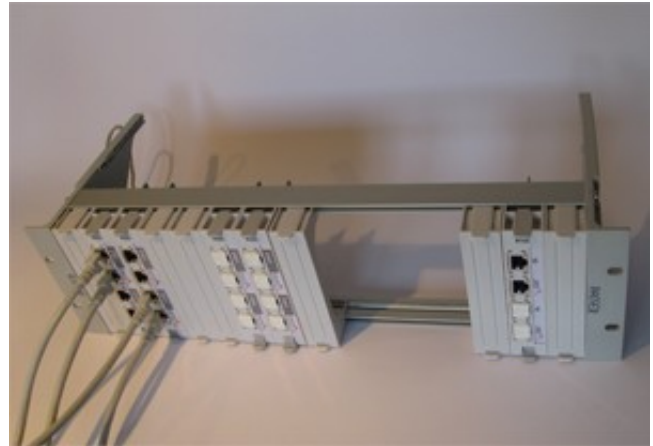
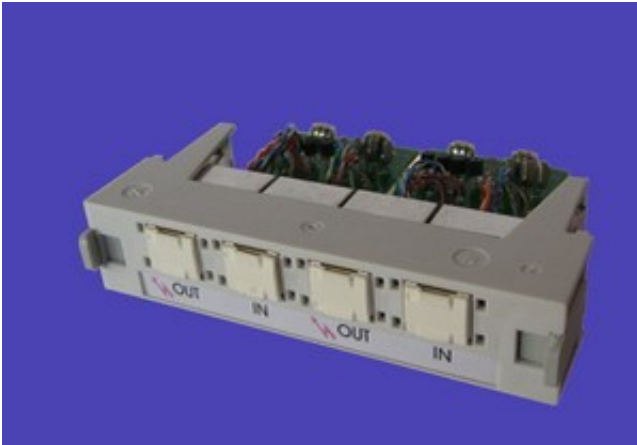


APM2-RJ45 PROTECTION BLOCK



APM2-RJ45 block consists of two protection modules. Each module has one input and one output RJ45 connector. The line is connected to the RJ45 input and equipment to the appropriate output. This way equipment is protected from overvoltage and overcurrent which may occur on the line side.

APM2-RJ45 block is designed for mounting in a standard 19" 3U rack. In one rack up to 15 APM2-RJ45 blocks can be mounted.



APM2-RJ45 protection blocks comply with CAT6 standard.

Installation of APM2-RJ45 blocks in 19" 3U rack and connecting cables with RJ45 connectors is very simple and fast.

APM2-RJ45 TECHNICAL DESCRIPTION

APM2-RJ45 protection block is used to protect sensitive telecommunication equipment against overvoltage and overcurrent generated by atmospheric discharges, electromagnetic induction of nearby power installation and cross-contact between telecommunication and power cable. It protects telecommunication lines and equipment connected via RJ45 connectors. Each block is equipped with two input and two output RJ45 connectors. Four wires out of eight at each RJ45 connector are protected, with a common grounding for each block, providing contact with the patch panel.

This protection block provides two-stage overvoltage protection (coarse protection) using three-pole **Gas Discharge Tubes (GDT)** with fail-safe clip, and fine protection (with thyristor diodes). Overcurrent protection is realised by **Positive Temperature Coefficient (PTC)** thermistor. Following the appearance of surge fine overvoltage protection reacts first, (response time less than 1 ns) limiting overvoltage. After a few miliseconds PTC starts limiting overcurrent, especially in case of cross-contact between telecommunication and power distribution cable, operating as a resettable fuse. Resetability can be provided after more than 24 hours of cross connection with $I=23$ A, if necessary. That means **APM2-RJ45** is completely self-maintaining protection according to required tests in ITU-T K.20 and K.21 Recommendations.

This configuration is recommended for protection of new generation equipment (such as digital telephone exchanges, high-speed data transfer lines etc.), especially at the mobile units and remote sites without the staff.

APM2-RJ45 TECHNICAL SPECIFICATIONS

Protection type		Overvoltage and overcurrent	
DC spark-over voltage		230 V	
Impulse discharge current (8/20 μ s)	nominal	5 kA	
	maximal	10 kA	
Surge response voltage (10/700 μ s, $U_p=4$ kV)		200÷240 V peak	
Hold-on current		145 mA	
Line resistance		3÷6 Ω	
Typical trip time ($U_{ac}=230$ V, 50 Hz, $T=900$ s)	$R_f=600$ Ω	$I_f=0,383$ A	30÷50 s
	$R_s=200$ Ω	$I_s=1,15$ A	2÷3 s
	$R_n=10$ Ω	$I_n=23$ A	6÷14 ms
Insulation resistance		$> 10^{10}$ Ω	
Contact resistance (with module)		< 15 m Ω	
Response time		< 1 ns	
Signal attenuation		$< 0,5$ dB	
Number of protected wires per block		8	
Recommendations		ITU-T K.20, K.21, K.30	

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