Tel: +44 (0)1279 408 777
Email: sales@gocomsys.com
Website: www.gocomsys.com

Refurbished CISCO STK-RACKMNT-2955 Datasheet

CISCO > SWITCHES

Cisco Industrial Ethernet 3000 Series Switches

Cisco IE 3000 Switches

Description

Description	Specification
Cisco IE-3000-4TC	4 Ethernet 10/100 ports and 2 dual-purpose uplinks (each dual-purpose uplink port has one active port either 10/100/1000 copper or SFP fiber Support up to two expansion modules with various combinations DC input range 18VDC-60VDC Layer 2 LAN Base Image
Cisco IE-3000-4TC-E	Same as IE-3000-4TC with Layer 3 IP Services Image
Cisco IE-3000-8TC	8 Ethernet 10/100 ports and 2 dual-purpose uplinks (each dual-purpose uplink port has one active port either 10/100/1000 copper or SFP fiber Support up to two expansion modules with various combinations DC input range 18VDC-60VDC Layer 2 LAN Base Image
Cisco IE-3000-8TC-E	Same as IE-3000-8TC with Layer 3 IP Services Image
Cisco IEM-3000-8TM=	Expansion copper Module for Cisco IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E, and IE-3000-8TC-E switches, eight 10/100 TX ports
Cisco IEM-3000-8FM=	Expansion FX Fiber Module for Cisco IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E, and IE-3000-8TC-E switches, eight 100 FX ports
Cisco PWR-IE50W-AC=	Expansion Power Module for Cisco IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E and IE-3000-8TC-E switches, supports input AC 100-240V/1.25A or Input DC 125-250V/1A, Output DC 24V/2.1A, DIN-Rail Mount, compatible with PWR-IE3000-AC
Cisco PWR-IE50W-AC-IEC=	Expansion Power Module for Cisco IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E and IE-3000-8TC-E switches, supports Input AC 100-240V/1.25A 50-60Hz, Output DC 24V/2.1A, IEC Plug, DIN-Rail Mount
Cisco IEM-3000-4SM=	Expansion SFP Module for IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E, and IE-3000-8TC-E switches, 4 100MB SFP ports Minimum IOS release 15.0(2)EY
Cisco IEM-3000-8SM=	Expansion SFP Module for IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E, and IE-3000-8TC-E switches, 8 100MB SFP ports Minimum IOS release 15.0(2)EY
Cisco IEM-3000-4PC=	Expansion PoE module for IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E, and IE-3000-8TC-E switches, support 4 ports 10/100 PoE/PoE+. External power source is required (44-57 VDC for PoE/50-57 VDC for PoE+) Minimum IOS release 15.0(2)EY2
Cisco IEM-3000-4PC-4TC=	Expansion PoE module for IE-3000-4TC, IE-3000-8TC, IE-3000-4TC-E, and IE-3000-8TC-E switches, support 4 ports 10/100 PoE/PoE+ and 4 ports non-PoE ports. External power source is required (44-57 VDC for PoE/50-57 VDC for PoE+) Minimum IOS release 15.0(2)EY2
Cisco PWR-IE65W-PC-AC=	AC-DC Power Module for PoE solution, Input AC 100-240V/1.4A, 50-60Hz or Input DC 125-250V/1A. Output 54VDC/1.2 A, DIN-Rail Mount
Cisco PWR-IE65W-PC-DC=	DC-DC Power Module for PoE solution, Input DC 18-60 V/4.3A, Output DC 54V/1.2A, DIN-Rail Mount

Features and benefits of Cisco IE 3000 Series

Category

Category	Feature/Benefit
Designed for industrial applications	Extended temperature, vibration, shock and surge, and noise immunity ratings comply to specifications for automation, ITS, and substation environments. Compact, PLC-style form factor is ideal for deployment in industrial environments. DIN-rail, wall, and 19” rack mount options allow for deployments in a variety of control systems. Variety of power input options covers a wide range of power requirements for Industrial Ethernet applications. Up to 300 deployment configurations, supporting a range of access port densities, copper and fiber uplinks, fiber access ports, and power input, deliver flexibility in deployment. Support for SFP modules provides uplink connectivity supporting 100BASE-LX, 100BASE-FX, 1000BASE- SX, 1000BASE-LX, and 1000BASE-ZX options. Alarm relay contacts can be used for an external alert system.
Ease of deployment, management, and replacement	Cisco DNA Center enables centralized network management with automation and assurance features. Cisco IE 3000 Series supports DNA Essentials subscription licenses with 3- and 5-year term options. https://www.cisco.com/c/en/us/products/cloud-systems-management/dna-center/datasheet-listing.html Cisco Express Setup simplifies initial configuration with a web browser, eliminating the need for more complex terminal emulation programs. Cisco Smartports templates provide the option to apply a default global or interface-level macro with a recommended configuration, allowing the user to easily set up the switch in a configuration optimized for the specific application. Smartports templates for EtherNet/IP provide an optimized setup for these Industrial Ethernet protocols at the touch of a button. Swappable Flash memory is ideal for quick and easy switch replacement. Memory can be moved from one switch to another, so a switch can be replaced without the need to reconfigure software features. The Cisco IE 3000 can be managed by PROFINET based management tools. The IE 3000 has PROFINET v2 certification, with PROFINET conformance class B compliance. The IE3000 supports PROFINET QoS on PROFINET default VLAN to prioritize PROFINET real time packets Simple Network Management Protocol (SNMP) (v1/v2/v3) support allows for management using traditional IT-based management tools, including CiscoWorks. Device Manager allows web-based switch configurations. DHCP port-based allocation retains the IP address on a per port basis and simplifies the end-host replacement in an industrial setting. HTTPS access Embedded Event Manager (EEM) provides real-time network event detection and on board automation Cisco Network Assistant (CNA) is a no-charge, Windows-based application that simplifies the administration of networks of up to 250 users. It supports the Cisco IE 3000 and a wide range of Cisco Catalyst intelligent switches. With CNA, users can manage Cisco Catalyst switches and launch the device managers of Cisco integrated services routers and Cisco Aironet WLAN access points. Configuration wizards need just a few user inputs to automatically configure the switch to optimally handle different types of traffic: control, voice, video, multicast, and high-priority data. For detailed CNA support information, please go to https://www.cisco.com/en/US/products/ps5931/prod_release_notes_list.html Cisco Prime LMS support. For detailed information, please go to https://www.cisco.com/en/US/products/ps11200/products_device_support_tables_list.html
Availability and scalability	Virtual LANs (VLANs) allow for logical segmentation for a network for optimal use of bandwidth. 802.1q trunking. QoS classifies and prioritizes data, guaranteeing determinism for mission-critical data. IGMPv3 snooping provides fast client joins and leaves of multicast streams and limits bandwidth-intensive traffic to only the requestors. An additional querier allows this operation in a Layer 2 only environment. IGMP filtering provides multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port. Per-port broadcast, multicast, and unicast storm control prevents faulty end stations from degrading overall systems performance. IEEE 802.1d Spanning Tree Protocol support for redundant backbone connections and loop-free networks simplifies network configuration and improves fault tolerance. EtherChannel LACP support for quick recovery and bandwidth utilization. FlexLinks for fast recovery. Cisco Hot Standby Router Protocol (HSRP) is supported to create redundant, failsafe routing topologies. Resilient Ethernet Protocol, scalable up to 130 nodes with a very fast convergence, 50ms.
Security	IEEE 802.1x with VLAN assignment, guest VLAN, and voice VLAN allows dynamic port-based security, providing user authentication. Port-based ACLs for Layer 2 interfaces allow application of security policies on individual switch ports. MAC address filtering prevents the forwarding of any type of packet with a matching MAC address. Secure Shell (SSH) Protocol v2 and SNMPv3 provide network security by encrypting administrator traffic during Telnet and SNMP sessions. SSHv2 and the cryptographic version of SNMPv3 require a special cryptographic software image because of U.S. export restrictions. TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration. MAC address notification allows administrators to be notified of users added to or removed from the network. Dynamic Host Configuration Protocol (DHCP) snooping allows administrators to help ensure consistent mapping of IP to MAC addresses. This can be used to prevent attacks that attempt to poison the DHCP binding database and to rate limit the amount of DHCP traffic that enters a switch port.

	DHCP Interface Tracker (Option 82) augments a host IP address request with the switch port ID. Port security secures the access to an access or 802.1q trunk port based on MAC address. After a specific time frame, the aging feature removes the MAC address from the switch to allow another device to connect to the same port. Trusted Boundary provides the ability to trust the QoS priority settings if an IP phone is present and to disable the trust setting if the IP phone is removed, thereby preventing a malicious user from overriding prioritization policies in the network. Up to 512 ACLs are supported, with two profiles: Security (384 Security ACL entries and 128 QoS policies) and QoS (128 Security ACL entries and 384 QoS polices). Cisco standard and extended IP security router ACLs define security policies on routed interfaces for control- plane and data-plane traffic. Dynamic ARP Inspection helps ensure user integrity by preventing malicious users from exploiting the insecure nature of the ARP protocol. DHCP Snooping prevents malicious users from spoofing a DHCP server and sending out bogus addresses. This feature is used by other primary security features to prevent a number of other attacks such as ARP poisoning. IP source guard prevents a malicious user from spoofing or taking over another user's IP address by creating a binding table between client's IP and MAC address, port, and VLAN. Support for private VLANs and SXP (SGT Exchange Protocol).
High-performance IP routing	Inter-VLAN IP routing for full Layer 3 routing between 2 or more VLANs. Basic IP unicast routing protocols (static, Routing Information Protocol Version 1 [RIPv1], RIPv2 and RIPng). Advanced IP unicast routing protocols (Open Shortest Path First [OSPF], Interior Gateway Routing Protocol [IGRP], Enhanced IGRP [EIGRP], Border Gateway Protocol Version 4 [BGPv4], and Intermediate System-to- Intermediate System [IS-IS]) are supported for load balancing and constructing scalable LANs. Protocol Independent Multicast (PIM) for IP multicast routing is supported, including PIM Sparse Mode (PIM- SM), PIM Dense Mode (PIM-DM), and PIM sparse-dense mode. Cisco Express Forwarding hardware routing architecture delivers extremely high-performance IP routing. IPv6 routing (OSPFv6 and EIGRPv6) support in hardware for maximum performance. Policy-Based Routing (PBR) allows superior control by facilitating flow redirection regardless of the routing protocol configured. HSRP provides dynamic load balancing and failover for routed links; up to 32 HSRP links supported per unit. Support for 1000 multicast groups. VRF-Lite virtualization.

Cisco IE 3000 Series switch hardware

Description	
Description	Specification
Performance	Wire-speed switching, 16 Gbps switching fabric Forwarding rate based on 64-byte packets: 6.5 Mpps 128 MB DRAM 64 MB Compact Flash memory Configurable up to 8000 MAC addresses (Layer 2) Configurable up to 2000 MAC addresses (Layer 3) Configurable up to 256 IGMP multicast groups (Layer 2) Configurable up to 1000 IGMP groups and multicast routes (Layer 3) Configurable up to 3,000 unicast routes (Layer 3) Support jumbo frames up to 9018 bytes on Gigabit uplink port and mini-jumbo frame (system MTU) up to 1998 bytes on both 10/100 and 10/100/1000 ports
Connectors and cabling	10BASE-T ports: RJ-45 connectors, two-pair Category 3, 4, or 5 Unshielded Twisted-Pair (UTP) cabling 100BASE-TX ports: RJ-45 connectors, two-pair Category 5 UTP cabling 1000BASE-T ports: RJ-45 connectors, four-pair Category 5 UTP cabling 1000BASE-SX, -LX/LH, -ZX SFP-based ports: LC fiber connectors (single/multimode fiber) 100BASE-LX10, -FX: LC fiber connectors (single/multimode fiber)
Indicators	Per-port status LED: Link integrity, disabled, activity, speed, full-duplex indications System-status LED: System, link status, link duplex, link speed, indications
Dimensions (H x W x D)	Cisco IE-3000-4TC, Cisco IE-3000-4TC-E: 6.0”W x 5.8”H x 4.4”D (152mm W x 147mm H x 112mm D) Cisco IE-3000-8TC, Cisco IE-3000-8TC-E: 6.0”W x 5.8”H x 4.4”D (152mm W x 147mm H x 112mm D) Cisco IEM-3000-8TM=: 3.5”W x 5.8”H x 4.4”D (89mm W x 147mm H x 112mm D) Cisco IEM-3000-8FM=: 3.5”W x 5.8”H x 4.4”D (89mm W x 147mm H x 112mm D) Cisco IEM-3000-4SM=: 3.5”W x 5.8”H x 4.4”D (89mm W x 147mm H x 112mm D) Cisco IEM-3000-8SM=: 3.5”W x 5.8”H x 4.4”D (89mm W x 147mm H x 112mm D) Cisco IEM-3000-4PC=: 3.5”W x 5.8”H x 4.4”D (89mm W x 147mm H x 112mm D) Cisco IEM-3000-4PC-4TC=: 3.5”W x 5.8”H x 4.4”D (89mm W x 147mm H x 112mm D) Cisco PWR-IE50W-AC=: 2.0”W x 5.8”H x 4.4”D (51mm W x 147mm H x 112mm D) Cisco PWR-IE50W-AC-IEC=: 2.0”W x 5.8”H x 4.4”D (51mm W x 147mm H x 112mm D) Cisco PWR-IE65W-PC-AC=: 2.6”W x 5.9”H x 4.6”D (66mm W x 150mm H x 117mm D) Cisco PWR-IE65W-PC-DC=: 2.6”W x 5.9”H x 4.6”D (66mm W x 150mm H x 117mm D)

Weight	Cisco IE-3000-4TC, Cisco IE-3000-4TC-E: 4.4 lb (2.0 kg) Cisco IE-3000-8TC, Cisco IE-3000-8TC-E: 4.4 lb (2.0 kg) Cisco IEM-3000-8TM=: 2.2 lb (1.0 kg) Cisco IEM-3000-8FM=: 3.2 lb (1.45 kg) Cisco IEM-3000-4SM=: 2.5 lb (1.1 Kg) Cisco IEM-3000-8SM=: 3.0 lb (1.38 Kg) Cisco IEM-3000-4PC=: 2.4 (1.08 Kg) Cisco IEM-3000-4PC-4TC=: 2.5 (1.16 Kg) Cisco PWR-IE50W-AC=: 1.4 lb (0.65 kg) Cisco PWR-IE50W-AC-IEC=: 1.4 lb (0.65kg) Cisco PWR-IE65W-PC-DC=: 2.6 (1.18 Kg) Cisco PWR-IE65W-PC-AC=: 2.7 (1.24 Kg)
Operating environment	Operating temperature: -40C to +75C -40C to +70C (Vented Enclosure – 40 LFM Air Flow) -40C to +60C (Sealed Enclosure – 0 LFM Air Flow) -24C to +75C (Fan or Blower equipped Enclosure – 200 LFM Air Flow) -40C to +85C (IEC 60068-2-2 Environmental Type Testing – 16 hours) Storage temperature: -40C to +85C Operating relative humidity: 10 to 95% (non-condensing) Operating altitude: Up to 13,000 ft (3963m) Storage altitude: Up to 15,000 ft (4573m)
Mean Time Between Failures (MTBF)	Cisco IE-3000-4TC, Cisco IE-3000-4TC-E: 363,942 Cisco IE-3000-8TC, Cisco IE-3000-8TC-E: 329,451 Cisco IEM-3000-8TM=: 926,999 Cisco IEM-3000-8FM=: 264,689 Cisco IEM-3000-4SM=: 8,887,990 Cisco IEM-3000-8SM=: 7,732,890 Cisco IEM-3000-4PC=: 1,494,990 Cisco IEM-3000-4PC-4TC=: 1,291,440 Cisco PWR-IE50W-AC=: 1,662,359 Cisco PWR-IE50W-AC-IEC=: 1,662,359 Cisco PWR-IE65W-PC-DC=: 2,468,430 Cisco PWR-IE65W-PC-AC=: 2,488,401

Power specifications for Cisco IE 3000 Series switches

Description	Specification
Maximum power consumption	Cisco IE-3000-4TC, Cisco IE-3000-4TC-E: 15.1W Cisco IE-3000-8TC, Cisco IE-3000-8TC-E: 15.7W Cisco IEM-3000-8TM=: 2.8W Cisco IEM-3000-8FM=: 10.1W Cisco IEM-3000-4SM=: 7.6W Cisco IEM-3000-8SM=: 12.2W Cisco IEM-3000-4PC=: 7.3W Cisco IEM-3000-4PC-4TC=: 7.9W
Input voltage and currents supported	Cisco IE-3000-4TC, Cisco IE-3000-8TC, 18-60VDC Cisco IEM-3000-4PC=, IEM-3000-4PC-4TC=: 44-57V input Cisco PWR-IE50W-AC=: 100-240VAC/1.25A or 125-250VDC/1A Cisco PWR-IE50W-AC-IEC=: 100-240VAC/1.25A, 50-60Hz Cisco PWR-IE65W-PC-DC=: 18-60VDC/4.3A Cisco PWR-IE65W-PC-AC=: 100-240VAC/1.4A or 125-250V/1A
Power rating	Cisco IE-3000-4TC, Cisco IE-3000-4TC-E: .05KVA Cisco IE-3000-8TC, Cisco IE-3000-8TC-E: .05KVA

Cisco IE 3000 DNA Essentials

Cisco DNA Center	Discovery, topology, inventory, software image management
Visibility	DNA assurance, Device 360
Day-zero network bring-up automation	Cisco Network Plug-and-Play application

Compliance specifications

Description	
Description	Specification
Standard safety certifications	UL 60950-1 CSA C22.2 No. 60950-1

	TUV/GS to EN 60950-1 CB to IEC 60950-1 with all country deviations NOM
Mechanical stability	IEC 60628-2-27 Shock 20g (operational), 30g (nonoperational)
Electromagnetic emissions	FCC Part 15 Class A EN 55022 CISPR 22 CISPR11 VCCI Class A AS/NZS 3548 Class A CNS 13438 Class A KN 22 Class A
Electromagnetic immunity	EN 55024 AS/NZS CISPR 24 KN 24 IEC/EN 61000-4-2 (Electro Static Discharge) IEC/EN 61000-4-3 (Radiated Immunity) IEC/EN 61000-4-4 (Fast Transients) IEC/EN 61000-4-5 (Surge) IEC/EN 61000-4-6 (Conducted Immunity) IEC/EN 61000-4-8 (Power Frequency Magnetic Field Immunity) IEC/EN 61000-4-9 (Pulse Magnetic Field Immunity) IEC/EN 61000-4-10 (Oscillatory Magnetic Field Immunity) IEC/EN 61000-4-11 (AC power Voltage Immunity) IEC/EN 61000-4-16 (Low Frequency Conducted CM Disturbances) IEC/EN 61000-4-17 (Ripple on DC Input Power) IEC/EN 61000-4-18 (Damped Oscillatory Wave) IEC/EN 61000-4-29 (Voltage Dips Immunity, DC power) IEEE C37.90 (Surge) IEEE C37.90.1 (Fast Transients) IEEE C37.90.2 (Radiated Immunity) IEEE C37.90.3 (Electro Static Discharge)
Industry specifications	EN 61131-2 Programmable Controllers (EMC/EMI, environmental, mechanical) IEEE 1613 Power Station and Substation Networking Devices IEC 61850-3 Power Station and Substation Communication Networks and Systems EN 61326-1 Electrical Equipment for Measurement, Control and Laboratory Use - EMC EN 61000-6-1 Immunity for Light Industrial Environments EN 61000-6-2 Immunity for Industrial Environments EN 61000-6-4 Emissions for Industrial Environments TS 61000-6-5 EMC Immunity for Power Station and Substation EN 50155 Railway, Electronic Equipment on Rolling Stock (EMI/EMC, environmental, mechanical) EN 50121-3-2 Railway, Electromagnetic Compatibility on Rolling Stock EN 50121-4 Railway, Emission and Immunity of Signaling and Telecommunications Apparatus EN 60945 Maritime Navigation and Radio-communication Equipment and Systems IEC 60533 Shipboard Electrical and Electronic Installation EMC Marine Type Approval (BV, DNV, Korean Register, Lloyd Register) NEMA TS-2 (EMC, environmental, mechanical) ABB Industrial IT certification ODVA Industrial EtherNet/IP support PROFINETv2 support Directive 2011/65/EU RoHS IP20
Hazardous locations	UL/CSA 60079-0, -15 (Class 1, Div 2 A-D) (requires cabinet enclosure) EN 60079-0, -15 ATEX Certification (Class 1, Zone 2 A-D) (requires cabinet enclosure) IEC 60079-0, -15 (Test report only) (requires cabinet enclosure) UL 508 CSA C22.2 No. 142
Compliance marking	UL/CSA CE (Europe) C-Tick (Australia/New Zealand) KCC (Korea) ANATEL (Brazil) China RoHS
Operating temperature	-40 C to +70 C (vented enclosure operating) -40 C to +60 C (sealed enclosure operating) -34 C to +75 C (fan or blower-equipped enclosure operating) -40 C to +85 C (IEC Environmental Type Testing, 16 hours) Operational altitude: Up to 13,000 ft
Storage temperature	-40 C to +85 C (storage temperature) Storage altitude: Up to 15,000 ft
Humidity	Relative humidity: 5% to 95% non-condensing
Telco	Common Language Equipment Identifier (CLEI) code

Warranty	Five year limited warranty

The next steps...

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Tel: +44 (0)1279 408 777

Email: sales@gocomsys.com

Website: www.gocomsys.com