The board needs an external 24 VDC power supply. Power consumption is 11W.

UART Communication Board YPK 113A

Code: 3AFE 61002774

The board is used as a general purpose UART communication board between the APC and external control devices including following protocols: SAMI protocol, Allen-Bradley DF1 and Siemens S3964/S3964R. It is connected to the APC by plugging the board connector X1 to connector X5 on the APC and is then fixed with three M3 screws. It does not need external power supply (except for current loop).

Connector X2 is a 9-pole D-connector and it is used for RS232. Connector X3 is a screw terminal connector and it is used for current loop (20 mA) connection.

Bit rate is selectable up to 19200 bit/s.

ModBus Communication Board YPK 117A

Code: 3AFE 61163280

The board is used for communication between the APC and external control devices supporting Modbus RTU protocol. It is connected to the APC by plugging the board connector X1 to connector X5 on APC and is then fixed with three M3 screws. It does not need external power supply (except for current loop).

Connector X2 is a 9-pole D-connector and it is used for RS232. Connector X3 is a screw terminal connector, and it is used for current loop (20 mA) connection.

The Modbus protocol is a master-slave protocol, which provides for one master and up to 247 slaves. Usually the number of slaves is between 1 to 16.

Only the master initiates a transaction. Transactions are either a query/response type or a broadcast/no response type (all slaves are addressed). A transaction comprises a single query and a single response message or a single broadcast message.

Usually RS485 or current loop hardware is used for connection between master and slave equipment. A separate RS232/RS485-converter is needed for channel 1 of the YPK 117A. The current loop is recommended only for point-to-point connection. In this case, channel 2 of the YPK 117A is used and the signal converter RS232/current loop is connected to the remote equipment.

Communication

Various communication boards are available to provide communication links between the APC and overriding control systems.

AF100

Advant Fieldbus 100 is a high-speed serial bus, which is used for communication between APCs or between an APC and an overriding system such as ABB's Advant Controller AC400-family. The bus administrator board CI626 (BA) is needed for controlling the bus when not using the Advant Controller AC450. The communication board YPK112A is used to connect the APC to the Advant Fieldbus 100.

UART Board YPK113A

The UART board, YPK113A, is used to communicate with other overriding systems. Protocols for Siemens Simatic S5 and Allen Bradley DH are available together with SAMI protocol.

Control Panel

The optional Control Panel offers a user-friendly means to communicate with the drive.

- Different languages defined by application program
- 2×20 character display
- Simple operation with 10 pushbuttons (membrane panel well suited to industrial environments)
- Common for AC and DC drives
- Door mounted

The Control Panel provides the following information and functions:

- Status information (run, ready, fault messages)
- Operational control with 4 freely programmable pushbuttons
- Display of reference values (speed, torque)
- Display of actual values (speed, voltage, current)
- Display of fault logger contents
- Uploading, downloading, changing, displaying and saving the Application Controller APC and Drive Controller DDC parameters.

