AMIKON TECHNICAL DOCUMENTATION

Installation Instructions

Siemens 6ES7307-1KA00-0AA0

Ten-Ampere Regulated Power Supply

TYPE	INPUT	OUTPUT	CURRENT
PS 307	120/230 V AC	24 V DC	10 A

For qualified personnel only. Isolate the equipment and follow the complete manufacturer and site safety procedures. This reference does not replace the approved project design or the full installation manual.

01 PREPARATION AND WIRING CHECKS

- Installation and protective grounding are restricted to qualified personnel.
- Set the voltage selector to match the nominal 120 or 230 V AC mains.
- Use the designated mains and protective-conductor terminals shown in Figure 2-5.
- Connect DC loads to the L+/M output terminals within the 10 A rating.
- Do not connect KA00 power supplies in parallel.

02 ORIGINAL WIRING REFERENCE

Original source PDF pages 42, 43, 2, 44, 45. The following pages retain the original Siemens drawings and printed page numbers.

Amikon-hosted original Siemens manual pages

Wiring Schematic

Figure 2-5 shows the wiring schematic of the PS 307 power supply module (10 A). You will find a detailed technical description of the module on the following pages.

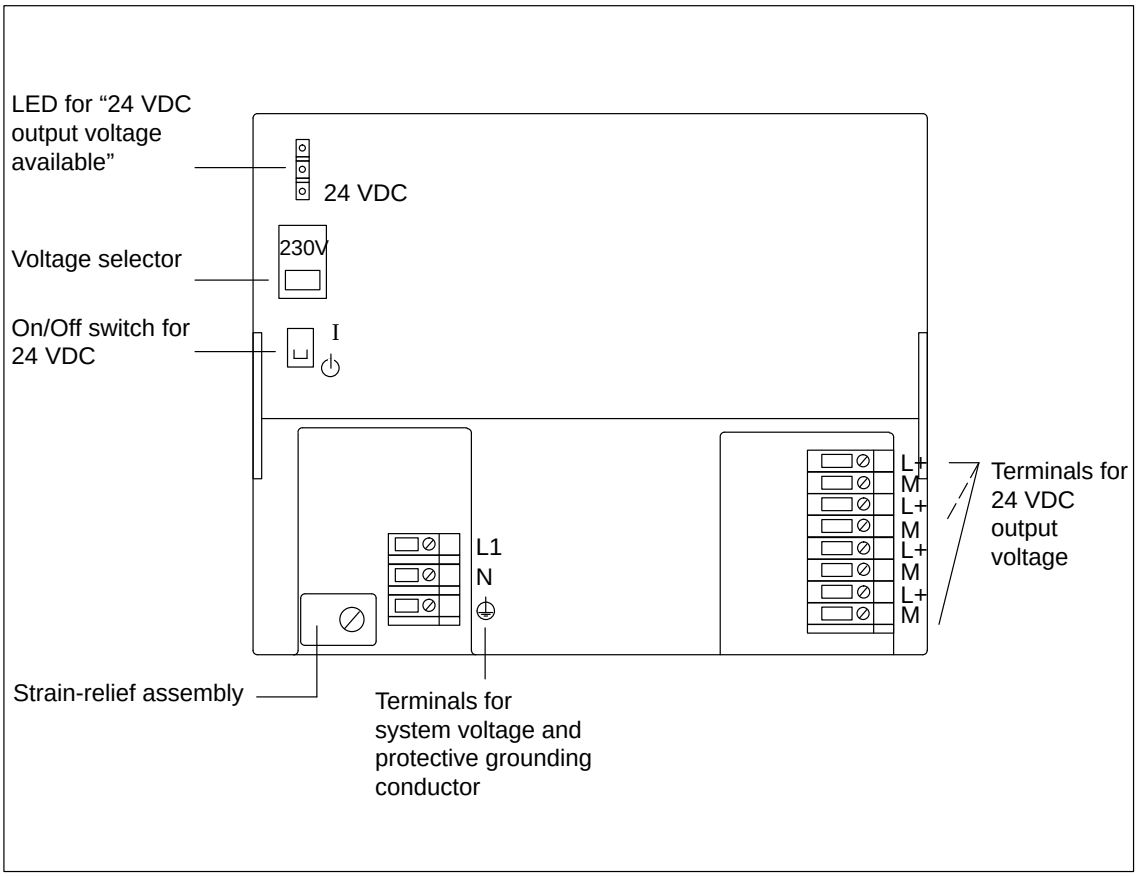


Figure 2-5 Wiring Schematic of the PS 307 Power Supply Module (10 A)

Basic Circuit Diagram

Figure 2-6 shows the basic circuit diagram of the PS 307 power supply module (10 A).

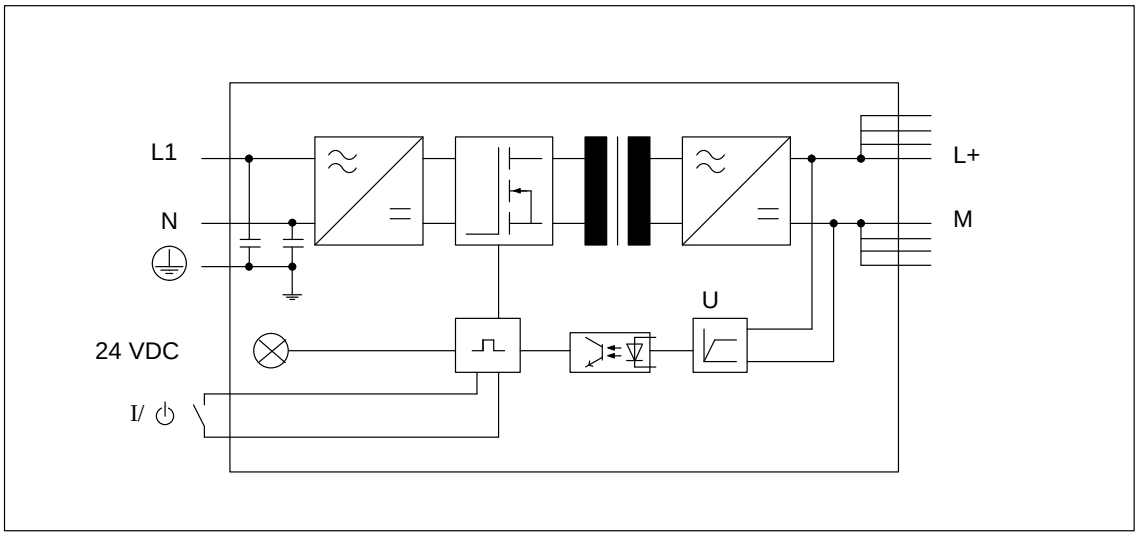


Figure 2-6 Basic Circuit Diagram of the PS 307 Power Supply Module (10 A)

Line Protection

We recommend that you install a miniature circuit-breaker (MCB) (for example, Siemens 5SN1 series) with the following rating to protect the incoming supply cable of the PS 307 power supply module (10 A):

- Rated current at 230 VAC: 16 A
- Tripping characteristic (type): B or C

Safety Guidelines

This manual contains notices which you should observe to ensure your own personal safety, as well as to protect the product and connected equipment. These notices are highlighted in the manual by a warning triangle and are marked as follows according to the level of danger:



Danger

indicates that death, severe personal injury or substantial property damage **will** result if proper precautions are not taken.



Warning

indicates that death, severe personal injury or substantial property damage **can** result if proper precautions are not taken.



Caution

indicates that minor personal injury or property damage can result if proper precautions are not taken.

Note

draws your attention to particularly important information on the product, handling the product, or to a particular part of the documentation.

Qualified Personnel

Only **qualified personnel** should be allowed to install and work on this equipment. Qualified persons are defined as persons who are authorized to commission, to ground, and to tag circuits, equipment, and systems in accordance with established safety practices and standards.

Correct Usage

Note the following:



Warning

This device and its components may only be used for the applications described in the catalog or the technical descriptions, and only in connection with devices or components from other manufacturers which have been approved or recommended by Siemens.

This product can only function correctly and safely if it is transported, stored, set up, and installed correctly, and operated and maintained as recommended.

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Disclaimer of Liability

We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual are reviewed regularly and any necessary corrections included in subsequent editions. Suggestions for improvement are welcomed.

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Reaction to Atypical Operating Conditions

Table 2-3 gives information on the reaction of the power supply module to atypical operating conditions.

Table 2-3 Reaction of the PS 307 Power Supply Module (10 A) to Atypical Operating Conditions

If ...	... Then ...	24 VDC LED
... the output circuit is overloaded: • I > 13 A (dynamic) • 10 A < I ≦ 13 A (steady state)	 Voltage dip, automatic voltage recovery Voltage drop, shortening of service life	Flashes
... the output is short-circuited	Output voltage 0 V; automatic voltage recovery after short circuit has been eliminated	Dark
an overvoltage occurs on the primary side	Possible destruction	–
there is an undervoltage on the primary side	Automatic disconnection; automatic voltage recovery	Dark

Technical Specifications

The technical specifications of the PS 307 power supply module (10 A) are listed below.

Dimensions and Weight	
Dimensions (W × H × D)	200 × 125 × 120 mm (7.8 × 4.88 × 4.68 in.)
Weight	1.2 kg (2.64 lb.)
Input Rating	
Input voltage	
• Rated value	120 V/230 VAC
System frequency	
• Rated value	50 Hz or 60 Hz
• Permiss. range	47 Hz to 63 Hz
Rated input current	
• at 230 V	1.7 A
• at 120 V	3.5 A
Inrush current (at 25°C/77°F)	55 A
I^2t (at inrush current)	9 A^2s
Output Rating	
Output voltage	
• Rated value	24 VDC
• Permiss. range	24 V ± 5 %, proof against open circuit
• Ramp-up time	max. 2.5 s
Output current	
• Rated value	10 A, cannot be connected in parallel configurations
Short-circuit protection	Electronic, nonlatching 1.1 to 1.3 × I_N
Residual ripple	max. 150 mVss

Other Parameters	
Protection class to IEC 536 (DIN VDE 0106, Part 1)	I, with protective grounding conductor
Insulation	
• Rated insulation level (24 V to L1)	250 VAC
• Tested with	2800 VDC
Reliable isolation	to DIN VDE 0106, Part 101
Bridging of power failures (at 93 and/or 187 V)	min. 20 ms
• Repeat rate	min 1 s
Efficiency	89 %
Power input	270 W
Power losses	typ. 30 W
Diagnostics	
LED for output voltage available	Yes, green LED