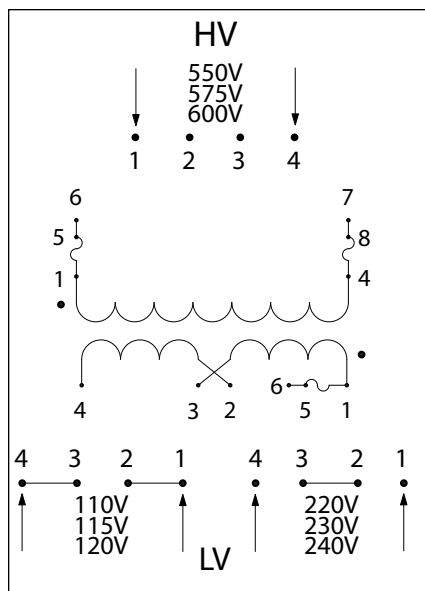




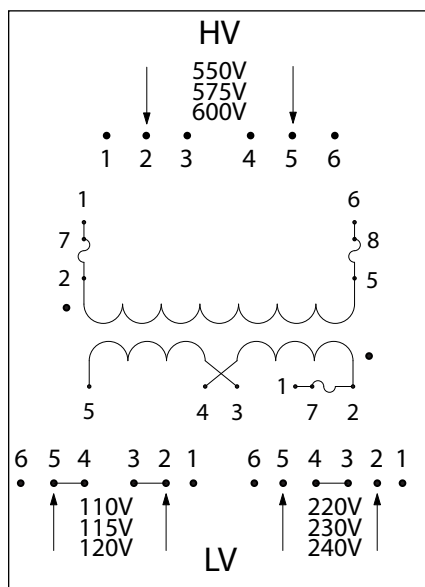
The **HPS IMPERATOR®** series of machine tool industrial molded control transformers are available in many standard offerings. This wiring hook-up instruction sheet refers to all standard **HPS IMPERATOR®** series part number suffixes. (Note: standard secondary fuse kits (not installed) supplied with each transformer unless otherwise indicated; field installed primary fuse kits sold separately; fuses not available from HPS.)
If you have any questions regarding these wiring diagrams or are having any difficulty correctly installing our transformers, please contact HPS customer service or technical support in the U.S. at 1-866-705-4684 or in Canada at 1-888-798-8882.

HPS IMPERATOR® Series - Wiring Schematic Drawings



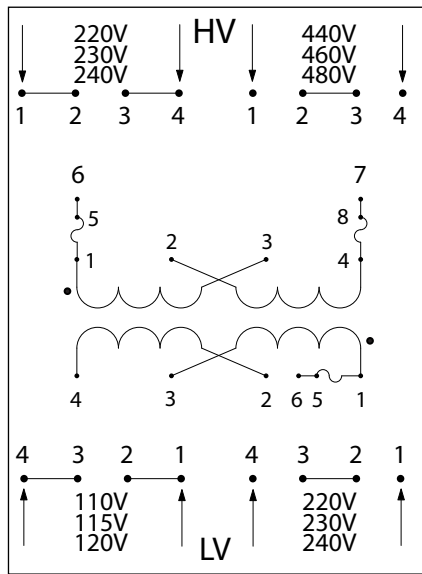
PH***AJ Schematic for 50, 75 and 100VA Units

High Voltage (HV) (Primary Volts)	Install Supplied Jumpers/ Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
600 575 550	None	1, 4	Unfused
600 575 550	None	6, 7	1-5, 4-8
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	3-4, 1-2	1, 4	Unfused
240 230 220	2-3	1, 4	Unfused
120 115 110	3-4, 1-2	4, 6	1-5
240 230 220	2-3	4, 6	1-5



PH***AJ Schematic for 150VA to 1500VA Units

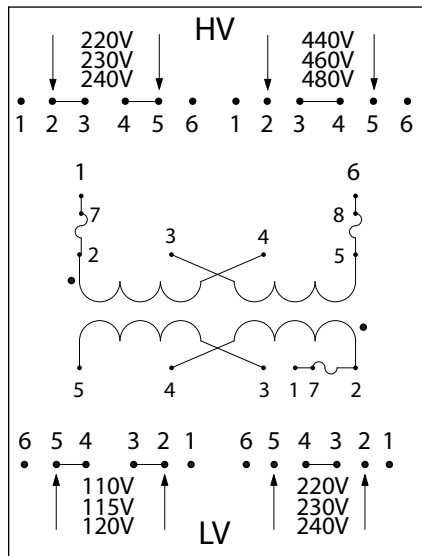
High Voltage (HV) (Primary Volts)	Install Supplied Jumpers/ Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
600 575 550	None	2, 5	Unfused
600 575 550	None	1, 6	2-7, 5-8
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	4-5, 2-3	2, 5	Unfused
240 230 220	3-4	2, 5	Unfused
120 115 110	4-5, 2-3	1, 5	2-7
240 230 220	3-4	1, 5	2-7



PH*MQMJ 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
240 230 220	1-2, 3-4	1, 4	Unfused
480 460 440	2-3	1, 4	Unfused
240 230 220	1-2, 3-4	6, 7	1-5, 4-8
480 460 440	2-3	6, 7	1-5, 4-8

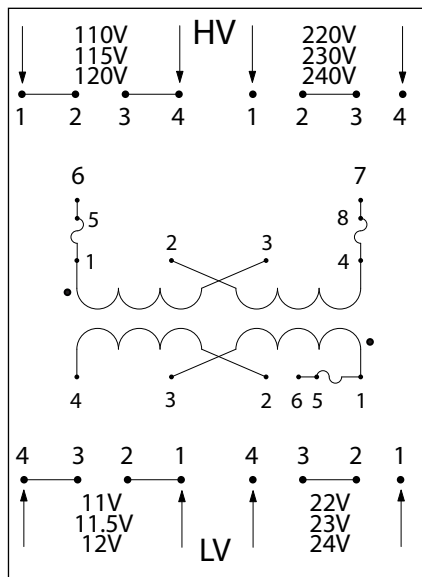
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	3-4, 1-2	1, 4	Unfused
240 230 220	2-3	1, 4	Unfused
120 115 110	3-4, 1-2	4, 6	1-5
240 230 220	2-3	4, 6	1-5



PH*MQMJ Schematic for 150VA to 1500VA Units**

High Voltage (HV) (Primary Volts)	Install Supplied Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
240 230 220	2-3, 4-5	2, 5	Unfused
480 460 440	3-4	2, 5	Unfused
240 230 220	2-3, 4-5	1, 6	2-7, 5-8
480 460 440	3-4	1, 6	2-7, 5-8

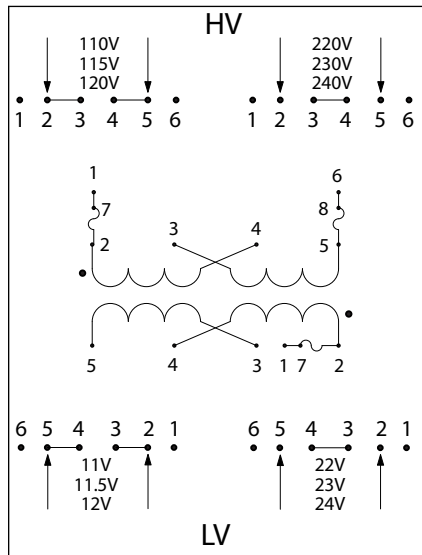
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	4-5, 2-3	2, 5	Unfused
240 230 220	3-4	2, 5	Unfused
120 115 110	4-5, 2-3	1, 5	2-7
240 230 220	3-4	1, 5	2-7



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)**

120	115	110
240	230	220
120	115	110
240	230	220

**Install Supplied Links
Between Terminals**

2-3, 4-5
3-4
2-3, 4-5
3-4

**Supply Lines
Connect To**

2, 5
2, 5
1, 6
1, 6

**Install Fuse
Clips To**

Unfused
Unfused
2-7, 5-8
2-7, 5-8

**Low Voltage (LV)
(Secondary Volts)**

12	11.5	11
24	23	22
12	11.5	11
24	23	22

**Install Supplied Links
Between Terminals**

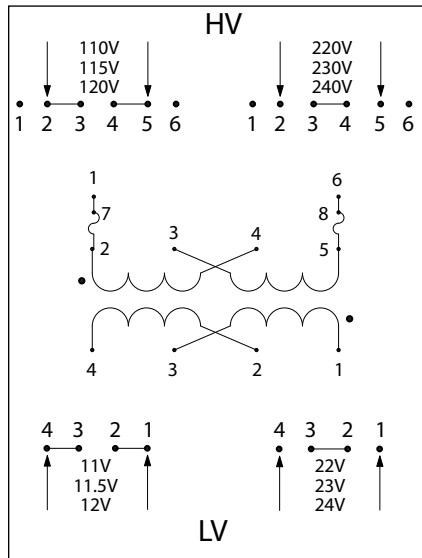
4-5, 2-3
3-4
4-5, 2-3
3-4

**Load Lines
Connect To**

2, 5
2, 5
1, 5
1, 5

**Install Fuse
Clips To**

Unfused
Unfused
2-7
2-7



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

**High Voltage (HV)
(Primary Volts)**

120	115	110
240	230	220
120	115	110
240	230	220

**Install Supplied Links
Between Terminals**

2-3, 4-5
3-4
2-3, 4-5
3-4

**Supply Lines
Connect To**

2, 5
2, 5
1, 6
1, 6

**Install Fuse
Clips To**

Unfused
Unfused
2-7, 5-8
2-7, 5-8

**Low Voltage (LV)
(Secondary Volts)**

12	11.5	11
24	23	22

**Install Supplied Links
Between Terminals**

3-4, 1-2
2-3

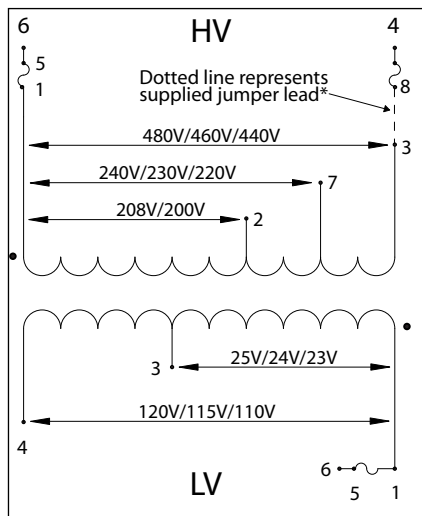
**Load Lines
Connect To**

1, 4
1, 4

**Install Fuse
Clips To**

Unfused
Unfused

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



PH*MLI Schematic for 50, 75 and 100VA Units**

**High Voltage (HV)
(Primary Volts)**

480	460	440
240	230	220
	208	200
480	460	440
240	230	220
	208	200

**Install Supplied Jumpers
Between Terminals**

None
None
None
3-8
8-7
2-8

**Supply Lines
Connect To**

1, 3
1, 7
1, 2
6, 4
6, 4
6, 4

**Install Fuse
Clips To**

Unfused
Unfused
Unfused
1-5, 4-8
1-5, 4-8
1-5, 4-8

**Low Voltage (LV)
(Secondary Volts)**

120	115	110
25	24	23
120	115	110
25	24	23

**Install Supplied Jumpers
Between Terminals**

None
None
None
None

**Load Lines
Connect To**

1, 4
1, 3
4, 6
3, 6

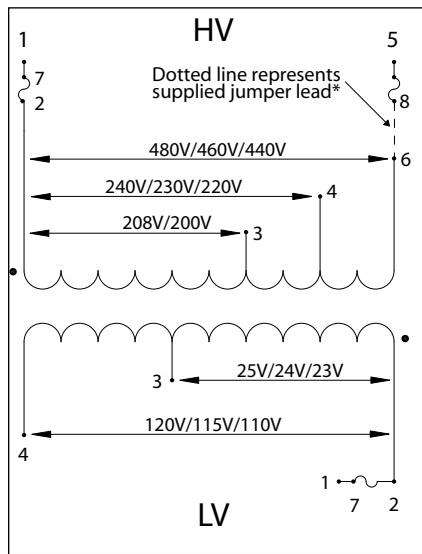
**Install Fuse
Clips To**

Unfused
Unfused
1-5
1-5

*This primary fuse jumper is supplied with the primary fuse kit only.



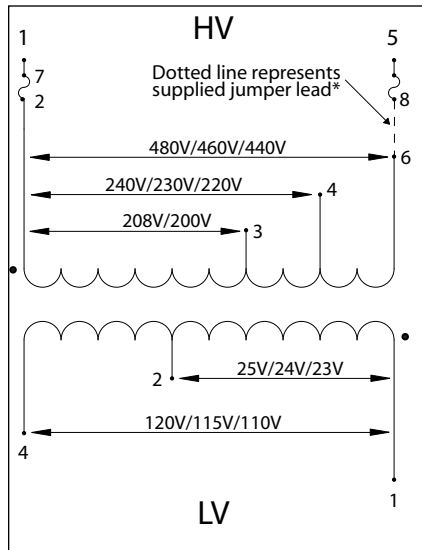
PH*MLI Schematic for 150VA to 500VA Units**



High Voltage (HV) (Primary Volts)	Install Supplied Jumpers Between Terminals	Supply Lines Connect To	Install Fuse Clips To
480 460 440	None	2, 6	Unfused
240 230 220	None	2, 4	Unfused
208 200	None	2, 3	Unfused
480 460 440	8-6	1, 5	2-7, 5-8
240 230 220	4-8	1, 5	2-7, 5-8
208 200	3-8	1, 5	2-7, 5-8
Low Voltage (LV) (Secondary Volts)	Install Supplied Jumpers Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	None	2, 4	Unfused
25 24 23	None	2, 3	Unfused
120 115 110	None	1, 4	2-7
25 24 23	None	1, 3	2-7

*This primary fuse jumper is supplied with the primary fuse kit only.

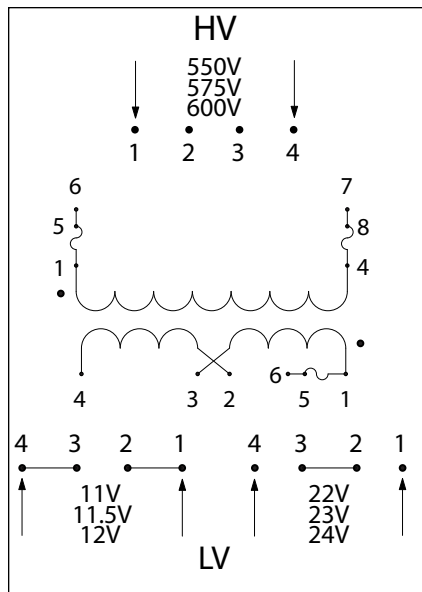
PH*MLI Schematic for 750VA and 1000VA Units**



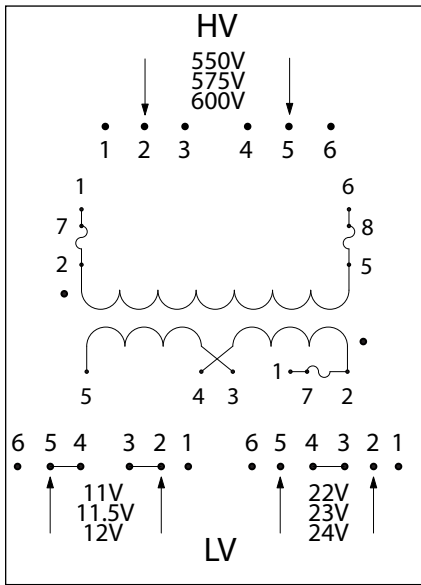
High Voltage (HV) (Primary Volts)	Install Supplied Jumpers Between Terminals	Supply Lines Connect To	Install Fuse Clips To
480 460 440	None	2, 6	Unfused
240 230 220	None	2, 4	Unfused
208 200	None	2, 3	Unfused
480 460 440	8-6	1, 5	2-7, 5-8
240 230 220	4-8	1, 5	2-7, 5-8
208 200	3-8	1, 5	2-7, 5-8
Low Voltage (LV) (Secondary Volts)	Install Supplied Jumpers Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	None	1, 4	Unfused
25 24 23	None	1, 2	Unfused

Note: secondary fuse clips for 24V tap not available on the PH750MLI or PH1000MLI units.

PH*AR Schematic for 50, 75 and 100VA Units**



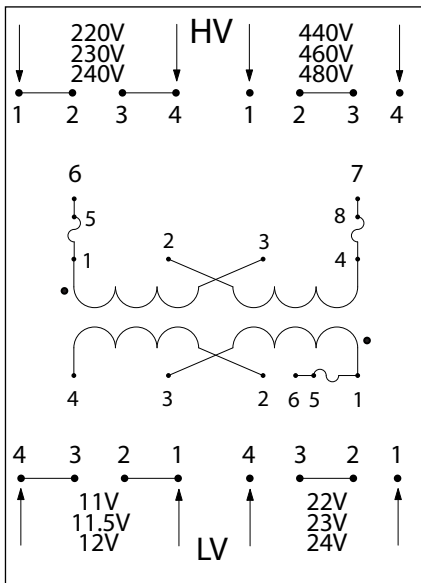
High Voltage (HV) (Primary Volts)	Install Supplied Jumpers/ Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
600 575 550	None	1, 4	Unfused
600 575 550	None	6, 7	1-5, 4-8
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse 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*AR Schematic for 150VA to 500VA Units**

High Voltage (HV) (Primary Volts)	Install Supplied Jumpers/ Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
600 575 550	None	2, 5	Unfused
600 575 550	None	1, 6	2-7, 5-8

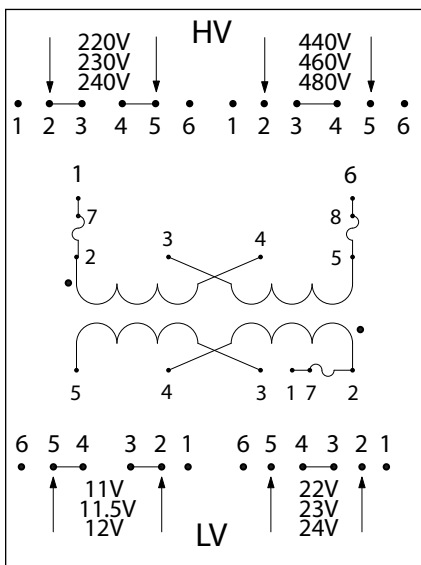
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
12 11.5 11	4-5, 2-3	2, 5	Unfused
24 23 22	3-4	2, 5	Unfused
12 11.5 11	4-5, 2-3	1, 5	2-7
24 23 22	3-4	1, 5	2-7



PH*QR 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
240 230 220	1-2, 3-4	1, 4	Unfused
480 460 440	2-3	1, 4	Unfused
240 230 220	1-2, 3-4	6, 7	1-5, 4-8
480 460 440	2-3	6, 7	1-5, 4-8

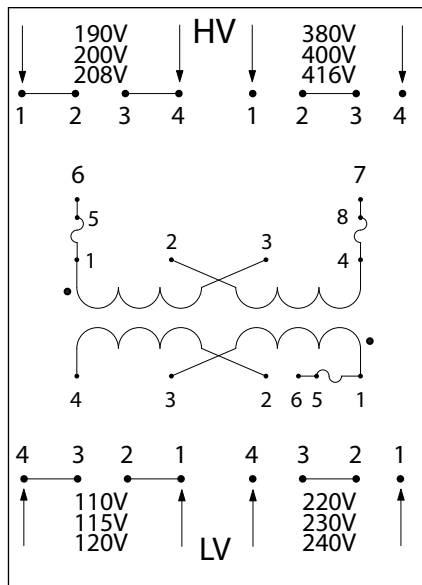
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
12 11.5 11	3-4, 1-2	1, 4	Unfused
24 23 22	2-3	1, 4	Unfused
12 11.5 11	3-4, 1-2	4, 6	1-5
24 23 22	2-3	4, 6	1-5



PH*QR Schematic for 150VA to 500VA Units**

High Voltage (HV) (Primary Volts)	Install Supplied Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
240 230 220	2-3, 4-5	2, 5	Unfused
480 460 440	3-4	2, 5	Unfused
240 230 220	2-3, 4-5	1, 6	2-7, 5-8
480 460 440	3-4	1, 6	2-7, 5-8

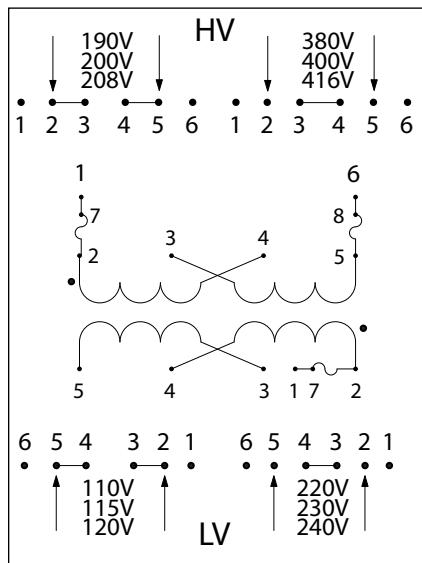
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
12 11.5 11	4-5, 2-3	2, 5	Unfused
24 23 22	3-4	2, 5	Unfused
12 11.5 11	4-5, 2-3	1, 5	2-7
24 23 22	3-4	1, 5	2-7



PH*SP 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
208 200 190	1-2, 3-4	1, 4	Unfused
416 400 380	2-3	1, 4	Unfused
208 200 190	1-2, 3-4	6, 7	1-5, 4-8
416 400 380	2-3	6, 7	1-5, 4-8

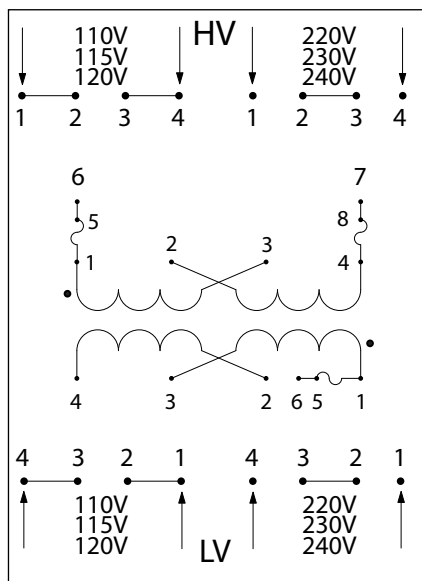
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	3-4, 1-2	1, 4	Unfused
240 230 220	2-3	1, 4	Unfused
120 115 110	3-4, 1-2	4, 6	1-5
240 230 220	2-3	4, 6	1-5



PH*SP Schematic for 150VA to 1000VA Units**

High Voltage (HV) (Primary Volts)	Install Supplied Links Between Terminals	Supply Lines Connect To	Install Fuse Clips To
208 200 190	2-3, 4-5	2, 5	Unfused
416 400 380	3-4	2, 5	Unfused
208 200 190	2-3, 4-5	1, 6	2-7, 5-8
416 400 380	3-4	1, 6	2-7, 5-8

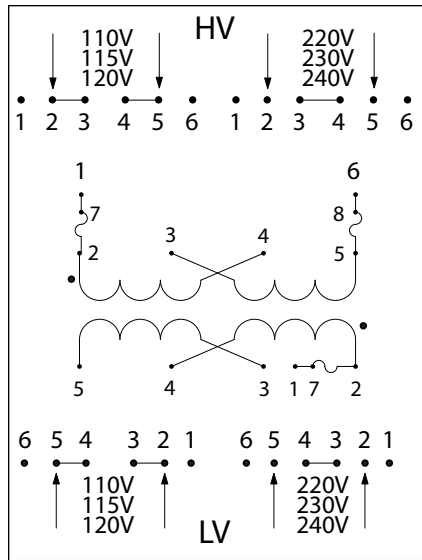
Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
120 115 110	4-5, 2-3	2, 5	Unfused
240 230 220	3-4	2, 5	Unfused
120 115 110	4-5, 2-3	1, 5	2-7
240 230 220	3-4	1, 5	2-7



PH*PP 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
120 115 110	3-4, 1-2	1, 4	Unfused
240 230 220	2-3	1, 4	Unfused
120 115 110	3-4, 1-2	4, 6	1-5
240 230 220	2-3	4, 6	1-5



PH*PP Schematic for 150VA to 1500VA Units**

**High Voltage (HV)
(Primary Volts)**

120	115	110
240	230	220
120	115	110
240	230	220

**Install Supplied Links
Between Terminals**

2-3, 4-5
3-4
2-3, 4-5
3-4

**Supply Lines
Connect To**

2, 5
2, 5
1, 6
1, 6

**Install Fuse
Clips To**

Unfused
Unfused
2-7, 5-8
2-7, 5-8

**Low Voltage (LV)
(Secondary Volts)**

120	115	110
240	230	220
120	115	110
240	230	220

**Install Supplied Links
Between Terminals**

4-5, 2-3
3-4
4-5, 2-3
3-4

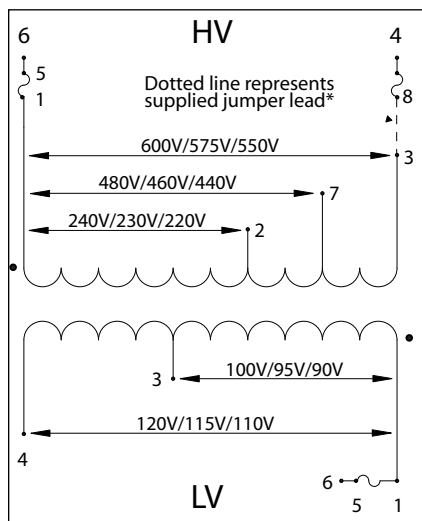
**Load Lines
Connect To**

2, 5
2, 5
1, 5
1, 5

**Install Fuse
Clips To**

Unfused
Unfused
2-7
2-7

PH*MBMH Schematic for 50 and 75VA Units**



**High Voltage (HV)
(Primary Volts)**

600	575	550
480	460	440
240	230	220
600	575	550
480	460	440
240	230	220

**Install Supplied Jumpers
Between Terminals**

None
None
None
3-8
8-7
2-8

**Supply Lines
Connect To**

1, 3
1, 7
1, 2
6, 4
6, 4
6, 4

**Install Fuse
Clips To**

Unfused
Unfused
Unfused
1-5, 4-8
1-5, 4-8
1-5, 4-8

**Low Voltage (LV)
(Secondary Volts)**

120	115	110
100	95	90
120	115	110
100	95	90

**Install Supplied Jumpers/
Links Between Terminals**

None
None
None
None

**Load Lines
Connect To**

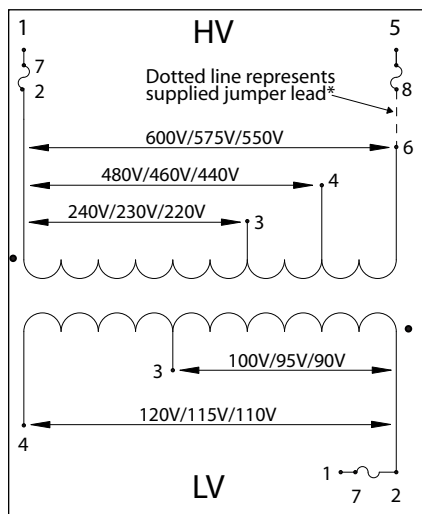
1, 4
1, 3
4, 6
3, 6

**Install Fuse
Clips To**

Unfused
Unfused
1-5
1-5

*This primary fuse jumper is supplied with the primary fuse kit only.

PH*MBMH Schematic for 100VA to 1500VA Units**



**High Voltage (HV)
(Primary Volts)**

600	575	550
480	460	440
240	230	220
600	575	550
480	460	440
240	230	220

**Install Supplied Jumpers
Between Terminals**

None
None
None
8-6
4-8
3-8

**Supply Lines
Connect To**

2, 6
2, 4
2, 3
1, 5
1, 5
1, 5

**Install Fuse
Clips To**

Unfused
Unfused
Unfused
2-7, 5-8
2-7, 5-8
2-7, 5-8

**Low Voltage (LV)
(Secondary Volts)**

120	115	110
100	95	90
120	115	110
100	95	90

**Install Supplied Jumpers/
Links Between Terminals**

None
None
None
None

**Load Lines
Connect To**

2, 4
2, 3
1, 4
1, 3

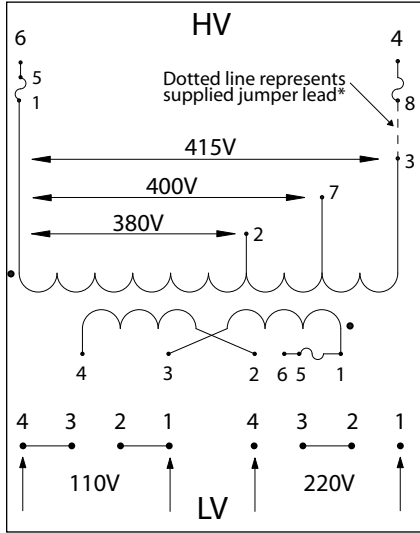
**Install Fuse
Clips To**

Unfused
Unfused
2-7
2-7

*This primary fuse jumper is supplied with the primary fuse kit only.



PH*MEMX Schematic for 50, 75 and 100VA Units**

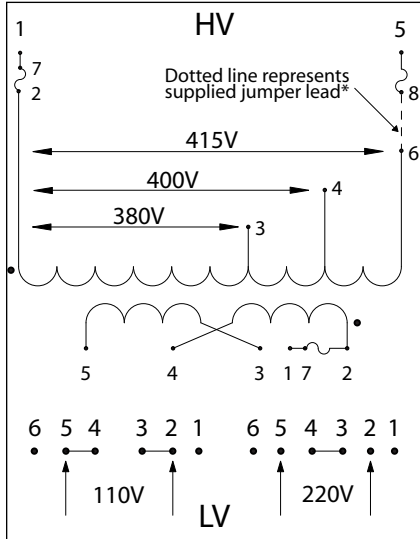


High Voltage (HV) (Primary Volts)	Install Supplied Jumpers Between Terminals	Supply Lines Connect To	Install Fuse Clips To
415	None	1, 3	Unfused
400	None	1, 7	Unfused
380	None	1, 2	Unfused
415	3-8	6, 4	1-5, 4-8
400	8-7	6, 4	1-5, 4-8
380	2-8	6, 4	1-5, 4-8

Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
110	3-4, 1-2	1, 4	Unfused
220	2-3	1, 4	Unfused
110	3-4, 1-2	4, 6	1-5
220	2-3	4, 6	1-5

*This primary fuse jumper is supplied with the primary fuse kit only.

PH*MEMX Schematic for 150VA to 1000VA Units**

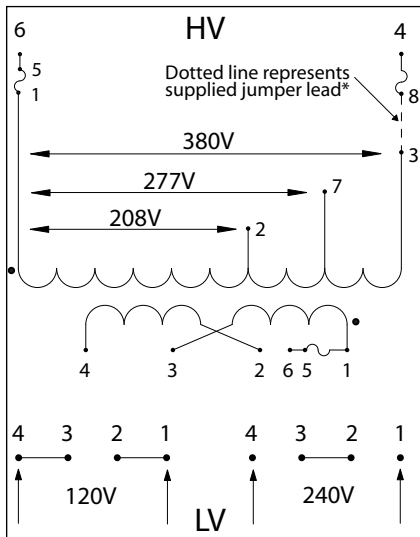


High Voltage (HV) (Primary Volts)	Install Supplied Jumpers Between Terminals	Supply Lines Connect To	Install Fuse Clips To
415	None	2, 6	Unfused
400	None	2, 4	Unfused
380	None	2, 3	Unfused
415	8-6	1, 5	2-7, 5-8
400	4-8	1, 5	2-7, 5-8
380	3-8	1, 5	2-7, 5-8

Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
110	4-5, 2-3	2, 5	Unfused
220	3-4	2, 5	Unfused
110	4-5, 2-3	1, 5	2-7
220	3-4	1, 5	2-7

*This primary fuse jumper is supplied with the primary fuse kit only.

PH*MGJ Schematic for 50, 75 and 100VA Units**



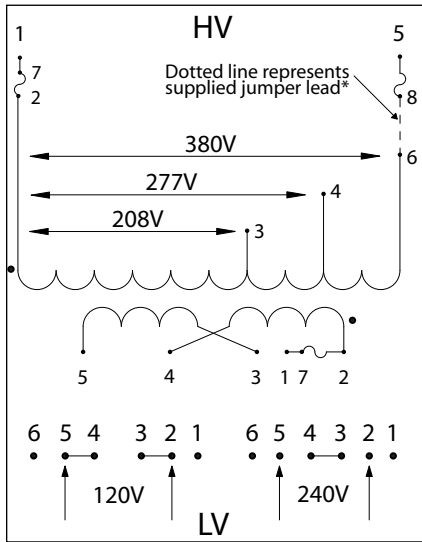
High Voltage (HV) (Primary Volts)	Install Supplied Jumpers Between Terminals	Supply Lines Connect To	Install Fuse Clips To
380	None	1, 3	Unfused
277	None	1, 7	Unfused
208	None	1, 2	Unfused
380	3-8	6, 4	1-5, 4-8
277	8-7	6, 4	1-5, 4-8
208	2-8	6, 4	1-5, 4-8

Low Voltage (LV) (Secondary Volts)	Install Supplied Links Between Terminals	Load Lines Connect To	Install Fuse Clips To
120	3-4, 1-2	1, 4	Unfused
240	2-3	1, 4	Unfused
120	3-4, 1-2	4, 6	1-5
240	2-3	4, 6	1-5

*This primary fuse jumper is supplied with the primary fuse kit only.



PH*MGJ Schematic for 150VA to 1000VA Units**



**High Voltage (HV)
(Primary Volts)**

380
277
208
380
277
208

**Install Supplied Jumpers
Between Terminals**

None
None
None
8-6
4-8
3-8

**Supply Lines
Connect To**

2, 6
2, 4
2, 3
1, 5
1, 5
1, 5

**Install Fuse
Clips To**

Unfused
Unfused
Unfused
2-7, 5-8
2-7, 5-8
2-7, 5-8

**Low Voltage (LV)
(Secondary Volts)**

120
240
120
240

**Install Supplied Links
Between Terminals**

4-5, 2-3
3-4
4-5, 2-3
3-4

**Load Lines
Connect To**

2, 5
2, 5
1, 5
1, 5

**Install Fuse
Clips To**

Unfused
Unfused
2-7
2-7

*This primary fuse jumper is supplied with the primary fuse kit only.