CKS 7128 Series Modularized Advanced Managed Industrial Ethernet Switch V1.0

CKS 7128Series

- IEC 61850-3 and IEEE 1613(power substation) compliant
- Up to 4 Gigabit uplinks ports
- Modularized design for flexible and scalable networks
- Support all kinds of advanced network management functions such as QoS, VLAN, IGMP snooping, port trunk, SNMPv1/v2c/v3, RSTP/STP and LLDP
- RSTP，STP and MSTP for network redundancy
- Rear cabling meets application requirement for power system

Overview

CKS 7128series are modularized advanced managed gigabit L3 switches. They comply with industrial standards such as the communication network of IEC 61850-3 and IEEE 1613. Hence they fully meet the requirements of intelligent substations. They can provide 24/48 VDC or 110/220 VDC/VAC redundant power input, which make the power supply on-site more flexible. Rear panel cabling design can meet the requirements of power system so that they can be widely applied in the industrial fields such as electrical power, transportation and energy.

Features and Benefits

- Support L3 multiple dynamic routing protocols such as RIP v1/v2, OSPFv2 and BGPv4, static routes and IP policy routing.
- Support multicast routing protocols such as PIM-SM, PIM-DM and DVMRP
- Support DHCP Option 82 for distributing IP addresses through different policies
- Transmit multicast packets such as packets about IEC 61850 GOOSE or sampling value
- Support RSTP/STP/MSTP(IEEE 802.1w/D/s)
- Support IGMP Snooping for<001F>filtering multicast traffic
- Support port-based VLAN, IEEE 802.1Q VLAN and GVRP to perform network management easily
- Enhance the decision mechanism through QoS--IEEE 802.1p/1Q and ToS/DiffServ
- Adopt 802.3ad and LACP to optimize the network bandwidth
- Support IEEE 802.1X, HTTPS and SSL to enhance network security
- Support SNMP v1/v2c/v3 for different levels of network management
- Provide internal diagnosis to facilitate trouble location and removal
- Lock ports to allow only the authorized MAC address to access
- Support powerful ACL and hardware L2 to L7 data filtration
- Support multi-port mirror for online debugging
- Export alarms about abnormal events through Email, systematic audio prompt or relay

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Comark

- Support the alarm of the power-off event through the remote hardware or software
- Debug and configure through Web browser, Telnet or serial console
- Support LLDP for network topology discovery
- Support the port loopback protection function that effectively avoids the ring storm
- Prevent attacks and common viruses

Specifications

Standards:

IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX 100Base FX
IEEE 802.3ab 1000BaseTX
IEEE 802.3z 1000BaseSX/LX/LHX/ZX
IEEE 802.3x flow control
IEEE 802.1D STP
IEEE 802.1w RSTP
IEEE 802.1s MSTP
IEEE 802.1Q VLAN Tagging
IEEE 802.1p Class of Service
IEEE 802.1X Authentication
IEEE 802.3ad Port Trunk with LACP

Protocols:

IGMP V1/V2/V3, GVRP, SNMPV1/V2C/V3, DHCP client, DHCP Option 82,
TFTP, SMTP, RMON, HTTP, HTTPS, Telnet, SSH, Syslog, SNTP Server/Client

Power Requirements:

Input Voltage and Max Input Current:
24/48 VDC (18 to 60 V), 2.5A @24VDC; 1.5 A@48VDC
110/220 VDC (88 to 300V), 0.6A @110VDC; 0.35 A@220VDC
110/220 VAC (90 to 254V), 1A @110VAC; 0.5 A@220VAC
Power consumption: maximum 45 Watts
Overload Current Protection: Present
Reverse Polarity Protection: Present
Power Connector: 5-contact terminal block
Relay Connector: 2-contact terminal block

Physical Characteristics:

Housing: Metal, IP40 protection
Dimensions (W*H*D): 440 x 44 x 325 mm
Weight: 5900g
Installation: 19-inch 1U rack installation

Environmental Limits:

Operating Temperature: -40 to 85℃ (-40 to 185℉)
Storage Temperature: -40 to +85℃ (-40 to 185℉)
Ambient Relative Humidity: 5 to 95% (non-condensing)

MIB:

MIB-II, Ethernet-Like MIB, P-BRIDGE MIB, Q-BRIDGE MIB,

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Bridge MIB, RSTP MIB, Private MIB, RMON MIB Group 1, 2, 3, 9

Flow Control:

IEEE 802.3x flow control, back pressure flow control

Switch Properties：

Priority Queues: 4

Max. Number of Available VLANs: 4094

VLAN ID Range: VID 1 to 4094

IGMP Groups: 256

MAC Table Size: 8K

Interface

Uplink: 4 x RJ45/SFP Combo ports

RJ45: 10/100/1000BaseT auto negotiation

SFP slots: 100BaseFX or 1000BaseX

Downlink: 10/100BaseTX auto negotiation or 100BaseFX SFP slots

Console Port: RS-232(RJ45 connector)

Alarm Contact: 1 relay outputs with current carrying capacity of 1A@24VDC

Certifications:

Warranty Period: 5years

Electric automation: IEC 61850-3 IEEE 1613 IEC61000-6-2

EMI: FCC Part 15 EN55022 class A

EMS: IEC (EN) 61000-4-2 (ESD), level 4

IEC (EN) 61000-4-3 (electromagnetic field RS), level 4

IEC (EN) 61000-4-4 (EFT), level 4

IEC (EN) 61000-4-5 (Surge), level 4

IEC (EN) 61000-4-6 (RFT), level 4

IEC (EN) 61000-4-9 (impulse magnetic field), level 4

IEC (EN) 61000-4-8,100A/m continuous

IEC (EN) 61000-4-10 (damp oscillation magnetic field)

IEC (EN) 61000-4-11

(AC power temporary decrease, temporary immunity interruption)

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

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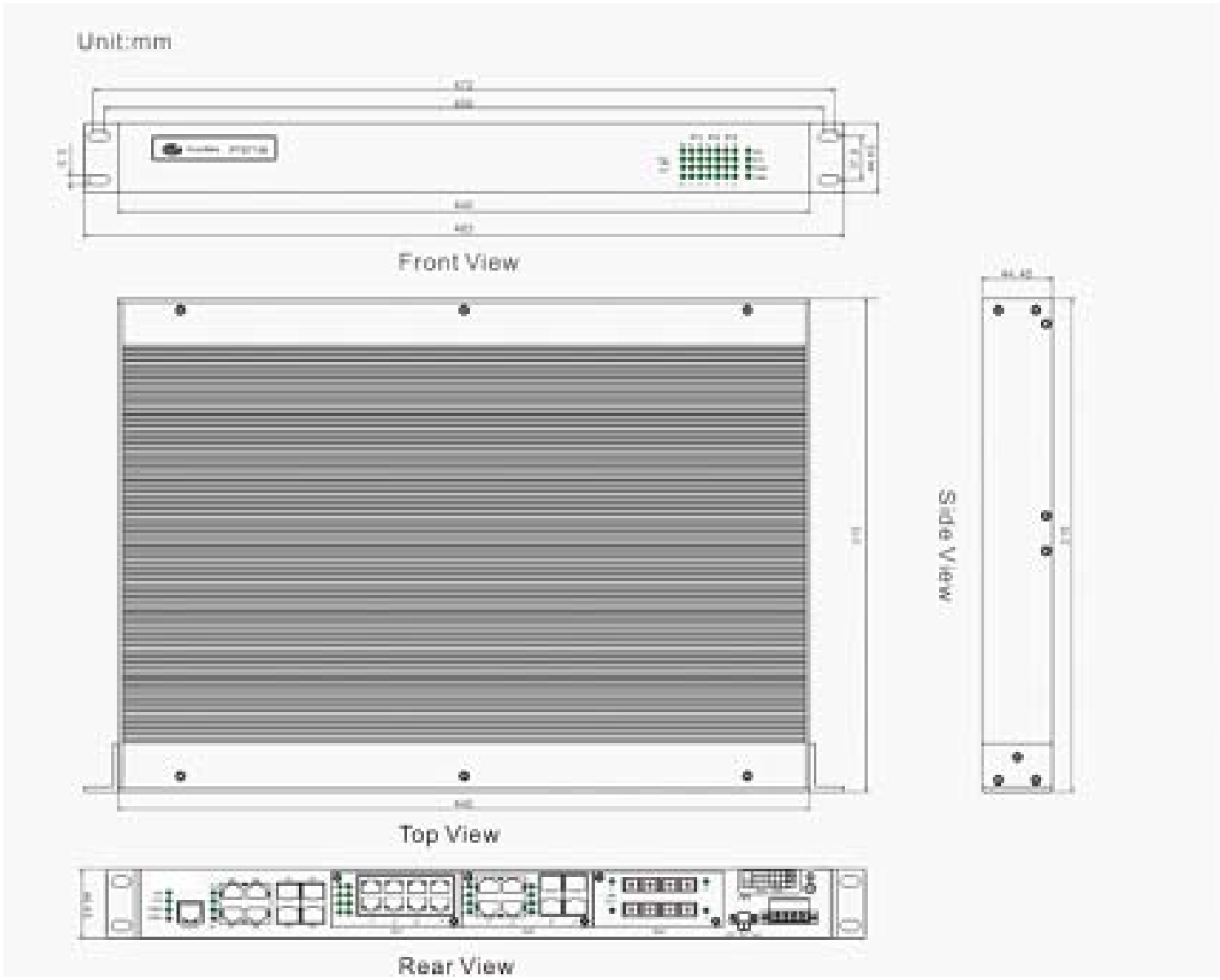
Dimensions



Ordering Information

First：Choose the available switch models with power supply；

Available Models	Descriptions
CKS 7128-V-48	4G+3Slot, single DC48V industrial-level isolated power supply
CKS 7128-V-48-48	4G+3Slot,dual DC48V industrial-level isolated power supplies
CKS 7128-MV-48	4G+3Slot,DC48V and AC220V-DC110V-hybrid industrial-level isolated power supplies
CKS 7128-HV-S	4G+3Slot, single AC220V/DC110V industrial-level isolated power supply
CKS 7128-HV	4G+3Slot, two AC220V/DC110V industrial-level isolated power supplies

Second：Choose available supportable interface modules；

Available Models	Descriptions
CKS-LS-8FE-TX	8FE FE module with 8x100BaseTX RJ45 ports
CKS-LS-8FE-SFP	8FSFP FE module with 8x100BaseFX SFP slots
CKS-LS-4TX-4FSFP	4FE+4FSFP FE module with 4x100BaseTX RJ45 ports and 4x100BaseFX SFP slots
CKS-LS-4FE-ST	4FST FE module with 4x100BaseFX port, ST interface
CKS-LS-4FE-SC	4FSC FE module with 4x100BaseFX port, SC interface

Note: Please find the compatible SFP module in Appendix.

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