

# CPT-IK-5 Control Power Transformer

5 kVA, 5 kV and 15 kV Class, 60 Hertz  
Indoor Control Power Transformers  
Product Bulletin 1VAP600001-DB



Provided by Northeast Power Systems, Inc.  
[www.nepsi.com](http://www.nepsi.com)

**ABB**

## Product Features

- Completely dry-type transformer cast in epoxy, eliminating oil
- 5 kV and 15 kV class
- 55°C rise @ 30°C average daily ambient
- All secondary outputs 120/240 V
- Primary inputs 2400 V to 14400 V with multiple taps
- Meets all requirements of IEEE 57.13 - 1993, including full-wave and chopped-wave impulse tests
- UL Recognized Component; File No. E244068



UL Recognized Component

## Application

The CPT-IK is an indoor, self-cooled, single-phase, dry-type control power transformer designed to provide control power in medium voltage switchgear. Nominal primary voltages range from 2.4 kV to 14.4 kV, 60 hertz. Secondary voltages are configured for series/parallel operation at 120 V or 240 V. Standard BIL ratings of 60 kV are available for 5 kV applications, and 95 kV BIL for 15 kV applications.

The CPT-IK is used in an ambient temperature of 30°C for full kVA rating or 55°C for 86% of full kVA rating. The winding temperature rise for 5 kVA units is 55°C. Styles in addition to those listed in this bulletin are available upon request.

## Construction Features

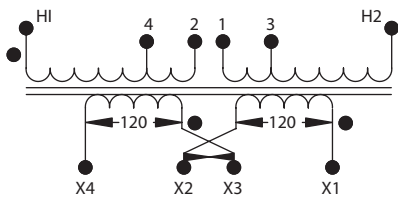
The core is wound with grain-oriented electrical steel for low losses. The high-voltage coil is vacuum encapsulated in epoxy to seal out moisture and contaminants, and to provide a higher ability to withstand short-circuit forces than conventional dry-type transformers.

The secondary terminals are 1/2" – 13 brass bolts supplied with series/parallel copper links. The primary terminals are 1/4" – 20 brass screws. The primary tap terminals are either 1/4" – 20 brass screws or #10 brass screws, depending on the design selected, and are supplied with a copper link. The frame is made of zinc-plated steel. Approximate weight is 130 pounds.

## Connection Diagrams

**A**

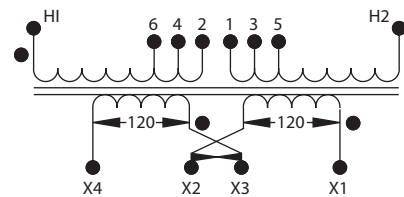
±7 – 1/2% Primary Taps



% Rated Voltage	Connect HV Link
107.5	1 – 2
100	2 – 3
92.5	3 – 4

**B**

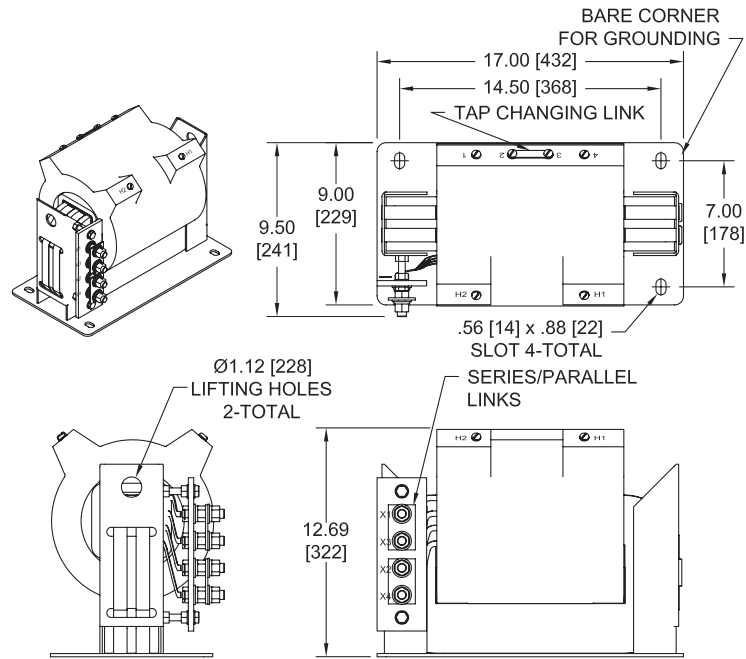
2 ± 2 – 1/2% Primary Taps



% Rated Voltage	Connect HV Link
105	1 – 2
102.5	2 – 3
100	3 – 4
97.5	4 – 5
95	5 – 6

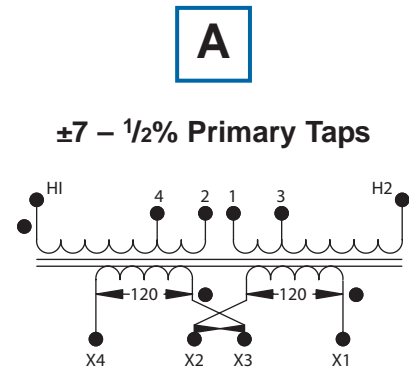
# 4 In-Line Tap Configuration

## Dimensions



Outline Drawing D146

## Connections



% Rated Voltage	Connect HV Link
107.5	1 – 2
100	2 – 3
92.5	3 – 4

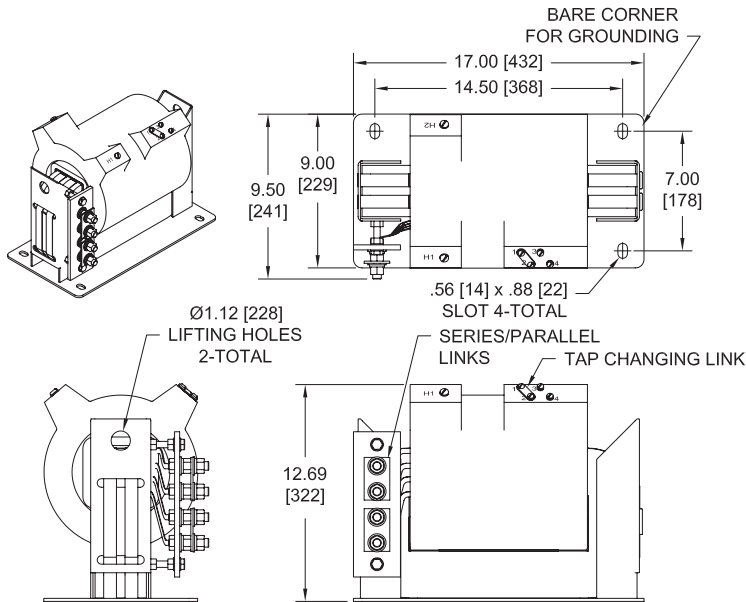
Note: Metric dimensions are displayed in [mm].

Style	kVA	Voltage Class	Primary Rating	Secondary Voltage	Taps
CPTA-60-5-2400-D146	5	5 kV	2400	120/240	A
CPTA-60-5-4160-D146	5	5 kV	4160	120/240	A
CPTA-60-5-4800-D146	5	5 kV	4800	120/240	A
CPTA-95-5-7200-D146	5	15 kV	7200	120/240	A
CPTA-95-5-8400-D146	5	15 kV	8400	120/240	A
CPTA-95-5-12000-D146	5	15 kV	12000	120/240	A
CPTA-95-5-12470-D146	5	15 kV	12470	120/240	A
CPTA-95-5-13200-D146	5	15 kV	13200	120/240	A
CPTA-95-5-13800-D146	5	15 kV	13800	120/240	A
CPTA-95-5-14400-D146	5	15 kV	14400	120/240	A

Additional primary and secondary voltages available upon request. Call +1-252-827-3212 for more information.

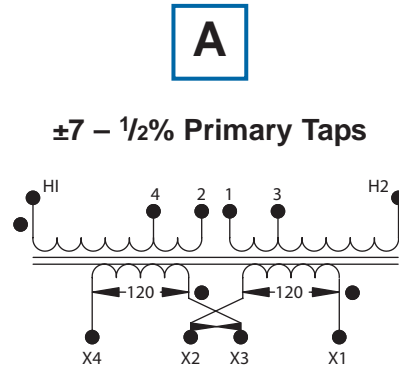
# 4 Multi-Tap Configuration

## Dimensions



Outline Drawing D148

## Connections



% Rated Voltage	Connect HV Link
107.5	1 – 2
100	2 – 3
92.5	3 – 4

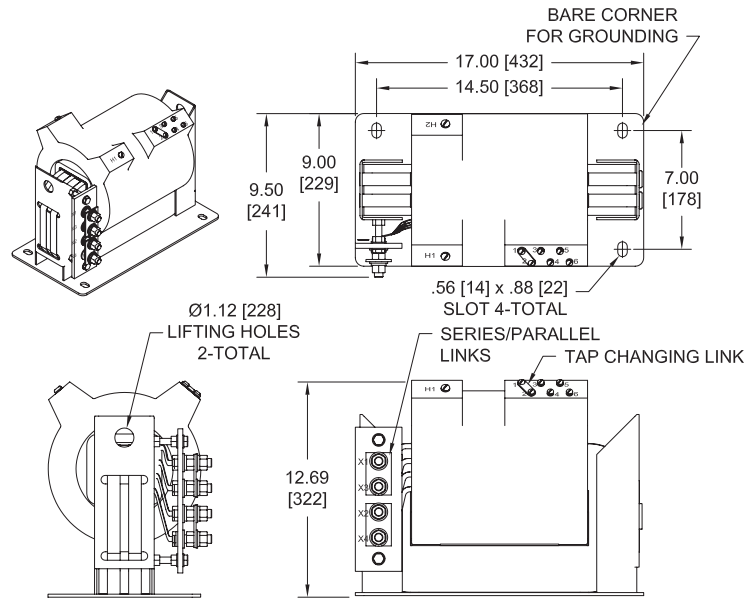
Note: Metric dimensions are displayed in [mm].

Style	kVA	Voltage Class	Primary Rating	Secondary Voltage	Taps
CPTA-60-5-2400-D148	5	5 kV	2400	120/240	A
CPTA-60-5-4160-D148	5	5 kV	4160	120/240	A
CPTA-60-5-4800-D148	5	5 kV	4800	120/240	A
CPTA-95-5-7200-D148	5	15 kV	7200	120/240	A
CPTA-95-5-8400-D148	5	15 kV	8400	120/240	A
CPTA-95-5-12000-D148	5	15 kV	12000	120/240	A
CPTA-95-5-12470-D148	5	15 kV	12470	120/240	A
CPTA-95-5-13200-D148	5	15 kV	13200	120/240	A
CPTA-95-5-13800-D148	5	15 kV	13800	120/240	A
CPTA-95-5-14400-D148	5	15 kV	14400	120/240	A

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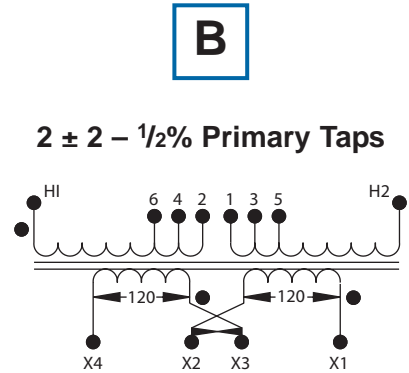
# 6 Multi-Tap Configuration

## Dimensions



Outline Drawing D150

## Connections



% Rated Voltage	Connect HV Link
105	1 – 2
102.5	2 – 3
100	3 – 4
97.5	4 – 5
95	5 – 6

Note: Metric dimensions are displayed in [mm].

Style	kVA	Voltage Class	Primary Rating	Secondary Voltage	Taps
CPTB-60-5-2400-D150	5	5 kV	2400	120/240	B
CPTB-60-5-4160-D150	5	5 kV	4160	120/240	B
CPTB-60-5-4800-D150	5	5 kV	4800	120/240	B
CPTB-95-5-7200-D150	5	15 kV	7200	120/240	B
CPTB-95-5-8400-D150	5	15 kV	8400	120/240	B
CPTB-95-5-12000-D150	5	15 kV	12000	120/240	B
CPTB-95-5-12470-D150	5	15 kV	12470	120/240	B
CPTB-95-5-13200-D150	5	15 kV	13200	120/240	B
CPTB-95-5-13800-D150	5	15 kV	13800	120/240	B
CPTB-95-5-14400-D150	5	15 kV	14400	120/240	B

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