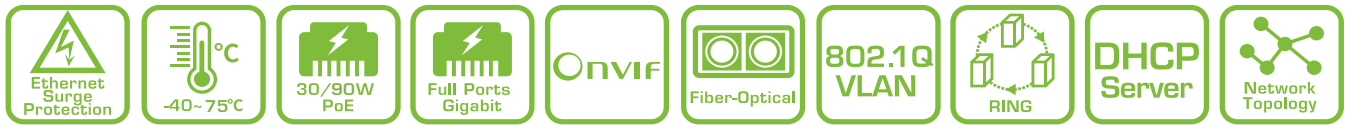


D60/D60-V2 series

Industrial L2 PRO Gigabit PoE Switches



The D60 / D60-V2 series of Industrial Pro L2 Plus Managed PoE Switches are designed with 6KV Ethernet port surge protection and harden-graded standard to operate between -40°C and 75°C for harsh weather conditions. They enable outdoor connections of PoE PDs to the network such as outdoor IP cameras, wireless APs, and other outdoor industrial applications.

The D60 / D60-V2 series provides multi-port Gigabit PoE (10M/100M/1G) delivering data and power to PoE PDs over a single network cable and additional SFP transceiver slots for flexible uplink. The D60 series has three sub models classified as power source equipment (PSE) and provide PoE budget up to 30W or 60W per port.

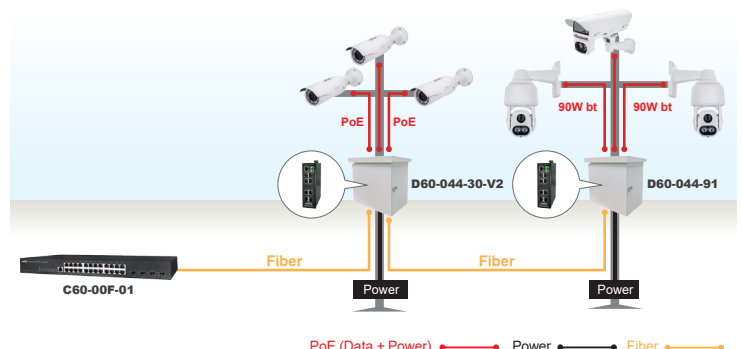
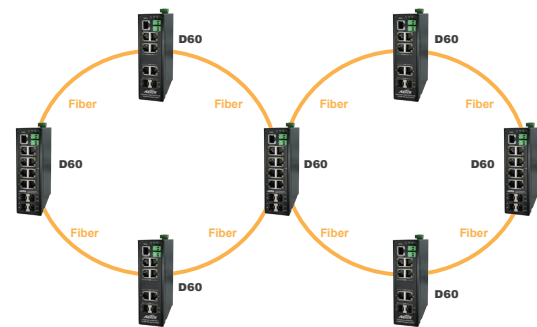
Besides general functions of L2 plus & basic L3 switch such as QoS, security, spanning tree, cable length measurement, and SNMP v1/v2c/v3, a dedicated web graphic user interface of IP surveillance is easy to configure and manage IP device. It automatically generates network topology maps, cable diagnostic, and PoE management.

Features

- Layer 2 Switch
 - 802.1d (STP), 802.1w (RSTP), 802.1s (MSTP)
 - Loop protection
 - SNMP v1/v2c/v3
 - QoS
 - VLAN
 - Ethernet cable length measurement
 - DHCP Server
- Network Topology System
 - Automatic discovery for ONVIF camera
 - Generates camera topology map automatically
 - Cable diagnostic & reboot camera remotely
 - PoE management
 - Topology view / Floor view / Google map
 - Monitor / Configure / Manage ONVIF camera thru web
- Flexible SFP transceiver ports for uplink
- Operating temperature between -40°C and 75°C
- Compliant IEEE802.3at 30W per port (D60-044-30-V2, D60-084-30-V2)
- 90W bt/PoH PoE per port (D60-044-90)
- 90W bt PoE per port (D60-044-91)
- Supports 10/100/1000Mbps data rates
- 6KV PoE surge protection
- IEEE 802.3az Energy Efficient Ethernet standard for green power

Applications

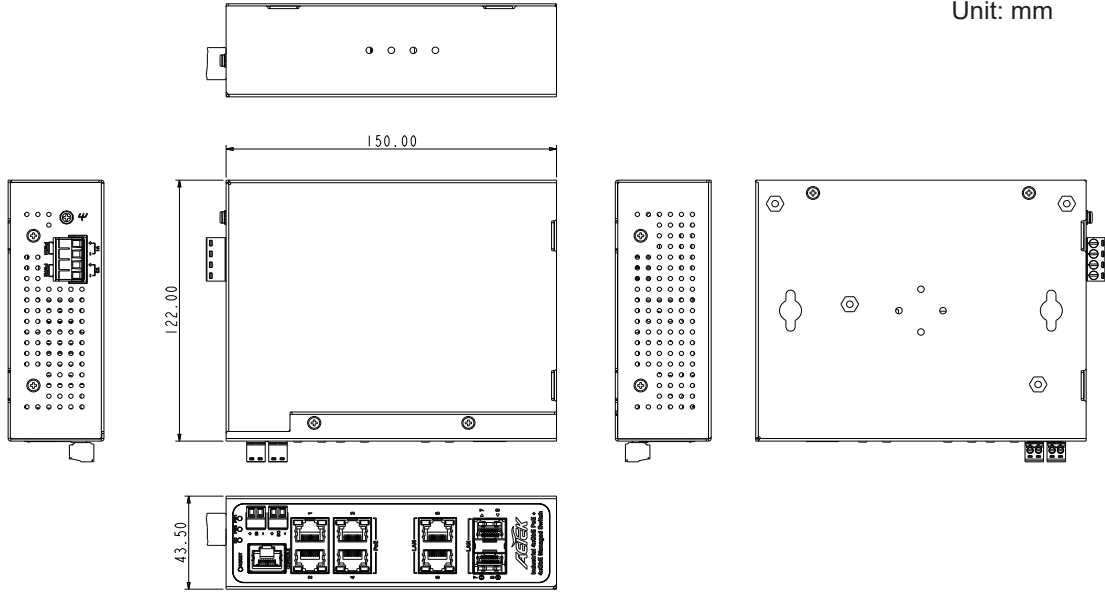
Dual Ring



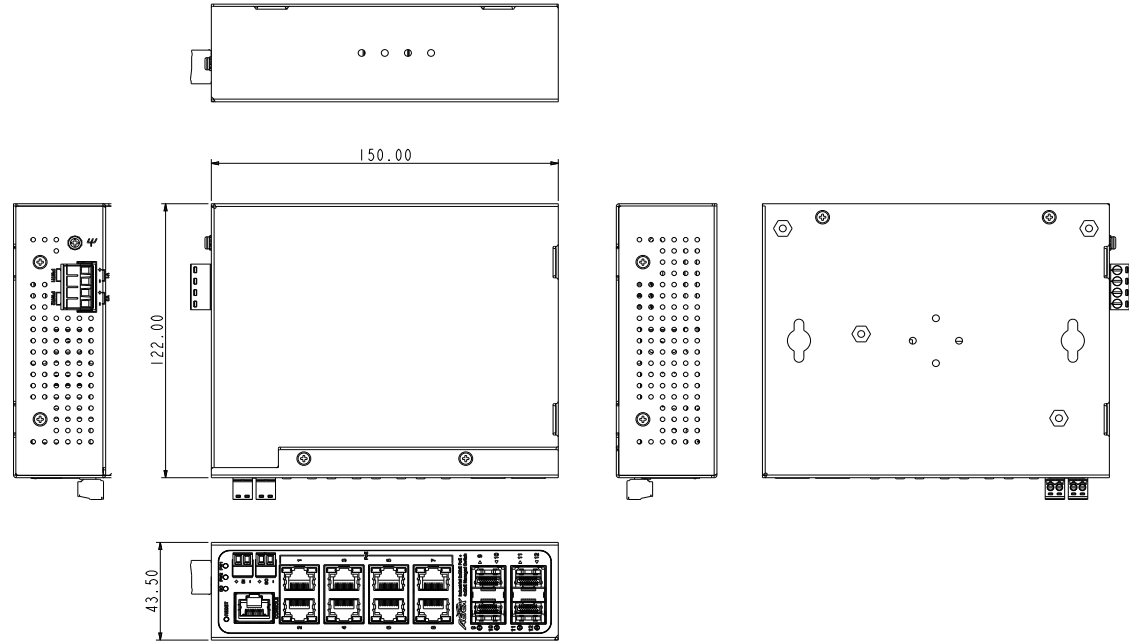
PoE (Data + Power) — Power — Fiber

D60-044-30-V2

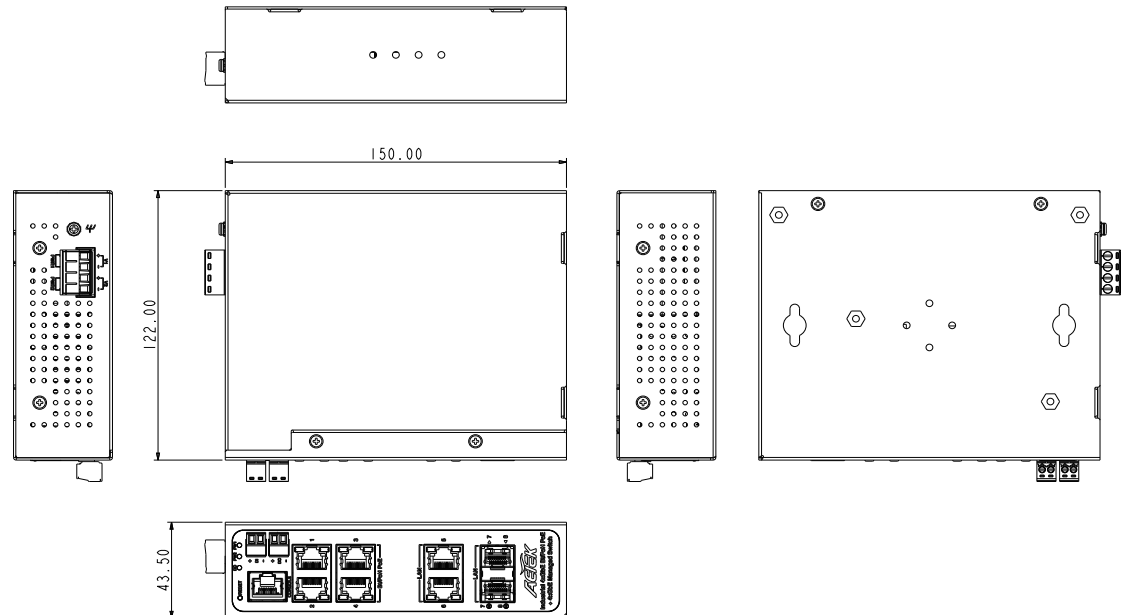
Unit: mm



D60-084-30-V2



D60-044-90 / D60-044-91



Device List

Show 10 entries

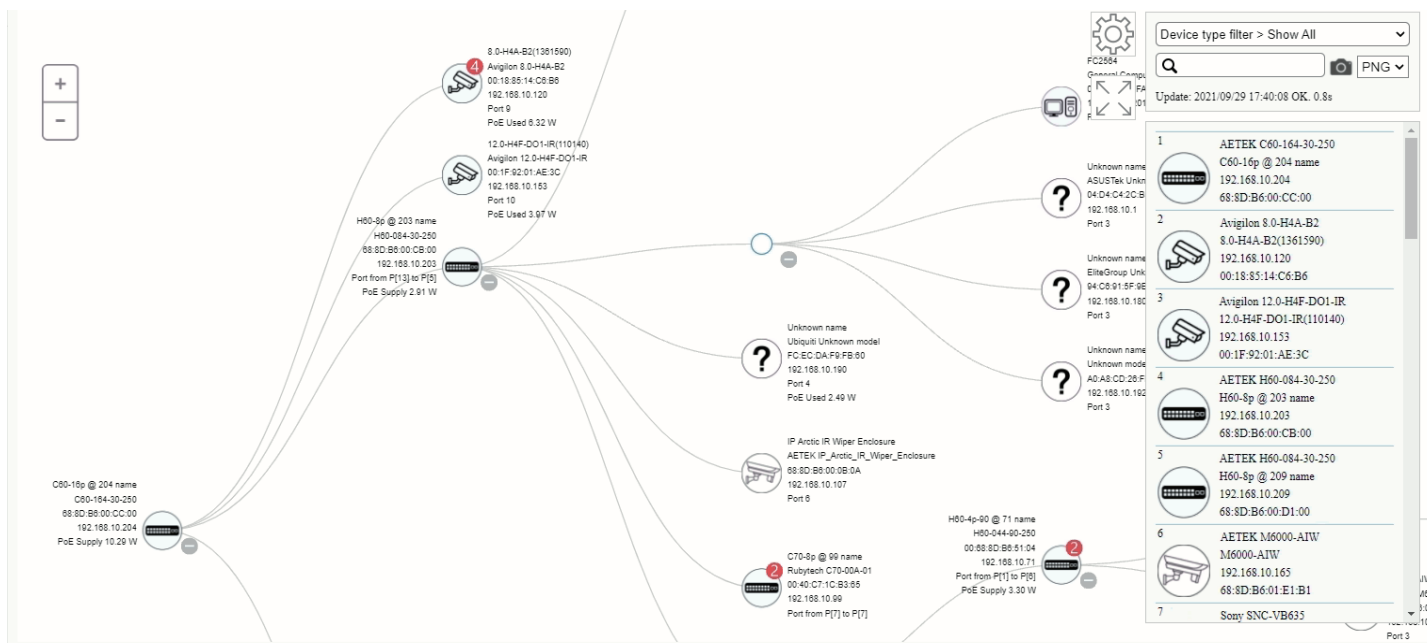
Status	Device Type	Model Name	Device Name	MAC	IP Address
Online	PoESW	H60-084-30-250	H60-8p @ 203 name	68:8D:B6:00:CB:00	192.168.10.203
Online	PoESW	H60-084-30-250	H60-8p @ 209 name	68:8D:B6:00:D1:00	192.168.10.209
Online	IPMX	M6000-AIW	M6000-AIW	68:8D:B6:01:E1:B1	192.168.10.165
Online	IP Camera	SNC-VB635	Sony	D8:D4:3C:DD:F5:C7	192.168.10.122
Online	IP Camera	WV-S1131	Panasonic_WV-S1131	BC:C3:42:71:79:D0	192.168.10.104
Online	IPSG	SD-504	SD-504	68:8D:B6:00:00:01	192.168.10.108
Online	PC	General Computer	FC2564	00:50:56:2D:FA:AC	192.168.10.201
Online	Others	Unknown model	Unknown name	04:D4:C4:2C:B5:EC	192.168.10.1
Online	Others	Unknown model	Unknown name	94:C6:91:5F:9E:EA	192.168.10.180
Online	PC	General Computer	MIS-TEMP-NB4	A0:A8:CD:26:FE:FD	192.168.10.192

Showing 1 to 10 of 29 entries

Previous 1 2 3 Next

[Edit](#)

Topology View



Device Dashboard

The Device Dashboard for the IP camera 12.0-H4F-DO1-IR(110140) is shown. It displays the following information:

- Device Type:** IP Cameras
- Device Name:** 12.0-H4F-DO1-IR
- Model Name:** 12.0-H4F-DO1-IR
- MAC Address:** 00:1F:92:01:AE:3C
- IP Address:** 192.168.10.153
- Http Port:** 80
- PoE Used:** 4.21 W

Below the information, there are buttons for Login, Diagnostics, PoE Reboot, Dashboard, Notification, and Monitor.

Floor Map View

Device Dashboard

Device Type PoE Switches
Device Name H60-4p-90 @ 73 name
Model Name H60-044-90-250
MAC Address 00:E0:4C:51:04:0A
IP Address 192.168.10.73
Http Port 80
PoE Supply 0 W
API Account admin73
API Password passwd73

Close Apply

Login Upgrade PoE Config Diagnostics

Dashboard Notification

Device List:

- AETEK C60-164-30-250 C60-16p @ 204 name 192.168.10.204 68:8D:B6:00:CC:00
- Avigilon 8.0-H4A-B2 8.0-H4A-B2(1361590) 192.168.10.120 00:18:85:14:C6:B6
- Avigilon 12.0-H4F-DO1-IR 12.0-H4F-DO1-IR(110140) 192.168.10.153 00:1F:92:01:AE:3C
- AETEK H60-084-30-250 H60-8p @ 203 name 192.168.10.203 68:8D:B6:00:CB:00
- AETEK H60-084-30-250 H60-8p @ 209 name 192.168.10.209 68:8D:B6:00:D1:00
- AETEK M6000-AIW M6000-AIW 192.168.10.165

Draggable: ONE

Google Map View

Device Dashboard

Device Type PoE Switches
Device Name H60-8p @ 203 name
Model Name H60-084-30-250
MAC Address 68:8D:B6:00:CB:00
IP Address 192.168.10.203
Http Port 80
PoE Supply 2.54 W
API Account admin203
API Password passwd203

Close Apply

Upgrade PoE Config

Dashboard Notification

Device List:

- AETEK C60-164-30-250 C60-16p @ 204 name 192.168.10.204 68:8D:B6:00:CC:00
- Avigilon 8.0-H4A-B2 8.0-H4A-B2(1361590) 192.168.10.120 00:18:85:14:C6:B6
- Avigilon 12.0-H4F-DO1-IR 12.0-H4F-DO1-IR(110140) 192.168.10.153 00:1F:92:01:AE:3C
- AETEK H60-084-30-250 H60-8p @ 203 name 192.168.10.203 68:8D:B6:00:CB:00
- AETEK H60-084-30-250 H60-8p @ 209 name 192.168.10.209 68:8D:B6:00:D1:00
- AETEK M6000-AIW M6000-AIW 192.168.10.165

Draggable: ONE Animation: OFF

Cable Diagnostics

Diagnostics

Device Type IP Cameras
Device Name 12.0-H4F-DO1-IR(110140)
Model Name 12.0-H4F-DO1-IR
MAC Address 00:1F:92:01:AE:3C
IP Address 192.168.10.153

Icon	Diagnostic
1	AETEK C60-164-30-250 C60-16p @ 204 name 192.168.10.204 68:8D:B6:00:CC:00 Port: 10 <input checked="" type="checkbox"/> Connection ok Speed: 100M <input checked="" type="checkbox"/> Cable Status ok
3	Avigilon 12.0-H4F-DO1-IR 12.0-H4F-DO1-IR(110140) 192.168.10.153 00:1F:92:01:AE:3C

Back

Device List:

- AETEK C60-164-30-250 C60-16p @ 204 name 192.168.10.204 68:8D:B6:00:CC:00
- Avigilon 8.0-H4A-B2 8.0-H4A-B2(1361590) 192.168.10.120 00:18:85:14:C6:B6
- Avigilon 12.0-H4F-DO1-IR 12.0-H4F-DO1-IR(110140) 192.168.10.153 00:1F:92:01:AE:3C
- AETEK H60-084-30-250 H60-8p @ 203 name 192.168.10.203 68:8D:B6:00:CB:00
- AETEK H60-084-30-250 H60-8p @ 209 name 192.168.10.209 68:8D:B6:00:D1:00
- AETEK M6000-AIW M6000-AIW 192.168.10.165
- Sony SNC-VB635

PoE Features

- IEEE802.3at (PoE+ 30W),bt 90W
- Max. allowed 30W / 90W per port
- Port status table

PoE Port Configuration

Local Port	PD Class	Power Used	Current Used	Priority	Port Status
1	-	0.00 [W]	0 [mA]	high	No PD detected
2	-	0.00 [W]	0 [mA]	high	No PD detected
3	-	0.00 [W]	0 [mA]	high	No PD detected
4	class0	2.65 [W]	50 [mA]	high	on
5	-	0.00 [W]	0 [mA]	high	No PD detected
6	-	0.00 [W]	0 [mA]	high	No PD detected
7	-	0.00 [W]	0 [mA]	high	No PD detected
8	-	0.00 [W]	0 [mA]	high	No PD detected
Total		2.00 [W]			

Specifications - Software

PoE Management	
Port Configuration	Supports per port PoE configuration function
PoE Scheduling	Supports per port PoE scheduling to turn on/off the PoE devices (PDs).
Auto-checking	Check the link status of PDs. Reboot PDs if there is no responses
Power Delay	The switch provides power to the PDs based on delay time when PoE switch boots up, in order to protect switch from misuse of the PDs.
IP Surveillance Graphical User Interface Specifications	
Automatic Discovery	Discover IP cameras complying ONVIF automatically
Topology View	Generate Topology maps to manage IP cameras
Floor view	It's easy to drag and drop PoE devices and help you to build smart workforces
Map view	Enhance efficiency to drag and drop devices and monitor surroundings on google map
Traffic Monitoring	Comprehensive chart to show traffic status
PoE Management	Reboot IP camera, Scheduling PoE on/off, alive checking, Power delay as PoE switch boots up, PoE configuration
Layer 2 Switching Specifications	
Spanning Tree Protocol	MAC Bridges Standard Spanning Tree (STP) 802.1d, Rapid Spanning Tree (RSTP) 802.1w, Multiple Spanning Tree (MSTP) 802.1s
IP/Mac Port Trunking	Link Aggregation Control Protocol (LACP) IEEE 802.3ad , Static aggregation.
VLAN	Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs), Port-based VLAN, 802.1Q tag-based VLAN
IGMP v1/v2 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters.
Layer 3 Switching Specifications	
DHCP Server	Assign IP to DHCP clients
Security	
IEEE 802.1X	IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions, Supports IGMP-RADIUS based 802.1X, Dynamic VLAN assignment
Port Security	Locks MAC addresses to ports, and limits the number of learned MAC address
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
Loop Protection	To prevent unknown unicast, broadcast and multicast loops in Layer 2 switching configurations.
RADIUS/ TACACS+	Supports RADIUS and TACACS+ authentication. Switch as a client
DHCP Snooping	To prevent attackers from adding their own DHCP servers to the network.
QoS	
Classification	Port based, 802.1p VLAN priority based
Bandwidth Control	Ingress policer, Egress shaping and rate control, Per port
Management software	
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer
IEEE 802.1ab (LLDP)	Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
SNMP	SNMP version1, 2c, 3
Flow Control	The IEEE 802.3x standard for monitoring high speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting/billing for usage, and defense against security threats
IEEE 802.3az	Energy Efficient Ethernet standard for green power
Firmware Upgrade	Web browser upgrade HTTP and TFTP
NTP	Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Other Management	System, HTTP, DHCP Client, Cable Diagnostics, Syslog, IPV4/IPV6 Management, SSH, Telnet





Specifications





	D60-044-30-V2	D60-084-30-V2	D60-044-90	D60-044-91
Networking				
NTS Edge	support	support	support	support
NTS Server	support	support	support	support
Networking				
Total Gigabit Ethernet Ports	8	12	8	8
Gigabit Ethernet 802.3af/at PoE Ports	4	8	--	--
Gigabit Ethernet 802.3af/at/bt/PoH PoE Ports	--	--	4	--
Gigabit Ethernet 802.3af/at/bt PoE Ports	--	--	--	4
Gigabit Ethernet RJ45 Ports	2	--	2	2
Gigabit Ethernet SFP Ports (100M/1G)	2	4	2	2
Forwarding Capacity	11.904Mpps	17.856Mpps	11.904Mpps	11.904Mpps
Mac Table	8K	8K	8K	8K
Jumbo Frames	9,216 Bytes	9,216 Bytes	9,216 Bytes	9,216 Bytes
Switching Capacity	16 Gbps	24 Gbps	16 Gbps	16 Gbps
Power				
Input Power	Dual 48-56V DC	Dual 48-56V DC	Dual 48-56V DC	Dual 48-56V DC
Output Power per PoE Port	PoE IEEE 802.3af (Max. 15.4W) PoE+ IEEE 802.3at (Max. 30W)	PoE IEEE 802.3af (Max. 15.4W) PoE+ IEEE 802.3at (Max. 30W)	PoE IEEE 802.3af (Max. 15.4W) PoE+ IEEE 802.3at (Max. 30W) PoE++ IEEE 802.3bt/PoH (Max. 90W)	PoE IEEE 802.3af (Max. 15.4W) PoE+ IEEE 802.3at (Max. 30W) PoE++ IEEE 802.3bt (Max. 90W)
Output PoE Power Pin Assignment	12(-), 36(+)	12(-), 36(+)	12(-), 36(+), 45(+), 78(-)	12(-), 36(+), 45(+), 78(-)
Standby Power Consumption	48V DC:4.32W	48V DC:4.32W	48V DC: 5.76W	48V DC:4.8W
Total Output Power Budget	120W	240W	360W	360W
ESD	Contact ±6 KV, Air ±8 KV	Contact ±6 KV, Air ±8 KV	Contact ±6 KV, Air ±8 KV	Contact ±6 KV, Air ±8 KV
Surge Protection per PoE Port	Online Common mode : ±6 KV	Online Common mode : ±6 KV	Online Common mode : ±6 KV	Online Common mode : ±6 KV
Surge Protection for DC Power Output	Differential mode : ±1 KV	Differential mode : ±1 KV	Differential mode : ±1 KV	Differential mode : ±1 KV
Surge Protection for DC Power Input	Differential mode : ±1 KV	Differential mode : ±1 KV	Differential mode : ±1 KV	Differential mode : ±1 KV
Surge Protection for DI/DO Port	Differential mode : ±1 KV	Differential mode : ±1 KV	Differential mode : ±1 KV	Differential mode : ±1 KV
Mechanical				
Material	aluminum	aluminum	aluminum	aluminum
Dimensions (W x D x H)	43.5 x 122 x 150 mm (1.7 x 4.8 x 5.9 in)	43.5 x 122 x 150 mm (1.7 x 4.8 x 5.9 in)	43.5 x 122 x 150 mm (1.7 x 4.8 x 5.9 in)	43.5 x 122 x 150 mm (1.7 x 4.8 x 5.9 in)
Weight	0.43 kg (0.95 lb)	0.46 kg (1.01 lb)	0.57 kg (1.26 lb)	0.57 kg (1.26 lb)
DI	Dry Contact: Logic level 1: Close to GND Logic level 0: Open	Dry Contact: Logic level 1: Close to GND Logic level 0: Open	Wet Contact: Logic level 1 : 5~12 Volts (10mA) Logic level 0 : 0~1 Volts	Wet Contact: Logic level 1 : 5~12 Volts (10mA) Logic level 0 : 0~1 Volts
DO	24V DC/1A (Max)	24V DC/1A (Max)	24V DC/1A (Max)	24V DC/1A (Max)
Console	RJ45	RJ45	RJ45	RJ45
Cooling Fan	Fanless	Fanless	Fanless	Fanless
Environmental limits				
IP Rating	IP30	IP30	IP30	IP30
Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F)	-40°C ~ 75°C (-40°F ~ 167°F)	-40°C ~ 75°C (-40°F ~ 167°F)	-40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	5% ~ 95% non-condensing	5% ~ 95% non-condensing	5% ~ 95% non-condensing	5% ~ 95% non-condensing
Regulatory/ Approvals				
EMC	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick	CE, FCC, VCCI, C-Tick
Surge	EN61000-4-5	EN61000-4-5	EN61000-4-5	EN61000-4-5
MTBF	>50000 hours	>50000 hours	>50000 hours	>50000 hours
Optional Accessories				
Industrial Power Supply	DRL-48V120W1EN : 48V/120W / DRL-48V240W1EN : 48V/240W / DRL-48V480W1EN : 48V/480W			
SFP Module	SFP Module Model Table			
Junction Box	JB-200			

Ordering Information

PoE Switches			
	<p>D60-044-30-V2</p> <ul style="list-style-type: none"> • 4xGbE 30W at PoE + 2xGbE SFP + 2xGbE RJ45 		<p>D60-044-90</p> <ul style="list-style-type: none"> • 4xGbE 90W bt / PoH PoE + 2xGbE SFP + 2xGbE RJ45
	<p>D60-084-30-V2</p> <ul style="list-style-type: none"> • 8xGbE 30W at PoE + 4xGbE SFP 		<p>D60-044-91</p> <ul style="list-style-type: none"> • 4xGbE 90W bt PoE + 2xGbE SFP + 2xGbE RJ45

Optional Accessories

SFP Modules			
			
<p>SFP-ISX-X5 Industrial Gigabit SFP Transceiver</p> <ul style="list-style-type: none"> • MMF • 0.5 km • -40°C ~85°C 	<p>SFP-ISX-02 Industrial Gigabit SFP Transceiver</p> <ul style="list-style-type: none"> • MMF • 2 km • -40°C ~85°C 	<p>SFP-ILX-10 Industrial Gigabit SFP Transceiver</p> <ul style="list-style-type: none"> • SMF • 10 km • -40°C ~85°C 	<p>SFP-ILX-40 Industrial Gigabit SFP Transceiver</p> <ul style="list-style-type: none"> • SMF • 40 km • -40°C ~85°C

Pole Mount	Corner Mount	Junction Box
		
<p>AT-100 Pole Mount Adapter</p>	<p>AT-101 Pole Mount Adapter</p>	<p>JB-200 Junction Box</p>
		
	<p>AT-200 Corner Mount Adapter</p>	

Industrial Power Supply		
		
<p>DRL-48V120W1EN Indoor Industrial Din Rail Power Supply, 48V/120W</p>	<p>DRL-48V240W1EN Indoor Industrial Din Rail Power Supply, 48V/240W</p>	<p>DRL-48V480W1EN Indoor Industrial Din Rail Power Supply, 48V/480W</p>