



## International Series Control Transformers: 50 - 750 VA

Electromagnetic control components demand inrush currents up to 10 times the transformers nominal rating without sacrificing secondary voltage stability beyond practical limits. The International series transformers fully comply with IEC and NEMA standards and are available with IEC touchproof covers (IP20).

### Features

- Epoxy encapsulated for cooler operation
- Interleaved copper windings to reduce impedance
- 50/60 Hz
- 55°C Rise, 105°C insulation system for harsh, heavy duty applications
- Exceeds IEC, NEMA, ANSI, NMTBA, JIC and automotive standards

### Certifications and Compliances



-  Listed: E77014
  - UL 506
  - CSA C22.2 No. 66
-  - IEC 61558-1, IEC 61558-2-2
- RoHS Compliant

### Related Products

- DIN Rail Power Supplies
- 63 Series Power Conditioners
- Surge Protective Devices



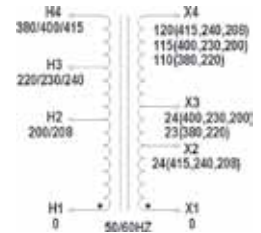
E77014

CATALOG NUMBER	FIELD INSTALLED OPTIONS DESCRIPTIONS
SBEDIN	 <p><b>DIN Circuit Breaker Mounting</b> Field installed IEC fuse holder adaptor kit</p>
IP20	 <p><b>Terminal Covers (Two Covers Per Kit)</b> Field installed primary and secondary IEC Touch Proof Cover Kit.</p>

Selection Tables: International Series

**Group 1 – 208/240/415 Volt Primary, 120/24 Secondary, 50/60 Hz  
200/230/400 Volt Primary, 115/23 Secondary, 50/60 Hz**

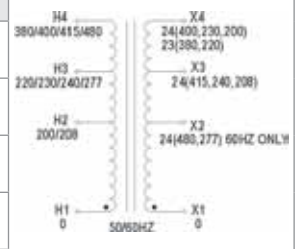
Continuous VA	Instantaneous VA *	Catalog Number	Height in (mm)	Width in (mm)	Depth in (mm)	Mtg Width W1 / W2 – in (mm)	Mtg Depth D1 / D2 – in (mm)	Slot Size S1/S2 – in (mm)	Approx. Ship Weight lbs (kg)
50	105	E050TC	2.96 (75.2)	3.39 (86.1)	4.36 (110.7)	2.81 / 2.50 (71.4 / 63.5)	2.10 / N/A (53.3 / N/A)	.20 x .50 / .20 x .50 (5.08 x 12.7 / 5.08 x 12.7)	4.0 (1.82)
100	230	E100TC	3.89 (98.8)	4.50 (114.3)	4.48 (113.8)	2.56 / 2.87 (65.0 / 72.9)	2.87 / 3.18 (72.9 / 80.8)	.20 x .65 / .20 x .33 (5.08 x 16.5 / 5.08 x 8.4)	8.0 (3.67)
150	420	E150TC	3.89 (98.8)	4.50 (114.3)	5.21 (132.3)	3.74 / 3.12 (95.0 / 79.3)	3.29 / 3.61 (83.6 / 91.7)	.20 x .65 / .20 x .33 (5.08 x 16.5 / 5.08 x 8.4)	11.0 (5.00)
250	675	E250TC	4.53 (115.1)	5.25 (133.4)	5.07 (128.8)	4.38 / 3.75 (111.3 / 95.3)	3.54 / N/A (89.9 / N/A)	.31 x .85 / .31 x .85 (7.87 x 21.59 / 7.87 x 21.59)	15.0 (6.82)
500	1600	E500TC	5.56 (141.2)	6.38 (162.1)	6.93 (176.0)	5.32 / 4.37 (135.1 / 111.0)	4.25 / 5.75 (108.0 / 146.1)	.31 x .03 / .31 x .85 (7.87 x .85 / 7.87 x 21.59)	30.0 (13.64)



\* At 50% PF (Power Factor), 95% Nominal Secondary Voltage.

**Group 2 – 208/240/415 Volt Primary, 24 Volt Secondary, 50/60 Hz  
277/480 Volt Primary, 24 Volt Secondary, 60 Hz  
200/230/400 Volt Primary, 24 Volt Secondary, 50/60 Hz  
220/380 Volt Primary, 23 Volt Secondary, 50/60 Hz**

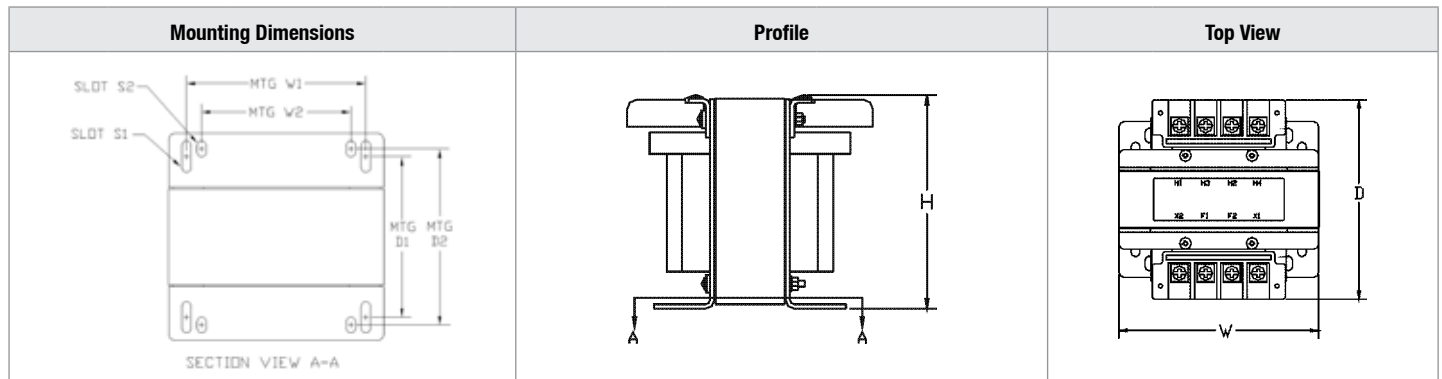
Continuous VA	Instantaneous VA*	Catalog Number	Height in (mm)	Width in (mm)	Depth in (mm)	Mtg Width W1 / W2 in (mm)	Mtg Depth D1 / D2 in (mm)	Slot Size S1/S2 – in (mm)	Approx. Ship Weight lbs (kg)
50	105	E050TE	2.96 (75.2)	3.39 (86.1)	4.36 (110.7)	2.81 / 2.50 (71.4 / 63.5)	2.10 / N/A (53.3 / N/A)	.20 x .50 / .20 x .50 (5.08 x 12.7 / 5.08 x 12.7)	4.0 (1.82)
100	230	E100TE	3.89 (98.8)	4.50 (114.3)	4.48 (113.8)	2.56 / 2.87 (65.0 / 72.9)	2.87 / 3.18 (72.9 / 80.8)	.20 x .03 / .20 x .01 (5.08 x .65 / 5.08 x .33)	8.0 (3.67)
150	420	E150TE	3.89 (98.8)	4.50 (114.3)	5.21 (132.3)	3.74 / 3.12 (95.0 / 79.3)	3.29 / 3.61 (83.6 / 91.7)	.20 x .03 / .20 x .01 (5.08 x .65 / 5.08 x .33)	11.0 (5.00)
250	675	E250TE	4.53 (115.1)	5.25 (133.4)	5.07 (128.8)	4.38 / 3.75 (111.3 / 95.3)	3.54 / N/A (89.9 / N/A)	.30 x .71 / .30 x .71 (7.87 x 18.0 / 7.87 x 18.0)	15.0 (6.82)
500	1600	E500TE	5.56 (141.2)	6.38 (162.1)	6.93 (176.0)	5.32 / 4.37 (135.1 / 111.0)	4.25 / 5.75 (108.0 / 146.1)	.30 x .85 / .30 x .85 (7.87 x 21.6 / 7.87 x 21.6)	30.0 (13.64)



Note: Fuse holders are not available for these voltage configurations.

\* At 50% PF (Power Factor), 95% Nominal Secondary Voltage.

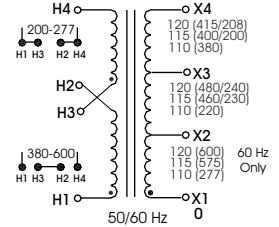
Design Style



Selection Tables: International Series - continued

**Group 3 – 208/240/415/480/600 \* Volt Primary, 120 Volt Secondary, 50/60 Hz**  
**200/230/400/460/575 \* Volt Primary, 115 Volt Secondary, 50/60 Hz**  
**220/277 \*/380 Volt Primary, 110 Volt Secondary, 50/60 Hz**

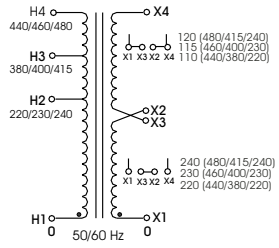
Continuous VA	Instantaneous VA **	Catalog Number	Height in (mm)	Width in (mm)	Depth in (mm)	Mtg Width W1 / W2 – in (mm)	Mtg Depth D1 / D2 – in (mm)	Slot Size S1/S2 – in (mm)	Approx. Ship Weight lbs (kg)
50	93	E050TF	2.96 (75.2)	3.39 (86.1)	4.36 (110.7)	2.81 / 2.50 (71.4 / 63.5)	2.10 / N/A (53.3 / N/A)	.20 x .50 / .20 x .50 (5.08 x 12.7 / 5.08 x 12.7)	4.0 (1.82)
100	205	E100TF	3.89 (98.8)	4.50 (114.3)	4.48 (113.8)	3.74 / 3.12 (95.0 / 79.3)	2.56 / 2.87 (65.0 / 73.0)	.20 x .65 / .20 x .33 (5.08 x 16.5 / 5.08 x 8.38)	8.0 (3.67)
150	390	E150TF	3.89 (98.8)	4.50 (114.3)	5.21 (132.3)	3.74 / 3.12 (95.0 / 79.3)	3.29 / 3.61 (83.6 / 91.7)	.20 x .65 / .20 x .33 (5.08 x 16.5 / 5.08 x 8.38)	11.0 (5.00)
250	630	E250TF	4.53 (115.1)	5.25 (133.4)	5.07 (128.8)	4.38 / 3.75 (111.3 / 95.3)	3.54 / N/A (89.9 / N/A)	.31 x .71 / .31 x .71 (7.9 x 18.0 / 7.9 x 18.0)	15.0 (6.82)
500	1200	E500TF	5.56 (141.2)	6.38 (162.1)	6.93 (176.0)	5.32 / 4.37 (135.1 / 111.0)	4.25 / 5.75 (108.0 / 146.1)	.31 x .85 / .31 x .85 (7.9 x 21.6 / 7.9 x 21.6)	30.0 (13.64)
750	2290	E750TF	5.56 (141.2)	6.38 (162.1)	7.36 (187.0)	5.32 / 4.37 (135.1 / 111.0)	4.68 / 6.18 (118.9 / 157.0)	.31 x .85 / .31 x .85 (7.9 x 21.6 / 7.9 x 21.6)	34.0 (15.45)



\* 60 Hz Only.  
 \*\* At 50% PF (Power Factor), 95% Nominal Secondary Voltage.

**Group 4 – 240/415/480 Volt Primary, 120/240 Volt Secondary, 50/60 Hz**  
**230/400/460 Volt Primary, 115/230 Volt Secondary, 50/60 Hz**  
**220/380/440 Volt Primary, 110/220 Volt Secondary, 50/60 Hz**

Continuous VA	Instantaneous VA*	Catalog Number	Height in (mm)	Width in (mm)	Depth in (mm)	Mtg Width W1 / W2 in (mm)	Mtg Depth D1 / D2 in (mm)	Slot Size S1/S2 – in (mm)	Approx. Ship Weight lbs (kg)
50	110	E050TH	2.96 (75.2)	3.39 (86.1)	4.36 (110.7)	2.81 / 2.50 (71.4 / 63.5)	2.10 / N/A (53.3 / N/A)	.20 x .50 / .20 x .50 (5.08 x 12.7 / 5.08 x 12.7)	4.0 (1.82)
100	235	E100TH	3.89 (98.8)	4.50 (114.3)	4.48 (113.8)	3.74 / 3.12 (95.0 / 79.3)	2.56 / 2.87 (65.0 / 73.0)	.20 x .65 / .20 x .33 (5.08 x 16.5 / 5.08 x 8.38)	8.0 (3.67)
150	470	E150TH	3.89 (98.8)	4.50 (114.3)	5.21 (132.3)	3.74 / 3.12 (95.0 / 79.3)	3.29 / 3.61 (83.6 / 91.7)	.20 x .65 / .20 x .33 (5.08 x 16.5 / 5.08 x 8.38)	11.0 (5.00)
250	730	E250TH	4.53 (115.1)	5.25 (133.4)	5.07 (128.8)	4.38 / 3.75 (111.3 / 95.3)	3.54 / N/A (89.9 / N/A)	.31 x .81 / .31 x .85 (7.9 x 20.59 / 7.9 x 18.0)	15.0 (6.82)
500	1670	E500TH	5.56 (141.2)	6.38 (162.1)	6.93 (176.0)	5.32 / 4.37 (135.1 / 111.0)	4.25 / 5.75 (108.0 / 146.1)	.31 x .85 / .31 x .85 (7.9 x 21.59 / 7.9 x 21.59)	30.0 (13.64)
750	2250	E750TH	5.56 (141.2)	6.38 (162.1)	7.36 (187.0)	5.32 / 4.37 (135.1 / 111.0)	4.68 / 6.18 (118.9 / 157.0)	.31 x .85 / .31 x .85 (7.9 x 21.59 / 7.9 x 21.59)	34.0 (15.45)



Note: Fuse holders are not available for these voltage configurations.  
 \* At 50% PF (Power Factor), 95% Nominal Secondary Voltage.

**International Series - Fuse Recommendations**

Primary Fusing: Consult local Electrical Code. Secondary Fusing: per IEC EN61558-2-2. \* See 500 VA fuse rating for MC design.

VA	Maximum Current Rating of Fuse		
	24 Vac	115 Vac	230 Vac
50	2	0.5	0.25
100	4	1	0.5
150	6	1.6	0.8
250	10	2	1
500	20	4	2
750	*	6	4
1000	*	8	4
1500	*	12	6
2000	-	16	8

\* See 500 VA fuse rating for MC design.



**ICE International Series: 750 - 2000 VA**

International CE marked transformers include IP20 touchproof terminations and copper windings in an encapsulated design. These units range from 750 to 2000 VA with 80°C temperature rise. The design is highly flexible due to the use of the standardized primary coil for multiple worldwide voltage combinations. CE marked and cULus approval make the ICE International Series the perfect choice for OEM export equipment.

**Features**

- IP20 Touch-Proof terminals
- Copper windings
- Epoxy encapsulated for cooler operation and increased reliability
- 80°C rise temp, 130°C insulation system for harsh, heavy-duty standards
- 50/60 Hz Frequency
- Meets or exceeds electrical requirements of NEMA, ANSI and IEC

**Certifications and Compliances**

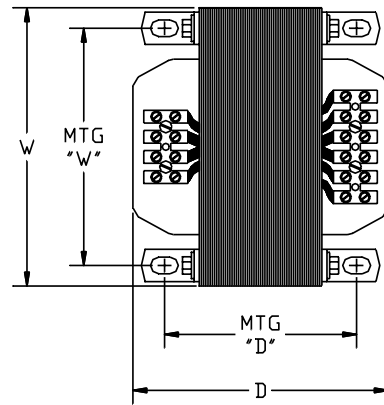
-  **UL** us Listed: E77014
  - UL 506
  - CSA C22.2 No. 66
-  **CE** -IEC 61558-1, IEC 61558-2-2
- RoHS Compliant

**Related Products**

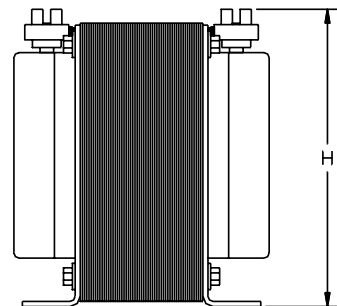
- DIN Rail Power Supplies
- 63 Series Power Conditioners
- Surge Protective Devices



**Design Style**



Top View

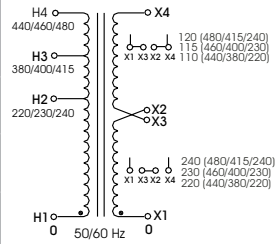


Profile

### Selection Tables: International Series

#### Group 5 – 240/415/480 Volt Primary, 120/240 Volt Secondary, 50/60 Hz 230/400/460 Volt Primary, 115/230 Volt Secondary, 50/60 Hz 220/380/440 Volt Primary, 110/220 Volt Secondary, 50/60 Hz

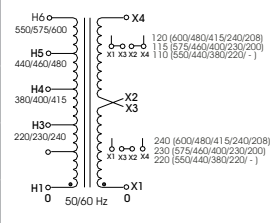
Continuous VA	Instantaneous VA *	Catalog Number	Height in (mm)	Width in (mm)	Depth in (mm)	Mtg Width "W" in (mm)	Mtg Depth "D" in (mm)	Slot Size – inches (mm)	Approx. Ship Weight lbs (kg)
1000	2500	CE1000TH	5.63 (143.0)	6.38 (162.1)	6.00 (152.4)	5.31 (135.0)	4.25 (108.0)	.31 x .69 (7.87 x 17.52)	25 (11.36)
1500	4200	CE1500TH	5.63 (143.0)	6.38 (162.1)	6.75 (171.5)	5.31 (135.0)	5.00 (127.0)	.31 x .69 (7.87 x 17.52)	32 (14.55)
2000	6000	CE2000TH	5.63 (143.0)	6.38 (162.1)	7.75 (196.9)	5.31 (135.0)	6.00 (152.4)	.31 x .69 (7.87 x 17.52)	37 (16.82)



\* At 50% PF (Power Factor), 95% Nominal Secondary Voltage.

#### Group 6 – 208/240/415/480/600 Volt Primary, 120/240 Volt Secondary, 50/60 Hz 200/230/400/460/575 Volt Primary, 115/230 Volt Secondary, 50/60 Hz – /220/380/440/550 Volt Primary, 110/220 Volt Secondary, 50/60 Hz

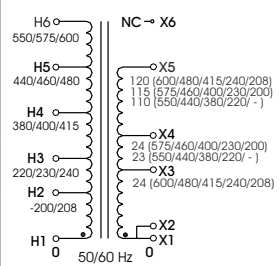
Continuous VA	Instantaneous VA *	Catalog Number	Height in (mm)	Width in (mm)	Depth in (mm)	Mtg Width "W" in (mm)	Mtg Depth "D" in (mm)	Slot Size in (mm)	Approx. Ship Weight lbs (kg)
1000	2500	CE1000MH	5.63 (143.0)	6.38 (162.1)	6.00 (152.4)	5.31 (135.0)	4.25 (108.0)	.31 x .69 (7.87 x 17.52)	25.0 (11.36)
1500	4200	CE1500MH	5.63 (143.0)	6.38 (162.1)	6.75 (171.5)	5.31 (135.0)	5.00 (127.0)	.31 x .69 (7.87 x 17.52)	32.0 (14.55)
2000	6000	CE2000MH	5.63 (143.0)	6.38 (162.1)	7.75 (196.9)	5.31 (135.0)	6.00 (152.4)	.31 x .69 (7.87 x 17.52)	37.0 (16.82)



\* At 50% PF (Power Factor), 95% Nominal Secondary Voltage.

#### Group 7 – 208/240/415/480/600 Volt Primary, 120/ – /24 Volt Secondary, 50/60 Hz 200/230/400/460/575 Volt Primary, 115/24/23 Volt Secondary, 50/60 Hz – /220/380/440/550 Volt Primary, 110/23/– Volt Secondary, 50/60 Hz

Continuous VA	Instantaneous VA *	Catalog Number	Height in (mm)	Width in (mm)	Depth in (mm)	Mtg Width "W" in (mm)	Mtg Depth "D" in (mm)	Slot Size in (mm)	Approx. Ship Weight lbs (kg)
750	1875	CE750MC	5.63 (143.0)	6.38 (162.1)	6.00 (152.4)	5.31 (135.0)	4.25 (108.0)	.31 x .69 (7.87 x 17.52)	25 (11.36)
1000	3000	CE1000MC	5.63 (143.0)	6.38 (162.1)	6.75 (171.5)	5.31 (135.0)	5.00 (127.0)	.31 x .69 (7.87 x 17.52)	32 (14.55)
1500	4500	CE1500MC	5.63 (143.0)	6.38 (162.1)	7.75 (196.9)	5.31 (135.0)	6.00 (152.4)	.31 x .69 (7.87 x 17.52)	37 (16.82)



Notes: 24V output 500 VA maximum load. Fuse holders are not available for these voltage configurations.

\* At 50% PF (Power Factor), 95% Nominal Secondary Voltage.