

Industrial Control Transformers

Industrial control transformers are used to reduce supply voltages to 230 V or lower for the operation of electromagnetic devices such as contactors, solenoids, relays, and timers. They are especially designed to accommodate the momentary current inrush caused when electromagnetic components are energized . . . without sacrificing secondary voltage stability beyond practical limits.

Industrial Control Transformers are dry-type, step-down transformers with the secondary control circuit isolated from the primary line circuit to assure maximum safety.

Voltage regulation of Industrial Control Transformers exceeds standards recommended by the National Electrical Manufacturers Association. Secondary circuit voltage drop between no-load and momentary overload remains exceptionally low. This excellent secondary circuit voltage regulation assures reliable operation of electromagnetic components and may permit the use of a smaller and less expensive industrial control transformer.



Primary Fuse Kit with Snap-on Secondary Fuse Block



Jumper Link Connections



Secondary Fuse Clips



Integrally Mounted Fuse Blocks

Industrial Control Transformers Meet or Exceed UL, CSA, NEMA and ANSI

Industrial Control Transformers 50 through 5000 VA are UL Listed, File E79947 and CSA certified, File 7357.

Laminations — High-permeability silicon steel continuously annealed to minimize core losses.

Magnet Wire — Copper magnet wire is coated with high temperature-resisting insulating film.

Coils — Precision wound by machine; total turns per coil automatically counted.

Terminals — Copper-alloy terminals are soldered to coil leads. “Quick Connects” are available on 50-150 VA units.

Mounting — Heavy steel mounting plates add strength to core construction and provide firm mounting, slotted to facilitate installation.

Terminal Boards — Sturdy phenolic terminal boards.

Sizing Primary Fuses:

Primary Amps <2, fuse size is 300% of rated primary current.

Primary Amps 2<9, fuse size is 167% of rated primary current.

Primary Amps ≥9, fuse size is 125% of rated primary current.

Sizing Secondary Fuses:

Secondary Amps <9, fuse size is 167% of rated secondary current.

Secondary Amps ≥9, fuse size is 125% of rated secondary current.

EPOXETRAN™ Encapsulated Control Transformers.
See Pages 13 - 14 in this section.

Selecting Industrial Control Transformers

To make the proper transformer selection, the load must be completely analyzed . . . which involves every electrically energized component in the control circuit.

All electromagnetic control devices have two current requirements; the first to energize the coil; the second to maintain the contact for a definite period of time. The initial energizing of the coil, which takes 5 to 20 milliseconds, requires many times more current than normal. This is referred to as **volt-ampere inrush** . . . which is immediately followed by the sealed volt-amperes — the amount of current required to hold the contact in the circuit.

Easy, five step selection

1. Determine the voltage and frequency of supply circuit: Example: 460 Volts, 60 Hz.
2. Determine the total inrush VA of the control circuits from the manufacturer's data or the contactor data table. Do not neglect the current requirements of indicating lights and timing devices that do not have an inrush VA but are energized at the same time as the other components in the circuit. Their total VA should be added to the total inrush VA.
3. Refer to the regulation data chart. If the supply circuit voltage (Step 1) is reasonably stable and fluctuates no more than $\pm 5\%$, refer to the 90% Secondary Voltage column. If it fluctuates as much as $\pm 10\%$, refer to the 95% Secondary Voltage column. Go down the column you have selected until you arrive at the inrush VA closest to, but not less than, the inrush VA of your control circuit.
4. Read to the far left side of the chart and you have selected the continuous nominal VA rating of the transformer needed. The secondary voltage that will be delivered under inrush conditions will be either 85%, 90%, or 95% of the rated secondary voltage — depending on the column selected from the regulation data chart. The total sealed VA of the control circuit must not exceed the nominal VA rating of the transformer

TABLE 1. Inrush VA

Nominal VA Rating	Inrush VA @ 20% & 40% Power Factor					
	85% Secondary Voltage		90% Secondary Voltage		95% Secondary Voltage	
	20% P.F.	40% P.F.	20% P.F.	40% P.F.	20% P.F.	40% P.F.
50	362	224	289	179	217	134
75	579	354	462	283	345	211
100	839	522	664	413	489	304
150	1326	842	1003	637	679	431
250	3447	2281	2462	1629	1477	977
300	3894	2618	2812	1890	1731	1163
350	5418	3689	3870	2635	2322	1581
500	6496	4575	4691	3304	2887	2033
750	8377	5811	5913	4102	3449	2393
1000	11329	9005	7789	6191	4248	3377
1500	25519	18803	18013	13273	10508	7742
2000	28178	21600	19372	14850	10566	8100
3000	34797	28391	24562	20041	14328	11690
5000	138500	84542	100000	61058	61550	37574

TABLE 2. Typical Magnetic Motor Starter & Contactor Data ①
60 Hz, 120 Volt, 3-Pole

Contactor	N.E.M.A. Size								VA Inrush	
	00	0	1	2	3	4	5			
Allen Bradley	500 Series	—	192	192	240	660	1225	A 2040	L 1490	VA Inrush
		—	29	29	29	45	69	110	96	VA Sealed
	K Series	53	110	175	240	580	1000	1950		VA Inrush
		15	20	22	31	43	65	98		VA Sealed
ASEA Heavy Duty Series	85	85	100	150	490	900	1200		VA Inrush	
	9	9	11.5	15	35	55	65		VA Sealed	
Furnas	218	218	218	218	310	957	1518		VA Inrush	
	25	25	25	25	26	75	116		VA Sealed	
General Electric	151	151	151	528	1152	1248	2580		VA Inrush	
	24	24	24	60	83	86	191		VA Sealed	
Joslyn Clark	210	210	210	210	724	880	1790		VA Inrush	
	18	18	18	18	30	39	295		VA Sealed	
Siemens-Allis (formerly ITE Gould)	76	76	76	194	365	530	1630		VA Inrush	
	12	12	12	21	35	40	110		VA Sealed	
Square D	165	245	245	311	700	1185	2970		VA Inrush	
	33	27	27	37	46	85	212		VA Sealed	
Westinghouse	160	160	160	160	625	625	1700		VA Inrush	
	25	25	25	25	50	50	180		VA Sealed	
Cutler Hammer (Citation Line)	A1 Series	87	103	103	—	—	—	1158		VA Inrush
		15	20	20	—	—	—	100		VA Sealed
	B1 Series	102	103	103	140	390	1158	1158		VA Inrush
		13	20	20	24	50	100	100		VA Sealed

selected from the manufacturer's data or the contactor's data table.

according to the required continuous nominal VA and primary/secondary voltages.

5. Refer to the specification tables on the following pages to select a transformer

① Data is most current at time of printing. Contact individual manufacturer for updates.

FEATURES

1. Constructed with high quality silicon steel lamination to minimize core losses and increase efficiency.
2. Designs incorporate precision wound coils for improved regulation.
3. Primary fuse blocks and secondary fuse kits available and easily adaptable.
4. Series-parallel connecting links save wiring and labor costs.
5. Sturdy phenolic terminal panel protects the coil from foreign objects and mechanical damage.
6. Copper windings on all groups.
7. 130°C Insulation class. 80°C temperature rise.
8. Wire retention on both primary and secondary terminals.
9. Mounting plate adapts to various mounting dimensions.
10. Voltage regulation exceeds NEMA requirements.
11. UL Listed, CSA Certified.
12. Attractive finish, nameplate, and design features enhance the end product.

Integrally Mounted Fuse Blocks Available: (See Chart)

GROUP 'A' THROUGH 500 VA
GROUP 'B' THROUGH 1000 VA

Add Suffix To Catalog No.	Configuration
-F2	Integrally mounted 2-pole primary block
-F3	Integrally mounted 3-pole primary and secondary block

Consult factory for other sizes available.

SELECTION CHARTS

GROUP A



120 X 240 PRIMARY VOLTS — 24 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO. ②	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 24 VOLTS
			A	B	C	D	E	F				
TA-2-81141 ②	50	2.08	4.23 (10.7)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.13 (5.4)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	3 ² / ₁₀ amps
TA-2-81142 ②	75	3.13	4.74 (12.0)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.61 (6.6)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	5 amps
TA-2-81143 ②	100	4.17	4.90 (12.4)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	6 ¹ / ₄ amps
TA-2-81144 ②	150	6.25	4.78 (12.1)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.63 (6.7)	.22 x .50 (0.6 x 1.3)	6 (2.7)	PL-112701	PL-112602	10 amps
TA-2-81146 ②	250	10.42	5.08 (12.9)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.05 (7.7)	.22 x .50 (0.6 x 1.3)	9 (4.1)	PL-112702	PL-112601	15 amps
TA-2-81148 ②	350	14.58	6.12 (15.5)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	13 (5.9)	PL-112702	PL-112601	20 amps
TA-2-81149 ②	500	20.83	5.90 (15.0)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.19 (10.6)	.31 x .50 (0.8 x 1.3)	16 (7.3)	PL-112704	PL-112601	30 amps
TA-2-81150	750	31.25	7.53 (19.1)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	5.25 (13.3)	.31 x .50 (0.8 x 1.3)	24 (10.9)	PL-112704	—	—
TA-2-81151	1000	41.67	7.43 (18.9)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.81 (9.7)	.31 x .50 (0.8 x 1.3)	26 (11.8)	PL-112705	—	—

GROUP B

240 X 480, 230 X 460, 220 X 440 PRIMARY VOLTS — 120/115/110 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO. ②	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 120 VOLTS
			A	B	C	D	E	F				
TA-2-81210 ②	50	0.42	4.23 (10.7)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.13 (5.4)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	6 ¹ / ₁₀ amp
TA-2-81201 ②	75	0.63	4.74 (12.0)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.61 (6.6)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	1 amp
TA-2-81211 ②	100	0.83	4.90 (12.4)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	1 ¹ / ₄ amps
TA-2-81212 ②	150	1.25	5.00 (12.7)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	6 (2.7)	PL-112701	PL-112602	2 amps
TA-2-81213 ②	250	2.08	5.57 (14.1)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.13 (8.0)	.22 x .50 (0.6 x 1.3)	9 (4.1)	PL-112702	PL-112601	3 ² / ₁₀ amps

① Secondary Fuse Kit PL-112603 may be substituted for PL-112600 thru PL-112602 when Primary Fuse Kit is used. See page 10.

② See chart for integrally mounted fuse block catalog number suffix.

GROUP B CONTINUED



240 X 480, 230 X 460, 220 X 440 PRIMARY VOLTS — 120/115/110 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO. ②	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 120 VOLTS
			A	B	C	D	E	F				
TA-2-81200 ②	300	2.50	5.57 (14.1)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.13 (8.0)	.22 x .50 (0.6 x 1.3)	10 (4.5)	PL-112702	PL-112601	4 amps
TA-2-81214 ②	350	2.92	6.32 (16.1)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.83 (9.7)	.22 x .50 (0.6 x 1.3)	12 (5.4)	PL-112702	PL-112601	4 1/2 amps
TA-2-81215 ②	500	4.17	6.30 (16.0)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	3.81 (9.7)	.22 x .50 (0.6 x 1.3)	15 (6.8)	PL-112703	PL-112601	6 1/4 amps
TA-2-81216 ②	750	6.25	6.65 (16.9)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	5.13 (13.0)	.31 x .50 (0.8 x 1.3)	23 (10.4)	PL-112704	PL-112601	10 amps
TA-2-81217 ②	1000	8.33	7.58 (19.3)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.69 (9.4)	.31 x .50 (0.8 x 1.3)	25 (11.3)	PL-112705	PL-112601	12 amps
TA-2-81218	1500	12.50	8.80 (22.4)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	5.75 (14.6)	.31 x .50 (0.8 x 1.3)	43 (19.5)	PL-112705	PL-112601	15 amps
TA-2-81219	2000	16.67	9.25 (23.5)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	6.38 (16.2)	.31 x .50 (0.8 x 1.3)	49 (22.2)	PL-112705	PL-112601	20 amps
TA-2-81220	3000	25.00	8.81 (22.4)	7.50 (19.1)	8.34 (21.2)	6.50 (16.5)	7.52 (19.1)	.41 x .81 (1.0 x 2.1)	70 (31.8)	PL-112706	—	—
TA-2-81221	5000	41.67	7.52 (19.1)	11.92 (30.3)	9.49 (24.1)	6.75 (17.1)	6.25 (15.9)	.41 x .81 (1.0 x 2.1)	125 (56.7)	PL-112707	—	—

GROUP C

240/480/600, 230/460/575, 220/440/550 PRIMARY VOLTS — 120/100, 115/95, 110/90 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 120 VOLTS
			A	B	C	D	E	F				
TA-2-81000	50	0.42	4.56 (11.6)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.61 (6.6)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112600	6 1/10 amp
TA-2-81009	75	0.63	4.90 (12.4)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112600	1 amp
TA-2-81001	100	0.83	5.36 (13.6)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	3.26 (8.3)	.22 x .50 (0.6 x 1.3)	5 (2.3)	PL-112700	PL-112600	1 1/4 amps
TA-2-81002	150	1.25	5.00 (12.7)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	3.06 (7.8)	.22 x .50 (0.6 x 1.3)	7 (3.2)	PL-112701	PL-112600	2 amps
TA-2-81003	250	2.08	5.57 (14.1)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.05 (7.7)	.22 x .50 (0.6 x 1.3)	11 (5.0)	PL-112702	PL-112601	3 2/10 amps
TA-2-81020	300	2.50	6.48 (16.5)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	15 (6.8)	PL-112703	PL-112601	4 amps
TA-2-81004	350	2.92	6.48 (16.5)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	15 (6.8)	PL-112703	PL-112601	4 1/2 amps
TA-2-81005	500	4.17	6.43 (16.3)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.56 (11.6)	.31 x .50 (0.8 x 1.3)	21 (9.5)	PL-112704	PL-112601	6 1/4 amps
TA-2-81006	750	6.25	7.19 (18.3)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.81 (9.7)	.31 x .50 (0.8 x 1.3)	25 (11.3)	PL-112705	PL-112601	10 amps
TA-2-81007	1000	8.33	7.96 (20.2)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	4.63 (11.8)	.31 x .50 (0.8 x 1.3)	32 (14.5)	PL-112705	PL-112601	12 amps
TA-2-81008	1500	12.50	9.46 (24.0)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	6.38 (16.2)	.31 x .50 (0.8 x 1.3)	47 (21.3)	PL-112705	PL-112601	15 amps
TA-2-53929	2000	16.67	7.90 (20.1)	7.50 (19.1)	7.66 (19.5)	6.50 (16.5)	6.57 (16.7)	.41 x .81 (1.0 x 2.1)	55 (24.9)	PL-112706	PL-112601	20 amps
TA-2-53930	3000	25.00	7.02 (17.8)	11.92 (30.3)	8.83 (22.4)	6.75 (17.1)	5.75 (14.6)	.41 x .81 (1.0 x 2.1)	75 (34.0)	PL-112707	—	—
TA-2-53931	5000	41.67	7.52 (19.1)	11.92 (30.3)	9.49 (24.1)	6.75 (17.1)	6.25 (15.9)	.41 x .81 (1.0 x 2.1)	110 (49.9)	PL-112707	—	—

① Secondary Fuse Kit PL-112603 may be substituted for PL-112600 thru PL-112602 when Primary Fuse Kit is used. See page 10.

② See chart for integrally mounted fuse block catalog number suffix.

GROUP D



208/240/277/380/480 PRIMARY VOLTS — 24 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 24 VOLTS
			A	B	C	D	E	F				
TA-2-81321	50	2.08	4.08 (10.4)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.19 (5.6)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112701	PL-112602	3 ² / ₁₀ amp
TA-2-81322	75	3.13	4.31 (10.9)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.31 (5.9)	.22 x .50 (0.6 x 1.3)	5 (2.3)	PL-112701	PL-112602	5 amps
TA-2-81323	100	4.17	4.52 (11.5)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.63 (6.7)	.22 x .50 (0.6 x 1.3)	5 (2.3)	PL-112701	PL-112602	6 ¹ / ₄ amps
TA-2-81324	150	6.25	4.75 (12.1)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.05 (7.7)	.22 x .50 (0.6 x 1.3)	9 (4.1)	PL-112702	PL-112601	10 amps
TA-2-81325	250	10.42	5.24 (13.3)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	3.25 (8.3)	.22 x .50 (0.6 x 1.3)	11 (5.0)	PL-112703	PL-112601	15 amps
TA-2-81326	350	14.58	6.02 (15.3)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.00 (10.2)	.31 x .50 (0.8 x 1.3)	18 (8.2)	PL-112704	PL-112601	20 amps
TA-2-81327	500	20.83	6.51 (16.5)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.19 (10.6)	.31 x .50 (0.8 x 1.3)	19 (8.6)	PL-112704	PL-112601	30 amps
TA-2-81328	750	31.25	7.08 (18.0)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.81 (9.7)	.31 x .50 (0.8 x 1.3)	26 (11.8)	PL-112705	—	—
TA-2-81329	1000	41.67	8.10 (20.6)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	4.63 (11.8)	.31 x .50 (0.8 x 1.3)	33 (15.0)	PL-112705	—	—

GROUP E

208/277/380 PRIMARY VOLTS — 115/95 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 115 VOLTS
			A	B	C	D	E	F				
TA-2-81301	50	0.43	4.35 (11.0)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.61 (6.6)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112600	6 ¹ / ₁₀ amp
TA-2-81302	75	0.65	4.74 (12.0)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112600	1 amp
TA-2-81303	100	0.87	4.45 (11.3)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.44 (6.2)	.22 x .50 (0.6 x 1.3)	5 (2.3)	PL-112701	PL-112600	1 ¹ / ₄ amps
TA-2-81304	150	1.30	5.00 (12.7)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	3.06 (7.8)	.22 x .50 (0.6 x 1.3)	5 (2.3)	PL-112701	PL-112600	2 amps
TA-2-81305	250	2.17	5.68 (14.4)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	13 (5.9)	PL-112702	PL-112601	3 ¹ / ₂ amps
TA-2-81306	350	3.04	6.30 (16.0)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.75 (12.1)	.22 x .50 (0.6 x 1.3)	18 (8.2)	PL-112703	PL-112601	5 amps
TA-2-81307	500	4.35	6.22 (15.8)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.56 (11.6)	.31 x .50 (0.8 x 1.3)	20 (9.1)	PL-112704	PL-112601	7 amps
TA-2-81308	750	6.52	6.82 (17.3)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.69 (9.4)	.31 x .50 (0.8 x 1.3)	24 (10.9)	PL-112705	PL-112601	10 amps
TA-2-81309	1000	8.70	7.96 (20.2)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	4.44 (11.3)	.31 x .50 (0.8 x 1.3)	31 (14.1)	PL-112705	PL-112601	12 amps

① Secondary Fuse Kit PL-112603 may be substituted for PL-112600 thru PL-112602 when Primary Fuse Kit is used. See page 10.

GROUP F



380/440/550/600 PRIMARY VOLTS — 115/230 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE SIZE ② 115 VOLTS
			A	B	C	D	E	F			
TA-2-54535	50	0.43	4.12 (10.5)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.19 (5.6)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112701	6/10 amp
TA-2-54536	100	0.87	4.56 (11.6)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.31 (5.9)	.22 x .50 (0.6 x 1.3)	5 (2.3)	PL-112701	1 1/4 amps
TA-2-54537	150	1.30	5.00 (12.7)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	3.06 (7.8)	.22 x .50 (0.6 x 1.3)	10 (4.5)	PL-112701	2 amps
TA-2-54538	250	2.17	5.49 (13.9)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.50 (8.9)	.22 x .50 (0.6 x 1.3)	11 (5.0)	PL-112702	3 1/2 amps
TA-2-81197	350	3.04	6.03 (15.3)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.38 (11.1)	.22 x .50 (0.6 x 1.3)	17 (7.7)	PL-112703	5 amps
TA-2-54539	500	4.35	6.76 (17.1)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	5.75 (14.6)	.22 x .50 (0.6 x 1.3)	23 (10.4)	PL-112703	7 amps
TA-2-81240	750	6.52	7.19 (18.3)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.69 (9.4)	.31 x .50 (0.8 x 1.3)	25 (11.3)	PL-112705	10 amps
TA-2-81241	1000	8.70	7.77 (19.7)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	4.44 (11.3)	.31 x .50 (0.8 x 1.3)	30 (13.6)	PL-112705	12 amps

GROUP G

240/416/480/600; 230/400/460/575; 220/380/440/550; 208/500 PRIMARY VOLTS 99/120/130; 95/115/125; 91/110/120; 85/100/110 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 130 VOLTS
			A	B	C	D	E	F				
TA-2-32403	50	0.38	4.08 (10.4)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.31 (5.9)	.22 x .50 (0.6 x 1.3)	5 (2.3)	PL-112701	PL-112600	6/10 amp
TA-2-32404	150	1.15	4.75 (12.1)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.05 (7.7)	.22 x .50 (0.6 x 1.3)	10 (4.5)	PL-112702	PL-112601	1 6/10 amps
TA-2-32405	250	1.92	5.58 (14.2)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	16 (7.3)	PL-112703	PL-112601	3 2/10 amps
TA-2-32669	350	2.69	6.23 (15.8)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	5.50 (14.0)	.22 x .50 (0.6 x 1.3)	22 (10.0)	PL-112703	PL-112601	4 amps
TA-2-32406	500	3.85	6.40 (16.3)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.69 (9.4)	.22 x .50 (0.6 x 1.3)	23 (10.4)	PL-112705	PL-112601	6 1/4 amps
TA-2-54523	750	5.77	7.08 (18.0)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	4.13 (10.5)	.31 x .50 (0.8 x 1.3)	29 (13.2)	PL-112705	PL-112601	9 amps
TA-2-54524	1000	7.69	8.56 (21.7)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	4.88 (12.4)	.31 x .50 (0.8 x 1.3)	35 (15.9)	PL-112705	PL-112601	12 amps
TA-2-54525	1500	11.54	6.75 (17.1)	7.50 (19.1)	7.66 (19.5)	6.50 (16.5)	5.42 (13.8)	.41 x .81 (1.0 x 2.1)	55 (24.9)	PL-112706	PL-112601	20 amps
TA-2-81202	2000	15.39	7.45 (18.9)	7.50 (19.1)	7.66 (19.5)	6.50 (16.5)	6.12 (15.5)	.41 x .81 (1.0 x 2.1)	55 (24.9)	PL-112706	PL-112601	25 amps
TA-2-81203	3000	23.08	7.02 (17.8)	11.92 (30.3)	8.83 (22.4)	6.75 (17.1)	5.75 (14.6)	.41 x .81 (1.0 x 2.1)	70 (31.8)	PL-112707	—	—
TA-2-81205	5000	38.46	7.52 (19.1)	11.92 (30.3)	9.49 (24.1)	6.75 (17.1)	6.25 (15.9)	.41 x .81 (1.0 x 2.1)	110 (49.9)	PL-112707	—	—

CONNECTION DETAILS FOR GROUP G

Connect To Line For Respective Voltage				Output Volts		
H1-H2	H1-H3	H1-H4	H1-H5	X1-X2	X1-X3	X1-X4
208	—	—	500	85	100	110
220	380	440	550	91	110	120
230	400	460	575	95	115	125
240	416	480	600	99	120	130

① Secondary Fuse Kit PL-112603 may be substituted for PL-112600 thru PL-112602 when Primary Fuse Kit is used. See page 10.

② Secondary fuse kit application for 115V only.

GROUP H



208/230/460 PRIMARY VOLTS — 115 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.	SECONDARY FUSE KIT ① Part No.	SECONDARY FUSE SIZE 115 VOLTS
			A	B	C	D	E	F				
TA-2-69300	50	0.43	4.44 (11.3)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.61 (6.6)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	6/10 amp
TA-2-69301	100	0.87	5.21 (13.2)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	3.26 (8.3)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700	PL-112602	1 ⁴ /10 amps
TA-2-69302	150	1.30	5.10 (13.0)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	3.06 (7.8)	.22 x .50 (0.6 x 1.3)	7 (3.2)	PL-112701	PL-112602	2 amps
TA-2-69303	250	2.17	5.38 (13.7)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.50 (8.9)	.22 x .50 (0.6 x 1.3)	11 (5.0)	PL-112702	PL-112601	3 ¹ / ₂ amps
TA-2-69304	350	3.04	5.90 (15.0)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	3.81 (9.7)	.22 x .50 (0.6 x 1.3)	15 (6.8)	PL-112703	PL-112601	5 amps
TA-2-69305	500	4.35	6.22 (15.8)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.56 (11.6)	.31 x .50 (0.8 x 1.3)	20 (9.1)	PL-112704	PL-112601	7 amps
TA-2-69306	750	6.52	6.82 (17.3)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.81 (9.7)	.31 x .50 (0.8 x 1.3)	26 (11.8)	PL-112705	PL-112601	10 amps
TA-2-69307	1000	8.70	7.96 (20.2)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	4.63 (11.8)	.31 x .50 (0.8 x 1.3)	33 (15.0)	PL-112705	PL-112601	12 amps

GROUP I

600 PRIMARY VOLTS — 12/24 SECONDARY VOLTS — 1Ø, 60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.
			A	B	C	D	E	F		
TA-83300	50	4.17	4.13 (10.5)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.30 (5.8)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700
TA-83301	100	8.33	4.90 (12.4)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	3.35 (8.5)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700
TA-83302	150	12.50	4.92 (12.5)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	6 (2.7)	PL-112701
TA-83303	250	20.83	5.38 (13.7)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.05 (7.7)	.22 x .50 (0.6 x 1.3)	9 (4.1)	PL-112702
TA-83304	500	41.67	6.06 (15.4)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	13 (5.9)	PL-112703
TA-83305	750	62.50	6.43 (16.3)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.00 (10.2)	.31 x .50 (0.8 x 1.3)	21 (9.5)	PL-112704
TA-83306	1000	83.33	7.30 (18.5)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.69 (9.4)	.31 x .50 (0.8 x 1.3)	24 (10.9)	PL-112705

① Secondary Fuse Kit PL-112603 may be substituted for PL-112600 thru PL-112602 when Primary Fuse Kit is used. See [page 10](#).

GROUP J



240 X 480 PRIMARY VOLTS — 120/240 SECONDARY VOLTS — 1Ø, 60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.
			A	B	C	D	E	F		
TA-83210	50	0.42	4.13 (10.5)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.30 (5.8)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700
TA-83212	100	0.83	4.90 (12.4)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	3.35 (8.5)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700
TA-83213	150	1.25	4.92 (12.5)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	6 (2.7)	PL-112701
TA-83215	250	2.08	5.38 (13.7)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.05 (7.7)	.22 x .50 (0.6 x 1.3)	9 (4.1)	PL-112702
TA-83218	500	4.17	6.06 (15.4)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	13 (5.9)	PL-112703
TA-83219	750	6.25	6.43 (16.3)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.00 (10.2)	.31 x .50 (0.8 x 1.3)	21 (9.5)	PL-112704
TA-83220	1000	8.33	7.34 (18.6)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.69 (9.4)	.31 x .50 (0.8 x 1.3)	24 (10.9)	PL-112705
TA-83221	1500	12.50	8.80 (22.4)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	5.02 (12.8)	.31 x .50 (0.8 x 1.3)	43 (19.5)	PL-112705
TA-83222	2000	16.67	9.15 (23.2)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	5.42 (13.8)	.31 x .50 (0.8 x 1.3)	48 (21.8)	PL-112705
TA-83223	3000	25.00	7.00 (17.8)	7.50 (19.1)	7.66 (19.5)	6.50 (16.5)	5.55 (14.1)	.41 x .81 (1.0 x 2.1)	51 (23.1)	PL-112706
TA-83224	5000	41.67	7.06 (17.9)	11.92 (30.3)	8.75 (22.2)	6.75 (17.1)	5.75 (14.6)	.41 x .81 (1.0 x 2.1)	90 (40.8)	PL-112707

GROUP K

600 PRIMARY VOLTS — 120/240 SECONDARY VOLTS — 1Ø, 60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)						APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE BLOCK Part No.
			A	B	C	D	E	F		
TA-83310	50	0.42	4.13 (10.5)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	2.30 (5.8)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700
TA-83311	100	0.83	4.90 (12.4)	3.00 (7.6)	2.59 (6.6)	2.50 (6.4)	3.35 (8.5)	.22 x .50 (0.6 x 1.3)	4 (1.8)	PL-112700
TA-83312	150	1.25	4.92 (12.5)	3.75 (9.5)	3.21 (8.2)	3.13 (8.0)	2.81 (7.1)	.22 x .50 (0.6 x 1.3)	6 (2.7)	PL-112701
TA-83313	250	2.08	5.38 (13.7)	4.50 (11.4)	3.84 (9.8)	3.75 (9.5)	3.05 (7.7)	.22 x .50 (0.6 x 1.3)	9 (4.1)	PL-112702
TA-83314	500	4.17	6.06 (15.4)	4.88 (12.4)	4.15 (10.5)	4.06 (10.3)	4.06 (10.3)	.22 x .50 (0.6 x 1.3)	13 (5.9)	PL-112703
TA-83315	750	6.25	6.43 (16.3)	5.25 (13.3)	4.47 (11.4)	4.38 (11.1)	4.00 (10.2)	.31 x .50 (0.8 x 1.3)	21 (9.5)	PL-112704
TA-83316	1000	8.33	7.34 (18.6)	6.75 (17.1)	5.72 (14.5)	5.75 (14.6)	3.69 (9.4)	.31 x .50 (0.8 x 1.3)	24 (10.9)	PL-112705

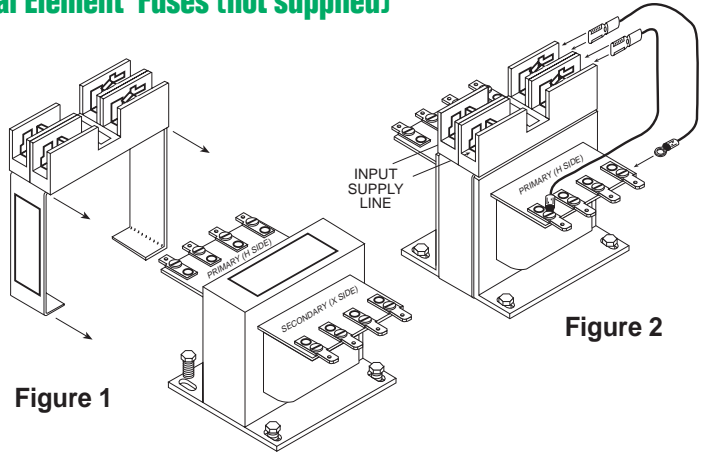
Primary Fuse Kits

Type PL-112700 Through PL-112705: Using 2 Class CC Dual Element Fuses (not supplied)

- Meets NEC Article 450 and UL-508 requirements.
- For use with class “CC” fuses.
- Eliminates remote mounting of primary overcurrent protection.
- Covered by 10-year limited warranty.

Field installation is fast and easy. Simply loosen the mounting hardware (Fig. 1),

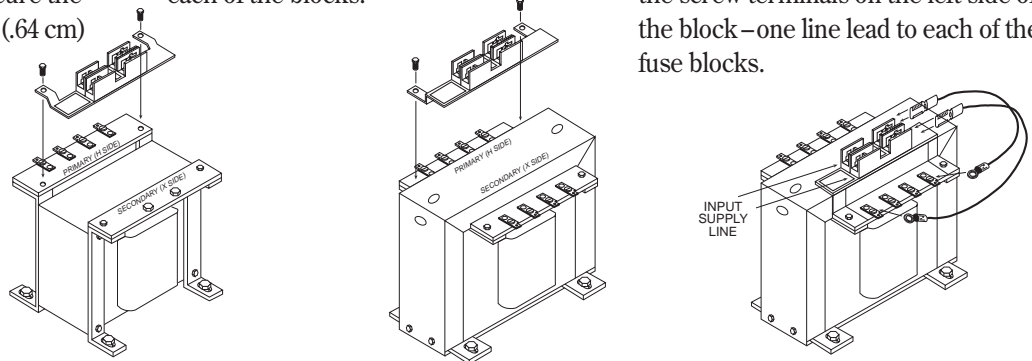
slide the bracket over the transformer and re-tighten the mounting hardware. Make the proper connections with the factory furnished jumpers (Fig. 2) and your unit is ready for operation.



Instructions for Primary Fuse Kit

Type PL-112706 & PL-112707: Using 2 Class CC Dual Element Fuses (3000-5000 VA)

1. To mount the primary fuse kit bracket, remove the two 1/4" (.64 cm) sheet metal screws on the terminal panel on the primary (H side) of the transformer.
2. Place the slots in the fuse kit mounting bracket over the holes in the terminal and mounting bracket. To secure the fuse kit, reinsert the two 1/4" (.64 cm) sheet metal screws and tighten securely.
3. Tighten all mounting screws securely—this will secure the mounting bracket.
4. Attach the female quick connect of the jumpers supplied with the fuse kit to male quick connects on the right side of the fuse blocks—one jumper to each of the blocks.
5. Connect the ring terminal of the jumpers to the appropriate screw terminals of the transformers primary (H side). Refer to the transformer name plate for proper terminal connections.
6. Connect primary supply line leads to the screw terminals on the left side of the block—one line lead to each of the fuse blocks.



Primary Fuse Sizing Chart ①

VA	120 V	208 V	230 V	240 V	277 V	380 V	416 V	440 V	460 V	480 V	550 V	600 V
50	1.2	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75	1.9	1.0	1.0	1.0	0.8	0.6	0.6	0.6	0.5	0.5	0.4	0.4
100	2.5	1.5	1.3	1.3	1.0	0.8	0.8	0.6	0.6	0.6	0.6	0.5
150	3.8	2.0	2.0	1.9	1.5	1.2	1.2	1.0	1.0	1.0	0.8	0.8
250	3.5	3.5	3.5	3.0	3.0	2.0	1.8	1.8	1.5	1.5	1.4	1.2
300	4.0	4.0	4.0	3.5	3.0	2.5	2.5	2.0	2.0	1.9	1.5	1.5
350	5.0	5.0	4.5	4.0	4.0	2.5	2.5	2.5	2.0	2.0	1.9	1.8
500	7.0	4.0	3.5	3.5	5.5	4.0	3.5	3.5	3.5	3.0	3.0	2.5
750	10.0	6.0	5.5	5.0	4.5	6.0	5.5	5.0	5.0	5.0	4.0	4.0
1000	15.0	8.0	7.0	7.0	6.0	4.5	4.0	3.5	3.5	3.5	5.5	5.0
1500	20.0	12.0	12.0	12.0	10.0	7.0	6.0	6.0	5.5	5.5	5.0	4.5
2000	25.0	12.0	15.0	15.0	12.0	9.0	8.0	8.0	7.5	7.0	6.0	6.0
3000	30.0	20.0	20.0	20.0	15.0	15.0	12.0	12.0	12.0	12.0	10.0	9.0
5000	—	30.0	30.0	30.0	25.0	20.0	15.0	15.0	15.0	15.0	12.0	15.0

① Fuse size based on time delay class CC fuses.

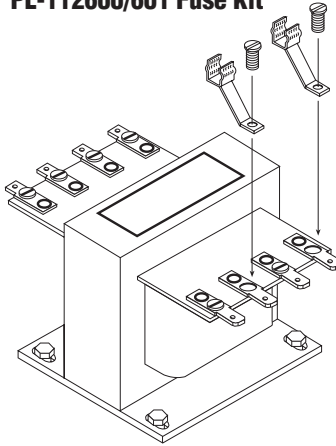
NOTE: Bold lines indicate changes in the percent of rated current used to calculate fuse sizes in accordance with article 450 of the NEC.

Secondary Fuse Kits

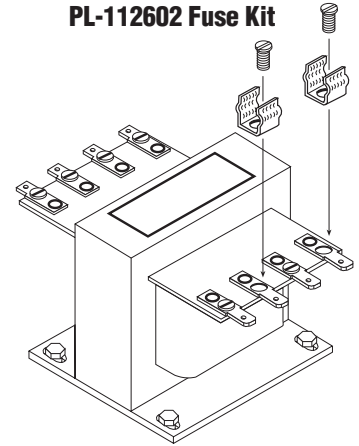
Type PL-112600, 601, 602: Use Dual Element Slow-Blow Fuse

- Mount secondary fuse clips on terminals X1 and F or F1 using the screws supplied with the transformer.
- Connect secondary load lines to terminals X2 and F or F2.
- Use dual-element slow-blowing fuses such as Bussmann MFG., Fusetron Type FNM, Littelfuse or Shawmut (not supplied with fuse kits).

PL-112600/601 Fuse Kit



PL-112602 Fuse Kit



Instructions for Secondary Fuse Kit

Type PL-112603: use dual element slow-blow fuse 13/32" x 1-1/2" (1.0 x 3.8 cm)

1. To attach secondary fuse kit PL-112603 to primary fuse kits PL-112700 thru PL-112707 snap the secondary single pole fuse block onto the unlabeled side of the primary double pole fuse block. (See Figure 1)
2. Install the fuse kits as instructed under the primary fuse kit instructions on page 09.
3. Select the appropriate pair of jumpers for making the connections between the secondary fuse block and the secondary (X-side) of the transformer.
4. Connect the female quick-connect of the jumpers supplied to one of the male quick-connects of the secondary fuse block - one jumper to each end of the fuse block. (See Figure 2)
5. Connect the ring terminal of the jumpers supplied to screw terminals X1 and F or F1 on the secondary (X-side) of the transformer.
6. Connect secondary load lines to terminals X2 and F or F2.

Figure 1

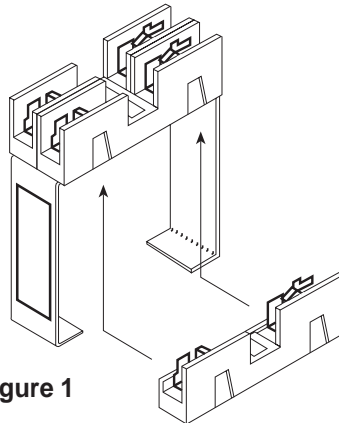
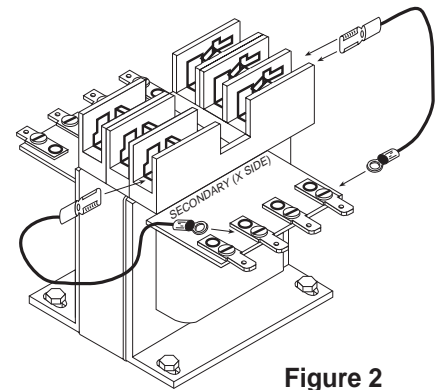


Figure 2

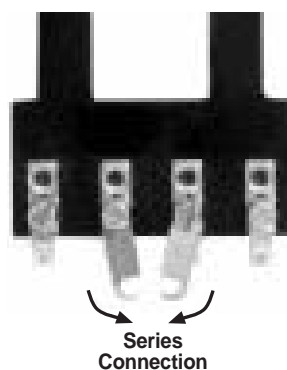


Jumper Link Connections

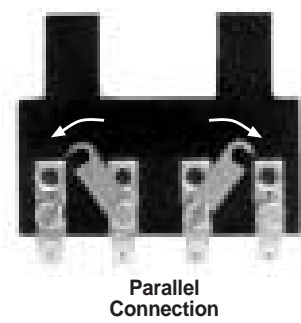
Group A Series: 240 V parallel: 120 V
 Group B Series: 480 V parallel: 240 V
 Group F series: 230 V parallel: 115 V
 Group I Series: 24 V parallel: 12 V
 Group J Series: 480 V & 240 V: 240 V & 120 V
 Group K Series: 240 V: 120 V

On transformers rated 150 VA and less, the quick connect terminals may be used for customer connections. Quick connect size: .187 x .032 (.47 x .08 cm).

Exception: 150 VA transformers TA-2-81324 and TA-2-32404 do not have quick connect terminals.

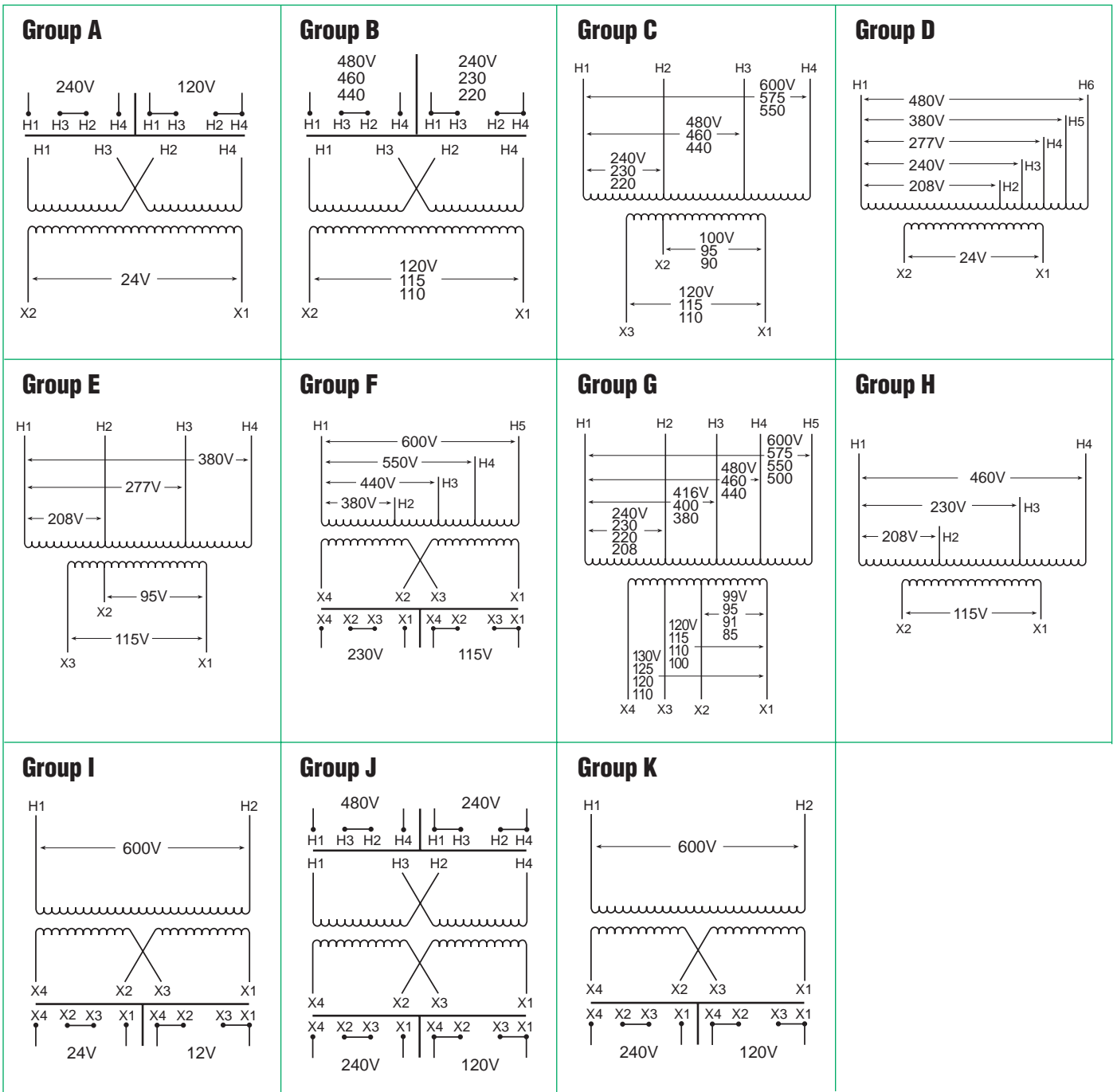


Series Connection

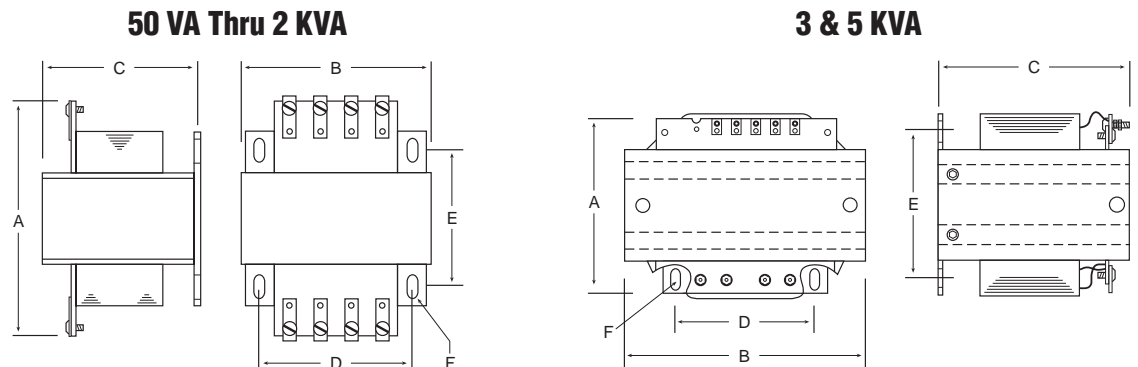


Parallel Connection

Industrial Control Electrical Connection Diagrams



Dimensions



Industrial Control Transformers for Harsh Environments

Designed for Control Panels where Internal Installation of Control Transformers is prohibited.

Some specifications require installation of large control transformers, usually 1000 to 5000 VA outside the control cabinet. This means the transformer must be in a sheet metal enclosure instead of the usual open core and coil construction method.

We meet this need by providing all of the power, protection, regulation and performance of our standard industrial control transformers in one UL-3R enclosure. These transformers are wound with copper magnet wire, deliver full nameplate capacity, and provide the high regulation required in control applications.

Voltage combinations available are: 240 x 480V primary, 120V secondary and 240/480/600V primary, 120/100V secondary.

Ratings available are 1000, 2000, 3000 and 5000 VA. All units are UL listed, CSA certified, and covered by 10-year limited warranty.

FEATURES

- Fully encapsulated and enclosed.
- 55° C temperature rise, 155° C insulation.
- Copper windings.
- 1000, 2000, 3000 and 5000 VA sizes.
- Voltage regulation exceeds NEMA requirements.
- UL and UL-3R listed.
- CSA certified.
- 10-year limited warranty.

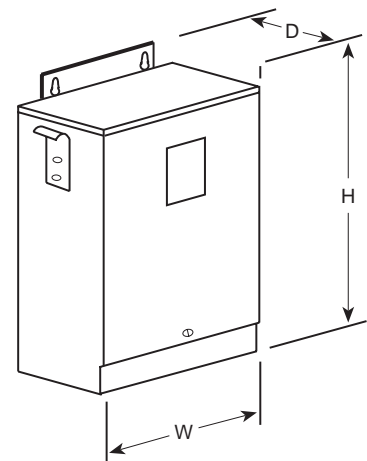


GROUP L

240 x 480 PRIMARY VOLTS — 120 SECONDARY VOLTS® — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS			APPROX. SHIP WEIGHT	ELECTRICAL CONNECTION DIAGRAM ① ②
			Inches (Cm.)				
			H	W	D	Lbs. (Kg.)	
T-1-81217	1000	8.33	13.10 (33.3)	10.31 (26.2)	7.13 (18.1)	55 (24.9)	B
T-1-81219	2000	16.67	14.77 (37.5)	10.31 (26.2)	7.13 (18.1)	80 (36.3)	B
T-1-81220	3000	25.00	14.77 (37.5)	10.31 (26.2)	7.13 (18.1)	100 (45.4)	B
T-1-81221	5000	41.67	13.85 (35.2)	13.25 (33.7)	10.19 (25.9)	140 (63.5)	B
T-1-81223	10000	83.3	16.47 (41.8)	13.88 (35.3)	12.94 (32.9)	308 (139.7)	B

Encapsulated 1000 VA–5000 VA



GROUP M

240/480/600 PRIMARY VOLTS — 120/100 Secondary Volts® — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS			APPROX. SHIP WEIGHT	ELECTRICAL CONNECTION DIAGRAM ① ②
			Inches (Cm.)				
			H	W	D	Lbs. (Kg.)	
T-1-53929	2000	16.67	14.77 (37.5)	10.31 (26.2)	7.13 (18.1)	80 (36.3)	C
T-1-53930	3000	25.00	13.85 (35.2)	13.25 (33.7)	10.19 (25.9)	130 (59.0)	C
T-1-53931	5000	41.67	13.85 (35.2)	13.25 (33.7)	10.19 (25.9)	140 (63.5)	C

① See page 11 for electrical diagram.

② See page 09 for fuse sizing information.

③ For secondary fuse size, multiply output amps x 1.25.

Power and Performance in a Totally Encapsulated Design

EPOXETRAN™ industrial control transformers provide you with the ultimate in control circuit technology. The rugged construction and epoxy encapsulation make EPOXETRAN™ the best choice for industrial environments. Check out these important features:

- Epoxy encapsulation—seals coils against dust, dirt, moisture and other contaminants.
- High grade silicon steel laminations minimize core losses for increased efficiency.
- Factory mounted fuse clips on the secondary side saves wiring time and panel space.
- Terminals have 30% greater contact area for low-loss connections and are molded into prevent breakage. Terminal screws have a full quarter inch of thread to prevent stripping and pullout.

- High quality copper coils assure efficient operation.
- Jumpers are standard.
- Insulation materials are the highest rated for the temperature class:
105° C temperature class
55° C temperature rise

- Mounting brackets are heavy gauge steel for strength and stability; slotted feet for easy adjustment and mounting.
- Attractive finish; nameplate contains rating data and wiring diagram.



SELECTION CHARTS

GROUP A



240 X 480, 230 X 460, 220 X 440 PRIMARY VOLTS — 120/115/110 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)					MOUNTING SLOTS	APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE KIT ①② Part No.	SECONDARY FUSE SIZE 120 VOLTS
			A	B	C ③	D	E				
ET-83320	50	0.43	3.00 (7.6)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.00 (5.1)	.20 x .38 (0.5 x 1.0)	2.6 (1.2)	PL-112700	5/10 amps
ET-83321	75	0.65	3.50 (8.9)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.50 (6.4)	.20 x .38 (0.5 x 1.0)	3.5 (1.6)	PL-112700	1 amps
ET-83322	100	0.87	3.37 (8.6)	3.37 (8.6)	2.87 (7.3)	2.81 (7.1)	2.37 (6.0)	.20 x .38 (0.5 x 1.0)	4.2 (1.9)	N/A	1 1/4 amps
ET-83323	150	1.30	4.00 (10.2)	3.75 (9.5)	3.18 (8.1)	3.12 (7.9)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	6.7 (3.0)	PL-112701	2 amps
ET-83324	250	2.17	4.37 (11.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	10.0 (4.5)	PL-112702	3 2/10 amps
ET-83325	300	2.61	4.75 (12.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.25 (8.3)	.20 x .38 (0.5 x 1.0)	11.3 (5.1)	PL-112702	4 amps
ET-83326	350	3.04	5.25 (13.3)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.75 (9.5)	.20 x .38 (0.5 x 1.0)	13.6 (6.2)	PL-112702	4 1/2 amps
ET-83327	500	4.35	5.37 (13.6)	5.25 (13.3)	4.75 (12.1)	4.37 (11.1)	4.25 (10.8)	.31 x .69 (0.8 x 1.8)	19.2 (8.7)	PL-112704	6 1/4 amps

① User installed Primary Fuse Kit available. See page 09.

② EPOXETRAN™ transformers are available with integrally mounted primary fuse blocks. Contact the factory for ordering information.

③ Dimension "C" does not include height of fuse clips - maximum of 1/2" (1.3 cm).

GROUP B



240 X 480 PRIMARY VOLTS — 24 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)					MOUNTING SLOTS	APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE KIT ①② Part No.	SECONDARY FUSE SIZE 24 VOLTS
			A	B	C ③	D	E				
ET-83330	50	2.08	3.00 (7.6)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.00 (5.1)	.20 x .38 (0.5 x 1.0)	2.7 (1.2)	PL-112700	3 2/10 amps
ET-83331	75	3.13	3.50 (8.9)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.50 (6.4)	.20 x .38 (0.5 x 1.0)	3.5 (1.6)	PL-112700	5 amps
ET-83332	100	4.17	3.37 (8.6)	3.37 (8.6)	2.87 (7.3)	2.81 (7.1)	2.37 (6.0)	.20 x .38 (0.5 x 1.0)	4.2 (1.9)	N/A	6 1/4 amps
ET-83333	150	6.25	4.00 (10.2)	3.75 (9.5)	3.18 (8.1)	3.12 (7.9)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	6.7 (3.0)	PL-112701	10 amps
ET-83334	250	10.42	4.37 (11.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	10.1 (4.6)	PL-112702	15 amps
ET-83335	300	12.50	4.75 (12.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.25 (8.3)	.20 x .38 (0.5 x 1.0)	11.4 (5.2)	PL-112702	20 amps
ET-83336	350	14.58	5.25 (13.3)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.75 (9.5)	.31 x .69 (0.8 x 1.8)	13.4 (6.1)	PL-112702	20 amps
ET-83337	500	20.83	5.37 (13.6)	5.25 (13.3)	4.75 (12.1)	4.37 (11.1)	4.12 (10.5)	.31 x .69 (0.8 x 1.8)	17.5 (7.9)	PL-112704	30 amps

GROUP C

120 X 240 PRIMARY VOLTS — 24 SECONDARY VOLTS — 1Ø, 50/60 Hz

CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)					MOUNTING SLOTS	APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE KIT ①② Part No.	SECONDARY FUSE SIZE 24 VOLTS
			A	B	C ③	D	E				
ET-83340	50	2.08	3.00 (7.6)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.00 (5.1)	.20 x .38 (0.5 x 1.0)	2.6 (1.2)	PL-112700	3 2/10 amps
ET-83341	75	3.13	3.50 (8.9)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.50 (6.4)	.20 x .38 (0.5 x 1.0)	3.6 (1.6)	PL-112700	5 amps
ET-83342	100	4.17	3.37 (8.6)	3.37 (8.6)	2.87 (7.3)	2.81 (7.1)	2.37 (6.0)	.20 x .38 (0.5 x 1.0)	4.4 (2.0)	N/A	6 1/4 amps
ET-83343	150	6.25	4.00 (10.2)	3.75 (9.5)	3.18 (8.1)	3.12 (7.9)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	6.7 (3.0)	PL-112701	10 amps
ET-83344	250	10.42	4.37 (11.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	10.1 (4.6)	PL-112702	15 amps
ET-83345	300	12.50	4.75 (12.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.25 (8.3)	.20 x .38 (0.5 x 1.0)	11.2 (5.1)	PL-112702	20 amps
ET-83346	350	14.58	5.25 (13.3)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.75 (9.5)	.20 x .38 (0.5 x 1.0)	13.2 (6.0)	PL-112702	20 amps
ET-83347	500	20.83	5.37 (13.6)	5.25 (13.3)	4.75 (12.1)	4.37 (11.1)	4.12 (10.5)	.31 x .69 (0.8 x 1.8)	17.5 (7.9)	PL-112704	30 amps

GROUP D

550/575/600 PRIMARY VOLTS — 110/115/120 SECONDARY VOLTS — 1Ø, 50/60 Hz

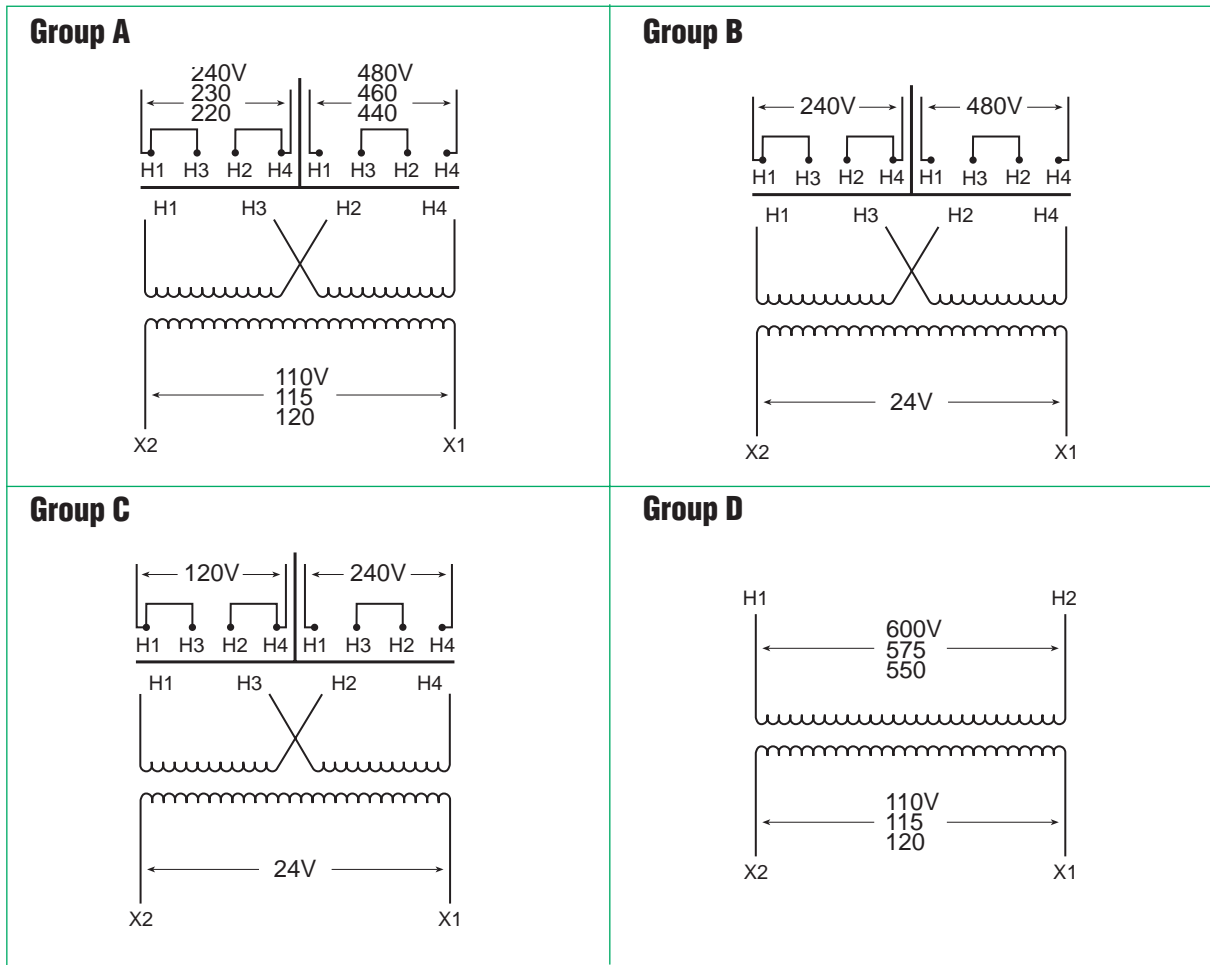
CATALOG NO.	VA RATING	OUTPUT AMPS	APPROX. DIMENSIONS Inches (Cm.)					MOUNTING SLOTS	APPROX. SHIP WEIGHT Lbs. (Kg.)	PRIMARY FUSE KIT ①② Part No.	SECONDARY FUSE SIZE 120 VOLTS
			A	B	C ③	D	E				
ET-83350	50	0.43	3.00 (7.6)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.00 (5.1)	.20 x .38 (0.5 x 1.0)	2.7 (1.2)	PL-112700	6/10 amps
ET-83351	75	0.65	3.50 (8.9)	3.00 (7.6)	2.56 (6.5)	2.50 (6.4)	2.50 (6.4)	.20 x .38 (0.5 x 1.0)	3.6 (1.6)	PL-112700	1 amps
ET-83352	100	0.87	3.37 (8.6)	3.37 (8.6)	2.87 (7.3)	2.81 (7.1)	2.37 (6.0)	.20 x .38 (0.5 x 1.0)	4.2 (1.9)	N/A	1 1/4 amps
ET-83353	150	1.30	4.00 (10.2)	3.75 (9.5)	3.18 (8.1)	3.12 (7.9)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	6.8 (3.1)	PL-112701	2 amps
ET-83354	250	2.17	4.37 (11.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	2.87 (7.3)	.20 x .38 (0.5 x 1.0)	10.0 (4.5)	PL-112702	3 2/10 amps
ET-83355	300	2.61	4.75 (12.1)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.25 (8.3)	.20 x .38 (0.5 x 1.0)	11.3 (5.1)	PL-112702	4 amps
ET-83356	350	3.04	5.25 (13.3)	4.50 (11.4)	3.81 (9.7)	3.75 (9.5)	3.75 (9.5)	.20 x .38 (0.5 x 1.0)	13.6 (6.2)	PL-112702	4 1/2 amps
ET-83357	500	4.35	5.37 (13.6)	5.25 (13.3)	4.75 (12.1)	4.37 (11.1)	4.12 (10.5)	.31 x .69 (0.8 x 1.8)	16.8 (7.6)	PL-112704	6 1/4 amps

① User installed Primary Fuse Kit available. See page 09.

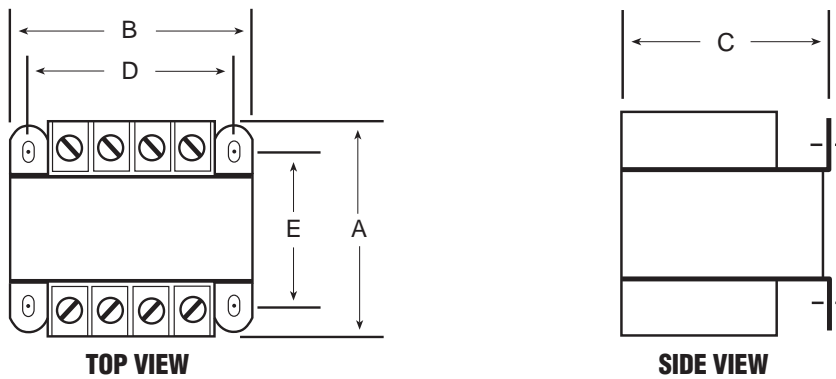
② EPOXETRAN™ transformers are available with integrally mounted primary fuse blocks. Contact the factory for ordering information.

③ Dimension "C" does not include height of fuse clips - maximum of 1/2" (1.3 cm).

Wiring Diagrams

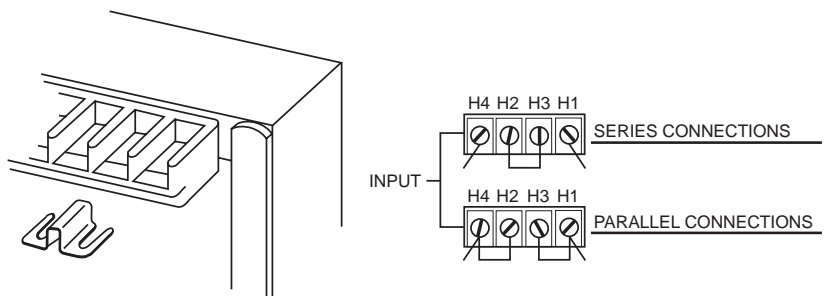


Dimensions



Fuse Clips and Jumpers

Secondary fuse clips are factory installed and will accommodate slow-blow fuses, such as the Bussmann type FNM Fusetron. Two (2) jumpers are furnished with each transformer for series or parallel connections on the input (primary) side. Refer to the diagram.



FINGER/GUARD® Industrial Control Transformers

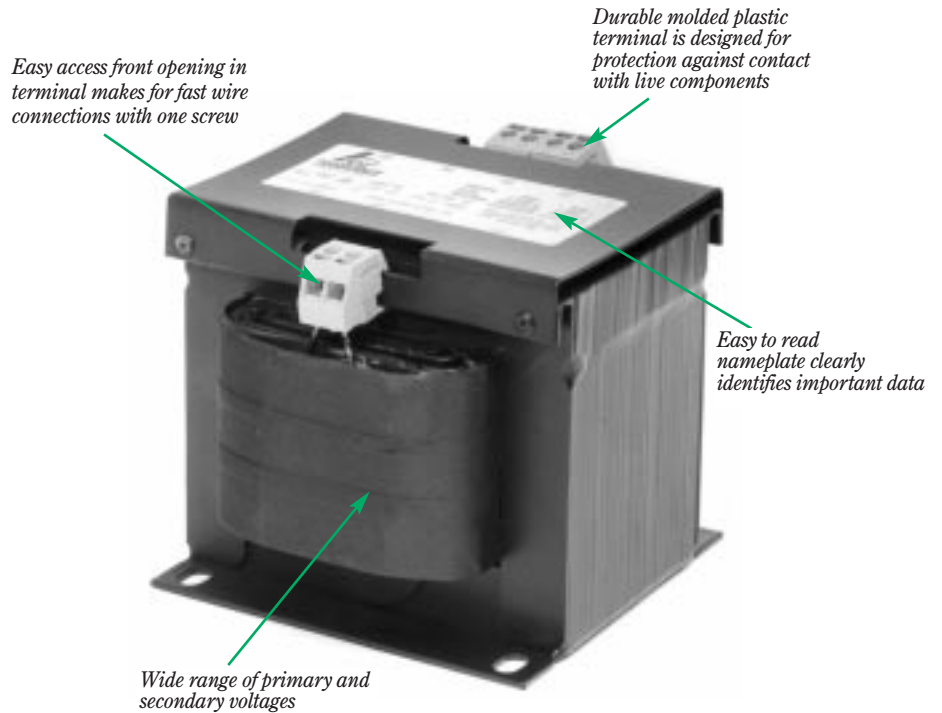
The new FINGER/GUARD® line of Touch-Protected Industrial Control Transformers offers the most advanced and versatile design concepts available to the marketplace today.

They are designed to meet our rigid standards for mechanical durability as well as surpass Agency and Industry electrical standards. The FINGER/GUARD® line is designed for all control applications and features integrally installed, durable molded plastic terminations designed to protect against contact with live components. No slip-on plastic covers to be broken, lost or misplaced.

All FINGER/GUARD® products use copper windings, high-permeability silicon steel cores and 130 degree C (Class B) insulation. All FINGER/GUARD® products meet or exceed ANSI, IEC and NEMA standards. They are third party witness tested and are UL Listed (File E79947), CSA Certified (File 7357) and CE Marked (to EN60742)... ON ALL SIZES. The product is suitable for both 50 and 60 Hertz applications and is available in sizes ranging from 50 VA to 3000 VA.

FEATURES

- Constructed with high quality silicon steel lamination to minimize core losses and increase efficiency.
- Designs incorporate precision wound coils for improved regulation.
- Copper windings on all groups.
- 50 VA through 3000 VA sizes, 50/60 Hz.
- 130°C (Class B) Insulation 80°C temperature rise.
- Voltage regulation exceeds NEMA requirements.
- UL Listed, CSA Certified and CE Marked.
- Attractive finish, nameplate, and design features enhance the end product.
- Ten-year limited warranty.
- Smaller, lighter weight design.



CE Marking

(Conformité Européene)



The CE Marking, standing for Conformité Européene, is a European Mark of conformity indicating that a product or system to which it is applied, complies with European law (Directives) regulating a necessary level of protection in Europe with respect to safety, health, environmental and consumer protection; however, it is not intended as a guarantee of quality for the consumer. The CE Marking must be applied to products being placed on the European market. The CE Marking does allow a product to be moved freely within the internal market of the European Union.

The Directives that apply to Control or Power Distribution Transformers are:

Low Voltage Directive, 73/23/EEC effective January 1, 1997

Electromagnetic Compatibility (EMC) Directive, 89/336/EEC effective January 1, 1996

The stringent testing required to obtain a third party certification mark in many cases is significantly more rigid than domestic requirements. This ensures that not only the FINGER/GUARD® product, but all of our CE Marked products are designed to meet a higher level of safety standards than non-CE Marked products.

All transformers are manufactured in a facility certified by Underwriters Laboratories to ISO-9001.

SELECTION CHARTS

GROUP A

120 X 240 PRIMARY VOLTS — 24 SECONDARY VOLTS — 50/60 Hz



CATALOG NO.	VA RATING	EUROPEAN* RATING	APPROX. DIMENSIONS INCHES (CM.)						APPROX. SHIP WEIGHT Lbs. (Kg.)
			A	B	C	D	E	F	
FS-1-50	50	50	2.66 (6.8)	3.00 (7.6)	3.14 (8.0)	2.50 (6.4)	2.04 (5.2)	.22 x .50 (0.6 x 1.3)	4 (1.8)
FS-1-75	75	75	3.09 (7.8)	3.00 (7.6)	3.14 (8.0)	2.50 (6.4)	2.44 (6.2)	.22 x .50 (0.6 x 1.3)	5 (2.3)
FS-1-100	100	100	3.89 (9.9)	3.00 (7.6)	3.14 (8.0)	2.50 (6.4)	3.24 (8.2)	.22 x .50 (0.6 x 1.3)	7 (3.2)
FS-1-150	150	150	3.36 (8.5)	3.75 (9.5)	3.64 (9.2)	3.13 (8.0)	2.48 (6.3)	.22 x .50 (0.6 x 1.3)	7 (3.2)
FS-1-250	250	250	3.82 (9.7)	4.50 (11.4)	4.15 (10.5)	3.75 (9.5)	2.67 (6.8)	.22 x .50 (0.6 x 1.3)	11 (5.0)
FS-1-350	350	345	4.54 (11.5)	4.50 (11.4)	4.15 (10.5)	3.75 (9.5)	3.39 (8.6)	.22 x .50 (0.6 x 1.3)	14 (6.4)
FS-1-500	500	490	5.01 (12.7)	4.88 (12.4)	4.46 (11.3)	4.06 (10.3)	3.81 (9.8)	.22 x .50 (0.6 x 1.3)	18 (8.2)
FS-1-750	750	720	5.60 (14.2)	5.25 (13.3)	4.78 (12.1)	4.38 (11.1)	4.22 (10.7)	.31 x .50 (0.8 x 1.3)	24 (10.9)
FS-1-1000	1000	870	4.76 (12.1)	6.75 (17.1)	6.03 (15.3)	5.75 (14.6)	2.86 (7.3)	.31 x .50 (0.8 x 1.3)	26 (11.8)

GROUP B

240 X 480, 230 X 460, 220 X 440 PRIMARY VOLTS — 120/115/110 SECONDARY VOLTS — 50/60 Hz



CATALOG NO.	VA RATING	EUROPEAN* RATING	APPROX. DIMENSIONS INCHES (CM.)						APPROX. SHIP WEIGHT Lbs. (Kg.)
			A	B	C	D	E	F	
FS-2-50	50	50	2.66 (6.8)	3.00 (7.6)	3.14 (8.0)	2.50 (6.4)	2.04 (5.2)	.22 x .50 (0.6 x 1.3)	4 (1.8)
FS-2-75	75	75	3.09 (7.8)	3.00 (7.6)	3.14 (8.0)	2.50 (6.4)	2.44 (6.2)	.22 x .50 (0.6 x 1.3)	5 (2.3)
FS-2-100	100	100	3.89 (9.9)	3.00 (7.6)	3.14 (8.0)	2.50 (6.4)	3.24 (8.2)	.22 x .50 (0.6 x 1.3)	7 (3.2)
FS-2-150	150	150	3.36 (8.5)	3.75 (9.5)	3.64 (9.2)	3.13 (8.0)	2.48 (6.3)	.22 x .50 (0.6 x 1.3)	7 (3.2)
FS-2-250	250	250	3.57 (9.1)	4.50 (11.4)	4.15 (10.5)	3.75 (9.5)	2.44 (6.2)	.22 x .50 (0.6 x 1.3)	10 (4.5)
FS-2-300	300	290	3.82 (9.7)	4.50 (11.4)	4.15 (10.5)	3.75 (9.5)	2.67 (6.8)	.22 x .50 (0.6 x 1.3)	11 (5.0)
FS-2-350	350	345	3.95 (10.0)	4.50 (11.4)	4.15 (10.5)	3.75 (9.5)	2.84 (7.2)	.22 x .50 (0.6 x 1.3)	12 (5.4)
FS-2-500	500	490	4.69 (11.9)	4.88 (12.4)	4.46 (11.3)	4.06 (10.3)	3.48 (8.8)	.22 x .50 (0.6 x 1.3)	17 (7.7)
FS-2-750	750	720	5.14 (13.1)	5.25 (13.3)	4.78 (12.1)	4.38 (11.1)	3.78 (9.6)	.31 x .50 (0.8 x 1.3)	22 (10.0)
FS-2-1000	1000	870	4.76 (12.1)	6.75 (17.1)	6.03 (15.3)	5.75 (14.6)	2.86 (7.3)	.31 x .50 (0.8 x 1.3)	26 (11.8)
FS-2-1500	1500	1290	6.01 (15.3)	6.75 (17.1)	6.03 (15.3)	5.75 (14.6)	4.13 (10.5)	.31 x .50 (0.8 x 1.3)	38 (17.2)
FS-2-2000	2000	1680	6.51 (16.5)	6.75 (17.1)	6.03 (15.3)	5.75 (14.6)	4.63 (11.8)	.31 x .50 (0.8 x 1.3)	44 (20.0)
FS-2-3000	3000	2465	7.44 (18.9)	7.50 (19.1)	6.68 (17.0)	6.50 (16.5)	6.47 (16.4)	.41 x .81 (1.0 x 2.1)	60 (27.2)

GROUP C

**240/416/480/600; 230/400/460/575; 220/380/440/550; 208/500 PRIMARY VOLTS
99/120/130; 95/115/125; 91/110/120; 85/100/110 SECONDARY VOLTS — 50/60 Hz**



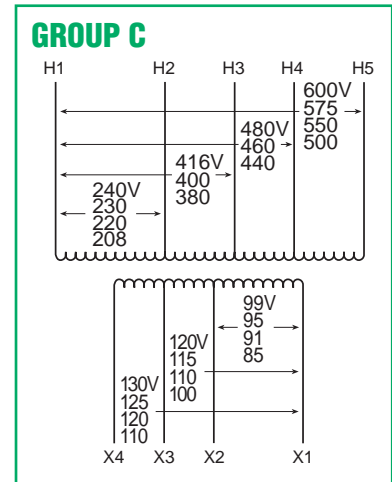
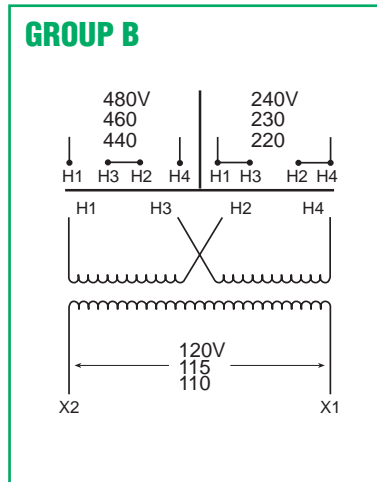
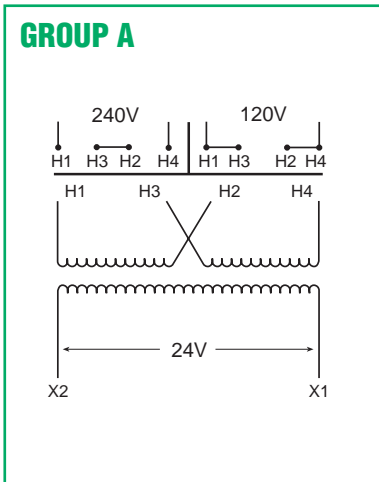
CATALOG NO.	VA RATING	EUROPEAN* RATING	APPROX. DIMENSIONS INCHES (CM.)						APPROX. SHIP WEIGHT Lbs. (Kg.)
			A	B	C	D	E	F	
FS-3-50	50	50	2.59 (6.6)	3.75 (9.5)	3.64 (9.2)	3.13 (8.0)	1.70 (4.3)	.22 x .50 (0.6 x 1.3)	5 (2.3)
FS-3-150	150	150	3.31 (8.4)	4.50 (11.4)	4.15 (10.5)	3.75 (9.5)	2.18 (5.5)	.22 x .50 (0.6 x 1.3)	8 (3.6)
FS-3-250	250	250	3.61 (9.2)	4.88 (12.4)	4.46 (11.3)	4.06 (10.3)	2.33 (5.9)	.22 x .50 (0.6 x 1.3)	11 (5.0)
FS-3-350	350	345	4.69 (11.9)	4.88 (12.4)	4.46 (11.3)	4.06 (10.3)	3.48 (8.8)	.22 x .50 (0.6 x 1.3)	17 (7.7)
FS-3-500	500	490	4.39 (11.2)	6.75 (17.1)	6.03 (15.3)	5.75 (14.6)	2.48 (6.3)	.31 x .50 (0.8 x 1.3)	22 (10.0)
FS-3-750	750	720	5.18 (13.2)	6.75 (17.1)	6.03 (15.3)	5.75 (14.6)	3.31 (8.4)	.31 x .50 (0.8 x 1.3)	30 (13.6)
FS-3-1000	1000	870	6.18 (15.7)	6.75 (17.1)	6.03 (15.3)	5.75 (14.6)	4.30 (10.9)	.31 x .50 (0.8 x 1.3)	39 (17.7)
FS-3-1500	1500	1290	6.26 (15.9)	7.50 (19.1)	6.68 (17.0)	6.50 (16.5)	5.26 (13.4)	.41 x .81 (1.0 x 2.1)	51 (23.1)
FS-3-2000	2000	1680	7.76 (19.7)	7.50 (19.1)	7.70 (19.6)	6.50 (16.5)	6.75 (17.1)	.41 x .81 (1.0 x 2.1)	66 (29.9)
FS-3-3000	3000	2465	8.88 (22.6)	11.92 (30.3)	8.83 (22.4)	6.75 (17.1)	5.75 (14.6)	.41 x .81 (1.0 x 2.1)	70 (31.8)

FUSE KITS—FOR FINGER/GUARD® INDUSTRIAL CONTROL TRANSFORMERS

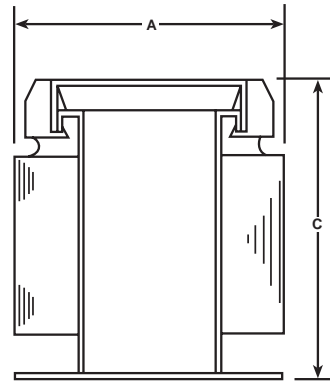
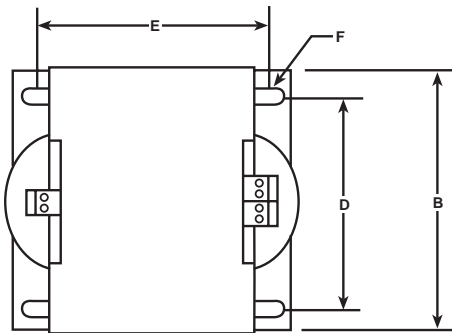
CATALOG NO.	DESCRIPTION
PL-79905	PRIMARY FUSE KIT FOR CLASS CC FUSES
PL-79906	PRIMARY & SECONDARY FUSE KIT FOR CLASS CC PRIMARY FUSES & MIDGET SECONDARY FUSE
PL-79907	PRIMARY FUSE KIT FOR MIDGET FUSES
PL-79908	PRIMARY & SECONDARY FUSE KIT FOR MIDGET FUSES

* EN60742 requires transformers to pass the temperature rise limits of a 130° C (Class B) insulation system at 6% above the rated supply voltage.

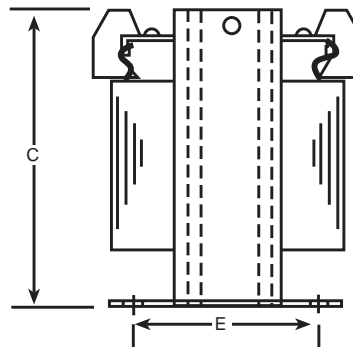
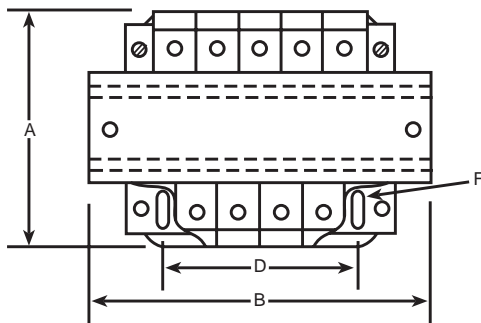
Specifications and Dimensions



50 VA Thru 2 KVA



3 KVA



CONNECTION DETAILS FOR GROUP C

CONNECT TO LINE FOR RESPECTIVE VOLTAGE				OUTPUT VOLTS		
H1-H2	H1-H3	H1-H4	H1-H5	X1-X2	X1-X3	X1-X4
208	-	-	500	85	100	110
220	380	440	550	91	110	120
230	400	460	575	95	115	125
240	416	480	600	99	120	130

PRIMARY FUSE SIZING CHARTS

RECOMMENDED RATING FOR CURRENT LIMITING CLASS CC FUSES

	120 V	208 V	220 V	230 V	240 V	380 V	400 V	416 V	440 V	460 V	480 V	500 V	550 V	575 V	600 V
50 VA	1.25	0.60	0.60	0.60	0.60	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.25	0.25	0.25
75 VA	1.80	1.00	1.00	0.80	0.80	0.50	0.50	0.50	0.50	0.40	0.40	0.40	0.40	0.30	0.30
100 VA	2.50	1.40	1.25	1.25	1.25	0.75	0.75	0.60	0.60	0.60	0.60	0.60	0.50	0.50	0.50
150 VA	3.50	2.00	2.00	1.80	1.80	1.13	1.13	1.00	1.00	0.80	0.80	0.80	0.80	0.75	0.75
250 VA	3.20	3.50	3.20	3.20	3.00	1.80	1.80	1.80	1.60	1.60	1.50	1.50	1.25	1.25	1.25
300 VA	4.00	4.00	4.00	3.50	3.50	2.25	2.25	2.00	2.00	1.80	1.80	1.80	1.60	1.50	1.50
350 VA	4.50	5.00	4.50	4.50	4.00	2.50	2.50	2.50	2.25	2.25	2.00	2.00	1.80	1.80	1.60
500 VA	6.25	4.00	3.50	3.50	3.20	3.50	3.50	3.50	3.20	3.20	3.00	3.00	2.50	2.50	2.50
750 VA	10.00	6.00	5.60	5.00	5.00	5.60	5.60	5.00	5.00	4.50	4.50	4.50	4.00	3.50	3.50
1000 VA	12.00	8.00	7.50	7.00	6.25	4.00	4.00	4.00	3.50	3.50	3.20	3.20	5.00	5.00	5.00
1500 VA	20.00	12.00	10.00	10.00	10.00	6.25	6.25	6.00	5.60	5.00	5.00	5.00	4.50	4.00	4.00
2000 VA	25.00	15.00	12.00	12.00	12.00	8.00	8.00	8.00	7.50	7.00	6.25	6.25	6.00	5.60	5.00
3000 VA	30.00	20.00	20.00	20.00	20.00	12.00	12.00	12.00	10.00	10.00	10.00	10.00	9.00	8.00	8.00

NOTE: Bold lines indicate changes in the percent of rated current used to calculate fuse sizes in accordance with article 450 of the NEC.

RECOMMENDED RATING FOR CARTRIDGE FUSES WITH FERRULE CONTACTS

	120 V	208 V	220 V	230 V	240 V	380 V	400 V	416 V	440 V	460 V	480 V	500 V	550 V	575 V	600 V
50 VA	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
75 VA	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
100 VA	2.00	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
150 VA	2.00	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
250 VA	4.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
300 VA	4.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
350 VA	4.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
500 VA	6.00	4.00	4.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
750 VA	8.00	6.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00
1000 VA	12.00	6.00	6.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
1500 VA	16.00	10.00	10.00	10.00	8.00	6.00	6.00	6.00	6.00	6.00	4.00	4.00	4.00	4.00	4.00
2000 VA	25.00	12.00	12.00	12.00	12.00	8.00	8.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
3000 VA	32.00	20.00	20.00	20.00	16.00	10.00	10.00	10.00	10.00	10.00	8.00	8.00	8.00	8.00	8.00

SECONDARY FUSE SIZING CHART

RECOMMENDED RATING FOR CURRENT LIMITING MIDGET FUSES

	24 V	85 V	91 V	95 V	99 V	100 V	110 V	115 V	120 V	125 V	130 V
50 VA	2.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.25
75 VA	3.00	-	-	-	-	-	0.75	0.75	0.75	-	-
100 VA	5.00	-	-	-	-	-	1.00	1.00	1.00	-	-
150 VA	6.00	2.00	2.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.00
250 VA	12.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00
300 VA	-	-	-	-	-	-	3.00	3.00	3.00	-	-
350 VA	15.00	5.00	4.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00
500 VA	25.00	6.00	6.00	6.00	6.00	6.00	5.00	5.00	5.00	5.00	4.00
750 VA	35.00	10.00	10.00	8.00	8.00	8.00	8.00	8.00	6.00	6.00	6.00
1000 VA	50.00	12.00	12.00	12.00	12.00	12.00	10.00	10.00	10.00	10.00	8.00
1500 VA	-	20.00	20.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	12.00
2000 VA	-	25.00	25.00	25.00	25.00	25.00	20.00	20.00	20.00	20.00	15.00
3000 VA	-	40.00	40.00	35.00	35.00	35.00	30.00	30.00	30.00	30.00	25.00

RECOMMENDED RATING FOR CARTRIDGE FUSES WITH FERRULE CONTACTS

	24 V	85 V	91 V	95 V	99 V	100 V	110 V	115 V	120 V	125 V	130 V
50 VA	4.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50	0.50
75 VA	4.00	-	-	-	-	-	1.00	1.00	1.00	-	-
100 VA	6.00	-	-	-	-	-	1.00	1.00	1.00	-	-
150 VA	8.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
250 VA	12.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	2.00
300 VA	-	-	-	-	-	-	4.00	4.00	4.00	-	-
350 VA	16.00	6.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
500 VA	25.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	4.00
750 VA	32.00	10.00	10.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	6.00
1000 VA	50.00	12.00	12.00	12.00	12.00	12.00	10.00	10.00	10.00	10.00	8.00
1500 VA	-	20.00	20.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	12.00
2000 VA	-	25.00	25.00	25.00	25.00	25.00	20.00	20.00	20.00	20.00	16.00
3000 VA	-	40.00	40.00	32.00	32.00	32.00	32.00	32.00	32.00	25.00	25.00