## **RJ45-16CAT6**

### **Local Area Network Protectors**

Novaris network protection products are specifically designed for the protection of twisted pair Ethernet systems with a combination of rugged and fine grain protection elements.

**10kA Front End Protection & Low Impedance Secondary Protection.** The RJ45-CAT6 protection products employ a 10kA Gas Discharge Tube per signal pair to dissipate the energy associated with large common mode surges. The silicon based secondary protection element used on each signal pair provides exceptional protection for your equipment whilst allowing network speeds up to Gigabit/1000BaseT.

**PoE, PoE+, High Power PoE and beyond.** The Novaris RJ45-CAT6 protection devices are designed to be compatible with PoE and handle up to 1 A of current per signal pair at up to 80VDC. This combination allows for Gigabit PoE systems with 4 pair power up to an outstanding 160W.

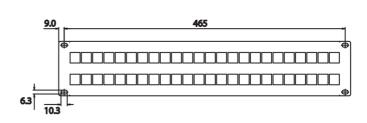
**UTP and STP cabling compatible.** Novaris network protection products utilise shield pass through connectors and metal bodies to allow for uninterrupted shielded network spans. The RJ45-1CAT6-EC90 option is necessary for earth isolation at the remote end of a network. This prevents current loops from appearing on the network shield.



# Wiring

# RAS-1CAT6 Marshaling System Cabinet Novaris Network Equipment RAS-1CAT6 Marshaling System Cabinet Novaris Network Equipment

## **Dimensions**



## **Standards**

IEC 61643-21:2012 AS/NZS 1768:2007 UL 497B ITU-T K.44: 2012 AS/CA S008:2010 AS/NZS 4117:1999 AS/CA S009:2013 SPD connected to telecommunications and signalling networks - Cat C2, D1

Signalling/Telecommunications surge protection

Protectors for data communications and fire-alarm circuits

Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents

Requirements for Customer Cabling Products

Surge Protective Devices for Telecommunications Applications Installation requirements for customer cabling (Wiring rules)



U<sub>p</sub>

Up

⊣⊢

350V

500V

230V

1.5pF

# **Specifications**

Electrical Specifications		
Connection type	¥	Series
Number of lines	∷≡	16 x RJ45 / 4 pairs & shield
Modes of protection	'n	Transverse and Common
Maximum continuous voltage (DC)	U <sub>c</sub>	6V
Maximum PoE voltage		80VDC
Maximum continuous voltage (AC)	U <sub>c</sub>	4V
Maximum discharge current (8/20 μs)	I <sub>max</sub>	5kA
Maximum common mode discharge current (8/20 μs)		10kA
Maximum discharge current (10/350 μs)		1kA
Maximum common mode discharge current (10/350 μs)	I <sub>imp</sub>	2kA
Impulse durability C2 10x8/20µs		1.5kA
Impulse durability D1 2x10/350µs		0.5kA
Maximum load current	ı,	1A
AC durability 5x1s		1Arms
Overstressed fault mode		Mode 3
Response time	t <sub>A</sub>	<5ns
Line resistance	<b>-</b> W-	0.1Ω
Line inductance		0.2μΗ
Insertion loss @ 150 Ω	1	-
3 dB Frequency @ 150 Ω		250MHz
Attenuation @220MHz		1.7dB
NEXT @250 MHz		35.8dB
Return Loss @ 250MHz		11.2dB

Minimum energting temperature	Ŋ	-40°C
Minimum operating temperature		
Maximum operating temperature	ı	70°C
Minimum operating humidity	<b>%</b>	5%
Maximum operating humidity	<b>&amp;</b>	95%
Mounting method	Æ	Rack mount
Environmental rating	Ŝ	IP20
Enclosure material		Steel
Enclosure finish	1	Black powdercoat
Terminal type		RJ45 Socket
Terminal capacity	•	-
Terminal screw torque	G	-
Earthing		Earth terminal
Length	~	483mm
Width	$\leftrightarrow$	20mm
Height	1	88mm

Electrical (L-PE) Specifications Voltage protection level @ 1 kV/  $\mu$ s

Voltage protection level @ 3 kA 8/20 µs

Voltage protection level @ 100 V/ s

Capacitance

L-PE Voltage protection level @ 1.5 kA 8/20 µs

Electrical (L-L) Specifications		
Voltage protection level @ 1 kV/ µs	U <sub>p</sub>	20\
Voltage protection level @ 3 kA 8/20 µs	U <sub>p</sub>	9\
Voltage protection level @ 100 V/ s		350\
Canacitance	٦Ŀ	8nl