



Outdoor PoE switch ELECTRA-M10-OUTDOOR

❖ Overview

ELECTRA-M10-OUTDOOR is an outdoor PoE switch, which integrates a PoE switch, 300W power supply, optical fiber trays, socket, surge protector, fan, etc. It has IP66 protection level, can be for outdoor using. It can be applied for surveillance monitoring, forest monitoring, etc.

❖ Picture





Outdoor PoE switch ELECTRA-M10-OUTDOOR

❖ Features

- ❖ AC220V mains power input, 300W DC52V power module inside.
- ❖ With 8*10/100/1000M PoE downlink ports and 2*1000M SFP ports, with L2 network management;
- ❖ Supports 2 port PoE power each up to 90W, 6 port PoE power each up to 30W;
- ❖ Supports L2 management, such as QoS, VLAN, MSTP, Multi-broadcast, ports management and PoE management;
- ❖ 6KV surge protection, 6KV contact / 8KV air ESD protection.
- ❖ The box adopts waterproof (protection level IP66), anti-rust treatment, suitable for long time outdoor use..

❖ Hardware specification

Parameter	Specifications
Power supply	AC power supply
Range of voltage	AC100~220V,50HZ
Consumption	Self-consumption<15W, PoE output 285W max
Ethernet ports parameter	1~2ports: 10/100/1000Base-T 90W PoE RJ45(IEEE802.3bt, also support IEEE 802.3 af/at) 3~8 ports: 10/100/1000Base-T 30W PoE RJ45(IEEE802.3af/at) 9~10 ports: 1000M SFP slots
Console port	RJ45 to serial port (38400,8,N,1)
Reset key	Short press restart , >5s press recovery to default
Cable and distance	Use cat5e/6, 100m max.
Standard	IEEE802.3, IEEE802.3u, IEEE802.3z
Switch fabric	20Gbps
Throughput	14.88Mpps
Buffer	1M
MAC address table	8K
Power	1 *red
Uplink 9~10	Green LEDs indicate Link/Act
Downlink 1~8	Green LEDs indicate Link/Act, yellow LEDs indicate PoE



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

Surge	6KV, standard: IEC61000-4-5
ESD	6KV: contact / 8KV: air, standard: IEC61000-4-2
Working temperature	-20℃~65℃
Storage temperature	-40℃~85℃
Humidity	0~95%(No condensation)
Dimension(L×W×H)	500mm×380mm×220mm
Material	Metal
Colour	White
Net-weight	16KG

Software:

ITEM				Web	CLI
System configuration	System date time	SNTP	Enable/Disable	Yes	Yes
	User Management	\	Apply/Delete	Yes	Yes
	Safe Management	http	Enable/Disable	Yes	Yes
		SNMP	Enable/Disable	Yes	Yes
		telnet	Enable/Disable		Yes
		SSH	Enable/Disable		Yes
	Configuration file	\	Upload/Download	Yes	Yes
		\	Save/Delete	Yes	Yes
	Firmware file	\	Upload	Yes	Yes
Port configuration	System	\	Reboot/Reboot Factory	Yes	Yes
	Common	Admin Status	Up/Down	Yes	Yes
		Speed	Auto	Yes	Yes
			Full-1000 Mbps	Yes	Yes
			Full-100 Mbps	Yes	Yes
			Half-100 Mbps	Yes	Yes
			Full-10 Mbps	Yes	Yes
			Half-10 Mbps	Yes	Yes
	Flow control	\	On/Off	Yes	Yes
	Storm constrain	Action	Block		Yes
			Shutdown		Yes
		Broadcast	Min-rate Max-rate 1~1488100pps		Yes
		Enable	Log		Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

			Trap		Yes
		Interval	6~180s		Yes
		Multicast	Min-rate Max-rate 1~1488100pps		Yes
		Unicast	Min-rate Max-rate 1~1488100pps		Yes
	Strom control	Broadcast(1~1024000kbps)	On/Off	Yes	Yes
		Multicast(1~1024000kbps)	On/Off	Yes	Yes
		DLF(1~1024000kbps)	On/Off	Yes	Yes
	Rate limit	TX	1~1024000kbps/Off	Yes	Yes
		RX	1~1024000kbps/Off	Yes	Yes
	Protected Port	/	Yes/No	Yes	Yes
	Learn Limit	MAC Address	0~8191	Yes	Yes
	Port trunk	Trunk Group	Create/Delete	Yes	Yes
		Member Port	Add/Delete	Yes	Yes
		Trunk Method	Src-mac	Yes	Yes
			Dst-mac	Yes	Yes
			Src-dst-mac	Yes	Yes
			Src-ip	Yes	Yes
			Dst-ip	Yes	Yes
			Src-dst-ip	Yes	Yes
	Port Mirror	Mirror Port	/	Yes	Yes
		Mirrored Port	/	Yes	Yes
		Mirror Direction	Receive	Yes	Yes
			Transmit	Yes	Yes
			Both	Yes	Yes
			Not_receive	Yes	Yes
			Not_transmit	Yes	Yes
			Neither	Yes	Yes
	DHCP	DHCP client	Enable		Yes
			Release		Yes
			Renew		Yes
		DHCP Snooping	/		Yes
	IP	IGMP Snooping	Mrouter VLAN(1~4094)		Yes
		MAC-bind	IP Address		Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

			MAC Address		
	IP-subnet-vlan	IP Address Mask	VLAN 1~4094	Yes	Yes
	LACP	Port Priority	1~65535		Yes
		Timeout	Long		Yes
			Short		Yes
	LLDP	Admin Status	Disable		Yes
			TX		Yes
			RX		Yes
			TXRX		Yes
		Enable	/		Yes
		Check-change-interval	1~30		Yes
		Management Address	IP Address		Yes
		Tlv-enable	Dot1-tlv		Yes
			Dot3-tlv		Yes
			Med-tlv		Yes
	Loopback detection	Enable	/		Yes
		Resume	/		Yes
		Resume Mode	Automation		Yes
			Manual		Yes
		Shutdown Mode	No Shutdown		Yes
			Shutdown		Yes
	MAC VLAN	MAC Address	VLAN 1~4094		Yes
	VLAN-mapping	VLAN(1~4094)	Map-vlan(1~4094)		Yes
	Voice VLAN	VLAN ID(1~4094)	Enable/Disable		Yes
		Qos Map-queue(0~7)	Remark-dscp(0~63)		Yes
	Mvr-interface	Enable/Disable	/		Yes
	OAM	Enable	/		Yes
		Loopback	/		Yes
		Mode	Active		Yes
			Passive		Yes
	QinQ	Customer	/		Yes
		Outer-vid(1~4094)	Inner-vid(VLAN ID)		Yes
		Tpid	/		Yes
		Uplink	/		Yes
	Udld	Aggressive	/		Yes
		Port	/		Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

	Jumbo Frame		1523~16383bytes		Yes
	DDM Information	/	/	Yes	Yes
MAC	MAC Binding		Select-all/Apply/Delete	Yes	Yes
	MAC Auto Binding		Select-all/Apply	Yes	Yes
	MAC Filter		Select-all/Apply/Delete	Yes	Yes
	MAC Auto Filter		Select-all/Apply	Yes	Yes
	Bridge	Acquire	/		Yes
		Address	MAC(HHHH.HHHH.HHHH) Discard/Forward		Yes
		Ageing-time	10~1000000s		Yes
		Unregistered	Multicast Discard/Forward		Yes
VLAN configuration	VLAN	2~4094	Apply/Delete	Yes	Yes
	VLAN Port	Mode	Access	Yes	Yes
			Trunk	Yes	Yes
			Hybrid	Yes	Yes
		Port Members	Default VLAN(p)	Yes	Yes
			Tagged Member(t)	Yes	Yes
			Untagged Member(u)	Yes	Yes
			UnMember	Yes	Yes
SNMP configuration	SNMP community	Community Name	Apply/Delete	Yes	Yes
		Read Only	Apply/Delete	Yes	Yes
		Read Write	Apply/Delete	Yes	Yes
	TRAP Target	SNMP Version	V1	Yes	Yes
			V2C	Yes	Yes
			V3	Yes	Yes
		Item	Apply/Delete	Yes	Yes
ACL configuration	Standard IP	Group Number	1~99 1300~1999 Select-all/Add/Delete	Yes	Yes
		Source IP	Select-all/Add/Delete	Yes	Yes
		Source Wildcard	Select-all/Add/Delete	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

	Extended IP	Group Number	100~199 2000~2699 Select-all/Add/Delete	Yes	Yes
		Source IP	Add/Delete	Yes	Yes
		Source Wildcard	/	Yes	Yes
		Destination IP	/	Yes	Yes
		Destination Wildcard	/	Yes	Yes
		Protocol Type	IP/TCP/UDP	Yes	Yes
		Source Port	Ftp(TCP) Ftp-Data(TCP) Pop3(TCP) Smtp(TCP) Telnet(TCP) WWW(TCP) Rip(UDP) Snmp(UDP) Snmp-Trap(UDP) Tftp(UDP)	Yes	Yes
		Destination Port	Ftp(TCP) Ftp-Data(TCP) Pop3(TCP) Smtp(TCP) Telnet(TCP) WWW(TCP) Rip(UDP) Snmp(UDP) Snmp-Trap(UDP) Tftp(UDP)	Yes	Yes
		TCP Control Flag	Fin Sys Rst Psh Ack Urg	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes
	MAC IP	Group Number	700~799 Select-all/Add/Delete	Yes	Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

		Source MAC	Add/Delete	Yes	Yes
		Source MAC wildcard	Select-all/Add/Delete	Yes	Yes
		Source IP	Select-all/Add/Delete	Yes	Yes
		Source Wildcard	Select-all/Add/Delete	Yes	Yes
		Destination IP	Select-all/Add/Delete	Yes	Yes
		Destination Wildcard	Select-all/Add/Delete	Yes	Yes
		VLAN ID	0~4094 Select-all/Add/Delete	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes
	MAC ARP	Group Number	1100~1199 Select-all/Add/Delete	Yes	Yes
		Sender MAC	Add/Delete	Yes	Yes
		Sender MAC wildcard	Select-all/Add/Delete	Yes	Yes
		Sender IP	Select-all/Add/Delete	Yes	Yes
		Sender IP wildcard	Select-all/Add/Delete	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes
	ACL Reference	Ports	Select-all/Add/Delete	Yes	Yes
		All ACL Group	Select-all/Add/Delete	Yes	Yes
	Time-range	Name	1<=S<=31		Yes
		Cycle-time	Days(0~6 week days) From(0~23hour)		Yes
		Utter-time	From(2000~2100year)		Yes
QoS configuration	QoS apply	Port	Select	Yes	Yes
		QoS Type	NO QoS	Yes	Yes
			COS-based	Yes	Yes
			DSCP-based	Yes	Yes
			DSCP COS-based	Yes	Yes
		User Priority	0~7	Yes	Yes
	QoS schedule	Port	Select	Yes	Yes
		QoS schedule mode	WRR	Yes	Yes
			SP	Yes	Yes
		Queue	0~7	Yes	Yes
		Weight of queue	1~127	Yes	Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

	IP Address	VLAN ID(VID)	1~4094 Create/Delete	Yes	Yes
		IP Address	Set/Delete	Yes	Yes
		DHCP Client	Enable/Disable	Yes	Yes
	ARP	Static ARP	IP address add	Yes	Yes
			MAC address add	Yes	Yes
		ARP Item	A.B.C.D delete	Yes	Yes
			A.B.C.D/M delete	Yes	Yes
			All delete	Yes	Yes
			Dynamic delete	Yes	Yes
			Static delete	Yes	Yes
		Change Dynamic ARP into Static ARP	A.B.C.D/M	Yes	Yes
			All	Yes	Yes
		Aging time	1~65535min		Yes
	Host Static Route	Target Address/Subnet perfix	Apply/Delete	Yes	Yes
		Next Hop	Apply/Delete	Yes	Yes
AAA Configuration	Tacacs+	Taccas+	Enable/Disable	Yes	Yes
		Server IP	A.B.C.D	Yes	Yes
		Authentication Type	pap	Yes	Yes
			chap	Yes	Yes
		Shared Secret	S<30	Yes	Yes
	Radius	Primary Server	A.B.C.D	Yes	Yes
		Option Server	A.B.C.D	Yes	Yes
		UDP Port	1~65535	Yes	Yes
		Accounting	Enable/Disable	Yes	Yes
		Shared Key	S<30	Yes	Yes
		Vendor	S<24	Yes	Yes
		NAS Port	1~65535	Yes	Yes
		NAS Port Type	1~65535	Yes	Yes
		NAS Service Type	1~65535	Yes	Yes
		Roaming	Enable/Disable	Yes	Yes
	802.1x	802.1x	Enable/Disable	Yes	Yes
		Reauthentication	Enable/Disable	Yes	Yes
		Reauthentication Period	1~2147483647s	Yes	Yes
		Quiet Period	1~2147483647s	Yes	Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

		Tx-Period	1~2147483647s	Yes	Yes
		Server Timeout	1~2147483647s	Yes	Yes
		Supplicant Timeout	1~2147483647s	Yes	Yes
		Max Request	1~2147483647	Yes	Yes
		Reauth Max	Max Request	Yes	Yes
		Client Version	0.0~255.255	Yes	Yes
		Check Client	Enable/Disable	Yes	Yes
		Check Version	Open/Close		Yes
	802.1x Port	Port Number	Select	Yes	Yes
		Port Mode	N/A	Yes	Yes
			Force-Unauth	Yes	Yes
			Auto	Yes	Yes
			Force-Auth	Yes	Yes
		Support Host Number	1~256	Yes	Yes
		Guest VLAN	1~4094		Yes
		Transmit Port	Enable/Diaable		Yes
	802.1x User Auth-Info	port	Select	Yes	Yes
STP Configuration	MSTP	MSTP	Enable/Disable	Yes	Yes
		Priority	0~61440(icrements of 4096)	Yes	Yes
		Portfast Bpdu-Filter	Enable/Disable	Yes	Yes
		Portfast Bpdu-Guard	Enable/Disable	Yes	Yes
		Forward-Time	4~30(2*(ForwardTime-1)>=MaxAge)	Yes	Yes
		Hello-Time	1~10(2*(HelloTime+1)<=MaxAge)	Yes	Yes
		Errdisable-Timeout	Enable/Disable	Yes	Yes
		Errdisable-Timeout Interval	10~1000000s(10,10000can't update)	Yes	Yes
		Max-Age	6~40s	Yes	Yes
		Max-Hops	1~40	Yes	Yes
		Cisco-Interopeability	Enable/Disable	Yes	Yes
	STP Port	Port	Select	Yes	Yes
		Portfast	Enable/Disable	Yes	Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

		Portfast bpdu-filter	Enable/Disable/default	Yes	Yes
		Portfast bpdu-guard	Enable/Disable/default	Yes	Yes
		Root Guard	Enable/Disable	Yes	Yes
		Link-Type	Shared	Yes	Yes
			Point-to-Point	Yes	Yes
		Priority	0~240(increments of 16)	Yes	Yes
		Path-Cost	1~200000000	Yes	Yes
		Force-Version	STP(0)	Yes	Yes
			RSTP(2)	Yes	Yes
			MSTP(3)	Yes	Yes
			Not-supported(1)	Yes	Yes
		Instance	1~15		Yes
IGMP Snooping Configuration	IGMP Snooping	IGMP Snooping	Enable/Disable	Yes	Yes
GMRP Configuration	GMRP Global	Global GMRP	Enable/Disable	Yes	Yes
	GMRP Ports	Port	Select	Yes	Yes
		GMRP Status	Enable/Disable	Yes	Yes
	GMRP Registration	Fixed	IF_Name		Yes
		Forbidden			Yes
		Normal			Yes
EAPS Configuration	EAPS	EAPS Ring ID	1~16	Yes	Yes
		Mode	None	Yes	Yes
			Master	Yes	Yes
			Transit	Yes	Yes
		Primary Port	/	Yes	Yes
		Secondary Port	/	Yes	Yes
		Control VLAN	2~4094	Yes	Yes
		Protected VLANs	1~4094	Yes	Yes
		Hello Time Interval	1~65535<Fail Time	Yes	Yes
		Fail Time	2~65535>Hello Time	Yes	Yes
		Data Span	Enable/Disable	Yes	Yes
		Extreme Interoperability	Enable/Disable	Yes	Yes
		Enable Status	Enable/Disable	Yes	Yes



Outdoor PoE switch ELECTRA-M10-OUTDOOR

RMON Configuration	Statistics	Port	Select	Yes	Yes
		Index	1~100	Yes	Yes
		Owner	/	Yes	Yes
	History	Port	Select	Yes	Yes
		Index	1~100	Yes	Yes
		Interval	1~3600	Yes	Yes
		Request Buckets	1~100	Yes	Yes
		Owner	/	Yes	Yes
		History Data	First	Yes	Yes
			Prev	Yes	Yes
			Next	Yes	Yes
			Last	Yes	Yes
	Alarm	Index	1~60	Yes	Yes
		Interval	1~3600	Yes	Yes
		Variable	Monitor Object's Oid	Yes	Yes
		Sample Type	Absolute	Yes	Yes
			Delta	Yes	Yes
		Rising Threshold	1~2147483647	Yes	Yes
		Failing Threshold	1~2147483647	Yes	Yes
		Rising Event Index	1~60	Yes	Yes
		Failing Event Index	1~60	Yes	Yes
		Owner	/	Yes	Yes
	Event	Index	1~60	Yes	Yes
		Description	/	Yes	Yes
		Type	None	Yes	Yes
			Log	Yes	Yes
			Snmp-Trap	Yes	Yes
			Log-and-Trap	Yes	Yes
		Community	/	Yes	Yes
		Owner	/	Yes	Yes
Cluster Management	NDP	Port	Select	Yes	Yes
		Port Enable	Enable/Disable	Yes	Yes
		Global Enable	Enable/Disable	Yes	Yes
		Hello-Time	1~4096	Yes	Yes
		Aging-Time	1~4096	Yes	Yes
	NTDP	Port	Select	Yes	Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

		Port Enable	Enable/Disable	Yes	Yes
		Global Enable	Enable/Disable	Yes	Yes
		Hops	1~6	Yes	Yes
		Interval-Time	0~65535min	Yes	Yes
		Hop-Delay	1~1000milsec	Yes	Yes
		Port-Delay	1~100milsec	Yes	Yes
	Cluster	Cluster Enable	Enable/Disable	Yes	Yes
		Management-VLAN	1~4094	Yes	Yes
		IP-Pool	A.B.C.D/M	Yes	Yes
		Handshake Time	1~255sec	Yes	Yes
		Handshake Hold-time	1~255sec	Yes	Yes
		Cluster Name	/	Yes	Yes
		Type	Autobuild	Yes	Yes
			Manual	Yes	Yes
Log Information	Log	Log Priority	Critical	Yes	Yes
			Warning	Yes	Yes
			Informational	Yes	Yes
			Debugging	Yes	Yes
			All	Yes	Yes
	Syslog	Open/Close	/		Yes
POE Power Control	POE	Type	802.3af		Yes
			802.3at	Yes	Yes
			802.3bt	Yes	Yes
		Admin Status	Enable/Disable	Yes	Yes
		Total Power	20~2500/0		Yes
		POE Policy	POE Port	Yes	Yes
			Week Days	Yes	Yes
			Clock	Yes	Yes
	PD Query	POE Port	Select	Yes	Yes
		POE Watchdog	Enable/Disable	Yes	Yes
		PD IP Address	A.B.C.D	Yes	Yes
		PD Query Interval	5~300sec	Yes	Yes
		PD Timeout Number	2~10	Yes	Yes
		PD Boot Time	30~600sec	Yes	Yes
DHCP	DHCP snooping	IP Address	Upload		Yes
			Auto-upload		Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

			Download		Yes
			Reset-download		Yes
		MAC Address	Delete		Yes
ERPS Configuration	ERPS	Domain ID	1~8	Yes	Yes
		Node-role	interconnection	Yes	Yes
			none-interconnection	Yes	Yes
	ERPS Ring ID(1~32)	Enable/Disable	/	Yes	Yes
		Force Switch	Add/Clear	Yes	Yes
		Manual Switch		Yes	Yes
		Guard Time	10~2000	Yes	Yes
		Node Mode	Ring-node	Yes	Yes
			Rpl-neighbor-node	Yes	Yes
			Rpl-owner-node	Yes	Yes
		Hold-off-time	0~10000	Yes	Yes
		Raps-send-time	1~10	Yes	Yes
		Raps-VLAN	2~4094	Yes	Yes
		Revertive-behaviour	Non-revertive	Yes	Yes
			Revertive	Yes	Yes
		Ring Mode	Major-ring	Yes	Yes
			Sub-ring	Yes	Yes
		RI-port	Select	Yes	Yes
		Rpl-port	Select	Yes	Yes
		Traffic VLAN	1~4094	Yes	Yes
		Wtb Time	1~10	Yes	Yes
		Wtr Time	1~12	Yes	Yes
LACP Configuration	LACP	Max-active-link-number	1~8		Yes
		System-priority	1~65535		Yes
LINE	Line	Vty	/		Yes
LLDP	LLDP	Global	Enable		Yes
		Hold-multiplier	2~10		Yes
		Timer	Reinit-delay		Yes
			Tx-delay		Yes
			Tx-interval		Yes
Loop-detection	Loopback-detection	Detection-Time	(1~65535)*2<Resume-Time		Yes



Outdoor PoE switch

ELECTRA-M10-OUTDOOR

		Protocol-safety	/		Yes
		Respond-packets	2~100		Yes
		Resume-Time	10~65535		Yes
MVR	MVR	Enable/Disable	/		Yes
		Group	IP Address		Yes
		VLAN	1~4094		Yes
OAM	OAM	Errored-frame	Period		Yes
			Threshold		Yes
		Errored-frame-period	Period		Yes
			Threshold		Yes
		Errored-frame-seconds	Period		Yes
			Threshold		Yes
Redundant-Port	Redundant-port(1~8)	Force-switch	/		Yes
		Primary-port	Secondary-port		Yes
UDLD	UDLD	Enable	/		Yes
		Time	7~90		Yes
Protocol VLAN	Protocol VLAN	Ether-type	0~65535		Yes
			ARP		Yes
			Atalkarp		Yes
			Atalkddp		Yes
			Atmmulti		Yes
			Atmtransport		Yes
			Dec		Yes
			Deccustom		Yes
			Decdiagnostics		Yes
			Decdnadumpload		Yes
			Decdnaremotconsole		Yes
			Decdnarouting		Yes
			Declat		Yes
			Decsyscomm		Yes
			G8bpqx25		Yes
			IEEEaddrtrans		Yes
			IEEEpup		Yes
			IP		Yes



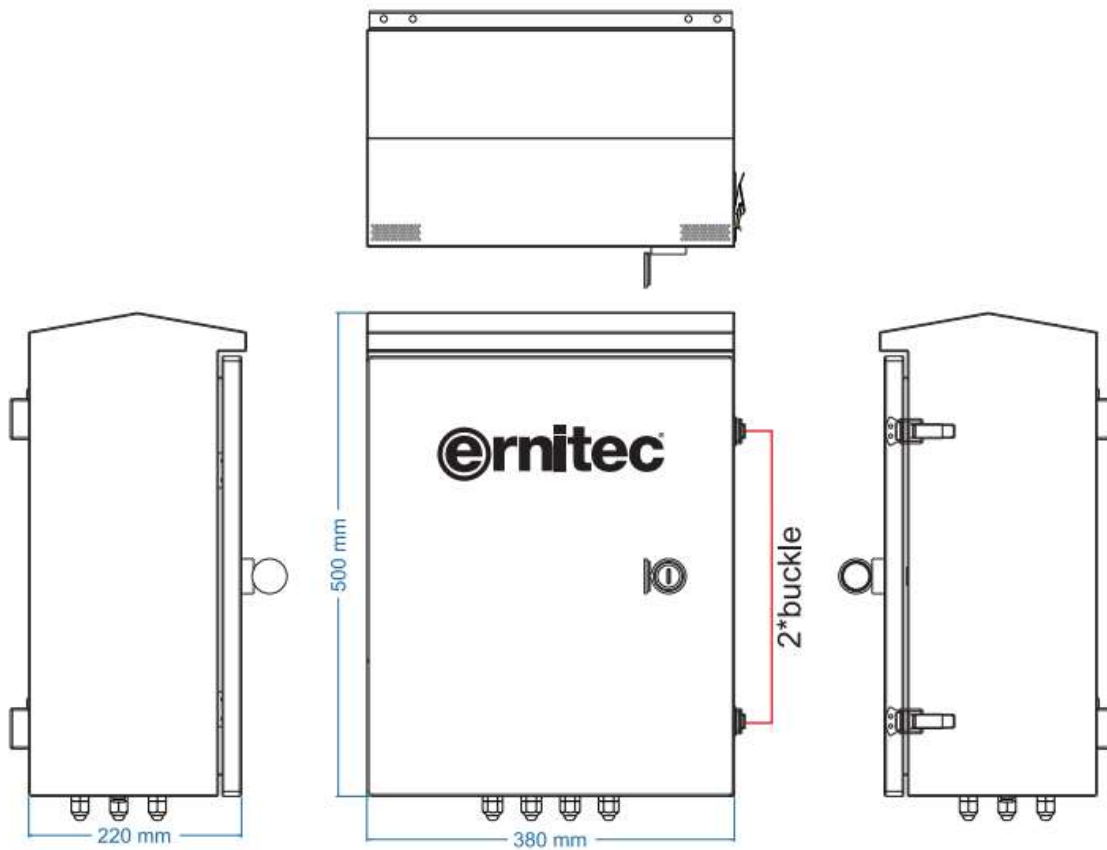
Outdoor PoE switch ELECTRA-M10-OUTDOOR

			IPX		Yes
			PPPdiscovery		Yes
			PPPsession		Yes
			Rarp		Yes
			X25		Yes
			Xeroxaddrtrans		Yes
			Xeroxpup		Yes
CFM	CFM	CC	interval(3~7) Service- instance(1~32767)		Yes
		Enable	/		Yes
		Linktrace	Auto-detection		Yes



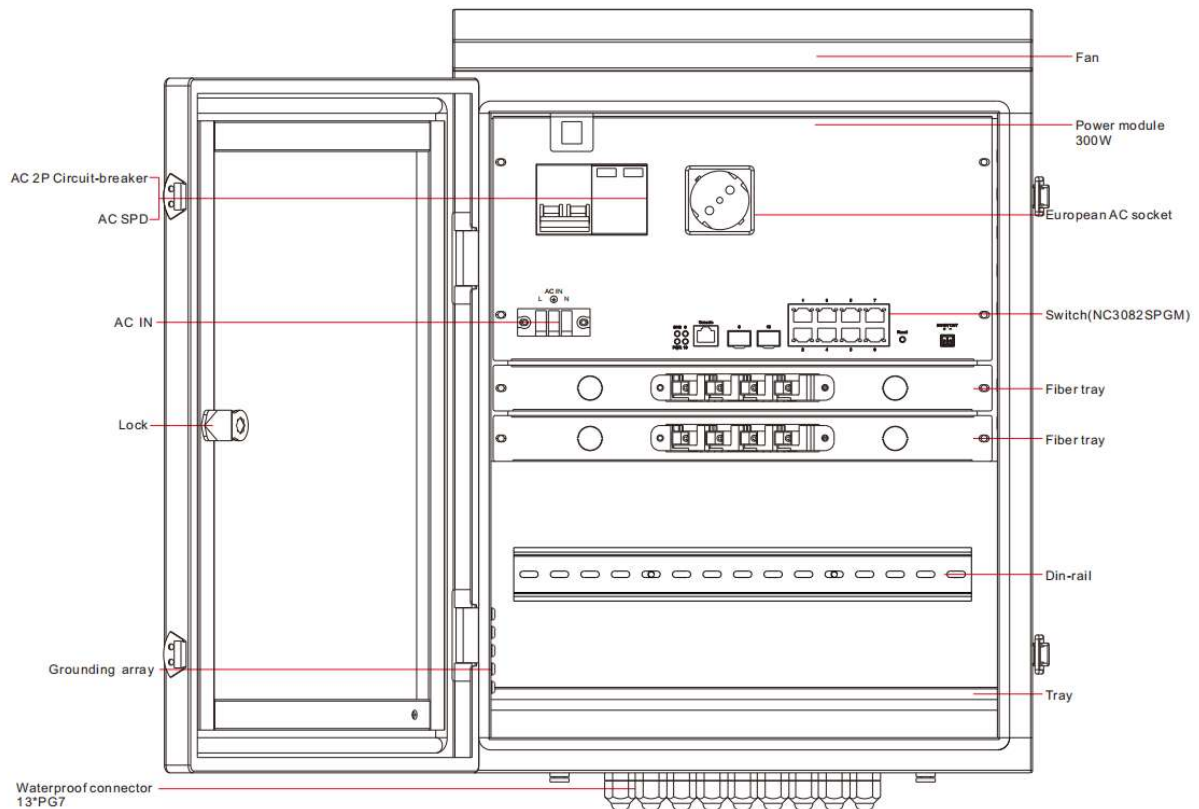
Outdoor PoE switch ELECTRA-M10-OUTDOOR

❖ Structure





Outdoor PoE switch ELECTRA-M10-OUTDOOR



❖ Ordering information

version	describe
ELECTRA-M10-OUTDOOR	Outdoor PoE switch AC220V mains power input, 300W DC52V power module inside With 8*10/100/1000M PoE downlink ports and 2*1000M SFP ports, with L2 network management; Supports 2 port PoE power each up to 90W, 6 port PoE power each up to 30W; 6KV surge protection, 6KV contact / 8KV air ESD protection.