

HV-AN 500 HIGH VOLTAGE ARTIFICIAL NETWORK



- 5 μ H AN/LISN
- 500 Amps
- High voltage part of CISPR 12 (draft), CISPR 25, ECE No. 10 R05/R06, ISO 11452-1 and ISO/DTS 7637-4
- ISO 7637-2
- Low voltage part of CISPR 25, ECE No. 10 R06 and ISO 11452-1 with HV-AN 500-option-1 μ F

The artificial network HV-AN 500 offers a solution for high current and high voltage connections to the EUTs. The AN is used to simulate the impedance of a vehicle harness to determine the behavior of EUT and meet the requirements of ISO 7637-2 and the HV part of CISPR 12 (draft), CISPR 25, ECE No. 10 R05/06, ISO 11452-1 and ISO/DTS 7637-4. The optional available HV-AN 500-option-1 μ F, connected on the AE port of the HV-AN 500, allows testing of the LV part of CISPR 25, ECE No. 10 R06 and ISO 11452-1.

Technical specifications

| | |
|-----------------------------|---|
| Frequency range: | 100 kHz to 100 MHz |
| Power ratings (EUT / AE) | |
| AC max. voltage: | 500 V _{RMS} |
| DC max. voltage: | 1000 V _{RMS} |
| Current max. | |
| passive, cooling (Fan) off: | 200 A _{RMS} (CW), 300 A _{RMS} (for 20 min) |
| active, cooling (Fan) on: | 500 A _{RMS} (CW) (for 2 hours) |
| Test voltage: | 1500 VDC 2 sec. |
| Simulated impedance (EUT): | 5 μ H 47.6 Ω \pm 20%, High voltage part of CISPR 12, 25, ECE No. 10 R05/R06, ISO/DTS 7637-4, ISO 11452-1 (jumper 1 & 2 connected) 5 μ H 50 Ω \pm 10%, ISO 7637-2 (jumper 1 & 2 removed) 5 μ H 47.6 Ω \pm 20%, Low voltage part of CISPR 25, ECE No. 10 R06, ISO 11452-1 (jumper 1 connected, jumper 2 removed, HV-AN 500-option-1 μ F connected on AE port) |
| DC resistance (AE/EUT): | 1 m Ω |
| EUT/AE sockets: | 16 mm bolt with fine screw nut (M16x1.5) |
| Connector chassis: | 16 mm bolt with screw nut (M16) |
| RF socket: | Type-N, jack/ female 50 Ω |
| Connector for cooling: | coaxial connector (male, DC+ on inner pin) |
| Requirements for cooling: | 12 V DC, approx. 1.1 A |
| Power supply for cooling: | 12 V DC/ 2.5 A, length 1.8 m, coaxial connector (female) 5.5 x 2.5 mm |

Mechanical specifications

| | |
|-------------------|--------------------------|
| Size (L X W x D): | 365 mm x 203 mm x 203 mm |
| Weight: | approx. 8.5 kg |

Environmental conditions

| | |
|------------------------|---------------------------------------|
| Classification: | Indoor use only |
| Operating temperature: | 0 °C to +30 °C |
| Storage temperature: | -10 °C to +60 °C |
| Relative humidity: | up to 90 % (no moisture condensation) |

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HV-AN 500, view to the EUT port



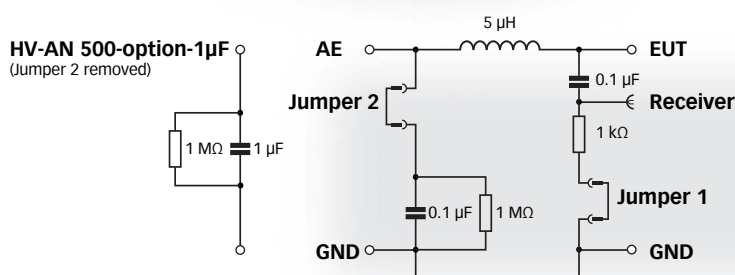
HV-AN 500, view to the AE port

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Example of HV-AN 500 schematic



| Standard | Jumper 1 | Jumper 2 | HV-AN 500-option-1µF |
|--|----------|----------|----------------------|
| High voltage part of CISPR 25, CISPR 12, ECE No. 10 R05/R06, ISO 11452-1, ISO/DTS 7637-4 | ● | ● | – |
| ISO 7637-2 | ○ | ○ | – |
| Low voltage part of CISPR 25, ECE No. 10 R06, ISO 11452-1 | ● | ○ | ✓ |

“●” jumper used, connected, “○” no jumper, not connected, “✓” option on AE port connected

Model No. and options

| Part number | Description |
|-------------|---|
| 259606 | HV-AN 500 5 µH high voltage artificial network, 500 A, unshielded, for Automotive conform with ISO 7637-2 and HV part of CISPR 12 (draft), CISPR 25, ECE No.10 R05 / R06, ISO 11452-1 and ISO 7637-4 |
| 97-259606 | HV-AN 500-TC Traceable calibration (ISO17025), order only with the device |
| 98-259606 | HV-AN 500-ACC Accredited calibration (ISO17025) |
| 259607 | SME HV-AN 500 Shielded metal enclosure for two HV-AN 500 |
| 259609 | HV-AN 500-option-1µF External 1 µF for HV-AN 500 for testing the low voltage part of CISPR 25, ECE No. 10 R06 and ISO 11452-1 |
| 259667 | CAS HVAN500 Calibration set for HV-AN 500 |
| 257521 | A 50-N Termination 50 Ohms, N type, male, 1 Watt, 4 GHz |