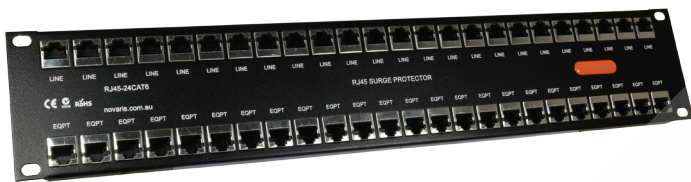


RJ45 - Network Protection Products



Cat6 and PoE RJ45 Surge Protection

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 and RJ45-PoE 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.

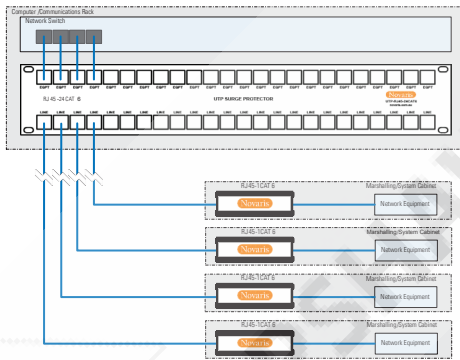
PoE, PoE+, High Power PoE and beyond

The Novaris PoE protection devices are designed to 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.

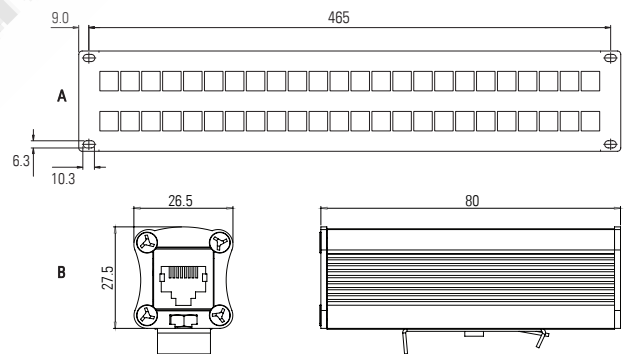
UTP and STP cabling compatible

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.

Installation



Dimensions



Ordering Information

Installation Location	Central Switch		Remote Installation		Point to Point Link	
	10/100/1000T	802.11at PoE	10/100/1000T	802.11at PoE	10/100/1000T	802.11at PoE
Product						
Standard Device	RJ45-24CAT6	RJ45-24PoE	RJ45-1CAT6	RJ45-1PoE	RJ45-1CAT6	RJ45-1PoE
Options						
DIN Rail Mount	-	-	Kit included	Kit included	Kit included	Kit included
Isolating Earth Connection	-	-	-EC90	-EC90	-EC90	-EC90
Alternate Port Count	RJ45-8CAT6 RJ45-16CAT6	RJ45-8PoE RJ45-16PoE	-	-	-	-

Product Specifications

Model		RJ45-1CAT6	RJ45-1PoE	RJ45-24CAT6	RJ45-24PoE
Electrical Specifications					
Connection Type		Series	Series	Series	Series
Number of lines		1 x RJ45 / 4 pairs & shield	1 x RJ45 / 4 pairs & shield	24 x RJ45 / 4 pairs & shield	24 x RJ45 / 4 pairs & shield
Modes of protection		Transverse and Common Mode			
Maximum continuous voltage (DC)	U_c	6 V	6 V	6 V	6 V
Maximum continuous voltage (AC)	U_c	4 V	4 V	4 V	4 V
Maximum PoE voltage (DC)		80 V	80 V	80 V	80 V
Maximum discharge current (8/20 μ s)	I_{max}	5 kA per line (10 kA common mode)			
Maximum discharge current (10/350 μ s)	I_{imp}	1 kA per line (2 kA common mode)			
Impulse durability		C2 10 x 1.5 kA 8/20 μ s D1 2 x 0.5 kA 10/350 μ s	C2 10 x 1.5 kA 8/20 μ s D1 2 x 0.5 kA 10/350 μ s	C2 10 x 1.5 kA 8/20 μ s D1 2 x 0.5 kA 10/350 μ s	C2 10 x 1.5 kA 8/20 μ s D1 2 x 0.5 kA 10/350 μ s
Maximum load current	I_L	1 A per common pair			
L-L Voltage protection level @ 1 kV/ μ s	U_p	20 V	20 V	20 V	20 V
L-L Voltage protection level @ 100 V/ s		9 V	9 V	9 V	9 V
L-PE Voltage protection level @ 1 kV/ μ s	U_p	350 V	350 V	350 V	350 V
L-PE Voltage protection level @ 1.5 kA 8/20 μ s	U_p	500 V	500 V	500 V	500 V
L-PE Voltage protection level @ 100 V/ s		230 V	230 V	230 V	230 V
AC durability		1 A rms, 5 x 1 s	1 A rms, 5 x 1 s	1 A rms, 5 x 1 s	1 A rms, 5 x 1 s
Overstressed fault mode		Mode 3 (open circuit)	Mode 3 (open circuit)	Mode 3 (open circuit)	Mode 3 (open circuit)
Response time	t_A	Instantaneous	Instantaneous	Instantaneous	Instantaneous
Line resistance		0.1 Ω	0.1 Ω	0.1 Ω	0.1 Ω
Line inductance		0.2 μ H	0.2 μ H	0.2 μ H	0.2 μ H
L-L capacitance		8 pF @ 1 MHz	8 pF @ 1 MHz	8 pF @ 1 MHz	8 pF @ 1 MHz
L-PE capacitance		1.5 pF @ 1 MHz	1.5 pF @ 1 MHz	1.5 pF @ 1 MHz	1.5 pF @ 1 MHz
Attenuation @220MHz (TIA CAT 6 limit)		1.7 dB (28.9)	1.7 dB (28.9)	1.7 dB (28.9)	1.7 dB (28.9)
NEXT @250 MHz (TIA CAT 6 limit)		35.8 dB (35.5)	35.8 dB (35.5)	35.8 dB (35.5)	35.8 dB (35.5)
Return Loss @ 250MHz (TIA CAT 6 limit)		11.2 dB (0.0)	11.2 dB (0.0)	11.2 dB (0.0)	11.2 dB (0.0)
Mechanical Specifications					
Operating temperature		-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Humidity Range		5 to 95% non-condensing	5 to 95% non-condensing	5 to 95% non-condensing	5 to 95% non-condensing
Connection type / capacity		RJ45 Socket	RJ45 Socket	RJ45 Socket	RJ45 Socket
Environmental		IP 20 / indoor	IP 20 / indoor	IP 20 / indoor	IP 20 / indoor
Dimensional Drawing		B	B	A	A
Mounting		Inline / TS35 DIN rail	Inline / TS35 DIN rail	Inline / TS35 DIN rail	Inline / TS35 DIN rail
Earthing		Cable / TS35 DIN rail	Cable / TS35 DIN rail	Cable / TS35 DIN rail	Cable / TS35 DIN rail
Enclosure / Colour		Metal / black	Metal / black	Metal / black	Metal / black
Standards					
IEC 61643-21:2012		SPD connected to telecommunications and signalling networks - Cat C2, D1			
AS/NZS 1768:2007		Signalling/Telecommunications surge protection			
UL 1449 3 rd edition & UL 497B		Protectors for data communications and fire-alarm circuits			
ITU-T K.44: 2012		Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents			
AS/CA S008:2010		Requirements for Customer Cabling Products			
AS/NZS 4117:1999		Surge Protective Devices for Telecommunications Applications			
ISO/IEC 11801: Class E		Link/channel up to 250 MHz using Category 6 cable/connectors			
Shipping					
Weight		200 g	200 g	2000 g	2000 g
Customs Tariff		85363000	85363000	85363000	85363000

