

# Altivar 212 variable speed drives

for 3-phase asynchronous motors from 0.75 to 75 kW

Catalogue

March **2011**







All technical information about products listed in this catalogue are now available on:

[www.schneider-electric.com](http://www.schneider-electric.com)

Browse the “product data sheet” to check out :

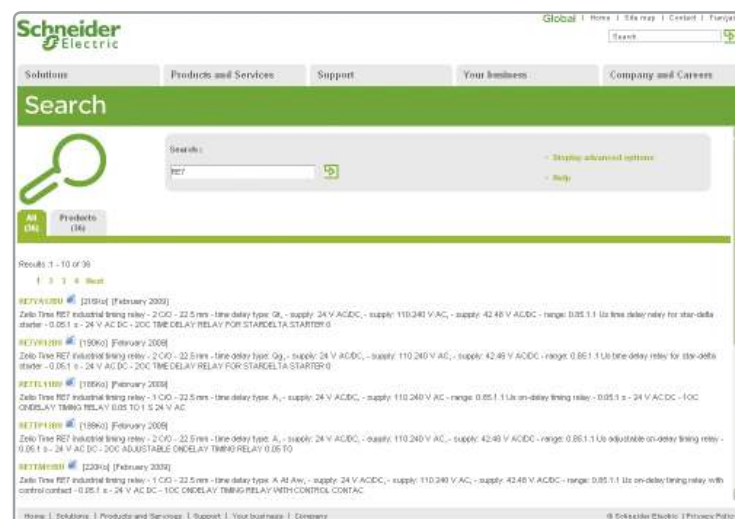
- characteristics,
- dimensions,
- curves, ...
- and also the links to the user guides and the CAD files.

**1** From the home page, type the model number\* into the “Search” box.



\* type the model number without any blank, replace “.” by “\*”

**2** Under “All” tab, click the model number that interests you.



### 3 The product data sheet displays.

Example : Zelio Time data sheet



#### Discover this product

- Characteristics
- Functions
- Connection
- Dimensions
- Download & Documents

#### Other products

- Help me to choose
- #### Accessories
- Plug
  - Sockets

Example : Zelio Time data sheet



Example : Zelio Time data sheet



✓ You can get this information in one single pdf file.



# The new generation of dedicated HVAC drives

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# Altivar 212

## Orientated towards performance, intelligence and building protection

Dedicated HVAC\* variable speed drive for pumps, fans and compressors.

For 0.75 to 75kW - 1 to 100 hp motors.

### Focused on Building Management Systems (BMS)

- Easy integration to building supervision network using embedded protocols.
- Instant detection of system failure: belt breakage, pump running dry, phase failure, etc.
- Preventive maintenance for reducing costs: fault alert, operating time, etc.
- Energy consumption monitoring.

### Focused on user-friendliness

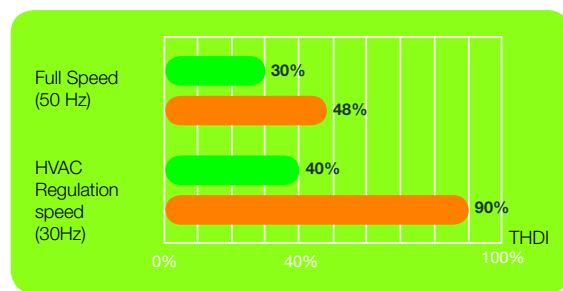
- Easy set-up, commissioning and diagnostics tools: remote graphic terminal (6 languages as standard), Multi-Loader, PC Software, Bluetooth capability and SoMove Mobile software.
- Compact size for better integration.

### Focused on cost savings

- Reduced investment costs (embedded functionalities).
- Quick return on investment (energy saving).

### Focused on protection & efficiency

- Continuity of service.
- Functions designed for buildings: fire mode, damper monitoring, mechanical protection, etc.
- Integrated EMC filter.
- Antiharmonic technology (THDI  $\approx$  30%).



— Altivar 212 antiharmonic technology  
— Drives with integrated DC choke



\*HVAC: Heating, Ventilation, Air Conditioning.

# A single product...

## Ventilation

### Air cooling unit



### Air Handling Unit



#### Comfort

- Reduce noise pollution (air flow, motor, etc.).

#### Security

- Detection of belt breakage.
- Smoke extraction: forced operation with fault inhibition.

#### Simplicity

- Automatic restart.
- Damper management.
- Preset speeds for a simple automatic control sequence.

## Heating and air conditioning

### Condensation unit



### Roof Top Unit: ventilation block



#### Performance

- Optimise control when processing fluids.
- Use of PID regulator (temperature, flow rate, pressure, etc.).

#### Cost savings

- Flow rates adjustment for better energy management.
- Energy saving mode.

#### Robustness

- Suppression of mechanical resonance.

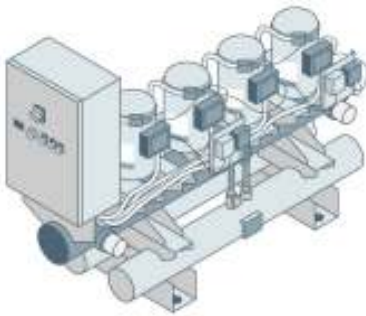
#### Building management system

- Connection to building supervision network.



# ... for all your ventilation, air conditioning and pumping applications.

## Pumping



### Security

- Detection of underload/overload, pump running dry.
- Multi-motor configuration.

### Cost savings

- Limitation of operating time at low speed.
- Sleep/Wake up function.
- Pressure surge suppression for prolonging the life of the installation.

### Simplicity

- Reference calibration and limitation.
- Preset speeds.
- Automatic compensation of the flow rate to precisely follow the system curve.



**THDI  $\approx$  30%**  
as standard





# More user-friendliness and integration

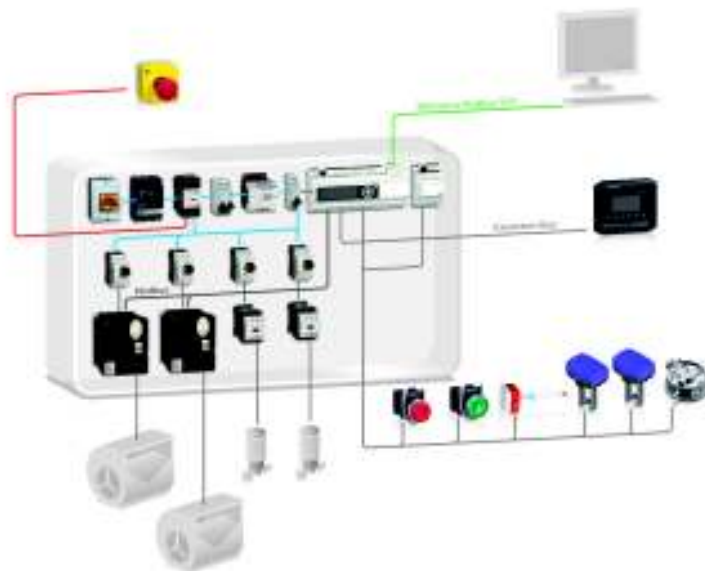
The Altivar 212 provides maximum ease of use and security for system integrators and end-users. Set-up, operation and maintenance are simplified with its user-friendliness and enhanced communication.



More dialogue using the communication tools.



The dual port enables a dialogue tool and a communication network to be connected at the same time.



The Altivar 212 easily integrates in your automation architectures with Modbus, BacNet, APOGEE FLN P1 and MetaSys N2 as standard and Lonworks available as option.

 **Plug & Play**

# Save up to 70% on your energy bill!

Whatever the fluid (air, water), the Altivar 212 makes your buildings more comfortable, easier to manage and, at the same time, saves energy.

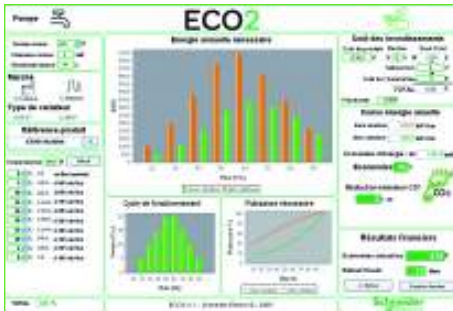


## Calculate your potential energy savings

Eco2 is a software utility designed to calculate the energy savings attainable by using a variable speed drive selected from the Altivar range.

In a few clicks, Eco2 enables you to establish:

- The selection of the appropriate Altivar drive in relation to the application data.
- A comparison of the energy consumption with or without a drive.
- The calculation of possible savings from a financial and electrical viewpoint, as well as the contribution to reduced CO<sub>2</sub> emissions.
- The calculation of the return on investment time.

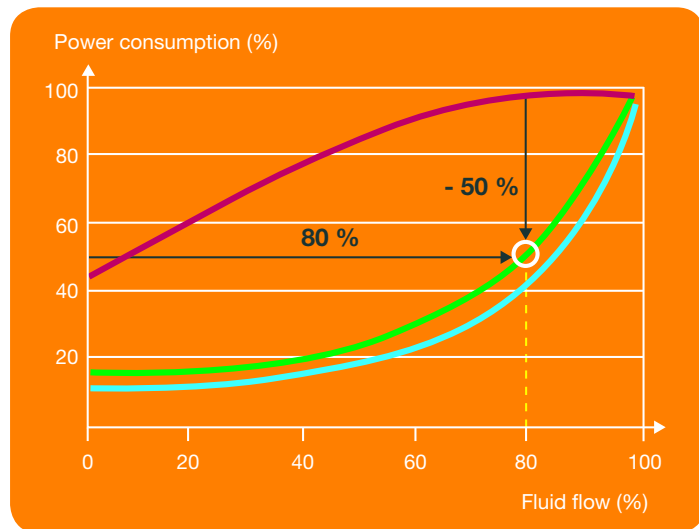


At 80% flow rate, the energy consumption drops 50%. Using the Altivar 212, energy consumption is reduced on average by 30% when using the control mode dedicated to pumps and fans.

Traditional control system

Altivar 212 energy savings quadratic torque ratio

Altivar 212 standard torque ratio



Illustrative curves only (not contractual)



**30%** average reduction in energy consumption by using the control mode dedicated to pumps and fans.