

Test system for Reduction Factor r_k

Electromagnetic shielding measurement of signalling copper cables



DESCRIPTION

A telecom copper cable placed in the vicinity of a power line will suffer electromagnetic perturbation. This will be especially important in the case of monophasic lines (railways traction system) as compared to three phase lines (power lines). Signal perturbation, which causes reduction in the signal/noise ratio, could lead to accidents such as aspect change of railway signals. This is why it is essential to measure the screening effect of the cable armoring, represented by the Reduction Factor r_k .

The test equipment for the reduction factor complies with the standards while allowing for a variable distance between the loop conductor and the cable under test.

KEY FEATURES

- **Fast and compliant**
 - Fast measurement to avoid a heating up of the sheath
 - Compliant to major standards
- **Unique**
 - Only automatic and complete solution available on the market
- **Connected**
 - Controlled by our CIQ software for full traceability
 - Can be interconnected with MES or ERP systems



AESA Cortailod

TECHNICAL SPECIFICATIONS

Parameter	Reduction factor r_k
Standards	Performs all electrical tests on cables responding to: <ul style="list-style-type: none"> • DIN 57 472 part 507 (VDE 0472 part 507) • IEC 62153-4-17:2018 • NF F 07-024 (option)
Components	<ul style="list-style-type: none"> • 1 Oscillator type SyCore • 1 Amplifier PAS 1000 • 1 Voltage adjustable transformer (UT1000) • 1 Digital voltmeter (Keithley 2000 Multimeter with scanner) • 1 Test adapter for 1m cable (optionally 2m) • 1 license OptiTest, AESA measurement and result management software
Supply Voltage	100 - 240 VAC / 50 - 60 Hz, 16A
Dimensions	Instrument: 600 x 490 x 650 mm, 130 kg Test adapter: 1300 x 600 x 100 mm, 10 kg / (2300 x 600 x 100 mm, 25kg in option)
Article No	47.1000.0007.0
Accuracy	<5% of measured value+ 0.01

COMPONENTS

- Power & Control units mounted in a 19" rack
- Connecting frame and digital voltmeter
- PC and software (OptiTest)

