

# Cisco Catalyst IE3200 Rugged Series

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The Cisco Catalyst® IE3200 Rugged Series ushers in mainstream adoption of Gigabit Ethernet connectivity in a compact form factor for a wide variety of extended enterprise and industrial applications.

## Product overview

The Cisco Catalyst IE3200 Rugged Series delivers high-speed Gigabit Ethernet connectivity in a compact form factor and is designed for a wide range of industrial applications where hardened products are required. The platform is built to withstand harsh environments in manufacturing, energy, transportation, mining, smart cities, and oil and gas. The IE3200 platform is also ideal for extended enterprise deployments in outdoor spaces, warehouses, and distribution centers.

These switches run Cisco IOS® XE, a next-generation operating system with built-in security and trust, featuring secure boot, image signing, and a Cisco® Trust anchor module. Cisco IOS® XE also provides API-driven configuration with open APIs and data models.

The Cisco Catalyst IE3200 Rugged Series can be managed with powerful management tools such as Cisco Catalyst Center, and can be easily set up with a completely redesigned, user-friendly, modern GUI tool called WebUI.

The IE3200 series supports power budget of up to 240W for PoE/PoE+, shared across 8 ports, and is ideal for connecting PoE-powered end devices such as IP cameras, phones, wireless access points, sensors, and more.



Cisco Catalyst IE3200 Rugged Series

## Features and benefits

**Table 1.** Features and benefits

Feature	Benefit
<b>Robust industrial design</b>	<ul style="list-style-type: none"> <li>• Built for harsh environments and temperature ranges (-40° C to +75° C)</li> <li>• Fanless, convection-cooled with no moving parts for extended durability</li> <li>• Hardened for vibration, shock and surge, and electrical noise immunity</li> <li>• Complies with multi-industry specifications for automation, ITS, and substation environments</li> <li>• Improves uptime, performance, and safety of industrial systems and equipment</li> <li>• Covers a wide range of Power over Ethernet (PoE) application requirements</li> <li>• Alarm I/O for monitoring and signaling to external equipment</li> </ul>
<b>Full Gigabit Ethernet interfaces</b>	<ul style="list-style-type: none"> <li>• Provides secure access for new high-speed applications in the industrial space</li> <li>• Packs up to 10 ports of GE - 2x1 Gigabit Small Form-Factor Pluggable (SFP) uplinks, plus 8x1 Gigabit copper RJ45 downlink ports (with PoE+ or non PoE) in a small form-factor base system</li> <li>• Connects high-speed wireless access points (802.11n, 802.11ac, 802.11ax)</li> <li>• Enables High-Definition (HD) IP cameras and Programmable Logic Controllers (PLC)</li> <li>• Delivers multiple rings and redundant ring topologies for new network configurations</li> <li>• Extends geographical scalability where longer-distance connectivity is required</li> </ul>
<b>High-density industrial Power over Ethernet (PoE)</b>	<ul style="list-style-type: none"> <li>• Supports up to 8 PoE/PoE+ ports [Power budget - 240W]</li> <li>• Controls costs by limiting wiring, distribution panels, and circuit breakers</li> <li>• Reduces equipment needs, thus requiring less space and reducing heat dissipation</li> <li>• Enables ready-to-use PoE devices, such as IP phones, cameras, and wireless access points</li> </ul>
<b>User-friendly GUI, called WebUI</b>	<ul style="list-style-type: none"> <li>• Allows easy configuration and monitoring</li> <li>• Eliminates the need for more complex terminal emulation programs</li> <li>• Reduces the cost of deployment</li> </ul>
<b>SwapDrive, a zero-configuration replacement</b>	<ul style="list-style-type: none"> <li>• True zero-configuration and simple switch replacement in the event of a failure</li> <li>• No networking expertise required</li> <li>• Helps ensure fast recovery</li> </ul>
<b>IPv6 Ready Logo</b>	<ul style="list-style-type: none"> <li>• IPv6 Ready Logo Certified</li> </ul>

## Products overview

**Table 2.** Product feature sets

Product family	Platforms supported	Cisco IOS Software image (feature sets) supported
IE3000	IE3200	Network Essentials (default)

## Product specifications

Table 3 highlights the hardware configuration for Cisco Catalyst IE3200 Rugged Series switches.

**Table 3.** IE3200 Hardware configurations

Product number*	Total ports	10/100/1000 RJ45 Copper ports	100/1000 SFP ports	Software license (Default)	PoE/PoE(+) budget
IE-3200-8T2S-E	10	8	2	Network Essentials	N.A.
IE-3200-8P2S-E	10	8	2	Network Essentials	240W

Table 4 highlights the hardware specifications for Cisco Catalyst IE3200 Rugged Series switches.

**Table 4.** IE3200 Hardware specifications

Hardware specification	Cisco IE-3200-8T2S-E	Cisco IE-3200-8P2S-E
PoE power budget	Not applicable	240W <sup>1</sup>
Removable storage	USB <sup>2,3</sup> , SD card <sup>2</sup>	USB <sup>2,3</sup> , SD card <sup>2</sup>
Alarms	2 alarms in, 1 alarm out	2 alarms in, 1 alarm out
Console ports	1 RS-232 (via RJ-45), 1 USB Mini Type B	1 RS-232 (via RJ-45), 1 USB Mini Type B
Power inputs	Dual DC power inputs	Dual DC power inputs

<sup>1</sup> In order to achieve the 240W power budget, the minimum power requirements as specified in Table 7 for the switch need to be considered when selecting a power supply.

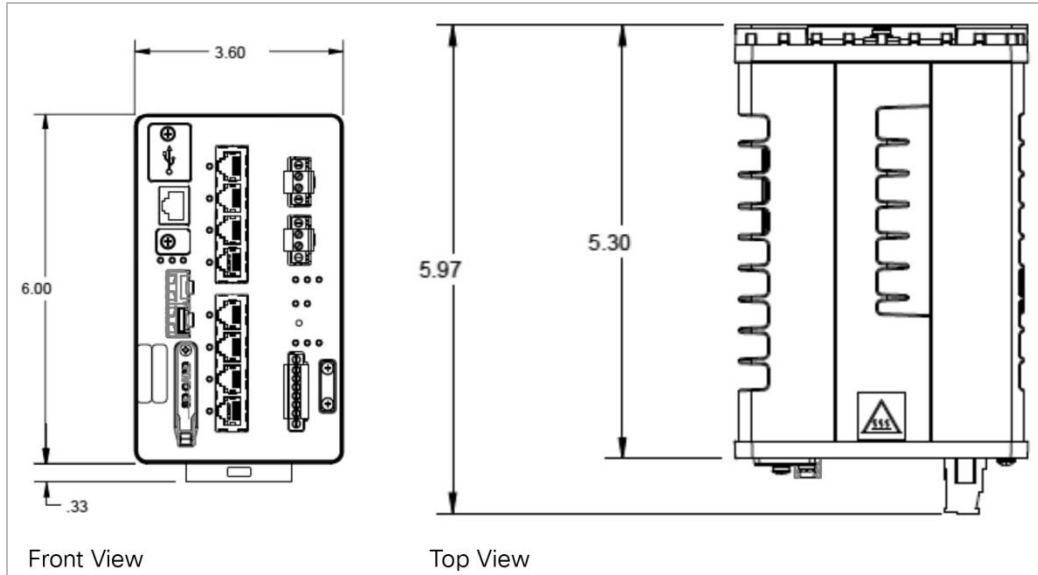
<sup>2</sup> The USB and SD card are optional and are not shipped by default with the switch.

<sup>3</sup> USB 2.0 to load system images and set configurations

Table 5 highlights the physical configuration for Cisco Catalyst IE3200 Rugged Series switches.

**Table 5.** IE3200 physical configurations

Physical specifications	Cisco IE-3200-8T2S-E	Cisco IE-3200-8P2S-E
Dimensions (H x W x D)	6 in. X 3.6 in. X 5.3 in. 15.2 cm. x 9.1 cm. x 13.5 cm	6.0 in. X 3.6 in. X 5.3 in. 15.2 cm. x 9.1 cm. x 13.5 cm
Weight	3.8 lbs 1.7 kg	3.8 lbs 1.7 kg
Mounting	DIN rail	DIN rail



Cisco Catalyst IE3200 dimensions

Figure 2.

Table 6 highlights the performance and scalability features for Cisco Catalyst IE3200 Rugged Series switches.

**Table 6.** IE3200 performance and scalability features

Features	Cisco IE-3200-8T2S-E	Cisco IE-3200-8P2S-E
<b>Forwarding rate</b>	Line rate for all ports and all packet sizes	Line rate for all ports and all packet sizes
<b>Number of queues</b>	8	8
<b>Unicast MAC addresses</b>	8K	16K
<b>Internet Group Management Protocol (IGMP) multicast groups</b>	1K	1K
<b>No. of VLANs</b>	256	256
<b>Spanning Tree Protocol (STP) instances</b>	128	128
<b>Access Control Entries (PACL/VACL/RACL)</b>	3K	3K
<b>DRAM</b>	2 GB	2 GB
<b>Flash (User Accessible)</b>	1.5 GB	1.5 GB
<b>SD card capacity<sup>1</sup></b>	4 GB	4 GB
<b>Jumbo Frames</b>	8996 bytes	8996 bytes

<sup>1</sup> The SD card is optional and is not shipped by default with the switch.

Table 7 highlights the power specifications for Cisco Catalyst IE3200 Rugged Series switches.

**Table 7.** IE3200 power specifications

Features	Cisco IE-3200-8T2S-E	Cisco IE-3200-8P2S-E
<b>Input voltage range</b>	Redundant DC input voltage: 9.6 to 60VDC	Redundant DC input voltage: 9.6 to 60VDC 48VDC is required for PoE and 54VDC is required for PoE+
<b>Maximum Input current</b>	2.4A	5.5A
<b>Power consumption<sup>1</sup></b>	23W	32W

<sup>1</sup> Power consumption for non PoE supported model is measured at 12V and for the PoE supported model is measured at 54V. Power consumption does not include PoE power.

Table 8 highlights the power supply options for Cisco Catalyst IE3200 Rugged Series switches.

**Table 8.** Power supply options

Product Number	Wattage	Rated nominal input operating range	PoE/PoE+ support <sup>1</sup>	More Details
<b>PWR-IE50W-AC=</b>	50W	AC 100-240V/1.25A 50-60Hz or DC 125-250V/1.25A	No	<a href="#">Click here</a> for more details on these DIN Rail power supplies
<b>PWR-IE50W-AC-IEC=</b>	50W	AC 90-264V	No	
<b>PWR-IE50W-AC-L= <sup>2</sup></b>	50W	AC 100-240V/1.2A 50-60Hz	No	
<b>PWR-IE65W-PC-AC=</b>	65W	AC 100-240V/1.4A 50-60Hz or DC 125-250V/1.0A	Yes	
<b>PWR-IE65W-PC-DC=</b>	65W	DC 24-48VDC/4.5A	Yes	
<b>PWR-IE170W-PC-AC=</b>	170W	AC 100-240V/2.3A 50-60Hz or DC 125-250V/2.1A	Yes	
<b>PWR-IE170W-PC-DC=</b>	170W	DC 12-54VDC/23A	Yes	
<b>PWR-IE240W-PCAC-L= <sup>2</sup></b>	240W	AC 100-240V/3.5A 50-60Hz	Yes	
<b>PWR-IE480W-PCAC-L= <sup>2</sup></b>	480W	AC 100-240V/6.0A 50-60Hz	Yes	

<sup>1</sup> The entire power budget for the switch and PoE ports needs to stay within the power supply wattage.

<sup>2</sup> The power supplies are not certified for smart grid and hazardous locations. These power supplies are IP20 rated.

Table 9 highlights the supported software features for Cisco Catalyst IE3200 Rugged Series switches.

**Table 9.** Key supported software features

Network Essentials License (Perpetual)	Features
<b>Layer 2 switching</b>	IEEE 802.1, 802.3 standard, NTP, UDLD, CDP, LLDP, unicast MAC filter, PAgP, LACP, VTPv2, VTPv3, EtherChannel, Q-in-Q tunneling, voice VLAN, PVST+, MSTP, and RSTP
<b>Multicast</b>	IGMPv1, v2, v3 snooping, IGMP filtering, IGMP querier
<b>Management</b>	WebUI, MIB, SmartPort, SNMP, syslog, DHCP server, SPAN session, RSPAN, FSPAN, Express setup, NETCONF, RESTCONF
<b>Security</b>	Port security, 802.1x, Dynamic Host Configuration Protocol (DHCP) snooping, dynamic ARP inspection, IP source guard, guest VLAN, MAC authentication bypass, 802.1x multidomain authentication, storm control - unicast, multicast, broadcast, SCP, SSH, SNMPv3, TACACS+, RADIUS server/client, MAC address notification, BPDU guard, SUDI 2099 (Secure Unique Device identifier), Access Lists (ACL/RACL/VACL), MACsec-128, FIPS 140-2
<b>Quality of Service (QoS)</b>	Ingress policing, rate limit, egress queuing and shaping, auto QoS
<b>IPv6</b>	IPv6 host support, SNMP over IPv6, HTTP/HTTP(s) over IPv6, SNMP over IPv6, Syslog over IPv6, DHCPv6 relay source, DHCPv6 bulk lease query (RFC 5460), IPv6 stateless Auto Config, SCP/SSH, Radius, TACACS+, NTP over IPv6, IPV6 ND cache expire, IPv6 support for TFTP, IPv6 DNS transport, IPv6 QoS, IPv6 FHS RA Guard, IPv6 FHS DHCPv6 Guard
<b>Layer 3 routing</b>	Inter-VLAN routing, static routing
<b>Industrial Ethernet</b>	CIP Ethernet/IP, IEEE 1588 PTP v2 (default and power), PROFINET
<b>Redundancy</b>	Resilient Ethernet Protocol (REP) ring, PROFINET-Media Redundancy Protocol (MRP), REP Preferred, Fast REP
<b>Utility</b>	Dying gasp, SCADA protocol classification - GOOSE messaging, MODBUS TCP/IP
<b>Automation</b>	YANG, NETCONF, RESTCONF

Table 10 highlights the details on Cisco Catalyst Center Essentials License for Cisco Catalyst IE3200 Rugged Series switches.

**Table 10.** Cisco IE3200 Cisco Catalyst Center Essentials License

Feature	Description
<b>Element Management</b>	Discovery, topology, inventory, software image management
<b>Assurance</b>	Health Dashboards - Network, Client, Basic Switch and Wired Client Health Monitoring
<b>Automation</b>	Cisco Network Plug-and-Play application
<b>Software Defined Access</b>	SD-Access Extended Node, REP Ring workflow for Extended Nodes



Cisco Catalyst Center licenses for Industrial Ethernet switches are add-on/optional and not mandatory, and need to be purchased separately. These do not include Network Tier features.

Table 11 highlights the compliance specifications for Cisco Catalyst IE3200 Rugged Series switches.

**Table 11.** Compliance specifications<sup>1</sup>

Descriptions	Specifications
<b>Industrial Automation Control System</b>	IEC 62443-4-1 IEC 62443-4-2
<b>Electromagnetic emissions</b>	FCC 47 CFR Part 15 subpart B Class A EN 55032/CISPR 32 Class A VCCI Class A AS/NZS CISPR 32 Class A CISPR 11 Class A ICES 003 Class A CNS 13438 Class A KN 32 Class A EN 300 386
<b>Electromagnetic immunity</b>	CISPR 24 EN 55024 KN 35 EN 61000-4-2 Electro Static Discharge (air - 15kV, contact - 8kV) EN 61000-4-3 Radiated RF (10V/m UTP, 20V/m STP) EN 61000-4-4 Electromagnetic Fast Transients (4kV) EN 61000-4-5 Surge (2KV/1KV Power, 4KV STP) EN 61000-4-6 Conducted RF (10Vrms UTP) EN 61000-4-10 Damped Oscillatory Magnetic Field (100 A/m) EN 61000-4-16 Conducted CM Disturbances (30V, Cont/300V, 1 sec) EN 61000-4-17 Ripple Immunity DC Power (10%) EN 61000-4-18 Damped Oscillatory Wave (2.5kV, 1MHz) EN-61000-4-29 DC Voltage Dips and interruptions EN 61000-4-8 Power Frequency Magnetic Field (1000A/m)
<b>Industry standards</b>	EN 61000-6-2 Industrial Immunity EN 61000-6-4 Industrial Emissions EN 61000-6-1 Light Industrial Immunity EN 61326-1 Measurement, Control and Laboratory Equipment IEEE 1613 Electric Power Stations Communications Networking EN/IEC 61850-3 Electric Substations Communications Networking ODVA Industrial EtherNet/IP

Descriptions	Specifications
	<p>NEMA TS 2-2016</p> <p>AREMA C &amp; S section 11, 19</p> <p>IP30</p>
<b>Marine I</b>	<p>DNC Certification according to class guideline DNV-CG-0339</p> <p>Additional Standards:</p> <p>IEC 60945, IACS UR E10</p> <p>Marine DNV GL – Ships; High speed and light craft</p>
<b>Safety standards and certifications</b>	<p>Information technology equipment:</p> <p>UL/CSA 60950-1, IEC 60950-1 CB with all country deviations</p> <p>UL/CSA 62368-1, IEC 62368-1 CB with all country deviations</p> <p>Industrial floor (control equipment):</p> <p>UL/CSA 61010-2-201</p> <p>CB report and certificate to IEC/EN 61010-2-201</p> <p>Hazardous locations:</p> <p>UL121201 (Class I, Div 2, groups A-D)</p> <p>CSA 213 (Class I, Div 2, groups A-D)</p> <p>UL/CSA 60079-0, -15 (Class I, Zone 2, Gc/IIC)</p> <p>IEC 60079-0, -15 IECEx test report (Class I, Zone 2, Gc/IIC)</p> <p>EN 60079-0, -15 ATEX certificate (Class I, Zone 2, Gc/IIC) Cabinet enclosure required</p>
<b>Operating environment</b>	<p>Operating temperature:</p> <p>-40°C to +70°C (40 LFM vented enclosure)</p> <p>-40°C to +60°C (sealed enclosure)</p> <p>-40°C to +75°C (Min. 200 LFM fan or blower-equipped enclosure)</p> <p>+85°C (type tested for 16 hours)</p> <p>Altitude: Up to 15,000 feet</p>
<b>Storage environment</b>	<p>Temperature: -40°C to +85°C</p> <p>Altitude: 15,000 feet</p> <p>IEC 60068-2-14</p>
<b>Humidity</b>	<p>Relative humidity of 5% to 95% non-condensing</p> <p>IEC 60068-2-78</p> <p>IEC 60068-2-30</p>
<b>Shock and vibration</b>	<p>IEC 60068-2-27 (operational shock, 50G, 3ms, half sine)</p> <p>IEC 60068-2-27 (non-operational shock, 65-80G, 9ms, trapezoidal)</p> <p>MIL-STD-810, Method 514.4</p> <p>IEC 60068-2-6 (vibration-sinusoidal, 5Hz-150Hz)</p>

Descriptions	Specifications
<b>Corrosion</b>	IEC 60068-2-52 (salt fog) IEC 60068-2-60 (flowing mixed gas)
<b>Railway</b>	EN50125-1: 2014 EN50125-3: 2003 EN50121-4 Railway – Signaling and Telecommunications Apparatus EN50155- Railway applications – Rolling stock
<b>Warranty</b>	Five-year limited hardware warranty on all IE3200 product IDs and all Industrial Ethernet (IE) power supplies. See more information under the Warranty section

<sup>1</sup> For more detailed information on safety approved power/thermal ratings refer the Hardware Installation Guide.

Table 12 highlights Mean-Time-Between-Failures (MTBF) for Cisco Catalyst IE3200 Rugged Series switches.

**Table 12.** MTBF information

Parameter	Cisco IE-3200-8T2S-E	Cisco IE-3200-8P2S-E
<b>Rated MTBF (hours)</b>	641,150	613,125

Table 13 highlights information about management and standards for Cisco Catalyst IE3200 Rugged Series switches.

**Table 13.** Management and standards

Descriptions	Specifications																		
<b>IEEE standards</b>	<table border="0"> <tr> <td>IEEE 802.1D MAC Bridges, STP</td> <td>IEEE 802.3ad Link Aggregation (LACP)</td> </tr> <tr> <td>IEEE 802.1p Layer2 COS prioritization</td> <td>IEEE 802.3ah 100BASE-X SMF/MMF only</td> </tr> <tr> <td>IEEE 802.1q VLAN</td> <td>IEEE 802.3x full duplex on 10BASE-T</td> </tr> <tr> <td>IEEE 802.1s Multiple Spanning-Trees</td> <td>IEEE 802.3 10BASE-T specification</td> </tr> <tr> <td>IEEE 802.1w Rapid Spanning-Tree</td> <td>IEEE 802.3u 100BASE-TX specification</td> </tr> <tr> <td>IEEE 802.1x Port Access Authentication</td> <td>IEEE 802.3ab 1000BASE-T specification</td> </tr> <tr> <td>IEEE 802.1AB LLDP</td> <td>IEEE 802.3z 1000BASE-X specification</td> </tr> <tr> <td>IEEE 1588v2 PTP Precision Time Protocol</td> <td>IEEE 802.3af Power over Ethernet</td> </tr> <tr> <td></td> <td>IEEE 802.3at Power over Ethernet plus</td> </tr> </table>	IEEE 802.1D MAC Bridges, STP	IEEE 802.3ad Link Aggregation (LACP)	IEEE 802.1p Layer2 COS prioritization	IEEE 802.3ah 100BASE-X SMF/MMF only	IEEE 802.1q VLAN	IEEE 802.3x full duplex on 10BASE-T	IEEE 802.1s Multiple Spanning-Trees	IEEE 802.3 10BASE-T specification	IEEE 802.1w Rapid Spanning-Tree	IEEE 802.3u 100BASE-TX specification	IEEE 802.1x Port Access Authentication	IEEE 802.3ab 1000BASE-T specification	IEEE 802.1AB LLDP	IEEE 802.3z 1000BASE-X specification	IEEE 1588v2 PTP Precision Time Protocol	IEEE 802.3af Power over Ethernet		IEEE 802.3at Power over Ethernet plus
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<b>RFC compliance</b>	<table border="0"> <tr> <td>RFC 768: UDP</td> <td>RFC 1492: TACACS+</td> </tr> <tr> <td>RFC 783: TFTP</td> <td>RFC 1493: Bridge MIB Objects</td> </tr> <tr> <td>RFC 791: IPv4 protocol</td> <td>RFC 1534: DHCP and BOOTP interoperation</td> </tr> <tr> <td>RFC 792: ICMP</td> <td>RFC 1542: Bootstrap Protocol</td> </tr> <tr> <td>RFC 793: TCP</td> <td>RFC 1643: Ethernet Interface MIB</td> </tr> <tr> <td>RFC 826: ARP</td> <td>RFC 1757: RMON</td> </tr> <tr> <td>RFC 854: Telnet</td> <td>RFC 2068: HTTP</td> </tr> </table>	RFC 768: UDP	RFC 1492: TACACS+	RFC 783: TFTP	RFC 1493: Bridge MIB Objects	RFC 791: IPv4 protocol	RFC 1534: DHCP and BOOTP interoperation	RFC 792: ICMP	RFC 1542: Bootstrap Protocol	RFC 793: TCP	RFC 1643: Ethernet Interface MIB	RFC 826: ARP	RFC 1757: RMON	RFC 854: Telnet	RFC 2068: HTTP				
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RFC 854: Telnet	RFC 2068: HTTP																		

Descriptions	Specifications	
	RFC 959: FTP RFC 1157: SNMPv1 RFC 1901,1902-1907 SNMPv2 RFC 2273-2275: SNMPv3 RFC 2571: SNMP Management RFC 1166: IP Addresses RFC 1256: ICMP Router Discovery RFC 1305: NTP RFC 951: BootP	RFC 2131, 2132: DHCP RFC 2236: IGMP v2 RFC 3376: IGMP v3 RFC 2474: DiffServ Precedence RFC 3046: DHCP Relay Agent Information Option RFC 3580: 802.1x RADIUS RFC 4250-4252 SSH Protocol RFC 5460: DHCPv6 bulk lease query
<b>SNMP MIB objects</b>	802.1X MIB CISCO-DHCP-SNOOPING-MIB CISCO-UDLD-MIB CISCO-ENVMON-MIB CISCO-PRIVATE-VLAN-MIB CISCO-PAE-MIB Cisco-Port-QoS-MIB CISCO-ERR-DISABLE-MIB CISCO- PROCESS-MIB LLDP-MIB CiscoMAC Notification-MIB CISCO-CONFIG-COPY-MIB LLDP-MED-MIB Bridge-MIB CISCO-CAR-MIB CISCO-LAG-MIB CISCO-SYSLOG-MIB CISCO-FTP-CLIENT-MIB CISCO-VLAN-IFTABLE-RELATIONSHIP-MIB CISCO-VLAN-MEMBERSHIP-MIB Cisco-REP-MIB CISCO-PORT-STORM-CONTROL-MIB CISCO-CDP-MIB CISCO-IP-STAT-MIB CISCO-LICENSE-MGMT-MIB CISCO-STP-EXTN-MIB CISCO-VTP-MIB IEEE8023-LAG-MIB	CISCO-IF-EXTENSION-MIB CISCO-IMAGE-MIB CISCO-MEMORY-POOL-MIB CISCO-PING-MIB SNMP-TARGET-EXT-MIB IF_MIB ENTITY-MIB LLDP-EXT-PNO-MIB NOTIFICATION-LOG-MIB OLD-CISCO-CPU-MIB ETHERLIKE-MIB OLD-CISCO-SYSTEM-MIB OLD-CISCO-MEMORY-MIB RMON-MIB SNMP-COMMUNITY-MIB SNMP-FRAMEWORK-MIB SNMP-PROXY-MIB SNMP-MPD-MIB SNMP-NOTIFICATION-MIB SNMP-TARGET-MIB SNMP-USM-MIB CISCO-DATACOLLECTION-MIB CISCO-CABLE-DIAG-MIB CISCO -PORT-SECURITY-MIB BULK_FILE_MIB NAC-NAD-MIB CISCO-ENTITY-ALARAM-MIB SNMP-VIEW-BASED-ACM-MIB

Descriptions	Specifications	
	SMON-MIB CISCO-ACCESS-ENVMON-MIB CISCO-CALLHOME-MIB CISCO-CONFIG-MAN-MIB CISCO-FLASH-MIB CISCO-ENTITY-SENSOR-MIB IP-MIB CISCO-PAGP-MIB	CISCO-MAC-AUTH-BYPASS-MIB CISCO-AUTH-FRAMEWORK-MIB CISCO-BRIDGE-Ext-MIB SNMPv2-MIB CISCO-ENTITY-VENDORTYPE-OID-MIB CISCO-PRODUCTS-MIB IP-FORWARD-MIB

Table 14 highlights information about supported SFPs for Cisco Catalyst IE3200 Rugged Series switches.

**Table 14.** SFP Support

Part Number	Specifications	SFP type	Temperature range <sup>1</sup>	Maximum distance	Cable type	Dom support
<b>GLC-FE-100FX-RGD</b>	100BASE-FX	FE	IND	2 km	Multimode Fiber (MMF)	No
<b>GLC-FE-100LX-RGD</b>	100BASE-LX10	FE	IND	10 km	Single-Mode Fiber (SMF)	No
<b>GLC-FE-100FX</b>	100BASE-FX	FE	COM	2 km	MMF	No
<b>GLC-FE-100LX</b>	100BASE-LX10	FE	COM	10 km	SMF	No
<b>GLC-FE-100EX</b>	100BASE-EX	FE	COM	40 km	SMF	No
<b>GLC-FE-100ZX</b>	100BASE-ZX	FE	COM	80 km	SMF	No
<b>GLC-FE-100BX-U</b>	100BASE-BX10	FE	COM	10 km	SMF	No
<b>GLC-FE-100BX-D</b>	100BASE-BX10	FE	COM	10 km	SMF	No
<b>GLC-SX-MM-RGD</b>	1000BASE-SX	GE	IND	220-550 m	MMF	Yes
<b>GLC-LX-SM-RGD</b>	1000BASE-LX/LH	GE	IND	550 m/10 km	MMF/SMF	Yes
<b>GLC-ZX-SM-RGD</b>	1000BASE-ZX	GE	IND	70 km	SMF	Yes
<b>SFP-GE-S</b>	1000BASE-SX	GE	EXT	220-550 m	MMF	Yes
<b>SFP-GE-L</b>	1000BASE-LX/LH	GE	EXT	550 m/10 km	MMF/SMF	Yes
<b>SFP-GE-Z</b>	1000BASE-ZX	GE	EXT	70 km	SMF	Yes
<b>GLC-BX-U</b>	1000BASE-BX10	GE	COM	10 km	SMF	Yes
<b>GLC-BX-D</b>	1000BASE-BX10	GE	COM	10 km	SMF	Yes
<b>GLC-SX-MM</b>	1000BASE-SX	GE	COM	220-550 m	MMF	Yes

Part Number	Specifications	SFP type	Temperature range <sup>1</sup>	Maximum distance	Cable type	Dom support
<b>GLC-LH-SM</b>	1000BASE-LX/LH	GE	COM	550 m/10 km	MMF/SMF	Yes
<b>GLC-ZX-SM</b>	1000BASE-ZX	GE	COM	70 km	SMF	Yes
<b>GLC-EX-SMD</b>	1000BASE-EX	GE	COM	40 km	SMF	Yes
<b>GLC-TE</b>	1000BASE-T	GE	EXT	100 m	Cat5e	No
<b>GLC-BX40-U-I=</b>	1000BASE-BX40	GE	IND	40km	SMF	Yes
<b>GLC-BX40-D-I=</b>	1000BASE-BX40	GE	IND	40km	SMF	Yes
<b>GLC-BX40-DA-I=</b>	1000BASE-BX40	GE	IND	40km	SMF	Yes
<b>GLC-BX80-U-I=</b>	1000BASE-BX80	GE	IND	80km	SMF	Yes
<b>GLC-BX80-D-I=</b>	1000BASE-BX80	GE	IND	80km	SMF	Yes
<b>GLC-SX-MMD=</b>	1000BASE-SX	GE	EXT	550m	MMF	Yes
<b>GLC-LH-SMD=</b>	1000BASE-LX/LH	GE	EXT	550m/10km	MMF/SMF	Yes
<b>GLC-ZX-SMD=</b>	1000BASE-ZX	GE	EXT	70km	SMF	Yes
<b>GLC-T-RGD=</b>	1000BASE-T	GE	IND	100m	Copper	NA
<b>GLC-BX-U-I=</b>	1000BASE-BX	GE	IND	10km	SMF	Yes
<b>GLC-BX-D-I=</b>	1000BASE-BX	GE	IND	10km	SMF	Yes
<b>CWDM-SFP-1470</b>	1000BASE-CWDM	10GE	COM	80km	SMF	Yes
<b>CWDM-SFP-1610</b>	1000BASE-CWDM	10GE	COM	80km	SMF	Yes
<b>CWDM-SFP-1530</b>	1000BASE-CWDM	10GE	COM	80km	SMF	Yes
<b>CWDM-SFP-1490</b>	1000BASE-CWDM	10GE	COM	80km	SMF	Yes
<b>DWDM-SFP-3033</b>	1000BASE-DWDM	10GE	COM	80km	SMF	Yes
<b>DWDM-SFP-3112</b>	1000BASE-DWDM	10GE	COM	80km	SMF	Yes

<sup>1</sup> If non-industrial SFPs (EXT, COM) are used, the switch operating temperature must be derated.

## Ordering information

Table 15 lists the ordering information for fixed system and memory that are commonly used with the Cisco Catalyst IE3200 switches.

**Table 15.** Ordering information

Part number	Product description
<b>IE-3200-8T2S-E</b>	Catalyst IE3200 w/ 8 GE Copper and 2 GE SFP, Fixed System, Network Essentials
<b>IE-3200-8P2S-E</b>	Catalyst IE3200 w/ 8 GE PoE/PoE+ and 2 GE SFP, Fixed System, Network Essentials
<b>SD-IE-4GB=</b>	Industrial Ethernet (IE) 4-GB SD memory card for IE
<b>STK-RACK-DINRAIL=</b>	19" DIN Rail mount kit
<b>IE3200-DNA-E<sup>1</sup></b>	Cisco Catalyst Center Essentials license for IE3200 Series
<b>IE3200-DNA-E-3Y</b>	IE 3200 Cisco Catalyst Center Essentials, 3 Year Term license
<b>IE3200-DNA-E-5Y</b>	IE 3200 Cisco Catalyst Center Essentials, 5 Year Term license
<b>IE3200-DNA-E-7Y</b>	IE 3200 Cisco Catalyst Center Essentials, 7 Year Term license
<b>LIC-MRP-MGR-XE=</b>	MRP Ring Manager License
<b>LIC-MRP-CLIENT-XE=</b>	MRP Ring Client License

\* MRP Feature Licenses are not required from release IOS XE 17.7.1 onwards. Please refer to the IOS XE 17.7.1 [Release Notes](#).

<sup>1</sup> Cisco Catalyst Center Advantage license is not required for IE3200 to be in Extended Node Mode

## Warranty

Five-year limited HW warranty on all IE3200 PIDs and all IE Power Supplies (see table 8 above). See link below for more details on warranty <https://www.cisco.com/c/en/us/products/warranties/warranty-doc-c99-740591.html>.

## Cisco environmental sustainability

Information about Cisco’s environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the “Environment Sustainability” section of Cisco’s [Corporate Social Responsibility](#) (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the “Environment Sustainability” section of the CSR Report) are provided in the following table:

Sustainability topic	Reference
Information on product material content laws and regulations	<a href="#">Materials</a>
Information on electronic waste laws and regulations, including products, batteries, and packaging	<a href="#">WEEE compliance</a>

Reference links to product-specific environmental sustainability information that is mentioned in relevant sections of this data sheet are provided in the following table:

Sustainability Topic	Reference
<b>Power</b>	
Power specifications and consumption	<a href="#">Table 7. IE3200 power specifications</a>
<b>Environmental Characteristics</b>	
Operating temperature, industry standards, EMC emissions	<a href="#">Table 11. Compliance specifications</a>
<b>Material</b>	
Unit Weight	<a href="#">Table 5. IE3200 physical configurations</a>

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

## Cisco Services

<https://www.cisco.com/web/services/>.

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## Document history

New or Revised Topic	Described In	Date
<b>DNA name change to Catalyst Center, Temperature Range change for Blower Cabinet, Addition of UL60101</b>	Entire Datasheet, Compliance Specification	October 19, 2023
<b>Updated AREMA Certification, DNV GL, Railway certifications, EN61000 Power Frequency Magnetic Field, Extended Node,</b>	<a href="#">Table 11</a> , <a href="#">Table 10</a>	December 19, 2022
<b>Updated IPv6 Ready Logo, removed IPv6 VRF aware BGP feature, updated DNA License information, BGP MIB removal, updated SFP support, Cisco Environmental Sustainability information</b>	<a href="#">Table 1</a> , <a href="#">9</a> , <a href="#">10</a> , <a href="#">13</a> , <a href="#">14</a> , <a href="#">Cisco Environmental Sustainability</a>	October 29, 2021
<b>Added IEC 60068-2-6 (vibration-sinusoidal, 5Hz-150Hz)</b>	<a href="#">Table 11</a>	November 18, 2020
<b>Added measures in metric system; updated name of standard: EN 61000-4-10 Damped Oscillatory Magnetic Field (100 A/m) and removed "test in progress" from IEEE 1613 &amp; EN/IEC 61850-3</b>	<a href="#">Table 5</a> and <a href="#">Table 11</a>	October 06, 2020
<b>Revised: PoE/PoE+ budget language clarification</b>	<a href="#">Overview</a> and <a href="#">Table 1</a>	December 17, 2019
<b>Added Hardware configurations; updated hardware specifications; updated power specifications</b>	<a href="#">Table 3</a> , <a href="#">Table 4</a> , <a href="#">Table 7</a>	December 17, 2019
<b>Added PWR-IE50W-AC-IEC= to Power Supply Options; Added details on IPv6 support and PROFINET support on key supported software features</b>	<a href="#">Table 8</a> and <a href="#">Table 9</a>	December 17, 2019
<b>Added new part numbers on SFP support</b>	<a href="#">Table 14</a>	December 17, 2019
<b>Fixed descriptions on product description in ordering information</b>	<a href="#">Table 15</a>	December 17, 2019

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