Application

The mains adaptor 23VG24 is an AC/DC converter for an input voltage of 115 or 230 V AC. It supplies an output voltage of 24 V DC with an output current of max. 10 A.

It can supply the module racks, the mounting panels and the I/O modules of a RTU560 station with a power output of approx. 240 W.

Characteristics

The mains adaptor is constructed in a rugged housing for mounting on mounting panels with mounting rails.

The wires are connected to the input and output side by the use of plug-in terminal strips.

The input voltage can be adopted by the use of a voltage selector switch placed on the side of the device.

The output voltage is regulated at the terminal connector to approx. 1%. The output is sustained short-circuit-proofed, stable at no load and overload-proofed.
Technical Data

In addition to the RTU560 general technical data, the following applies:

**Input**
- **Nominal voltage:** 115 / 230 V AC ± 15 %
  - Selectable by voltage selector switch
- **Operating range:**
  - 4 A at 115 V AC
  - 2.2 A at 230 V AC
- **Frequency:** 47 - 63 Hz
- **Inrush current:** < 30 A
- **Input fuse:** 6.3 A T / 250 V internal
- **Power factor cosÄ:** 0,52 capacitive

**Output**
- **Nominal voltage:** 24 V DC ± 1%
- **Output current:** 0 ... 10 A
- **Ripple:** < 100 mV
- **Current limiting:** 12.5 A typical
- **Efficiency:** 89 % typical
- **Power regulation:** <0.1% at U_{In} ± 15%
- **Load regulation:** <0.1% for a step from 0 to 10 A
- **Dynamic:**< 2 ms for jumps between 10<->90 % I_{nom}
  - Overshoot < 2 %
- **Current limiting:** sustained short-circuit-proofed
- **Stable at no load:** yes
- **Overload-proofed:** yes
- **Mains buffering time:** > 15 ms at U_{In} = 230 V AC and full load

**Mechanical Layout**
- **Construction:** closed housing
- **Dimensions:** 105 x 205 x 86 mm (HxWxD)
- **Fixing:** on mounting rails DIN EN 50022-35
- **Cooling:** natural convection
- **Type of protection:** IP 20
- **Protection class:** I
- **Connections:** plug-in terminal strips
- **Weight:** approx. 1.2 kg
Electromagnetic compatibility

Electrostatic discharge: 15 kV
IEC 801-2; Cl. 4

Electromagnetic fields: 10 V / m
IEC 801-3; Cl. 3

Electrical fast transients:
- 4 kV Input
- 2 kV Output
IEC 801-4; Cl. 3

Surge immunity:
- Common mode 4 kV
- Differential mode 4 kV
IEC 801-5; Cl. 4

Suppression of radio disturbances: Class B
VDE 0875; part 11

Environmental Conditions

Temperature: 0 ... 70 °C

Relative humidity: 5 ... 95 % (non condensing)

Power derating: 2.5 % / K from +60 °C on

Ordering Information

23VG24R0001 1KGT 005600 R0001

Abb. 4: Power derating characteristic

Storage temperature: −25 °C...+85 °C