EDS-205A/208A Series

5 and 8-port unmanaged Ethernet switches

> 10/100BaseT(X) (RJ45 connector), 100BaseFX
>   (multi/single-mode, SC or ST connector)
> Redundant dual 12/24/48 VDC, 18 to 30 VAC power inputs
> IP30 aluminum housing
> Rugged hardware design well suited for hazardous locations
>   (Class I Div. 2 /ATEX) and maritime environments (DNV/GL)
> -40 to 75°C operating temperature range (T models)

The certification logos shown here apply to some or all of the products in this section. For details, see "Regulatory Approvals" under "Specifications" below.

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Introduction

The EDS-205A/208A series are 5 and 8-port industrial Ethernet switches that support IEEE 802.3 and IEEE 802.3u/x with 10/100M full/half-duplex, MDI/MDI-X auto-sensing. The EDS-205A/208A switches provide 12/24/48 VDC (9.6 to 60 VDC), 18 to 30 VAC redundant power inputs that can be connected simultaneously to live AC/DC power sources. These switches have been designed for harsh industrial environments, such as in maritime (DNV/GL) or hazardous locations (Class I Div. 2/ATEX) that comply with FCC, TUV, UL, and CE standards.

The EDS-205A/208A switches are available with a standard operating temperature range from -10 to 60°C, or with a wide operating temperature range from -40 to 75°C. All models are subjected to a 100% burn-in test to ensure that they fulfill the special needs of industrial automation control applications. In addition, the EDS-205A/208A switches have DIP switches for enabling or disabling broadcast storm protection, providing another level of flexibility for industrial applications.

Specifications

Technology

Standards:
IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X) and 100BaseFX
IEEE 802.3x for Flow Control

Processing Type: Store and Forward

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

Interface

Fiber Ports: 100BaseFX ports (SC/ST connector, multi-mode, single-mode)

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

DIP Switches: Enable/Disable broadcast storm protection

LED Indicators: Power, 10/100M (TP port), 100M (fiber port)

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: 12/24/48 VDC (9.6 to 60 VDC), 18 to 30 VAC (47 to 63 Hz), redundant dual inputs

Input Current:
EDS-205A: 0.091 A @ 24 V
EDS-208A: 0.13 A @ 24 V
EDS-208A-M: 0.17 A @ 24 V
EDS-208A-MM/SS: 0.22 A @ 24 V

Overload Current Protection: 1.1 A

Connection: 1 removable 4-contact terminal block

Reverse Polarity Protection: Present

Physical Characteristics

Housing: Aluminum, IP30 protection

Dimensions:
EDS-205A: 30 x 115 x 70 mm (1.18 x 4.52 x 2.76 in)
EDS-208A: 50 x 115 x 70 mm (1.96 x 4.52 x 2.76 in)

Weight:
EDS-205A: 175 g
EDS-208A: 275 g

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

Environmental Limits

Operating Temperature:
Standard Models: -10 to 60°C (14 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 Class I, 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

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)
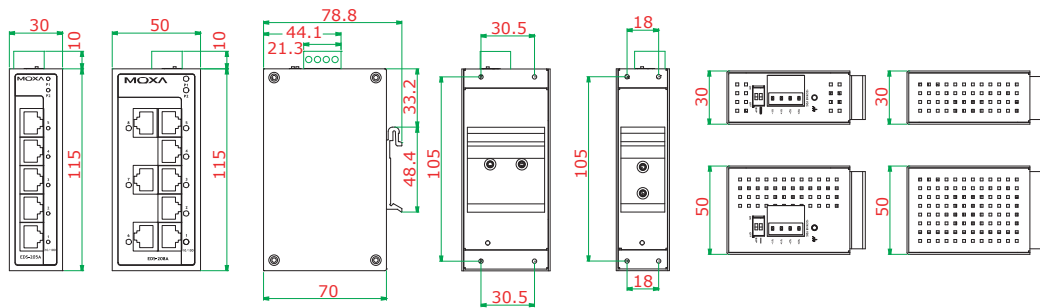
Time: 425,000 hrs

Database: Telcordia (Bellcore), GB

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions (unit = mm)

Front Views   Side View   Rear Views   Top & Bottom Views

Ordering Information

Available Models			Port Interface			
				100BaseFX		
Standard Temperature (-10 to 60°C)	Wide Temperature (-40 to 75°C)	10/100BaseT(X)	Multi-mode, SC Connector	Multi-mode, ST Connector	Single-mode, SC Connector	
EDS-205A	EDS-205A-T	5	---	---	---	
EDS-208A	EDS-208A-T	8	---	---	---	
EDS-208A-M-SC	EDS-208A-M-SC-T	7	1	---	---	
EDS-208A-M-ST	EDS-208A-M-ST-T	7	---	1	---	
EDS-208A-MM-SC	EDS-208A-MM-SC-T	6	2	---	---	
EDS-208A-MM-ST	EDS-208A-MM-ST-T	6	---	2	---	
EDS-208A-S-SC	EDS-208A-S-SC-T	7	---	---	1	
EDS-208A-SS-SC	EDS-208A-SS-SC-T	6	---	---	2	

Optional Accessories (can be purchased separately)

DR-4524/75-24/120-24: 45/75/120 W DIN-Rail 24 VDC power supplies

MDR-40-24/60-24: 40/60 W DIN-Rail 24 VDC power supplies, -20 to 70°C operating temperature

WK-46: Wall mounting kit (EDS-208A series only)

WK-30: Wall mounting kit (EDS-205A series only)

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