

ITP-800-8PH24 & ITP-600-4PH24

◀ IP56, 8x 10/100Base M12 with 8x PoE 120W, 24/48VDC

▶ IP56, 6x 10/100Base M12 with 4x PoE 90W, 24/48VDC



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- 24/48VDC redundant dual input power
- Regulated PoE output voltage
- M12/M23 connector for UTP and Power
- EN50155, EN50121-4 for railway certified
- IP56 protection for water and dust

The ITP-800-8PH24 and ITP-600-4PH24 are unmanaged, Fast Ethernet, PoE switches, that provides 8 or 6 x 10/100Base-TX PoE+ Ethernet ports. The Ethernet switches are designed for industrial applications in harsh environments with Ethernet ports that utilize M12 connectors to ensure water-tight, robust connections and guarantee reliable operation against environmental disturbances such as vibration and shock. The ITP-800-8PH24 and ITP-600-4PH24 Ethernet switches are compliant with EN50155, covering operating temperature, power input voltage, surge, ESD, vibration, and shock, thus making these switches suitable for industrial applications in vehicle, rolling stock and factory automation.

Features

- Use M12/M23 connector anti vibration and shock for vehicle, rolling stock, and railway applications
- 24/48VDC (20~57VDC) redundant dual input power with built-in very high efficiency (97~98%) to boost PoE output voltage to 50VDC
- Regulated PoE output voltage (50VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100 meters (Figure 2)
- Wide operating temperature -40~75°C (ITP-800-8PH24, ITP-600-4PH24)
- CE, FCC, EN62368-1, EN50155 and EN50121-4 for railway certified
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified

Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3x Flow Control and Back Pressure IEEE 802.3af PoE (Power over Ethernet) IEEE 802.3at PoE+ (Power over Ethernet enhancements)
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps (ITP-800-8PH24) 1.2Gbps (ITP-600-4PH24) (Full wire-speed)
Data Processing	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
MAC Address Table	1 K
Packet Buffer Size	448Kbits
Network Connector	8x M12 D-code Female (ITP-800-8PH24) 6x M12 D-code Female (ITP-600-4PH24) 10/100Base-TX auto negotiation speed Auto MDI/MDI-X function Full/Half duplex
Network Cable	UTP/STP Cat. 5e cable above EIA/TIA-568 100-ohm (100meter)
Protocols	CSMA/CD
LED	Per unit: Power 1 (Green), Power 2 (Green) Per port: Link/Active (Green) PoE Port LED 1x LED /per Port : • PoE Output Power On : ON (Green)
Reverse Polarity Protection	Present for power input
Overload Current Protection	Supported
PoE Standard	IEEE 802.3af, IEEE 802.3at
PoE Power Budget	PoE power budget 120W (30W/port) (ITP-800-8PH24) PoE power budget 90W (30W/ port) (ITP-600-4PH24) Regulated PoE output voltage at 50VDC (Figure 2)

Power Supply	Provide 1x M23 (5-Pin, male) for redundant dual DC 24/48V (20~57VDC) input power Built-in very high efficiency (97~98%) to boost PoE output voltage to 50VDC Regulate PoE output voltage (50VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100 meters (Figure 2)				
Power Consumption	ITP-800-8PH24				
	Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget	Boost Efficiency
	24 VDC	125W	3.6W	120W	98%
	48 VDC	127W	4.3W	120W	97%
	ITP-600-4PH24 TBD				
Operating Temperature	-10°C~60°C (ITP-800-8PH24, ITP-600-4PH24) -40°C~75°C (ITP-800-8PH24, ITP-600-4PH24)				
Operating Humidity	5% to 95% (Non-condensing)				
Storage Temperature	-40°C~85°C				
Housing	IP56 water-proof grade housing, and fanless				
Dimensions	67 x 71.4 x 219.5 mm (D x W x H)				
Weight	715g (ITP-800-8PH24) TBD (ITP-600-4PH24)				
Installation Mounting	Wall mounting				
MTBF	937,878 Hours (ITP-800-8PH24) TBD (ITP-600-4PH24) (MIL-HDBK-217)				
Warranty	5 years				

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EN50155 PoE Switch ITP-800-8PH24 & ITP-600-4PH24

Certification	
EMC	CE (EN55024, EN55032)
EMI	FCC, FCC Part 15 Subpart B Class A CE
Railway Traffic	EN50155, EN50121-4
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4

EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria B
	EN61000-4-3 (RS) Level 3, Criteria A
	EN61000-4-4 (Burst) Level 3, Criteria A
	EN61000-4-5 (Surge) Level 3, Criteria B
	EN61000-4-6 (CS) Level 3, Criteria A
Safety	EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
	EN61000-4-11 Voltage Dips
	EN62368-1
Shock	IEC 61373
Freefall	IEC 60068-2-32
Vibration	IEC 61373

Application

Figure 1 : EN50155 PoE switch in Smart Bus application

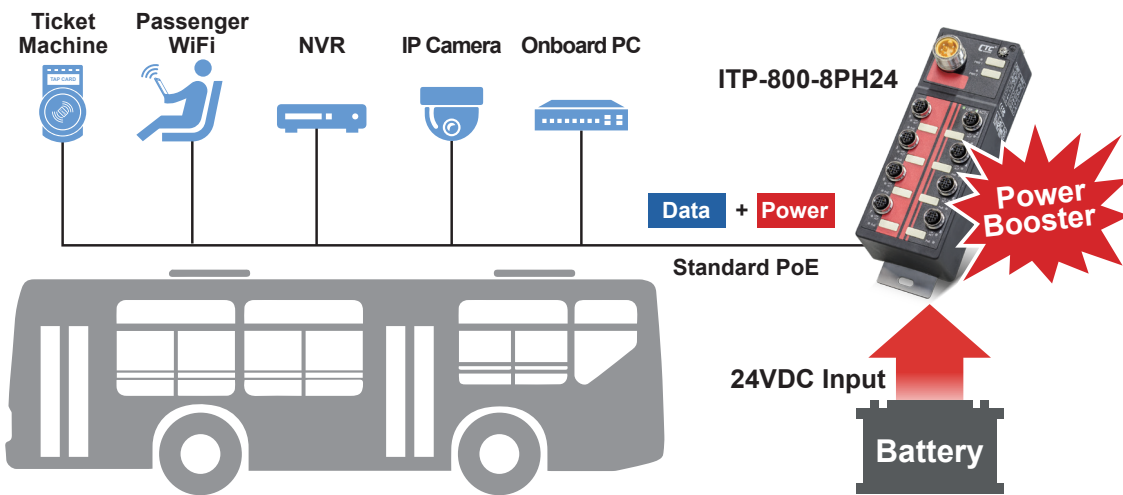
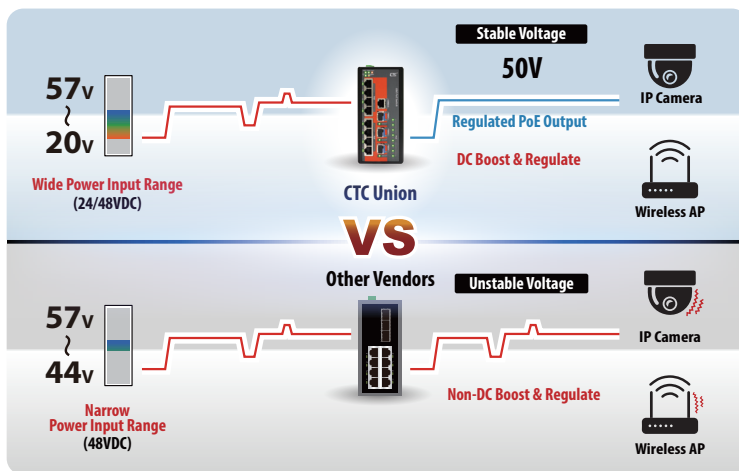
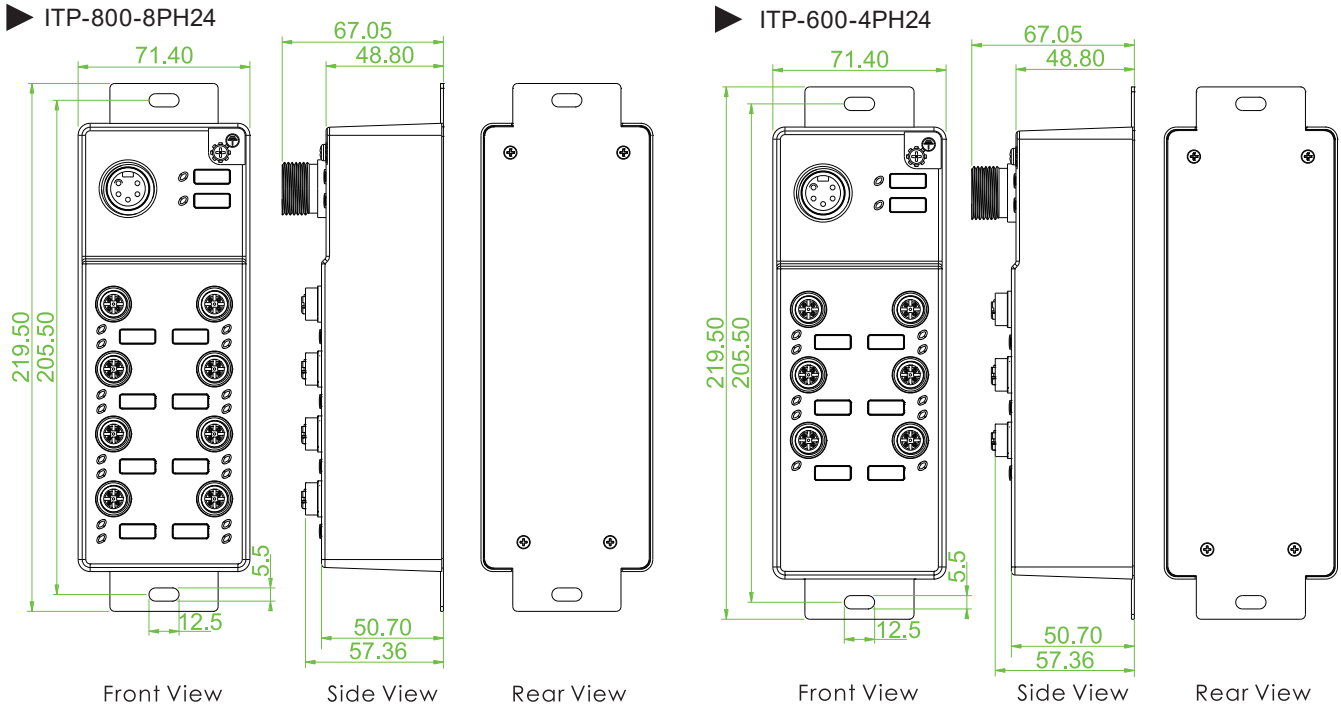


Figure 2 : High efficiency boost technology for PoE



- Regulated PoE output voltage (50VDC) to stabilize PoE device
- Guarantee delivery PoE power distance to 100 meters
- Wide range input power 24/48VDC (20~57VDC)
- Built-in very high efficiency (97~98%) to boost PoE output voltage

Dimensions



Ordering Information

Model Name	Total Port	UTP Port M12 10/100 Base-TX	PoE Port IEEE802.3at	PoE Total Power Budget	Power Input Redundant	Certification				Shock Vibration IEC61373	Operating Temperature	
						EN50155	EN50121-4	EN62368-1	EN61000-6-2 EN61000-6-4			
ITP-800-8PH24	8	8	8	120W	24/48VDC	V	V	V	V	V	V	-10~60°C
ITP-800-8PHE24	8	8	8	120W	24/48VDC	V	V	V	V	V	V	-40~75°C
ITP-600-4PH24	6	6	4	90W	24/48VDC	V	V	V	V	V	V	-10~60°C
ITP-600-4PHE24	6	6	4	90W	24/48VDC	V	V	V	V	V	V	-40~75°C

Package List

- ITP-800-8PH24 & ITP-600-4PH24 device • Wall mount
- Protective caps for UTP port

Optional Accessories

Optional Cable/Connector

P/N: CAB-M12DM4-RJ45

M12 D-code Male (4-Pin) to RJ-45, AWG 24, IP67, 1 meter



For 100M UTP

P/N: CAB-M23F5-OPEN

M23 Female (5-Pin) to open wire, (AWG 16), IP67, 1 meter



For Power

P/N: M12D-M4

M12 D-code Male (4-Pin) connector, IP67



For 100M UTP