



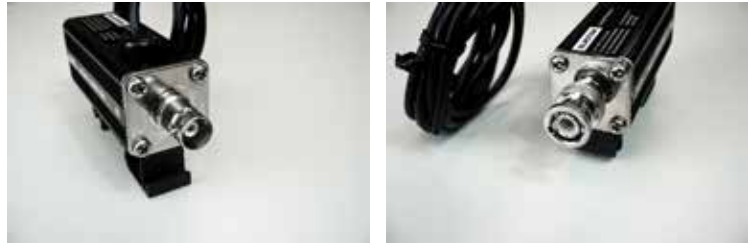
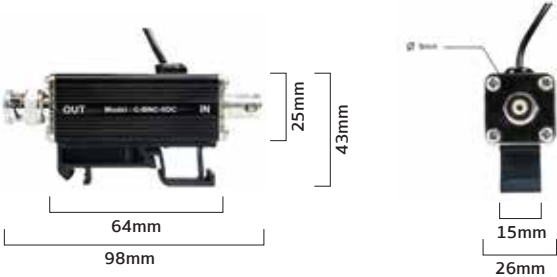
BLUESTONE
C O M P A N Y L I M I T E D

Surge Protection Catalog



Coaxial Protector Specification

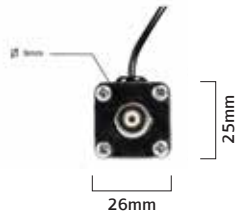
Model : C-BNC-5DC



Nominal Voltage Un	5Vdc
Max. continuous operating voltage Uc (Core-Shield)	< 8.5 Vdc
Max. continuous operating voltage Uc (Core-Earth)	< 230 Vdc
Nominal Current IN	150 mA
Operating effective current Ic at Uc	≤ 2 μA
Residual current to IPE at Uc	≤ 1 μA
Nominal discharge surge current In (Core-Shield)	10kA at 8/20μS
Nominal discharge surge current In (Core-Earth)	10kA at 8/20μS
Total Surge Current	20kA at 8/20μS
Voltage Protection level Up (Core-Shield)	≤ 15V [C1(1kV/500A)]
Voltage Protection level Up (Core-Shield)	≤ 20V [C2(4kV/2kA)]
Voltage Protection level Up (Core-Shield)	≤ 25V [C2(8kV/4kA)]
Voltage Protection level Up (Core-Earth)	≤ 430V [C1(1kV/500A)]
Voltage Protection level Up (Core-Earth)	≤ 560V [C2(4kV/2kA)]
Voltage Protection level Up (Core-Earth)	≤ 700V [C2(8kV/4kA)]
Response time (Core-Shield)	100 nS
Response time (Core-Earth)	200 nS
Cut-off frequency	90 MHz
Type of connection	BNC 50 Ω
Housing material	Aluminium
Degree of protection	IP 20
Ambient temperature	-40 °C ... 85 °C
Mounting type	Surface on desk or Din rail 35 mm.

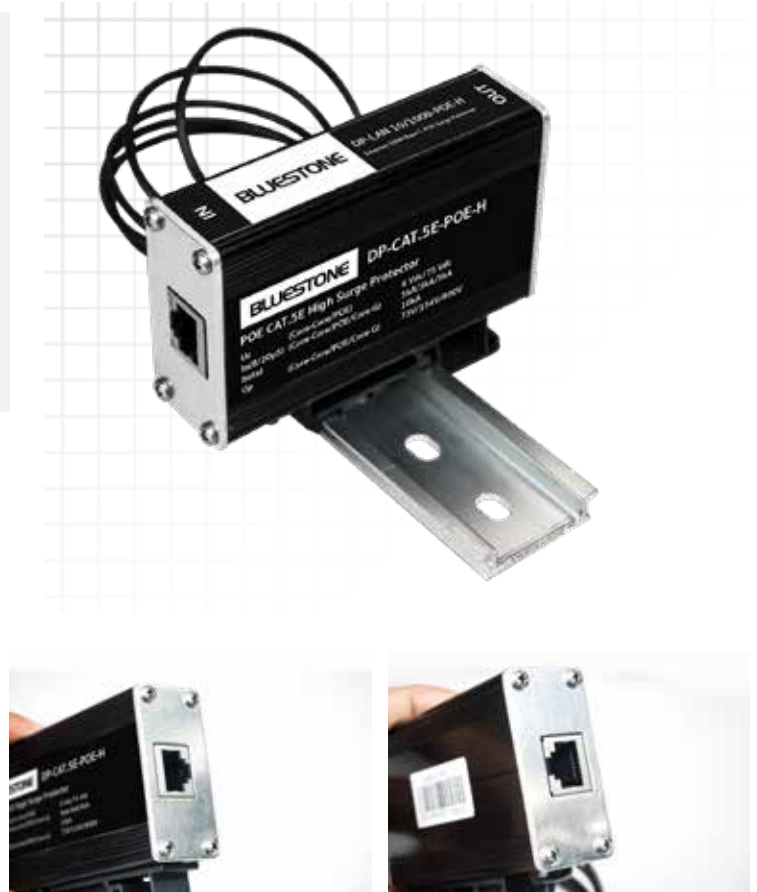
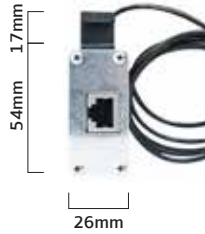
Coaxial Protector Specification

Model : C-BNC-5DC/N



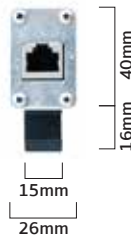
Nominal Voltage Un	5Vdc
Max. continuous operating voltage Uc (Core-Shield)	< 8.5 Vdc
Max. continuous operating voltage Uc (Core-Earth)	< 230 Vdc
Nominal Current IN	150 mA
Operating effective current Ic at Uc	≤ 2 μA
Residual current to IPE at Uc	≤ 1 μA
Nominal discharge surge current In (Core-Shield)	10kA at 8/20μS
Nominal discharge surge current In (Core-Earth)	10kA at 8/20μS
Total Surge Current	20kA at 8/20μS
Voltage Protection level Up (Core-Shield)	≤ 15V [C1(1kV/500A)]
Voltage Protection level Up (Core-Shield)	≤ 20V [C2(4kV/2kA)]
Voltage Protection level Up (Core-Shield)	≤ 25V [C2(8kV/4kA)]
Voltage Protection level Up (Core-Earth)	≤ 430V [C1(1kV/500A)]
Voltage Protection level Up (Core-Earth)	≤ 560V [C2(4kV/2kA)]
Voltage Protection level Up (Core-Earth)	≤ 700V [C2(8kV/4kA)]
Response time (Core-Shield)	100 nS
Response time (Core-Earth)	200 nS
Cut-off frequency	90 MHz
Type of connection	BNC 50 Ω
Housing material	Aluminium
Degree of protection	IP 20
Ambient temperature	-40 ° C ... 85 ° C

Ethernet Cat.5E POE High Surge Current Protector Model : DP-CAT.5E-POE-H



Number of position	8 pins
Nominal Voltage (Core-Core/POE)	5Vdc/48V
Maximum operating voltage U_c (Core-Core/POE/Core-Earth)	< 6 Vdc / < 75 Vdc / < 230 Vdc
Nominal Current I_N (POE)	1 A
Operating effective current I_c at U_c	$\leq 1 \mu A$
Residual current to IPE at U_c	$\leq 1 \mu A$
Nominal discharge surge current I_n (Core-Core/POE/Core-Earth)	5kA / 5kA / 5kA at 8/20 μs
Total Surge Current	10kA at 8/20 μs
Protection level Up (Core-Core)	$\leq 18V$ [C1(200V/100A)] $\leq 68V$ [C2(1kV/500A)] $\leq 73V$ [C2(4kV/2kA)]
Protection level Up (POE)	$\leq 100V$ [C1(200V/100A)] $\leq 154V$ [C1(4kV/2kA)]
Protection level Up (Core-Earth)	$\leq 650V$ [C2(4kV/2kA)] $\leq 800V$ [C2(8kV/4kA)]
Response time t_A (Core-Core/Core-Earth)	< 1 nS / < 100 nS
Cut-off frequency	650 MHz
Data rate	10/100/1000 Mbps
Type of connection	RJ 45
Standard Reference	IEC61643-21 , IEEE 802.3 at/af (POE)
Housing material	Anodized extrude aluminum
Color	Black
Degree of protection	IP 20
Ambient temperature	-40 ° C ... 85 ° C

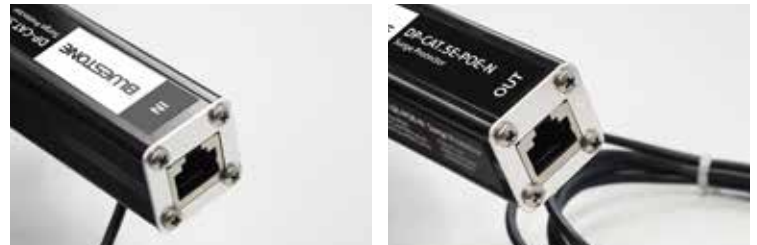
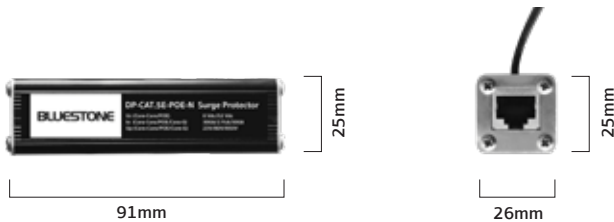
Ethernet Cat.5E POE L Surge Current Protector Model : DP-CAT.5E-POE-L



Number of position	8 pins
Nominal Voltage (Core-Core/POE)	5Vdc/48V
Maximum operating voltage U_c (Core-Core/POE/Core-Earth)	< 6 Vdc / < 52 Vdc / < 230 Vdc
Nominal Current I_N (POE)	1 A
Operating effective current I_c at U_c	$\leq 1 \mu A$
Residual current to IPE at U_c	$\leq 1 \mu A$
Nominal discharge surge current I_n (Core-Core/POE/Core-Earth)	300A / 175A / 300A at 8/20 μ S
Total Surge Current	700A at 8/20 μ S
Protection level Up (Core-Core)	$\leq 23V$ [C1(600V/300A)]
Protection level Up (POE)	$\leq 80V$ [C1(350V/175A)]
Protection level Up (Core-Earth)	$\leq 850V$ [C2(4kV/2kA)]
Response time t_A (Core-Core/Core-Earth)	< 1 nS / < 100 nS
Cut-off frequency	650 MHz
Data rate	10/100/1000 Mbps
Type of connection	RJ 45
Standard Reference	IEC61643-21 , IEEE 802.3 at/af (POE)
Housing material	Anodized extrude aluminum
Color	Black
Degree of protection	IP 20
Ambient temperature	-40 ° C ... 85 ° C

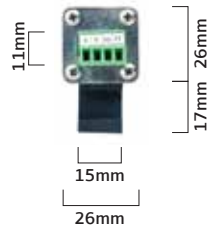
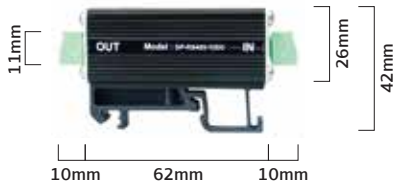
Ethernet Cat.5E POE N Surge Current Protector

Model : DP-CAT.5E-POE-N



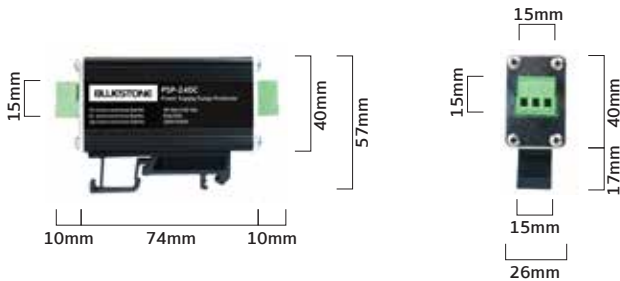
Number of position	8 pins
Nominal Voltage (Core-Core/POE)	5Vdc/48V
Maximum operating voltage U_c (Core-Core/POE/Core-Earth)	$< 6 \text{ Vdc} / < 52 \text{ Vdc} / < 230 \text{ Vdc}$
Nominal Current I_N (POE)	1 A
Operating effective current I_c at U_c	$\leq 1 \mu\text{A}$
Residual current to IPE at U_c	$\leq 1 \mu\text{A}$
Nominal discharge surge current I_n (Core-Core/POE/Core-Earth)	300A / 175A / 300A at 8/20 μs
Total Surge Current	700A at 8/20 μs
Protection level Up (Core-Core)	$\leq 23\text{V}$ [C1(600V/300A)]
Protection level Up (POE)	$\leq 80\text{V}$ [C1(350V/175A)]
Protection level Up (Core-Earth)	$\leq 850\text{V}$ [C2(4kV/2kA)]
Response time t_A (Core-Core/Core-Earth)	$< 1 \text{ nS} / < 100 \text{ nS}$
Cut-off frequency	650 MHz
Data rate	10/100/1000 Mbps
Type of connection	RJ 45
Standard Reference	IEC61643-21 , IEEE 802.3 at/af (POE)
Housing material	Anodized extrude aluminum
Color	Black
Degree of protection	IP 20
Ambient temperature	-40 ° C ... 85 ° C

Serial Signal Surge Current Protector Model : DP-RS485-12DC



Number of position	4 pins (input) , 3 pins (output)
Nominal Voltage (Core-Core)	12Vdc
Maximum operating voltage Uc (Core-Core/Core-Earth)	< 15 Vdc / < 230 Vdc
Nominal Current I _N	1.5 A
Operating effective current I _c at U _c	≤ 1 μA
Residual current to IPE at U _c	≤ 1 μA
Nominal discharge surge current I _n (Core-Core/Core-Earth)	5kA / 10kA at 8/20μS
Total Surge Current	10kA at 8/20μS
Protection level Up (Core-Core)	≤ 29V [C2(4kV/2kA)]
Protection level Up (Core-Earth)	≤ 744V [C2(4kV/2kA)]
Response time t _A (Core-Core/Core-Earth)	< 1 nS / < 100 nS
Type of connection	Terminal Block wire range 28-16AWG (1.5 sq.mm.)
Standard Reference	IEC61643-21
Housing material	Aluminium
Color	Black
Degree of protection	IP 20
Ambient temperature	-40 ° C ... 85 ° C

Power Supply Surge Current Protector Model : PSP-24DC



Number of position	3 pins
Nominal Voltage (Core-Core)	24Vdc
Maximum operating voltage U_c (Core-Core/Core-Earth)	$< 38 \text{ Vdc} / < 230 \text{ Vdc}$
Nominal Current I_N	1.5 A
Operating effective current I_c at U_c	$\leq 1 \mu\text{A}$
Residual current to IPE at U_c	$\leq 1 \mu\text{A}$
Nominal discharge surge current I_n (Core-Core/Core-Earth)	5kA / 5kA at 8/20 μs
Total Surge Current	10kA at 8/20 μs
Protection level U_p (Core-Core)	$\leq 180\text{V} [C2(4\text{kV}/2\text{kA})]$
Protection level U_p (Core-Earth)	$\leq 640\text{V} [C2(4\text{kV}/2\text{kA})]$
Response time t_A (Core-Core/Core-Earth)	$< 10 \text{ nS} / < 100 \text{ nS}$
Type of connection	Terminal Block wire range 28-16AWG (1.5 sq.mm.)
Standard Reference	IEC61643-21
Housing material	Aluminium
Color	Black
Degree of protection	IP 20
Ambient temperature	$-40^\circ \text{C} \dots 85^\circ \text{C}$

KNX Bus Surge Protector Specification

Model : DP-K-40DC



Number of position	3 pins
Nominal operating voltage Un (Core-Core)	24 V
Maximum operating voltage Uc (Core-Core)	< 40 Vdc
Maximum operating voltage Uc (Core-Earth)	< 230 V
Nominal Current IN	650 mA
Operating effective current Ic at Uc	≤ 1 μA
Residual current to IPE at Uc	≤ 1 μA
Nominal discharge surge current In (Core-Core)	500A at 8/20μS
Total Surge Current	5kA at 8/20μS
Protection level Up (Core-Core)	< 55V at C1(200V/100A) < 64V at C1(500V/250A) < 74V at C1(1kV/500A)
Protection level Up (Core-Earth)	< 776V at C2(4kV/2kA)
Response time tA (Core-Core)	< 1 nS
Response time tA (Core-Earth)	< 100 nS
Type of connection	Signal : Solid Wire 22AWG , GND : Stranded Wire 18AWG
Standard Reference	IEC61643-21
Color	Black
Degree of protection	IP 20
Ambient temperature	-40 ° C ... 85 ° C



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