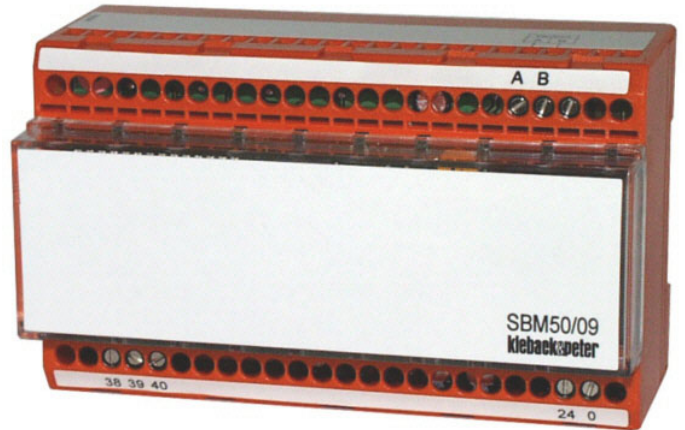


Device description

**SBM50/09 Control Cabinet Bus Module
for frequency transformers VBC400 from VECTRON**

**Control Cabinet Bus Module
SBM50/09**

For the Integration of 1..8 frequency transformers VBC400 from VECTRON in the DDC3000 system



Änderungen vorbehalten

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Notice on the device description

The description contains notice on the area of application and about the mounting of the Control Cabinet Bus Modules SBM50/09.

Should questions arise which cannot be clarified with the help of the device description, then further information should be gotten from the suppliers or manufacturer.

The described regulations/guidelines on installation and mounting are valid for the Federal Republic of Germany. If the area of application of these devices are in foreign countries, the respective national regulations should be observed by the plant builder or operator on his own responsibility.

The operating personnel should be trained according to the instructions in the technical Data sheets.

Safety precautions

For mounting and the area of application of the device, the currently valid work protection, safety rules and VDE regulations should be kept in mind.

Mounting, installation and commissioning work on the devices may only be carried out by qualified personnel, see section "qualified personnel".

Every individual who installs these devices must have read and understood the description in the Technical Data Sheet.

Symbol meaning for the technical data sheets:



Warning on dangerous electrical voltage

Danger signifies that there is a danger to life, bodily damage, or massive property damage may occur if the instructions are not followed.

Qualified personnel

Qualified personnel as understood in the Technical Data Sheets are individuals who are familiar with the described devices and have qualifications that correspond to their duties.

Among these qualifications are, for example :

- authorization to connect the device according to the VDE legal provisions and the local EVU regulations as well as authorization to make the inputs, outputs and releasing of the device within the context of company regulations.
- Knowledge of the safety regulations.
- Knowledge of the area of application and the purpose of the devices within the plant systems.
etc

Device description

for frequency transformers VBC400 from VECTRON

Application

The Control Cabinet Bus Module SBM50/09 is used for the integration in the DDC3000 system of from 1 to 8 frequency converters VBC400 from VECTRON.

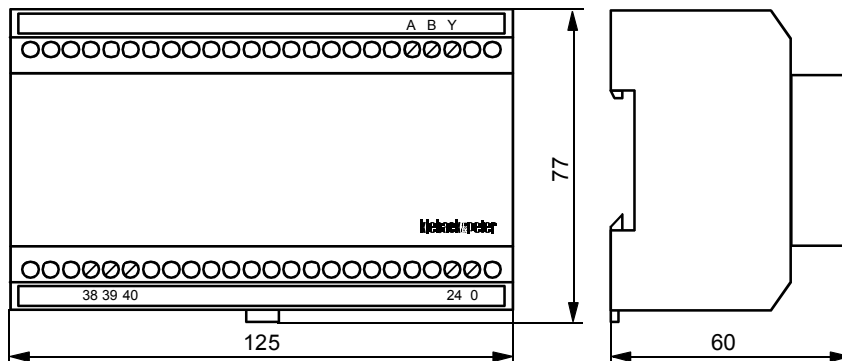
Type

SBM50/09 Control Cabinet Bus Module with RS485 Interface for the connection of a maximum of eight frequency converters from VECTRON

Technical data

Mains	24 V AC $\pm 10\%$ / 208 mA, 5 VA
Bus connection	Control Cabinet Bus to the DDC3000 system, max. 200 m
Interface	RS485 for max. 8 frequency converter VBC400 of the Firma VECTRON
fuse	electronic fuse for mains 24 V AC
Address switch	addressing 01..16 with 2 rotary switches
Displays	2 LED in the housing for Control Cabinet Bus SB LED green: blinking = Control Cabinet Bus data transmission LED red: lit up = Control Cabinet Bus error blinking = false address set
Ambient conditions	temperature 0..45°C humidity 20..80% rF, not condensing
Degree of enclosure protection	IP20
Mounting	switching cabinet mounting on hat rail DIN EN 50022 – 35 x 7,5 (see reverse side)
Weight	300 g

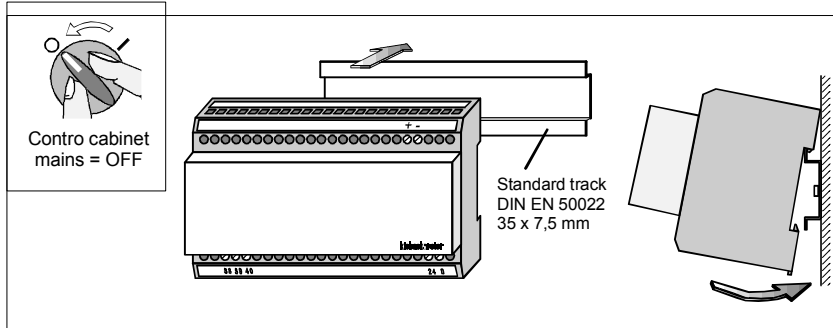
Measurements



Mounting

Danger

Mounting and the connection of the device may only be carried out in a voltage-free state by qualified specialists.

**Installation**

Danger

Mounting and the connection of the device may only be carried out in a voltage-free control cabinet by qualified specialists.

The mains may be switched on SBM mains voltage 24 V AC only after the device setting by the commissioning technician/engineers has been completed.

The VDE legal provisions and the local regulations should be observed.

An isolated cable is required for the connection of the Control Cabinet Bus in the DDC3000 system, Cable type at least JY(St)Y 2x2x0,8 Lg.

Both lines (terminals 39 and 40) must be in the form of twisted pairs.

The earth connection (terminal 38) should be put on one of the remaining free lines.

At the end of the Control Cabinet Bus (most distant point from the Central Control Unit, max. 200 m), a terminating resistor ca. 180 Ω must be included on both data lines one time (terminating resistor for the Central Control Unit is included in the accessory pack).

- For the connections and settings of the frequency converter VCB400, the operation notice of VECTRON are definitive.

The connection between the Control Cabinet Bus Modules SBM50/09 and the VECTRON frequency converter VBC400 is carried out on the RS485 interface with a shielded cable. For this, the frequency converter must be fitted with a VECTRON interface packet (RS485).

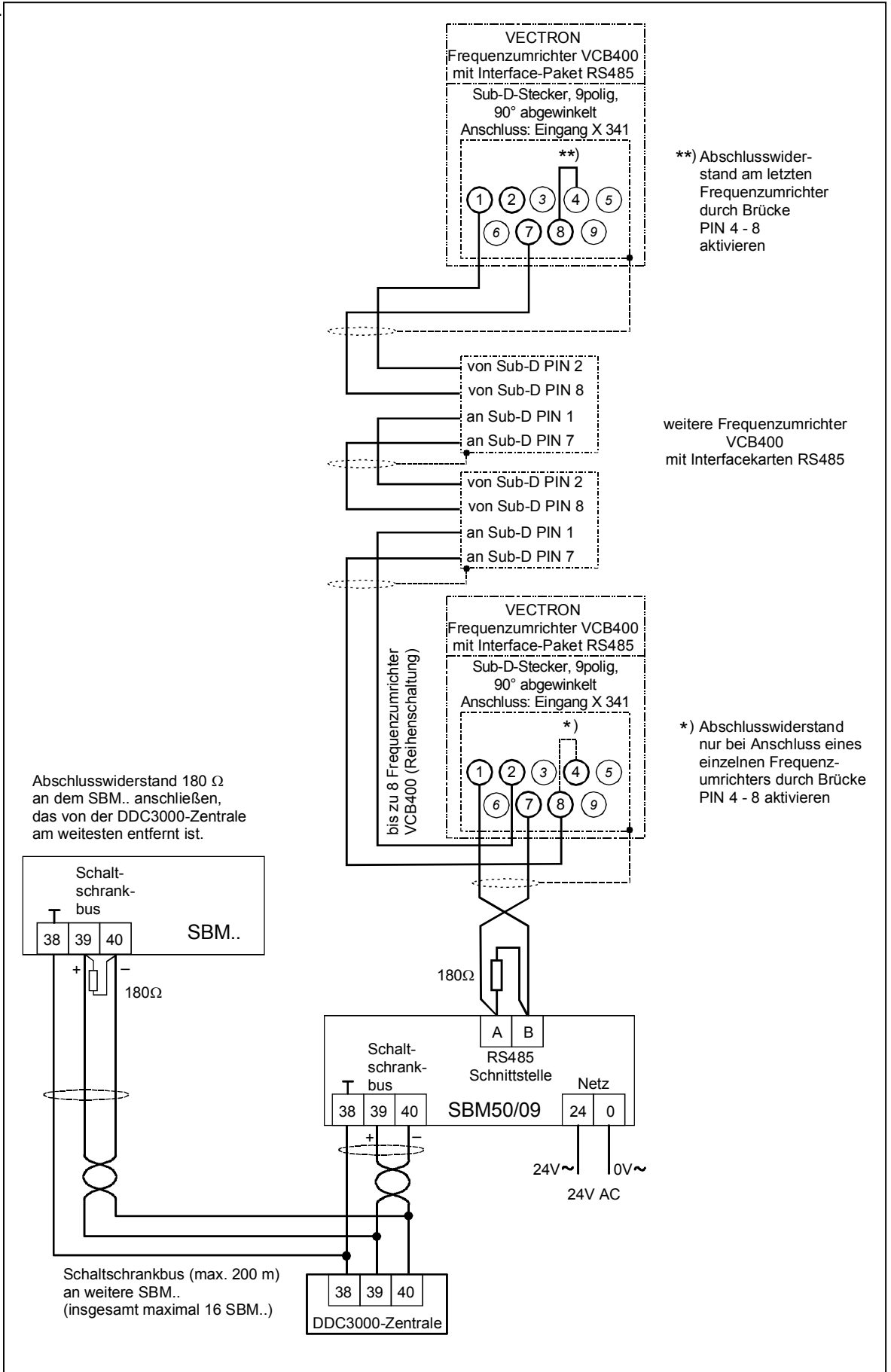
A number of frequency converters (a maximum of eight) are connected serially to the Control Cabinet Bus Modules SBM50/09.

At both ends of the VECTRON bus, a terminating resistor 180 Ω must be connected. An internal terminating resistor is already available in the frequency converter, which can be activated with a bridge in the Sub-D-plug (PIN 4 – 8). The terminating resistor 180 Ω is to be connected at the terminal A – B on the SBM50/09 (terminating resistor is available in the SBM50/09 as an accessory).

Device description

for frequency transformers VBC400 from VECTRON

Connection Fig.



Commissioning

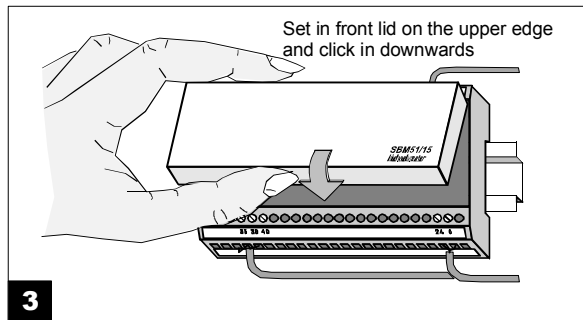
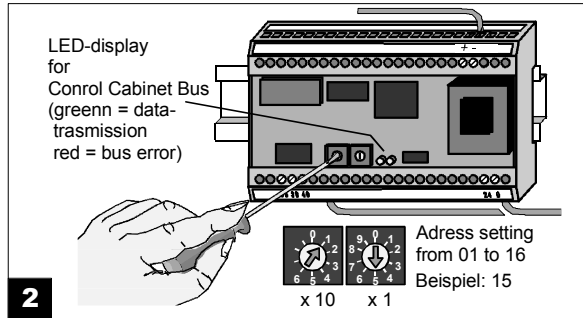
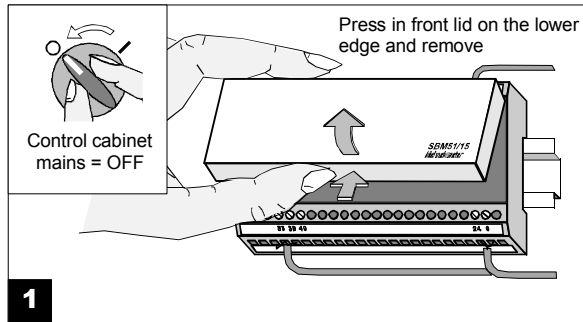


Danger

Commissioning as well as the connection to the mains voltage may only be carried out after DDC parameterization and the setting of the Control Cabinet Bus address by the commissioning technician/engineer.

- The DDC parameterization is described in the DDC3000plant configuration documentation.
- The setting of the Control Cabinet Bus address 01 to 16 is made with the two address switches under the front cover of the Control Cabinet Bus Module.

When setting the address, the control cabinet must be voltage-free!



- Before switching ON the SBM mains voltage 24 V AC, the electrical installation with the device connections should be tested.
- After switching ON the mains voltage, the transfer functions of the Control Cabinet Bus Modules should be tested.