



## Machine Tool Industrial Control Transformers



The HPS Emperor™ series of machine tool rated industrial control transformers are specifically designed to meet high inrush industrial applications where electromagnetic components such as relays, solenoids and magnetic motor starters are used.

With **11 standard voltage groups**, a VA range from **50VA to 5000VA** and available with **standard secondary and optional primary fuse kits**, the HPS Emperor™ series provides the perfect solution for any application.

The HPS Emperor's unique terminal block design (patent pending) allows for the quick and easy installation of standard secondary or optional primary 13/32" x 1 1/2" midget/type CC fuse clips on every unit. This is the simplest and most inexpensive fusing installation provided on any industrial control transformer in the market today.

### Key features:

- 600V class, machine tool rated industrial control transformers
- 11 standard multi primary and secondary voltage groups available<sup>1</sup>
- 50/60 Hertz (60Hz on PH\*\*\*AJ & PH\*\*\*AR)
- VA range from up to 50 to 5000<sup>1</sup>
- Standard SEMS washers - supplied on all units up to and including 1500VA<sup>2</sup>
- UL listed
- CE Mark standard on all molded units up to and including 1500VA
- RoHS compliant
- LIFETIME Warranty (Limited)

*For more information, click one of the links below:*

- [HPS Emperor Brochure \(ENCCON Control Brochure\)](#)
- [HPS Emperor Catalog Information \(HTP-08 Catalog Sec. 1\)](#)
- [HPS Emperor Wiring Instructions \(PHWD1-2 Wiring Instructions\)](#)
- [HPS Emperor Wiring Instructions - French \(PHWD1-2 Wiring Instructions\)](#)
- [HPS Emperor Typical Specification \(SPS 19, Rev 01\)](#)

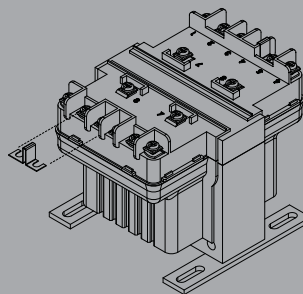
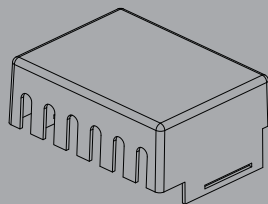
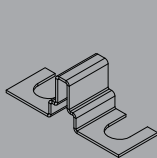
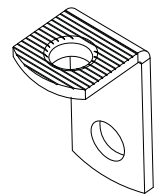
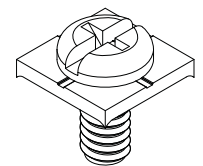
<sup>1</sup> special voltage and VA sizes available upon request

<sup>2</sup> excluding PH750PH, PH1000PG, PH750MLI, PH1000MLI

## FEATURES & BENEFITS

- 600V class, machine tool rated industrial control transformers
- 11 standard multi primary and secondary voltage groups available<sup>1</sup>
- 50/60 Hertz (60Hz on PH\*\*\*AJ & PH\*\*\*AR)
- VA range from 50 to 5000<sup>1</sup>
- Superior insulation system
  - 50-150VA, temperature rise 55°C, insulation class 105°C
  - 250-1500VA, temperature rise 80°C, insulation class 130°C
  - 2000-5000VA, temperature rise 115°C, insulation class 180°C
- Constructed with high quality silicon steel laminations that provide optimum performance and reliability
- Encapsulated coils (up to and including 1500VA) encased in a custom injection molded cover, protects coils and terminations from moisture, dirt and other industrial airborne contaminants.
- Mounting Feet: made of heavy steel and welded or bolted to the core, these mounting feet provide superior strength in a compact design.
- Termination: combination slot/Philips #6 screw, complete with SEMS washer (suitable for 18 AWG to 14 AWG solid or 14 AWG stranded wire)
- Standard SEMS washers - supplied on all units up to and including 1500VA<sup>2</sup>
- Standard secondary fuse kits -utilizing 13/32" x 1 1/2" midget/type CC fuse clips (supplied with all standard units up to and including 1500VA)
- Optional primary fuse kits available utilizing 13/32" x 1 1/2" midget/type CC fuse clips (available on all standard units up to and including 1500VA)
- Optional finger safe terminal covers available on all units up to and including 1500VA
- UL Listed (approved for U.S. and Canada)
- CE Mark standard on all molded units up to and including 1500VA (excluding PH\*\*\*AJ & PH\*\*\*AR)
- LIFETIME Warranty (Limited)
- RoHS Compliant

<sup>1</sup> special voltages and VA sizes available upon request  
<sup>2</sup> excluding PH750PG, PH1000PG, PH750MLI, PH1000MLI



WARRANTY

Lifetime

## FEATURES & BENEFITS CONTINUED

Terminal connection numbers molded into the terminal block and correspond to the nameplate and wiring diagrams which makes connecting the HPS Imperator quick and simple.

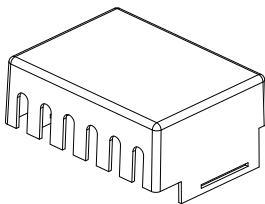


Standard secondary and optional primary fuse kits utilizing 13/32" x 1 1/2" midget/type CC fuse clips provide an economical solution to your fusing requirements (fuses not available).

Innovative terminal block design (patent pending) provides for easy hook-up and installation of fuse clips.



Optional removable finger safe terminal covers available on all units up to and including 1500VA.



Custom injection molded coil cover with its unique "fin shaped" design combines superior cooling properties with a clean, bold look.

Made of heavy steel and welded or bolted to the core, these mounting feet provide superior strength in a compact design.

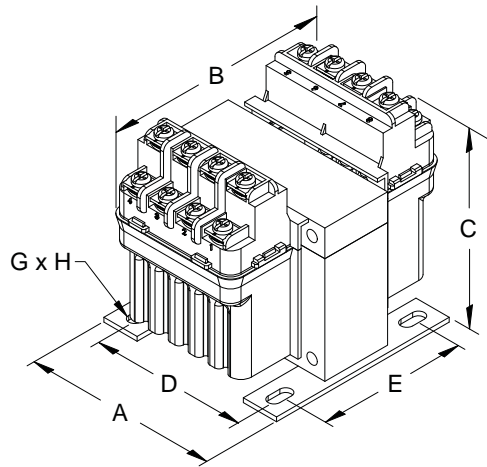


FIGURE A

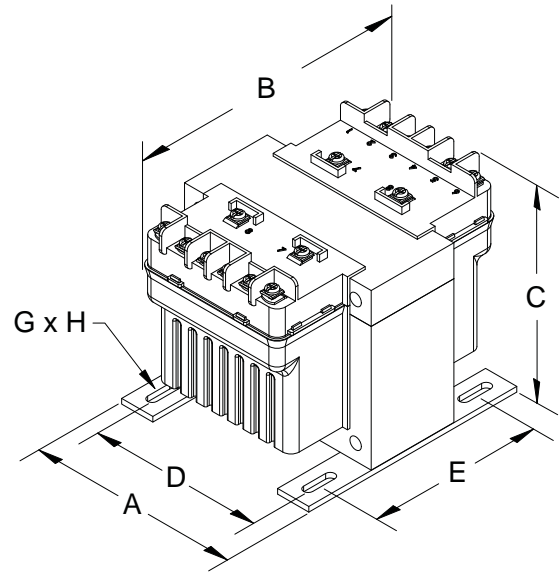


FIGURE B

## Group G

Primary Voltage: 120 x 240 || 115 x 230 || 110 x 220  
 Secondary Voltage: 12 x 24 || 11.5 x 23 || 11 x 22



50/60 Hertz

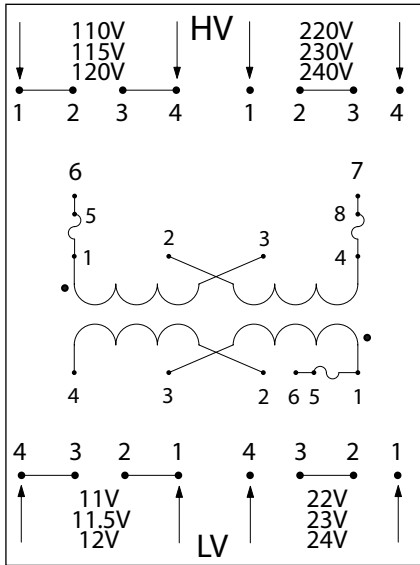
VA Rating	Catalog Number	Mtg. Fig.	Output Amps	Overall Dimensions			Mounting Centers		Mounting Slot G X H	Height with Finger Guard	Depth with Finger Guard	Approx. Ship Weight Lbs.	Optional Primary Fuse Kit P/N
				A	B	C	D	E					
50	PH50PG	A	4.17/2.08	3.00	4.38	3.19	2.50	2.25	0.22 x 0.44	4.00	5.82	3.50	PFK1
75	PH75PG	A	6.25/3.13	3.25	3.88	3.56	2.63	2.50	0.22 x 0.44	4.37	5.32	3.54	PFK1
100	PH100PG	A	8.33/4.17	3.25	4.19	3.63	2.63	2.63	0.22 x 0.44	4.44	5.63	4.50	PFK1
150	PH150PG	B	12.5/6.25	4.00	4.94	3.81	3.38	2.75	0.22 x 0.75	4.50	6.44	5.70	PFK2
250	PH250PG	B	20.8/10.4	4.50	5.44	3.81	3.75	3.13	0.22 x 0.75	4.50	6.94	7.50	PFK2
350	PH350PG	B	29.2/14.6	4.50	5.19	4.44	3.75	3.75	0.22 x 0.75	4.94	6.69	10.1	PFK3
500	PH500PG	B	41.7/20.8	4.75	5.94	4.31	4.06	3.81	0.31 x 0.94	4.81	7.44	14.2	PFK3
750	PH750PG	B	62.5/31.3	5.13	6.69	4.31	4.38	4.31	0.31 x 0.81	4.81	8.19	16.6	PFK3
1000	PH1000PG	B	83.3/41.7	5.25	6.81	4.94	4.50	4.44	0.31 x 0.81	5.56	8.31	23.6	PFK3

Secondary fuse clips and fuse clip mounting screws supplied standard with transformers up to and including 500VA. All dimensions in inches  
 Primary and secondary voltage links/jumpers supplied standard with transformers up to and including 1000VA.  
 Refer to page 58 for wiring schematic drawing. Special voltages and VA sizes available upon request.  
 \*\*\* Available with FACTORY INSTALLED Primary and Secondary Fuse Kits up to 1500VA. To order, add the suffix "-FK" to the above part number. Refer to page 49 for details. \*\*\*

## HPS IMPERATOR Series - Wiring Schematic Drawings continued

### Group G

SECTION 1

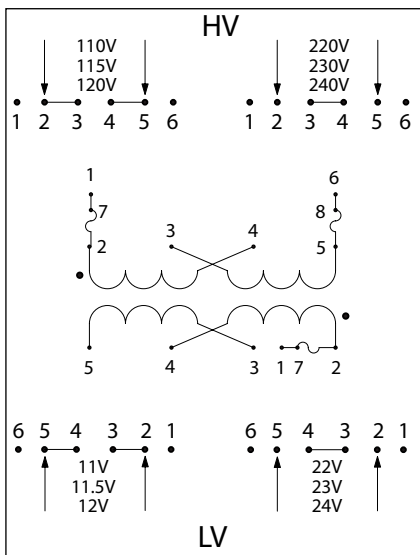


### PH\*\*\*PG Schematic for 50, 75 and 100VA Units

High Voltage (HV) (Primary Volts)	Install Supplied Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
120 115 110	1-2, 3-4	1, 4	Unfused
240 230 220	2-3	1, 4	Unfused
120 115 110	1-2, 3-4	6, 7	1-5, 4-8
240 230 220	2-3	6, 7	1-5, 4-8

Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
12 11.5 11	3-4, 1-2	1, 4	Unfused
24 23 22	2-3	1, 4	Unfused
12 11.5 11	3-4, 1-2	4, 6	1-5
24 23 22	2-3	4, 6	1-5

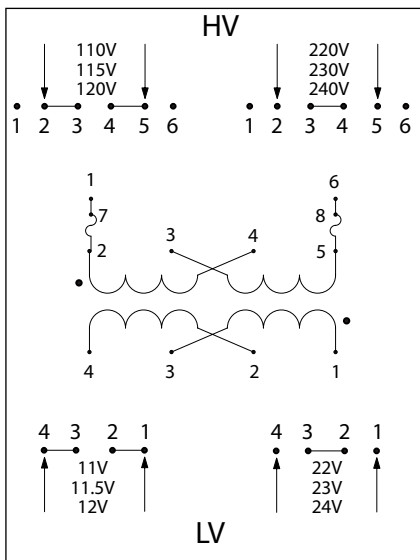


### PH\*\*\*PG Schematic for 150VA to 500VA Units

High Voltage (HV) (Primary Volts)	Install Supplied Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
120 115 110	2-3, 4-5	2, 5	Unfused
240 230 220	3-4	2, 5	Unfused
120 115 110	2-3, 4-5	1, 6	2-7, 5-8
240 230 220	3-4	1, 6	2-7, 5-8

Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
12 11.5 11	4-5, 2-3	2, 5	Unfused
24 23 22	3-4	2, 5	Unfused
12 11.5 11	4-5, 2-3	1, 5	2-7
24 23 22	3-4	1, 5	2-7



### PH\*\*\*PG Schematic for 750VA and 1000VA Units

High Voltage (HV) (Primary Volts)	Install Supplied Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
120 115 110	2-3, 4-5	2, 5	Unfused
240 230 220	3-4	2, 5	Unfused
120 115 110	2-3, 4-5	1, 6	2-7, 5-8
240 230 220	3-4	1, 6	2-7, 5-8

Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
12 11.5 11	3-4, 1-2	1, 4	Unfused
24 23 22	2-3	1, 4	Unfused

Note: secondary fuse clips not available on PH750PG or PH1000PG.