

## COP1-1y

**COP1-1y** (Cable Overvoltage/Overcurrent Protection) is a 5-pole protection device for serial connection on telecommunication line (y stands for disconnection module type). It is designed to protect cables and connected equipment against overvoltages and overcurrents generated by atmospheric discharges (cloud-to-cloud i.e. lightning, or cloud-to-earth i.e. thunder), inductive influence of high voltage equipment (power distribution lines, transformer stations etc.) and cross-contact between power line and telecommunication line.

**COP1-1y** is inserted in **Krone LSA Plus** and **LSA Profile** or **Reichle+De Massari VS92 (Standard)** and **VS83 (Modular)** disconnection modules on the distribution frames (usually placed in indoor and outdoor cabinets or wall mounted connection boxes). Following types of protection devices can be offered :

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|-----------------------------------|------------------|
| 1. VS83 Modular 10x2              | <b>COP1-1RM3</b> |
| 2. VS92 Standard 10x2             | <b>COP1-1RM2</b> |
| 3. Krone LSA Plus and LSA Profile | <b>COP1-1KLP</b> |

This configuration has three-pole Gas Discharge Tube (GDT) with external fail-safe clip for overvoltage protection and PTC (Positive Temperature Coefficient) thermistor for overcurrent protection. Two poles are connected to the network (cable side), two poles to the exchange (jumper side) and the fifth pole is grounded by galvanised earthing rail mounted on disconnection module, providing contact with frame. Overvoltage and overcurrent resettability is provided using specific components and configurations.

**COP1-1y** is recommended especially for the areas with aerial telecommunication network. This protection device complies with ITU-T recommendations K.20, K.21 and K.30.

### COP1-1y TECHNICAL SPECIFICATIONS

Protection type		Overvoltage and overcurrent
DC spark-over voltage		230 V
Impulse discharge current (8/20 $\mu$ s)	nominal	10 kA
	maximal	20 kA
Surge response voltage (10/700 $\mu$ s, $U_p=4$ kV)		450÷600 V peak
Hold-on current		145 mA
Typical trip time ( $U_{ac}=230$ V, 50 Hz, T=900 s)	$R_f=600 \Omega$ $I_f=0,383$ A	30÷50 s
	$R_s=200 \Omega$ $I_s=1,15$ A	2÷3 s
	$R_n=10 \Omega$ $I_n=23$ A	6÷14 ms
Insulation resistance		$> 10^{10} \Omega$
Contact resistance		$< 15$ m $\Omega$
Response time		$< 500$ ns
Signal attenuation		$< 0,5$ dB
Number of protected lines (2 x 1)		1
Housing material		Self-extinguishing polycarbonate UL94 -V0 rated
International recommendations		ITU-T (Vol. IX K.20, K.21, K.30)
<b>ZJPTT Certificate No. 021-1414/03</b>		

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