

ALPHA POWER 24-1.5

Order-No.: 149046

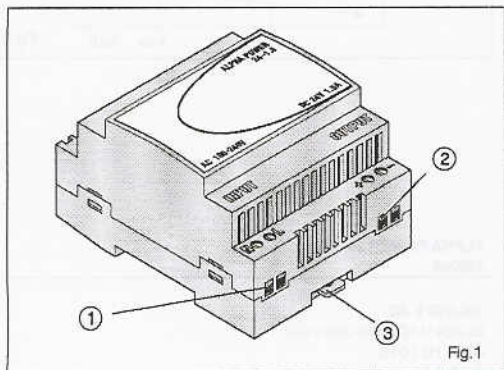


Fig. 1

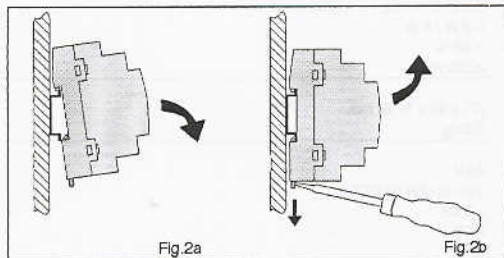


Fig. 2a

Fig. 2b

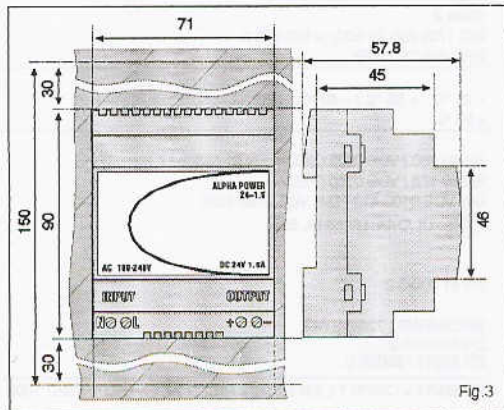


Fig. 3

These instructions form the basis for the installation of equipment or for startup. The operational data given must be observed to guarantee safe operation and a long service life.

1. Safety and warning notes


Attention: Never carry out work on live parts! Danger of shock!

The device should only be **installed and operated** by qualified personnel. The corresponding national regulations (e.g. VDE, DIN) must be observed.

Before putting the device into operation, ensure that

- the mains connection has been carried out by a competent person and protection against electric shock is guaranteed!
- the device can be disconnected outside the power supply unit in accordance with the regulations as in EN 60950 (e.g. through primary side line protection)!
- all feed lines are sufficiently protected and dimensioned!
- all output lines are dimensioned according to the maximum output current of the device or separately protected!
- sufficient convection is guaranteed!

Components with dangerously high voltage and high stored energy are located in the device!

2. Installation

Fig. 1:

- ① AC input: (0.2-2.5 mm²) (AWG 24-14)
- ② DC output: (0.2-2.5 mm²) (AWG 24-14)
Torque value of terminals:
0.5 - 0.6 Nm (4.4 - 5.3 lb)
- ③ Universal snap-on foot for mounting on EN rails

Fig. 2:

The power supply unit can be snapped onto all mounting rails in acc. with EN 50022-35. The mounting rail must be mounted horizontally (terminals facing downwards).

In order to comply with the UL approval, use copper cables that are designed for operating temperatures of 75 °C.

Fig. 3:



In order to guarantee **sufficient convection**, we recommend observing the following **minimum distance** to other modules:

3.0 cm in a vertical direction.

ALPHA POWER are devices for installation as built-in equipment. After installation, the termination area must be covered to ensure sufficient protection against accidental contact with live parts. This requirement is met by installing the device in the control cabinet or in a distributor box.

3. Output characteristics (Fig. 4)

The device supplies a nominal output current I_N up to an ambient temperature of +55 °C. Operation above +55 °C leads to a thermal shut down of the device.

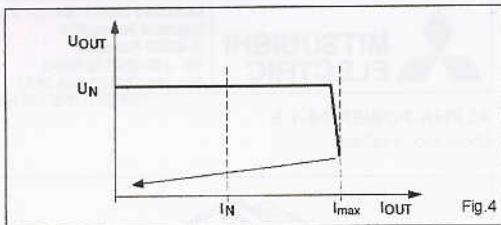


Fig. 4

4. Technical data

Type

Order-No.

Input data

Nominal input voltage
 Input voltage range
 Frequency
 Current consumption (at nominal values) approx.
 Inrush current limitation (at 25 °C) / I^2t typ.
 Mains buffering typ.
 Switch on time after applying the mains voltage
 Internal fuse
 Recommended backup fuse: Power circuit-breaker

Output data

Nominal output voltage U_N
 Tolerance
 Nominal output current I_N (up to 55 °C)
 Max. output current I_{max} typ.
 Max. power increase no load/nominal load approx.
 Efficiency typ.
 Residual ripple/peak switching(20 MHz) at nom. load

Dimensions / Weight

Dimensions (W x H x D) + mounting rail
 Weight approx.

General Data

Isolation voltage input / output
 Installation position on horizontal mounting rail
 Can be mounted in rows:
 - vertical
 - horizontal

Screw terminal block

Protection type
 Degree of protection (in an enclosed control cabinet)
 MTBF (Mean Time Between Failure) according to
 Design of plastic housing

Climatic Data

Ambient temperature operation / storage
 Humidity at 25 °C, no condensation

Ratings / standards

Electrical safety; safety transformer
 Electronic equipm. for electrical power installations
 Safe isolation
 UL ratings

Limitation of mains harmonic currents according to

Electromagnetic compatibility

CÉ in conformance with EMC guidelines
 • Immunity to interference
 • Noise emission

ALPHA POWER 24-1.5

149046

100-240 V AC
 85-264 V AC / 110-350 V DC
 45-65 Hz / 0 Hz
 0,4-0,8 A
 < 25 A / 0,8 A²s
 > 20 ms
 < 1 s
 1.25 AM
 16 A Char. C (EN 60 898)

24 V DC

± 3 %
 1.5 A
 2 A (110 V AC) / 4 A (230 V AC)
 < 2 W / 8 W
 > 80 %
 < 200 mV_{PP}

(71 x 90 x 57,8) mm
 0,2 kg

4 kV

NS 35 (EN 50 022)
 ≥ 3 cm
 0 cm
 ✓
 IP 20
 Class 2
 IEC 1709 (SN 29 500): > 500 000 h
 PPE+PS GF 10 FR

- 25 °C... + 55 °C / - 40 °C... + 85 °C
 ≤ 95 %

EN 60 950 / VDE 0805 (SELV); EN 61 558-2-17
 EN 50 178 / VDE 0160 (PELV)
 DIN VDE 0100-410 / DIN VDE 0106-1010
 LISTED UL/C-UL Listed UL 508

EN 61 000-3-2

89/336/EWG ; 72/23/EWG
 EN 61000-6-2
 EN 55011 / 55022 B

EN 55011 = CISPR 11; EN 55022 = CISPR 22; EN 61000 = IEC 1000