

POWER OVER ETHERNET INJECTOR

DIN rail mounting

type: AL36PoE

LOREME

- **Direct integrated on Ethernet network**
between switch and PoE device
Allows upgrade existing network to PoE
Supply over Ethernet cable
- **Fully protected**
short circuit, overload, thermal
- **48V output, 5 Watts on Rj45**
IEEE 802.3af compliant
- **Universal supply : 20....265 Vac-dc**
- **Applications**
Using PoE device on network without switch PoE



The Power Over Ethernet injector is designed to dispense the power supply over an Ethernet network for switches who don't have this functionality. This AL36PoE power supply is directly inserted on the Ethernet network (between the PoE device and the switch) without any configuration.

Detail of Poe system:

The Power over Ethernet system provide the supply through the RJ45 cable to any device compliant with 802.3af POE norm.

Principe:

- A RJ45 Ethernet cable have 8 wires inside. Only 4 wires are used for data transmission.
- The idea of PoE system is to used the 4 remaining wires for powered a remote device.
- In order to implement this functionality in all equipment manufacturers, standardization has been established (IEEE 802.3af) to ensure compatibility between products.

A injector (PSE : Power Source Equipment) provide a voltage (48V) on the RJ45 cable in the same time as the network signal.

The POE injector has 2 RJ45 ports:

- 1 "LAN" RJ45 for the Ethernet signal alone.
- 1 "POE" RJ45 for Ethernet + POE power supply

Characteristics of AL35PoE:

- 48Vdc nominal output voltage,
- continuous short circuit protected,
- overload protected,
- thermal protected (output power limiting).
- Natural air convection cooling
- Embedded EMI filter(EN55022 class A)
- Regulated output voltage (ripple < 100mV).
- Limiter (48V) for the output transient protection.
- Power limiting for protected the remote device.

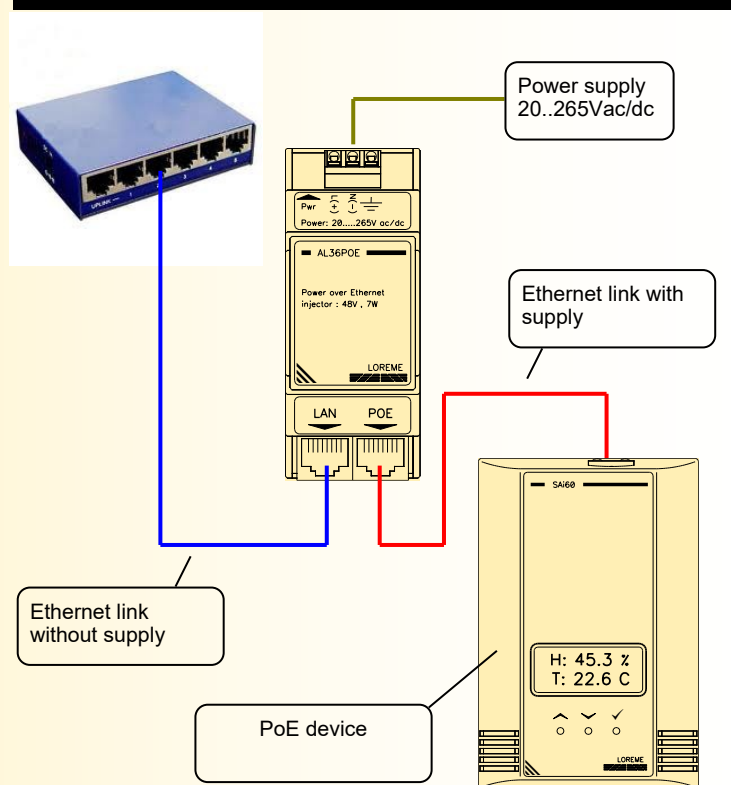
Features:

- DIN rail mounted
- Protection rating IP20
- Conformal coating
- Power on indication by green LED,
- Connection on spring terminals for power supply
- Connection with RJ45 plug for network

Prescription of implementation and installation:

- Primary protection fuse recommended (2A slow blow)

Synoptic (integration to Ethernet network)



Version and order code:

- | | |
|-------------------|---|
| AL36PoE : | Rail DIN mounting
Power supply universal input ac/dc 20....265V
5Watts output power |
| AL36LPoE : | Rail DIN mounting (low cost version)
Power supply : 230Vac +/-15%
2Watts output power. |

Not compatible with 1Gbit network.

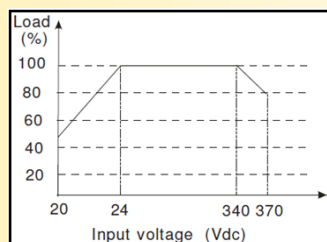
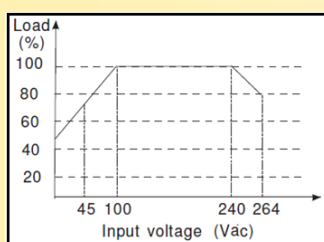
POWER SUPPLY

Input voltage 45....265VAC / 20...370VDC
 Input frequency DC or 47....440Hz
 Typical efficiency 87%
 Inrush current 2A typical

OUTPUT

IEEE 802.3af compliant
 Nominal output voltage 44 to 48Vdc
 Output current nominal : 150mA ,max 250mA
 Output power 5W nominal , 7 W max
 Output accuracy $\pm 2\%$ max. (no load)
 Load regulation -5% max. (full loaded)
 Output ripple < 1% Vout max (limited to 20mHz)
 Continuous short circuit protection, auto restart
 Overload protection 110% typ.
 Switching frequency 100kHz typ.
 Hold-up time 50ms typ.

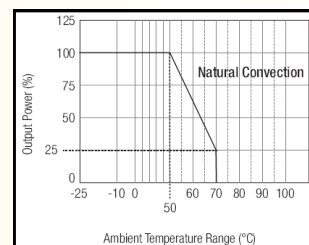
Graph of output power vs input voltage



ENVIRONMENT

Operating temperature -10 °C to 60 °C (natural convection)
 Thermal protection 100°C internal
 Storage temperature -20 °C to 85 °C
 humidity 85 % (not condensing)
 Temperature coefficient $\pm 0.02\%/^{\circ}\text{C}$ typ
 Insulation resistance 100 M Ω min.
 Dielectric strength 2500VAC (input / output)
 weigh 100g.
 MTBF (+25°C) > 4 000 000 hours

Graph of output power vs ambient temperature



Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments
EN 61000-6-2Emission standard for industrial environments
EN 61000-6-4

EN 61000-4-2 ESD	EN 61000-4-8 AC MF
EN 61000-4-3 RF	EN 61000-4-9 pulse MF
EN 61000-4-4 EFT	EN 61000-4-11 AC dips
EN 61000-4-5 CWG	EN 61000-4-12 ring wave
EN 61000-4-6 RF	EN 61000-4-29 DC dips

EN 55011
 group 1
 class A



WIRING AND OUTLINE DIMENSIONS:

