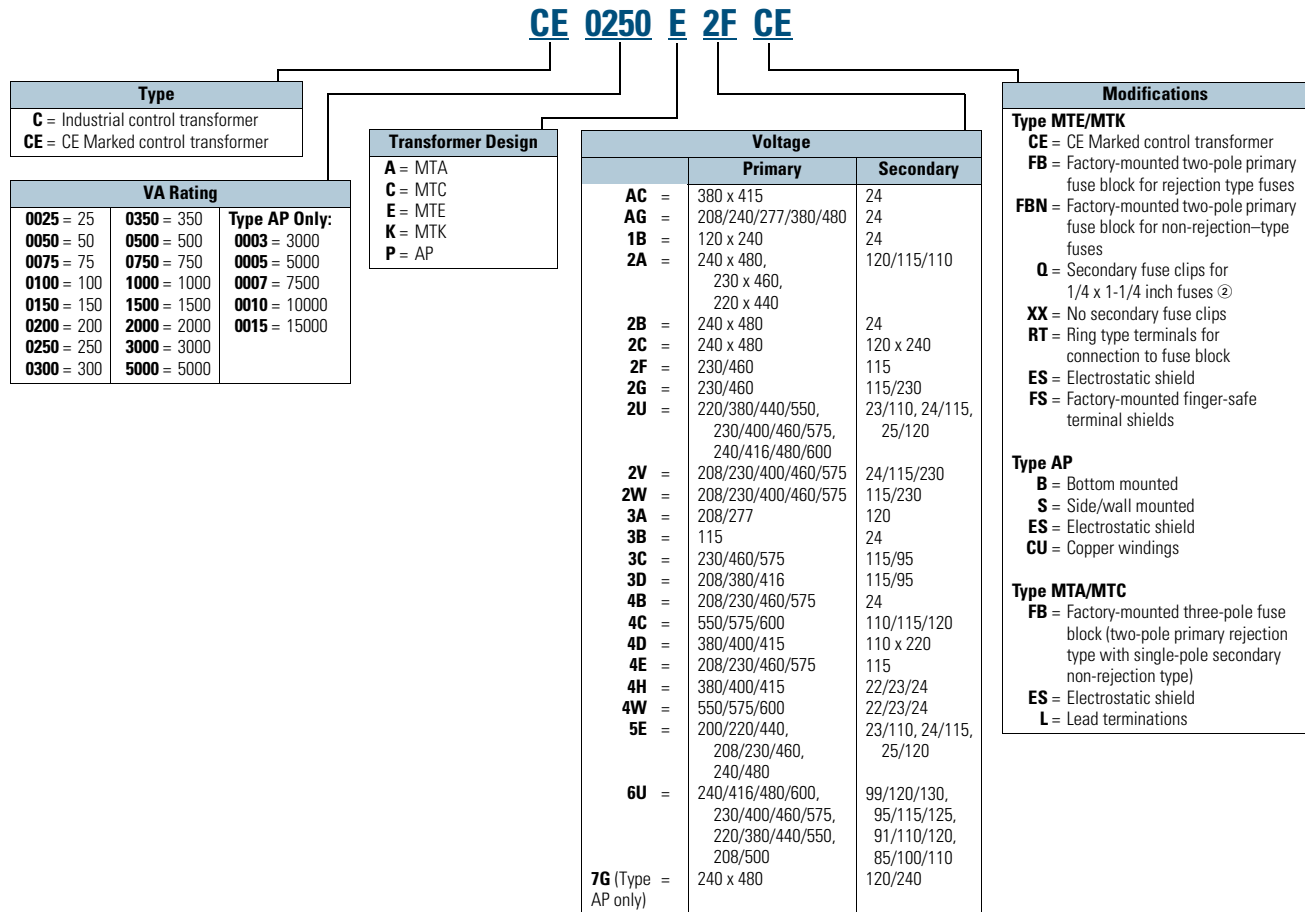


Catalog Number Selection

Industrial Control Transformers, CE Marked Control Transformers—Example: CE0250E2FCE ①



Notes

① For Eaton's dry-type transformers catalog number selection, see Volume 2, **CA08100003E**.

② Fuse clip covers not available with this option.

Contact your local Eaton sales office for voltage combinations not shown. Use table for catalog number breakdown only. Do not use to create catalog numbers because all combinations may not be valid.

Type MTE Transformer



Contents

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Type MTE	
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Accessories	V7-T7-10
Technical Data and Specifications	V7-T7-10
Wiring Diagrams	V7-T7-11
Type MTK	V7-T7-13
CE Marked	V7-T7-18
Type AP	V7-T7-25

Type MTE

Product Description

Note: The following pages provide listings for most standard transformer ratings and styles. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton.

- Epoxy-encapsulated coils

Application Description

Transformers provide stepped-down voltages to machine tool control devices, enabling control circuits to be isolated from all power and lighting circuits. This allows the use of grounded or ungrounded circuits that are independent of the power or lighting grounds; thus, greater safety is afforded the operator. The control transformer line is particularly adaptable on applications where compact construction is demanded.

Note: The MTG “open core-coil design” has been superseded by the epoxy-encapsulated core-coil design MTE with no change to dimensions or functionality.

Features, Benefits and Functions

- Epoxy encapsulated
- Laminations of high-quality silicon steel to minimize core losses and optimize performance
- Copper magnet wire for high-quality, efficient operation
- Secondary fuse clips where applicable
- Optional primary fusing
- Molded in terminals
- 50/60 Hz operation
- 130°C insulation system standard
- Performance meets/exceeds requirements of ANSI/NEMA ST-1
- Regulation exceeds ANSI/NEMA requirements for all ratings
- 25–1500 VA ratings
- Molded-in terminals for maximum durability

Standards and Certifications

- UL listed
- cUL listed
- RoHS compliant



Industry Standards

All Eaton dry-type distribution and control transformers are built and tested in accordance with applicable NEMA, ANSI and IEEE Standards. All 600 volt class transformers are UL listed unless otherwise noted.

Catalog Number Selection

Please refer to **Page V7-T7-3**.

Product Selection

Additional Product Selection information is available in Volume 2, CA08100003E.

Type MTE

Primary: 240 x 480, 230 x 460, 220 x 440 with Jumpers
Secondary: 120/115/110 with Fuse Clips for 13/32 x 1-1/2 Fuses

VA	Wiring Diagram ①	Weight Lbs (kg)	Style Number
25	1	1.7 (0.8)	C0025E2A ②
50	1	2.6 (1.2)	C0050E2A ②
75	1	3.5 (1.6)	C0075E2A ②
100	1	4.2 (1.9)	C0100E2A ②
150	1	6.7 (3.0)	C0150E2A
200	1	8.5 (3.9)	C0200E2A
250	1	10.0 (4.5)	C0250E2A
300	1	11.3 (5.1)	C0300E2A
350	1	13.6 (6.2)	C0350E2A
500	1	19.2 (8.7)	C0500E2A
750	1	28.1 (12.8)	C0750E2A
1000	1	29.5 (13.4)	C1000E2A
1500	1	40.0 (18.1)	C1500E2A

Primary: 240 x 480 with Jumpers
Secondary: 24 with Fuse Clips for 13/32 x 1-1/2 Fuses (through 500 VA)

VA	Wiring Diagram ①	Weight Lbs (kg)	Style Number
50	2	2.7 (1.2)	C0050E2B ②
75	2	3.5 (1.6)	C0075E2B ②
100	2	4.2 (1.9)	C0100E2B ②
150	2	6.7 (3.0)	C0150E2B
200	2	8.5 (3.9)	C0200E2B
250	2	10.1 (4.6)	C0250E2B
300	2	11.4 (5.2)	C0300E2B
350	2	13.4 (6.1)	C0350E2B
500	2	17.5 (7.9)	C0500E2B
750	2	28.1 (12.8)	C0750E2B

Primary: 120 X 240 with Jumpers
Secondary: 24 with Fuse Clips for 13/32 x 1-1/2 Fuses

VA	Wiring Diagram ①	Weight Lbs (kg)	Style Number
50	3	2.6 (1.2)	C0050E1B ②
75	3	3.6 (1.6)	C0075E1B ②
100	3	4.4 (2.0)	C0100E1B ②
150	3	6.7 (3.0)	C0150E1B
200	3	8.3 (3.8)	C0200E1B
250	3	10.1 (4.6)	C0250E1B
300	3	11.2 (5.1)	C0300E1B
350	3	13.2 (6.0)	C0350E1B
500	3	17.5 (7.9)	C0500E1B

Primary: 208/277
Secondary: 120 with Fuse Clips for 13/32 x 1-1/2 Fuses

VA	Wiring Diagram ①	Weight Lbs (kg)	Style Number
50	4	2.9 (1.3)	C0050E3A ②
75	4	3.8 (1.7)	C0075E3A ②
100	4	4.5 (2.0)	C0100E3A ②
150	4	6.9 (3.1)	C0150E3A
200	4	8.7 (3.9)	C0200E3A
250	4	10.2 (4.6)	C0250E3A
300	4	11.4 (5.2)	C0300E3A
350	4	13.7 (6.2)	C0350E3A
500	4	17.2 (7.8)	C0500E3A
750	4	25.7 (11.7)	C0750E3A

Notes

- ① See Page V7-T7-11 for wiring diagrams.
- ② 105°C insulation system.

Accessories

Primary Fuse Kit

The primary fuse kit includes a two-pole class CC fuse block, instructions, and all associated mounting and wiring hardware. Fuses are not included. When installed, the primary fuse kit will add a maximum of 11/16 inch to the transformer depth and 1-15/16 inches to the transformer height.

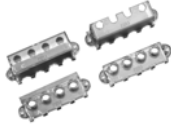

Primary Fuse Kit

Description	Catalog Number
Primary fuse kit	PFK1

Finger-Safe Terminal Covers (Optional)

- Fits CE Marked designs 50–750 VA
- Fits MTE designs 0.25–750 VA


Finger-Safe Terminal Covers

Description	Catalog Number
 <p>FSK4 Four terminal transformers</p>	FSK4
<p>Four terminal Series 2 transformers only</p>	FSK4S2
 <p>FSK6 Six terminal transformers</p>	FSK6

Finger-Safe Primary Fuse Block Covers

- Fits two-pole primary fuse blocks on MTE designs
- No fuse block covers are available for transformers with suffix "FBQ"

Finger-Safe Primary Fuse Block Covers

Description	Catalog Number
 <p>FSKFB Primary fuse block covers</p>	FSKFB

Secondary Fuse Clip

Secondary Fuse Clip

Description	Catalog Number
Fits 500 VA and smaller models	SFCS
Fits models greater than 500 VA	SFCL

Technical Data and Specifications

Insulation System and Temperature Rise

Industry standards classify insulation systems and rise as shown below:

Insulation System Classification

Ambient	+ Winding Rise	+ Hot Spot	= Temp. Class
40°C	55°C	10°C	105°C
40°C	80°C	30°C	150°C
25°C	135°C	20°C	180°C
40°C	115°C	30°C	185°C
40°C	150°C	30°C	220°C

The design life of transformers having different insulation systems is the same—the lower-temperature systems are designed for the same life as the higher-temperature systems.

Series-Multiple Windings

Series-multiple windings consist of two similar coils in each winding that can be connected in series or parallel (multiple). Transformers with series-multiple windings are designated with an "x" or "/" between the voltage ratings, such as voltages of "120/240" or "240 x 480." If the series-multiple winding is designated by an "x," the winding can be connected only for a series or parallel. With the "/" designation, a mid-point also becomes available in addition to the series or parallel connection. As an example, a 120 x 240 winding can be connected for either 120 (parallel) or 240 (series), but a 120/240 winding can be connected for 120 (parallel), 240 (series) or 240 with a 120 mid-point.

For additional information, please refer to Volume 2, CA08100003E.

Wiring Diagrams

Diagram 1

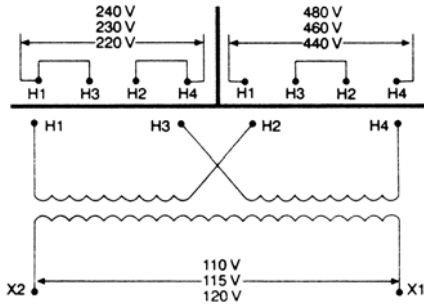


Diagram 5

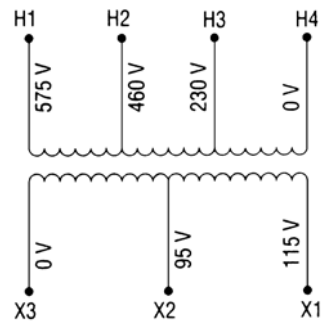


Diagram 2

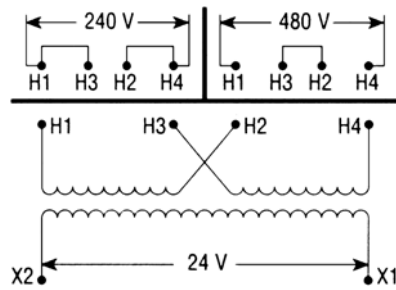


Diagram 6

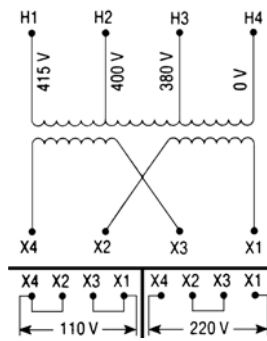


Diagram 3

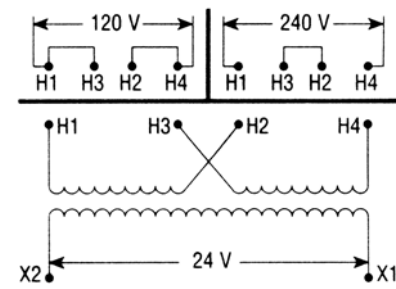


Diagram 7

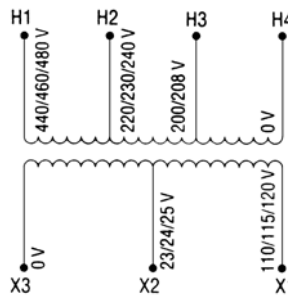


Diagram 4

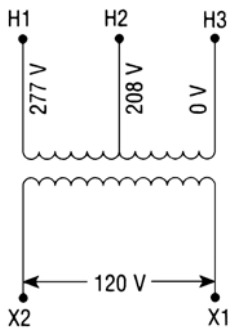


Diagram 8

