Variable speed drives
Altivar 312

PF102744

Application: packaging

PF13150129

Application: material handling

ATV 312H037M3

ATV 312HD15N4

Presentation

The Altivar 312 drive is a frequency inverter for 200…600 V three-phase asynchronous motors from 0.18 to 15 kW.
The Altivar 312 drive is robust, compact and easy to install. Its integrated functions are particularly suitable for the requirements of applications involving simple industrial machines.
By taking account of constraints on product setup and use right from the design stage, we are able to offer a reliable, cost-effective solution to manufacturers of simple machines and installers.
With its various communication cards that are available as options, the Altivar 312 drive integrates perfectly in the main control system architectures.

Examples of solutions provided:
- Numerous options for loading, editing and saving drive configurations using various tools, such as the SoMove setup software, the SoMove Mobile software for mobile phones, remote display terminals and the Simple Loader and Multi-Loader configuration tools.
- Adaptation to industrial communication buses and networks by simply replacing the drive control I/O card with one of the communication cards
- User interface identical to the Altivar 12 range of variable speed drives, making setup easy and enabling those using it to adapt quickly.

Applications

The Altivar 312 drive incorporates functions that are suitable for the most common applications, including:
- Material handling (small conveyors, hoists, etc.)
- Packing and packaging machines (small bagging machines, labelling machines, etc.)
- Special machines (mixers, kneaders, textile machines, etc.)
- Pumps, compressors, fans

Functions

The Altivar 312 drive has six logic inputs, three analog inputs, one logic/analog output and two relay outputs.
The main functions available are as follows:
- Motor and drive protection
- Linear, S, U or customized acceleration and deceleration ramps
- Local control of the speed reference using the navigation button
- +/- speed
- 16 preset speeds
- PI regulator and references
- 2-wire/3-wire control
- Brake sequence
- Automatic catching a spinning load with speed detection and automatic restart
- Fault configuration and stop type configuration
- Saving the configuration in the drive

Several functions can be assigned to one logic input.

An optimized offer

The Altivar 312 range of variable speed drives covers motor power ratings from 0.18 kW to 15 kW with four types of power supply:
- 200 V…240 V single-phase, 0.18 kW to 2.2 kW (**ATV 312H●●●M2**)
- 200 V…240 V three-phase, 0.18 kW to 15 kW (**ATV 312H●●●M3**)
- 380 V…500 V three-phase, 0.37 kW to 15 kW (**ATV 312H●●●N4**)
- 525 V…600 V three-phase, 0.75 kW to 15 kW (**ATV 312H●●●S6**)

Several drives can be mounted side by side to save space.
The Altivar 312 drive integrates the Modbus and CANopen communication protocols as standard. The protocols can be accessed via the RJ45 connector on the underside of the drive.
In addition to the Modbus and CANopen protocols that can be accessed as standard, the Altivar 312 drive can be connected to the main industrial communication buses and networks by replacing the drive's control I/O card with one of the communication cards that are available as options: CANopen Daisy chain, DeviceNet and PROFIBUS DP. The Modbus TCP network and the Fipio bus are also accessible via dedicated gateways.
See page 60428/2.

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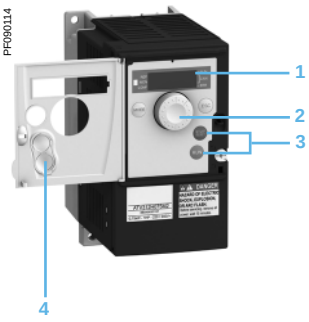

ATV 312H075M2
front panel door open

An optimized offer (continued)

The entire range complies with international standards IEC 61800-5-1, IEC 61800-2 and IEC 61800-3, and UL, CSA, C-Tick, NOM and GOST certifications. It has been developed to meet the requirements of environmental directives (RoHS) and those of the European Directives to obtain the CE mark.

EMC electromagnetic compatibility

The incorporation of EMC filters in **ATV 312H●●●M2** and **ATV 312H●●●N4** drives and compliance with EMC requirements simplify installation and provide a very economical means of ensuring devices meet the criteria to receive the CE mark.
This filter can be disconnected via a jumper or a moveable wire with tag.
The **ATV 312H●●●M3** and **ATV 312H●●●S6** drives are designed without an EMC filter.

Filters are available as an option and can be installed by the customer to reduce the emission levels of **ATV 312H●●●M2**, **ATV 312H●●●M3** and **ATV 312H●●●N4** drives.
See page 60426/2.

External accessories and options

External accessories and options can be used with Altivar 312 drives:
- UL Type 1 conformity kits, plates for direct mounting on 35 mm ⊐ rails, etc.
- Braking resistors, line chokes, additional EMC input filters, output filters, etc.

PF080657

Remote display terminal with cover closed

PF080659

Remote display terminal with cover open: RUN, FWD/REV and STOP/RESET keys accessible

Dialogue and configuration tools

Human-Machine interface

The 4-digit display 1 displays drive states, faults and parameter values.
The navigation button 2 is used to move around the menus, modify values and change the motor speed in local mode.
The RUN and STOP/RESET keys 3 are used to control motor starting and stopping in local mode. These two keys can be made accessible on the front panel by removing the cover 4 from the door.

HMI terminals

The Altivar 312 drive can be connected to a remote display terminal or a remote graphic display terminal, which are available as options.
The remote display terminal can be mounted on an enclosure door with IP 54 or IP 65 degree of protection. It provides access to the same functions as the Human-Machine interface.
The remote graphic display terminal, with its “full text” display in the user's language, provides a user-friendly interface for configuration, debugging or maintenance. See page 60423/2.

PF090116

Remote graphic display terminal

SoMove setup software

The SoMove setup software is used to configure, adjust and debug the Altivar 312 drive with the Oscilloscope function, and also for maintenance of this drive, like all other Schneider Electric drives and starters.
It can be used with a direct connection or a Bluetooth® wireless connection.
See page 60423/3.

SoMove Mobile software for mobile phones

The SoMove Mobile software is used to edit the drive parameters from a mobile phone via a Bluetooth® wireless connection.
It can also be used to save configurations. These configurations can be imported or exported from a PC via a Bluetooth® wireless connection.
See page 60423/3.

Simple Loader and Multi-Loader tools

The Simple Loader tool enables one powered-up drive's configuration to be duplicated on another powered-up drive.
The Multi-Loader tool enables configurations to be copied from a PC or a powered-up drive and duplicated on another powered-up drive.
See page 60423/3.

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Multi-Loader configuration tool

PF080628

Simple Loader configuration tool