SICOM3024P-A

28G port layer 2 managed rack mountable switches

Overview

SICOM3024P-A is a layer 2 managed industrial Ethernet switch designed to operate reliably in electrically harsh and climatically demanding utility substation and industrial environments. SICOM3024P-A supports up to 28 gigabit fiber/copper ports, meets the IEC61850 and IEEE1613 standards and approved by KEMA.

SICOM3024P-A is a 19-inch 1U rack mountable device and its internal modular design offers the maximum flexibility for easy expansion.SICOM3024P-A supports IEEE1588v2 PTP with hardware time stamping and supports the BC, P2P TC, and E2E TC clock modes, it reaches a timing precision of 100ns. SICOM3024P-A supports many Layer 2 software features such as port, VLAN, multicast, QinQ, MRP,QoS, and fast redundant ring. It supports Console, Telnet, Web management and network management software based on SNMP. At present, the product is widely used at the intelligent substation and many other industrial communication systems.

Key Features

Supports max 28 gigabit fiber/copper ports, internal modular design for easy expansion

Supports DT-Ring, DRP/DHP, STP/RSTP/MSTP, MRP, ERPS for network redundancy

Supports IEC61850 MMS edition 2.0

Supports hardware based IEEE1588v2 and the synchronization precision reaches 100ns

Supports Profinet, Ethernet/IP, Modbus/TCP protocols

Complies with the cyber security IEC62443-4-2

Complies with IEC61850-3 class 2 and IEEE1613

Supports KyACB

KEMA, CE, FCC (Pending)

Product Specifications

>Software Functions

-Switching Function

Supports VLAN and PVLAN

Supports QinQ

Supports port aggregation

Supports flow control

Supports port rate limit

Supports broadcast storm suppression

-Redundancy Protocol

Supports DHP and DRP and the recovery time<20 ms

Supports DT-Ring, DT-Ring+, and DT-VLAN and the recovery time<50 ms

Supports STP/RSTP/MSTP

Supports MRP

Supports ERPS

-Multicast Protocol

Supports IGMP snooping

Supports GMRP

Supports static multicast

-Security

Supports IEEE 802.1x

Supports HTTPs/SSL

Supports SSH

Supports RADIUS

Supports TACACS+

Supports user grading

Supports enhanced password

Supports port isolate

Supports MAC learing limit

Complies with the cyber security IEC62443-4-2

-Service Quality Management

Supports ACL

Supports 802.1p(CoS),DSCP

Supports SP and WRR queuing

-Management & Maintenance

Supports Console, Telnet, and Web management

Supports SNMPv1/v2c/v3 and can managed by Kyvision

Supports IEC61850 MMS edition2.0

Supports software update via FTP

Supports configuration upload/download via FTP/HTTP

Supports the IP/MAC address conflict alarm, power alarm, temperature alarm,port alarm, port flow alarm，CPU/memory usage alarm，and ring alarm

Supports RMON

Supports port mirroring

Supports Syslog，save to flash or send to log server

Supports LLDP

Supports Link-check

-IP Address Management

Supports DHCP server/client/snooping/option 82

-Clock Management

Supports SNTP

Supports NTP server/client

Supports IEEE1588 PTPv2

>Product Specifications

-Standard

IEEE 802.3i(10Base-T)

IEEE 802.3u(100Base-TX and 100Base-FX)

IEEE 802.3ab(1000Base-T)

IEEE 802.3z(1000Base-SX/LX)

IEEE 802.3ad (port aggregation)

IEEE 802.3x(flow control)

IEEE 802.1p(priority)

IEEE 802.1Q(VLAN)

IEEE 802.1w(RSTP)

-Switch Properties

Priority queue: 8

Number of VLANs: 4k

VLAN ID: 1–4093

Number of multicast groups: 1k

MAC table: 32K

Packet buffer: 48Mbit

Switching delay:<10μs

-Interface

Gigabit ports:

1000Base-X, SFP port, supports DDM

10/100/1000Base-T(X), RJ45 port

Fast Ethernet ports:

100Base-FX, single/multi mode, SC/ST connector

100Base-FX, SFP port(LC connector), supports DDM

10/100Base-T(X), RJ45 port

Console port: RS232, RJ45

Alarm contact: 3-pin 5.08mm-spacing plug-in terminal block, 250VAC/220VDC Max, 2A Max, 60 W Max

-LED

LED on front panel

Running LED: Run

Alarm LED: Alarm

Power LED: PWR1, PWR2

KyACB LED: USB

Port LED: Link/ACT

Port speed LED: Speed

LED on rear panel

Port LED: Link/ACT

Port speed LED: Speed

-Power Requirements

Power input:

24-48VDC(18-72VDC)

100-240VAC,50/60Hz;110-220VDC (85-264VAC/77-300VDC)

Power terminal: 5-pin 5.08 mm-spacing plug-in terminal block

Power consumption:<35w

Overload protection: Support

Reverse connection protection: Support

Redundancy protection: Support

-Physical Characteristics

Housing: Metal

Cooling: Natural cooling, fanless

Protection Class: IP40

Dimensions(WxHxD): 482.6mm×44mm×322.5mm

Weight: 4Kg

Mounting: 19 inch 1U rack mounting

-Environmental Limits

Operating temperature: -40°C to +85°C

Storage temperature: -40°C to +85°C

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

-Quality Assurance

MTBF: 502802 hrs

Warranty: 5 years

-Approvals

KEMA, CE/FCC(Pending)

IEC61850-3, IEEE 1613

IEC62368-1, EN 62368-1

-Industry Standard

EMI:

FCC CFR47 Part 15,EN55022/CISPR22,Class A

EMS:

IEC61000-4-2(ESD) ±8kV(contact),±15kV(air)

IEC61000-4-3(RS) 10V/m(80MHz-2GHz)

IEC61000-4-4(EFT) Power Port:±4kV;Data Port:±2kV

IEC61000-4-5(Surge) Power Port:±2kV/DM,±4kV/CM;Data Port:±2kV

IEC61000-4-6(CS) 3V(10kHz-150kHz);10V(150kHz-80MHz)

IEC61000-4-8(power frequency magnetic field) 100A/m(cont.),1000A/m(1s-3s)

IEC61000-4-9(pulsed magnetic field) 1000A/m

IEC61000-4-10(damped oscillation) 100A/m

IEC61000-4-12(oscillatory wave) 2.5kV/CM,1kV/DM

IEC61000-4-16(common mode conduction) 30V(cont.),300V(1s)

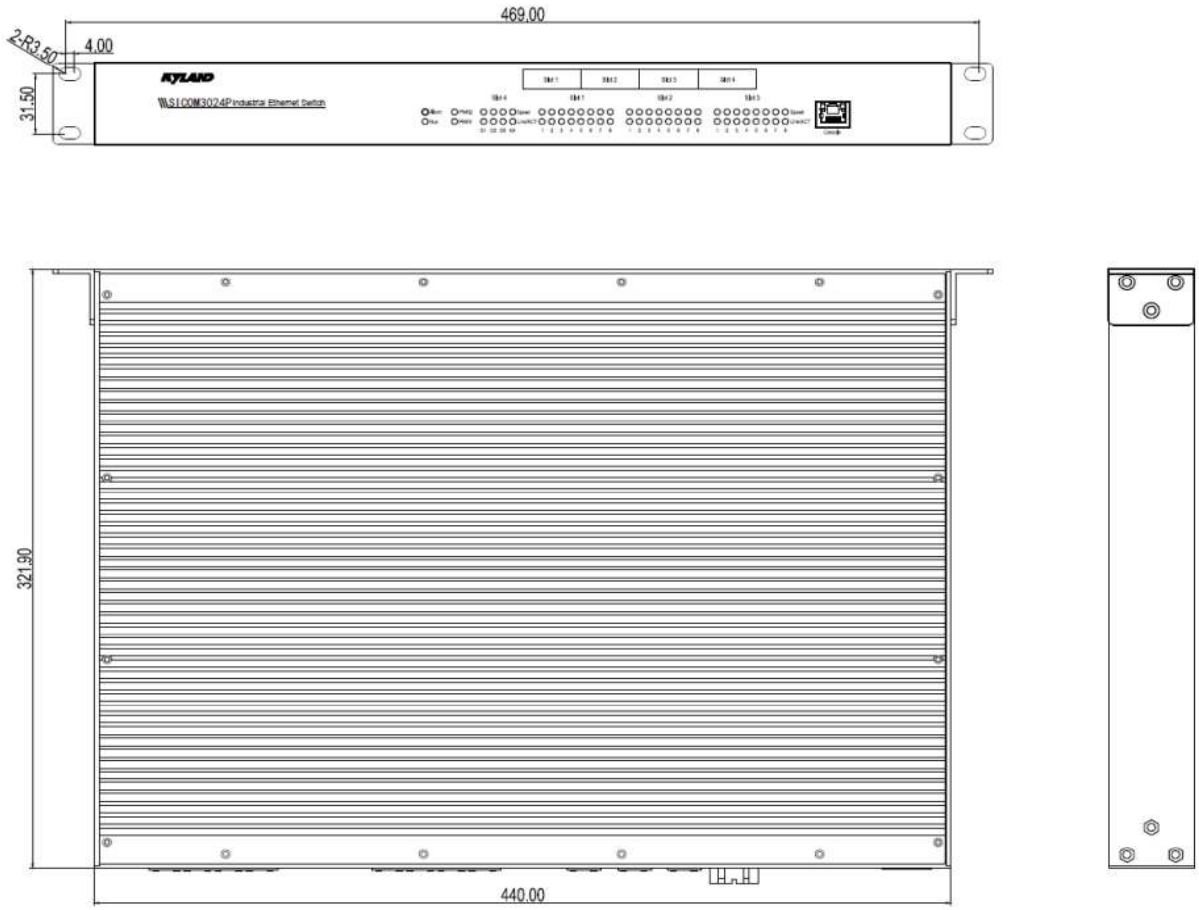
Machinery:

IEC60068-2-6 (vibration)

IEC60068-2-27 (shock)

IEC60068-2-32 (free fall)

Mechanical Drawing



Ordering Information

Full Gigabit SICOM3024P model

Product Model	SICOM3024P-A-Ports-PS1-PS2
Code Definition	Ordering Codes
Ports	28GE, 4GX24GE, 8GX20GE, 12GX16GE, 16GX12GE, 20GX8GE, 24GX4GE, 28GX GX: 1000Base-X SFP port GE: 10/100/1000Base-T(X) RJ45 port
PS1-PS2 (Power Supply)	HV-HV=100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC), redundant power supplies ; L2-L2=24-48VDC(18-72VDC), redundant power supplies ;

Gigabit and 100m SICOM3024P model

Product Model	SICOM3024P-A-Ports-Connector-PS1-PS2
Code Definition	Ordering Codes
Ports	4GX24SFP, 4GX20SFP4T, 4GX16SFP8T, 4GX12SFP12T, 4GX8SFP16T, 4GX4SFP20T, 4GX24T 4GX24M, 4GX20M4T, 4GX16M8T, 4GX12M12T, 4GX8M16T, 4GX4M20T 4GX24S, 4GX20S4T, 4GX16S8T, 4GX12S12T, 4GX8S16T, 4GX4S20T GX: 1000Base-X SFP port SFP: 100Base-FX, SFP port(LC connector) S: 100Base-FX, single mode, SC/ST connector M: 100Base-FX, multi mode, SC/ST connector T: 10/100Base-T(X) RJ45 port
Connector	SC05 = SC connector, multi-mode, 1310nm, 5km ST05 = ST connector, multi-mode, 1310nm, 5km SC40 = SC connector, single-mode, 1310nm, 40km ST40 = ST connector, single-mode, 1310nm, 40km None = No 100M fiber port or connector is SFP
PS1-PS2 (Power Supply)	HV-HV=100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC), redundant power supplies; L2-L2=24-48VDC(18-72VDC), redundant power supplies;

Full 100m SICOM3024P model

Product Model	SICOM3024P-A-Ports-Connector-PS1-PS2
Code Definition	Ordering Codes
Ports	24SFP, 20SFP4T, 16SFP8T, 12SFP12T, 8SFP16T,4SFP20T, 24T 24M, 20M4T, 16M8T, 12M12T, 8M16T, 4M20T 24S, 20S4T, 16S8T, 12S12T, 8S16T, 4S20T SFP: 100Base-FX, SFP port(LC connector) S: 100Base-FX, single mode, SC/ST connector M: 100Base-FX, multi mode, SC/ST connector T: 10/100Base-T(X) RJ45 port
Connector	SC05 = SC connector, multi-mode, 1310nm, 5km ST05 = ST connector, multi-mode, 1310nm, 5km SC40 = SC connector, single-mode, 1310nm, 40km ST40 = ST connector, single-mode, 1310nm, 40km None = No 100M fiber port or connector is SFP
PS1-PS2 (Power Supply)	HV-HV=100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC), redundant power supplies; L2-L2=24-48VDC(18-72VDC), redundant power supplies ;