

# CNV 501/503X - SERIES

## SURGE COUPLING/DECOUPLING NETWORKS



### FOR TESTS ACCORDING TO ...

- > ANSI/IEEE C62.41
- > EN 61000-4-5
- > EN 61000-6-1
- > EN 61000-6-2
- > EN 61543
- > IEC 60060
- > IEC 60601-1-2
- > IEC 61000-4-5
- > IEC 61008-1
- > IEC 61009-1
- > IEC 61326
- > IEC 61850-3
- > ITU-T K.20
- > ITU-T K.21
- > ITU-T K.45




### COUPLING/DECOUPLING NETWORKS FOR SURGE

The coupling/decoupling networks of the CNV 501/503x series, are used to couple Surge pulses onto single phase or three-phase (4-wire or 5-wire supply lines) mains supply systems for voltages up to 690 V. Within the range of EM TEST coupling/decoupling networks we offer different models for voltages up to 5 kV, 7 kV, 8 kV, 10 kV and 12 kV with DUT currents of 16 A, 32 A, 63 A and 100 A (higher current ratings on request) for the various test requirements and equipment configuration.

### HIGHLIGHTS

- > **Surge coupling/decoupling network as per EN/IEC 61000-4-5 and ANSI/IEEE C62.41**
- > **Fully automatic setting of coupling modes by the corresponding test generator up to 12kV**
- > **Automatic selection of the required source impedance**
- > **LEDs indicating active coupling**

### APPLICATION AREAS

-  INDUSTRY
-  MEDICAL
-  BROADCAST
-  TELECOM
-  RESIDENTIAL

## TECHNICAL DETAILS

## SINGLE PHASE SURGE COUPLING/DECOUPLING NETWORKS FOR MAINS SUPPLY LINES

### CNV 501, SINGLE PHASE, 5 KV

Single phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 5 kV
EUT supply	250 V, 100 A AC 30 V, 100 A DC
Dimensions	Size: 19" / 6 HU Weight: approx. 55 kg

### CNV 501S4, SINGLE PHASE, 10 KV

Single phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 10 kV
EUT supply	250 V, 16 A AC 30 V, 16 A DC
Dimensions	Size: 19" / 6 HU Weight: approx. 26 kg

### CNV 501S4.1, SINGLE PHASE, 10 KV

Single phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge voltage up to 10 kV
EUT supply	250 V, 16 A AC 30 V, 16 A DC
Dimensions	Size: 19" / 6 HU Weight: approx. 27 kg

### CNV 501S6, SINGLE PHASE, 12 KV

Single phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 12 kV
EUT supply	250 V, 16 A AC 30 V, 16 A DC
Dimensions	Size: 19" / 6 HU Weight: approx. 32 kg

### CNV 501S7, SINGLE PHASE, 12 KV

Single phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 12 kV
EUT supply	250 V, 32 A AC 30 V, 16 A DC
Dimensions	Size: 19" / 6 HU Weight: approx. 35 kg

## THREE-PHASE SURGE COUPLING/DECOUPLING NETWORKS FOR MAINS SUPPLY LINES

### CNV 503S1, THREE PHASE, 5 KV

Three phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 5 kV
EUT supply	3x480 V, 32 A AC
Dimensions	Size: 19" / 6 HU Weight: approx. 35 kg

### CNV 503S2, THREE PHASE, 5 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 5 kV
EUT supply	3x480 V, 63 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

### CNV 503S3, THREE PHASE, 5 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 5 kV
EUT supply	3x480 V, 100 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

## TECHNICAL DETAILS

## THREE-PHASE SURGE COUPLING/DECOUPLING NETWORKS FOR MAINS SUPPLY LINES

### CNV 503B5, THREE PHASE, 7 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge voltage up to 7kV
EUT supply	3x480 V, 16 A AC
Dimensions	Size: 19" / 6 HU Weight: approx. 25 kg

### CNV 503B7, THREE PHASE, 7 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge voltage up to 7 kV
EUT supply	3x480 V, 32 A AC
Dimensions	Size: 19" / 6 HU Weight: approx. 35 kg

### CNV 503B8, THREE PHASE, 7 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge up to 7 kV
EUT supply	3x480 V, 63 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

### CNV 503B9, THREE PHASE, 7 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge voltage up to 7 kV
EUT supply	3x480 V, 100 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

## THREE-PHASE SURGE COUPLING/DECOUPLING NETWORKS FOR MAINS SUPPLY LINES

### CNV 503S5, THREE PHASE, 8 KV

Three-phase CDN	acc. EN/IEC 61000-4-5 Ed.3 Surge voltage up to 8 kV
EUT supply	3x480 V, 32 A AC
Dimensions	Size: 19" / 6 HU Weight: approx. 40 kg

### CNV 503S6, THREE PHASE, 8 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 8 kV
EUT supply	3x480 V, 63 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

### CNV 503S7, THREE PHASE, 8 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 8 kV
EUT supply	3x480 V, 100 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

## TECHNICAL DETAILS

## THREE-PHASE SURGE COUPLING/DECOUPLING NETWORKS FOR MAINS SUPPLY LINES

### CNV 503S9, THREE PHASE, 10 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 10 kV
EUT supply	3x480 V, 16 A AC
Dimensions	Size: 19" / 6 HU Weight: approx. 30 kg

### CNV 503S10, THREE PHASE, 10 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 10 kV
EUT supply	3x480 V, 32 A AC
Dimensions	Size: 19" / 6 HU Weight: approx. 40 kg

### CNV 503N10.1, THREE PHASE, 10 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge voltage up to 10 kV; in combination with VCS 500N10.3
EUT supply	3x480 V, 32 A AC
Dimensions	Size: 19" / 6 HU Weight: approx. 42 kg

### CNV 503S10.2, THREE PHASE, 10 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 10 kV; in combination with VCS 500N10 and VCS 500N10T
EUT supply	3 x 480 V AC(p-p), 32 A; 270 V DC (L-N), 32 A
Dimensions	Size: 19" / 6 HU Weight: 38.5 kg

## THREE-PHASE SURGE COUPLING/DECOUPLING NETWORKS FOR MAINS SUPPLY LINES

### CNV 503S10.3, THREE PHASE, 10 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 10 kV; in combination with VCS 500N10
EUT supply	3 x 480 V AC(p-p), 32 A; 270 V DC (L-N), 32 A; Without TEST ON function
Dimensions	Size: 19" / 6 HU Weight: 38.5 kg

### CNV 503S11, THREE PHASE, 10 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 10 kV
EUT supply	3x480 V, 63 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

### CNV 503S12, THREE PHASE, 10 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 10 kV
EUT supply	3x480 V, 100 A AC
Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg

## TECHNICAL DETAILS

## THREE-PHASE SURGE COUPLING/DECOUPLING NETWORKS FOR MAINS SUPPLY LINES

### CNV 503S14, THREE PHASE, 12 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge voltage up to 12 kV
-----------------	---

EUT supply	3x480 V, 16 A AC
------------	------------------

Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg
------------	--

### CNV 503S15, THREE PHASE, 12 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 and ANSI/IEEE C62.41 Surge voltage up to 12 kV
-----------------	---

EUT supply	3x480 V, 32 A AC
------------	------------------

Dimensions	Size: 19" / height depending on the size of the rack Weight: approx. 100 kg
------------	--

### CNV 503S21, THREE PHASE, 12 KV

Three-phase CDN	acc. to EN/IEC 61000-4-5 Ed.3 Surge voltage up to 12 kV
-----------------	--

EUT supply	3x690 V, 32 A AC
------------	------------------

Dimensions	Size: 19" / 6HU Weight: approx. 45 kg
------------	--

## GENERAL DATA

### COUPLING MODES

IEC 61000-4-5	Line to Line with a 2ohm source impedance Line(s) to PE with a 12ohm source impedance
---------------	--

ANSI/IEEE C62.41	Line to line with a 2ohm source impedance line(s) to PE with 2ohm source impedance (only for models that support this capability)
------------------	---

### OTHER MODELS

Other models available on request for mains supply voltages up to 1,000V and current exceeding 100A
---

# COMPETENCE WHEREVER YOU ARE



## CONTACT EM TEST DIRECTLY

### Switzerland

AMETEK CTS GmbH › Sternenhofstraße 15 › 4153 Reinach › Switzerland  
Phone +41 (0)61 204 41 11 › Fax +41 (0)61 204 41 00  
Internet: [www.ametek-cts.com](http://www.ametek-cts.com) › E-mail: [sales.conducted.cts@ametek.com](mailto:sales.conducted.cts@ametek.com)

### Germany

AMETEK CTS Europe GmbH › Customer Care Center EMEA › Lünener Straße 211  
› 59174 Kamen › Germany  
Phone +49 (0) 2307 26070-0 › Fax +49 (0) 2307 17050  
Internet: [www.ametek-cts.com](http://www.ametek-cts.com) › E-mail: [info.cts.de@ametek.com](mailto:info.cts.de@ametek.com)

### Poland

AMETEK CTS Europe GmbH › Biuro w Polsce › ul. Twarda 44 › 00-831 Warsaw › Poland  
Phone +48 (0) 518 643 12  
Internet: [www.ametek-cts.com](http://www.ametek-cts.com) › E-mail: [Infopolska.cts@ametek.com](mailto:Infopolska.cts@ametek.com)

### USA / Canada

AMETEK CTS US › 52 Mayfield Ave › Edison › NJ 08837 › USA  
Phone +1 732 417 0501  
Internet: [www.ametek-cts.com](http://www.ametek-cts.com) › E-mail: [usasales.cts@ametek.com](mailto:usasales.cts@ametek.com)

### P.R. China

AMETEK Commercial Enterprise (Shanghai) Co. Ltd. › Beijing Branch › Western Section, 2nd floor › Jing Dong Fang Building (B10) › Chaoyang District › Beijing, China, 100015  
Phone +86 10 8526 2111 › Fax +86 (0)10 82 67 62 38  
Internet: [www.ametek-cts.com](http://www.ametek-cts.com) › E-mail: [chinasales@ametek.com](mailto:chinasales@ametek.com)

### Republic of Korea

EM TEST Korea Limited › #405 › WooYeon Plaza › #986-8 › YoungDeok-dong › Giheung-gu › Yongin-si › Gyeonggi-do › Korea  
Phone +82 (31) 216 8616 › Fax +82 (31) 216 8616  
Internet: [www.emtest.co.kr](http://www.emtest.co.kr) › E-mail: [sales@emtest.co.kr](mailto:sales@emtest.co.kr)

### Singapore

AMETEK Singapore Pte. Ltd › No. 43 Changi South Avenue 2 › 04-01 Singapore 48164  
Internet: [www.ametek-cts.com](http://www.ametek-cts.com) › E-mail: [singaporesales.cts@ametek.com](mailto:singaporesales.cts@ametek.com)

### Great Britain

AMETEK GB › 5 Ashville Way › Molly Millars Lane › Wokingham › Berkshire RG41 2 PL › Great Britain  
Phone +44 845 074 0660  
Internet: [www.ametek-cts.com](http://www.ametek-cts.com)

Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.