

Power-Suppress 100



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Powering Business Worldwide

Certification standards

- ANSI/IEEE® C57.12.91 transformer test code
- ANSI C62.41 Category B-3
- NFPA® 70—National Electrical Code®
- FCC Class A limits, 47 C.F.R. Part 15, Subparts A, B
- UL® listed to Standard 1012, power supplies—general purpose
- cUL® listed to CSA® Standard C22.2, No. 107.1-01
- NEMA® PE 1 (National Electrical Manufacturers Association)
- NEMA 250 (National Electrical Manufacturers Association)
- Enclosures for electrical equipment (1000 V maximum)
- ISO® 9001:2008
- Occupational Safety & Health Administration (OSHA)

General description

The overall function of the Power-Suppress™ 100 is to attenuate transients and noise that originate on incoming power lines and to provide a newly derived, isolated power source.

The Power-Suppress 100 is used to protect sensitive electronic equipment and computers from power-line noise and transients. There are common disturbances on power lines caused by lightning, motor starting and stopping, utility network switching, and general electrical noise, which will adversely affect sensitive electronic equipment, especially computers.

The Power-Suppress 100 utilizes a unique method of shielding and isolation that provides low capacitive coupling between input and output circuits. This low capacitance, together with a highly effective filter circuit, results in ultra-high common mode and normal mode noise attenuation.

Electrical specifications

- **Input voltage**
120, 240, 480 Vac—depending on model
- **Common mode noise attenuation**
140 dB at 100 kHz
- **Normal mode noise attenuation**
65 dB at 100 kHz
- **Overload capacity**
600% for 1 cycle, 300% for 30 seconds
- **Dielectric strength**
2500 Vac minimum
- **Frequency**
60 Hz $\pm 5\%$
- **Impedance**
3–6%, depending on size
- **Efficiency**
93–97%, depending on size
- **Input voltage range**
Nominal voltage $\pm 10\%$
- **Load regulation**
2–5%, no load to full load at unity power factor
- **Harmonic distortion**
Adds less than 1% THD, under linear loading
- **Coil insulation**
200 °C
- **Temperature rise**
115 °C maximum rise above a 40 °C ambient
- **Electromagnetic interference**
Less than 0.2 gauss at 3 feet

Environmental specifications

- **Audible noise**
Less than 50 dB measured at 3 feet
- **Operating temperature**
0–40 °C
- **Storage temperature**
–20 °C to +50 °C
- **Operating altitude**
5000 feet (without derating)
- **Operating humidity**
95% relative (noncondensing)

Mechanical specifications

Rating	Input plug	Output receptacles (NEMA)
500 VA–1 kVA	5-15P	5-20R2
1.8 kVA	L5-20P	2 x 5-20R2
2.4 kVA	L5-30P	2 x 5-20R2

Cabinet dimensions**Table 1. Cabinet standard dimensions and weights with plugs and receptacles**

Catalog number	Input/output voltages ①	Output VA ②	I/O interface (NEMA)	H x W x D, inches (mm)	Weight, lb (kg)
T100R-0500	120–120	500	5-15P/(1) 5-20R2	6.49 x 6.10 x 12.00 (164.8 x 154.9 x 304.8)	22 (10)
T100R-0750	120–120	750	5-15P/(1) 5-20R2	6.49 x 6.10 x 12.00 (164.8 x 154.9 x 304.8)	28 (13)
T100R-1000	120–120	1000	5-15P/(1) 5-20R2	6.49 x 6.10 x 12.00 (164.8 x 154.9 x 304.8)	31 (14)
T100R-1800	120–120	1800	L5-20P/(2) 5-20R2	10.49 x 11.10 x 17.00 (266.4 x 281.9 x 431.8)	54 (24)
T100R-2400	120–120	2400	L5-30P/(2) 5-20R2	10.49 x 11.10 x 17.00 (266.4 x 281.9 x 431.8)	58 (26)

① Input and output voltages can be field configured for either 120 Vac or 240 Vac, 240 Vac or 480 Vac, as indicated above.

② 500 VA to 7500 VA hardwired models will ship configured to 120 V input and output voltage.

Table 2. Cabinet standard dimensions and weights, hardwired

Catalog number	Input/output voltages ①	Output VA ②	I/O interface	H x W x D, inches (mm)	Weight, lb (kg)
T100H-0500	120/240–120/240	500	Hardwired	6.42 x 6.10 x 12.00 (163.1 x 154.9 x 304.8)	22 (10)
T100H-0750	120/240–120/240	750	Hardwired	6.42 x 6.10 x 12.00 (163.1 x 154.9 x 304.8)	28 (13)
T100H-1000	120/240–120/240	1000	Hardwired	6.42 x 6.10 x 12.00 (163.1 x 154.9 x 304.8)	31 (14)
T100H-1800	120/240–120/240	1800	Hardwired	10.28 x 11.10 x 17.00 (261.1 x 281.9 x 431.8)	54 (24)
T100H-2500	120/240–120/240	2500	Hardwired	10.28 x 11.10 x 17.00 (261.1 x 281.9 x 431.8)	58 (26)
T100H-5000	120/240–120/240	5000	Hardwired	10.28 x 11.10 x 17.00 (261.1 x 281.9 x 431.8)	86 (39)
T100H-5001 ③	240/480–120/240	5000	Hardwired	10.28 x 11.10 x 17.00 (261.1 x 281.9 x 431.8)	92 (42)
T100H-7500	120/240–120/240	7500	Hardwired	10.28 x 11.10 x 17.00 (261.1 x 281.9 x 431.8)	116 (53)
T100H-7501 ③	240/480–120/240	7500	Hardwired	10.28 x 11.10 x 17.00 (261.1 x 281.9 x 431.8)	111 (50)

① Input and output voltages can be field configured for either 120 Vac or 240 Vac, 240 Vac or 480 Vac, as indicated above.

② 500 VA to 7500 VA hardwired models will ship configured to 120 V input and output voltage.

③ Models T100H-5001 and T100H-7501 will ship configured to 240 V input and output voltage.

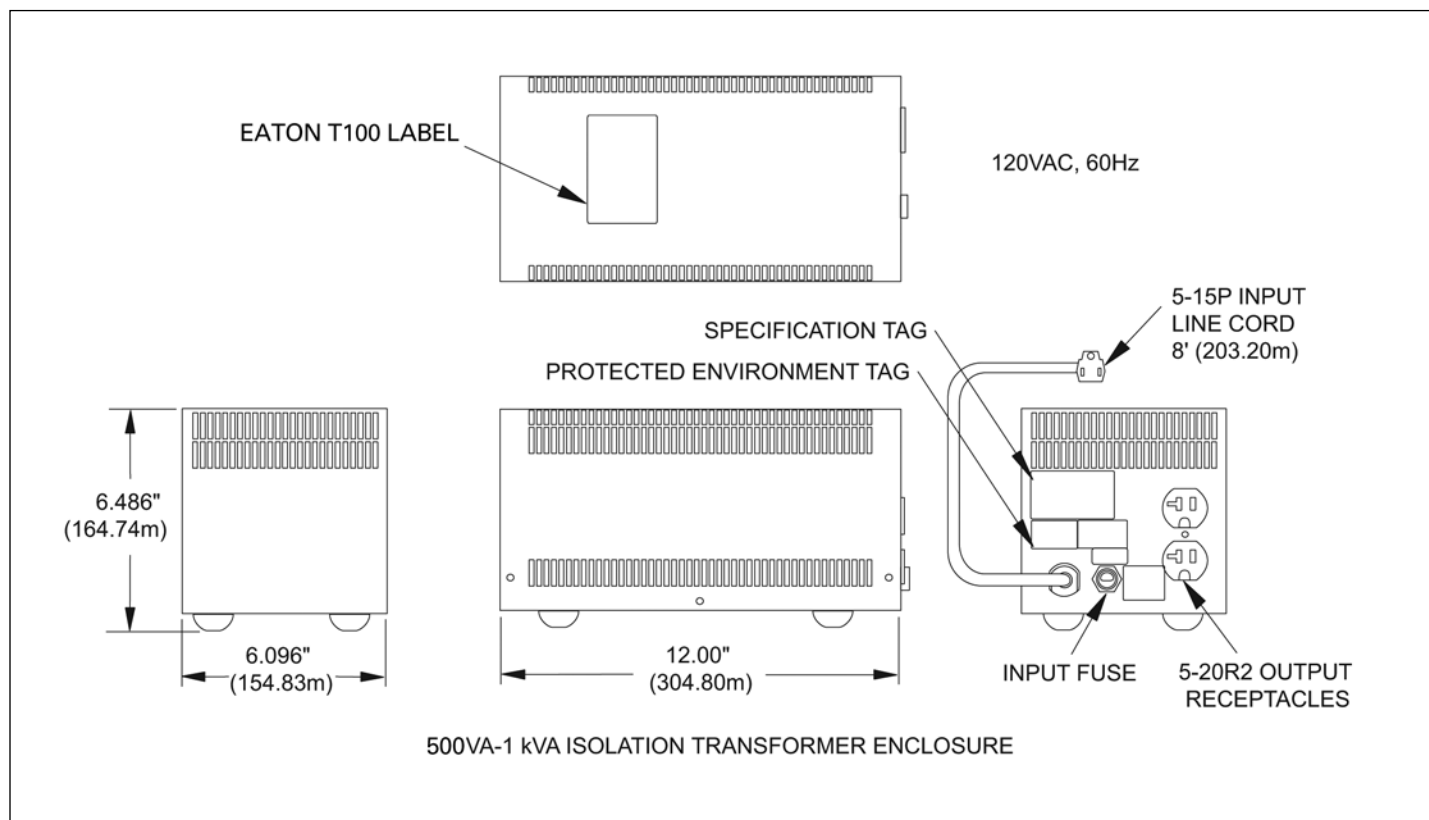


Figure 1. 500 VA-1 kVA isolation transformer enclosure, line cord model

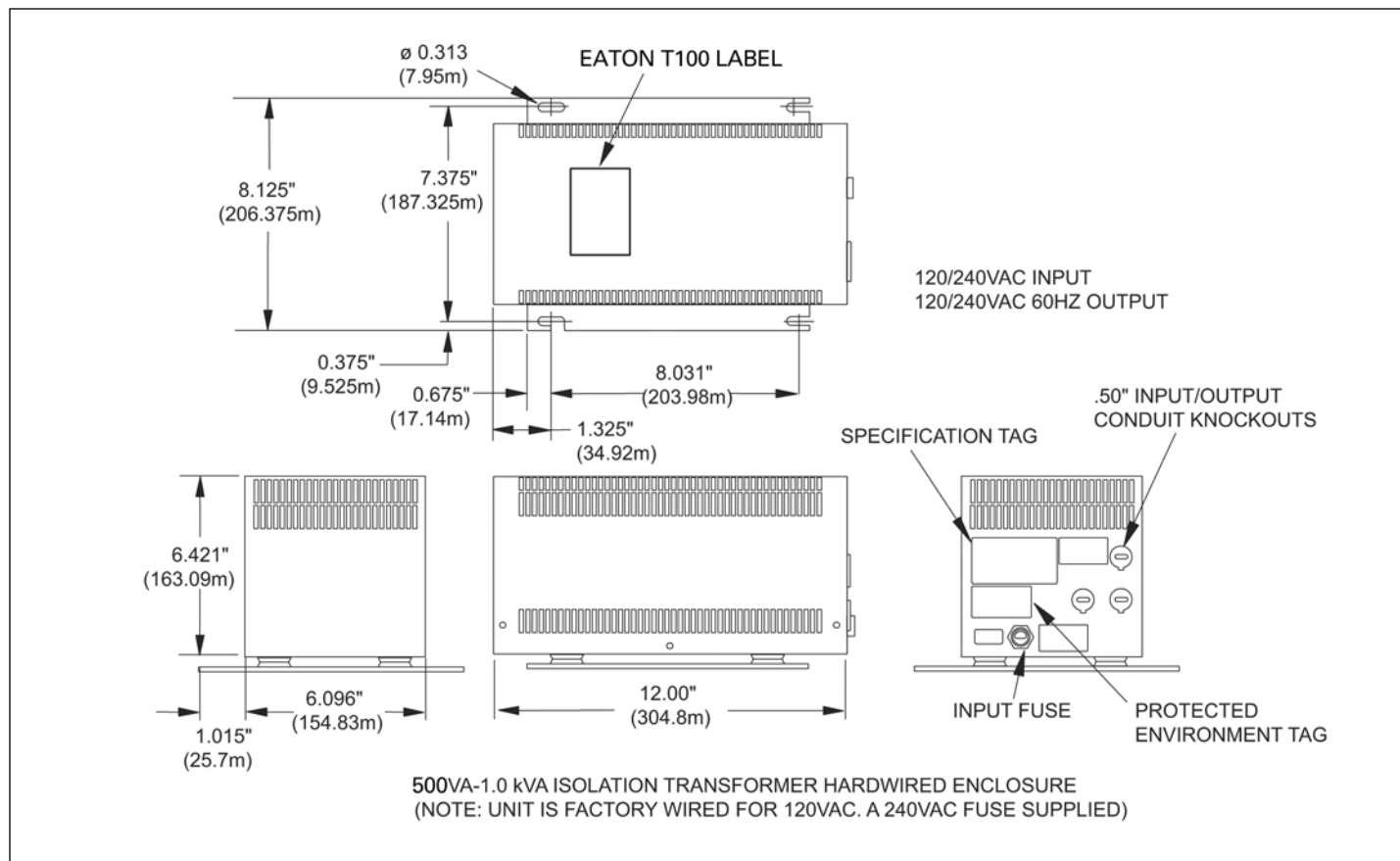


Figure 2. 500 VA-1 kVA isolation transformer hardwired enclosure

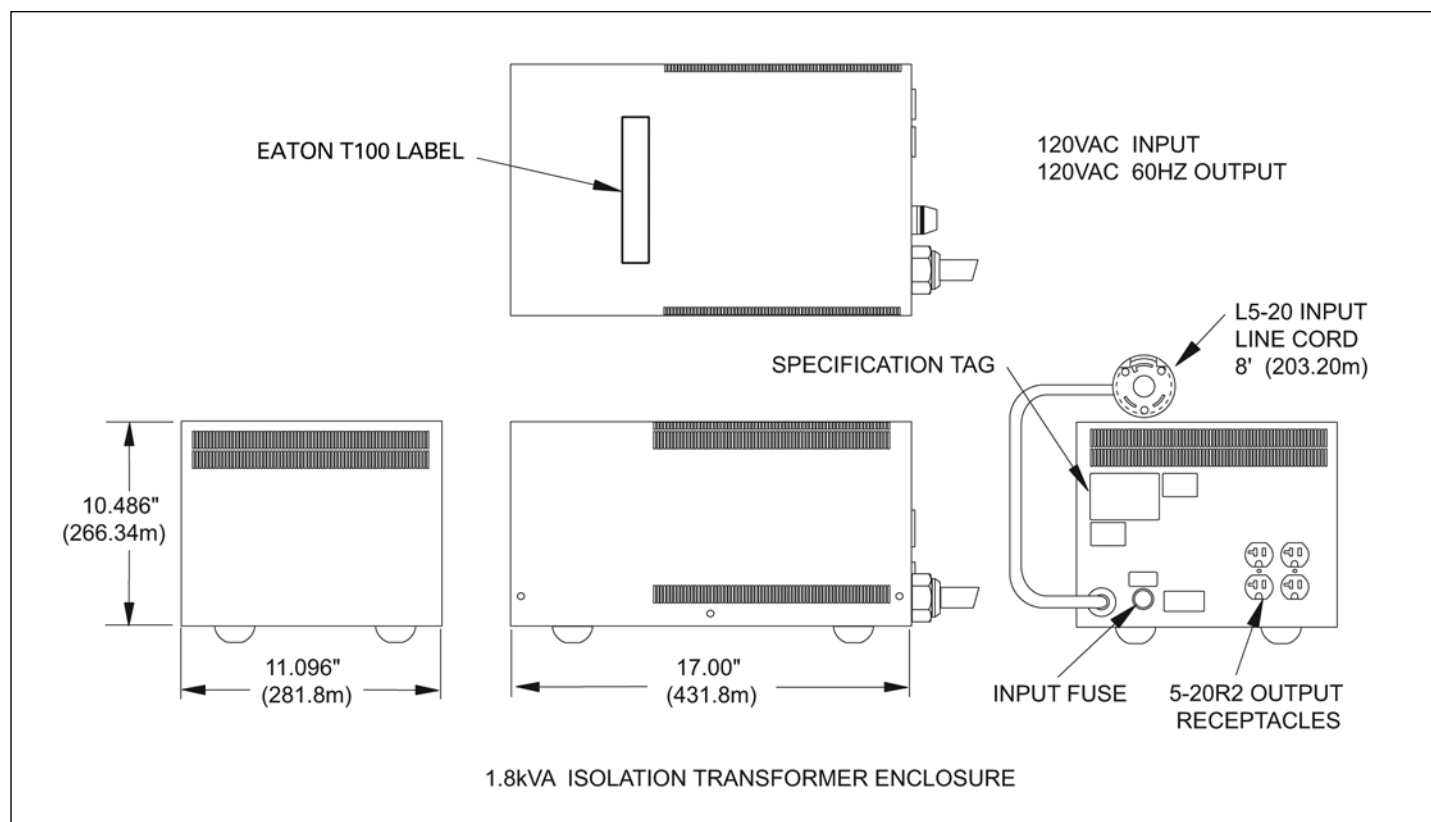


Figure 3. 1.8 kVA isolation transformer enclosure, line cord model

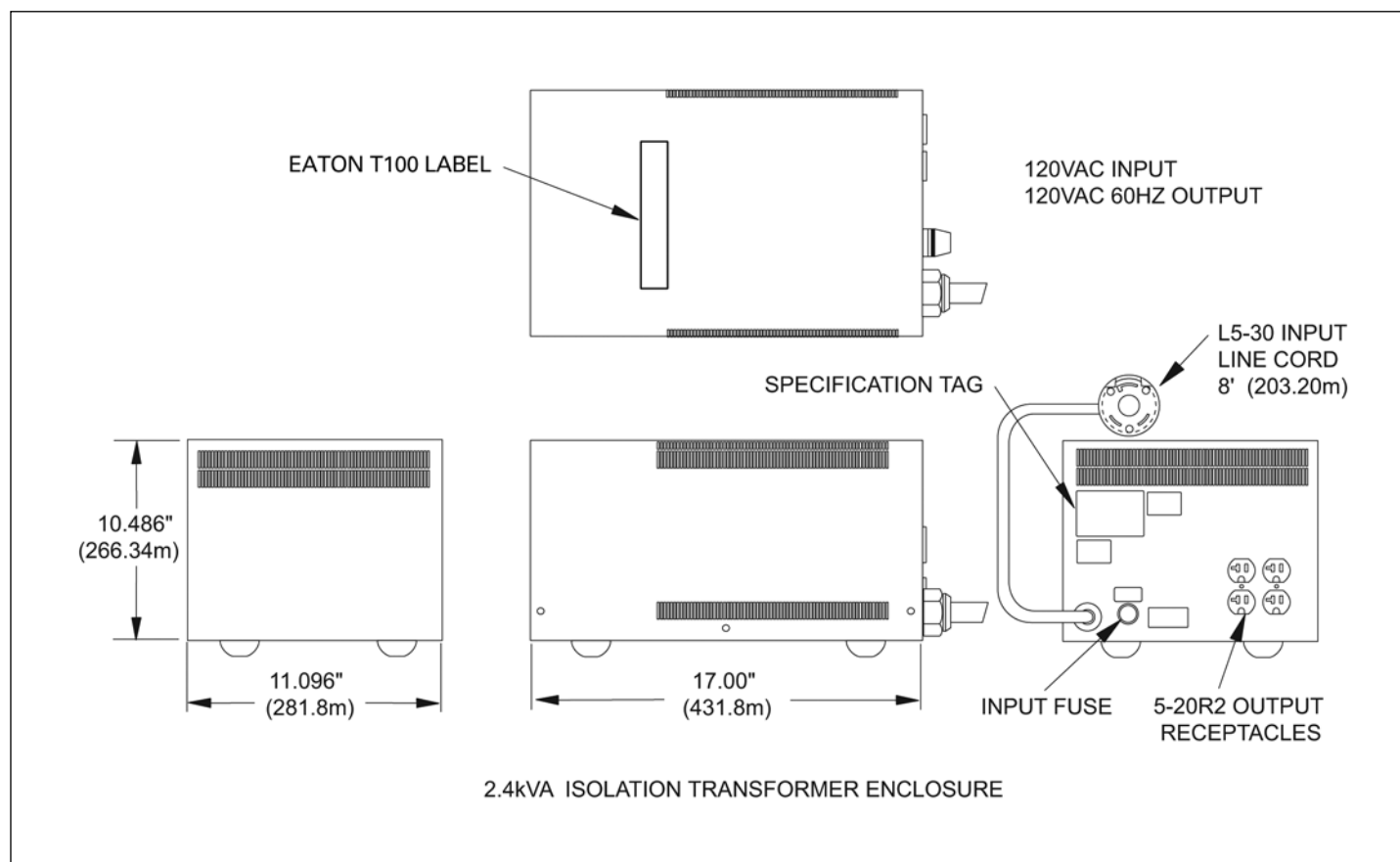


Figure 4. 2.4 kVA isolation transformer enclosure, line cord model

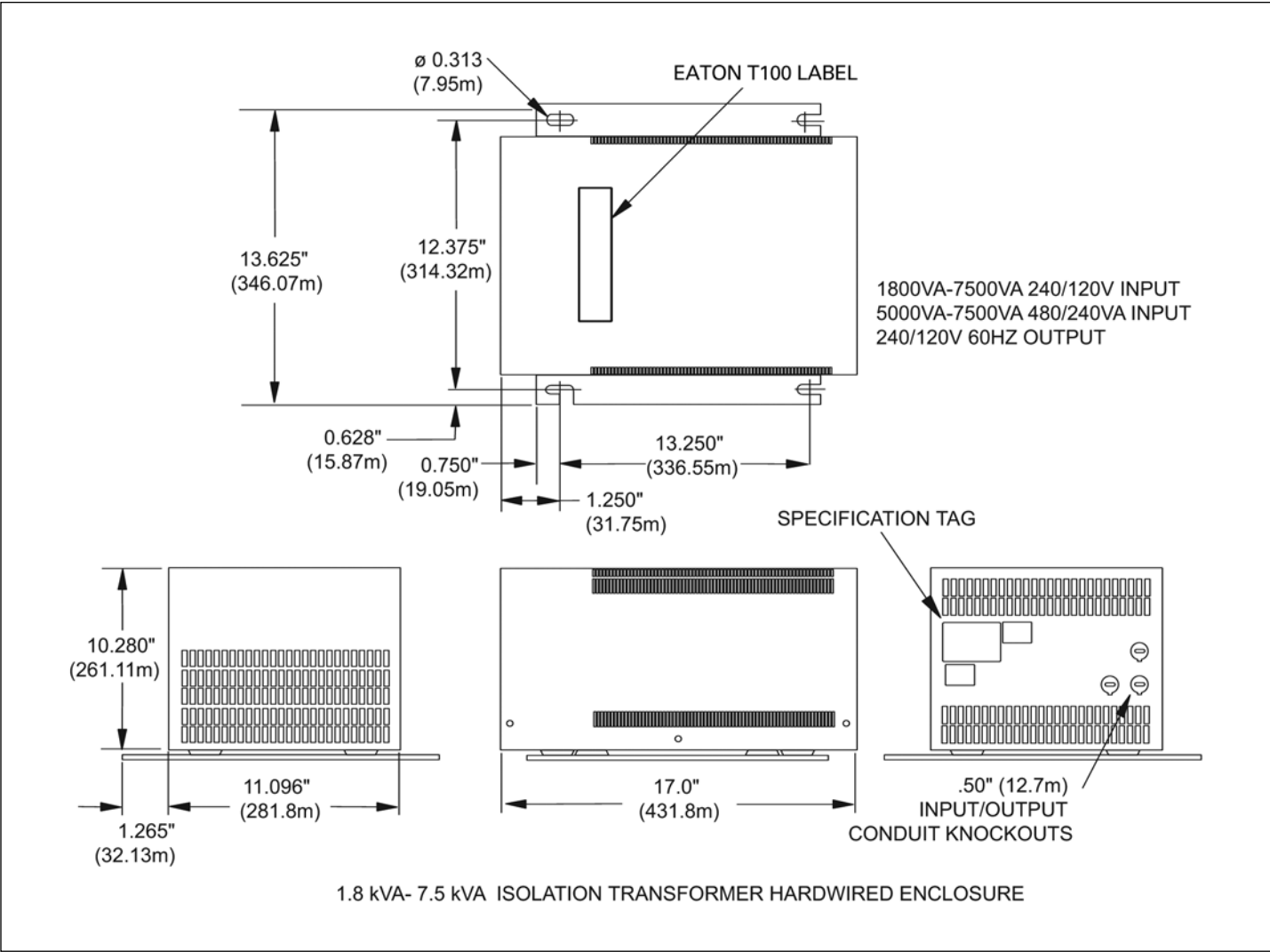


Figure 5. 1.8–7.5 kVA isolation transformer hardwired enclosure

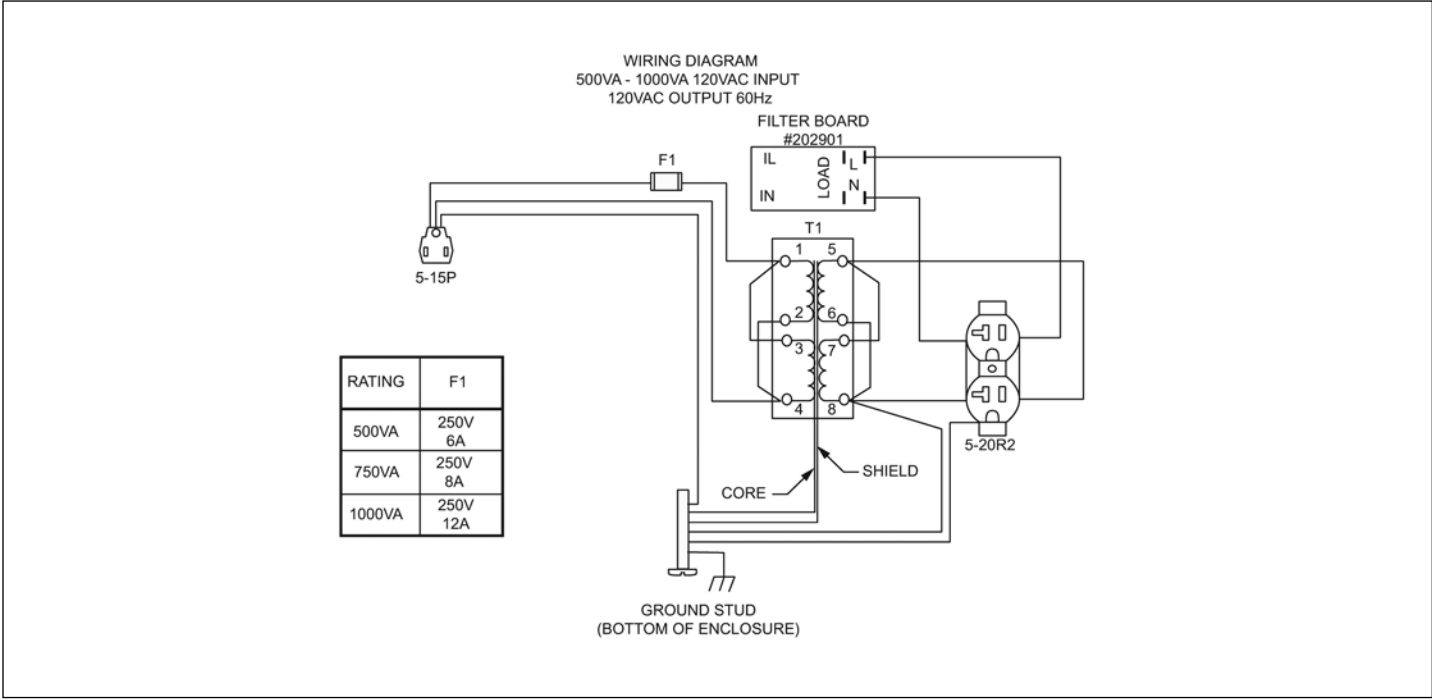


Figure 6. Wiring diagram for 500–1000 VA 120 Vac input

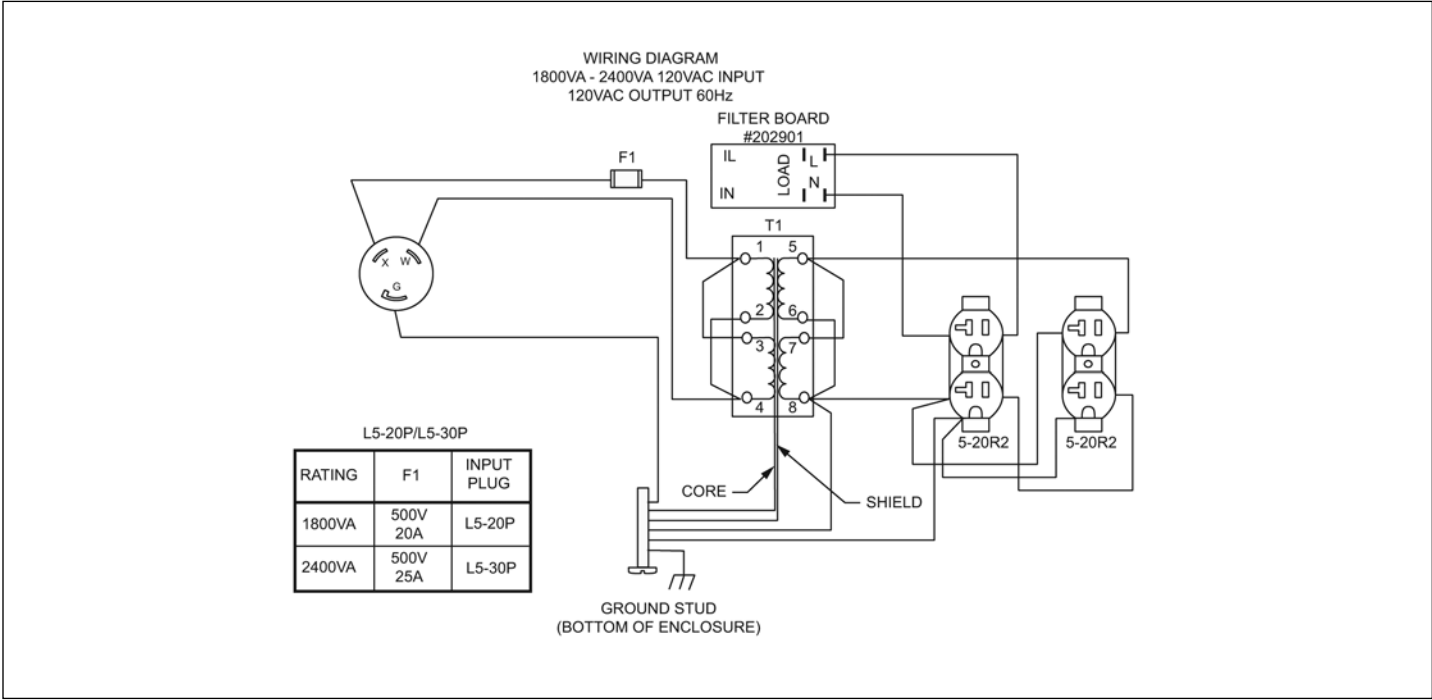


Figure 7. Wiring diagram for 1800–2400 VA 120 Vac input

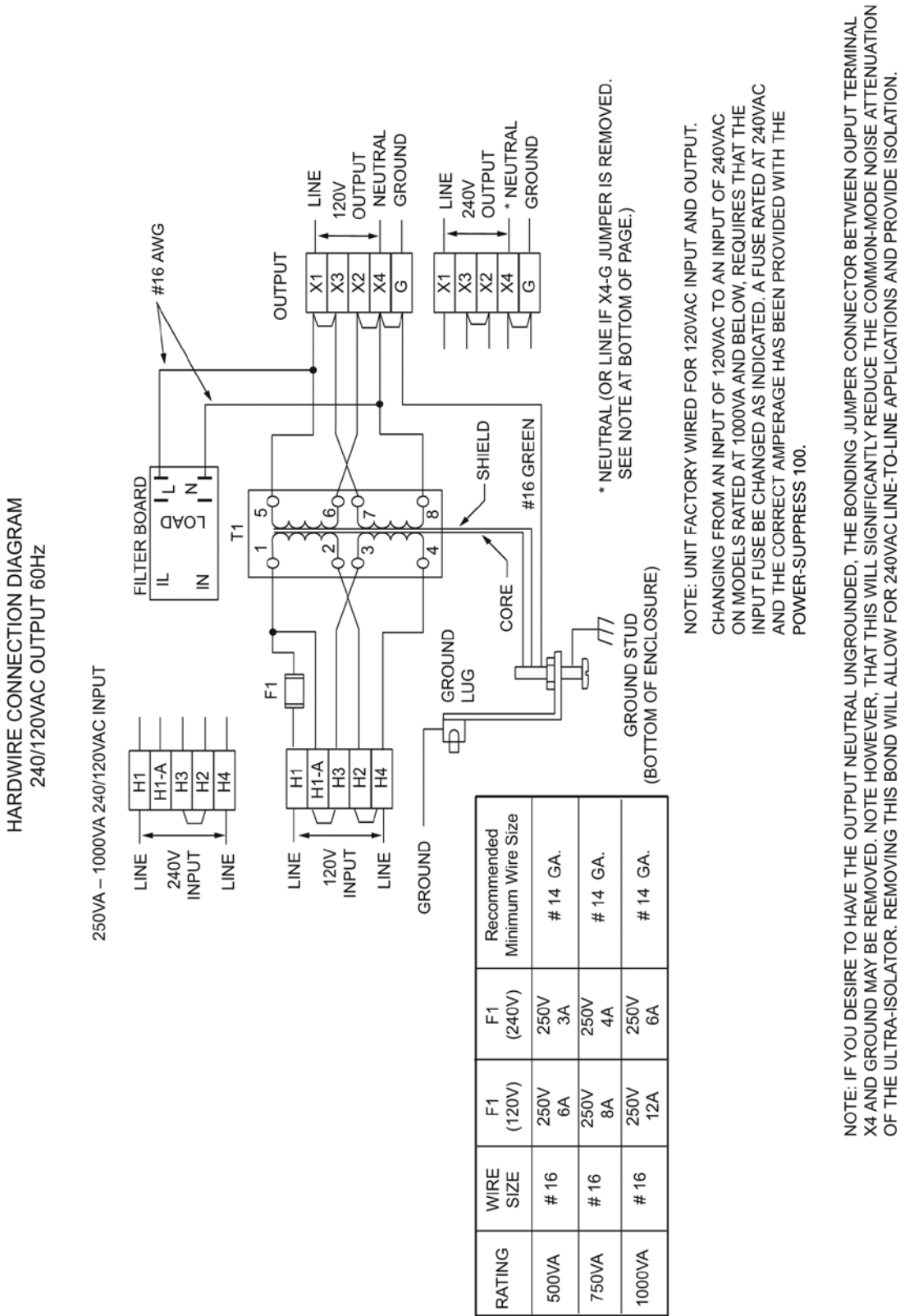


Figure 8. Circuit diagram for 500–1000 VA 240/120 Vac input

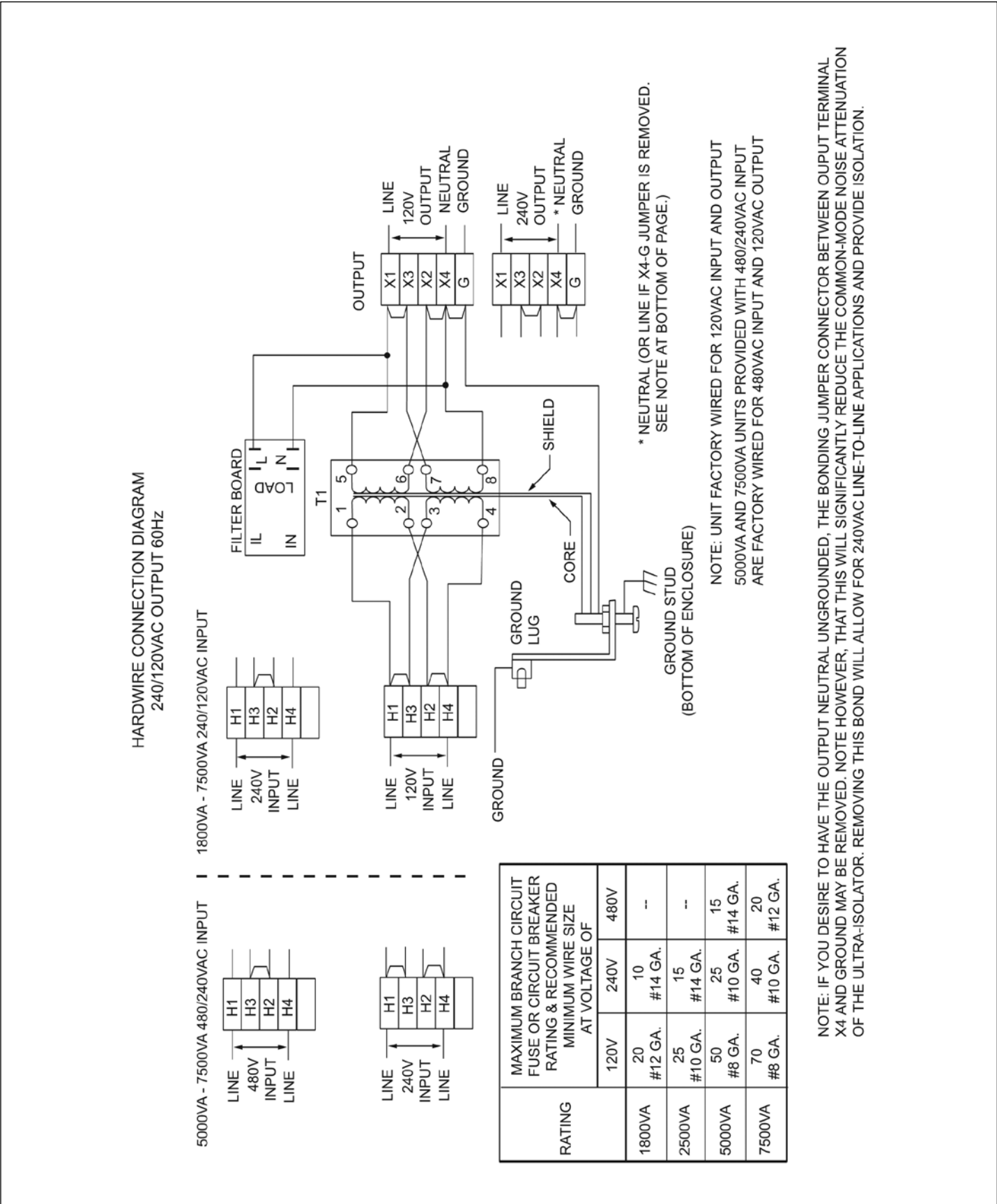


Figure 9. Circuit diagram for 1800–7500 VA 240/120 Vac input

Notes

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Notes

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