

# B180, B280, B480 SERIES



- 1 to 4-pair surge protection units
- All types of telephone and data lines
- Removable protection circuit
- Wall mounting and screw connection
- IEC 61643-21 compliance
- UL497A approved

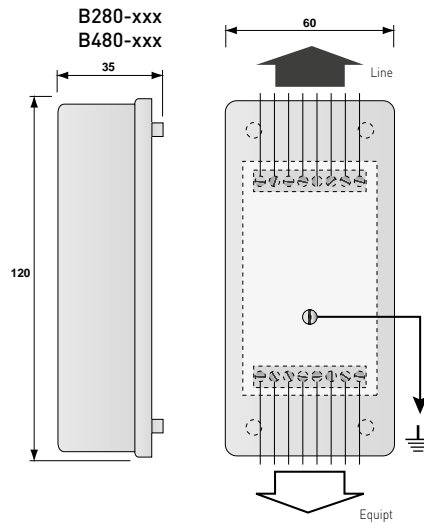
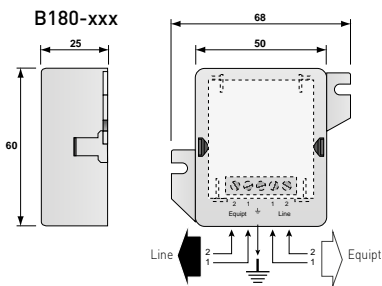
## Characteristics

CITEL Model	B180-T	B180-48D3	B180-48DBC	B180-24D3	B180-12D3	B180-06D3	B180-06DBC	
	B280-T	B280-48D3	B280-48DBC	B280-24D3	B280-12D3	B280-06D3	B280-06DBC	
	B480-T	B480-48D3	B480-48DBC	B480-24D3	B280-12D3	B480-06D3	B480-06DBC	
Description	Surge protector box - 1, 2 or 4 pairs							
Network	Tephone line, ADSL2, VDSL2	ISDN-T0, 48 V line	ISDN-T0, 48 V high bitrate	4-20 mA	RS232, RS485	RS422	E1/T2, 10BaseT	
SPD configuration	B180 B280 B480	1 pair 2 pairs 4 pairs	1 pair 2 pairs 4 pairs	1 pair 2 pairs 4 pairs	1 pair 2 pairs 4 pairs	1 pair 2 pairs 4 pairs	1 pair 2 pairs 4 pairs	
Nominal line voltage	Un	150 V	48 V	48 V	24 V	12 V	6 V	
Max. DC operating voltage	Uc	170 V	53 V	53 V	28 V	15 V	8 V	
Max. Load current	IL	300 mA	300 mA	300 mA	300 mA	300 mA	300 mA	
Max. frequency	f max	10 MHz	3 MHz	20 MHz	3 MHz	3 MHz	20 MHz	
Insertion loss @ fmax		< 1 dB	< 1 dB	< 1 dB	< 1 dB	< 1 dB	< 1 dB	
Nominal discharge current <i>8/20µs Test x 10 - C2 Category</i>	In	5 kA	5 kA	5 kA	5 kA	5 kA	5 kA	
Max. discharge current <i>max. withstand @ 8/20 µs by pole</i>	Imax	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	
Impulse current <i>2 x 10/350µs Test - D1 Category</i>	Iimp	2.5 kA	2.5 kA	2.5 kA	2.5 kA	2.5 kA	2.5 kA	
Protection level <i>following C3 Category test</i>	Up	220 V	70 V	75 V	40 V	30 V	20 V	
Failsafe behavior		Short-circuit	Short-circuit	Short-circuit	Short-circuit	Short-circuit	Short-circuit	
<b>Mechanical characteristics</b>								
Dimensions	see diagram							
Format	wall mounting box							
Disconnection indicator	transmission interrupt - default mode 2							
Mounting	wall (screws non included)							
Operating temperature	-40/+85°C							
Protection rating	IP20							
Housing material	Thermoplastic UL94-V0							
Spare unit	S180-T	S180-48D3	S180-48DBC	S180-24D3	S180-12D3	S180-06D3	S180-06DBC	
Spare unit	S280-T	S280-48D3	S280-48DBC	S280-24D3	S280-12D3	S280-06D3	S280-06DBC	
Spare unit	S480-T	S480-48D3	S480-48DBC	S480-24D3	S280-12D3	S480-06D3	S480-06DBC	
<b>Standards</b>								
	IEC 61643-21 / EN 61643-21 / UL497A							
<b>Part number</b>								
B180 range	510602	510402	510412	510302	510202	510102	510112	
B280 range	72726	72774	72754	72773	72772	72771	72751	
B480 range	72746	72794	72800	72793	72772	72791	72798	

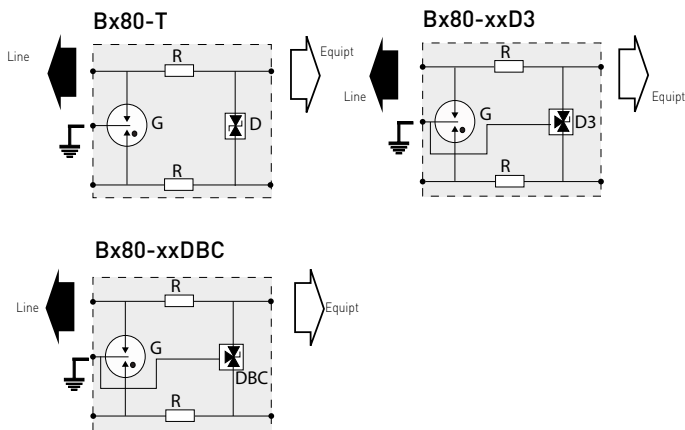
# 1,2 AND 4-PAIR SURGE PROTECTORS FOR DATALINE/TELECOM

**B 80-xx**

Bit rate (D3 or DBC)  
 Nominal voltage  
 «1»: 1 pair  
 «2»: 2 pairs  
 «4»: 4 pairs



1-pair diagram



- G: 3-electrode gas tube
- R: Resistor
- D: Clamping diode
- D3: 3-pole clamping diode
- DBC: 3-pole low capacitance diode

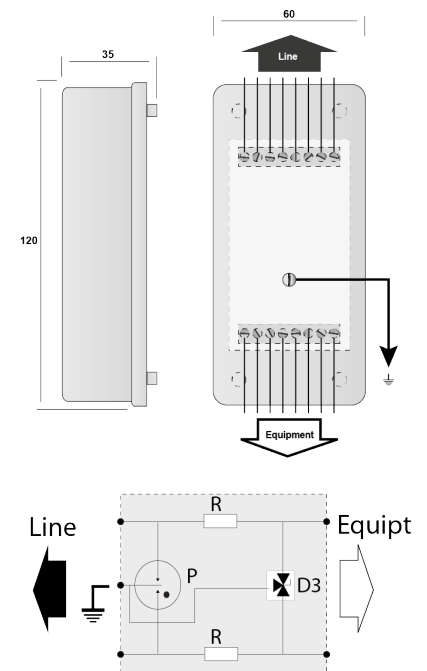


## B480-48D3



- 4-pair surge protection unit
- 48 V
- Removable protection circuit
- Wall mounting and screw connection
- UL497 A&B

Electrical Characteristics		
Network		RNIS-T0, 48 V line
Nominal line voltage	$U_n$	48 V
Max. DC operating voltage	$U_c$	53 V
Max. load current	$I_L$	300 mA
Max. frequency	$f$	> 3 MHz
Insertion loss		< 1 dB
Max. discharge current <i>max. withstand @ 8/20 <math>\mu</math>s by pole</i>	$I_{max}$	20 kA
Total Maximal discharge current <i>max. total withstand @ 8/20 <math>\mu</math>s</i>	$I_{max}$ Total	20 kA
Line inductance		No
Protection mode(s)		Common/Differential mode
Protection level <i>Following the test category C3 (IEC61643-21) - Line/Line</i>	$U_p$	70 V
Max. shunt capacitance	$C$	< 150 pF
Impulse current <i>2 x 10/350 <math>\mu</math>s Test - D1 Category</i>	$I_{imp}$	2.5 kA
Nominal discharge current <i>8/20 <math>\mu</math>s Test x 10 - C2 Category</i>	$I_n$	5 kA
Type of diagram		B
Mechanical Characteristics		
Technology		GDT+Clamping diode
SPD configuration		4 pairs
Connection to Network		screw terminal - mini/maxi cross section : 0.4/1.5 mm <sup>2</sup>
Format		wall mounting box
Mounting		wall (screws non included)
Housing material		Thermoplastic UL94-V0
Operating temperature		-40/+85°C
Protection rating		IP20
Failsafe behavior		Short-circuit - transmission cut-off - fault mode 2
Spare module(s)		S480-48D3
Remote signaling of disconnection		no
Dimensions		See diagram
Standards		
Standards compliance		IEC 61643-21 / EN 61643-21 / UL497A
Certification		UL listed
Part Number		72794



P: 3-electrode gas tube  
R: Resistor  
D3: 3-pole clamping diode



## B480-T

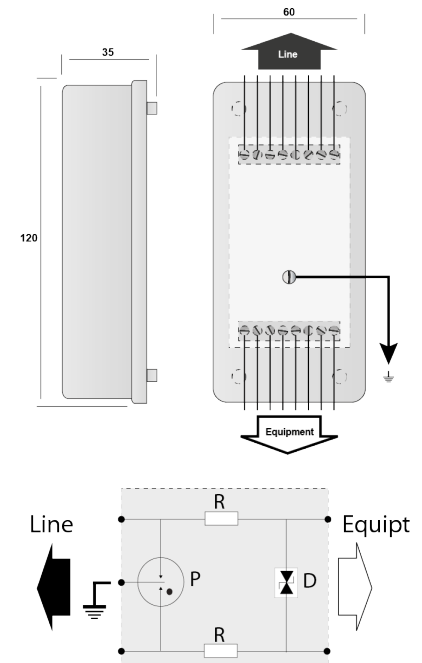
- 4-pair surge protection unit
- For Telephone lines
- Removable protection circuit
- Wall mounting and screw connection
- UL497 A&B



Electrical Characteristics		
Network		RTC, ADSL, SDSL, SHDSL
Nominal line voltage	$U_n$	150 V
Max. DC operating voltage	$U_c$	170 V
Max. load current	$I_L$	300 mA
Max. frequency	$f$	> 10 MHz
Insertion loss		< 1 dB
Max. discharge current <i>max. withstand @ 8/20 <math>\mu</math>s by pole</i>	$I_{max}$	20 kA
Total Maximal discharge current <i>max. total withstand @ 8/20 <math>\mu</math>s</i>	$I_{max}$ <i>Total</i>	20 kA
Line inductance		No
Protection model(s)		Common/Differential mode
Protection level <i>Following the test category C3 (IEC61643-21) - Line/Line</i>	$U_p$	220 V
Max. shunt capacitance	$C$	< 70 pF
Impulse current <i>2 x 10/350 <math>\mu</math>s Test - D1 Category</i>	$I_{imp}$	2.5 kA
Nominal discharge current <i>8/20 <math>\mu</math>s Test x 10 - C2 Category</i>	$I_n$	5 kA
Type of diagram		A

Mechanical Characteristics		
Technology		GDT+Clamping diode
SPD configuration		4 pairs
Connection to Network		screw terminal - mini/maxi cross section : 0.4/1.5 mm <sup>2</sup>
Format		wall mounting box
Mounting		wall (screws non included)
Housing material		Thermoplastic UL94-V0
Operating temperature		-40/+85°C
Protection rating		IP20
Failsafe behavior		Short-circuit - transmission cut-off - fault mode 2
Spare module(s)		S480-T
Remote signaling of disconnection		no
Dimensions		See diagram

Standards		
Standards compliance		IEC 61643-21 / EN 61643-21 / UL497A
Certification		UL listed
Part Number		72746



P: 3-electrode gas tube  
R: Resistor  
D: Clamping diode