

EDS-P308 Series

8-port IEEE 802.3af PoE unmanaged Ethernet switches



- > 4 IEEE 802.3af compliant PoE and Ethernet combo ports
- > Up to 15.4 watts at 48 VDC per PoE port
- > Intelligent power consumption detection and classification
- > Redundant dual VDC power inputs
- > -40 to 75°C operating temperature range (T models)



Introduction

The EDS-P308 switches are smart, 8-port, unmanaged Ethernet switches supporting PoE (Power-over-Ethernet) on ports 1 to 4. The switches are classified as power source equipment (PSE), and when used in this way, the EDS-P308 switches enable centralization of the power supply and provide up to 15.4 watts of power per port. The switches can be used to power IEEE 802.3af compliant powered

devices (PD), eliminating the need for additional wiring, and support IEEE 802.3/802.3u/802.3x with 10/100M, full/half-duplex, MDI/MDI-X auto-sensing to provide an economical solution for your industrial Ethernet network. In addition, the built-in relay warning function alerts network engineers when power failures or port breaks occur.

Specifications

Technology

Standards:

- IEEE 802.3 for 10BaseT
- IEEE 802.3u for 100BaseT(X)
- IEEE 802.3x for Flow Control
- IEEE 802.3af for Power-over-Ethernet

Processing Type: Store and Forward

Flow Control: IEEE 802.3x flow control, back pressure flow control

Interface

Fiber Ports: 100BaseFX ports (SC connector)

RJ45 Ports: 10/100BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection

DIP Switches: Port break alarm mask

LED Indicators: PWR1, PWR2, FAULT, 10/100M, PoE

Alarm Contact: 1 relay output with current carrying capacity of 0.5 A @ 48 VDC

Optical Fiber

| | 100BaseFX | |
|------------------|--|--------------------|
| | Multi-mode | Single-mode |
| Wavelength | 1300 nm | 1310 nm |
| Max. TX | -10 dBm | 0 dBm |
| Min. TX | -20 dBm | -5 dBm |
| RX Sensitivity | -32 dBm | -34 dBm |
| Link Budget | 12 dB | 29 dB |
| Typical Distance | 5 km ^a 4 km ^b | 40 km ^c |
| Saturation | -6 dBm | -3 dBm |

a. 50/125 μm, 800 MHz*km fiber optic cable
 b. 62.5/125 μm, 500 MHz*km fiber optic cable
 c. 9/125 μm single-mode fiber optic cable

Power Requirements

Input Voltage: 48 (46 to 50 V) VDC, redundant inputs

Input Current: 1.6 A @ 48 V

Overload Current Protection: 2.5 A @ 48 VDC

Connection: 1 removable 6-contact terminal block

Reverse Polarity Protection: Present

PoE (per port)

Max. Output Power: 15.4 W

Output Voltage: 44 to 48.5 VDC

Max. Output Current: 350 mA

Max. Overload Protection: 400 mA

Physical Characteristics

Housing: Metal, IP30 protection

Dimensions: 53.6 × 135 × 105 mm (2.11 × 5.31 × 4.13 in)

Weight: 840 g

Installation: DIN-Rail mounting, wall mounting (with optional kit)

Environmental Limits

Operating Temperature:

Standard Models: 0 to 60°C (32 to 140°F)

Wide Temp. Models: -40 to 75°C (-40 to 167°F)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Regulatory Approvals

Safety: UL508

Hazardous Location: UL/cUL Class I, Division 2, Groups A, B, C, and D (Pending); ATEX Zone 2, Ex nC IIC (Pending)

EMI: FCC Part 15, CISPR (EN55022) class A

EMS:

- EN61000-4-2 (ESD), level 3
- EN61000-4-3 (RS), level 3
- EN61000-4-4 (EFT), level 4
- EN61000-4-5 (Surge), level 4
- EN61000-4-6 (CS), level 3
- EN61000-4-8
- EN61000-4-11

Maritime: DNV (Pending), GL (Pending)

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Note: Please check Moxa's website for the most up-to-date certification status.

MTBF (meantime between failures)

Time: 360,000 hrs

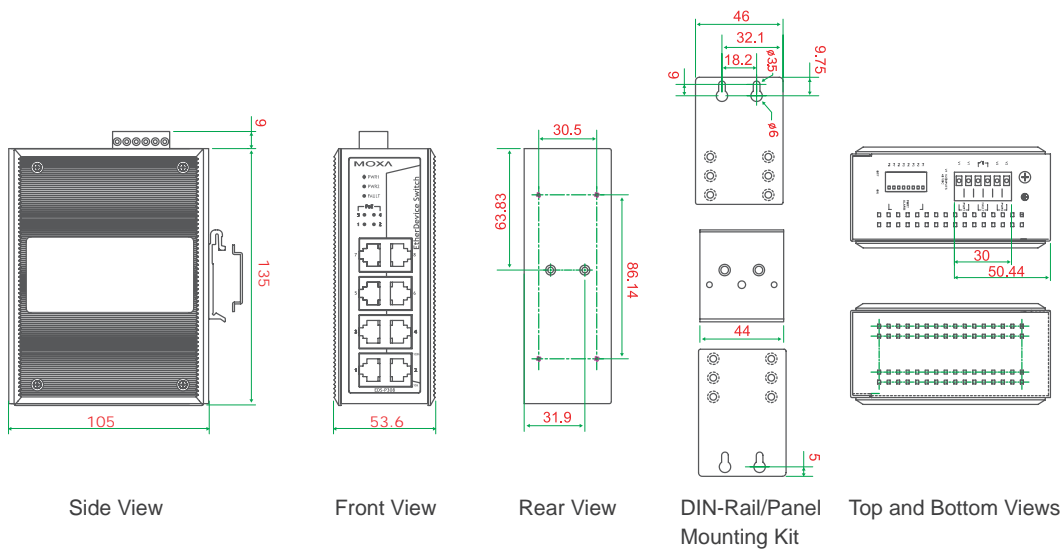
Database: Telcordia (Bellcore), GB

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions (unit = mm)



Ordering Information

| Available Models | | Port Interface | | | |
|--------------------------------------|------------------------------------|----------------|------------------------|----------------------------|------------------------------|
| Standard Temperature (0 to 60 °C) | Wide Temperature (-40 to 75 °C) | 10/100BaseT(X) | PoE, 10/100BaseT(X) | 100BaseFX | |
| | | | | Mult-mode, SC Connector | Single-mode, SC Connector |
| EDS-P308 | EDS-P308-T | 4 | 4 | --- | --- |
| EDS-P308-M-SC | EDS-P308-M-SC-T | 3 | 4 | 1 | --- |
| EDS-P308-S-SC | EDS-P308-S-SC-T | 3 | 4 | --- | 1 |
| EDS-P308-MM-SC | EDS-P308-MM-SC-T | 2 | 4 | 2 | --- |
| EDS-P308-SS-SC | EDS-P308-SS-SC-T | 2 | 4 | --- | 2 |

Optional Accessories (can be purchased separately)

SPL-24: PoE splitter, maximum output of 12.95 W at 24 VDC, 0 to 60°C operating temperature (see page 3-42 for details)

SPL-24-T: PoE splitter, maximum output of 12.95 W at 24 VDC, -40 to 75°C operating temperature (see page 3-42 for details)

DR-75-48/120-48: 75W/120W DIN-Rail 48 VDC power supplies

WK-46: Wall mounting kit

RK-4U: 4U-high 19" rack mounting kit

SPL-24 Series

IEEE 802.3af PoE splitters



- > IEEE 802.3af compliant; splits power and data from PoE equipment
- > Supports output power up to 12.95 W at 24 VDC
- > Short circuit protection for power output
- > Auto disconnection if power input voltage is too high
- > -40 to 75°C operating temperature range (T models)
- > DIN-Rail mounting ability



Specifications

Technology

Standards:

- IEEE 802.3 for 10BaseT
- IEEE 802.3u for 100BaseT(X)
- IEEE 802.3af for Power-over-Ethernet

Interface

RJ45 Ports: 10/100BaseT(X) for PoE IN and DATA OUT

LED Indicators: Power

Power Requirements

Input Voltage: 44 to 75 VDC

Output Voltage: 24 VDC

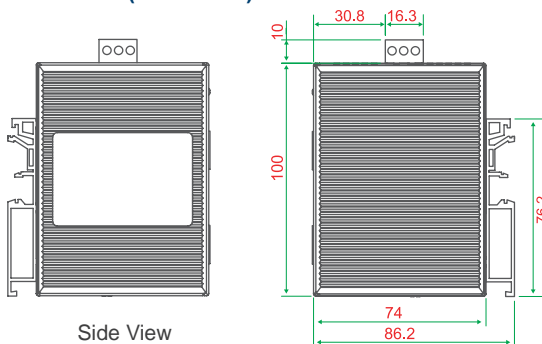
Overload Current Protection: 400 mA @ 48 VDC input

Connection: 1 removable 3-contact terminal block for output

Output Power: 12.95 W (0.54 A @ 24 VDC)

Efficiency: 85% (at 25°C, fully loaded)

Dimensions (unit = mm)



Physical Characteristics

Housing: Plastic, IP30 protection

Dimensions: 24.87 × 100 × 86.2 mm (0.98 × 3.93 × 3.39 in)

Weight: 95 g

Installation: DIN-Rail mounting

Environmental Limits

Operating Temperature:

Standard Models: 0 to 60°C (32 to 140°F)

Wide Temp. Models: -40 to 75°C (-40 to 167°F)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Regulatory Approvals

Safety: UL508 (Pending)

Hazardous Location: UL/cUL Class I, Division 2, Groups A, B, C, and D (Pending); ATEX Zone 2, Ex nC IIC (Pending)

EMI: FCC Part 15, CISPR (EN55022) class A

EMS:

EN61000-4-2 (ESD), level 3

EN61000-4-3 (RS), level 3

EN61000-4-4 (EFT), level 3

EN61000-4-5 (Surge), level 3

EN61000-4-6 (CS), level 3

EN61000-4-8

EN61000-4-11

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Note: Please check Moxa's website for the most up-to-date certification status.

MTBF (mean time between failures)

Time: 5,100,000 hrs

Database: MIL-HDBK-217F, GB 25°C

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Ordering Information

Available Models

SPL-24: PoE splitter, maximum output of 12.95 W at 24 VDC, 0 to 60°C operating temperature

SPL-24-T: PoE splitter, maximum output of 12.95 W at 24 VDC, -40 to 75°C operating temperature