



## IES6300 Series

DIN-Rail or Wall Mounting

12/8/6-port Full Gigabit Layer 2 Managed Industrial Ethernet Switch (optional PoE)

- Support 2 2.5G Ethernet SFP fiber ports, 2 Gigabit SFP fiber ports (optional), 4/8 Gigabit copper ports (optional PoE), 2 input I/O ports and 2 output I/O ports (optional)
- Adopt Ring patented technology, support single ring, coupling ring, chain, Dual-homing, automatic recovery time of network failure < 20ms
- Support multiple network protocols and industrial standard, such as STP/RSTP/MSTP, ERPS, PoE, DHCP, VLAN, QoS function, IGMP Snooping function, LLDP etc.
- Support 4 optional power supplies: 24VDC PoE, 48VDC PoE, 12~48VDC non-PoE and 220VAC non-PoE
- Support -40~75°C wide operating temperature range



Industrial Grade



## Introduction

IES6300 Series are 12/8/6-port full Gigabit layer 2 managed industrial Ethernet switches with optional PoE. PoE power supply conforms to IEEE 802.3af/at protocol standard. This series provide 34 products and support a variety of interfaces including Gigabit copper ports, Gigabit PoE copper ports, Gigabit SFP slots, 2.5G SFP slots and I/O ports. They adopt DIN-Rail mounting or wall mounting to meet the requirements of different application scenes.

Network management system supports various network protocols and industrial standards, such as Ring, STP/RSTP/MSTP, ERPS, DHCP, VLAN, QoS function, IGMP Snooping, LLDP, GVRP, Port Trunking, Port Mirroring, etc. It also possesses complete management functions, including Port Configuration, Access Control, AAA Service, Network Diagnosis, Online Upgrading and so on, and supports CLI, WEB, Telnet, SSH, SNMP and other access methods. It can provide users with good experience with friendly design of network management system interface, simple and convenient operation.

This product supports four optional power supplies. The dual power supply product has two independent power supply circuits which can ensure the normal operation of the device when one power supply fails. The design of DIP switch could implement device factory setting recovery. When DC power supply or port has link failure, ALM indicator will be bright and send out alarm, meanwhile, alarm device connected to the relay will send out alarm for rapid scene troubleshooting. The hardware adopts fanless, low power consumption and wide temperature and voltage design, which has passed rigorous industrial standard tests, and suits for the industrial scene environment with harsh requirements for EMC. It can be widely used in AP coverage, railway transportation, smart city, safe city, new energy, smart grid, intelligent manufacturing and other industrial fields.

## Features and Benefits

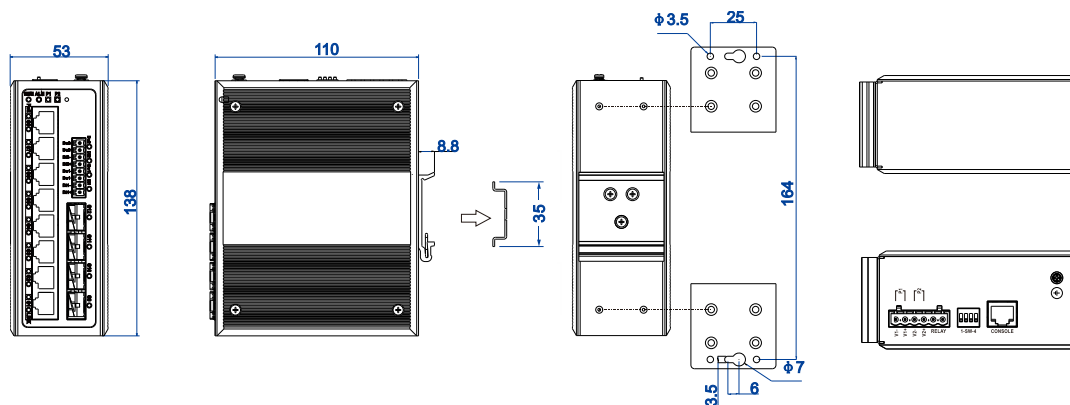
- ⦿ SNMPv1/v2c/v3 is used for network management of various levels
- ⦿ RMON can be used for efficient and flexible network monitoring
- ⦿ QoS supports real-time traffic classification and priority setting
- ⦿ LLDP can achieve automatic topology discovery, which is convenient for visual management
- ⦿ DHCP server and DHCP client could be used for allocating IP address of different strategies
- ⦿ DHCP Snooping can ensure DHCP client gets IP address from legal DHCP server
- ⦿ DHCP relay function can realize IP address, gateway, DNS configuration cross network segment
- ⦿ File management is convenient for the device rapid configuration and online upgrading
- ⦿ User privilege classification configuration can set user privilege level
- ⦿ SSH configuration and HTTPS configuration can improve device's management

- security and guarantee data access security
- ⊙ Support AAA service, which can provide security assurance for various services
- ⊙ IPMC file configuration can deploy access control on IP multicast flow
- ⊙ MVR configuration supports multicast communication forwarding on multicast VLAN
- ⊙ EPS configuration can realize network status monitor
- ⊙ EVC configuration function can realize the connection between the two points of Ethernet service
- ⊙ MEP function can determine the scope and boundary of maintenance domain
- ⊙ Ring and STP/RSTP/MSTP can achieve network redundancy, preventing network storm
- ⊙ EPRS function can realize link backup and improve the reliability of network
- ⊙ Relay alarm is convenient for troubleshooting of construction site
- ⊙ Storm suppression can restrain broadcast, unknown multicast and unicast
- ⊙ VLAN is used for simplifying network planning
- ⊙ Private VLAN function could achieve port isolation in the same VLAN and save Vlan resources
- ⊙ Voice VLAN function can improve the priority of voice flow transmission for user to ensure the quality of call
- ⊙ GVRP configuration could be used for registering and unregistering VLAN properties
- ⊙ Port Trunking and LACP can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
- ⊙ IGMP Snooping can be used for filtering multicast traffic to save the network bandwidth
- ⊙ MLD Snooping could be used for managing and controlling IPv6 multicast group
- ⊙ PTP clock settings can realize a highly precise time synchronization
- ⊙ Link OAM function can monitor the health of the network and locate faulted link and fault conditions
- ⊙ VCL function can divide VLAN based on MAC address, protocol, and IP subnet.
- ⊙ PoE could power device over Ethernet, thus decreasing the cable connection of powered devices
- ⊙ Support I/O port input and output, I/O status alarm and control remote device
- ⊙ Support DDM (digital diagnostic monitoring) function, which can monitor the optical power, temperature and other real-time parameters of SFP fiber module with DDM function, facilitating the link default diagnosis of optical fiber

## Dimension

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Unit:mm



## Specification

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|---------------------------------------|---|
| <p><b>Standard &amp; Protocol</b></p> | <p>IEEE 802.3 for 10Base-T<br/>                 IEEE 802.3u for 100Base-TX<br/>                 IEEE 802.3ab for 1000Base-T<br/>                 IEEE 802.3z for 1000Base-X<br/>                 IEEE 802.3x for Flow Control<br/>                 IEEE 802.1D for Spanning Tree Protocol<br/>                 IEEE 802.1w for Rapid Spanning Tree Protocol<br/>                 IEEE 802.1s for Multiple Spanning Tree Protocol<br/>                 ITU-T G.8032 for ERPS<br/>                 IEEE 802.1Q for VLAN<br/>                 IEEE 802.1p for CoS<br/>                 IEEE 802.1AB for LLDP<br/>                 IEEE 802.3ad for LACP<br/>                 IEEE 802.3af for PoE<br/>                 IEEE 802.3at for PoE+</p> |
| <p><b>Management</b></p>              | <p>SNMP v1/v2c/v3 Centralized Management of Equipment, RMON, Port Mirroring, QoS, LLDP, DHCP Server, DHCP Snooping, DHCP Relay, User Password, Login Method, Link OAM, Loop Protection, File Management, Log Management, Ethernet Services, Port Statistics</p>   |
| <p><b>Security</b></p>                | <p>User Privilege Classification, Authentication Method Configuration, SSH Configuration, HTTPS Configuration, Access Control, SNMP, RMON, NAS, ARP, IP Source Guard, ARP Inspection, AAA, Radius Server Authentication, TACACS + Server Authentication, ACL, Port Alarm, DC Power Supply Alarm</p>   |
| <p><b>Switch Function</b></p>         | <p>802.1Q Vlan, Private VLAN, Voice VLAN, VCL, Port Static/Dynamic Aggregation, LACP, sFlow, UPnP</p>   |
| <p><b>Unicast/Multicast</b></p>       | <p>GVRP, IGMP-Snooping, IPMC, MVR, MLD Snooping</p>   |

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|-----------------------|---|
| Redundancy Technology | Ring、STP/RSTP/MSTP、ERPS   |
| Troubleshooting       | Ping、VeriPHY、DDM  |
| Time Management       | NTP, Time Zone Configuration, PTP Clock   |
| PoE (optional)        | The maximum power of PoE port: 30W<br>The power supply pin of PoE: V+, V-, V+, V- correspond to Pin 1, 2, 3, 6  |
| Interface             | Gigabit Copper Port: 10/100/1000Base-T(X), RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotuning, optional PoE<br>Gigabit SFP Slots (optional): 100/1000Base-X self-adaption or specified mode, SFP slot<br>2.5 SFP slot: 100/1000 self-adaption or 100/1000/2.5GBase-X specified mode, SFP slot<br>I/O port (optional): support 2 inputs and 2 outputs, 8-pin 3.81mm pitch terminal blocks, support dry contact input relay output<br>Console port: CLI command line management port(RS-232), RJ45<br>Alarm port: 6-pin 5.08mm pitch terminal blocks (2-pin relay), support 1 relay alarm output, current carrying capacity is 1A@30VDC or 0.3A@125VAC |
| Indicator             | Running indicator, alarm indicator, power supply indicator, interface indicator, PoE indicator (optional), I/O output indicator, I/O input indicator  |
| Switch Property       | Transmission mode: store and forward<br>MAC address: 8K<br>Packet buffer size: 4Mbit<br>Backplane bandwidth: 30G<br>Switch time delay: <10μs  |
| Power supply          | This series product provides 4 power supply methods. PoE product has two optional power supply schemes:<br>Scheme 1 <ul style="list-style-type: none"> <li>● Power supply range: 24VDC PoE</li> <li>● Connection method: 6-pin 5.08mm pitch terminal blocks (includes 4-pin power supply)</li> <li>● Power supply quantity: dual power supply redundancy backup</li> <li>● Connection protection: anti-reverse connection</li> <li>● Overcurrent protection: 12A</li> </ul>   |





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|  | <p>Scheme 2</p> <ul style="list-style-type: none"> <li>● Power input: 48VDC PoE</li> <li>● Connection method: 6-pin 5.08mm pitch terminal blocks (includes 4-pin power supply)</li> <li>● Power supply quantity: dual power supply redundancy backup</li> <li>● Connection protection: anti-reverse connection</li> <li>● Overcurrent protection: 5A</li> </ul> <p>Non-PoE product has two optional power supply schemes:</p> <p>Scheme 3</p> <ul style="list-style-type: none"> <li>● Voltage range: 12~48VDC.</li> <li>● Connection method: 6-pin 5.08mm pitch terminal blocks (includes 4-pin power supply)</li> <li>● Power supply quantity: dual power supply redundancy backup</li> <li>● Connection protection: non-polarity</li> <li>● Overcurrent protection: 3A</li> </ul> <p>Scheme 4</p> <ul style="list-style-type: none"> <li>● Power supply input: 220VAC (100~240VAC).</li> <li>● Connection method: 6-pin 5.08mm pitch terminal blocks (includes 2-pin power supply)</li> <li>● Overcurrent protection: 5A</li> </ul> |
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|--------------------------------|---|
| <b>Power Consumption</b>       | No-load: 5.76W@48VDC<br>Full-load: 240W@48VDC   |
| <b>Working Environment</b>     | Operating temperature: -40~75℃<br>Storage temperature: -40~85℃<br>Relative humidity: 5%~95% (no condensation)   |
| <b>Physical Characteristic</b> | Housing: IP40 protection, metal<br>Installation: DIN-Rail or wall mounting<br>Weight: 692g<br>Dimension (W x H x D): 53mm×138mm×110mm   |
| <b>Industrial Standard</b>     | IEC 61000-4-2 (ESD, electrostatic discharge), Level 3<br>IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3<br>IEC 61000-4-5 (Surge), Level 3<br>Shock: IEC 60068-2-27<br>Free fall: IEC 60068-2-32<br>Vibration: IEC 60068-2-6 |
| <b>Certification</b>           | CE, FCC, RoHS   |

|          |         |
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| Warranty | 5 years |
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## Ordering Information

| Available Models                   | Gigabit Copper Port | Gigabit PoE Copper port | Gigabit SFP Slot | 2.5G SFP Slot | I/O Input output | PoE Power | Power Supply            |
|------------------------------------|---------------------|-------------------------|------------------|---------------|------------------|-----------|-------------------------|
| IES6300-4GP2GS2HS-2DI2DO-2P48-120W | —                   | 4                       | 2                | 2             | 2                | 120W      | dual power supply 48VDC |
| IES6300-4GP2GS2HS-2DI2DO-2P48-60W  | —                   | 4                       | 2                | 2             | 2                | 60W       | dual power supply 48VDC |
| IES6300-4GP2GS2HS-2DI2DO-2P24-120W | —                   | 4                       | 2                | 2             | 2                | 120W      | dual power supply 24VDC |
| IES6300-4GP2GS2HS-2DI2DO-2P24-60W  | —                   | 4                       | 2                | 2             | 2                | 60W       | dual power supply 24VDC |
| IES6300-4GP2GS2HS-2P48-120W        | —                   | 4                       | 2                | 2             | —                | 120W      | dual power supply 48VDC |
| IES6300-4GP2GS2HS-2P48-60W         | —                   | 4                       | 2                | 2             | —                | 60W       | dual power supply 48VDC |
| IES6300-4GP2GS2HS-2P24-120W        | —                   | 4                       | 2                | 2             | —                | 120W      | dual power supply 24VDC |
| IES6300-4GP2GS2HS-2P24-60W         | —                   | 4                       | 2                | 2             | —                | 60W       | dual power supply 24VDC |
| IES6300-4GP2HS-2DI2DO-2P48-120W    | —                   | 4                       | —                | 2             | 2                | 120W      | dual power supply 48VDC |
| IES6300-4GP2HS-2DI2DO-2P48-60W     | —                   | 4                       | —                | 2             | 2                | 60W       | dual power supply 48VDC |
| IES6300-4GP2HS-2DI2DO-2P24-120W    | —                   | 4                       | —                | 2             | 2                | 120W      | dual power supply 24VDC |
| IES6300-4GP2HS-2DI2DO-2P24-60W     | —                   | 4                       | —                | 2             | 2                | 60W       | dual power supply 24VDC |
| IES6300-4GP2HS-2P48-120W           | —                   | 4                       | —                | 2             | —                | 120W      | dual power supply 48VDC |



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|--|---|---|---|---|---|------|---|
| IES6300-4GP2HS-2P<br>48-60W            | — | 4 | — | 2 | — | 60W  | dual power<br>supply<br>48VDC               |
| IES6300-4GP2HS-2P<br>24-120W           | — | 4 | — | 2 | — | 120W | dual power<br>supply<br>24VDC               |
| IES6300-4GP2HS-2P<br>24-60W            | — | 4 | — | 2 | — | 60W  | dual power<br>supply<br>24VDC               |
| IES6300-4GT2GS2HS<br>-2DI2DO-P220      | 4 | — | 2 | 2 | 2 | —    | Single<br>power<br>supply<br>100~240V<br>AC |
| IES6300-4GT2GS2HS<br>-2DI2DO-2P48      | 4 | — | 2 | 2 | 2 | —    | Dual power<br>supply<br>ranging<br>12~48VDC |
| IES6300-4GT2GS2HS<br>-P220             | 4 | — | 2 | 2 | — | —    | Single<br>power<br>supply<br>100~240V<br>AC |
| IES6300-4GT2GS2HS<br>-2P48             | 4 | — | 2 | 2 | — | —    | Dual power<br>supply<br>ranging<br>12~48VDC |
| IES6300-4GT2HS-2DI<br>2DO-P220         | 4 | — | — | 2 | 2 | —    | Single<br>power<br>supply<br>100~240V<br>AC |
| IES6300-4GT2HS-2DI<br>2DO-2P48         | 4 | — | — | 2 | 2 | —    | Dual power<br>supply<br>ranging<br>12~48VDC |
| IES6300-8GP2GS2HS<br>-2DI2DO-2P48-240W | — | 8 | 2 | 2 | 2 | 240W | dual power<br>supply<br>48VDC               |
| IES6300-8GP2GS2HS<br>-2DI2DO-2P48-120W | — | 8 | 2 | 2 | 2 | 120W | dual power<br>supply<br>48VDC               |
| IES6300-8GP2GS2HS<br>-2DI2DO-2P24-120W | — | 8 | 2 | 2 | 2 | 120W | dual power<br>supply<br>24VDC               |
| IES6300-4GT2HS-P2<br>20                | 4 | — | — | 2 | — | —    | Single<br>power                             |

|                                   |   |   |   |   |   |      |   |
|-----------------------------------|---|---|---|---|---|------|---|
|                                   |   |   |   |   |   |      | supply<br>100~240V<br>AC                    |
| IES6300-4GT2HS-2P<br>48           | 4 | — | — | 2 | — | —    | Dual power<br>supply<br>ranging<br>12~48VDC |
| IES6300-8GP2GS2HS<br>-2P48-240W   | — | 8 | 2 | 2 | — | 240W | dual power<br>supply<br>48VDC               |
| IES6300-8GP2GS2HS<br>-2P48-120W   | — | 8 | 2 | 2 | — | 120W | dual power<br>supply<br>48VDC               |
| IES6300-8GP2GS2HS<br>-2P24-120W   | — | 8 | 2 | 2 | — | 120W | dual power<br>supply<br>24VDC               |
| IES6300-8GT2GS2HS<br>-2DI2DO-P220 | 8 | — | 2 | 2 | 2 | —    | Single<br>power<br>supply<br>100~240V<br>AC |
| IES6300-8GT2GS2HS<br>-2DI2DO-2P48 | 8 | — | 2 | 2 | 2 | —    | Dual power<br>supply<br>ranging<br>12~48VDC |
| IES6300-8GT2GS2HS<br>-P220        | 8 | — | 2 | 2 | — | —    | Single<br>power<br>supply<br>100~240V<br>AC |
| IES6300-8GT2GS2HS<br>-2P48        | 8 | — | 2 | 2 | — | —    | Dual power<br>supply<br>12~48VDC            |



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