

# Product Information

## HES12GM-8E Series

12G-port full Gigabit Managed Ethernet switches with  
8 IEEE 802.3af/at PoE+ ports



### Features

- ❖ 8 10/100/1000BaseTX RJ-45 Ports (All ports support IEEE 802.3af/at PoE+)
- ❖ -40°C to +75°C Operating Temperature
- ❖ PoE+ Reset function: hardware or software control of power recycling of PoE+ ports (this function is optional for a DIP Switch)
- ❖ Smart PoE+ over current, over temperature and short circuit protection
- ❖ Redundant Power Input (44~57VDC)

## Introduction

The HES12GM-8E Series are full gigabit managed PoE+ Ethernet switches that come standard with 8 10/100/1000BaseT(X), 802.3af (PoE), and 802.3at (PoE+)-compliant Ethernet ports, and up to 4 Gigabit SFP fiber ports. Each POE+ port is able to offer up to 30 watts power for PD device. The power input ranges from 44~57VDC. The switch is installed with Din-rail or panel mount.

The HES12GM-8E Ethernet switches are highly versatile, and the SFP fiber ports can transmit data up to 120 km from the device to the control center with high EMI immunity. The Ethernet switches support a variety of management functions, including RSTP, RingOpen, RingOn, PoE power management, PoE device auto-checking, PoE power scheduling, IGMP, VLAN, QoS, bandwidth management.

## Specifications

Technology		Interface	
Standard :	IEEE802.3af/at, 802.3, 802.3u, 802.3x, 802.3ab, 802.3z, 802.1w, 802.1Q, 802.1p	RJ45 Port :	Auto-negotiation 10/100/1000Base-T, Full/Half Duplex, Auto-MDI/MDIX
Processing Type :	Store and forward	Fiber Ports :	100/1000Base-X SFP interface. SFP module is MSA-compliant.
Broadcast Storm :	Automatic Broadcast Storm Control	PoE+ Pin out :	V+, V+, V-, V-, for pin 4, 5, 7, 8 ( Midspan)
Flow Control :	Full Duplex Flow Control, Half Duplex Back Pressure Control	Console port :	RJ45
Protocols :	SNMP V1/V2c/V3, RingOn/RingOpen, HTTP/HTTPS, LLDP, DHCP Client, IGMP Snooping/GMRP, Telnet, Syslog	DIP Switch :	Dial switch
Software Functions :	<ul style="list-style-type: none"> <li>• RingOn Redundant Ring Technology: Recovery time less than 15ms</li> <li>• VLAN: Port Based VLAN, IEEE 802.1Q Tag VLAN</li> <li>• Port Trunking</li> <li>• Built-in Web Server, remote management and configuration through browser</li> <li>• Quality of Service : Determined by port, tag(CoS), and IPv4 different service(DSCP)</li> <li>• IGMP Snooping /GMRP</li> <li>• Static MAC Address Forwarding</li> <li>• SNMP V1/V2c/V3</li> <li>• RSTP</li> <li>• LLDP</li> <li>• On-line Software Upgrading</li> <li>• Automatic warning by exception through e-mail or relay output</li> <li>• System Log</li> <li>• DHCP Client</li> <li>• Port Mirror: Supports TX, RX, and both packet</li> <li>• Broadcast storm control and Port-Based traffic control</li> <li>• IP Security: 10 IP address entries for permission to access management functions</li> </ul>	LED Indicators :	P1, P2, Link, State, MAX, POE+ (1~8)
		Alarm :	Relay, Email
		Relay output :	Standard 2-pin terminal blocks
		Power Requirements	
		Input Voltage :	44~57VDC
		Power budget :	325W MAX
		Input Connection :	Standard four terminal power input
		Physical Characteristics	
		Case :	Slim Metal Case, IP30 Design
		Dimensions :	45×173×120mm (W*H*D)
		Installation :	DIN Rail or Panel Mounting
		Optical Fiber	
		Mode	Single Mode
		Transmission Distance	20km
		Centre Wavelength	1310nm
		Cable Size	9/125um
		TX Power(dBm)	-8~-2dBm
		RX Power(dBm)	< -24dBm
		Transmission Rate	1000Mbps
		Environment Limits	
		Operating Temp. :	Standard Models: -10 to 60°C Wide Temp. Models: -40 to 75°C
		Storage Temp. :	-40 to 85°C
		Ambient Relative Humidity :	5 to 95%(Non-condensing)
Switch Properties			
MAC Table Size :	8K		
Packet Buffer Size :	512K		
Jumbo Frame Size :	Supports up to 16KB		

Standards and Certifications	
Safety :	EN60950, UL60950, IEC60950
EMI :	FCC Part15, CISPR(EN55022) Class A
EMS :	EN61000-4-2(ESD) Level 3, EN61000-4-3(RS) Level 3, EN61000-4-4(EFT) Level 3, EN61000-4-5(Surge) Level 3, EN61000-4-6(CS) Level 3, EN61000-6-2
Shock :	IEC 60068-2-27
Freefall :	IEC 60068-2-32
Vibration :	IEC 60068-2-6

Warranty	
Warranty Period :	3 years

## Ordering Information

### HES12GM-8E

HES12GM-8E-4SFP-2VL	Din-rail Managed, 8 x 1000Mbps POE+ Copper Port, 4 x 1000Mbps SFP Fiber Port, Industrial Temperature -10 to +60 °C, Power Input 44~57VDC
HES12GM-8E-4SFP-2VLW	Din-rail Managed, 8 x 1000Mbps POE+ Copper Port, 4 x 1000Mbps SFP Fiber Port, Industrial Wide Temperature -40 to +75 °C, Power Input 44~57VDC