

# PoE Power Injector



## 90W Series

### Single Port Multi-Gigabit 90W Data Sheet

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#### Description

This product is an indoor AC to DC power over ethernet (PoE) injector. It can provide 90W output power with a constant 55Vdc main voltage source. It is built-in a LED to identify injectors that is in normal state.

#### Features

- \* Full AC input voltage design with C14 socket
- \* IEEE 802.3bt standard
- \* IEEE 802.3at backward compatible
- \* 10Gbps Data Rates with Cat6a shielded Cable.
- \* Automatic detection and protection of non-standard Ethernet terminals
- \* IEC/EN 62368-1 design compliance
- \* Energy efficiency level VII compliance
- \* Harmonic Current Emission: EN6100-3-2 Class A
- \* High reliability and high lightning surge ability



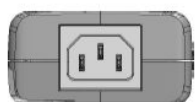
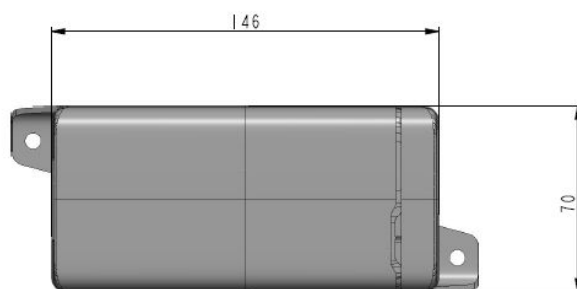
#### Electrical Specification

| Model Name                 | PA-1900-86LV-TG                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------|
| <b>Output</b>              |                                                                                             |
| Rated power                | 90W                                                                                         |
| Rated voltage              | 55Vdc                                                                                       |
| Rated current              | 1.67A                                                                                       |
| Ripple & Noise(max.)       | Ripple (scale 10ms) $\leq 500\text{mV}_{pp}$<br>Noise (scale 10us) $\leq 200\text{mV}_{pp}$ |
| Line & load regulation     | 52V~57V                                                                                     |
| LED Behavior               | Solid Green – Power good and output “ON” ; One for PoE connection (green)                   |
| <b>Input Specification</b> |                                                                                             |
| Input voltage range        | 90Vac~264Vac,                                                                               |
| Current range (max.)       | 2.5A @ 90Vac, 1.2A@ 240Vac                                                                  |
| Inrush current (typ.)      | 120A, at 230VAC, cold start@25°C and full load                                              |

|                             |                                                                                                                   |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------|
| Frequency range             | 47-63Hz                                                                                                           |
| Leakage current (max.)      | 0.5mA at 264Vac                                                                                                   |
| Efficiency                  | DOE VII                                                                                                           |
| Power Factor                | 0.9                                                                                                               |
| <b>Protection Function</b>  |                                                                                                                   |
| Over voltage (max.)         | 60V, Auto recover                                                                                                 |
| Over current (max.)         | One port <1A, Two Port <2A Auto recover                                                                           |
| Short circuit at O/P        | Auto recover                                                                                                      |
| Over temperature            | Auto recover                                                                                                      |
| <b>Others</b>               |                                                                                                                   |
| Cooling fan                 | Natural cooling, no fan design                                                                                    |
| MTBF (min.)                 | > 200,000 hours at 25°C typical load                                                                              |
| <b>Environment</b>          |                                                                                                                   |
| Temperature                 | (Operating) -10~40°C / (Storage) -20~70°C                                                                         |
| Humidity                    | (Operating and Storage) 5~90% RH non-condensing                                                                   |
| Altitude (max.)             | 5000 meters                                                                                                       |
| <b>Mechanical</b>           |                                                                                                                   |
| Dimension                   | 146(L)*70(W)*35(H)                                                                                                |
| Package Vibration Test      | Follow ISTA-2A Standard                                                                                           |
| Weight (typ.)               | 327+/-10 g                                                                                                        |
| <b>Safety</b>               |                                                                                                                   |
| Standard                    | CB/IEC 62368,,UL 62368,EN 62368,,PSE 62368,,,UKCA 62368                                                           |
| Dielectric Strength         | Primary to Secondary:<br>4242VDC/3000VAC for 1 minute<br>Primary to Field Ground:<br>2121VDC/1500VAC for 1 minute |
| Insulation resistance(min.) | Primary to Secondary: >10M ohm 500VDC<br>Primary to Field Ground: >10M ohm 500VDC                                 |
| <b>EMC</b>                  |                                                                                                                   |
| EMI                         | EN55032, EN55035 Class B, FCC Part 15 Class B, VCCI Class B                                                       |
| ESD                         | EN55035 ; IEC 61000-4-2 Level 4, criteria A<br>Air: +/-15KV                                                       |

|                                                           |                                                                                                                                                                                                        |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                           | Contact: +/-8KV                                                                                                                                                                                        |
| Radiated (RS)                                             | EN55035 ; IEC 61000-4-3 Level 2, criteria A<br>(3V/m: 80MHz-1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz)                                                                                               |
| EFT                                                       | EN55035 ; IEC 61000-4-4 Level 2<br>+/-1kV(5kHz or 100kHz) for AC mains, criteria A<br>+/-0.5kV(5kHz) for PoE output and Data input ports, criteria B                                                   |
| Surge                                                     | EN55035; IEC 61000-4-5<br>For AC mains, criteria A:<br>+/-4KV, line to line (differential mode)<br>+/-4KV, line to earth GND (common mode)<br>For PoE output, criteria B:<br>+/-6KV, line to earth GND |
| Conducted (CS)                                            | EN 55035 ; IEC 61000-4-6 Level 2, criteria A<br>(3Vrms AM 80% 0.15MHz - 10MHz ; 3Vrms to 1Vrms 10MHz-30MHz ; 1Vrms 30MHz-80MHz)                                                                        |
| Power Frequency Magnetic Field                            | EN 55035 ; IEC 61000-4-8 Level 1 (1A/m), criteria A                                                                                                                                                    |
| Voltage dips/interruptions                                | EN 55035 ; IEC 61000-4-11 Class 3                                                                                                                                                                      |
| Harmonic Current Emission<br>( for power rating >75w PSU) | EN 61000-3-2 Class D                                                                                                                                                                                   |
| Voltage Fluctuation and Flicker                           | EN 61000-3-3                                                                                                                                                                                           |

## Mechanical Specification



**Dimensions (L x W x H)**  
**Weight**  
**Input Connector**  
**Data In/Output Connector**

106mm x 70.0mm x 35.0mm  
200~300g  
IEC320 C14  
Shielded RJ45