

# SDS-3006シリーズ

6ポート（4つのPoE+ポートまたは2つのギガアップリンクポートのオプション付き）スマートイーサネットスイッチ



## 機能とメリット

- IEEE 802.3af/at PoE+標準ポート x 4
- PoE+ポートあたり36ワットの出力（ハイパワーモード時）
- 多言語Web GUI：英語、繁体字中国語、簡体字中国語、日本語、ドイツ語、フランス語
- RSTP/STP、およびネットワーク冗長性のためのMRPをサポートし、高いネットワーク可用性を確保
- EtherNet/IP、PROFINET、およびModbus/TCP産業プロトコルに対応し、オートメーションHMI/SCADAシステムで簡単な統合と監視を実現
- IEC 62443に基づくセキュリティ機能
- ローターリーDIPスイッチは、Webブラウザを使用せずにプロファイルベースの設定を実行
- 簡単に視覚化された産業用ネットワーク管理を行うためのMXstudioに対応

## 認証



## 製品紹介

SDS-3006スマートイーサネットスイッチは、IAエンジニアやオートメーションマシンのメーカーが、使用するネットワークがインダストリー4.0のビジョンに準拠していることを確認するための理想的な製品です。マシンやコントロールキャビネットに息を吹き込み、スマートスイッチの簡単な設定と簡単な設置作業を行うことで日常業務が簡略化されます。さらに、監視可能であり、製品のライフサイクル全体を通じて保守が容易です。

EtherNet/IP、PROFINET、およびModbus TCPを含む、最も頻繁に使用されるプロトコルをSDS-3006スイッチに組み込み、オートメーションHMIから制御と確認を可能にすることで、運用パフォーマンスと柔軟性の向上を実現しています。さらに、IEEE 802.1Q VLAN、ポートミラーリング、SNMP、リレー警告、および多言語Web GUIなど、役に立つ管理機能を多数サポートしています。

## その他の機能とメリット

- IPポートバインディングにより、IPアドレスの再割り当てなしで重要なデバイスを迅速に交換
- ネットワーク計画を容易にするIEEE 802.1Q VLAN
- ABC-02-USB（Automatic Backup Configurator）クイックシステム設定のバックアップ/リストアおよびファームウェアのアップグレードをサポート
- リレー出力を通じた例外による自動警告
- 未使用のポートロック、SNMPv3、HTTPSを使用してネットワークセキュリティを強化
- オンラインデバッグおよびモニタリング用のポートミラーリングおよび監視
- ローカルログとインベントリファイルのエクスポート機能により、在庫管理が簡素化
- 先進的なPoE管理機能（PoEポート設定、PD障害チェック、PoEスケジューリング）

## 仕様

### Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	SDS-3006(-T) models: 6 SDS-3006-2GTXSFP(-T) models: 4 SDS-3006-4PoE-2GTXSFP(-T) models: 4 <sup>1</sup> Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP)	SDS-3006-2GTXSFP(-T) models: 2 SDS-3006-4PoE-2GTXSFP(-T) models: 2 <sup>1</sup>
PoE Ports (10/100/1000BaseT(X), RJ45 connector)	SDS-3006-4PoE-2GTXSFP(-T) models: 4 <sup>1</sup>
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X) IEEE 802.3x for flow control IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service

### Ethernet Software Features

Industrial Protocols	EtherNet/IP Modbus TCP PROFINET IO Device
Management	Back Pressure Flow Control DHCP Client Fiber check Flow control IPv4/IPv6 LLDP Port Mirror RMON SNMP Inform SNMPv1/v2c/v3 Syslog
MIB	RFC1213 Ethernet-like MIB IF MIB LLDP MIB Bridge MIB Q-BRIDGE MIB
Redundancy Protocols	RSTP STP MRP
Security	Broadcast storm protection HTTPS/SSL SNMPv3 Port Lock Trust access control
Time Management	NTP Server/Client SNTP
Filter	802.1Q VLAN

1. PoEモデル使用は暫定的です。

## Rotary Switch Configuration

Indicator	Mode
0	No function enabled via DIP switch (Default)
1	PROFINET profile enabled
2	PROFINET profile and DHCP client enabled
3	EtherNet/IP profile enabled
4	EtherNet/IP profile and DHCP client enabled
5	Modbus TCP profile enabled
6	Modbus TCP profile and DHCP client enabled
7-9	Reserved (currently performs the same behavior as indicator 0)

### Switch Properties

MAC Table Size	8 K
Max. No. of VLANs	8
VLAN ID Range	VID 1 to 4094
Packet Buffer Size	3 Mbits

### LED Interface

LED Indicators	PWR1, PWR2, STATE, FAULT, 10/100M (TP Port), 10/100/1000M (Gigabit Combo port), smart PoE LED (SDS-3006-4PoE-2GTXSFP(-T) models only) <sup>2</sup>
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### USB Interface

Storage Port	USB Type A (for ABC-02 only)
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### Input/Output Interface

Alarm Contact Channels	1 Relay output with current carrying capacity of 1 A @ 24 VDC
Buttons	Reset button
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

### Power Parameters

Connection	2 removable 4-contact terminal block(s)
Input Voltage	12-48 VDC Redundant dual inputs
Operating Voltage	SDS-3006(-T) models: 9.6 to 60 VDC SDS-3006-2GTXSFP(-T) models: 9.6 to 60 VDC SDS-3006-4PoE-2GTXSFP(-T) models: 9.6 to 57 VDC <sup>2</sup>
Input Current	SDS-3006(-T) models: 0.76 A max. 12-48 VDC SDS-3006-2GTXSFP(-T) models: 0.98 A max. 12-48 VDC SDS-3006-4PoE-2GTXSFP(-T) models: 0.85 A max. 12-48 VDC <sup>2</sup>
Power Budget	Max. 120 W for total PD consumption @ 48 VDC input Max. 90 W for total PD consumption @ 24 VDC input Max. 45 W for total PD consumption @ 12 VDC input

2. PoEモデル使用は暫定的です。

	Max. 36 W for each PoE port Note: PoE model specifications are preliminary.
Power Consumption (Max.)	SDS-3006(-T) models: 4.75 W SDS-3006-2GTXSFP(-T) models: 6.69 W SDS-3006-4PoE-2GTXSFP(-T) models: 10.38 W full loading without PDs' consumption <sup>3</sup>
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

### Physical Characteristics

Housing	Metal
IP Rating	IP40
Dimensions	SDS-3006(-T): 20 x 135 x 111 mm (0.79 x 5.32 x 4.37 in) SDS-3006-2GTXSFP(-T): 36 x 135 x 111 mm (1.42 x 5.32 x 4.37 in) SDS-3006-4PoE-2GTXSFP(-T): 36 x 135 x 111 mm (1.42 x 5.32 x 4.37 in) <sup>3</sup>
Weight	SDS-3006(-T): 383g (0.84 lbs) SDS-3006-2GTXSFP(-T): 718g (1.58 lbs) SDS-3006-4PoE-2GTXSFP(-T): 779g (1.72 lbs) <sup>3</sup>
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 (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

### Standards and Certifications

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: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 800 MHz: 10 V/m; 800 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV (1.2/50 μs), 1 kV (10/700 μs) IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Safety	EN IEC 62368-1 UL 61010-2-201
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

### MTBF

Time	SDS-3006(-T): 3,483,278 hrs SDS-3006-2GTXSFP(-T): 3,196,539 hrs SDS-3006-4PoE-2GTXSFP(-T): 2,339,356 hrs <sup>3</sup>
Standards	Telcordia (Bellcore), GB

3. PoEモデル使用は暫定的です。

## Warranty

Warranty Period	5 years
Details	See <a href="http://www.moxa.com/jp/warranty">www.moxa.com/jp/warranty</a>

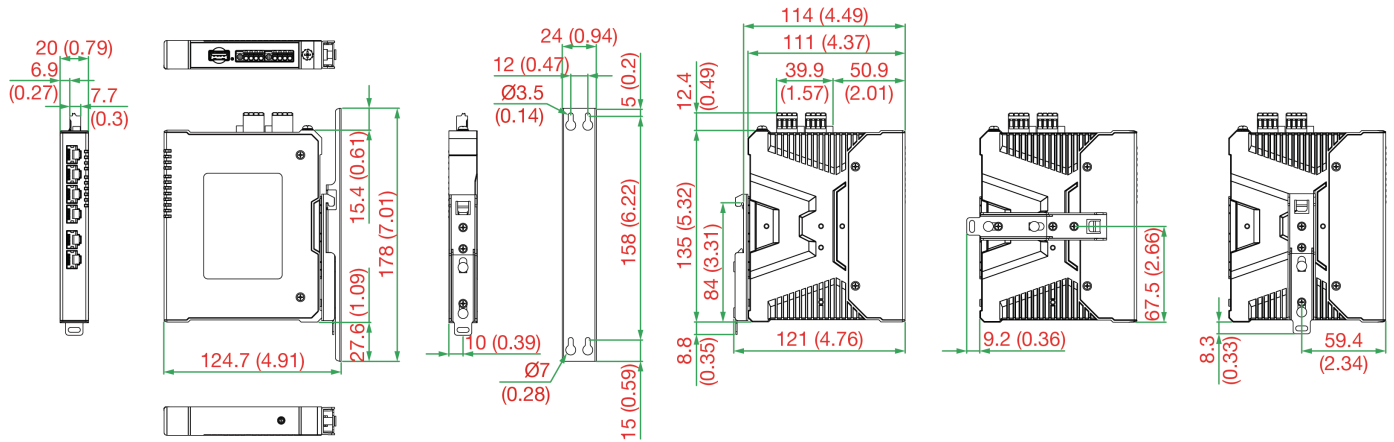
## Package Contents

Device	1 x SDS-3006 Series switch
Documentation	1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x quick installation guide 1 x warranty card

## 寸法

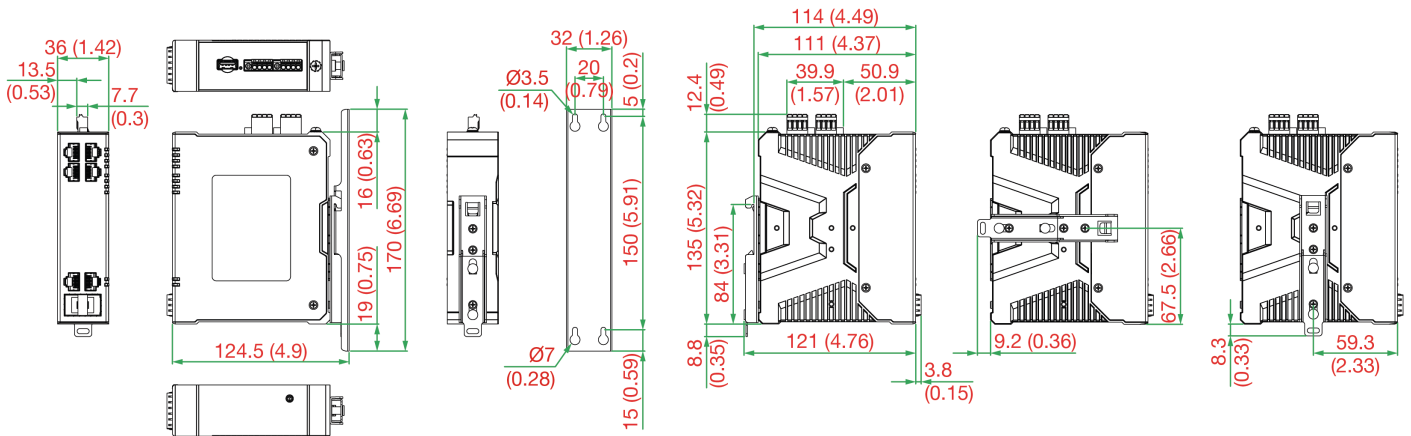
### SDS-3006モデル

単位: mm (インチ)



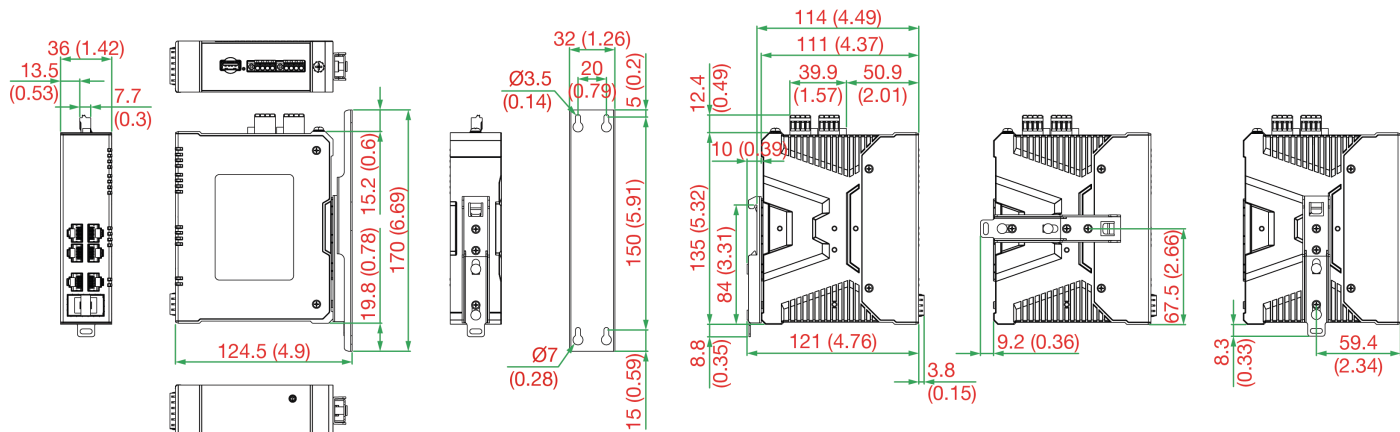
### SDS-3006 2GTXSFPモデル

単位: mm (インチ)



## SDS-3006 4PoE-2GTXSFPモデル<sup>4</sup>

単位: mm (インチ)



## 注文情報

Model Name	10/100BaseT(X) Ports, RJ45 Connector	Combo Ports, 10/100/1000BaseT(X) or 100/1000BaseSFP	PoE 10/100BaseT(X) Ports, RJ45 Connector	Operating Voltage	Operating Temp.
SDS-3006	6	-	-	9.6 to 60 VDC	-10 to 60°C
SDS-3006-T	6	-	-	9.6 to 60 VDC	-40 to 75°C
SDS-3006-2GTXSFP	4	2	-	9.6 to 60 VDC	-10 to 60°C
SDS-3006-2GTXSFP-T	4	2	-	9.6 to 60 VDC	-40 to 75°C
SDS-3006-4PoE-2GTXSFP	4	2	4	9.6 to 57 VDC	-10 to 60°C
SDS-3006-4PoE-2GTXSFP-T	4	2	4	9.6 to 57 VDC	-40 to 75°C

## アクセサリ (別売)

### Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
ABC-02-USB-T	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°C operating temperature

### SFP Modules

SFP-1GEZXC	SFP module with 1 1000BaseEZC port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXC-120	SFP module with 1 1000BaseEZC 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-1GLHXC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLSXC	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature
SFP-1GLXC	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GSXC	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature

4. PoEモデルの仕様は暫定的です。

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-1GLSXLCT-T	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, -40 to 85°C operating temperature
SFP-1GLXLCT-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXLCT-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-1G10ALCT-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-1G10BLCT-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-1G20ALCT-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-1G20BLCT-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-1G40ALCT-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-1G40BLCT-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-1FELLCT-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1FEMLCT-T	SFP module with 1 100Base multi-mode, LC connector for 2/4 km transmission, -40 to 85°C operating temperature
SFP-1FESLCT-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GTXRJ45-T	SFP module with 1 1000BaseT port with RJ45 connector for 100 m transmission, -40 to 75°C operating temperature

## Power Supplies

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

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