

9485/9487

24 VDC Power Supply

P/N 128418-001A

Xycom Revision Record

<i>Revision</i>	<i>Description</i>	<i>Date</i>
A	Manual Released	1/98

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Technical Publications Department
750 North Maple Road
Saline, MI 48176-1292
734-429-4971 (phone)
734-429-1010 (fax)

United States FCC Part 15, Subpart B, Class A EMI Compliance Statement

Note: This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Warning For European Users

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

Electromagnetic Compatibility Warning

The connection of non-shielded equipment interface cables to this equipment will invalidate FCC EMI and European Union EMC compliance and may result in interference and/or susceptibility levels which are in violation of relevant regulations. It is the responsibility of the system integrator and/or user to obtain and use shielded interface cables and equipment used with this device as described within the 9485/9487 manual. If this equipment has more than one connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

9485/9487 DC Power Supply

Note

If your 9485/9487 unit has a DC power supply installed, the information in this document replaces the AC power supply information contained in the 9485/9487 manual.

Product Overview

The DC power supply for 9485/9487 industrial computer accepts +24 VDC input voltage for applications requiring DC input power. The factory-installed power supply module provides +5 V, +12 V, and -12 V outputs.

Figure 1 provides a side view of a 9485/9487 unit with a DC power supply installed.

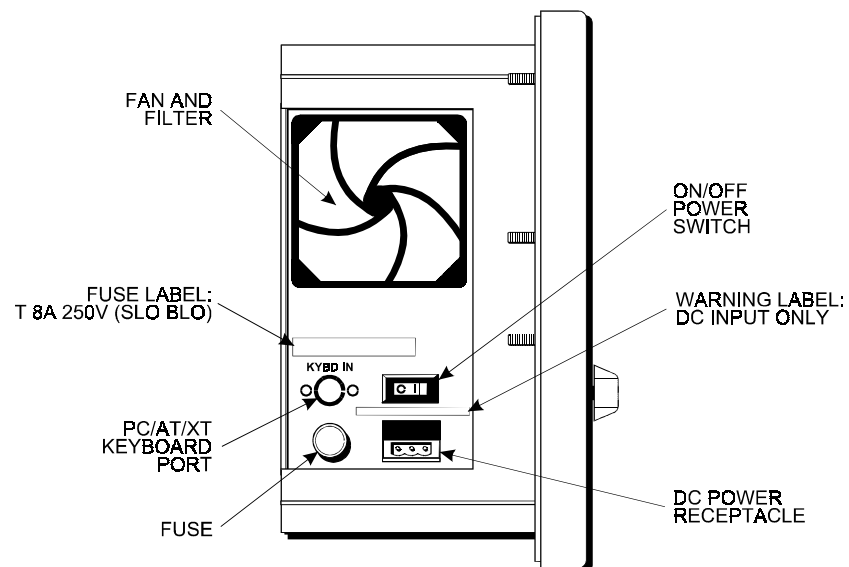


Figure 1. Internal View of 9485/9487

Electrical Specifications

The electrical specifications for the 9485/9487 DC power supply are

- 20 - 25 VDC
- 25 W maximum
- 8 A maximum

Expansion Options

Table 1 lists the available power from the supply.

Table 1. Available Power

486- or Am5x86® Processors	Pentium® Processors
+5 VDC @ 3.8 A	+5 VDC @ 2.6 A
+12 VDC @ 3.2 A	+12 VDC @ 3.2 A
-5 VDC @ .45 A	-5 VDC @ .45 A
-12 VDC @ .45 A	-12 VDC @ .45 A
Total not to exceed 45 W	Total not to exceed 35 W

System Power

Proper grounding is essential to all safe electrical installations. Applicable Federal/State/Provincial codes provide data such as the size and types of conductors, color codes, and connections necessary for safe grounding of electrical components. The code specifies that a grounding path must be permanent (no solder), continuous, and able to safely conduct the ground-fault current in the system with minimal impedance. The following practices should be observed:

- Terminate protective Earth Ground to the enclosure chassis near the point of entry. In a noisy environment, local ground rod may be necessary.
- All electrical racks or chassis and machine elements should be grounded to a central ground bus (a “star” ground bus is best).
- The enclosure should be properly grounded to the ground bus. Make sure a good electrical connection is made at the point of contact with the enclosure.

Line Voltage Considerations

The 9485/9487 DC power supply is built to sustain line fluctuations of 20 - 25 VDC and still allow the system to function within its operating margin. As long as the incoming voltage is adequate, the power supply provides all the logic voltages necessary to support the processor, memory, and I/O.

Power Connector Pinouts

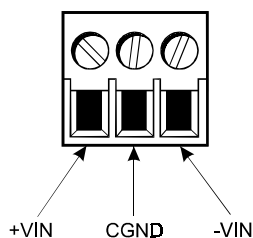


Figure 2. Power Connector

Table 2. Power Connector Pinouts

Pin	Signal
Pin 1	+VIN
Pin 2	CGND
Pin 3	-VIN

Caution

For continued protection against fire hazard, you must replace the fuse with one of the same type and rating.

Creating a Power Cable

You must create a power cable to supply power to the 9485/9487. You need the following materials:

- Three-position power connector (supplied)
- 14 (1.6 mm), 16 (1.3 mm), or 18 (1.0 mm) gage solid or stranded copper wire within a braid/foil shielded cable, rated 80° C or better

Perform the following steps to create the cable:

1. Cut the wire cable to the desired length. It is good practice to make the protective earth ground wire $\frac{1}{4}$ -inch (6.35 mm) to $\frac{1}{2}$ -inch (12.7 mm) longer than the +VIN and -VIN wires.
2. Strip .39-inch (10 mm) of insulation from the end of the cable. No bare wire should be exposed when the cable is connected to the workstation.
3. Tin the wire ends with solder if using stranded wire. This keeps the wire from fraying.

Warning

When inserting the wire ends of the power cable into the block plug, be sure that no bare wire is exposed. Trim the wire ends of the cable or cut new cable if necessary.

4. Insert three wire ends of the power cable into the three holes of the block plug, as shown in Figure 2. The Ground (PE) +VIN and -VIN wires should be inserted into the corresponding holes (again, refer to Figure 2). Be sure that no bare wires are exposed.
5. Tighten the three screws above the wires to hold them firmly in place.

Warning

Never tighten the three screws of the block plug when the cable is connected to a power source. The screws are conductive and have full contact with the cable wire.

Agency Approvals

The 9485/9487 industrial computer has the following agency approvals:

UL 1950

CUL C22.2 No. 950

TUV EN 60950

Regulatory Compliance

CE 89/336/EEC EN55022:1994, Class A
EN50082-2:1995

73/23/EEC Low-voltage Directive

FCC 47 CFR Part 15, Class A