# PT-G7728/G7828 Quick Installation Guide

### Edition 1.0, December 2017

#### Technical Support Contact Information www.moxa.com/support

### <u>Moxa Americas</u>: Toll-free: 1-888-669-2872 Tel: 1-714-528-6777

Fax: 1-714-528-6778 Moxa Europe:

Tel: +49-89-3 70 03 99-0 Fax: +49-89-3 70 03 99-99

# <u>Moxa India</u>:

Tel: +91-80-4172-9088 Fax: +91-80-4132-1045 <u>Moxa China (Shanghai office)</u>: Toll-free: 800-820-5036 Tel: +86-21-5258-9955 Fax: +86-21-5258-5505

<u>Moxa Asia-Pacific</u>: Tel: +886-2-8919-1230 Fax: +886-2-8919-1231



<sup>© 2017</sup> Moxa Inc. All rights reserved.



# Package Checklist

Moxa's PT-G7728/G7828 industrial rackmount switch is shipped with the following items. If any of these items are missing or damaged, please contact your customer service representative for assistance.

- 1 PT-G7728 or G7828 switch
- USB cable (Type A male to Micro USB type B)
- 2 protective caps for unused ports, 3 protective caps for unused USB ports
- 2 rackmount ears
- Quick installation guide (printed)
- Substance Disclosure Table
- Product Certificate of Quality Inspection (Simplified Chinese)
- Product Notices (Simplified Chinese)
- Warranty card

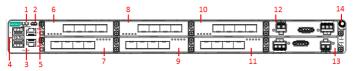
**NOTE** You can find information and software downloads on the relevant product pages located on Moxa's website: <u>www.moxa.com</u>

### **Default Settings**

- Default IP address: 192.168.127.253
- Default Subnet Mask: 255.255.255.0
- Default Usernames: admin, user
- Default Password: moxa

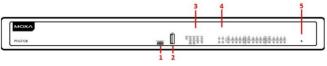
### **Panel Layouts**

#### Front Panel



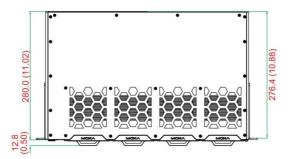
- System status LEDs (from left to right) STATE LED indicator, MSTR/HEAD LED indicator, FAULT LED indicator, CPLR/Tail LED indicator, SYNC LED indicator
- 2. USB console port
- 3. 2 x 10/100/1000BaseT(X) and 2 x 100/1000Base SFP ports
- 4. 100/1000Base SFP port status LEDs
- 5. 10/100/1000 BaseT(X) port status LEDs
- 6. Ethernet module slot 1
- 7. Ethernet module slot 2
- 8. Ethernet module slot 3
- 9. Ethernet module slot 4
- 10. Ethernet module slot 5
- 11. Ethernet module slot 6
- 12. Power module slot 1
- 13. Power module slot 2
- 14. Grounding screw

#### **Rear View**

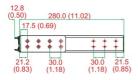


- 1. USB console port
- 2. USB storage port
- 3. System LED indicators
- 4. Module and port LED indicators
- 5. Rest button

### Dimensions







Unit: mm (inches)

### **Ethernet Modules**

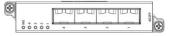
#### LM-7000H-4GTX



#### LM-7000H-4GPoE



#### LM-7000H-4GSFP



### **Power Modules**

#### PWR-HV-P48







### **Rack Mounting Instructions**

- Elevated Operating Temperature: If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
- **NOTE** In order to ensure reliable operations, please make sure the operating temperature of the environment does not exceed the spec. When mounting a rack-mounted switch with other operating units in a cabinet without forced ventilation, it is recommended that 1U of space is reserved between each rack-mounted switch and/or device.
  - 2. Required Air Flow: Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
  - **3. Mechanical Loading:** Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
  - **4. Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
  - Reliable Grounding: Reliable grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

**NOTE** The rackmount ears can be installed on the front or rear of the PT-G7728/G7828 switch.



# ATTENTION

#### Safety First!

Be sure to disconnect the power cord before installing and/or wiring your Ethernet Switch. Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes dictating the maximum current allowable for each wire size. If the current goes above the maximum ratings, the wiring could overheat, which can cause serious damage to your equipment.

# **Connecting the Power Inputs**

The PT-G7728/PT-G7828 switches support 2 types of power supply:

- PWR-HV-P48: one 110/220 VAC/VDC (90 to 264 VAC, 88 to 300 VDC), one 48VDC PoE power input for PoE+ ports.
- PWR-LV-P48: one 24/48 VDC (18 to 72 VDC), one 48 VDC PoE power input for PoE+ ports.

For the PWR-HV-P48, the 110/220 VAC/VDC power supplies provide power to the switch. Separate 48 VDC power supplies are required to provide power to all PoE+ ports (50 to 57 VDC is recommended for IEEE 802.3at devices).

For the PWR-LV-P48 models, the 24/48 VDC power supplies provide power to the switch. Separate 48 VDC power supplies are required to provide power to all PoE+ ports (50 to 57 VDC is recommended for IEEE 802.3at devices).

### **Wiring Requirements**



### WARNING

Do not disconnect modules or wires unless power has been switched off or the area is known to be non-hazardous. The device may only be connected to the supply voltage shown on the type plate. The device is designed for operation with a Safety Extra-Low Voltage (SELV) or an isolated power supply, which means that they may only be connected to the supply voltage connections and to the signal contact with a SELV or an isolated power supply in compliance with IEC 60950-1/EN 60950-1 or UL 61010.

### **Power Terminal Blocks**

The connection for power input and PoE external power supply is on the power modules.



#### PWR-HV-P48

STEP 1: Insert the neutral/line (L/N/Ground) AC wires into the terminals.

STEP 2: Insert the terminal block connector into the terminal block receptor.

#### PWR-LV-P48

STEP 1: Insert the negative/positive (-/+) DC wires into the terminals.

STEP 2: Insert the terminal block connector prongs into the terminal block receptor.

# **PoE Power Terminal Blocks**

STEP 1: Insert the negative/positive DC wires into the -/+ terminals, respectively.

 $\ensuremath{\mathsf{STEP}}\xspace$  2: Insert the terminal block connector prongs into the terminal block receptor.

- **NOTE** In order to have higher levels of protection against surge, it is suggested to install a surge protector in front of the power input of the PoE powered device so that it is suitable for use in IEC 61850 conditions.
- **NOTE** When wiring the power input, we suggest using the cable type -AWG (American Wire Gauge) 18 (1.03mm2) and the corresponding pin type cable terminals. The connector must be able to withstand torque at maximum 5 pound-inches. The rated temperature of wiring should be at least 105°C.
- **NOTE** When installing 2 power units on the PT-G7728/G7828 switch, only power 1 (installed in the upper slot) will activate and provide power. The other power unit, power 2 (installed in the lower slot) will be on standby.
- **NOTE** The reverse power input connection will not activate the device or PoE input. In addition, the PoE will only activate when the system power input is installed on the same power unit.

# Wiring the Relay Contact

Each power module has one relay output that can provide two types of relay output. Refer to the table below for detailed information.

The relay contact is used to detect user-configured events. Two wires are attached to the relay pins with normally close and normally open options.

#### FAULT:

The relay contact of the 3-pin terminal block connector is used to detect user-configured events. The module provides normally open and normally closed circuits depending on what the user chooses. For pin definitions refer to the table below.

Relay connection	Power on state	Event trigger
NO and COM	Closed circuit	Open circuit
NC and COM	Open circuit	Closed circuit

**NOTE** When wiring the relay contact, we suggest using the cable type - AWG (American Wire Gauge) 16-24 (1.31-0.205mm2) and the corresponding pin type cable terminals. The connector must be able to withstand torque at maximum 5 pound-inches. The rated temperature of wiring should be at least 105°C.

# Install/Remove the Ethernet module

The Ethernet modules are hot-swappable. You have the option to mount or remove the Ethernet module while the device is operating.

The installation procedure is as follows:

- 1. Insert the Ethernet module straight into the slot
- Fasten the module to the device by tightening the 2 screws. The tightening torque is 3.5 kgf-cm (0.35 Nm)

The removal procedure is as follows:

- 1. Loosen the 2 screws of the module
- 2. Pull the module out of the slot
- 3. Insert the dummy module in to the slot in order to have better protection against dust and EMI
- 4. Fasten the dummy module using 2 screws. The tightening torque is 4 kgf-cm (0.40 Nm)

### Install/Remove the Power module

The power supply units are hot-swappable. You have the option to mount or remove the power supply units while the device is operating.

The installation procedure is as follows:

- 1. Insert the power unit straight into the slot
- Fasten the unit to the device by tightening the 2 screws. The tightening torque is 3.5 kgf-cm (0.35 Nm)

The removal procedure is as follows:

- 1. Loosen the 2 screws of the module
- 2. Pull the module out of the slot
- 3. Insert the dummy module in to the slot in order to have better protection against dust and EMI.
- Fasten the dummy module using 2 screws. The tightening torque is 4 kgf-cm (0.40 Nm)
- **NOTE** If one of the modules is removed from the device, it is advisable to insert a dummy module in order to provide better protection against dust and EMI.

### Grounding the Moxa Industrial Rackmount Switch

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices.

**NOTE** Using a shielded cable achieves better electromagnetic resistance.

### **USB Console Connection**

The switch has two types of USB port, micro USB-B console port and type A USB host port. Use a USB cable (type A male to Micro USB-B male) to connect the USB-serial console port to your PC's COM port, and install the USB driver (available on Moxa Website) onto the PC. You can then use a console terminal program, such as Moxa's PComm Terminal Emulator, to access the console configuration utility of the switch.

www.ipc2u.ru

www.ipę2u.com

# **USB Storage Connection**

The USB storage port is on the rear panel of the PT-G7728/G7828 switch. (Type A connector; see the diagram below for pinout assignments). Use Moxa's ABC-02-USB automatic backup configurator to connect to the PT-G7728/G7828 USB storage port in order to perform configuration backup, firmware upgrade, or system log file backup.



Pin	Description
1	VCC (+5V)
2	D- (Data-)
3	D+ (Data+)
4	GND (Ground)

# The Reset Button

The reset button can perform two functions. One is to reset the PT-G7728/G7828 switch back to factory default settings and the other is to perform a quick back up of configuration and log files to the ABC-02-USB automatic backup configurator.

# **Reset to Factory Default Settings**

Depress the Reset button for five seconds to load the factory default settings. Use a pointed object, such as a straightened paper clip or toothpick, to depress the Reset button. When you do so, the STATE LED will start to blink about once per second. Continue to depress the STATE LED until it begins blinking more rapidly; this indicates that the button has been depressed for five seconds and you can release the Reset button to load factory default settings.

**NOTE** DO NOT power off the switch when loading default settings.

# Configuration and Log Files Back Up

When the ABC-02-USB is connected to the PT-G7728/G7828 switch, the reset button allows for a quick back up of configuration and event logs to the ABC-02-USB. Press the reset button to start backing up the current system configuration files and event logs to the ABC-02-USB.

**NOTE** When the ABC-02 is plugged in, you cannot reset to factory default by pressing the reset button.

# **LED Indicators**

The front panel of the PT-G7728/G7828 switch contains several LED indicators. The function of each LED is described in the table below.

LED	Color	State	Description
			System LEDs
	On	System has passed self-diagnosis test on	
	STATE Green	UII	boot-up and is ready to run
STATE			1. When pressing the reset button for 5
STAIL	Green	Blinking	seconds, the LED will blink continuously
	DIIIKIIIY	(1 time/s) until resetting to factory	
			default

LED	Color	State	Description
			2. When an ABC-02 automatic backup
			device is detected, the LED will blink
			slowly (1 time/2s)
			System failed self-diagnosis on boot up.
	Ded	0.5	Switch Initiate fail
	Red	On	Fail Firmware Checksum Fail/
			Uncompressed Fail
			One of the following has happened:
1			1. ABC Loading/Saving Failure
			2. The port has been disabled because the
		On	ingress multicast and broadcast
FAULT	Red	OII	packets exceed the ingress rate limit
			3. Incorrect loop connection in a single
			switch
			4. The Ring port connection is not valid
		Off	System is in normal operation
		On	PTP function is enabled
	Amber	Dlinking	The device is starting to receive the sync
SYNC		Blinking	packet
	Croon	0.5	The PTP function has successfully
	Green	On	converged
			1. This switch is set as the Master of the
		On	Turbo Ring, or as the Head of the Turbo
			Chain.
			2. POST H.W. Fail (+State on and Fault
			blinking)
			1. The switch has become the Ring Master
			of the Turbo Ring.
MSTR/			2. Head of the Turbo Chain, after the
HEAD	Green	Blinking	Turbo Ring or the Turbo Chain went
TILAD		Dilliking	down.
			3. The switch is set as Turbo Chain's
			Member and the corresponding chain
			port is down.
			1. The switch is not the Master of this
		Off	Turbo Ring.
		on	2. The switch is set as a Member of the
			Turbo Chain.
			1. The switch coupling function is enabled
			to form a backup path.
		On	2. It is set as the Tail of the Turbo Chain.
			3. POST S.W. Fail (+State on and Fault
			blinking)
CPLR/	Green		1. Turbo Chain is down.
TAIL	Green	Blinking	2. The switch is set as Turbo Chain's
		Dimining	Member and the corresponding chain
			port is down.
			1. This switch disabled the coupling
		Off	function.
			2. Set as a Member of the Turbo Chain.
			g/exporting data from or to an ABC-02-USB
automat	ic backup	device, th	e FAULT, MSTR/HEAD, and CPLR/TAIL LEDs

will blink in sequence.

LED	Color	State	Description
		P	ort Status LEDs
		On	Port's 1000 Mbps link is active
	Green	UII	PoE port is connected to PoE device.
	Green	Blinking	Data is transmitting at 1000 Mbps
		DIIIKIIIY	PoE port is connected to PoE device.
		On	Port's 10/100 Mbps link is active
	Amber		PoE port is connected to PoE device.
Ports	AIIIDEI	Blinking	Data is transmitting at 10/100 Mbps
1 to 4			PoE port is connected to PoE device.
1 10 4			PoE power failure:
			<ul> <li>Once per second: PoE detection failure</li> </ul>
		On	<ul> <li>Twice per second: short-circuit,</li> </ul>
	Red	UII	overloading, or outside operating
			temperature range
		Off	Port's link is inactive

# PT-G7728/G7828 (Rear Panel view)

LED	Color	State	Description
			System LEDs
Green STATE Red		On	System has passed self-diagnosis test on boot up and is ready to run
	Green	Blinking	<ol> <li>When pressing the reset button for 5 seconds, the LED will blink continuously (1 time/s) until resetting to factory default</li> <li>When an ABC-02 automatic backup device is detected, the LED will blink slowly (1 time/2s)</li> </ol>
	On	<ul> <li>System failed self-diagnosis on boot-up.</li> <li>Switch Initiate fail</li> <li>Fail Firmware Checksum Fail/ Uncompressed Fail</li> </ul>	
FAULT	Red	On	<ol> <li>One of the following has happened:</li> <li>ABC-02 Loading/Saving Failure</li> <li>The port has been disabled because the ingress multicast and broadcast packets exceed the ingress rate limit</li> <li>Incorrect loop connection in a single switch</li> <li>The ring port connection is not valid</li> <li>System is in normal operation</li> </ol>
		On	PTP function is enabled
SYNC	Amber	Blinking	The machine is starting to receive the sync packet
	Green	On	The PTP function is successfully converged.
MSTR/ HEAD	Green	On	<ol> <li>This switch is set as the Master of the Turbo Ring, or as the Head of the Turbo Chain.</li> <li>POST H.W. Fail (+State on and Fault blinking)</li> </ol>
		Blinking	1. The switch has become the Ring Master of

LED	Color	State	Description		
			the Turbo Ring.		
			2. Head of the Turbo Chain, after the Turbo		
			Ring or the Turbo Chain went down.		
			3. The switch is set as Turbo Chain's		
			Member and the corresponding chain port		
			is down.		
			1. The switch is not the Master of this Turbo		
		Off	Ring.		
		011	2. The switch is set as a Member of the		
			Turbo Chain.		
			1. The switch coupling function is enabled to		
		0	form a back-up path.		
		On	2. It is set as the Tail of the Turbo Chain.		
			3. POST S.W. Fail (+State on and Fault		
CPLR/	Green		blinking) 1. Turbo Chain is down.		
TAIL	Green		<ol> <li>Turbo Chain is down.</li> <li>The switch is set as Turbo Chain's</li> </ol>		
		Blinking	Member and the corresponding chain port		
			is down.		
			1. This switch disabled the coupling function		
		Off	2. Set as a Member of the Turbo Chain.		
			Power is being supplied to the main module's		
		On	power input PWR1		
PWR1	Amber		Power is not being supplied to the main		
		Off	module's power input PWR1		
			Power is being supplied to the main module's		
		On	power input PWR2		
		Dulasta	The unit in the power 2 is acting as a slave		
PWR2	Amber	Pulsate	mode and not providing power to main		
		Slowly	system.		
		Off	Power is not being supplied to the main		
		Off	module's power input PWR2		
		On	Power is being supplied to the PoE+ power		
EPS1	Amber		input EPS1		
2.01		Off	Power is not being supplied to the PoE+		
			power input EPS1		
		On	Power is being supplied to the PoE+ power		
EPS2	Amber	Amber	Amber		input EPS2
		Off	Power is not being supplied to the PoE+		
			power input EPS2		
			Port Status LEDs		
		On	Port's 1000 Mbps link is active		
	Green		PoE port is connected to PoE device. Data is transmitting at up to 1000 Mbps		
		Blinking			
			PoE port is connected to PoE device.		
Ports 1 to 28 A		Off	Port's link is inactive Port's 10/100 Mbps link is active		
	Amber	On	PoE port is connected to PoE device.		
	Ambel		Data is transmitting at up to 10/100 Mbps		
		Blinking	PoE port is connected to PoE device.		
		Off	Port's link is inactive		
	Red		PoE power failure:		
	Reu	On	Once/second: PoE detection failure		
		1			

LED	Color	State	Description
			• Twice/second: short-circuit, overloading,
			or over temperature

#### LM-7000H-4GTX

LED	Color	State	Description
	Green	een On	Module has passed self-diagnosis test on
MS	Green	UII	boot-up and is ready to run.
(Module State)	Red	On	This module malfunctions.
State	Off		The module is unpowered and out of service
	Green	On	Port's 1000 Mbps link is active
Deute		Blinking	Data is transmitting at 1000 Mbps
Ports 1 to 4	Amber	On	Port's 10/100 Mbps link is active
1 (0 4		Blinking	Data is transmitting at 10/100 Mbps
	Off		Port's link is inactive

# LM-7000H-4GSFP

LED	Color	State	Description
MS	Current	Green On	Module has passed self-diagnosis test on
Module	Green	UII	boot-up and is ready to run.
(Module State)	Red	On	This module malfunctions.
State	0	FF	The module is unpowered and out of service
	Green	On	Port's 1000 Mbps link is active
Ports		Blinking	Data is transmitting at up to 1000 Mbps
1 to 4	Amber	On	Port's 100 Mbps link is active
1 (0 4		Blinking	Data is transmitting at up to 10/100 Mbps
	Off		Port's link is inactive

# LM-7000H-4GPoE

LED	Color	State	Description
MS	Green	On	Module has passed self-diagnosis test on
Module	Green	UII	boot-up and is ready to run.
(Module State)	Red	On	This module malfunctions.
State)	C	Off	The module is unpowered and out of service
		On	External power supply is working for PoE+
EPS	Amber	on	power output
	Amber	Off	External power supply is not working for PoE+
		011	power output
	Green	On	Port's 1000 Mbps link is active
Ports	Uleen	Blinking	Data is transmitting at 1000 Mbps
1 to 4	Amber	On	Port's 10/100 Mbps link is active
1 10 4		Blinking	Data is transmitting at 10/100 Mbps
	Off		Port's link is inactive
	Green	On	PoE port is connected to PoE device, using the 802.3at standard.
PoE/	Amber	iber On	PoE port is connected to PoE device, using the
PoE+ Ports	AIIIDEI		802.3af standard.
			PoE power failure:
1 to 4	Red	On	<ul> <li>Once/second: PoE detection failure</li> </ul>
	Reu	UII	<ul> <li>Twice/second: short-circuit, overloading,</li> </ul>
			or over temperature

### PWR-HV-P48

LED	Color	State	Description
	On	Power is being supplied to the PoE+ power input EPS	
EPS	Amber	Off	Power is not being supplied to the PoE+ power input EPS
PWR	Angle On	Power is being supplied to the unit	
PWR Amber	Off	Power is not being supplied to the unit	

### PWR-LV-P48

LED	Color	State	Description
EPS	Amber	On	Power is being supplied to the PoE+ power
			input EPS1
		Off	Power is not being supplied to the PoE+
			power input EPS1
PWR	Amber	On	Power is being supplied to the unit
		Off	Power is not being supplied to the unit

# Specifications

Technology	
Standards	IEEE 802.3af/at for Power-over-Ethernet
	IEEE 802.3 for 10BaseT
	IEEE 802.3u for 100BaseT(X) and 100BaseFX
	IEEE 802.3ab for 1000BaseT(X)
	IEEE 802.3z for 1000BaseX
	IEEE 802.3x for Flow Control
	IEEE 802.1D-2004 for Spanning Tree Protocol
	IEEE 802.1w for Rapid STP
	IEEE 802.1s for Multiple Spanning Tree Protocol
	IEEE 802.1Q for VLAN Tagging
	IEEE 802.1p for Class of Service
	IEEE 802.1X for Authentication
	IEEE 802.3ad for Port Trunk with LACP
Protocols	IPv4, IPv6(PT-G7728 only), SNMPv1/v2c/v3, DHCP
	Server/Client, DHCP Option 66/67/82, BootP, TFTP,
	SNTP, SMTP, RARP, RMON, HTTP, HTTPS, Telnet,
	SNMP Inform, LLDP, Flow Control, Back Pressure Flow
	Control, Port Mirror, Fiber Check, Syslog, Dying Gasp,
	IGMPv1/v2/v3, GMRP, GVRP, 802.1Q, Q-in-Q VLAN,
	STP/RSTP, MSTP, Turbo Ring v1/v2, Turbo Chain, Link
	Aggregation, RADIUS, TACACS+, SSL, SSH, Port Lock,
	Broadcast Storm Protection, MAC Authentication
	Bypass, MAC Sticky, Access Control Lists, Time
	Management: SNTP, NTP Server/Client, IEEE 1588v2
	PTP (hardware-based), EtherNet/IP, Modbus/TCP
	PT-G7828 only: VRRP, RIP V1/V2, OSPF, DVMRP,
	PIM-DM
MIB	MIB-II, Ethernet-like MIB, P-BRIDGE MIB, Q-BRIDGE
	MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3,
	9
Flow Control	IEEE 802.3x flow control, back pressure flow control

Gigabit Ethernet2-ports 10/100/1000Base STPConsole PortUSB console (Micro USB-B connector)LED IndicatorsPWR1, PWR2, EPS1, EPS2, STATE, SYNC, FAULT, MSTR/HEAD, CPLR/TAILAlarm Contact2A@30VDC or 0.5A @ 125VAC <b>Power Requirements</b> 110/220 VDC), (110VAC, 60H2), (220VAC, 50H2), PoE: 48 VDC (53 to 57 VDC is recommended of POE+ device) <b>PWR-LV-P48:</b> VDC is recommended of PoE+ device) <b>PWR-HV-P48:</b> (10/220 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDCOperating <b>PWR-HV-P48:</b> (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDCPower <b>When using PWR-HV-P48:</b> (10 VDC: 12.5 W (without modules 220 VDC: 11.3 W 220 VAC: 15.8 W When using PWR-LV-P48: 220 VAC: 15.8 W When using PWR-LV-P48: 220 VAC: 15.8 W When using PWR-LV-P48: 220 VAC: 15.8 W When using PWR-HV-P48: 220 VAC: 15.8 W When using PWR-HV-P48: 220 VDC: 11.7 W 48 VDC: 11.8 W Consumption of LM-7000H-4GSFP: 1.56 W LM-7000H-4GSFP: 1.56 W LM-7000H-4GSFP: 1.58 W (without modules 110 VAC: 0.29 A 220 VDC: 0.17 A 110 VAC: 0.29 A 220 VDC: 0.17 A 110 VAC: 0.29 A 220 VDC: 0.18 A When using PWR-LV-P48: 24 VDC: 0.18 A When using PWR-LV-P48: 24 VDC: 0.49 A 48 VDC: 0.25 A (t > 0.1ms) 220Vac: < 20 VC: 0.49 A 48 VDC: 0.25 A (t > 0.1ms), 48V: < 10A (t > 0.1ms)Overload Current ProtectionPresent ProtectionProtectionPresent ProtectionProtectionPresent ProtectionPusical Characteristics HousingIP30 protection IP30 protectionPunesions443 x 44 x 280 mm (17.32 x 1	Interface				
100/1000Base SFPConsole PortUSB console (Micro USB-B connector)LED IndicatorsPWR1, PWR2, EPS1, EPS2, STATE, SYNC, FAULT, MSTR/HEAD, CPLR/TAILAlarm Contact2A@30VDC or 0.5A @ 125VACPower RequirementsInput VoltagePWR-HV-P48: (110/220 VDC), (110VAC, 60Hz), (220VAC, 50Hz), PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)OperatingPWR-HV-P48: VDC is recommended of PoE+ device)OperatingPWR-HV-P48: (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDCPowerWhen using PWR-HV-P48: (without modulesConsumption110 VDC: 12.5 W(without modules220 VDC: 13.3 WConsumption)200 VAC: 15.8 WWhen using PWR-LV-P48: 24 VDC: 11.7 W48 VDC: 11.7 W48 VDC: 11.7 W48 VDC: 0.12 Aconsumption of LM-7000H-4GTX: 1.98 WInput CurrentWhen using PWR-LV-P48: (24 VDC: 0.07 A110 VAC: 0.29 A 220 VAC: 0.18 AWhen using PWR-LV-P48: 24 VDC: 0.25 APeak InrushPWR-LV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: < 20 VAC: 0.18 AWhen using PWR-LV-P48: 20 VAC: 0.25 APeak InrushPWR-LV-P48: 24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms)Overload Current ProtectionProsentProtectionProtectionProtectionPWR-LV-P48: 20 Mg(0.66lb)LM-7000H-4GFY: 0.3kg (0.66lb)LM-7000H-4GFY: 0.3kg (0.66lb)		2 parts 10/100/1000PasaT(X) and 2 parts			
Console PortUSB console (Micro USB-B connector)LED IndicatorsPWR1, PWR2, EPS1, EPS2, STATE, SYNC, FAULT, MSTR/HEAD, CPLR/TAILAlarm Contact2A@30VDC or 0.5A @ 125VACPower RequirementsInput VoltagePWR-HV-P48: (110/220 VDC), (110VAC, 60Hz), (220VAC, 50Hz), PoE: 48 VDC (53 to 57 VDC is recommended of POE+ device)PWR-LV-P48: 24/48 VDC, POE: 48 VDC (53 to 57 VDC is recommended of POE+ device)PWR-LV-P48: 24/48 VDC, POE: 48 VDC (53 to 57 VDC is recommended of POE+ device)OperatingPWR-HV-P48: (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), POE: 46 to 57 VDCPowerWhen using PWR-HV-P48: (10 VDC: 12.5 W 220 VAC: 15.8 W 220 VAC: 11.7 W 48 VDC: 0.29 A 220 VDC: 0.07 A 110 VDC: 0.12 A 220 VDC: 0.07 A 110 VDC: 0.12 A 220 VDC: 0.07 A 110 VAC: 0.29 A 220 VDC: 0.07 A 110 VAC: 0.29 A 220 VDC: 0.07 A 110 VAC: 0.25 APeak InrushPWR-HV-P48: 110Vac: < 10A (t > 0.1ms) PWR-HV-P48: 110Vac: < 5A (t > 0.1ms) 20Vac: <	Gigabit Ethernet				
LED Indicators         PWR1, PWR2, EPS1, EPS2, STATE, SYNC, FAULT, MSTR/HEAD, CPLR/TAIL           Alarm Contact         2A@30VDC or 0.5A @ 125VAC           Power Requirements         Input Voltage           Input Voltage         PWR-HV-P48: (110/220 VDC), (110VAC, 60Hz), (220VAC, 50Hz), PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-HV-P48: (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC           Power         When using PWR-HV-P48: (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC           Power         When using PWR-HV-P48: (10 VDC: 12.5 W           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           200 VAC: 13.5 W         220 VAC: 15.8 W           When using PWR-LV-P48: 24 VDC: 11.7 W           Power         LM-7000H-4GFYE: 1.98 W (w/o PoE output)           Input Current         When using PWR-HV-P48: 110 VDC: 0.12 A           (without modules         110 VDC: 0.12 A           (without modules         220 VDC: 0.07 A           110 VDC: 0.12 A         220 VAC: 0.18 A           When using PWR-LV-P48: 24 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: < 20 A(c : 0.18 A           When using PWR-LV-P48: 24Vdc: <5A (t	Concelle Deut				
MSTR/HEAD, CPLR/TAIL           Alarm Contact         2A@30VDC or 0.5A @ 125VAC           Power Requirements         [110/220 VDC), (110VAC, 60Hz), (220VAC, 50Hz), PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           PWR-HV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)         PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-LV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VDC: 13.5 W           20 VAC: 13.5 W         220 VAC: 15.8 W           When using PWR-LV-P48:         24 VDC: 11.7 W           Power         LM-7000H-4GFYE: 1.96 W           Consumption of         LM-7000H-4GFYE: 1.98 W (w/o POE output)           Input Current         When using PWR-LV-P48:           (without modules         110 VDC: 0.12 A           consumption)         220 VDC: 0.07 A           110 VAC: 0.29 A         220 VAC: 0.18 A           When using PWR-LV-P48:         24 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms), 48V: < 10A (t > 0.1ms) <td>-</td> <td></td>	-				
Alarm Contact         2A@30VDC or 0.5A @ 125VAC           Power Requirements           Input Voltage         PWR-HV-P48: (110/220 VDC), (110VAC, 60Hz), (220VAC, 50Hz), PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-HV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48: (10 VDC: 12.5 W           Consumption         110 VDC: 13.5 W           220 VAC: 15.8 W         When using PWR-LV-P48: 24 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of Imput Current (without modules consumption)         110 VDC: 0.12 A 220 VDC: 0.17 A 110 VAC: 0.12 A 220 VDC: 0.07 A 110 VAC: 0.29 A 220 VAC: 0.18 A When using PWR-LV-P48: 110 VAC: 0.29 A 220 VAC: 0.18 A When using PWR-LV-P48: 24 VDC: 0.49 A 48 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A ( t > 0.1ms) 220Vac: < 20A ( t > 0.1ms) PWR-LV-P48: 24Vdc: < 5A ( t > 0.1ms), 48V: < 10A ( t > 0.1ms)           Overload Current Protection         Present           Protection         Present           Protection         Present           Protection         Present           Protection         Present           Protection         Present           P	LED Indicators				
Power Requirements           Input Voltage         PWR-HV-P48: (110/220 VDC), (110VAC, 60Hz), (220VAC, 50Hz), PoE: 48 VDC (53 to 57 VDC is recommended of POE+ device)           PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of POE+ device)           Operating         PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of POE+ device)           Operating         PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of POE+ device)           Operating         PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VAC: 15.8 W           Z0 VAC: 15.8 W         When using PWR-LV-P48:           VOC : 11.7 W         48 VDC         20 VAC: 15.8 W           Power         LM-7000H-4GTX: 1.98 W (w/o POE output)           IM-7000H-4GFSP: 1.56 W         Mondule           Consumption of         LM-7000H-4GFSP: 1.56 W           Module         10 VDC: 0.12 A           Consumption         20 VDC: 0.07 A           110 VDC: 0.12 A         20 VDC: 0.18 A           When using PWR-LV-P48:         20 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <           Current         20A (t > 0.1ms)           VPW-LV-P48: 24Vdc: <5A (t > 0.1ms), 48					
Input Voltage         PWR-HV-P48: (110/220 VDC), (110VAC, 60Hz), (220VAC, 50Hz), PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48: Consumption           Consumption         110 VDC: 12.5 W           (without modules consumption)         220 VDC: 13.3 W           220 VDC: 11.7 W         48 VDC: 11.7 W           YBOWer         LM-7000H-4GSFP: 1.56 W           LM-7000H-4GSFP: 1.56 W         LM-7000H-4GSFP: 1.56 W           Consumption of Module         LM-7000H-4GSFP: 1.56 W           LM-7000H-4GSFP: 1.98 W (w/o PoE output)         IN VDC: 0.12 A           Consumption)         220 VDC: 0.07 A           110 VDC: 0.12 A         220 VDC: 0.18 A           When using PWR-LV-P48:         24 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <					
$ \begin{array}{c} (110/220 \ VDC), (110 VAC, 60Hz), (220 VAC, 50Hz), \\ PoE: 48 \ VDC (53 to 57 \ VDC is recommended of PoE+ \\ device) \\ \hline PWR-LV-P48: 24/48 \ VDC, PoE: 48 \ VDC (53 to 57 \ VDC is recommended of PoE+ device) \\ \hline Operating \ PWR-HV-P48: (88 to 300 \ VDC), (90 to 264 \ VAC, 47 to 63 \ Hz), PoE: 46 \ to 57 \ VDC \ PWR-LV-P48: 18 \ to 72 \ VDC, PoE: 46 \ to 57 \ VDC \ PWR-LV-P48: 18 \ to 72 \ VDC, PoE: 46 \ to 57 \ VDC \ PWR-LV-P48: 18 \ to 72 \ VDC, PoE: 46 \ to 57 \ VDC \ PWR-LV-P48: 18 \ to 72 \ VDC, PoE: 46 \ to 57 \ VDC \ PWR-LV-P48: 110 \ VDC: 12.5 \ W \ When using \ PWR-LV-P48: 20 \ VDC: 13.3 \ W \ 220 \ VAC: 15.8 \ W \ When using \ PWR-LV-P48: 24 \ VDC: 11.7 \ W \ 48 \ VDC: 11.7 \ W \ 48 \ VDC: 11.7 \ W \ 48 \ VDC: 11.7 \ W \ VDC \ DOW \ Consumption of \ LM-7000H-4GFNE: 1.98 \ W \ (w/o \ PoE \ output) \ ID \ VAC: 0.29 \ A \ 220 \ VAC: 0.18 \ A \ When using \ PWR-LV-P48: 24 \ VDC: 0.17 \ A \ 220 \ VAC: 0.18 \ A \ When using \ PWR-LV-P48: 24 \ VDC: 0.17 \ A \ 220 \ VAC: 0.18 \ A \ When using \ PWR-LV-P48: 24 \ VDC: 0.17 \ A \ 220 \ VAC: 0.18 \ A \ When using \ PWR-LV-P48: 24 \ VDC: 0.17 \ A \ 220 \ VAC: 0.18 \ A \ When using \ PWR-LV-P48: 24 \ VDC: 0.17 \ A \ 220 \ VAC: 0.18 \ A \ When using \ PWR-LV-P48: 24 \ VDC: 0.17 \ A \ 220 \ VAC: 0.18 \ A \ When using \ PWR-LV-P48: 24 \ VDC: 0.178 \ A \ VDC: 0.25 \ A \ Peak \ Inrush \ PWR-HV-P48: 110 \ VAC: < 10A \ (t > 0.1ms) \ 220 \ VAC: < 20 \ A \ (t > 0.1ms) \ A8V: < 10A \ (t > 0.1ms) \ PWR-LV-P48: 24 \ VDC: < 5A \ (t > 0.1ms), \ 48V: < 10A \ (t > 0.1ms) \ PWR-LV-P48: 24 \ VDC: < 0.28 \ A \ A \ A \ A \ A \ A \ A \ A \ A \ $	Power Requirements				
PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-LV-P48:           Voltage         (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC           PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           220 VAC: 11.7 W         48 VDC: 11.7 W           48 VDC: 11.7 W         48 VDC: 0.00H-4GSFP: 1.56 W           Consumption of         LM-7000H-4GSFP: 1.56 W           Consumption of         LM-7000H-4GSFP: 1.56 W           Input Current         When using PWR-LV-P48:           (without modules         110 VDC: 0.12 A           220 VDC: 0.07 A         110 VAC: 0.29 A           220 VDC: 0.49 A         48 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <           Quertain         Quertain         Quertain           PWR-LV-P48: 24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms)         20Vac: <           Quertain         Present         Protection           Protection         Present         Protection<	Input Voltage	-			
device)         PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-HV-P48: (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC           POwer         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           200 VAC: 15.8 W         When using PWR-LV-P48:           VOC: 11.7 W         48 VDC: 11.7 W           Power         LM-7000H-4GSFP: 1.56 W           Consumption of         LM-7000H-4GSFP: 1.56 W           Consumption         LM-7000H-4GSFP: 1.56 W           Consumption         110 VDC: 0.12 A           consumption         220 VDC: 0.07 A           110 VAC: 0.29 A         220 VAC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <					
PWR-LV-P48: 24/48 VDC, PoE: 48 VDC (53 to 57 VDC is recommended of PoE+ device)           Operating         PWR-HV-P48: (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC           PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48: (without modules 220 VDC: 13.3 W           Consumption         110 VDC: 12.5 W           When using PWR-LV-P48: 220 VAC: 15.8 W         When using PWR-LV-P48: 24 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of Module         LM-7000H-4GFSF: 1.56 W           Input Current (without modules 200 VDC: 0.07 A         110 VDC: 0.12 A           Consumption)         VDC: 0.12 A           200 VDC: 0.07 A         110 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: < 204 (t > 0.1ms)           Overload Current Protection         PWR-HV-P48: 10Vac: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms)           Overload Current Protection         Present           Protection         Present <td></td> <td></td>					
VDC is recommended of PoE+ device)           Operating         PWR-HV-P48:           Voltage         (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC           PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           220 VAC: 15.8 W         When using PWR-LV-P48:           24 VDC: 11.7 W         48 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of         LM-7000H-4GSFP: 1.56 W           module         LM-7000H-4GFPE: 1.98 W (w/o PoE output)           Input Current         When using PWR-HV-P48:           (without modules         110 VDC: 0.12 A           consumption)         220 VDC: 0.07 A           110 VAC: 0.29 A         220 VAC: 0.18 A           When using PWR-LV-P48:         24 VDC: 0.49 A           48 VDC: 0.25 A         Peak Inrush           PWR-HV-P48: 110Vac: < 10A (t > 0.1ms), 48V: < 10A (t > 0.1ms)           Querload Current         Present           Protection         Present           Protection         Present           Protection         Present					
Operating         PWR-HV-P48:           Voltage         (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC           Power         PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           220 VAC: 15.8 W         When using PWR-LV-P48:           24 VDC: 11.7 W         48 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of         LM-7000H-4GFP: 1.56 W           module         LM-7000H-4GFP: 1.98 W (w/o PoE output)           Input Current         When using PWR-HV-P48:           (without modules         110 VDC: 0.12 A           consumption)         220 VDC: 0.07 A           110 VAC: 0.29 A         220 VAC: 0.18 A           When using PWR-LV-P48:         24 VDC: 0.49 A           48 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <					
Voltage       (88 to 300 VDC), (90 to 264 VAC, 47 to 63 Hz), PoE: 46 to 57 VDC         PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC         Power       When using PWR-HV-P48:         Consumption       110 VDC: 12.5 W         (without modules       220 VDC: 13.3 W         200 VDC: 15.8 W       200 VAC: 15.8 W         When using PWR-LV-P48:       24 VDC: 11.7 W         24 VDC: 11.7 W       48 VDC: 11.7 W         Power       LM-7000H-4GTX: 1.98 W         Consumption of       LM-7000H-4GTX: 1.98 W (w/o PoE output)         Input Current       When using PWR-HV-P48:         (without modules       110 VDC: 0.12 A         consumption)       110 VDC: 0.12 A         200 VAC: 0.18 A       When using PWR-LV-P48:         When using PWR-LV-P48:       24 VDC: 0.19 A         220 VAC: 0.18 A       When using PWR-LV-P48:         24 VDC: 0.25 A       Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <					
to 57 VDC         PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           20 VAC: 15.8 W         When using PWR-LV-P48:           24 VDC: 11.7 W         48 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of         LM-7000H-4GSFP: 1.56 W           Module         LM-7000H-4GSFP: 1.98 W (w/o PoE output)           Input Current         When using PWR-HV-P48:           (without modules         110 VDC: 0.12 A           consumption)         10 VDC: 0.12 A           220 VAC: 0.18 A         When using PWR-LV-P48:           When using PWR-LV-P48:         24 VDC: 0.49 A           48 VDC: 0.25 A         20 VAC: 0.1ms)           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <	Operating				
PWR-LV-P48: 18 to 72 VDC, PoE: 46 to 57 VDC           Power         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           220 VAC: 15.8 W         When using PWR-LV-P48:           24 VDC: 11.7 W         48 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of         LM-7000H-4GFP: 1.56 W           Input Current         When using PWR-LV-P48:           (without modules         10 VDC: 0.12 A           consumption)         200 VAC: 0.18 A           When using PWR-LV-P48:         220 VAC: 0.49 A           24 VDC: 0.25 A         24 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <	Voltage				
Power         When using PWR-HV-P48:           Consumption         110 VDC: 12.5 W           (without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           220 VAC: 15.8 W         When using PWR-LV-P48:           24 VDC: 11.7 W         48 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of         LM-7000H-4GSFP: 1.56 W           Module         LM-7000H-4GSPF: 1.98 W (w/o PoE output)           Input Current         When using PWR-HV-P48:           (without modules         110 VAC: 0.12 A           consumption)         220 VDC: 0.07 A           110 VAC: 0.29 A         220 VAC: 0.18 A           When using PWR-LV-P48:         24 VDC: 0.19 A           48 VDC: 0.25 A         24 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A ( t > 0.1ms) 220Vac: <					
Consumption         110 VDC: $12.5$ W           (without modules         220 VDC: $13.3$ W           consumption)         110 VAC: $13.5$ W           220 VAC: $15.8$ W         When using PWR-LV-P48:           24 VDC: $11.7$ W         48 VDC: $11.7$ W           Power         LM-7000H-4GTX: $1.98$ W           Consumption of         LM-7000H-4GSFP: $1.56$ W           Module         LM-7000H-4GSFP: $1.98$ W (w/o PoE output)           Input Current         When using PWR-HV-P48:           (without modules         110 VDC: $0.12$ A           consumption)         220 VDC: $0.07$ A           110 VDC: $0.29$ A         220 VAC: $0.18$ A           When using PWR-LV-P48:         24 VDC: $0.25$ A           Peak Inrush         PWR-HV-P48: $110Vac: < 10A$ ( $t > 0.1ms$ ) $220Vac: <$					
(without modules         220 VDC: 13.3 W           consumption)         110 VAC: 13.5 W           220 VAC: 15.8 W         When using PWR-LV-P48:           24 VDC: 11.7 W         48 VDC: 11.7 W           Power         LM-7000H-4GTX: 1.98 W           Consumption of         LM-7000H-4GSFP: 1.56 W           Module         LM-7000H-4GSFP: 1.56 W           Input Current         When using PWR-HV-P48:           (without modules         110 VDC: 0.12 A           consumption)         220 VDC: 0.07 A           110 VAC: 0.29 A         220 VAC: 0.18 A           When using PWR-LV-P48:         24 VDC: 0.19 A           24 VDC: 0.25 A         24 VDC: 0.25 A           Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <	Power	-			
consumption)       110 VAC: 13.5 W         220 VAC: 15.8 W       When using PWR-LV-P48:         24 VDC: 11.7 W       48 VDC: 11.7 W         Power       LM-7000H-4GTX: 1.98 W         Consumption of       LM-7000H-4GSFP: 1.56 W         Input Current       When using PWR-HV-P48:         (without modules       110 VDC: 0.12 A         consumption)       220 VDC: 0.07 A         110 VAC: 0.29 A       220 VAC: 0.18 A         When using PWR-LV-P48:       24 VDC: 0.49 A         48 VDC: 0.25 A       24 VDC: 0.49 A         Peak Inrush       PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <	Consumption				
$\begin{array}{c} 220 \ VAC: 15.8 \ W \\ \mbox{When using } PWR-LV-P48: \\ 24 \ VDC: 11.7 \ W \\ 48 \ VDC: 11.7 \ W \\ 48 \ VDC: 11.7 \ W \\ \mbox{Wer} \\ \mbox{Consumption of } \\ \mbox{LM-7000H-4GSFP: 1.56 \ W \\ \mbox{LM-7000H-4GSFP: 1.98 \ W (w/o \ PoE \ output)} \\ \mbox{Input Current } \\ \mbox{When using } PWR-HV-P48: \\ \mbox{(without modules } \\ \mbox{110 \ VDC: 0.12 \ A } \\ \mbox{220 \ VDC: 0.07 \ A } \\ \mbox{110 \ VAC: 0.29 \ A } \\ \mbox{220 \ VAC: 0.18 \ A } \\ \mbox{When using } PWR-LV-P48: \\ \mbox{24 \ VDC: 0.49 \ A } \\ \mbox{48 \ VDC: 0.25 \ A } \\ \mbox{Peak Inrush } \\ \mbox{PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) } \\ \mbox{PWR-LV-P48: 24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms) \\ \mbox{PWR-LV-P48: 24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms) \\ \mbox{Pwretction } \\ \mbox{Physical Characteristics } \\ \mbox{Housing } \\ \mbox{Posent } \\ \mbox{Protection } \\ \mbox{Physical Characteristics } \\ \mbox{Housing } \\ Physical C$	(without modules	220 VDC: 13.3 W			
When using PWR-LV-P48: $24 \text{ VDC: } 11.7 \text{ W}$ $48 \text{ VDC: } 11.7 \text{ W}$ Power         LM-7000H-4GTX: $1.98 \text{ W}$ Consumption of         LM-7000H-4GSFP: $1.56 \text{ W}$ module         LM-7000H-4GPoE: $1.98 \text{ W} (w/o \text{ PoE output})$ Input Current         When using PWR-HV-P48:           (without modules         110 VDC: $0.12 \text{ A}$ consumption)         220 VDC: $0.07 \text{ A}$ 110 VAC: $0.29 \text{ A}$ 220 VAC: $0.18 \text{ A}$ When using PWR-LV-P48:         220 VAC: $0.18 \text{ A}$ When using PWR-LV-P48:         24 VDC: $0.25 \text{ A}$ Peak Inrush         PWR-HV-P48: $110 \text{Vac: } < 10A (t > 0.1ms) 220 \text{Vac: } <$	consumption)				
24 VDC: 11.7 W         48 VDC: 11.7 W         48 VDC: 11.7 W         Power       LM-7000H-4GTX: 1.98 W         Consumption of       LM-7000H-4GSFP: 1.56 W         Input Current       When using PWR-HV-P48:         (without modules       110 VDC: 0.12 A         consumption)       220 VDC: 0.07 A         110 VAC: 0.29 A       220 VAC: 0.18 A         When using PWR-LV-P48:       24 VDC: 0.49 A         24 VDC: 0.25 A       20 VAC: 0.25 A         Peak Inrush       PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <					
48 VDC: 11.7 WPowerLM-7000H-4GTX: 1.98 WConsumption of moduleLM-7000H-4GSFP: 1.56 WInput Current (without modulesWhen using PWR-HV-P48:(without modules110 VDC: 0.12 Aconsumption)220 VDC: 0.07 A110 VAC: 0.29 A220 VAC: 0.18 AWhen using PWR-LV-P48:24 VDC: 0.49 A48 VDC: 0.25 APeak InrushPWR-HV-P48: 110Vac: < 10A ( t > 0.1ms) 220Vac: <		5			
PowerLM-7000H-4GTX: $1.98 \text{ W}$ Consumption of moduleLM-7000H-4GSFP: $1.56 \text{ W}$ Input Current (without modulesWhen using PWR-HV-P48: $110 \text{ VDC}: 0.12 \text{ A}$ consumption)220 VDC: $0.07 \text{ A}$ $110 VAC: 0.29 \text{ A}$ $220 VAC: 0.18 \text{ A}$ When using PWR-LV-P48: $220 VAC: 0.18 \text{ A}$ When using PWR-LV-P48: $24 \text{ VDC}: 0.49 \text{ A}$ $48 \text{ VDC}: 0.25 \text{ A}$ Peak InrushPWR-HV-P48: $110\text{ Vac: } < 10\text{ A} ( t > 0.1\text{ms}) \text{ 220Vac: } <20\text{ A} ( t > 0.1\text{ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ms}), 48V: < 10\text{ A} ( t > 0.1\text{ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ms}), 48V: < 10A ( t > 0.1\text{ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ms}), 48V: < 10A ( t > 0.1\text{ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ms}), 48V: < 10A ( t > 0.1\text{ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ms}), 48V: < 10A ( t > 0.1\text{ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PWR-LV-P48: } 24 \text{ VdC: } < 5A ( t > 0.1\text{ ms}), 48V: < 10A ( t > 0.1\text{ ms}) \text{ PVR-24} \text$		-			
Consumption of moduleLM-7000H-4GSFP: $1.56 \text{ W}$ LM-7000H-4GPoE: $1.98 \text{ W}$ (w/o PoE output)Input Current (without modulesWhen using PWR-HV-P48: $220 \text{ VDC: } 0.12 \text{ A}$ $220 \text{ VDC: } 0.07 \text{ A}$ $110 \text{ VAC: } 0.29 \text{ A}$ $220 \text{ VAC: } 0.18 \text{ A}$ When using PWR-LV-P48: $24 \text{ VDC: } 0.49 \text{ A}$ $48 \text{ VDC: } 0.25 \text{ A}$ Peak Inrush CurrentPWR-HV-P48: $110\text{ Vac: } < 10\text{ A} ( t > 0.1\text{ms}) \text{ 220Vac: } <20 \text{ (} t > 0.1\text{ms})PWR-LV-P48: 24 \text{ VdC: } < 5A ( t > 0.1\text{ms}), 48\text{V: } < 10\text{ A} ( t > 0.1\text{ms})Overload CurrentProtectionPresentPresentPhysical CharacteristicsHousingIP30 protectionDimensions443 \times 44 \times 280 \text{ mm} (17.32 \times 1.37 \times 11.02 \text{ in})WeightPT-G7728/G7828: 3.08\text{ kg} (0.66\text{ lb})LM-7000H-4GFX: 0.24\text{ kg} (0.53\text{ lb})LM-700H-4GPOE: 0.24\text{ kg} (0.53\text{ lb})$					
moduleLM-7000H-4GPoE: $1.98 W (w/o PoE output)$ Input CurrentWhen using PWR-HV-P48:(without modules $110 VDC: 0.12 A$ consumption) $220 VDC: 0.07 A$ $110 VAC: 0.29 A$ $220 VAC: 0.18 A$ When using PWR-LV-P48: $24 VDC: 0.49 A$ $48 VDC: 0.25 A$ Peak InrushPWR-HV-P48: $110Vac: < 10A (t > 0.1ms)$ Current $20A (t > 0.1ms)$ PWR-LV-P48: $24Vdc: < 5A (t > 0.1ms)$ , $48V: < 10A (t > 0.1ms)$ Overload CurrentProtectionReverse PolarityProtectionDimensions $443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)$ Weight $PT-G7728/G7828: 3.08kg (6.78lb)$ LM-7000H-4GFX: $0.24kg (0.53lb)$ LM-700H-4GPOE: $0.24kg (0.53lb)$ PWR-HV-P48/PWR-LV-P48: $0.3kg (0.66lb)$	Power				
Input Current (without modules consumption)When using PWR-HV-P48: 110 VDC: 0.12 A 220 VDC: 0.07 A 110 VAC: 0.29 A 220 VAC: 0.18 A When using PWR-LV-P48: 24 VDC: 0.49 A 48 VDC: 0.25 APeak Inrush CurrentPWR-HV-P48: 110Vac: < 10A ( t > 0.1ms) 220Vac: < 20A ( t > 0.1ms) PWR-LV-P48: 24Vdc: < 5A ( t > 0.1ms), 48V: < 10A ( t > 0.1ms)Overload Current ProtectionPresent PresentProtectionPresentPhysical Characteristics HousingIP30 protection DimensionsMeightPT-G7728/G7828: 3.08kg (6.78lb) LM-7000H-4GFX: 0.24kg (0.53lb) LM-7000H-4GPOE: 0.24kg (0.53lb) PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Consumption of	LM-7000H-4GSFP: 1.56 W			
	module	LM-7000H-4GPoE: 1.98 W (w/o PoE output)			
consumption)       220 VDC: 0.07 A         110 VAC: 0.29 A       220 VAC: 0.18 A         When using PWR-LV-P48:       24 VDC: 0.49 A         48 VDC: 0.25 A       200 ( $t > 0.1ms$ )         Peak Inrush       PWR-HV-P48: 110Vac: < 10A ( $t > 0.1ms$ ) 220Vac: <	Input Current	When using PWR-HV-P48:			
110 VAC: $0.29 A$ 220 VAC: $0.18 A$ When using PWR-LV-P48:         24 VDC: $0.49 A$ 48 VDC: $0.25 A$ Peak Inrush         PWR-HV-P48: $110Vac: < 10A (t > 0.1ms) 220Vac: <$ Current       20A (t > 0.1ms)         PWR-LV-P48: $24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms)$ Overload Current       Present         Protection       Present         Physical Characteristics         Housing       IP30 protection         Dimensions       443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)         Weight       PT-G7728/G7828: 3.08kg (6.78lb)         LM-7000H-4GSFP: $0.3kg (0.66lb)$ LM-700H-4GPoE: $0.24kg (0.53lb)$ LM-700H-4GPoE: $0.24kg (0.53lb)$ PWR-HV-P48/PWR-LV-P48: $0.3kg (0.66lb)$	(without modules	110 VDC: 0.12 A			
$\begin{array}{c} 220 \text{ VAC: } 0.18 \text{ A} \\ \textbf{When using PWR-LV-P48:} \\ 24 \text{ VDC: } 0.49 \text{ A} \\ 48 \text{ VDC: } 0.25 \text{ A} \\ \end{array} \\ \begin{array}{c} 24 \text{ VDC: } 0.25 \text{ A} \\ \end{array} \\ \begin{array}{c} 20 \text{ VR-HV-P48: } 110\text{ Vac: } < 10\text{ A} ( t > 0.1\text{ms} ) 220\text{ Vac: } < \\ 20\text{ A} ( t > 0.1\text{ms} ) \\ \end{array} \\ \begin{array}{c} P\text{WR-LV-P48: } 24\text{ Vdc: } < 5\text{ A} ( t > 0.1\text{ms} ), 48\text{ V: } < 10\text{ A} \\ ( t > 0.1\text{ms} ) \\ \end{array} \\ \begin{array}{c} \text{Overload Current} \\ \text{Protection} \\ \end{array} \\ \begin{array}{c} \text{Present} \\ \end{array} \\ \begin{array}{c} \text{Protection} \\ \end{array} \\ \begin{array}{c} \text{Physical Characteristics} \\ \end{array} \\ \begin{array}{c} \text{Housing} \\ \text{Dimensions} \\ \end{array} \\ \begin{array}{c} 443 \text{ x } 44 \text{ x } 280 \text{ mm } (17.32 \text{ x } 1.37 \text{ x } 11.02 \text{ in}) \\ \end{array} \\ \begin{array}{c} \text{Weight} \\ \end{array} \\ \begin{array}{c} \text{PT-G7728/G7828: } 3.08\text{ kg } (0.66\text{ lb}) \\ \text{LM-7000H-4GFX: } 0.24\text{ kg } (0.53\text{ lb}) \\ \text{LM-700H-4GPOE: } 0.24\text{ kg } (0.53\text{ lb}) \\ \text{LM-7000H-4GPOE: } 0.24\text{ kg } (0.66\text{ lb}) \\ \end{array} \\ \end{array} $	consumption)	220 VDC: 0.07 A			
When using PWR-LV-P48: $24 \text{ VDC: } 0.49 \text{ A}$ $48 \text{ VDC: } 0.25 \text{ A}$ Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <		110 VAC: 0.29 A			
$\begin{array}{c} 24 \ \text{VDC: } 0.49 \ \text{A} \\ 48 \ \text{VDC: } 0.25 \ \text{A} \\ \end{array}$ Peak Inrush $\begin{array}{c} \text{PWR-HV-P48: } 110 \ \text{Vac: } < 10 \ \text{A} \ ( \ \text{t} > 0.1 \ \text{ms} ) 220 \ \text{Vac: } < 20 \ \text{A} \ ( \ \text{t} > 0.1 \ \text{ms} ) \\ \text{PWR-LV-P48: } 24 \ \text{Vdc: } < 5 \ \text{A} \ ( \ \text{t} > 0.1 \ \text{ms} ), 48 \ \text{V: } < 10 \ \text{A} \ ( \ \text{t} > 0.1 \ \text{ms} ) \\ \end{array}$ $\begin{array}{c} \text{PWR-LV-P48: } 24 \ \text{Vdc: } < 5 \ \text{A} \ ( \ \text{t} > 0.1 \ \text{ms} ), 48 \ \text{V: } < 10 \ \text{A} \ ( \ \text{t} > 0.1 \ \text{ms} ), 48 \ \text{V: } < 10 \ \text{A} \ ( \ \text{t} > 0.1 \ \text{ms} ) \\ \end{array}$ $\begin{array}{c} \text{Overload Current} \\ \text{Protection} \\ \end{array}$ $\begin{array}{c} \text{Present} \\ \text{Protection} \\ \end{array}$ $\begin{array}{c} \text{Present} \\ \text{Protection} \\ \end{array}$ $\begin{array}{c} \text{Physical Characteristics} \\ \text{Housing} \\ \end{array}$ $\begin{array}{c} \text{IP30 \ \text{protection}} \\ \end{array}$ $\begin{array}{c} \text{Dimensions} \\ 443 \ \text{x} \ 44 \ \text{x} \ 280 \ \text{mm} \ (17.32 \ \text{x} \ 1.37 \ \text{x} \ 11.02 \ \text{in} ) \\ \end{array}$ $\begin{array}{c} \text{Weight} \\ \end{array}$ $\begin{array}{c} \text{PT-G7728} \ \text{G7828: } 3.08 \ \text{kg} \ (6.78 \ \text{lb} ) \\ \ \text{LM-7000H-4GFX: } 0.24 \ \text{kg} \ (0.53 \ \text{lb} ) \\ \ \text{LM-700H-4GPoE: } 0.24 \ \text{kg} \ (0.53 \ \text{lb} ) \\ \ \text{LM-7000H-4GPoE: } 0.24 \ \text{kg} \ (0.53 \ \text{lb} ) \\ \ \text{PWR-HV-P48} \ \text{PWR-LV-P48: } 0.3 \ \text{kg} \ (0.66 \ \text{lb} ) \end{array}$		220 VAC: 0.18 A			
$\begin{array}{c c} 48 \ VDC: \ 0.25 \ A \\ \hline \end{tabular} \\ \mbox{Peak Inrush} & \ \mbox{PWR-HV-P48: } 110 \ \mbox{Vac: } < 10A \ (t > 0.1 \ \mbox{ms}) \ \mbox{PWR-LV-P48: } 24 \ \mbox{Vdc: } < 5A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{PWR-LV-P48: } 24 \ \mbox{Vdc: } < 5A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{A8V: } < 10A \ (t > 0.1 \ \mbox{ms}), \ \mbox{ms}), \ \mbox{ms}), \ \mbox{A8V: } < 10A \ \mbox{ms}),$		When using PWR-LV-P48:			
Peak Inrush         PWR-HV-P48: 110Vac: < 10A (t > 0.1ms) 220Vac: <           Current         20A (t > 0.1ms) PWR-LV-P48: 24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms)           Overload Current         Present           Protection         Present           Physical Characteristics           Housing         IP30 protection           Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)           Weight         PT-G7728/G7828: 3.08kg (6.78lb) LM-7000H-4GSFP: 0.3kg (0.66lb)           LM-7000H-4GPoE: 0.24kg (0.53lb)         LM-7000H-4GPoE: 0.24kg (0.53lb)           PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)         PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)					
Current $20A (t > 0.1ms)$ PWR-LV-P48: $24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms)$ Overload Current ProtectionPresentProtectionPresentPhysical CharacteristicsHousingIP30 protectionDimensions443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)WeightPT-G7728/G7828: 3.08kg (6.78lb) LM-7000H-4GSFP: 0.3kg (0.66lb) LM-7000H-4GPOE: 0.24kg (0.53lb) PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)					
PWR-LV-P48: $24Vdc: < 5A (t > 0.1ms), 48V: < 10A (t > 0.1ms)$ Overload Current ProtectionPresentProtectionPresentProtectionPresentPhysical CharacteristicsHousingIP30 protectionDimensions443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)WeightPT-G7728/G7828: 3.08kg (6.78lb) LM-7000H-4GSFP: 0.3kg (0.66lb) LM-7000H-4GPCE: 0.24kg (0.53lb) PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Peak Inrush	PWR-HV-P48: 110Vac: < 10A ( t > 0.1ms) 220Vac: <			
(t > 0.1ms)         Overload Current       Present         Protection       Present         Protection       Present         Protection       Present         Physical Characteristics       Phosing         IP30 protection       Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)         Weight       PT-G7728/G7828: 3.08kg (6.78lb)         LM-7000H-4GSFP: 0.3kg (0.66lb)         LM-7000H-4GFX: 0.24kg (0.53lb)         LM-7000H-4GPoE: 0.24kg (0.53lb)         PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Current	20A ( t > 0.1ms)			
Overload Current       Present         Protection       Present         Reverse Polarity       Present         Protection       Prosent         Physical Characteristics         Housing       IP30 protection         Dimensions       443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)         Weight       PT-G7728/G7828: 3.08kg (6.78lb)         LM-7000H-4GSFP:       0.3kg (0.66lb)         LM-7000H-4GTX:       0.24kg (0.53lb)         LM-7000H-4GPoE:       0.24kg (0.53lb)         PWR-HV-P48/PWR-LV-P48:       0.3kg (0.66lb)		PWR-LV-P48: 24Vdc: < 5A ( t > 0.1ms), 48V: < 10A			
Protection         Reverse Polarity         Protection         Physical Characteristics         Housing         IP30 protection         Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)         Weight         PT-G7728/G7828: 3.08kg (6.78lb)         LM-7000H-4GSFP: 0.3kg (0.66lb)         LM-7000H-4GTX: 0.24kg (0.53lb)         LM-7000H-4GPoE: 0.24kg (0.53lb)         PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)		(t > 0.1ms)			
Reverse Polarity Protection         Present           Physical Characteristics           Housing         IP30 protection           Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)           Weight         PT-G7728/G7828: 3.08kg (6.78lb) LM-7000H-4GSFP: 0.3kg (0.66lb) LM-7000H-4GTX: 0.24kg (0.53lb) LM-7000H-4GPoE: 0.24kg (0.53lb)           PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Overload Current	Present			
Protection           Physical Characteristics           Housing         IP30 protection           Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)           Weight         PT-G7728/G7828: 3.08kg (6.78lb)           LM-7000H-4GSFP: 0.3kg (0.66lb)         LM-7000H-4GTX: 0.24kg (0.53lb)           LM-7000H-4GPoE: 0.24kg (0.53lb)         PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Protection				
Physical Characteristics           Housing         IP30 protection           Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)           Weight         PT-G7728/G7828: 3.08kg (6.78lb)           LM-7000H-4GSFP: 0.3kg (0.66lb)         LM-7000H-4GTX: 0.24kg (0.53lb)           LM-7000H-4GPoE: 0.24kg (0.53lb)         PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Reverse Polarity	Present			
Housing         IP30 protection           Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)           Weight         PT-G7728/G7828: 3.08kg (6.78lb)           LM-7000H-4GSFP: 0.3kg (0.66lb)         LM-7000H-4GTX: 0.24kg (0.53lb)           LM-7000H-4GPoE: 0.24kg (0.53lb)         PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Protection				
Dimensions         443 x 44 x 280 mm (17.32 x 1.37 x 11.02 in)           Weight         PT-G7728/G7828: 3.08kg (6.78lb)           LM-7000H-4GSFP: 0.3kg (0.66lb)         LM-7000H-4GTX: 0.24kg (0.53lb)           LM-7000H-4GPoE: 0.24kg (0.53lb)         LM-7000H-4GPoE: 0.24kg (0.53lb)           PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)         LM-66lb)	Physical Charact	teristics			
Weight PT-G7728/G7828: 3.08kg (6.78lb) LM-7000H-4GSFP: 0.3kg (0.66lb) LM-7000H-4GTX: 0.24kg (0.53lb) LM-7000H-4GPoE: 0.24kg (0.53lb) PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Housing				
LM-7000H-4GSFP: 0.3kg (0.66lb) LM-7000H-4GTX: 0.24kg (0.53lb) LM-7000H-4GPoE: 0.24kg (0.53lb) PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Dimensions				
LM-7000H-4GTX: 0.24kg (0.53lb) LM-7000H-4GPoE: 0.24kg (0.53lb) PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)	Weight	PT-G7728/G7828: 3.08kg (6.78lb)			
LM-7000H-4GPoE: 0.24kg (0.53lb) PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)		LM-7000H-4GSFP: 0.3kg (0.66lb)			
PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)		LM-7000H-4GTX: 0.24kg (0.53lb)			
		LM-7000H-4GPoE: 0.24kg (0.53lb)			
Installation 19" rack mounting		PWR-HV-P48/PWR-LV-P48: 0.3kg (0.66lb)			
	Installation	19" rack mounting			

Environmental L	Environmental Limits				
Operating Temp.	-40 to 85°C (-40 to 185°F)				
Storage Temp.	-40 to 85°C (-40 to 185°F)				
Ambient Relative	5 to 95% (non-condensing)				
Humidity					
Standards and Certifications					
Safety	UL 61010-2-201, EN 61010(LVD) (Pending)				
EMC	EN 55024, 55032				
EMI	CISPR 22, FCC Part 15B Class A				
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV				
	IEC 61000-4-3 RS: 80MHz to 1GHz: 20 V/m				
	IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV				
	IEC 61000-4-5 Surge: Power 4 kV; Signal: 4 kV				
	IEC 61000-4-6 CS: 10V				
	IEC 61000-4-8				
Note: For better co	onductive radiation immunity, it is recommended to use				
a STP cable and install a surge protector at the PoE power input: EPS.					
Rail Traffic	EN 50121-4				
Substation	IEC-61850-3 ed2 class2, IEEE 1613				
Warranty					
Warranty Period	5 years				
Details	See www.moxa.com/warranty				

# **Restricted Access Locations**

 This equipment is intended to be used in Restricted Access Locations, such as a computer room, with access limited to service personnel or users who have been instructed on how to handle the metal chassis of equipment that is very hot. The location should only be



- equipment that is very hot. The location should only be accessible with a key or through a security system.
- External metal parts of this equipment are extremely hot. Before touching the equipment, you must take special precautions to protect your hands and body from serious injury.