

# D-LAN-CAT.5-HC Surge Protector

## CAT5/6 Data Line Lightning Surge Protector



- Protection for data interfaces
- Reliable transmission speeds up to 1 Gbps
- Protective adapter for eight signal paths via RJ45 connector (including PoE+)
- Suitable for category 6 high-speed data networks

The D-LAN-CAT.5-HC is a protective adapter to be inserted into the data line for the protection of LAN interfaces and the RJ45 cable.

### Surge protection for information technology

Reliable data is indispensable in today's industry. The sensitive systems used in LANs work with high frequencies at low signal levels and are networked over a wide area. Surge voltages can quickly lead to largescale failures and, in the worst-case scenario, data loss. Data Line Surge protectors are specifically designed to **protect your investment in expensive wired, wireless and PoE equipment..**

### High-speed data protection

If you need effective **Lightning, RFI, ESD and transient surge protection** for highspeed data transmission, the DT-LAN-CAT.5-HC offers universal protection without affecting the signal at network speeds of up to 1 Gbps.

### Suitable for the following environments

- 10/100/1G-Base-T
- Power over Ethernet (PoE+) "Mode A" and "Mode B"
- TOKEN Ring
- ISDN
- DS1

RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.



#### Specifications

**1 Year Return to  
Factory Warranty**

**Reach, RoHS and  
WEEE Compliant**

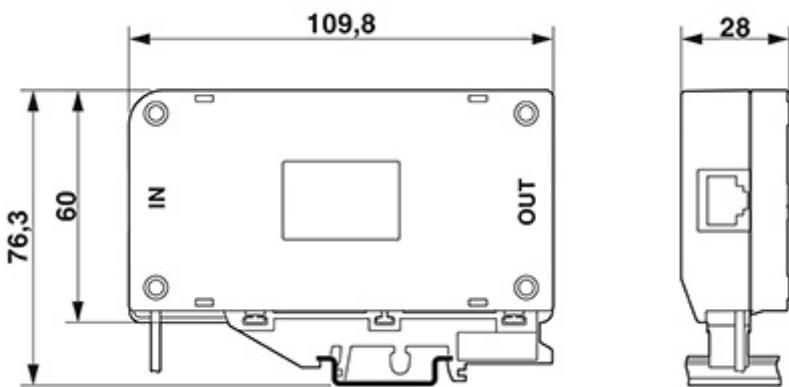
**HTSUS Number:**  
8535.40.0000

**UNSPSC Code:**  
39121621

**ECCN:**  
5A991

Ambient Conditions	
Ambient temperature (operation)	-40°C ... 85°C
Ambient temperature (storage/transport)	-40°C ... 85°C
Degree of protection	IP20
Protective circuit	
IEC test classification	<ul style="list-style-type: none"> <li>• B2</li> <li>• C2</li> <li>• D1</li> <li>• C1</li> </ul>
Maximum continuous operating voltage $U_C$	$\pm 5 \text{ V DC}$
Maximum continuous voltage $U_C(\text{line-line})$	$\pm 5 \text{ V DC } (\pm 57 \text{ V DC/PoE+})$
Rated current	$\leq 1.5 \text{ A } (25^\circ\text{C})$
Operating effective current $I_C$ at $U_C$	$\leq 600 \text{ }\mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-line)	350 A
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-ground)	2 kA
Pulse discharge current $I_{\text{imp}}$ (10/350) $\mu\text{s}$ (line-earth)	1 kA
Total discharge current $I_{\text{Total}}$ (8/20) $\mu\text{s}$	8 kA
Nominal pulse current $I_{\text{an}}$ (10/700) $\mu\text{s}$ (line-line)	$\leq 25 \text{ A}$
Nominal pulse current $I_{\text{an}}$ (10/700) $\mu\text{s}$ (line-earth)	$\leq 100 \text{ A}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-line) spike	<ul style="list-style-type: none"> <li>• <math>\leq 25 \text{ V}</math></li> <li>• <math>\leq 90 \text{ V (PoE)}</math></li> </ul>
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 750 \text{ V}$

Residual voltage at In (conductor-conductor)	<ul style="list-style-type: none"> <li>• <math>\leq 35 \text{ V}</math></li> <li>• <math>\leq 110 \text{ V (PoE)}</math></li> </ul>
Residual voltage at In (conductor-ground)	<ul style="list-style-type: none"> <li>• <math>\leq 35 \text{ V}</math></li> <li>• <math>\leq 850 \text{ V (PoE)}</math></li> </ul>
Voltage protection level Up (line-line)	<ul style="list-style-type: none"> <li>• <math>\leq 20 \text{ V (B2 - 1 kV/25 A)}</math></li> <li>• <math>\leq 90 \text{ V (B2 - 1 kV/25 A - PoE)}</math></li> <li>• <math>\leq 35 \text{ V (C1-700 V/350 A)}</math></li> <li>• <math>\leq 110 \text{ V (C1-700 V/350 A-PoE)}</math></li> </ul>
Voltage protection level Up (core-ground)	<ul style="list-style-type: none"> <li>• <math>\leq 700 \text{ V (B2 - 4 kV/100 A)}</math></li> <li>• <math>\leq 850 \text{ V (C2 - 4 kV/2 kA)}</math></li> </ul>
Response time $t_A$ (line-line)	$\leq 1 \text{ ns}$
Response time $t_A$ (line-earth)	$\leq 100 \text{ ns}$
Input attenuation $a_E$ , sym.	<ul style="list-style-type: none"> <li>• <math>\leq 0.5 \text{ dB (100 MHz/100 } \Omega)</math></li> <li>• <math>\leq 1 \text{ dB (100 MHz/100 } \Omega/\text{Link Class E)}</math></li> </ul>
Near-end crosstalk attenuation	<ul style="list-style-type: none"> <li>• typ. 63 dB (1 MHz/100 <math>\Omega</math>/Link Class E)</li> <li>• typ. 43 dB (16 MHz/100 <math>\Omega</math>/Link Class E)</li> <li>• typ. 30 dB (100 MHz/100 <math>\Omega</math>/Link Class E)</li> <li>• <math>&gt; 40 \text{ dB (100 MHz/100 } \Omega)</math></li> </ul>
Cut-off frequency $f_g$ (3 dB), sym. in 100 Ohm system	$> 250 \text{ MHz}$
Capacity (core-core)	typ. 15 pF ( $f = 1 \text{ MHz} / V_R = 0 \text{ V}$ )
Capacity (core-earth)	typ. 5 pF ( $f = 1 \text{ MHz} / V_R = 0 \text{ V}$ )
Impulse durability (conductor- conductor)	<ul style="list-style-type: none"> <li>• B2 - 1 kV / 100 A</li> <li>• C2-4 kV / 2 kA</li> <li>• D1 - 1kA</li> </ul>
Impulse durability (conductor- ground)	<ul style="list-style-type: none"> <li>• B2 - 4 kV/100 A</li> <li>• C2 - 4 kV/2 kA</li> <li>• D1 - 1 kA</li> </ul>

General	
Color	gray/black
Housing material	PC+ABS
Flammability rating according to UL94	V-0
Dimensions	
Height	109.8 mm
Width	28 mm
Depth	76.3 mm
	
Standards and Regulations	
Standards / specifications	<ul style="list-style-type: none"> <li>• VDE 0110-1 / IEC 60664</li> <li>• IEC 61643-21/A1 2008</li> <li>• EN 61643-21/A1 2009</li> <li>• IEC 61643-21 2000</li> <li>• GB/T 18802.21 2004</li> </ul>
Environmental Product Compliance	
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
Approvals	
	<ul style="list-style-type: none"> <li>• UL Listed</li> <li>• EAC</li> </ul>

Commercial data	
Packing unit	1
Weight per piece	178.0 g (including packaging) 25.0 g (excluding packaging)
Country of origin	CN

## Product List



D-LAN-CAT.5-HC - surge protection device for Ethernet Transmission speeds up to 1G.  
Connection: dual RJ45

### Power Cord & Part Number(s)

None

**28007638**