



CITEL

SURGE PROTECTORS

FOR

Security systems



www.citel.fr

All the safety devices used in your facilities are very sensitive and vulnerable to lightning and switching surges.

If these systems are damaged by transient voltages, then the entire protection strategy could be compromised: surge protection is highly recommended.

The cost of fully surge protecting an industrial or commercial facility is relatively low when compared with the downtime and lost revenue from production or service functions, and provides peace of mind that your business remains operational - especially when you need it most.

FIRE ALARM



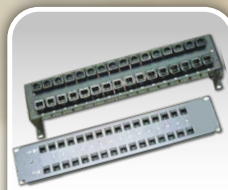
DAC40C

MAIN ELECTRICAL PANEL



DAC1-13VGS

SECURITY ROOM DATA / VIDEO LINES



RAK

LED LIGHTING



DLPM

ANALOG VIDEO SURVEILLANCE CAMERA



MSP-VM

IP VIDEO SURVEILLANCE CAMERA



LAN-10G-POE-CR

ACCESS CONTROL



DLA

SURGE PROTECTORS FOR SURVEY CAMERAS

COMBINED SURGE PROTECTORS FOR ANALOG CAMERA

The MSP-VM-2P series is designed to protect Pan Tilt Zoom security cameras connected to a security network from transient overvoltages, available in various versions : it can provide up to triple protection for video signal, 24 V or 230 Vac power supply and RS485 data signal lines.



CITEL model		MSP-VM24-2P	MSP-VM230-2P
VIDEO	Max. video line voltage	6 Vdc	
	Max. video current	300 mA	
	Max. video frequency	100 MHz	
	Nominal discharge current (In) - 8/20 μ s impulse - 10 times	5 kA (Imax: 10 kA)	
DATA	Max data line voltage	8 Vdc	
	Max data current	300 mA	
	Max data frequency	16 MHz	
	Nominal discharge current (In) - 8/20 μ s impulse - 10 times	2.5 kA (Imax: 5kA)	
POWER	Max. power line voltage	30 Vac / 30 Vdc	255 Vac (TN/TT)
	Max. power current	5 A	
	Max. power frequency	47 - 63 Hz	
	Nominal discharge current (In) - 8/20 μ s impulse - 10 times	5 kA (Imax: 10 kA)	

POE SURGE PROTECTOR FOR IP CAMERAS

The LAN-10G-POE-CR is an outdoor PoE surge protector designed to protect sensitive equipment, like IP cameras, connected to a PoE (Power over Ethernet) network, from transient overvoltages. These SPDs are now qualified with the maximum transmission speed and cabling category used for these Ethernet networks: 10Gigabit Ethernet and Category 6A. Obviously, These new SPDs are applicable for the Ethernet networks with lower categories.

The LAN-10G-POE-CR surge protector is deployed close the IP camera to protect and is equipped with high quality shielded RJ45 connectors.



CITEL model	LAN-10G-POE-CR
Network	POE ++ and 10Gigabit Ethernet CAT6E cabling
Max. frequency	500 MHz
Nominal discharge current Line/PE - 8/20 μ s	2 kA
Max. discharge current - Total/PE - 8/20 μ s	16 kA
Nominal discharge current Line/Line - 8/20 μ s	150 A

BNC SURGE PROTECTORS

CXC surge protectors are designed to protect sensitive equipment, connected to coaxial lines as video-transmission, against transient surge voltages and disturbances created by lightning. The scheme of CXC is a 2-stage circuit of gas discharge tube and clamping diode, allows heavy discharge current and low residual voltage.



CITEL model	CXC06-B/FM
Max. line voltage	6 Vdc
Nominal discharge current (In) 8/20 μ s impulse - 10 times	10 kA
Connectors	BNC Female/Male

GIGABIT ETHERNET POE++ SURGE PROTECTORS

The MJ8-POE-C6A is designed to protect sensitive equipment connected to a POE++ (Power over Ethernet) network from transient overvoltages. This SPD is qualified with the maximum transmission speed and cabling category used for these Ethernet networks: 10Gigabit Ethernet and Category 6A. Obviously, it is applicable for the Ethernet networks with lower categories. The surge protector is housed in a shielded enclosure with high quality RJ45 shielded jacks. The transient protection circuit is based on high energy gas discharge tubes (GDT) and a network of fast response silicon avalanche diodes (SAD) to achieve sharp clamping of very large surge events.

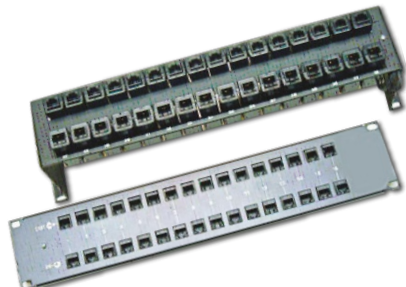


CITEL model	MJ8-POE-C6A	MJ8-C6A
Application	10Gigabit ethernet with POE++	10Gigabit ethernet
Max. line voltage (data)	8 Vdc	8 Vdc
Max. line voltage (POE)	60 Vdc	N/A
POE power	100 W (2 A per line)	N/A
Nominal discharge current (In) <i>(per line/PE @ 8/20μs)</i>	2 kA	2kA
Total discharge current (Itotal) <i>(1+2+3+4+5+6+7+8/PE @ 8/20μs)</i>	16 kA	16 kA
Connectors	Shielded RJ45	Shielded RJ45

SURGE PROTECTORS FOR CONTROL ROOMS

19" RACK SURGE PROTECTORS

The RAK series for 19" rack mount or wall mount standoff protectors will ensure the reliable operation of networked equipment connected to 10/100/1000BaseT Ethernet, Cat5, Cat6, PoE and most other communication interfaces.



CITEL model	RAK16-BNC	RAK16-E-C6	RAK16-POE-A
Typical application	Coaxial video lines	Ethernet lines	POE lines
Number of ports	16	16	16
Maximum line voltage	7.5 Vdc	7.5 Vdc	60 Vdc
Nominal discharge current	300 A	400 A	300 A
Connectors	BNC	RJ45	RJ45

DATALINE SURGE PROTECTORS DIN RAIL MOUNTING

DLA surge protectors are designed to protect, against surge voltages due to lightning, terminals equipment connected to industrial buses, telecom lines or datalines. These surge protectors must be installed on symmetrical DIN rail and are available for most of the transmission lines: line voltage from 6 to 170V, bitrate up to 10 Mbit/s. These products are 1-pair surge protectors with removable module for easy maintenance.



CITEL model	DLA-06D3	DLA-12D3	DLA-24D3	DLA-48D3
Typical application	RS422	RS232/RS485	4-20mA	48 V line
Configuration	1pair+shield	1 pair+shield	1 pair+shield	1 pair+shield
Nominal line voltage	6 V	12 V	24 V	48 V
Max. line current	300 mA	300 mA	300 mA	300 mA
Nominal discharge current	5 kA	5 kA	5 kA	5 kA
Maximum discharge current	20 kA	20 kA	20 kA	20 kA
Maximum frequency <i>(-3dB 100W)</i>	DC to >115 MHz	DC to >115 MHz	DC to >115 MHz	DC to >115 MHz
Mounting	DIN rail	DIN rail	DIN rail	DIN rail

AC POWER SURGE PROTECTORS

AC TYPE 1 SURGE PROTECTORS

The DAC1-13VGS is an extreme duty Type 1+2+3 pluggable SPD designed to protect AC powerline at the main switchboard of an installation equipped with lightning rod. The "VG" technology from CITEL allows a very high discharge current capability in small dimensions and the best possible behavior to the AC network (no leakage current, no ageing). Despite their high discharge capability, the DAC1-13VGS surge protectors are especially compact and are available in multipolar versions to protect single or 3-phase AC networks.



CITEL model	DAC1-13VGS-31-275	DAC1-13VGS-11-275
Network	230/400 V 3-phase+N	230 V 1-phase+N
Type of SPD	Type 1+2+3	Type 1+2+3
Max. AC operating voltage L-N	275 Vac	275 Vac
Nominal discharge current	20 kA	20 kA
Maximum discharge current	50 kA	50 kA
Wiring for remote signaling	1.5 mm ² max	1.5 mm ² max
Mounting	DIN rail	DIN rail
Remote signaling of disconnection	Yes	Yes

AC TYPE 2+3 SURGE PROTECTORS

The pluggable compact surge protectors Type 2+3 DACxxC, are designed to protect electrical installation at the main switchboard or at secondary panels.. Their compact format allows to install it in limited space. This SPD is based on high energy varistor equipped with thermal disconnecter and failure indicator, to comply with standards. guaranteeing a maximum protection efficiency, a high impulse current capability and an improved reliability. DACxxC surge protectors are available in 2 impulse current versions (DAC15C and DAC40C), in multipolar configuration and in several operating voltages to protect all kinds of single or 3-phase AC networks.



CITEL model	DAC40CS-11-275	DAC40CS-31-275
AC network	230 V Single-phase	230 V 3-phase +N
Type of SPD	Type 2+3	Type 2+3
Max. operating voltage	275 V	275 V
Nominal discharge current	20 kA	20 kA
Maximum discharge current	40 kA	40 kA
Wiring	Screw terminal	Screw terminal
Mounting	DIN rail	DIN rail
Remote signalling	Yes	Yes

LED LIGHTING SURGE PROTECTORS

The DLPM range is a series of DIN-mount AC surge protector designed to be installed inside the cutouts of LED lighting pole: the compact size and lower height make it compatible with the DIN rail mounting of its enclosures. This range has a mechanical disconnect indicator.



CITEL model	DLPM1-230L
AC network	230 V single-phase
SPD type	Type 2+3
Nominal discharge current (In)	5 kA
Maximum discharge current (Imax)	10 kA
Maximum load current (IL)	10 A
Wiring	Screw terminal
Mounting	DIN rail

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