isolation resistance(min.) | Input-Output: 30Mohm @ 500VDC, 25°C, 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 D |
| 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: ±1KV DM / ±2KV CM |
| EN61000-4-6 | Conducted RF immunity: 3V/m |
| EN61000-4-8 | Magnetic field immunity: 3A/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 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 $0.36^{\circ}\text{C}/100\text{m}$.

Mechanical Specification

PA-1181-28E5

