EDS-4008 Series

8-port (with options of 4 802.3bt PoE ports or 4 Giga uplink ports) managed Ethernet switches

Features and Benefits

- Developed according to the IEC 62443-4-1 and compliant with the IEC 62443-4-2 industrial cybersecurity standards

- Turbo Ring and Turbo Chain (recovery time < 20 ms @ 250 switches)[1], and RSTP/STP for network redundancy

- Support for IEEE 802.3bt PoE for up to 90 W output per port

- Wide range of power input options for flexible deployment

- Compact and flexible housing design to fit into confined spaces

- Supports MXstudio for easy, visualized industrial network management

Certifications

CE FC cULus LISTED NEMA TS2

Introduction

The EDS-4008 Series is a range of 8-port managed Fast Ethernet switches with the option for four 1 Gbps uplink ports or two 100M ST/SC fiber-optic ports. This Series also offers models with four 10/100BaseT(X) 802.3af (PoE), 802.3at (PoE+), and 802.3bt-compliant Ethernet PoE port options to connect high-bandwidth PoE devices.

Redundant Ethernet technologies such as Turbo Ring, Turbo Chain, and RSTP/STP increase the reliability of your system and improve the availability of your network backbone. The EDS-4008 Series is designed specifically for demanding applications such as video and process monitoring, ITS, and DCS systems, all of which can benefit from a scalable backbone.

The EDS-4008 Series is compliant with the IEC 62443-4-2 and IEC 62443-4-1 Industrial Cybersecurity certifications, which cover both product security and secure development life-cycle requirements, helping our customers meet the compliance requirements of secure industrial network design.

Specifications

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	EDS-4008-LV/-HV/-T models: 8 EDS-4008-2MST-LV/-HV/-T models: 6 EDS-4008-2MSC-LV/-HV/-T models: 6 EDS-4008-2SSC-LV/-HV/-T models: 6 EDS-4008-2GT-2GS-LV/-HV/-T models: 4 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
PoE Ports (10/100BaseT(X), RJ45 connector)	EDS-4008-4P-2GT-2GS-LVA/-LVB/-T models: 4
100BaseFX Ports (multi-mode SC connector)	EDS-4008-2MSC-LV/-HV/-T models: 2
100BaseFX Ports (multi-mode ST connector)	EDS-4008-2MST-LV/-HV/-T models: 2
100BaseFX Ports (single-mode SC connector)	EDS-4008-SSC-LV/-HV/-T models: 2
10/100/1000BaseT(X) Ports (RJ45 connector)	EDS-4008-2GT-2GS-LV/-HV-T models: 2 EDS-4008-4P-2GS-2GT-LVA/-LVB/-T models: 2

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1. If the port link speed is 1 Gigabit or higher, the recovery time is < 50 ms.

100/1000BaseSFP Slots	EDS-4008-2GT-2GS-LV/-HV/-T models 2 EDS-4008-4P-2GT-2GS-LVA/-LVB/-T models: 2
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseX IEEE 802.3x for flow control IEEE 802.3ad for Port Trunk with LACP IEEE 802.1Q for VLAN Tagging IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1X for authentication

Ethernet Software Features

Filter	GMRP, GVRP, GARP, 802.1Q VLAN, IGMP Snooping v1/v2/v3, IGMP Querier
Management	IPv4/IPv6, Flow control, Back Pressure Flow Control, DHCP Server/Client, ARP, RARP, LLDP, Port Mirror, Linkup Delay, SMTP, SNMP Trap, SNMP Inform, SNMPv1/v2c/v3, RMON, TFTP, SFTP, HTTP, HTTPS, Telnet, Syslog, Private MIB
MIB	P-BRIDGE MIB, Q-BRIDGE MIB, IEEE8021-SPANNING-TREE-MIB, IEEE8021-PAE-MIB, IEEE8023-LAG-MIB, LLDP-EXT-DOT1-MIB, LLDP-EXT-DOT3-MIB, SNMPv2-MIB, RMON MIB Groups 1, 2, 3, 9
Redundancy Protocols	STP, RSTP, Turbo Ring v2, Turbo Chain, Ring Coupling, Dual-Homing, Link Aggregation
Security	Broadcast storm protection, Rate Limit, Trust access control, Static Port Lock, MAC Sticky, HTTPS/SSL, SSH, RADIUS, TACACS+, Login and Password Policy
Time Management	SNTP, NTP Server/Client, NTP Authentication
Protocols	IPv4/IPv6, TCP/IP, UDP, ICMP, ARP, RARP, TFTP, DNS, NTP Client, DHCP Server, DHCP Client, 802.1X, QoS, HTTPS, HTTP, Telnet, SMTP, SNMPv1/v2c/v3, RMON, Syslog

Switch Properties

MAC Table Size	16 K
Jumbo Frame Size	9.216 KB
Max. No. of VLANs	256
VLAN ID Range	VID 1 to 4094
IGMP Groups	512
Priority Queues	4
Packet Buffer Size	1 MB

LED Interface

LED Indicators	PWR1, PWR2, STATE, FAULT, MSTR/HEAD, CPLR/TAIL, SYNC

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 8-pin RJ45 (115200, n, 8, 1)

USB Interface

USB Connector	USB Type A (Reserved)

Input/Output Interface

Alarm Contact Channels	1, Relay output with current carrying capacity of 1 A @ 24 VDC
Digital Input Channels	1

Digital Inputs	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA
Buttons	Reset button

DIP Switch Configuration

DIP Switches	Turbo Ring, Master, Coupler, Reserve

Power Parameters

Connection	2 removable 4-contact terminal block(s)
Pre-installed Power Module	-LV/-LV-T models: PWR-100–LV -HV/-HV-T models: PWR-105-HV-I -LVA/-LVA-T models: PWR-101-LV-BP-I -LVB/-LVB-T models: PWR-103-LV-VB-I
Note	The EDS-4008 Series supports modular power supplies. The model names and power parameters are determined by the installed power module. For example: EDS-4008-T + PWR-100–LV = EDS-4008-LV-T EDS-4008-T + PWR-105-HV-I = EDS-4008-HV-T If you install a different power module, refer to the specifications of the corresponding model. For example, if you replace the power module of the EDS-4008–LV-T with the PWR-105–HV-I, refer to the specifications of the EDS-4008–HV-T.
Input Voltage	-LV/-LV-T models: 12/24/48 VDC, Redundant dual inputs -HV/-HV-T models: 110/220 VDC/VAC, Single input -LVA/-LVA-T models: 48 VDC, Redundant dual inputs -LVB/-LVB-T models: 12/24/48 VDC, Redundant dual inputs
Operating Voltage	-LV/-LV-T models: 9.6 to 60 VDC -HV/-HV-T models: 88 to 300 VDC, 85 to 264 VAC -LVA/-LVA-T models: 44 to 57 VDC (> 52 VDC for PoE+ output recommended) -LVB/-LVB-T models: 12 to 57 VDC (> 52 VDC for PoE+ output recommended)
Input Current	-LV/-LV-T models: 12-48 VDC, 1.50-0.40 A or 24 VDC, 0.70 A -HV/-HV-T models: 110-220 VAC, 50-60 Hz, 0.30-0.20 A or 110-220 VDC, 0.30-0.20 A -LVA/-LVA-T models: 48 VDC, 5.42 A -LVB/-LVB-T models: 12/48 VDC, 7.46/4.27 A or 24 VDC, 7.26 A
Power Consumption (Max.)	EDS-4008-LV(-T) models: 7.20 W EDS-4008-HV(-T) models: 8.13 W EDS-4008-2MST-LV(-T) models: 8.45 W EDS-4008-2MST-HV(-T) models: 11.13 W EDS-4008-2MSC-LV(-T) models: 8.45 W EDS-4008-2MSC-HV(-T) models: 11.09 W EDS-4008-2SSC-LV(-T) models: 8.98 W EDS-4008-2SSC-HV(-T) models: 11.37 W EDS-4008-2GT-2GS-LV(-T) models: 9.41 W EDS-4008-2GT-2GS-HV(-T) models: 11.17 W EDS-4008-4P-2GT-2GS-LVA(-T) models: Without PoE: 11.22 W With PoE: Max. 240 W for total PD power consumption @ 48 VDC input EDS-4008-4P-2GT-2GS-LVB(-T) models: Without PoE: 15.84 W With PoE: Max. 180 W for total PD power consumption @ 48 VDC input; Max. 150 W for total PD power consumption @ 24 VDC input; Max. 62 W for total PD power consumption @ 12 VDC input
Max. PoE Power Output per Port	PoE models: 90 W
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

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Physical Characteristics

IP Rating	IP40
Dimensions	EDS-4008(-T), EDS-4008-2MSC(-T), EDS-4008-2SSC(-T) models: 55 x 140 x 120 mm (2.2 x 5.51 x 4.72 in) EDS-4008-2MST(-T) models: 55 x 140 x 132 mm (2.2 x 5.51 x 5.2 in) EDS-4008-2GT-2GS(-T), EDS-4008-4P-2GT-2GS(-T) models: 55 x 140 x 122.5 mm (2.2 x 5.51 x 4.82 in)
Weight	EDS-4008(-T) models: 857 g (1.89 lb) EDS-4008-2MSC(-T) models: 886 g (1.95 lb) EDS-4008-2MST(-T) models: 810 g (1.79 lb) EDS-4008-2SSC(-T) models: 882 g (1.94 lb) EDS-4008-2GT-2GS(-T) models: 795 g (1.75 lb) EDS-4008-4P-2GT-2GS(-T) models: 840 g (1.85 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)
Housing	Metal

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 (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Industrial Cybersecurity	IEC 62443-4-1 IEC 62443-4-2
Safety	UL 61010-2-201, EN 62368-1 (LVD)
EMC	EN 55032/35, EN 61000-6-2/-6-4
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Railway	EN 50121-4
Traffic Control	NEMA TS2

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MTBF

Time	EDS-4008-LV/-LV-T models: 1,121,399 hrs
	EDS-4008-HV/-HV-T models: 513,575 hrs
	EDS-4008-2MSC-LV/-LV-T models: 1,014,299 hrs
	EDS-4008-2MSC-HV/-HV-T models: 492,582 hrs
	EDS-4008-2MST-LV/-LV-T models: 1,015,718 hrs
	EDS-4008-2MST-HV/-HV-T models: 492,582 hrs
	EDS-4008-2SSC-LV/-LV-T models: 1,015,718 hrs
	EDS-4008-2SSC-HV/-HV-T models: 492,582 hrs
	EDS-4008-2GT-2GS-LV/-LV-T models: 1,074,099 hrs
	EDS-4008-2GT-2GS-HV/-HV-T models: 505,936 hrs
	EDS-4008-4P-2GT-2GS-LVA/-LVA-T models: 923,670 hrs
	EDS-4008-4P-2GT-2GS-LVB/-LVB-T models: 870,865 hrs hrs
Standards	Telcordia SR332

Warranty

Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

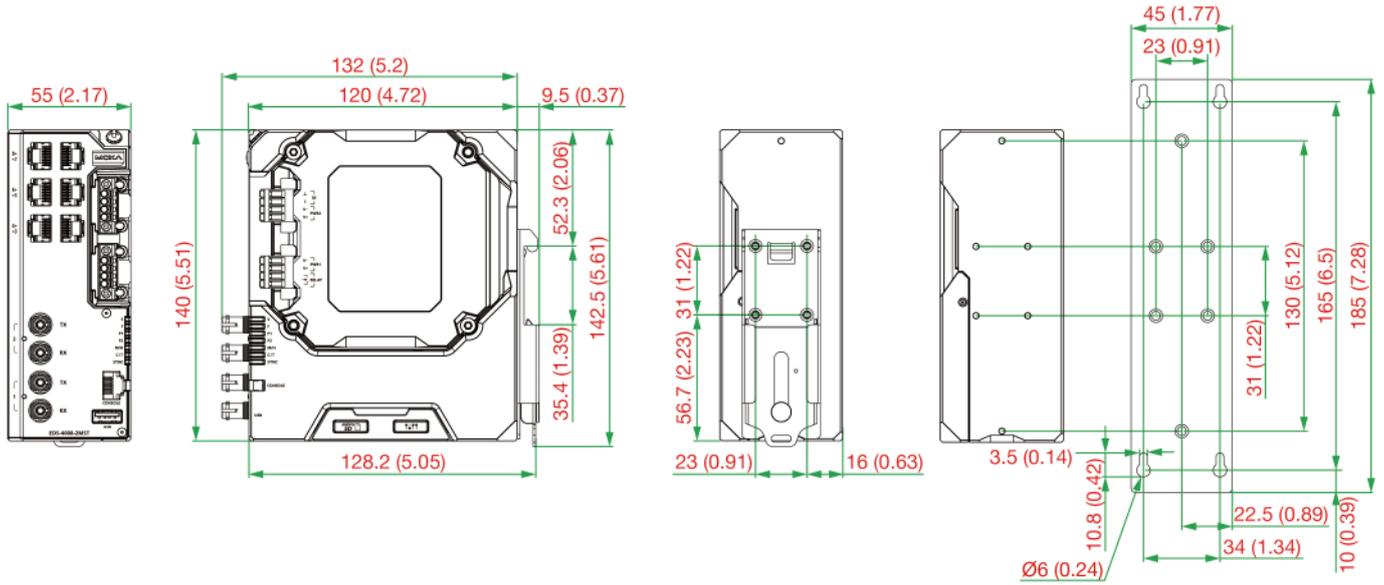| Device	1 x EDS-4008 Series switch
Documentation	1 x quick installation guide
	1 x product notice, Simplified Chinese
	1 x product certificates of quality inspection, Simplified Chinese
	1 x warranty card

Dimensions

EDS-4008(-T), EDS-4008-2MSC(-T), EDS-4008-2SSC(-T) Models

Unit: mm (inch)

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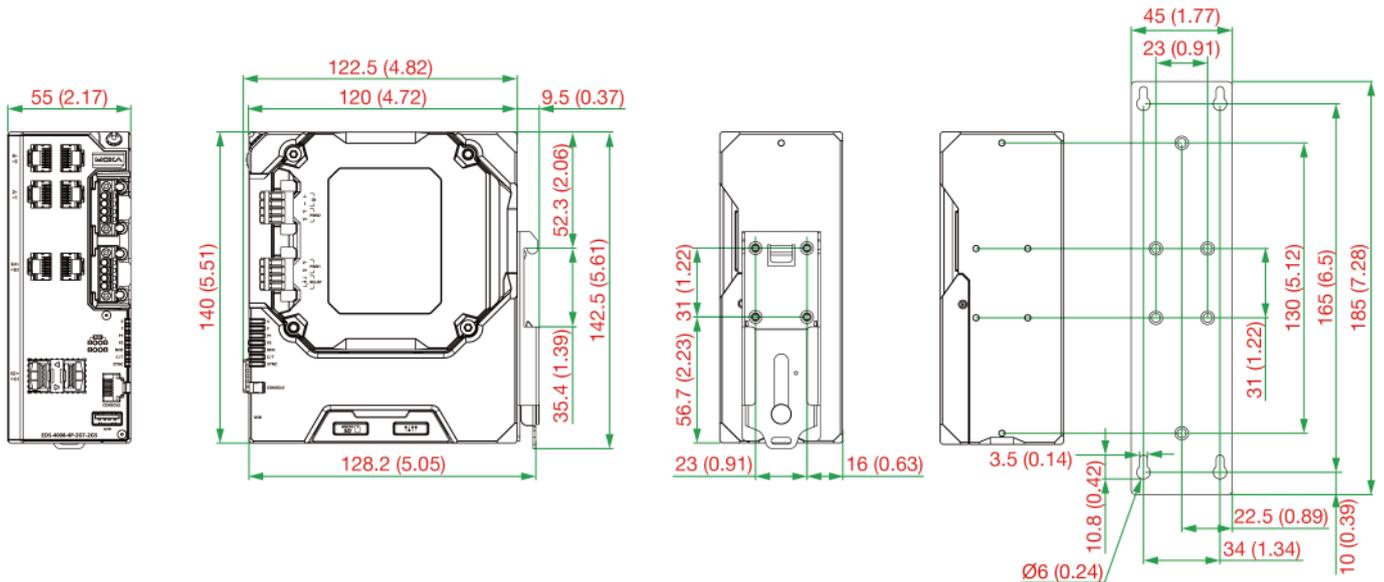Reliable Networks ▲ Sincere Service
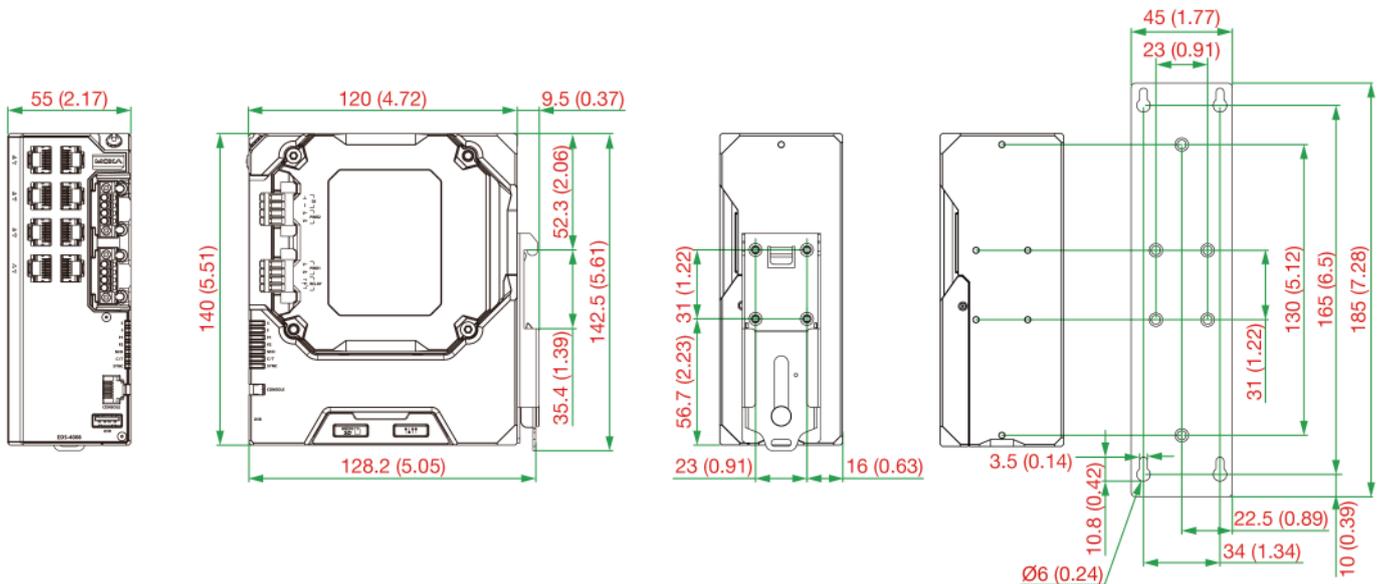
EDS-4008-2MST(-T) Models

Unit: mm (inch)

EDS-4008-2GT-2GS(-T), EDS-4008-4P-2GT-2GS(-T) Models

Unit: mm (inch)

Ordering Information

Model Name	10/100 BaseT(X) Ports (RJ45 Connector)	100 BaseFX Ports (Multi-mode SC Connector)	100 BaseFX Ports (Multi-mode ST Connector)	100 BaseFX Ports (Single-mode SC Connector)	PoE 10/100 BaseT(X) Ports (RJ45 Connector)	10/100/1000 BaseT(X) Ports (RJ45 Connector)	100/1000 BaseSFP Slots	Operating Voltage	Pre-installed Power Module	Operating Temp.
EDS-4008-LV	8	–	–	–	–	–	–	9.6 to 60 VDC	PWR-100-LV	-10 to 60°C
EDS-4008-LV-T	8	–	–	–	–	–	–	9.6 to 60 VDC	PWR-100-LV	-40 to 75°C
EDS-4008-HV	8	–	–	–	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-10 to 60°C
EDS-4008-HV-T	8	–	–	–	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-40 to 75°C

Model Name	10/100 BaseT(X) Ports (RJ45 Connector)	100 BaseFX Ports (Multi-mode SC Connector)	100 BaseFX Ports (Multi-mode ST Connector)	100 BaseFX Ports (Single-mode SC Connector)	PoE 10/100 BaseT(X) Ports (RJ45 Connector)	10/100/1000 BaseT(X) Ports (RJ45 Connector)	100/1000 BaseSFP Slots	Operating Voltage	Pre-installed Power Module	Operating Temp.
EDS-4008-2MSC-LV	6	2	–	–	–	–	–	9.6 to 60 VDC	PWR-100-LV	-10 to 60°C
EDS-4008-2MSC-LV-T	6	2	–	–	7	–	–	9.6 to 60 VDC	PWR-100-LV	-40 to 75°C
EDS-4008-2MSC-HV	6	2	–	–	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-10 to 60°C
EDS-4008-2MSC-HV-T	6	2	–	–	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-40 to 75°C
EDS-4008-2MST-LV	6	–	2	–	–	–	–	9.6 to 60 VDC	PWR-100-LV	-10 to 60°C
EDS-4008-2MST-LV-T	6	–	2	–	–	–	–	9.6 to 60 VDC	PWR-100-LV	-40 to 75°C
EDS-4008-2MST-HV	6	–	2	–	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-10 to 60°C
EDS-4008-2MST-HV-T	6	–	2	–	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-40 to 75°C
EDS-4008-2SSC-LV	6	–	–	2	–	–	–	9.6 to 60 VDC	PWR-100-LV	-10 to 60°C
EDS-4008-2SSC-LV-T	6	–	–	2	–	–	–	9.6 to 60 VDC	PWR-100-LV	-40 to 75°C
EDS-4008-2SSC-HV	6	–	–	2	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-10 to 60°C
EDS-4008-2SSC-HV-T	6	–	–	2	–	–	–	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-40 to 75°C
EDS-4008-2GT-2GS-LV	4	–	–	–	–	2	2	9.6 to 60 VDC	PWR-100-LV	-10 to 60°C
EDS-4008-2GT-2GS-LV-T	4	–	–	–	–	2	2	9.6 to 60 VDC	PWR-100-LV	-40 to 75°C
EDS-4008-2GT-2GS-HV	4	–	–	–	–	2	2	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-10 to 60°C
EDS-4008-2GT-2GS-HV-T	4	–	–	–	–	2	2	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-40 to 75°C
EDS-4008-4P-2GT-2GS-LVA	–	–	–	–	4	2	2	44 to 57 VDC (> 52 VDC for PoE+ output recomme-nded)	PWR-101-LV-BP-I	-10 to 60°C
EDS-4008-4P-2GT-2GS-LVA-T	–	–	–	–	4	2	2	44 to 57 VDC (> 52 VDC for PoE+ output recomme-nded)	PWR-101-LV-BP-I	-40 to 75°C

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Model Name	10/100 BaseT(X) Ports (RJ45 Connector)	100 BaseFX Ports (Multi-mode SC Connector)	100 BaseFX Ports (Multi-mode ST Connector)	100 BaseFX Ports (Single-mode SC Connector)	PoE 10/100 BaseT(X) Ports (RJ45 Connector)	10/100/1000 BaseT(X) Ports (RJ45 Connector)	100/1000 BaseSFP Slots	Operating Voltage	Pre-installed Power Module	Operating Temp.
EDS-4008-4P-2GT-2GS-LVB	–	–	–	–	4	2	2	12 to 57 VDC (> 52 VDC for PoE+ output recomme-nded)	PWR-103-LV-VB-I	-10 to 60°C
EDS-4008-4P-2GT-2GS-LVB-T	–	–	–	–	4	2	2	12 to 57 VDC (> 52 VDC for PoE+ output recomme-nded)	PWR-103-LV-VB-I	-40 to 75°C

Accessories (sold separately)

SFP Modules

SFP-1GEZXLC	SFP module with 1 1000BaseEZX port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXLC-120	SFP module with 1 1000BaseEZX port with LC connector for 120 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature
SFP-1GLHXLC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLSXLC	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature
SFP-1GLXLC	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GSXLC	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature
SFP-1GZXLC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC-T	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature
SFP-1GLHXLC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GLSXLC-T	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, -40 to 85°C operating temperature
SFP-1GLXLC-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXLC-T	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, -40 to 85°C operating temperature
SFP-1GZXLC-T	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G20ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G20BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature

SFP-1G40ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G40BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G20ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G20BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G40ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G40BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode, LC connector for 2/4 km transmission, -40 to 85°C operating temperature
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature

Power Supplies

HDR-60-24	60 W/2.5 A DIN-rail 24 VDC power supply, universal 85 to 264 VAC or 120 to 370 VDC input voltage, -30 to 70°C operating temperature
NDR-120-24	120 W/5.0 A DIN-rail 24 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
NDR-120-48	120 W/2.5 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
NDR-240-48	240 W/5.0 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
MDR-40-24	DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
MDR-60-24	DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature