2-pair plug-in Surge Protector

E280 series

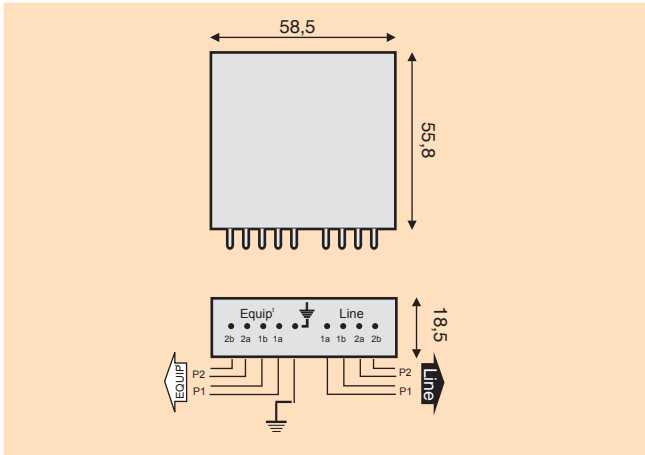
The E280 concept is based on the use of plug-in modules to protect telecom and data lines. The E280 line covers all multi-line telephone (PABX) and data installation configurations: there is an E280 module and a suitable support for every type.
E280 surge protectors use a high-speed 3-electrode gas discharge tube/clamping diode combination for a high discharge current capacity and a very short response time. Several diagrams are available to meet different line needs and standards.
Each module protects two pairs and is available for all types of line. The «plug-in» concept makes maintenance easy and lets you mix different types of line on the same support.

Specific versions for AC or DC powerline surge protection are also available :
- E280-A.. : Surge protector built with GDT and fast clamping diodes. Maximum line current : 0.5 A.
- E280-AV.. : Surge protector built with varistors. Maximum line current : 10 A.

E280 modules are compatible with a range of supports that includes multi-line boxes (ref. BNxx), «backplane» circuits for telephone distribution frames and DIN rails (ref. FPSUxx), and IDC modules for distribution frame mounting (ref. MMP).

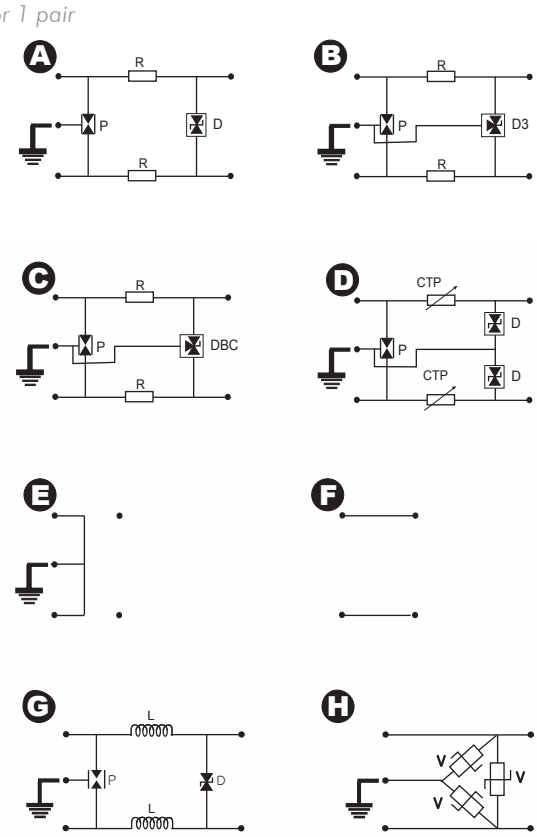
- **2 pairs plug-in module**
- **Optimized modularity and maintenance**
- **Can be adapted to all types of line**
- **Gas tube / diode combination**
- **For power supplies from 6Vdc to 220Vac (E280-A..)**

Dimensions (in mm)



Electrical diagram

For 1 pair



P : 3-electrode gas tube
R : Resistor
D : Clamping diode
D3 : 3-pole clamping diode
DBC : 3-pole low capacitance diode
CTP : Thermistor
L : Inductor
V : Varistor

2-pair plug-in Surge Protector

E280 series

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Surge protectors for telecom and data lines

Characteristics

CITEL part number	E280-TM	E280-K20	E280-48D3M	E280-24D3M	E280-12D3M	E280-06D3M	E280-06DBC	E280G	ELM	E280-ICS
Application	Telephone line - ADSL	Telephone line - K20 std	ISDN-T0 Telex	Leased line 4-20 mA	RS232	RS422 RS485	T2/T1 10BaseT	Earthing	Continuity	Token ring
Max. line voltage (Uc)	170 V	220 V	48 V	24 V	15 V	6 V	6 V	-	-	6 V
Max. line current	300 mA	150 mA	300 mA	300 mA	300 mA	300 mA	300 mA	-	> 1 A	300 mA
Max. frequency	3 MHz	3 Mhz	1 MHz	0,5 MHz	0,5 MHz	0,5 MHz	20 MHz	-	> 20 MHz	20 MHz
Minimum clamping voltage	190 V	240 V	60 V	30 V	20 V	10 V	12 V	-	-	12 V
Protection level (Up) *8/20µs impulse - 5kA*	220 V	260 V	70 V	35 V	30 V	20 V	25 V	-	-	25 V
Nominal discharge current (In) *8/20µs impulse - 10 times*	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	> 5 kA	-	5 kA
Max. discharge current (Imax) *8/20µs impulse - 1 time*	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	> 10 kA	-	10 kA
Type of diagram	A	D	B	B	B	B	C	E	F	C
End of life	short-circuit	stop and reset	short-circuit	short-circuit	short-circuit	short-circuit	short-circuit	-	-	short-circuit

E280A series

Surge protectors for DC and AC power lines

Characteristics

CITEL part number	E280-A06	E280-A12	E280-A24	E280-A48	E280-AV12	E280-AV24	E280-AV35	E280-AV48	E280-AV110	E280-AV220
Max. DC voltage (Uc-dc)	6 V	12 V	24 V	48 V	18 V	26 V	35 V	54 V	125 V	300 V
Max. AC voltage (Uc-ac)	5 V	10 V	18 V	40 V	14 V	20 V	30 V	40 V	95 V	250 V
Max. line current	500 mA	500 mA	500 mA	500 mA	10 A	10 A	10 A	10 A	10 A	10 A
Protection level (Up) *at In*	20 V	30 V	50 V	60 V	40 V	60 V	90 V	130 V	250 V	600 V
Nominal discharge current (In) *8/20µs impulse - 10 times*	5 kA	5 kA	5 kA	5 kA	1,5 kA	1,5 kA	1,5 kA	1,5 kA	4,5 kA	4,5 kA
Max. discharge current (Imax) *8/20µs impulse - 1 time*	10 kA	10 kA	10 kA	10 kA	3 kA	3 kA	3 kA	3 kA	6,5 kA	6,5 kA
Type of diagram	G	G	G	G	H	H	H	H	H	H