# I(P)GS-H7832XF-DFT

## 16GE + 16GE SFP + 8 10GE SFP+ (PoE) Managed Ethernet Switch; dual DCI/AC input models w/optional L3L/L3 & Cybersecurity

## OVERVIEW

Lantech I(P)GS-H7832XF-DFT is a high-performance OS5 high-port SFP Ethernet switch with 16 10/100/1000T (PoE) + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP rackmount switch (total 40 ports). The OS5 platform is equipped with complete Layer 2 management features, IPv6/v4, NAT**, standardized ITU G.803 ring, Macsec**, PTP v2** as well as ETBN TTDP**, TRDP** protocol suitable for the future-proof modern network.

***DCI /AC inputs with redundancy (2AC/2DCI models)***

The switch is designed for easy maintenance and installation; It also supports dual DCI power supplies (galvanic isolated power DC16.8~137.5V) or dual isolated 90~264VAC IEC320 power input to increase the system reliability.

***Up to 16 PoE ports with 802.3at/af or 8 PoE ports with T4 802.3bt/at/af w/advanced PoE management and PoE galvanic isolation, support perpetual/Fast PoE***

Compliant with 802.3 at/af and perpetual/fast PoE standard, the PoE model is able to feed 16 PoE ports up to 30 Watt@ for various PD devices or 8 T4 PoE IEEE 802.3bt/at/af to feed PoE up to 90 Watt@. The switch supports up to 480W (-16 model) and up to 720W PoE budget (-8 BT model) with an external PoE supply. It supports advanced PoE management including PoE detection and scheduling. PoE detection can detect if the connected PD hangs then restart the PD; PoE scheduling is to allow a pre-set power feeding schedule upon a routine timetable. Each PoE port can be Enabled/disabled, get the voltage, current, Watt, and temperature info displayed on WebUI.

Perpetual and Fast PoE provides immediate and continuous power to devices during PSE switch reboots.

The PoE galvanic isolation provides insulation between the power input to PoE Ethernet ports, preventing cabling and grounding incidents from damaging the Ethernet switch. The efficiency of the galvanically decoupled voltage converters can reach above 90%.

***Support RTC (Real Time Clock) with longevity golden capacitor***

Our switch supports RTC which is powered by a golden capacitor, ensuring accurate real-time event logs for all times. Unlike traditional batteries, golden capacitors offer superior reliability, and longevity, without a need to change battery.

***Support Restful API for better switch performance; Auto-provisioning for firmware/configuration update***

The switch supports Restful API that uses JSON format to access and use data for GET, PUT, POST and DELETE types to avoid traditional SNMP management occupying CPU utilization. It also supports auto-provisioning for switch to auto-check the latest software image and configuration through TFTP server.

***DDoS Protection for Switches and Servers***

The switch is designed with robust security mechanisms to safeguard against network threats. These include DDoS attack prevention, 802.1X security authentication, Dynamic ARP Inspection, IP Source Guard, and Port Security.

***Auto feed configuration for swapped new switches for Seamless Network Maintenance***

The I(P)GS-7832XF-DFT supports auto-feed configuration features that revolutionize network switch setup and management. It ensures that new and replacement switches automatically receive the correct configuration without manual intervention.

***User-friendly GUI, Auto topology drawing, Enhanced Environmental Monitoring***

The user-friendly UI, innovative auto topology drawing, and topology demo make the switch much easier to get hands-on. The complete CLI enables professional engineers to configure settings by command line. It supports enhanced environmental monitoring for actual input voltage, current, switch ambient temperature and total power load.

***Editable configuration file; USB port for import/export configuration; USB Type-C console port***

The configuration file of the switch can be imported and edited with a word processor for the following switches to configure with ease. The USB data port can import/export the configuration from/to the USB dongle and also to upgrade firmware. It supports USB type-C console port that allows CLI access without an external RS232 adapter is required.

***Out-Of-Band management***

The switch can be accessed via the out-of-band (OOB) management port, also known as the service port, without the need to use the console port. OOB management allows a separate and secure method to access and manage the switch even when the primary network is inaccessible.

## OPTIONAL FEATURES

***Lantech OS5 platform is equipped with complete L2 management and is L3Lite/L3 upgradable supporting protocols incl. dynamic routing, multicast routing, hardware NAT and ETBN TTDP/ TRDP*; VRRP aware PIM* under VRRP, optional PTP, optional MacSec to be upgradable***

The switch runs on the Lantech OS5 platform and features major L3L**/L3** protocols inclusive of RIPv2(L3), OSPF, PIM, DVMRP(L3), IEC61375-2-5 (ETBN), TRDP* and hardware-based NAT and VRRP aware PIM* under VRRP. It also supports optional Macsec for authentication and encryption between two Macsec devices. The optional PTP V2 supports transparent clock, boundary clock and ordinary clocks with 2-step processing that synchronizes network time accuracy to sub-microseconds. To learn more about the Lantech OS5 Platform, please refer to **Lantech OS5 Software Datasheet**

***Optional Certified IEC 62443-4-2** with Physical Tamper Resistance and a Variety of Security Measures***

For enhanced cybersecurity, the optional certified IEC 62443-4-2** model is available. This includes over 90 security measures such as vulnerability checking, encrypted files, public key management, strong password enforcement, account management, and both penetration and stress testing. It emphasizes protection against unauthorized access, tampering, and malware through detailed log events and roots of trust security IC. To learn more about Lantech cybersecurity software solutions, please refer to

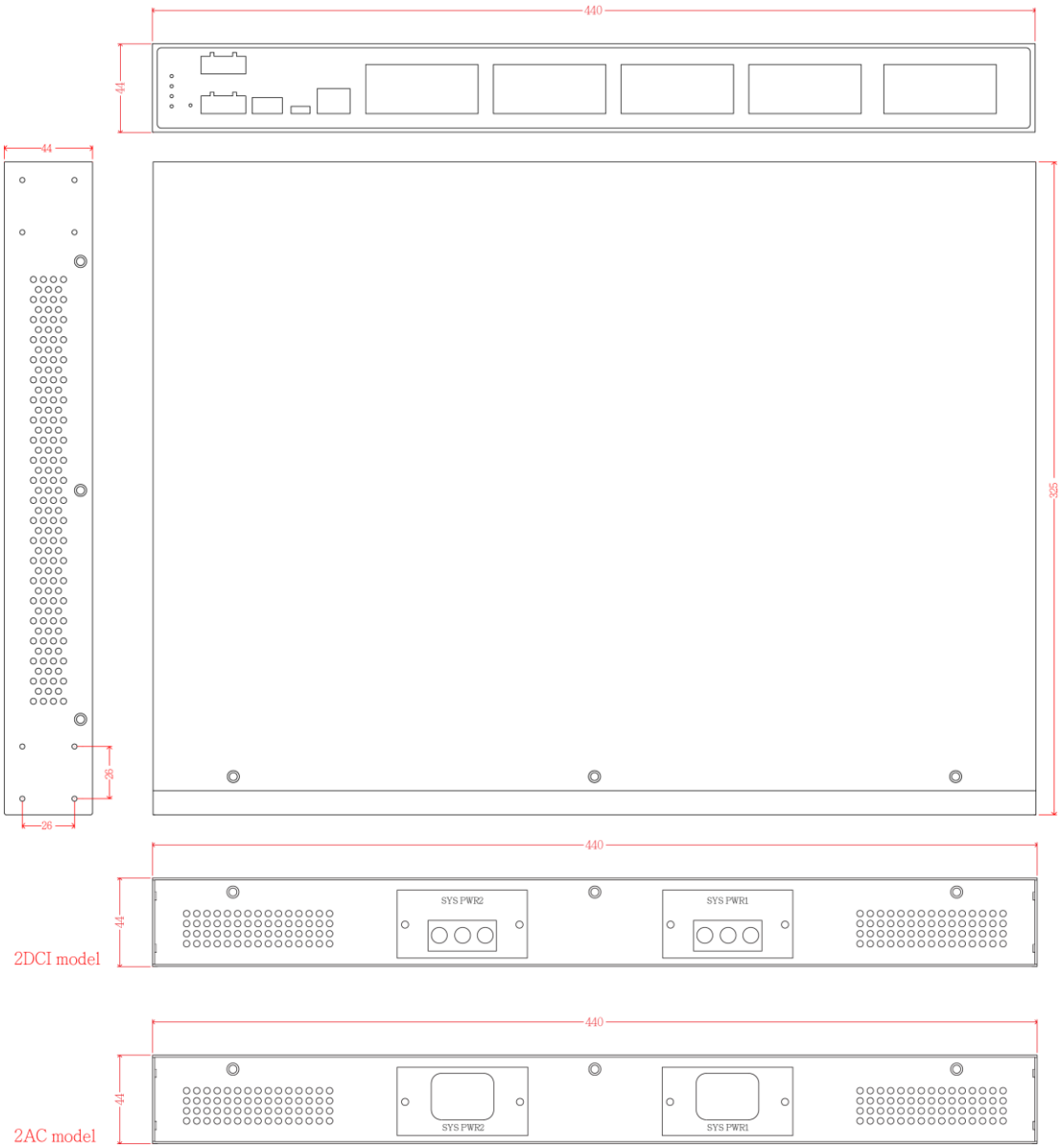
https://www.lantechcom.tw/global/eng/download/datasheet/D-OS5.pdf

***Optional LantechView for Lantech devices maintenance***

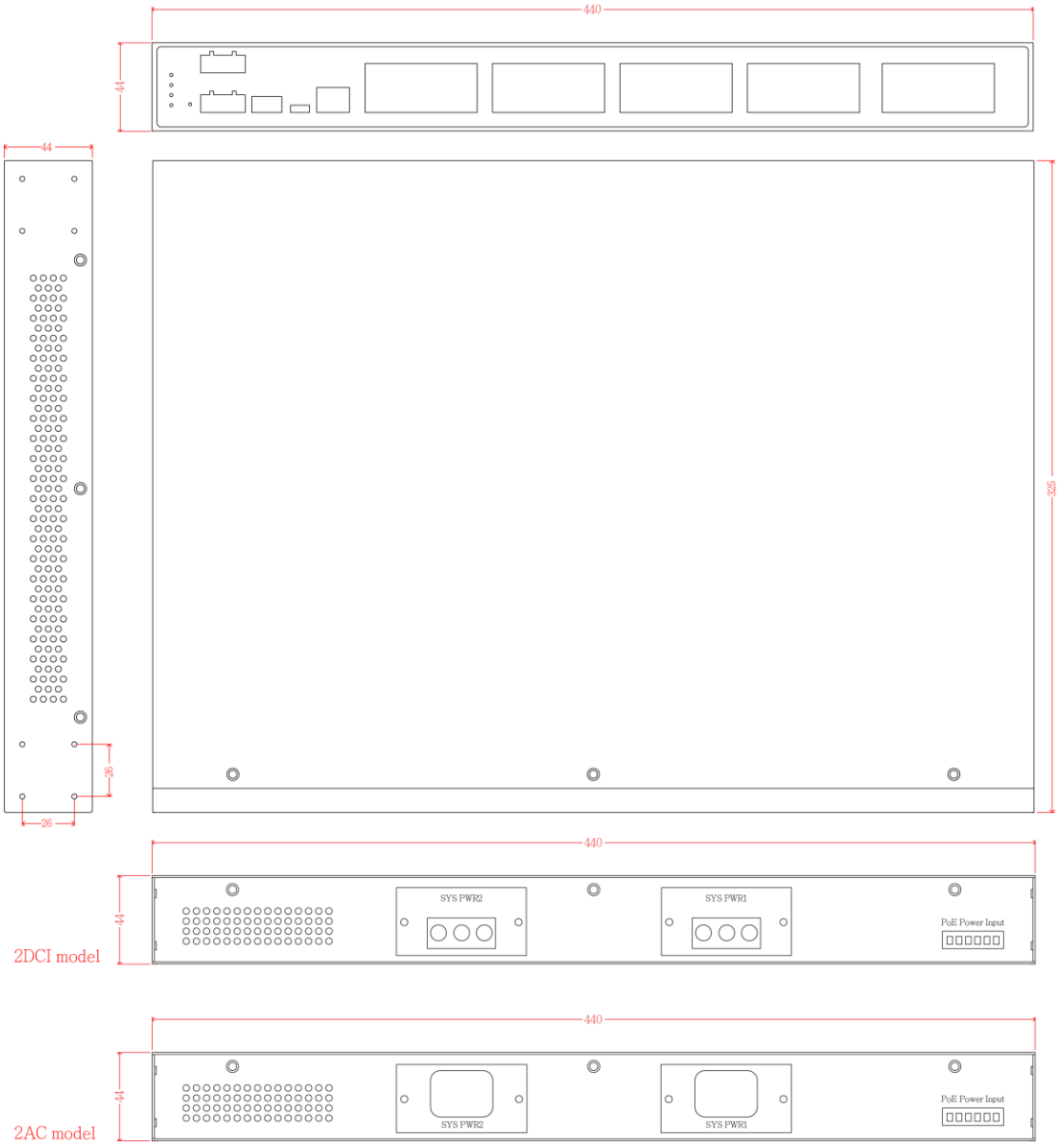
LantechView** can automatically discover Lantech devices on the network, providing seamless configuration management across multiple IP subnets and VLAN areas (single device and batch). It also supports firmware management, allowing single and batch verification and simultaneous upgrades to the latest firmware versions. To learn more about Lantech LantechView** software solutions, please refer to https://www.lantechcom.tw/global/eng/download/datasheet/D-LantechView.pdf

## DIMENSIONS (unit=mm)

Non-PoE model



PoE model




## SPECIFICATIONS

### Hardware Specification

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|---|---|
| Standards | IEEE802.3 10Base-T Ethernet<br>IEEE802.3u 100Base-TX<br>IEEE802.3ab 1000Base-T<br>IEEE802.3an 10Gbase-T<br>IEEE 802.3u 100BASE-FX<br>IEEE 802.3z 1000BASE-SX / 1000BASE-LX<br>IEEE 802.3ae 10GBASE-SR (850nm multi-mode) /10GBASE-LR (1310nm single-mode) / 10GBASE-ER (1550nm single-mode)<br>IEEE802.3x Flow Control and Back Pressure<br>IEEE802.3ax Port trunk with LACP<br>IEEE802.1d Spanning Tree<br>IEEE802.1w Rapid Spanning Tree<br>IEEE802.1s Multiple Spanning Tree<br>IEEE802.3ad Link Aggregation Control Protocol (LACP)<br>IEEE802.1AB Link Layer Discovery Protocol<br>(LLDP)<br>IEEE802.1X User Authentication (Radius)<br>IEEE802.1p Class of Service<br>IEEE802.1Q VLAN Tag<br>IEEE802.3at/af Power over Ethernet<br>Type 3 IEEE802.3bt Power over Ethernet<br>Type 4 IEEE802.3bt Power over Ethernet |
| Switch Architecture | Back-plane (Switching Fabric): 224 Gbps |
| Mac Address | 16K MAC address table |
| Jumbo frame | 10KB |
| Connectors | 10/100/1000T: 16 x ports RJ-45 with Auto MDI/MDI-X function<br>Mini-GBIC: 16 x 100M/1G SFP + 8 x 1G/2.5G/10G SFP+ auto-sensing cage with DDMI<br>Console: USB2.0 type C<br>USB2.0 type A slot for upload/download config |

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| | file<br>Out-Of-Band connector: RJ45 *1 |
| Optical Cable | **1Gbps:**<br>Multi-mode: 0 to 550 m, 850 nm (50/125 µm); 0 to 2 km, 1310 nm (50/125 µm)<br>Single mode: 0 to 10 km/ 30 km/ 40 km, 1310 nm (9/125 µm); 0 to 50 km/ 60 km/ 80km/ 120 km, 1550 nm (9/125 µm)<br>**2.5Gbps**<br>Multi-mode: 0 to 300 m, 850 nm (50/125 µm);<br>Single mode: 0 to 2 km/ 15 km/ 40 km, 1310 nm (9/125 µm); 0 to 40 km/ 80 km/ 100km, 1550 nm (9/125 µm)<br>**WDM 1Gbps:**<br>Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1310 nm (9/125 µm); 0 to 80 km, 1490 nm (9/125 µm); 0 to 10 km/ 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 µm)<br>**WDM 2.5Gbps**<br>Single mode: 0 to 5 km/ 20 km/ 40 km/ 60 km, 1310 /1550nm (9/125 µm); 0 to 80 km, 1490/1550 nm (9/125 µm)<br>**10Gbps**<br>Multi-mode: 0 to 300 m, 850 nm (OM3 50/125 µm);<br>Single mode: 0 to 10 km/ 20 km, 1310 nm (9/125 µm); 0 to 40 km/ 80km/ 100 km, 1550 nm (9/125 µm)<br>**WDM 10Gbps**<br>Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1270/1330 nm (9/125 µm); 0 to 80km, 1490/1550 nm (9/125 µm) |
| LED | Per unit: Power 1 (Green), Power 2 (Green), FAULT (Red)<br>R.M. indicator (Green)<br>100M/1G Mini-GBIC: Link/Active (Green); Speed (Orange)<br>2.5G/5G/10G Mini-GBIC: Link/Activity (Green); Speed (Orange) |
| Operating | 5% ~ 95% (Non-condensing) |

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| Humidity | |
| Operating Temperature | -20°C~60°C / -4°F~140°F<br>-40°C~75°C / -40°F~167°F (-E models) |
| Storage Temperature | -40°C~85°C / -40°F~185°F |
| Power Supply | 2DCI model: Galvanic isolated 16.8~137.5VDC<br>2AC model: 2x 90-264VAC IEC320 power input socket |
| PoE Budget (PoE model) | 480W (-16 AT model)<br>720W (-8 T4 BT model) |
| PoE pin assignment (PoE model) | RJ45 port #1~#16 (AT 30W)<br>RJ45 port #1.3.5.7.9.11.13.15 (BT 90W)<br>Support IEEE 802.3bt/at/af End-point, Alternative A mode |
| Power Consumption | Max. 70W w/o PoE load |
| Dimensions | Metal case. IP-30<br>440mm(W)x88mm(H)x325mm(D) |
| Weight | 5kgs |
| Installation | Rackmount Design |
| EMI & EMS | FCC Part 15 Class A<br>EN61000-6-2<br>EN61000-6-4<br>CE EN55032 Class A<br>CE EN55035<br>CE EN61000-4-2 (ESD) Level 3<br>CE EN61000-4-3 (RS) Level 3<br>CE EN61000-4-4 (EFT) Level 3<br>CE EN61000-4-5 ED3 (Surge) Level 3<br>CE EN61000-4-6 (CS) Level 3<br>CE EN61000-4-8 (Magnetic field) Level 3 |
| Verifications | EN50121-1/EN50121-4; EN50125-3, EN50124-1/IEC60664-1, EN61140-1 |
| MTBF | TBC |

## Software Specification

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|---|---|
| Lantech OS5 Platform | Download Software Datasheet |

*Future release
**Optional

## ORDERING INFORMATION

2AC; 2DCI are fixed configurations for ordering, user cannot add or remove the power supply on their own.
Add -PTP for PTP models; add -MacSec for MacSec models; add -SEC for Cybersecurity models For LantechView, L3 Lite (L3L), or L3 software, please refer to the corresponding software part numbers as listed in the software datasheet.

- **IGS-H7832XF-DFT-2DCI ……..P/N: 8361-051**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply; IP30 rackmount design; -20°C to 60°C
- **IGS-H7832XF-DFT-2DCI-E ……..P/N: 8361-05101**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply; IP30 rackmount design; -40°C to 75°C
- **IGS-H7832XF-DFT-2AC-EU...…..P/N: 8361-0511**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90-264VAC IEC320 power conversion; IP30 rackmount design; -20°C to 60°C, EU power cord
- **IGS-H7832XF-DFT-2AC-EU-E..…..P/N: 8361-05111**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90-264VAC IEC320 power conversion; IP30 rackmount design; -40°C to 75°C, EU power cord
- **IGS-H7832XF-DFT-2AC-UK.....…..P/N: 8361-05112**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90-264VAC IEC320 power conversion; IP30 rackmount design; -20°C to 60°C, UK power cord
- **IGS-H7832XF-DFT-2AC-UK-E...…..P/N: 8361-05113**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90-264VAC IEC320 power conversion; IP30 rackmount design; -40°C to 75°C, UK power cord
- **IGS-H7832XF-DFT-2AC-US...…..P/N: 8361-05114**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90-264VAC IEC320 power conversion; IP30 rackmount design; -20°C to 60°C, US power cord
- **IGS-H7832XF-DFT-2AC-US-E...…..P/N: 8361-05115**
  16 10/100/1000T + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90-264VAC IEC320 power conversion; IP30 rackmount design; -40°C to 75°C, US power cord
- **IPGS-H7832XF-DFT-16-2DCI ……..P/N: 8361-0512**

16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C

- **IPGS-H7832XF-DFT-16-2DCI-E ……...P/N: 8361-05121**
  16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C
- **IPGS-H7832XF-DFT-16-2AC-EU.....….P/N: 8361-0513**
  16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C, EU power cords
- **IPGS-H7832XF-DFT-16-2AC-EU-E...….P/N: 8361-05131**
  16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C, EU power cords
- **IPGS-H7832XF-DFT-16-2AC-UK.....….P/N: 8361-05132**
  16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C, UK power cords
- **IPGS-H7832XF-DFT-16-2AC-UK-E....….P/N: 8361-05133**
  16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C, UK power cords
- **IPGS-H7832XF-DFT-16-2AC-US.....…..P/N: 8361-05134**
  16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C, US power cords
- **IPGS-H7832XF-DFT-16-2AC-US-E.....P/N: 8361-05135**
  16 10/100/1000T PoE at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C, US power cords
- **IPGS-H7832XF-DFT-8-2DCI ….....….....P/N: 8361-0514**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C
- **IPGS-H7832XF-DFT-8-2DCI-E ……..P/N: 8361-05141**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C
- **IPGS-H7832XF-DFT-8-2AC-EU.……P/N: 8361-0515**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C, EU power cord
- **IPGS-H7832XF-DFT-8-2AC-EU-E.……P/N: 8361-05151**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C, EU power cord
- **IPGS-H7832XF-DFT-8-2AC-UK.……P/N: 8361-05152**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C, UK power cord
- **IPGS-H7832XF-DFT-8-2AC-UK-E.……P/N: 8361-05153**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C, UK power cord
- **IPGS-H7832XF-DFT-8-2AC-US.……..…P/N: 8361-05154**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -20°C to 60°C, US power cord
- **IPGS-H7832XF-DFT-8-2AC-US-E.……P/N: 8361-05155**
  16 10/100/1000T w/8 PoE T4 bt/at/af + 16 100M/1G SFP + 8 1G/2.5G/5G/10G SFP+ OS5 Managed Ethernet Switch; Built-in 2x isolated 90- 264VAC IEC320 power conversion w/ 1x 48VDC PoE power input; IP30 rackmount design; -40°C to 75°C, US power cord

## OPTIONAL ACCESSORIES

### Software package

Please refer to the software datasheet

### Power cords (2AC models)

- **EUROPE AC POWER CORDS..... P/N: 4106-00000014-001**