

R&S® ESH3-Z6

V-Network

For measuring disturbance voltage and susceptibility in low-impedance power supply networks



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At a glance

The R&S®ESH3-Z6 single-phase V-network with an equivalent circuit of $(5 \mu\text{H} + 1 \Omega) \parallel 50 \Omega$ meets the requirements of EN 55016-1-2/CISPR 16-1-2 (low-impedance power supplies), EN 55025/CISPR 25 as well as MIL-STD-461, DEF-STAN 59-411 and DO-160 in the frequency range from 100 kHz to 200 MHz.

The R&S®ESH3-Z6 is rated for a continuous current of up to 100 A and can handle surges of up to 500 A for a maximum of 30 s.

The R&S®ESH3-Z6 V-network comes with a calibration report for the voltage division factor in line with EN 55016-1-2/CISPR 16-1-2.

Design

The R&S®ESH3-Z6 V-network has screw terminals with a large contact area for low-impedance connection to the equipment under test (EUT) and the power supply using cable lugs. Plastic covers on both connections protect against accidental contact.

Key facts

- 0.1 MHz to 200 MHz
- Continuous current of up to 100 A

Specifications

Specifications	
Frequency range	0.1 MHz to 200 MHz
Simulating impedance (magnitude and phase)	$(5 \mu\text{H} + 1 \Omega) \parallel 50 \Omega$
Max. permissible error limits (in line with CISPR 16-1-2)	$\pm 20\%$ (magnitude) and $\pm 11.5^\circ\text{C}$ (phase)
Max. permissible continuous current	100 A
Max. permissible continuous current (up to $T_o = +35^\circ\text{C}$)	115 A
Max. permissible short-time current (up to 30 s)	500 A
Max. permissible operating voltage	
DC	600 V
AC	250 V
AC supply frequency range	0 Hz to 440 Hz
Connectors	
Power supply	M8 screw terminal
EUT	M8 screw terminal
Ground	2 x M8 screw terminals
Reference ground	uninsulated baseplate for screwing on ground plane
RF connector	N female
General data	
Operating temperature range	0°C to +50°C
Storage temperature range	-25°C to +70°C
Dimensions (W x H x D)	122 mm x 128 mm x 322 mm (4.8 in x 5.04 in x 12.7 in)
Weight	1.9 kg (4.19 lb)
Electrical safety	in line with EN 61010-1, see notes in manual

Ordering information

Designation	Type	Order number
V-Network	R&S®ESH3-Z6	836.5016.52
Accessories supplied		
Cable lugs (4 x)		092.5691.00

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