

V-Networks ESH2-Z5, ESH3-Z5, ESH3-Z6

Interference measurements on AC-powered loads

Models -Z5 for remote-control via R&S EMI test receivers

Insertion loss calibrated to ANSI C63.4

Main features

- AC voltage supply to EUT
- Isolation of test circuit from line interference
- Standardized load impedance
- Defined feed of interference voltage produced by EUT to EMI test receiver

Brief description of ESH2-Z5

Four-line V-network ($50 \mu\text{H} + 5 \Omega$) shunted by 50Ω in line with VDE0876 and CISPR 16-1. It uses air-core induct-

ances and contains an artificial hand as well as a PE simulating network that can be bypassed. A built-in fan with its own



ESH2-Z5 (photo 35326)

AC supply provides automatically controlled or permanent cooling, as required.

Brief description of ESH3-Z5

Two-line V-network ($50 \mu\text{H} + 5 \Omega$) shunted by 50Ω in line with VDE0876 and CISPR 16-1. It uses air-core inductances and contains an artificial hand as well as a PE simulating network that can be bypassed. The compact design and

low weight make the ESH 3-Z5 an ideal choice for frequently varying applications.



ESH3-Z5 (photo 35760)

Brief description of ESH3-Z6

ESH3-Z6 is a single-phase V-network ($5 \mu\text{H} + 1 \Omega$) shunted by 50Ω complying with the requirements of VDE 0876 Part 1 (onboard power supply systems), CISPR Publ. 16 (low-impedance power supplies) as well as MIL-STD-462 Notice 3, MIL-I-6181D, MIL-I-16910C, MIL-E-55301, DEF-STAN 59-41 and DO 160 in the frequency range 100 kHz to 200 MHz.



ESH3-Z6 (photo 35913)

Specifications in brief

	ESH2-Z5	ESH3-Z5	ESH3-Z6
Frequency range	9 kHz to 30 MHz	9 kHz to 30 MHz	0.1 MHz to 200 MHz
Impedance accuracy	$\pm 20\%$	$\pm 20\%$	$\pm 20\%$
Continuous current	4 x 25 A	2 x 10 A	100 A (150 A to $T_{\text{amb}} = 35^\circ\text{C}$)
Max. short-time current	4 x 50 A (2 min)	2 x 16 A (30 min)	500 A (30 s)
Max. AC supply voltage	250 V rms	250 V rms	250 V rms; 600 V DC
Max. AC supply frequency	63 Hz	63 Hz	440 Hz
AC supply input connector	4 x 32 A (Cekon male) European male for fan 4 x 32 A (Cekon female) 2 x 16 A (earthing-contact type female)	earthing-contact type male with 1.8-m cable earthing-contact type female	screw terminal M8
AC supply connector for EUT	BNC female	BNC female	screw terminal M8, reference ground to metallic ground plate
RF output to test receiver	50-contact Amphenol female	9-contact Cannon female	N male
Remote-control input from test receiver	two 4 mm jacks	4 mm jack	—
Input for artificial hand	492 mm x 294 mm x 603 mm	219 mm x 147 mm x 350 mm	122 mm x 128 mm x 322 mm
Dimensions (H x B x T)	26 kg	5.5 kg	1.9 kg
Weight			

Ordering information

V-Network	0338.5219.53	0831.5518.52	0836.5016.52
Control cable to test receiver	EZ-5, 0816.0625.02	EZ-4, 0816.0560.02 (3 m) or EZ-6, 0816.0683.02 (10 m)	—