

1.1 CHEETAH CHASSIS SUPPLY POWER CONNECTIONS (US MODELS)

The Cheetah Router chassis frame has two AC (or DC) primary power input cables. As shown in Figure 1, each AC power input is rectified and routed to the filter assembly.

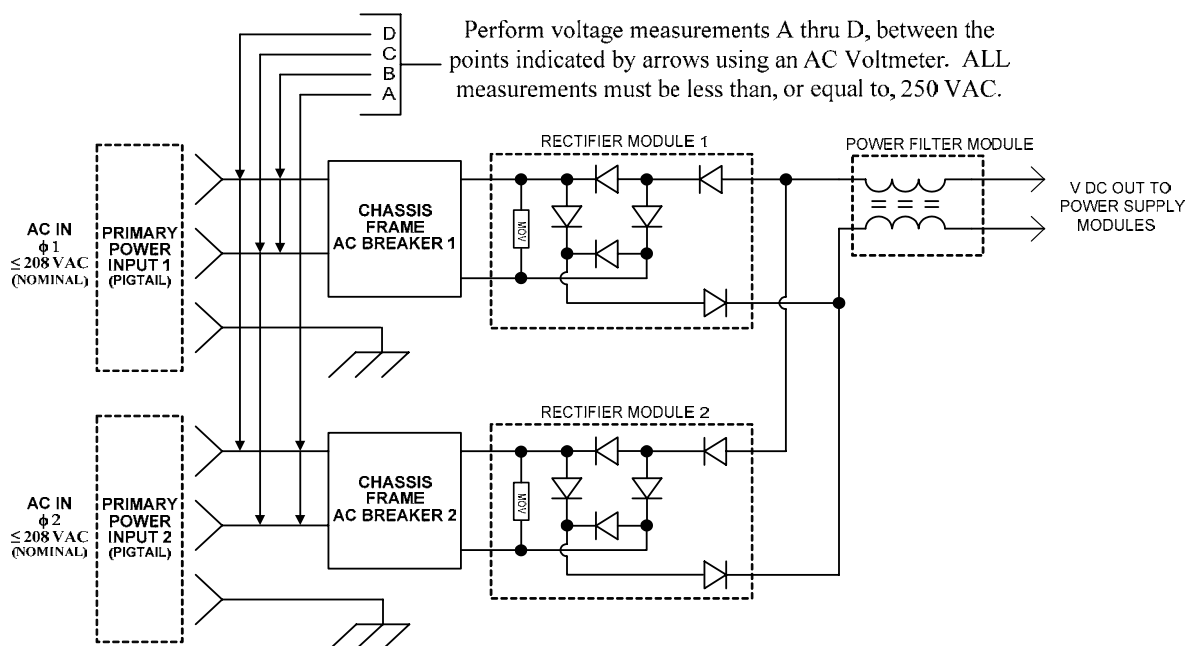


Figure 1 - Power Supply Configuration (US Models)

	WARNING: The maximum applied voltage to either of the AC power inputs must not exceed 250VAC. In addition, the maximum applied voltage across both AC power inputs must not exceed 250VAC at any time. Whenever two phases of a three-phase power source are applied using different phases on each power input, the voltage between the phases must not exceed 250VAC. Failure to heed this warning will result in serious equipment damage.
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Figure 2 depicts a typical two-phase and three-phase AC line-phasing scenario. Note that in the three-phase line voltage, each voltage phase is 120 degrees out of phase with the other two voltage phases.

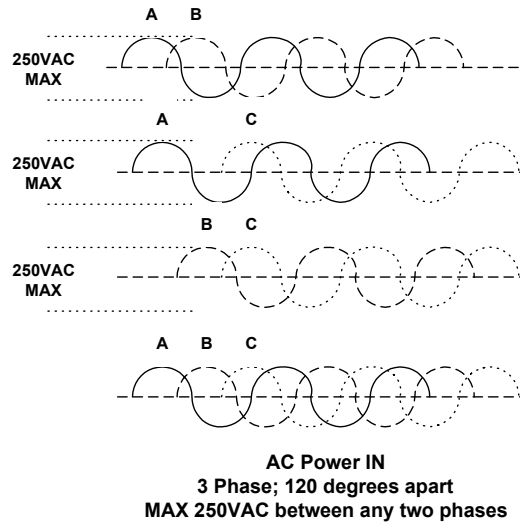


Figure 2 - Phase Relationships

Additionally, systems with one AC power input supplied from a normal, “in-house” AC line and the other AC power input supplied from an external generator ***must insure*** that, regardless of the voltage-phase relationship between the external generator and the “in house” AC line, the maximum applied voltage between the two AC power inputs ***does not exceed 250VAC***.

	If your application requires two independent phases, which exceed the 250VAC maximum, PESA has an interface solution to address your needs. Please contact your PESA dealer or Area Sales Manager.
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	Additionally, it is NOT recommended to use single-phase GFCI circuit protection devices in the supply circuitry of any Cheetah series systems. Due to unbalanced currents in the neutral circuitry, single-phase GFCI devices will typically trip. However (if employed), a three-phase GFCI breaker will not trip except under fault conditions.
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1.2 CHEETAH FRAME PRIMARY POWER

	Make sure that all power is disconnected and the chassis breakers are in the OFF position before completing the specific power connections.
	To prevent damage to the equipment: • Read all instructions for proper input voltage ranges. • Use only a power circuit with the specified current capacity. • Follow static prevention precautions prior to handling equipment.

1.2.1.1 Power Cabling and Circuit Breakers

The Cheetah chassis is supplied with a power cabling assembly (see Figure 3) that meets and/or exceeds the requirements for dedicated input service lines rated for 200-240VAC at 30 amps minimum. Two main circuit breakers are mounted in the frame. Table 1 describes the power connections for the associated pigtail cabling conductors.

Table 1 - Pigtail Cabling Conductor Power Connections

<i>Color Code</i>	<i>200-240V</i>
Green/Yellow Stripe	Safety Ground
Blue	AC Line
Brown	AC Line

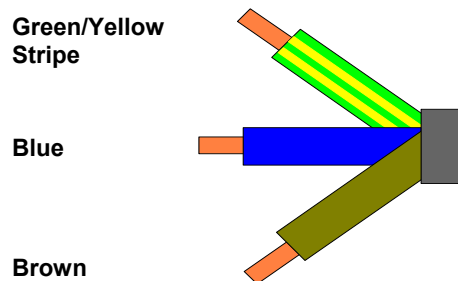


Figure 3 - Pigtail Cabling Conductors

1.2.1.2 External AC Power Requirements

Each chassis is supplied with pigtail cabling (see Figure 3 and refer to Table 1) rated for 200-240VAC at 30 amps. The router is to be connected only to a dedicated service line capable of providing the power source specified in Table 2.

Table 2 - AC Power Filter Assembly

AC Power Cable	Minimum Amps Required	Service Drops
200-240V Attached Power Cable Pigtails	30A Service	1-Standard 1-Redundant

1.3 INTERNATIONAL POWER REQUIREMENTS FOR CHEETAH CHASSIS

All Cheetah Router frames have two AC (or DC) main power feeds. For international use only, these power feeds are isolated from each another through a special wiring configuration that is completed at the factory (Figure 4).

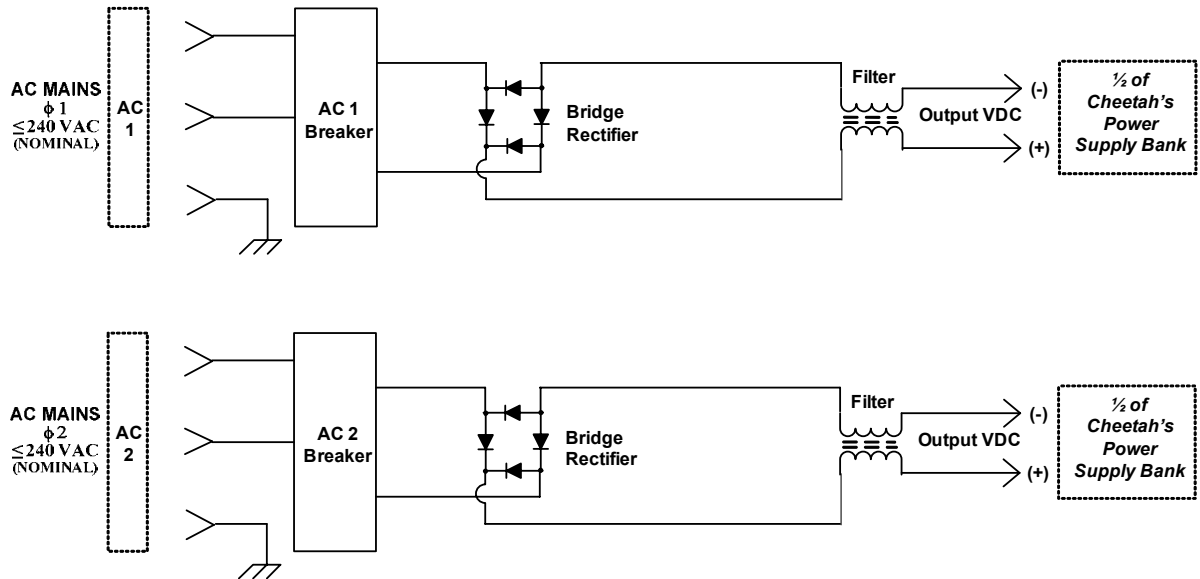


Figure 4 - International Power Supplies Configuration

In each Cheetah assembly, the entire power supply backplane is divided in half and each half is powered and isolated separately. The following apply to the Cheetah international supply power inputs:

- Two banks of power supplies are required in each Cheetah switcher assembly and each bank must be capable of supplying ALL of the power that is required by the specific Cheetah switcher.
- Both banks must be powered under normal conditions.
- Loss of either AC supply power feed is considered a fault condition.
- When experiencing a loss of one AC supply power feed (fault condition), the remaining supplies will typically operate at 100% of their rated load. An increase in chassis operating temperature is normal as the supplies are typically changing from approximately 50% load to approximately 100% of their rated load.

	WARNING: The maximum applied voltage between any leg of either of the isolated AC power inputs must not exceed 250VAC. In addition, the maximum applied voltage between any leg of one AC input and any leg of the other AC power input must not exceed 380VAC nominal at any time. That is, whenever two phases of a three-phase power source is applied using different phases on each power input, the voltage between the phases must not exceed 380VAC nominal. Failure to heed this warning will result in serious equipment damage.
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