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PoE Injector Specification

Project: POE 90W DOE VII

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90W Single Port Multi-Gigabit Power-over-Ethernet IEEE802.3bt Power Injector (DOE VII with High Surge)



Description

This product is an indoor AC to DC power over ethernet (PoE) injector. It can provide 90W output power with a constant 54Vdc main voltage source. It is built-in a LED to identify injector is in normal state.

Features

- IEEE 802.3bt Type 4 standard
- IEEE 802.3af/at backward compatible
- 10Gbps Data Rates with Cat6a Shielded Cable.
- Automatic detection and protection of non-standard Ethernet terminals
- DOE VII
- Power Factor 0.9
- Harmonic Current Emission: EN 61000-3-2 Class A
- High ESD and lightning surge ability

Applications

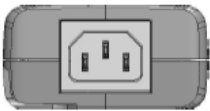
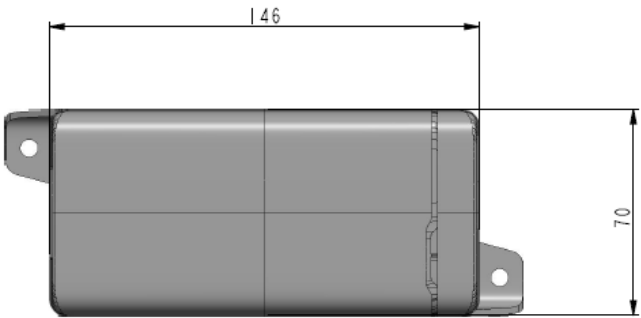
- IP telephones
- Wireless Network Access Points
- Security Cameras
- Bluetooth® Access Points
- WiMAX® Access Points

Electrical Specification

	POE 90W INJECTOR
Output	
Rated power	90W
Rated voltage	54Vdc
Rated current	1.67A
Ripple & Noise(max.)	Ripple (scale 10ms) $\leq 500\text{mV}_{PP}$ 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)
Input Specification	
Input voltage range	90Vac~264Vac,
Current range (max.)	2.5 A @ 90Vac, 1.2 A @ 240Vac
Inrush current (typ.)	120A, at 230VAC, cold start@25°C and full load
Frequency range	47-63Hz
Leakage current (max.)	0.5mA _{rms} at 264Vac
Efficiency	DOE VII
Power factor	0.9
Protection Function	
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
Others	
Fan ON/OFF (typ.)	Without fan On/Off control
MTBF (min.)	> 200,000 hours at 25°C typical load
Environment	
Temperature	(operating) -10~40°C / (storage) -20~70°C
Humidity	(Operating and Storage) 5~90% RH non-condensing
Altitude (max.)	5000 meters
Mechanical	
Dimension	146(L)*70(W)*35(H)
Package Vibration Test	Follow ISTA-2A Standard

Weight (typ.)	450 g
Safety	
Standard	IEC60950-1, IEC62368-1
Dielectric Strength	Primary to Secondary: 4242VDC/3000VAC for 1 minute Primary to Field Ground: 2121VDC/1500VAC for 1 minute
Insulation resistance (min.)	Primary to Secondary: >10M ohm 500VDC Primary to Field Ground: >10M ohm 500VDC
EMC	
EMI	EN55032, EN55035 Class B, FCC Part 15 Class B, VCCI Class B
ESD	EN55035 ; IEC 61000-4-2 Level 4, criteria A Air: +/-15KV Contact: +/-8KV
Radiated (RS)	EN55035 ; IEC 61000-4-3 Level 2, criteria A (3V/m: 80MHz-1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz)
EFT	EN55035 ; IEC 61000-4-4 Level 2 +/-1kV(5kHz or 100kHz) for AC mains, criteria A +/-0.5kV(5kHz) for PoE output and Data input ports, criteria B
Surge	EN55035; IEC 61000-4-5 For AC mains, criteria A: +/-4KV, line to line (differential mode) +/-4KV, line to earth GND (common mode) For PoE output, criteria B: +/-6KV, line to earth GND
Conducted (CS)	EN 55035 ; IEC 61000-4-6 Level 2, criteria A (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 (for power rating >75w PSU)	EN 61000-3-2 Class A
Voltage Fluctuation and Flicker	EN 61000-3-3

Mechanical Specification



Dimensions (L x W x H)	146mm x 70.0mm x 35.0mm
Weight	400~500g
Input Connector	IEC320 C14
Data In/Output Connector	Shielded RJ45