

Variable speed drives

**Altivar 31**

High performance

*instinctively!*



For 3-phase asynchronous motors from 0.18 to 15 kW

Welcome to the  
**Simply Smart\***  
world  
compliments of  
**Telemecanique...**

The Altivar 31  
opens the doors  
to this world by  
offering you:

- **Simplicity,**
- **Compactness,**
- **Open access,**
- **Flexibility.**

From machine  
design to  
machine  
maintenance, be  
guided by your  
*instinct...*



\*Simply Smart :  
more ingenuity and  
intelligence for continually  
improving ease of use

# Altivar 31

forget *frontiers*...

## A worldwide offer :

### Wide choice of voltage ranges

- Single-phase 200 to 240 V.
- 3-phase 200 to 240 V.
- 3-phase 380 to 500 V.
- 3-phase 525 to 600 V.

### Adherence to specifications

- Integrated EMC level A filter, conducted and radiated.
- With or without local controls on the drive.
- Positive and negative logic.
- DIN rail mounting.
- UL Type 1 kit.

0.18

15 kW

to

Variable speed drives for 3-phase asynchronous motors  
with or without local controls

Standards and certifications:  
EN 50178 - EN 61800-3  
EN 55011 - EN 55022 :  
class A, class B with option

SP LISTED 170M IND,CONT,EQ CE N998



# Enrich your *machines*...

*Benefit fully  
from the new  
functions of the  
Altivar 31...*

High performing  
and reliable, it  
naturally blends  
into your  
applications.  
Select a product  
that adapts to the  
running of your  
machines....



## Materials handling

- +/- Speed.
- Brake sequence.
- Motor switching.
- Limit switch management.
- Switching frequency up to 16 kHz.
- Current limitation.
- Linear ramps, S, U or customised.
- Second ramp.
- Ramp switching.

## Textile machines

- 16 preset speeds.
- Bi-polar +/-10V input reference.
- Traverse control
- PI regulator.

## Pumps, ventilation

- Regulator and preset PI, automatic/manual.
- Automatic restart.
- Stopping modes on fault.
- Limitation of operating time at low speed.
- Detection of current, torque, thermal state thresholds of drive and motor.

## Special machines

- Current limitation.
- Catch on the fly.
- Controlled stop on loss of line supply.
- Operation on line at -50%.

## Packaging / packing

- Brake sequence.
- Downstream contactor control.
- Accessible DC bus.

## ... plus many other possibilities:

- Protection of machine by locking parameters.
- Multi-assignment of logic inputs.
- Saving a set of parameters.
- Management of external faults.
- Display of parameters:  
current, power, torque, speed, frequency, etc.

With its **high performance** and numerous **functions**, the Altivar 31 still remains **simple**...



## Follow your *instincts*...

### Operational in the blink of an eye!

- «**Plug and drive**», the Altivar 31 takes control of your machine as soon as it is plugged in.
- **Autotuning**, it quickly adapts to the motor and provides dynamic performance in complete safety.
- **Efficient**, it meets all the requirements of your applications using a few simple parameters via the built-in display.

### The closest **possible** to your machines

- Local controls: potentiometer, start/stop buttons available on drive.
- Remote terminal for installation on drive or enclosure door:
  - parameters can be downloaded...



### Extended functions using PowerSuite\* software workshop:

- Preparation and saving of configuration files.
- In connected mode: configuration, adjustment, control, monitoring of drive or downloading of files.

\*Software which is common to the Altivar range of variable speed drives.  
Available in 5 languages (English, French, German, Italian, Spanish).



# Save space!

The Altivar 31 is unobtrusive... it **simplifies the design** and **installation** of your enclosures due to it being exceptionally **compact...**



## Reduced size

- with integrated EMC level A filters,
- with possibility of side by side mounting,

as well as providing a better solution to industrial environments, with operation up to 50°C without derating.



# Communicate two ways better than one!

The Altivar 31 has extensive adaptability: it **easily integrates** in automation systems due to **open access...**



Remote monitoring using PowerSuite

## Integrated Modbus and CANopen

- With these **two communication networks** available as standard, the Altivar 31 increases your connection possibilities for industrial automation systems.
- The operation and maintenance of installations is even more efficient since you benefit, in real time, of having precise information regarding your process.

Magelis display unit



Twido programmable controller



CANopen adaptor

**The inseparable...** Altivar 31 and Twido on CANopen: the ideal solution for machine manufacturers...

# Adapt the Altivar 31 to *your environment*

The Altivar 31  
takes into account  
the **characteristics  
of each machine...**  
the different  
variants available  
provide  
considerably  
increased  
***flexibility...***



... the **closest possible to the motor**

With versions available in an **IP55** enclosure, the Altivar 31 remains **reliable** and **accessible** in harsh environments.

## ■ Ready to use

Forget the costs and design time and, in particular, the risks of **non EMC conformity**. Its IP55 enclosure comprises a drive, a Vario switch disconnect with rotary knob, a potentiometer, a reversing switch and EMC cabling.

## ■ Customisable

Select your own motor starter solution. The drive is supplied on its own in an IP55 enclosure: according to your requirements, you can also integrate the various components that are necessary for your application (switch disconnect or circuit-breaker, switches, pilot lights, potentiometer, etc.).

... for **integration in your enclosure**

## ■ Drive kit

Customise your enclosure.  
This provides you with the drive  
part ready for integrating in your  
installation with other components.  
Mounting of the heatsink externally  
simplifies heat dissipation.





## Selection guide

### Altivar 31

#### Altivar 31 heatsink

Motor power  
kW/HP

Dimensions (mm)\*

Single-phase 200 to 240 V <sup>(1)</sup>		w	h	d
0.18/0.25	ATV 31H018M2	72	145	130
0.37/0.5	ATV 31H037M2	72	145	130
0.55/0.75	ATV 31H055M2	72	145	140
0.75/1	ATV 31H075M2	72	145	140
1.1/1.5	ATV 31HU11M2	105	143	150
1.5/2	ATV 31HU15M2	105	143	150
2.2/3	ATV 31HU22M2	140	184	150
3-phase 200 to 240 V <sup>(1)(2)</sup>		w	h	d
0.18/0.25	ATV 31H018M3X	72	145	120
0.37/0.5	ATV 31H037M3X	72	145	120
0.55/0.75	ATV 31H055M3X	72	145	130
0.75/1	ATV 31H075M3X	72	145	130
1.1/1.5	ATV 31HU11M3X	105	143	130
1.5/2	ATV 31HU15M3X	105	143	130
2.2/3	ATV 31HU22M3X	105	143	150
3/-	ATV 31HU30M3X	140	184	150
4/5	ATV 31HU40M3X	140	184	150
5.5/7.5	ATV 31HU55M3X	180	232	170
7.5/10	ATV 31HU75M3X	180	232	170
11/15	ATV 31HD11M3X	245	330	190
15/20	ATV 31HD15M3X	245	330	190

<sup>(1)</sup> Local controls on the drive, add the letter "A" at the end of the reference

<sup>(2)</sup> Without EMC filters

Motor power  
kW/HP

Dimensions (mm)\*

3-phase 380 to 500 V <sup>(1)</sup>		w	h	d
0.37/0.5	ATV 31H037N4	105	143	150
0.55/0.75	ATV 31H055N4	105	143	150
0.75/1	ATV 31H075N4	105	143	150
1.1/1.5	ATV 31HU11N4	105	143	150
1.5/2	ATV 31HU15N4	105	143	150
2.2/3	ATV 31HU22N4	140	184	150
3/-	ATV 31HU30N4	140	184	150
4/5	ATV 31HU40N4	140	184	150
5.5/7.5	ATV 31HU55N4	180	232	170
7.5/10	ATV 31HU75N4	180	232	170
11/15	ATV 31HD11N4	245	330	190
15/20	ATV 31HD15N4	245	330	190
3-phase 525 to 600 V <sup>(2)</sup>		w	h	d
0.75/1	ATV 31H075S6X	105	143	150
1.5/2	ATV 31HU15S6X	105	143	150
2.2/3	ATV 31HU22S6X	140	184	150
4/5	ATV 31HU40S6X	140	184	150
5.5/7.5	ATV 31HU55S6X	180	232	170
7.5/10	ATV 31HU75S6X	180	232	170
11/15	ATV 31HD11S6X	245	330	190
15/20	ATV 31HD15S6X	245	330	190

#### Altivar 31 in customisable enclosure

Motor power  
kW/HP

Dimensions (mm)\*

Single-phase 200 to 240 V		w	h	d
0.18/0.25	ATV 31C018M2	210	240	163
0.37/0.5	ATV 31C037M2	210	240	163
0.55/0.75	ATV 31C055M2	210	240	163
0.75/1	ATV 31C075M2	210	240	163
1.1/1.5	ATV 31CU11M2	215	297	192
1.5/2	ATV 31CU15M2	215	297	192
2.2/3	ATV 31CU22M2	230	340	208
3-phase 380 to 500 V		w	h	d
0.37/0.5	ATV 31C037N4	215	297	192
0.55/0.75	ATV 31C055N4	215	297	192
0.75/1	ATV 31C075N4	215	297	192
1.1/1.5	ATV 31CU11N4	215	297	192
1.5/2	ATV 31CU15N4	215	297	192
2.2/3	ATV 31CU22N4	230	340	208
3/-	ATV 31CU30N4	230	340	208
4/5	ATV 31CU40N4	230	340	208

#### Altivar 31 Drive kit

Motor power  
kW/HP

Dimensions (mm)\*

Single-phase 200 to 240 V		w	h	d
0.18/0.25	ATV 31K018M2	245	280	153
0.37/0.5	ATV 31K037M2	245	280	153
0.55/0.75	ATV 31K055M2	245	280	153
0.75/1	ATV 31K075M2	245	280	153
1.1/1.5	ATV 31KU11M2	250	337	186
1.5/2	ATV 31KU15M2	250	337	186
2.2/3	ATV 31KU22M2	265	380	209
3-phase 380 to 500 V		w	h	d
0.37/0.5	ATV 31K037N4	250	337	186
0.55/0.75	ATV 31K055N4	250	337	186
0.75/1	ATV 31K075N4	250	337	186
1.1/1.5	ATV 31KU11N4	250	337	186
1.5/2	ATV 31KU15N4	250	337	186
2.2/3	ATV 31KU22N4	265	380	209
3/-	ATV 31KU30N4	265	380	209
4/5	ATV 31KU40N4	265	380	209
5.5/7.5	ATV 31KU55N4	400	604	242,5
7.5/10	ATV 31KU75N4	400	604	242,5
11/15	ATV 31KD11N4	450	705	267
15/20	ATV 31KD15N4	450	705	267

#### Ready assembled Altivar 31 in enclosure, ready to use

Please contact your Schneider representative.

\* w: width / h: height / p: depth



# The efficiency of Telemecanique branded *solutions*

Used in combination, Telemecanique products provide quality solutions, meeting all your **Automation** and **Control** applications requirements.



## Simple machines

**Altistart 01:** 0,37 to 75 kW

**Altivar 11:** 0,18 to 2,2 kW

**Altivar 31:** 0,18 to 15 kW



## Complex, high power machines

**Altivar 71:** 0,37 to 500 kW



## Pumping and ventilation machines

**Altistart 48:** 4 to 1 200 kW

**Altivar 11...347:** 0,18 to 2,2 kW

**Altivar 21:** 0,75 to 30 kW

**Altivar 61:** 37 to 220 kW



## A worldwide presence

### Constantly available

- More than 5 000 points of sale in 130 countries.
- You can be sure to find the range of products that are right for you and which complies fully with the standards in the country where they are used.

### Technical assistance wherever you are

- Our technicians are at your disposal to assist you in finding the optimum solution for your particular needs.
- Schneider Electric provides you with all necessary technical assistance, throughout the world.



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*Simply Smart!*