Input power requirements

Table 6 – Input power requirements

Part number	Input voltage (VAC)	Phase	Rated input current at 63 kW output (A)	Recommended time-delay fuse size (A)	Recommended size for the main power cord 90°C (194°F) (mm² [AWG*])	Power (kVA)
078620	200	3	206	250	141.3 (4/0)	71.43
078621	208		198	250	141.3 (4/0)	
078622	220		188	250	141.3 (4/0)	
078623	240		172	225	111.9 (3/0)	
078624	380		109	150	55.9 (1)	
078625	400		103	150	55.9 (1)	
078626	415		99	125	43.2 (2)	
078627	440		94	125	43.2 (2)	
078628	480		86	110	34.3 (3)	
078629	600		69	90	27.3 (4)	

* AWG recommendations comply with Table 310-16 of the *US National Electric Code 1990 Handbook*.

Contact a licensed electrician to make sure that your main power cord size and length meet the codes in your location.

Circuit breaker and fuse requirements

For main feed protection, choose a circuit breaker or fuse that is large enough to withstand all branch-feed loads for both inrush and steady-state current. See *Table 6* on page 42 for the recommended time-delay fuse sizes.

You must choose time-delay fuses and circuit breakers that can withstand inrush current that is up to 15 times the rated input current for 0.01 seconds and up to 10 times the rated input current for 0.1 seconds.

The size requirements for breakers or fuses at your site can change because of the following:

- Local line conditions (such as source and line impedance and voltage fluctuations)
- Product inrush characteristics
- Regulatory requirements

Contact a licensed electrician for more information about the codes in your location.

The plasma power supply has a factory-installed inrush resistor. If time-delay, high-inrush fuses are not permitted at your site because of national or local codes, use a motor-start circuit breaker or equivalent.

Plasma power supply

You must connect the plasma power supply to one of the branch-feed circuits. Use a separate, primary line-disconnect switch for the plasma power supply. (See *Line-disconnect switch requirements* on page 44.)

Main power cord requirements

You must supply the main power cord for your cutting system. See *Table 6* on page 42 for recommended main power cord size.

The size requirement for the main power cord at your site can change because of the following:

- The distance of the receptacle from the main box
- Local codes and regulations

Contact a licensed electrician for more information about the codes in your location.

Line-disconnect switch requirements

You must supply the line-disconnect switch for your cutting system. A line-disconnect switch isolates the electrical equipment. When in the OFF (O) position, the line-disconnect switch disconnects all live conductors from the supply voltage.

For maximum safety, choose a line-disconnect switch that has the following:

- Labels that clearly show the ON (I) and OFF (O) positions
- Labels that clearly show when the external handle is physically locked into the OFF (O) position
- Maintained contacts (**not** momentary contacts)
- A power-operated mechanism that serves as an emergency stop to remove power from the cutting system
- A time-delay fuse installed that has sufficient breaking capacity (See *Table 6* on page 42.)
- Easy operator access

Emergency stop switch

You must supply the emergency stop switch (or switches) for your cutting system.

An emergency stop switch is an important safety feature. An emergency stop switch removes electric power from the cutting system to rapidly stop cutting system operation.