

Industry

More than 150 integrated application-specific functions



Altivar 71

High-performance variable speed drive for three-phase synchronous and asynchronous motors
0.37 to 2000 kW - Power supply up to 690 V

Recommended for complex machines



Better communication

- Connectivity to any fieldbus
- Multi-language graphic display terminal

More flexible

- Extended range regardless of power to fulfil the requirements of each type of application
- Option cards: programmable I/O
- Controller Inside card: openness to a distributed architecture

More powerful

- Optimises automation solutions with its seamless integration into the architecture
- Suitable for a wide range of power ratings (0.37 to 2000 kW)
- Controls synchronous motors

More robust in the harshest of environments

- Rugged 3C2 version in accordance with standard IEC 721-3-3 (gas, liquids), IP20/IP54
- Water-cooled versions
- Available in dust and damp-proof wall-mounted or floor-standing enclosures (IP 54/IP 55)
- The range complies with ATEX safety standards (explosive atmospheres)

40%* energy savings for your industrial processes



Traversing crane



Wood-working machinery



Automotive welding



Paper production

Eco-friendly design:

- Optimises energy consumption according to the load applied to the machine
- Reduces noise pollution
- Avoids interference on the electrical supply: reduction of current harmonics (optional DC chokes, passive filters, Active Front End (AFE), etc.)
- Compliant with the ISO 14040 environmental standard
- Reduced need for air conditioning

* Depending on the application



Eco-friendly:

- Altivar 71 is RoHS-compliant.
- 90% of its materials are recyclable.

A complete, expandable product



- **More economical**

- A single product for enhanced performance
- Less wiring
- Protects your installations
- Reduces maintenance costs

- **More expandable**

- Adapts to your machines
- Optimised integration into your control system architecture
- Multidrop connection between graphic display terminal and several drives
- Remote 7-segment graphic display terminal

- **Safer thanks to multiple protection**

- of the motor:
 - thermal protection (PTC probes or integrated electronic thermal overload relay)
 - overvoltage protection
- of the machine:
 - Power Removal safety function
- of the drive:
 - self-protection in the event of overheating
 - hardware and software current limit
 - resistant to harsh operating environments
 - ATEX certification for controlling motors in explosive atmospheres

Modular design for greater versatility

A wide range of power ratings

- Single-phase 200 to 240 V: Altivar 71 (0.37 to 5.5 kW)
- Three-phase 200 to 240 V: Altivar 71 (0.37 to 75 kW)
- Three-phase 380 to 480 V: Altivar 71 (0.75 to 500 kW)
- Three-phase 500 to 690 V: Altivar 71 (2.2 to 630 kW)
- Three-phase 380 to 480 V: Altivar 71Q (water-cooled) (90 to 500 kW)
- Three-phase 500 to 690 V: Altivar 71Q (water-cooled) (110 to 630 kW)
- Three-phase 380 to 690 V: Altivar 71 Plus (90 to 2000 kW)

A wide selection of functions

- Integrated EMC filter: simplified compliance and installation
- Specific I/O for application functions
- Reduced harmonics
- The drive control section can be powered separately by a 24 V DC supply
- 3 types of control:
 - Automatic for greater autonomy and better performance
 - Semi-automatic to stay in control of the application at all times
 - Manual for easier setup and maintenance

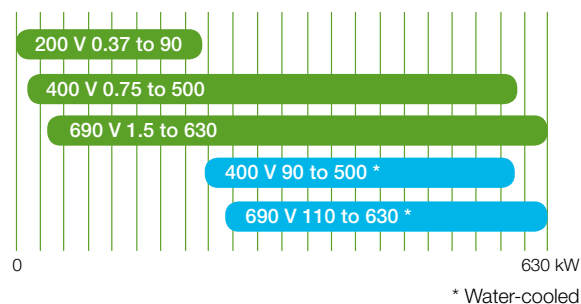
A wide choice of option cards

- I/O extension cards
- Encoder interface cards
- Communication cards
- Programmable controller cards

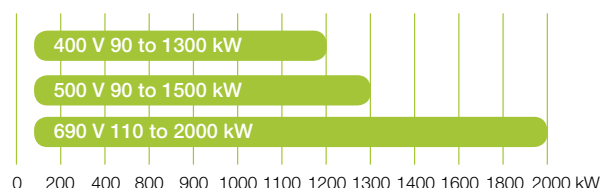
Altivar 71 - Single-phase



Altivar 71 - Three-phase



Altivar 71 Plus - Three-phase



> Option cards:

- Greater flexibility
- Improved adaptation to applications

> Altivar 71Q: increased ruggedness through water cooling

- Cooling system efficiency: 85 to 100% of heat loss is dissipated within the drive's water cooling system
- Reduced need for air conditioning
- Prolonged maintenance-free continuous operation
- Corrosion-free stainless steel water pipes
- Very high starting torque for frequent start-up applications

Advanced functions for an effective response to every type of application

Materials handling

- Reaction time on logic command:
2 ms \pm 0.5 ms
- Position control via limit switches with
time optimisation at low speed

Hoisting

- Processing of load measurement by
weight sensor
- High-speed hoisting
- Brake feedback management
- Network braking unit
- Active Front End

Wood-working machines

- Operation up to 1600 Hz
- Quick controlled stop in event of
power outage

Process machinery

- Dedicated PID process controller
- High reference resolution (1:32000)
- Speed or torque control
- Connection to the principal communication
networks
- Connection to common DC bus

Textile machines

- Speed accuracy assured by use of
synchronous motor, irrespective of load
- Up to 50 Hz of the bandwidth
- Spooling function

Packaging

- Control via integrated CANopen network



Materials handling



Process machinery



Hoisting



Textile machines



Wood-working machines



Packaging

User-friendly and communicative tools focused on your applications

Calling all designers, installers, distributors and after-sales technicians! Cut your installation and programming times as well as your costs with the common tools platform for Altivar and Lexium.

Design

- SoMachine programming software
 - Application project configuration management



Remote communication

- SoMove Mobile application for mobile phones

Setup

- SoMove setup software
 - Direct connection via USB - RJ45 cable
 - Common platform for Altivar & Lexium
 - Reduction of design and installation costs



Efficiency

- Configurations can be downloaded, edited and sent
- Drives can be adjusted and maintained
- Configuration files can be sent and received locally or remotely in a matter of seconds

Configuration

- Multi Loader
 - Storage and duplication of configurations
- Simple Loader
 - Duplication of configurations



Safety

- Remote monitoring and adjustment of the machine
- No more physical restrictions or safety constraints for accessing the machines thanks to the Bluetooth connection
- Backup of changes or reinstallation of saved configurations

Graphical user interface

- Multilingual remote graphic display terminal
 - Drive configuration, adjustment, diagnostics and maintenance
 - Storage of 4 configurations
 - Choice of 8 languages as standard and more than 20 others available for download



Simplicity

- Comfortable working position (access to equipment which is difficult to access manually)
- User-friendly dialogue functions with SoMove Mobile™
- Contextual navigation through the menus
- Sharing of configuration files via MMS or e-mail



More than 20 languages available

Altivar 71

Integrated and integrable protection



IP54 product solution

- 0.75 to 75 kW/380 V to 480 V
- Enclosed product
- EMC C1 or C2
- With or without Vario switch



Preassembled kit in IP54 enclosure

- 90 kW to 500 kW/380 V to 480 V
- Enclosure supplied in kit form
- Cost and time savings (certified IP54 and thermal tests)
- Simple assembly



Altivar 71 Plus IP23/IP54/IP55 ready-assembled enclosure

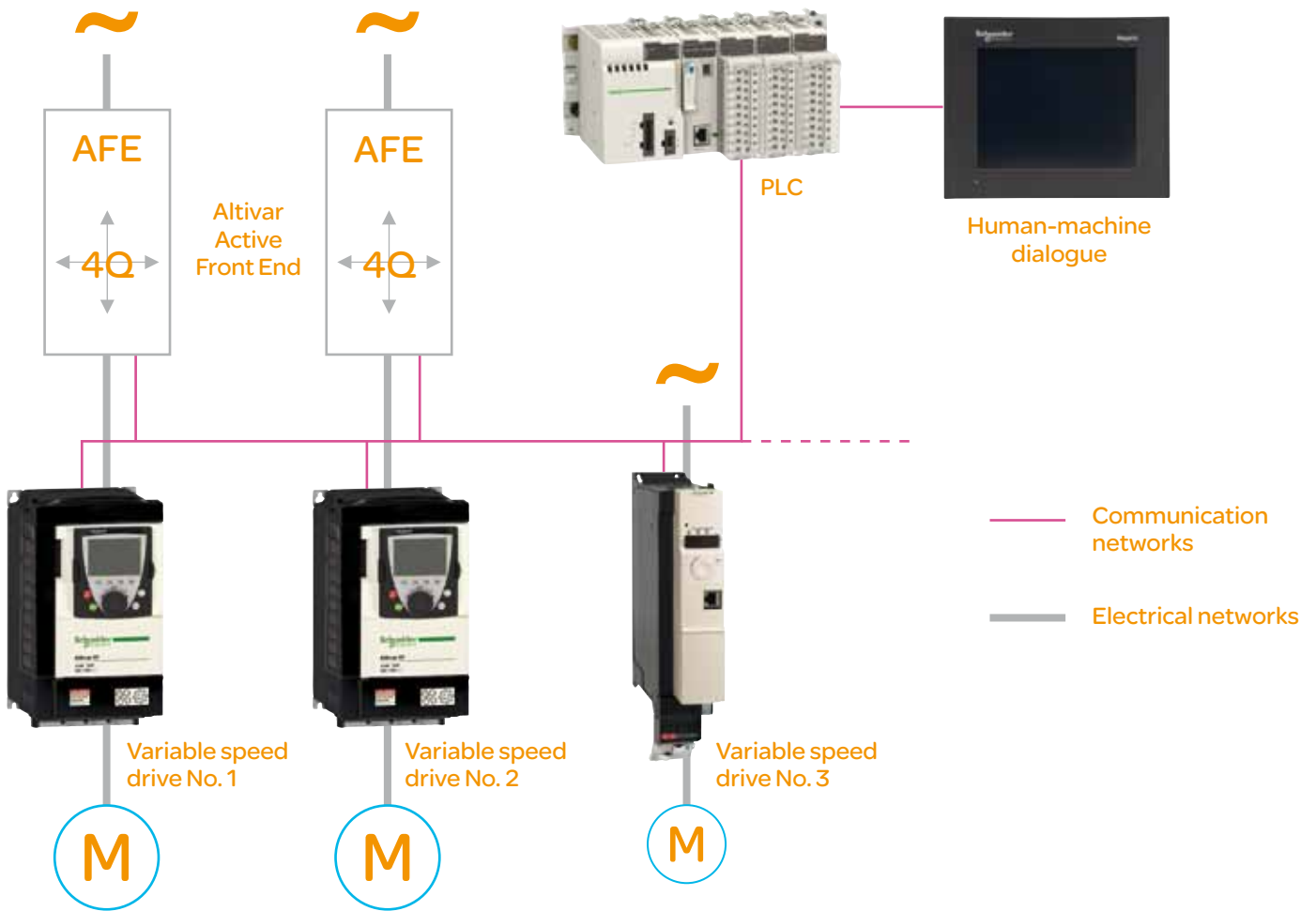
- 90 to 2000 kW/380 to 690 V
- Compact version with IP23 and IP54 protection
- Dust and damp-proof IP55 enclosure with water cooling
- Configurable on request
- Enclosure tested at full load



Altivar 71 Plus SA IP54 ready-assembled enclosure

- 90 to 2000 kW/380 to 690 V
- Separate air cooling system
- Unit supplied ready to connect
- High resistance in harsh environments

When technology helps save energy



More user-friendly and communicative

- Fast direct data exchanges with Modbus and CANopen as standard:
 - High-speed data exchange
 - Direct connection to industrial control systems

Improved dynamics and energy savings with Active Front End (AFE)

- Active Front End is an option which enables the drive to restore energy into the line supplies (4-quadrant mode)
- Altivar Active Front End even works with weak or unstable networks



Communication cards:

Modbus TCP Daisy Chain, PROFIBUS DP V0 and V1, DeviceNet, Modbus/Uni-Telway, Ethernet/IP, InterBus and CC-Link, for connection to the majority of the market's communication networks.

Quality is our watchword, throughout the world

The international presence of a major group,
with dedicated Service teams



Products compliant with international standards

- UL, cUL, CSA, CE, C-Tick, GOST
- ATEX (No. 94/9/EC zones 1, 21, 2, 22)
- Marine (DNV, ABS, BV, LRos, RMSos, KRS), Semi F47
- EMC (No. 2004/108/EC modification of directive No. 89/336/EEC)
- Etc. (see catalogue)

Sustainable development

Recognised for its commitment to sustainable development, Schneider Electric has been selected to take part in the five main benchmark global indexes:

- Dow Jones Sustainability STOXX Index
- Dow Jones Sustainability World Index
- ASPI Eurozone (Advanced Sustainable Performance Index)
- Ethibel Sustainability Index (ESI) Excellence Europe
- Ethibel Sustainability Index (ESI) Excellence Global

Make the most of your energy!



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