

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.

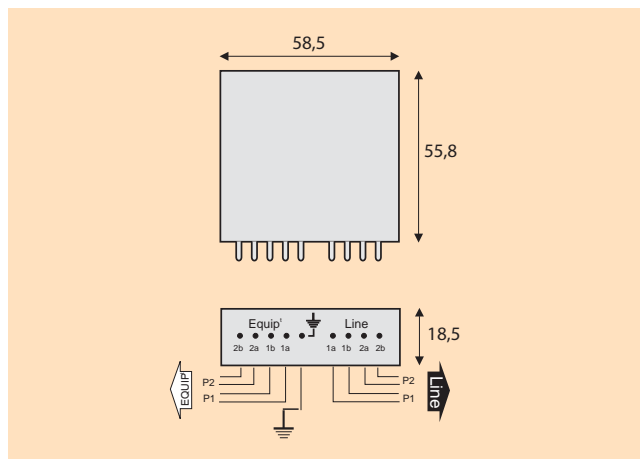
Specific versions for AC or DC powerline surge protection are also available :

- 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).

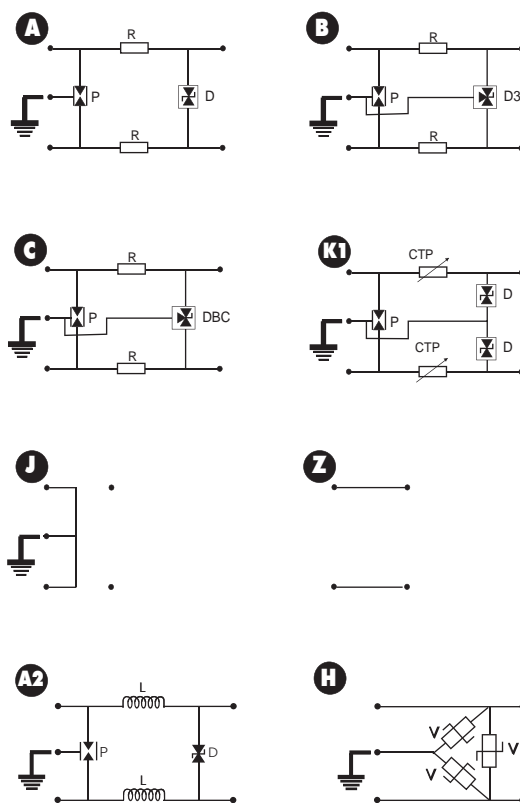
- **2 pairs plug-in module**
- **Optimized modularity and maintenance**
- **Can be adapted to all types of line**
- **Gas tube / diode combination**
- **For power supplies from 6 Vdc to 220 Vac (E280-A..)**

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

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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
Application	Telephone line - ADSL	Telephone line - K20 std	ISDN-T0 Telex	Leased line 4-20 mA	RS232	RS422 RS485	T2 - T1 10BaseT	Earthing	Continuity
Nominal line voltage (Un)	150 V	150 V	48 V	24 V	12 V	6 V	6 V	-	-
Max. line voltage (Uc)	170 V	220 V	53 V	28 V	15 V	8 V	8 V	-	-
Max. line current (Il)	300 mA	150 mA	300 mA	300 mA	300 mA	300 mA	300 mA	-	> 1 A
Max. frequency	3 MHz	3 Mhz	1 MHz	0,5 MHz	0,5 MHz	0,5 MHz	20 MHz	-	> 20 MHz
Protection level (Up) 8/20µs impulse - 5kA	220 V	260 V	70 V	40 V	30 V	20 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	-
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	-
Lightning current (Iimp) 10/350µs impulse - 2 times	2.5 kA	2.5 kA	2.5 kA	2.5 kA	2.5 kA	2.5 kA	2.5 kA	> 2.5 kA	-
Type of diagram	A	K1	B	B	B	B	C	J	Z
End of life	short-circuit	cut-off and reset	short-circuit	short-circuit	short-circuit	short-circuit	short-circuit	-	-
Mechanical characteristics	2 pairs plug-in module Montage sur support type BN, FPSU, MMP Dimensions : see drawing Connectique : contact mâle laiton doré 0,5 µ Housing material : Thermoplastic UL94-V0								

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)	8 V	15 V	28 V	53 V	18 V	26 V	35 V	54 V	125 V	300 V
Max. AC voltage (Uc-ac)	5 Vac	10 Vac	18 Vac	38 Vac	14 Vac	20 Vac	30 Vac	40 Vac	95 Vac	250 Vac
Max. line current (Il)	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	A2	A2	A2	A2	H	H	H	H	H	H