

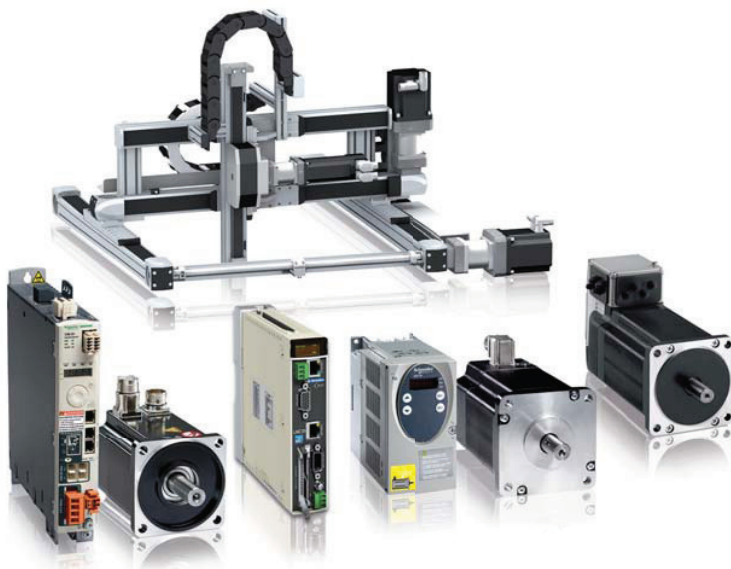
# Altistart and Altivar

Start your motors smoothly and protect your installation's mechanics using Altistart soft starters and Altivar variable speed drives.



# 4

Improve machine efficiency, reduce energy consumption and optimise dynamics with the Altistart, Altivar and Lexium ranges. Easy to install and offering intuitive programming and extensive communication options, they can be integrated seamlessly into your control system architectures.



## Lexium

Motion controllers, drives, motors and linear motion axes - Schneider Electric offers a complete range of motion products and solutions for your specific applications. All our motion products are designed for maximum ease over the entire machine lifecycle to reduce costs and make your machine processes even more productive.

# 4 | Motion control



## WARNING

This document is a selection of the top selling products.

## Soft starters and variable speed drives

<b>Selection guide</b> .....	4/3 and 4/7
<b>Starters</b>	
Altistart 01 .....	4/8 and 4/9
Altistart 22 .....	4/10 and 4/11
Altistart 48 .....	4/12 and 4/13
<b>Drives</b>	
Altivar 12 .....	4/14
Altivar 21 .....	4/15
Altivar 312 .....	4/16
Altivar 31C .....	4/17
Altivar 32 .....	4/18 and 4/19
Altivar 61 .....	4/20 to 4/27
Altivar 71 .....	4/28 to 4/36
<b>Dialogue and communication</b> .....	4/37 to 4/39

## Controllers, drives, motors and linear motion axes

<b>Selection Guide</b> .....	4/40 to 4/42
<b>Lexium Motion Controller</b> .....	4/43
<b>Lexium Servo Drives and Motors</b> .....	4/44 to 4/51
Lexium 32 servo drives	
Lexium BMH and Lexium BSH servo motors	
<b>Lexium Stepper Drives and Motors</b> .....	4/52
Lexium SD2/Lexium SD3 stepper drives	
Lexium BRS2/Lexium BRS3 stepper motors	
<b>Lexium Integrated Drives</b> .....	4/53 to 4/55
Lexium ILA/ILE/ILS/ILT/ILP	
<b>Lexium Linear Motion</b> .....	4/56 and 4/57
Lexium PAS/CAS/TAS/MAX	

# New products

## Altivar 32

So slim, So smart!



### More innovations

- > Slim shape product (45 mm wide)
- > Circuit-breaker connected directly to the product
- > Mounting can be vertical or on the side
- > Integrated safety functions
- > Integrated programmable logic functions
- > Built-in Bluetooth®: remote adjustment and parameter setting via mobile phone or PC
- > Configuration with the power off in its original packaging

### More openness

- > Application-oriented: predefined settings and combinations of functions
- > Modbus and CANopen integrated as standard
- > Access to the majority of industrial communication networks
- > Tools adapted to each stage in the product lifecycle

### More energy savings

- > New control profile for synchronous motors in speed control mode
- > Control profiles to optimise energy

## Altistart 22

Cut your costs with an integrated bypass function\*



### More innovative

### More economical

### Safer




- > Reduction in your operating costs
- > Simplified wiring
- > Protection of your electrical installation
- > Space savings with a fully equipped product

\* bypass = shunt

4

# Selection guide

## Starters - Low voltage

		Simple machines		Complex machines/ Special machines
		⇒Applications: Compressors, fans, pumps, conveyors, car wash gantries, etc.	⇒Applications: Pumps, fans, turbines, compressors, conveyors, conveyor belts, lifting screws, escalators, etc.	⇒Applications: Pumps, high inertia fans and machines, compressors, conveyors, agitators, mixers, escalators, etc.
		<b>Altistart 01</b>	<b>Altistart 22</b>	<b>Altistart 48</b>
				
		Soft start units and soft start/soft stop units	Soft start/soft stop units	Soft start/soft stop units
Description		<b>Compact</b> <b>Simple:</b> easy mounting, wiring and adjustment <b>Efficient:</b> limiting of current peaks on starting, reduction of mechanical shocks, increased service life for your machines. <b>Energy saving</b>	<b>Innovative with its integrated Bypass</b> <b>Cost-effective</b> <b>Compact dimensions</b> <b>Quick setup</b> <b>Protection of motor and starter</b> <b>Energy saving</b>	<b>Torque control system:</b> controlled torque, prevention of pressure surges and limiting of temperature rises <b>Simple:</b> quick setup <b>Protection of motor and starter:</b> thermal protection, phase loss detection, locked rotor detection <b>Energy saving</b>
Technical information	Power range for 50...60 Hz supply	0.37...15 kW	4... 400 kW	4...1200 kW
	Voltage	Single-phase 110...480 V Three-phase 110...480 V	Three-phase 208...600 V Three-phase 230...440 V	Three-phase 208...690 V
	Drive/Output frequency	–	–	–
	Motor type	Asynchronous Synchronous	Yes No	Yes No
Communication	Integrated	–	Modbus	Modbus
	As an option	Can be used with TeSys U motor starter-controller to create a complete motor starter solution	–	DeviceNet, Fipio, PROFIBUS DP
Standards and certifications		IEC/EN 60947-4-2, C-Tick, CSA, UL, CE	IEC/EN 60947-4-2, C-Tick, CSA, UL, CE, GOST, CCC Class A EMC	IEC/EN 60947-4-2, C-Tick, CSA, UL, CE, DNV, GOST, CCC, NOM, SEPRO and TCF Classes A and B EMC
Intended use		Building, simple machines.	Machines, infrastructures and buildings	

4

# Selection guide

## Standard drives - Low voltage

### Simple machines

#### ⇒ Applications:

- Simple machines for industry (small handling applications, packaging, pumps, fans, etc.)
- Simple consumer machines (access barriers, rotating advertising hoardings, medical beds, treadmills, dough mixers, etc.)
- Other types of application:
  - Mobile machines and small appliances equipped with a power socket
  - Applications which traditionally use other solutions (2-speed DC motors, mechanical drives, etc.).

#### ⇒ Applications:

Simple industrial machines (material handling and packaging, textile machines, special machines, pumps and fans).

#### ⇒ Applications:

Simple industrial machines (material handling and packaging, textile machines, special machines, pumps and fans).

#### Altivar 12



Variable speed drives for small machines with 240 V three-phase asynchronous motor

#### Altivar 312








Variable speed drives for three-phase asynchronous motors

#### Altivar 31C IP54



Variable speed drives for three-phase asynchronous motors for machines in harsh environments.

<b>Description</b>		<ul style="list-style-type: none"> <li>• <b>Compact</b></li> <li>• <b>Easy to set up</b> (Plug &amp; Play)</li> <li>• <b>Reliable, cost-effective solution</b> for compact machines</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Open:</b> large number of communication cards available as options</li> <li>• <b>User-friendly:</b> simplified interface</li> <li>• <b>Autotuning:</b> maximum performance</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Rugged</b> even in the most hostile environments:                             <ul style="list-style-type: none"> <li>- Installed as close as possible to the motor</li> <li>- Integrated functions for applications requiring IP54 degree of protection</li> <li>- Modbus and CANopen communication protocols</li> </ul> </li> <li>• <b>Flexibility</b> to adapt to each machine:                             <ul style="list-style-type: none"> <li>- Customisable depending on the model</li> <li>- Easy configuration</li> </ul> </li> </ul>
<b>Technical information</b>	Power range for 50...60 Hz supply	0.18...4 kW	0.18...15 kW	0.18...15 kW
	Voltage	Single-phase 100...240 V Three-phase 200...240 V	Single-phase 200...240 V Three-phase 200...600 V	Single-phase 200...240 V Three-phase 380...500 V
	Drive/Output frequency	0.5...400 Hz	0.5...500 Hz	0.5...500 Hz
	Motor type	Asynchronous Synchronous	Yes No	Yes No
<b>Communication</b>	Integrated	Modbus	Modbus and CANopen	Modbus and CANopen
	As an option	–	CANopen Daisy chain, DeviceNet, PROFIBUS DP, Modbus TCP, Fipio	DeviceNet, Ethernet TCP/IP, Fipio, Profibus DP
<b>Standards and certifications</b>		IEC/EN 61800-5-1, IEC/EN 61800-3 (environments 1 and 2, categories C1 to C3) CE, UL, CSA, C-Tick, GOST, NOM		IEC/EN 61800-5-1, IEC/EN 61800-3 (environments 1 and 2, categories C1 to C3) CE, UL, CSA, C-Tick, GOST
<b>Intended use</b>		Machines		

	Complex machines	Complex machines/ Special machines	HVAC	Pumps and Fans	Lifts
	⇒ <b>Applications:</b> Industrial machines: hoisting, packaging, material handling, textile machines, special machines (wood-working machines, metal processing machinery, etc.).	⇒ <b>Applications:</b> High performance applications: • Material handling • Hoisting • Wood-working machines • Process machinery • Textile machines • Packaging	⇒ <b>Applications:</b> Range specifically for HVAC applications (heating, ventilation, air conditioning) in buildings.	⇒ <b>Applications:</b> Range specifically for high performance pumps and fans for the industrial and building markets.	⇒ <b>Applications:</b> Lifts
	<b>Altivar 32</b>  Variable speed drives for asynchronous motors and open-loop synchronous motors	<b>Altivar 71</b>  For three-phase synchronous and asynchronous motors. Constant torque applications.	<b>Altivar 21</b>  Variable speed drives for three-phase asynchronous motors. Variable torque building HVAC applications.	<b>Altivar 61</b>  Variable speed drives for three-phase asynchronous motors. Variable torque applications.	<b>Altivar Lift</b>  Variable speed drives for lifts and hoists.
	<ul style="list-style-type: none"> <li>• <b>Compact:</b> "Book" format</li> <li>• <b>Integrated safety functions</b></li> <li>• <b>Open:</b> communication cards available as options</li> <li>• <b>Integrated programmable logic functions</b></li> <li>• <b>Simple</b> setup</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wide range</b></li> <li>• <b>Quick start-up</b> and easy diagnostics: multi-language graphic display terminal</li> <li>• <b>Open</b> to most industrial communication buses</li> <li>• <b>Integrated safety functions</b></li> <li>• <b>Motor control:</b> high-performance in open-loop and closed loop mode</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Compact size:</b> side-by-side mounting</li> <li>• <b>Simple:</b> "plug&amp;drive" function and "local remote" key</li> <li>• <b>Open communication:</b> communication cards specifically for building applications</li> <li>• <b>EMC filters</b> built-in</li> <li>• <b>Reduction of the total harmonic distortion</b> THDI&lt;30%</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wide range</b></li> <li>• <b>Easy setup and diagnostics</b> with the multi-language graphic display terminal</li> <li>• <b>Open</b> to the main communication buses</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Quick start-up</b> and easy diagnostics with the multi-language graphic display terminal</li> <li>• <b>Specifically designed for lift applications</b> for greater comfort and safety</li> <li>• <b>High-performance motor control</b> in open-loop and closed loop mode</li> </ul>
	0.18...15 kW	0.37...630 kW	0.75...75 kW	0.37...800 kW	4...22 kW
	Single-phase 200...240 V Three-phase 380...480 V	Single-phase 200...240 V Three-phase 200...690 V	Three-phase 200...480 V	Single-phase 200...240 V Three-phase 200...690 V	Single-phase 200...240 V Three-phase 200...480 V
	0.5...800 Hz	0.5...1600 Hz up to 37 kW 0.5...500 Hz from 45...630 kW	0.5...200 Hz	0.5...1600 Hz up to 37 kW 0.5...500 Hz from 45...800 kW	0.5...1600 Hz
	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	No	Yes	No
	Modbus and CANopen	Modbus and CANopen	Modbus	Modbus and CANopen	Modbus and CANopen
	EtherNet/IP, Modbus TCP, PROFIBUS DP V1, PROFIBUS DP V0, DeviceNet	Modbus TCP, Fipio, Modbus/Uni-Telway, Modbus Plus, EtherNet/IP, DeviceNet, PROFIBUS DP, PROFIBUS DP V1, INTERBUS S, CC-Link,	Lonworks, METASYS N2, APOGEE FLN, BACnet	Modbus TCP, Fipio, Modbus/Uni-Telway, Modbus Plus, EtherNet/IP, DeviceNet, PROFIBUS DP, PROFIBUS DP V1, INTERBUS S, CC-Link, Lonworks, METASYS N2, APOGEE FLN, BACnet	Modbus TCP, Fipio, Modbus/Uni-Telway, Modbus Plus, EtherNet/IP, DeviceNet, PROFIBUS DP, PROFIBUS DP V1, INTERBUS S, CC-Link
	IEC/EN 61800-5-1, IEC/EN 61800-3 (environments 1 and 2, Categories C2 and C3), UL508C, EN 954-1 Category 3, ISO/EN 13849-1/-2 Category 3 (PLd), IEC 61800-5-2, IEC 61508 (parts 1&2) level SIL1 SIL2 SIL3, draft standard EN 50495E, CE, UL, CSA, C-Tick, GOST, NOM.	IEC/EN 61800-3, EN 55011, EN 55022, CSA, UL, C-TICK, CE, NOM, DNV, GOST	IEC/EN 61800-3, EN 55011, EN 55022, CSA, UL, C-TICK, CE, NOM	IEC/EN 61800-3, EN 55011, EN 55022, CSA, UL, C-TICK, CE, NOM, DNV, GOST	IEC/EN 61800-3, EN55011, EN 55022, CSA, UL, C-TICK, CE, NOM
	Machines	Machines, industrial processes and infrastructures	Buildings	Buildings and infrastructures	Machines

# Selection guide

## Integrated variable speed control solutions

### Pumps and Fans Low voltage

⇒ *Applications:*

- Fans
- Pumps
- Compressors
- Screw feeders

### Pumps and Fans High voltage

⇒ *Applications:*

- Energy: fans, pumps, turbine starters
- Oil and gas: pumps, compressors, aerators, extruders
- Mines and Minerals: conveyors, crushers, fans, pumps
- Water treatment: pumps, aerators.

### Altivar 61 Plus



High power low voltage variable speed drives for buildings and infrastructures.

#### Variable torque

### Altivar 1100



Medium power variable speed drives for asynchronous motors (request quotation)

<b>Description</b>		<p>A <b>simple, open</b> range:</p> <ul style="list-style-type: none"> <li>• Greater flexibility: numerous possible options and communication on most industrial networks</li> <li>• Easy configuration</li> <li>• Ready to use</li> </ul> <p><b>Maximum safety:</b> the <b>Altivar Plus</b> range has a cooling system and components that have been tested in extreme conditions.</p> <p><b>Time savings</b> on:</p> <ul style="list-style-type: none"> <li>• Devising quotes</li> <li>• Placing orders</li> <li>• Installation and start-up</li> </ul>	<p><b>Environmentally-friendly and Cost-effective:</b></p> <ul style="list-style-type: none"> <li>• Perfect integration in the line supply</li> <li>• No disturbance of the motor and the driven load</li> <li>• High efficiency</li> </ul> <p><b>Easy to install and set up</b></p> <p><b>Compact</b></p>	
<b>Technical information</b>	Power range for 50...60 Hz supply	90...2400 kW	0.3...10 MW	
	Voltage	Three-phase 380...690 V	3.3 kV 6.6 kV 10 kV	
	Drive/Output frequency	0.5...500 Hz	Standard: 0.2...60 Hz Option: 0.2...120 Hz	
	Number of quadrants	2 and 4	2 and 4 (optional)	
	Cooling system	Air or water cooled	Air or water cooled	
	Protection class	IP23/IP54 IP55 (water cooled)	IP31 IP41 (optional)	
	Motor type	Asynchronous Synchronous	Yes Yes	Yes No
	<b>Communication</b>	Integrated	Modbus and CANopen	Profibus, Modbus
	As an option	Modbus TCP, Fipio, Modbus/Uni-Telway, Modbus Plus, EtherNet/IP, DeviceNet, PROFIBUS DP, PROFIBUS DP V1, INTERBUS S, CC-Link, Lonworks, METASYS N2, APOGEE FLN, BACnet	Ethernet, Devicenet, CANopen	
<b>Standards and certifications</b>		IEC/EN 61800-5-1, IEC/EN 61800-3 (environments 1 and 2), IEC/EN 61000-4-2, -4-3, -4-5, -4-6 (level 3), IEC/EN 61000-4-4 (level 4), IEC/EN 60529, IEC 60721-3-3 class 3C2 and 3S2, CE, DNV, GOST	IEC/EN 61800-5-1, IEC/EN 61800-4, IEC/EN 61800-3 (environments 1 and 2, categories C1 to C3), IEEE 519	
<b>Intended use</b>		Buildings and infrastructures	Infrastructures	

Complex machines/Special machines Low voltage	Complex machines/Special machines Medium voltage
<p>⇒ <i>Applications:</i></p> <ul style="list-style-type: none"> <li>• Fans</li> <li>• Pumps</li> <li>• Compressors</li> <li>• Screw feeders</li> </ul>	<p>⇒ <i>Applications:</i></p> <ul style="list-style-type: none"> <li>• Energy: fans, pumps, turbine starters</li> <li>• Oil and gas: pumps, compressors, aerators, extruders</li> <li>• Mines and Minerals: conveyors, crushers, fans, pumps</li> <li>• Water treatment: pumps, aerators.</li> </ul>
<p><b>Altivar 71 Plus</b></p>  <p>High power low voltage variable speed drives for industry. <b>Constant torque</b></p>	<p><b>Altivar 1000</b></p>  <p>Medium power variable speed drives for asynchronous motors (request quotation)</p>
<p><b>A simple, open range:</b></p> <ul style="list-style-type: none"> <li>• Greater flexibility: numerous possible options and communication on most industrial networks</li> <li>• Easy configuration</li> <li>• Ready to use</li> </ul> <p><b>Maximum safety:</b> the <b>Altivar Plus</b> range has a cooling system and components that have been tested in extreme conditions.</p> <p><b>Time savings on:</b></p> <ul style="list-style-type: none"> <li>• Devising quotes</li> <li>• Placing orders</li> <li>• Installation and start-up</li> </ul>	<p><b>High efficiency</b></p> <p>For use in <b>harsh environments</b></p> <p><b>Open</b> to all communication networks</p>
90...2400 kW	0.5...10 MW
Three-phase 380...690 V	2.4 kV 3.3 kV
0.5...500 Hz	Standard: 5...670 Hz Option: 5...140 Hz
2 and 4	2 and 4
Air or water cooled	Air or water cooled
IP23/IP54 IP55 (water cooled)	IP41 (air cooled) IP54 (water cooled)
Yes	Yes
Yes	No
Modbus and CANopen	Ethernet, Profibus, Modbus
Modbus TCP, Fipio, Modbus/Uni-Telway, Modbus Plus, EtherNet/IP, DeviceNet, PROFIBUS DP, PROFIBUS DP V1, INTERBUS S, CC-Link	Devicenet, CANopen
IEC/EN 61800-5-1, IEC/EN 61800-3 (environments 1 and 2), IEC/EN 61000-4-2, -4-3, -4-5, -4-6 (level 3), IEC/EN 61000-4-4 (level 4), IEC/EN 60529, IEC 60721-3-3 class 3C2 and 3S2, CE, DNV and GOST	IEC/EN 61800-5-1, IEC/EN 61800-4, IEC/EN 61800-3 (environments 1 and 2, categories C1 to C3), CE
Machines, industrial processes and infrastructures	Machines, industrial processes and infrastructures



## Starters with TeSys model U

Dimensions (in mm)		width x height x depth
ATSU01	N206LT/N209LT/N212LT	45 x 124 x 130.7
	N222LT/N232LT	45 x 154 x 130.7



Type					Soft stop units				
Motor power					0.75 to 15 kW				
Degree of protection					IP20				
Reduction of current peaks					Yes				
Adjustable starting and stopping times					1...10 s				
Adjustable breakaway torque					30... 80% of DOL motor starting torque				
Logic inputs					3 logic inputs (start, stop and startup boost)				
Logic outputs					1 logic output				
Relay outputs					1 relay output				
Control supply voltage					24 VDC, 100 mA, ± 10%				
References					Soft start/soft stop units		TeSys starter-controller model U		Power connector
							Power base		Control unit (1)
									between ATSU and TeSys model U
Supply voltage					Three-phase 200...480 V				
Motor power									
230 V		400 V		460 V		Nominal current (IcL)			
kW	HP	kW	HP						
0.75	1	1.5	2	6 A		ATSU01N206LT	LUB12	LUC●05BL	VW3G4104
1.1	1.5	2.2/3	3	6 A		ATSU01N206LT	LUB12	LUC●12BL	
1.5	2	–	6	9 A		ATSU01N209LT	LUB12	LUC●12BL	VW3G4104
–	–	4	–	9 A		ATSU01N209LT	LUB12	LUC●12BL	
2.2	3	5.5	7.5	12 A		ATSU01N212LT	LUB12	LUC●12BL	VW3G4104
3	–	–	–	12 A		ATSU01N212LT	LUB32	LUC●18BL	
4	5	7.5	10	22 A		ATSU01N222LT	LUB32	LUC●18BL	VW3G4104
5.5	7.5	11	15	22 A		ATSU01N222LT	LUB32	LUC●32BL	
7.5	10	15	20	32 A		ATSU01N232LT	LUB32	LUC●32BL	VW3G4104

(1) To compose your reference, replace ● in the reference with: «A» for a standard control unit, «M» for a multifunction unit and «B» for an advanced unit.

# Altistart 22

4...400 kW

## Simple machines Soft start/soft stop units



Dimensions (en mm)	width x height x depth
Size A:	130 x 265 x 169
Size B:	145 x 295 x 207
Size C:	150 x 356 x 229
Size D:	206 x 425 x 299
Size E:	304 x 455 x 340

Supply voltage		Three-phase 208...600 V (1)	Three-phase 230...440 V
Protection	Degree of protection	IP20: for ATS 22D17●●●D88 starters IP00: for ATS 22C11●●●C59 starters (protection of terminals available as an option)	
	Motor thermal protection	Class 10, 20 or 30	
Drive	Number of controlled phases	3	
	Types of control	Configurable voltage ramp, torque ramp	
	Operating cycle	Standard	
Functions		Bypass (integrated)	
Number of I/O	Analog inputs	1 PTC probe	
	Logic inputs	3	
	Logic outputs	-	
	Analog outputs	-	
	Relay outputs	2	
Dialogue		Integrated display terminal, SoMove Lite setup software	
Communication	Integrated	Modbus	
Standards and certifications		IEC/EN 60947-4-2, class A EMC, CE, UL, CSA, C-Tick, GOST, CCC	
Motor connection		Possible to connect the starter in the motor delta connection	

(1) Possible to connect the starter in the motor delta connection

4

Connection in the motor power supply line				Soft start/soft stop unit 230...440 V - 50/60 Hz	
Motor					
Power indicated on rating plate					
230 V kW	400 V kW	440 V kW	Nominal current starter (IcL)	Reference	Size
4	7.5	7.5	17	ATS 22D17Q	Size A
7.5	15	15	32	ATS 22D3Q	Size A
11	22	22	47	ATS 22D47Q	Size A
15	30	30	62	ATS 22D62Q	Size B
18.5	37	37	75	ATS 22D75Q	Size B
22	45	45	88	ATS 22D88Q	Size B
30	55	55	110	ATS 22C11Q	Size C
37	75	75	140	ATS 22C14Q	Size C
45	90	90	170	ATS 22C17Q	Size C
55	110	110	210	ATS 22C21Q	Size D
75	132	132	250	ATS 22C25Q	Size D
90	160	160	320	ATS 22C32Q	Size D
110	220	220	410	ATS 22C41Q	Size E
132	250	250	480	ATS 22C48Q	Size E
160	315	355	590	ATS 22C59Q	Size E

Connection in the motor power supply line					Soft start/soft stop unit 230...440 V - 50/60 Hz	
Motor						
Power indicated on rating plate						
230 V kW	400 V kW	440 V kW	500 V kW	Nominal current starter (IcL)	Reference	Size
4	7.5	7.5	9	17	ATS 22D17S6	Size A
7.5	15	15	18.5	32	ATS 22D32S6	Size A
11	22	22	30	47	ATS 22D47S6	Size A
15	30	30	37	62	ATS 22D62S6	Size B
18.5	37	37	45	75	ATS 22D75S6	Size B
22	45	45	55	88	ATS 22D88S6	Size B
30	55	55	75	110	ATS 22C11S6	Size C
37	75	75	90	140	ATS 22C14S6	Size C
45	90	90	110	170	ATS 22C17S6	Size C
55	110	110	132	210	ATS 22C21S6	Size D
75	132	132	160	250	ATS 22C25S6	Size D
90	160	160	220	320	ATS 22C32S6	Size D
110	220	220	250	410	ATS 22C41S6	Size E
132	250	250	315	480	ATS 22C48S6	Size E
160	315	355	400	590	ATS 22C59S6	Size E

The Altistart 22 soft start/soft stop unit is also available with a 110 VDC control power supply, reference ATS 22...S6U

Dimensions (in mm)	width x height x depth
ATS48 D17Q to D47Q	<b>Size A:</b> 160 x 275 x 190
D62Q to C11Q	<b>Size B:</b> 190 x 290 x 235
C14Q to C17Q	<b>Size C:</b> 200 x 340 x 265
C21Q to C32Q	<b>Size D:</b> 320 x 380 x 265
C41Q to C66Q	<b>Size E:</b> 400 x 670 x 300
C79Q to M12Q	<b>Size F:</b> 770 x 890 x 315



4

Supply voltage			Three-phase 230...415 V (1)			
Type of application			Standard		Severe (2)	
Starter control supply voltage			220...415 V			
Protection	Degree of protection		IP20: ATS48D17● to ATS48C11● starters IP00: ATS48C14● to ATS48M12● starters			
	Motor thermal protection		Class 10		Class 20 and 30	
EMC	Class A		On all starters			
	Class B		On all starters up to 170 A			
Starting mode			Torque control (patented TCS: Torque Control System)			
I/O	Analog inputs		1 PTC probe			
	Logic inputs		4 logic inputs, 2 of which are configurable			
	Logic outputs		2 configurable logic outputs			
	Analog outputs		1 analog output			
	Relay outputs		3 relay outputs, 2 of which are configurable			
Dialogue			Integrated or remote display terminal (in option), PowerSuite software workshop			
Communication	Integrated		Modbus			
	As an option		DeviceNet, Ethernet TCP/IP, Fipio, Profibus DP			
Motor power						
230 V	400 V	Nominal current				
kW	kW	(IcL)				
3	5.5	12 A	–		ATS48D17Q	Size A
4	7.5	17 A	ATS48D17Q	Size A	ATS48D22Q	Size A
5.5	11	22 A	ATS48D22Q	Size A	ATS48D32Q	Size A
7.5	15	32 A	ATS48D32Q	Size A	ATS48D38Q	Size A
9	18.5	38 A	ATS48D38Q	Size A	ATS48D47Q	Size A
11	22	47 A	ATS48D47Q	Size A	ATS48D62Q	Size B
15	30	62 A	ATS48D62Q	Size B	ATS48D75Q	Size B
18.5	37	75 A	ATS48D75Q	Size B	ATS48D88Q	Size B
22	45	88 A	ATS48D88Q	Size B	ATS48C11Q	Size B
30	55	110 A	ATS48C11Q	Size B	ATS48C14Q	Size C
37	75	140 A	ATS48C14Q	Size C	ATS48C17Q	Size C
45	90	170 A	ATS48C17Q	Size C	ATS48C21Q	Size D
55	110	210 A	ATS48C21Q	Size D	ATS48C25Q	Size D
75	132	250 A	ATS48C25Q	Size D	ATS48C32Q	Size D
90	160	320 A	ATS48C32Q	Size D	ATS48C41Q	Size E
110	220	410 A	ATS48C41Q	Size E	ATS48C48Q	Size E
132	250	480 A	ATS48C48Q	Size E	ATS48C59Q	Size E
160	315	590 A	ATS48C59Q	Size E	ATS48C66Q	Size E
–	355	660 A	ATS48C66Q	Size E	ATS48C79Q	Size F
220	400	790 A	ATS48C79Q	Size F	ATS48M10Q	Size F
250	500	1000 A	ATS48M10Q	Size F	ATS48M12Q	Size F
355	630	1200 A	ATS48M12Q	Size F	–	

(1) Possible to connect the starter in the motor delta connection

(2) Starting time greater than 30 seconds (fans, high inertia machines and compressors)

## Soft start/soft stop units

Dimensions (in mm)	width x height x depth
ATS48 D17Y to D47Y	<b>Size A:</b> 160 x 275 x 190
D62Y to C11Y	<b>Size B:</b> 190 x 290 x 235
C14Y to C17Y	<b>Size C:</b> 200 x 340 x 265
C21Y to C32Y	<b>Size D:</b> 320 x 380 x 265
C41Y to C66Y	<b>Size E:</b> 400 x 670 x 300
C79Y to M12Y	<b>Size F:</b> 770 x 890 x 315



Supply voltage												Three-phase 208...690 V (1)				
Type of application												Standard		Severe (2)		
Starter control supply voltage												110...230 V				
Characteristics												Identical to 230...415 V starters				
Motor power												Nominal current (IcL)				
208 V	230 V	460 V	575 V	230 V	400 V	440 V	500 V	525 V	660 V	690 V						
HP												kW				
2	3	7.5	10	3	5.5	5.5	7.5	7.5	9	11	12 A	–	ATS48D17Y	Size A	ATS48D17Y	Size A
3	5	10	15	4	7.5	7.5	9	9	11	15	17 A	ATS48D17Y	Size A	ATS48D22Y	Size A	
5	7.5	15	20	5.5	11	11	11	11	15	18.5	22 A	ATS48D22Y	Size A	ATS48D32Y	Size A	
7.5	10	20	25	7.5	15	15	18.5	18.5	22	22	32 A	ATS48D32Y	Size A	ATS48D38Y	Size A	
10	–	25	30	9	18.5	18.5	22	22	30	30	38 A	ATS48D38Y	Size A	ATS48D47Y	Size A	
–	15	30	40	11	22	22	30	30	37	37	47 A	ATS48D47Y	Size A	ATS48D62Y	Size B	
15	20	40	50	15	30	30	37	37	45	45	62 A	ATS48D62Y	Size B	ATS48D75Y	Size B	
20	25	50	60	18.5	37	37	45	45	55	55	75 A	ATS48D75Y	Size B	ATS48D88Y	Size B	
25	30	60	75	22	45	45	55	55	75	75	88 A	ATS48D88Y	Size B	ATS48C11Y	Size B	
30	40	75	100	30	55	55	75	75	90	90	110 A	ATS48C11Y	Size B	ATS48C14Y	Size C	
40	50	100	125	37	75	75	90	90	110	110	140 A	ATS48C14Y	Size C	ATS48C17Y	Size C	
50	60	125	150	45	90	90	110	110	132	160	170 A	ATS48C17Y	Size C	ATS48C21Y	Size D	
60	75	150	200	55	110	110	132	132	160	200	210 A	ATS48C21Y	Size D	ATS48C25Y	Size D	
75	100	200	250	75	132	132	160	160	220	250	250 A	ATS48C25Y	Size D	ATS48C32Y	Size D	
100	125	250	300	90	160	160	220	220	250	315	320 A	ATS48C32Y	Size D	ATS48C41Y	Size E	
125	150	300	350	110	220	220	250	250	355	400	410 A	ATS48C41Y	Size E	ATS48C48Y	Size E	
150	–	350	400	132	250	250	315	315	400	500	480 A	ATS48C48Y	Size E	ATS48C59Y	Size E	
–	200	400	500	160	315	355	400	400	560	560	590 A	ATS48C59Y	Size E	ATS48C66Y	Size E	
200	250	500	600	–	355	400	–	–	630	630	660 A	ATS48C66Y	Size E	ATS48C79Y	Size F	
250	300	600	800	220	400	500	500	500	710	710	790 A	ATS48C79Y	Size F	ATS48M10Y	Size F	
350	350	800	1000	250	500	630	630	630	900	900	1000 A	ATS48M10Y	Size F	ATS48M12Y	Size F	
400	455	1000	1200	355	630	710	800	800	–	–	1200 A	ATS48M12Y	Size F	–	–	–

(1) Starter connection in the motor delta connection: up to 500 V only, add "S316" at the end of the reference

4

## Accessories and options available

Type of accessory	
Description	Remote display terminal DNV kit Line choke
Reference	Please refer to the Schneider Electric catalogue

# Altivar 12

0.18...4 kW

## Simple machines Ultra-compact drives



Dimensions (in mm)		width x height x depth
1C1: 72 x 143 x 102.2	2F3: 105 x 143 x 131.2	
1C2: 72 x 143 x 102.2	3F3: 140 x 184 x 141.2	
1C3: 72 x 143 x 121.2		
2C1: 105 x 142 x 156.2		
2C2: 105 x 142 x 156.2		

Type of drive		Single-phase 120 V	Single-phase 240 V	Three-phase 240 V	
Supply voltage					
Degree of protection				IP20	
Drive	Output frequency	0.5... 400 Hz			
	Type of control	Asynchronous motor			
	Transient overtorque	U/F, sensorless flux vector control, quadratic U/F			
Speed range		150...170			
Functions		1 to 20			
Dialogue	Number of functions	40			
	Number of preset speeds	8			
	Number of I/O	Analog inputs	1 configurable analog input		
		Logic inputs	4 assignable logic inputs		
		Analog outputs	1 configurable analog output		
Relay outputs		1 protected relay logic output			
Communication	Integrated	Integrated or remote display terminal, SoMove software workshop, or mobile phone via Bluetooth® Modbus			
Cards (available as an option)					
Reduction of current harmonics					
EMC filter	Integrated		C1 EMC		
	As an option				
Motor power	kW/HP	0.18/0.25	ATV12H018F1 (1) 1C1	ATV12H018M2 (1) (2) 1C2	ATV12H018M3 (1) 1C3
		0.37/0.5	ATV12H037F1 1C1	ATV12H037M2 (2) 1C1	ATV12H037M3 1C3
		0.55/0.75	–	ATV12H055M2 (2) 1C2	–
		0.75/1	ATV12H075F1 2C1	ATV12H075M2 (2) 1C2	ATV12H075M3 1C3
		1.5/2	–	ATV12HU15M2 (2) 2C2	ATV12H015M3 2F3
		2.2/3	–	ATV12HU22M2 (2) 2C2	ATV12H022M3 2F3
		3/3	–	–	ATV12H030M3 3F3
		4/5	–	–	ATV12H040M3 3F3

(1) Because of the poor heat dissipation, the ATV12H018.. is only supplied on a base plate

(2) Also exists as a multipack

## Accessories and options available

Type of accessory	
Description	Remote display terminal Multi-Loader, Simple Loader Additional EMC input filter Plates Braking resistors and braking unit Line chokes Ferrite suppressors for downstream contactor opening
Reference	Please refer to the Schneider Electric catalogue

# Altivar 21

0.75...75 kW

## Building Drives for HVAC applications

Dimensions (in mm)		width x height x depth
IP20		IP54
T1A: 107 x 143 x 150	T1: 215 x 297 x 192	
T2A: 142 x 184 x 150	T2: 230 x 340 x 208	
T3A: 180 x 232 x 170	T3: 290 x 560 x 315	
T4A: 245 x 329.5 x 190	T4: 310 x 665 x 315	
T5A: 240 x 420 x 210	T5: 284 x 720 x 315	
T6A: 320 x 630 x 290	T5: 284 x 880 x 343	
T7A: 240 x 550 x 266	T5: 362 x 1000 x 364	
T8A: 320 x 630 x 290		



Type of drive		IP20		IP54									
Supply voltage		Three-phase		200...240 V		380...480 V		380...480 V					
Degree of protection		IP21 and IP41 on the upper part				IP54 drive available in two manufacturing variants, ATV21W...N4 C1 EMC or ATV21W...N4C C2 EMC							
Output frequency		0.5...200 Hz											
Type of control		Kn <sup>2</sup> quadratic ratio, sensorless flux vector control, voltage/frequency ratio (2 points), energy saving ratio											
Speed range		1 to 10											
I/O		Analog inputs		1 switch-configurable current or voltage analog input and 1 voltage analog input, configurable as a PTC probe input									
		Logic inputs		3 programmable logic inputs									
		Analog outputs		1 switch-configurable current or voltage analog output									
		Relay outputs		2 relay logic outputs									
Dialogue		Integrated display terminal with local controls (1) or remote display terminal or PC software (3)											
Communication		Integrated		Modbus RTU									
(see page 4/11)		As an option		HVAC protocols: LonWorks, METASYS N2, APOGEE FLN, BACnet									
EMC filter		Integrated		-		C2 EMC		C2 EMC		C1 EMC			
		Available as an option		C2 EMC		C1 EMC		-		-			
Motor power		kW/HP		0.75/1		ATV21H075M3X T1A		ATV21H075N4 T1A		ATV21W075N4 T1		ATV21W075N4C T1	
		1.5/2		ATV21HU15M3X T1A		ATV21HU15N4 T1A		ATV21WU15N4 T1		ATV21WU15N4C T1			
		2.2/3		ATV21HU22M3X T1A		ATV21HU22N4 T1A		ATV21WU22N4 T1		ATV21WU22N4C T1			
		3/-		ATV21HU30M3X T2A		ATV21HU30N4 T2A		ATV21WU30N4 T2		ATV21WU30N4C T2			
		4/5		ATV21HU40M3X T2A		ATV21HU40N4 T2A		ATV21WU40N4 T2		ATV21WU40N4C T2			
		5.5/7.5		ATV21HU55M3X T3A		ATV21HU55N4 T2A		ATV21WU55N4 T2		ATV21WU55N4C T2			
		7.5/10		ATV21HU75M3X T3A		ATV21HU75N4 T3A		ATV21WU75N4 T2		ATV21WU75N4C T2			
		11/15		ATV21HD11M3X T4A		ATV21HD11N4 T3A		ATV21WD11N4 T3		ATV21WD11N4C T3			
		15/20		ATV21HD15M3X T4A		ATV21HD15N4 T4A		ATV21WD15N4 T3		ATV21WD15N4C T3			
		18.5/25		ATV21HD18M3X T4A		ATV21HD18N4 T4A		ATV21WD18N4 T4		ATV21WD18N4C T4			
		22/30		ATV21HD22M3X T5A		ATV21HD22N4 (2) T5A		ATV21WD22N4 T5		ATV21WD22N4C T5			
		30/40		ATV21HD30M3X T6A		ATV21HD30N4 (2) T5A		ATV21WD30N4 T5		ATV21WD30N4C T5			
		37/50		-		ATV21HD37N4 T7A		ATV21WD37N4 T6		ATV21WD37N4C T6			
45/60		-		ATV21HD45N4 T7A		ATV21WD45N4 T6		ATV21WD45N4C T6					
55/75		-		ATV21HD55N4 T8A		ATV21WD55N4 T7		ATV21WD55N4C T7					
75/100		-		ATV21HD75N4 T8A		ATV21WD75N4 T7		ATV21WD75N4C T7					

(1) Drive with local controls, Run/Stop, Loc/Rem. keys

(2) For references ATV21HD22N4 and ATV21HD30N4, please refer to the Schneider Electric catalogue.

(3) Refer to the Schneider Electric catalogue.

## Accessories and options available

Type of accessory	
Description	Remote display terminal Additional EMC input filters Communication cards Connection accessories PC software for Altivar 21 drive
Reference	Please refer to the Schneider Electric catalogue

# Altivar 312

0.18...15 kW

## Simple industrial machines High performance drives



Dimensions (in mm)		width x height x depth	
T 1: 72 x 145 x 122		T 6: 107 x 143 x 152	
T 2: 72 x 145 x 132		T 7: 142 x 184 x 152	
T 3: 72 x 145 x 132		T 8: 180 x 232 x 172	
T 4: 72 x 145 x 142		T 9: 245 x 330 x 192	
T 5: 105 x 143 x 132			

Type of drive		Single-phase 240 V with integrated EMC filters	Three-phase 240 V without EMC filter	Three-phase 500V with integrated EMC filters	Three-phase 600V without EMC filter	
Supply voltage						
Degree of protection		IP20				
Drive	Output frequency	0.5...500 Hz				
	Type of control	Asynchronous motor				
	Transient overtorque	Standard (voltage / frequency) - Performance (sensorless flux vector control) Energy saving ratio 170 ... 200% of the nominal motor torque				
Speed range		1 to 50				
Functions	Number of functions	50				
	Number of preset speeds	16				
	Number of I/O	Analog inputs	3			
		Logic inputs	6			
		Analog outputs	1			
		Logic outputs	-			
Relay outputs	2					
Dialogue		Integrated 4-digit display, remote terminals (IP54 or IP65), Altivar 61/71 remote graphic display terminal				
Communication	Integrated	Modbus and CANopen				
	As an option	CANopen Daisy chain, Modbus TCP, DeviceNet, PROFIBUS DP, Fipio				
Reduction of current harmonics						
EMC filter	Integrated	C2 EMC	External as an option	Integrated C2(1) or C3 EMC	External as an option	
	As an option	C1 EMC	-	-	-	
Motor power	kW/HP	0.18/0.25	ATV312H018M2 T3	ATV312H018M3 T1	-	-
		0.37/0.5	ATV312H037M2 T3	ATV312H037M3 T1	ATV312H037N4 T5	-
		0.55/0.75	ATV312H055M2 T4	ATV312H055M3 T2	ATV312H055N4 T5	-
		0.75/1	ATV312H075M2 T4	ATV312H075M3 T2	ATV312H075N4 T6	ATV312H075S6 T6
		1.1/1.5	ATV312HU11M2 T6	ATV312HU11M3 T5	ATV312HU11N4 T6	-
		1.5/2	ATV312HU15M2 T6	ATV312HU15M3 T5	ATV312HU15N4 T6	ATV312HU15S6 T6
		2.2/3	ATV312HU22M2 (2) T7	ATV312HU22M3 T6	ATV312HU22N4 T7	ATV312HU22S6 T7
		3/-	-	ATV312HU30M3 T7	ATV312HU30N4 T7	-
		4/5	-	ATV312HU40M3 T7	ATV312HU40N4 T7	ATV312HU40S6 T7
		5.5/7.5	-	ATV312HU55M3 T8	ATV312HU55N4 T8	ATV312HU55S6 T8
		7.5/10	-	ATV312HU75M3 T8	ATV312HU75N4 T8	ATV312HU75S6 T8
		11/15	-	ATV312HD11M3 T9	ATV312HD11N4 T9	ATV312HD11S6 T9
15/20	-	ATV312HD15M3 T9	ATV312HD15N4 T9	ATV312HD15S6 T9		

(1) C2 up to 4 kW

(2) Supplied with integrated C3 EMC filter

## Accessories and options available

Type of accessory	
Description	Remote graphic display terminal Multi-Loader, Simple Loader Additional EMC input filter Plates Braking resistors and braking unit Line chokes Ferrite suppressors for downstream contactor opening
Reference	Please refer to the Schneider Electric catalogue

# Altivar 31C

0.18...15 kW

## Simple machines Enclosed drives



Dimensions (in mm)	width x height x depth
Size 1: 210 x 240 x 163 / Size 2: 215 x 297 x 192	
Size 3: 230 x 340 x 208 / Size 4: 320 x 512 x 282	
Size 5: 440 x 625 x 282	

Supply voltage			Single-phase 200...240 V		Three-phase 380...500 V	
Degree of protection			IP54			
Description			Enclosure equipped with an ATV31 drive with external heatsink. Removable covers for adding 1 switch-disconnector or 1 circuit-breaker, 3 buttons and/or LEDs, 1 potentiometer			
Motor power	kW/HP	0.18/0.25	ATV31C018M2	Size 1	-	
		0.37/0.5	ATV31C037M2	Size 1	ATV31C037N4	Size 2
		0.55/0.75	ATV31C055M2	Size 1	ATV31C055N4	Size 2
		0.75/1	ATV31C075M2	Size 1	ATV31C075N4	Size 2
		1.1/1.5	ATV31CU11M2	Size 2	ATV31CU11N4	Size 2
		1.5/2	ATV31CU15M2	Size 2	ATV31CU15N4	Size 2
		2.2/3	ATV31CU22M2	Size 3	ATV31CU22N4	Size 3
		3/-	-	-	ATV31CU30N4	Size 3
		4/5	-	-	ATV31CU40N4	Size 3
		5.5/7.5	-	-	ATV31CU55N4 (1)	Size 4
		7.5/10	-	-	ATV31CU75N4 (1)	Size 4
		11/15	-	-	ATV31CD11N4 (1)	Size 5
		15/20	-	-	ATV31CD15N4 (1)	Size 5

(1) Drive in metal enclosure without cover.

4

## Accessories and options available

Type of accessory	
Description	Additional EMC input filters Line chokes
Reference	Please refer to the Schneider Electric catalogue



Dimensions (in mm)	width x height x depth
T1:	45 x 317 x 245
T2:	60 x 317 x 245
T4:	150 x 308 x 232 (EMC plate installed)
T4:	150 x 232 x 232 (EMC plate not installed)
T5:	180 x 404 x 232 (EMC plate installed)
T5:	180 x 330 x 232 (EMC plate not installed)

4

Type of drive		Single-phase 240 V with integrated EMC filter	Three-phase 500 V with integrated EMC filter			
<b>Degree of protection</b>		IP20				
<b>Drive</b>	Output frequency	0.5...599 Hz				
	Type of control	Asynchronous motor				
		Synchronous motor				
	Transient overtorque	170...200% of the nominal motor torque				
<b>Speed range</b>		1 to 50				
<b>Functions</b>	Number of functions	150				
	Number of I/O	Analog inputs	3			
		Logic inputs	6			
		Analog outputs	1			
		Logic outputs	1: configurable as voltage (0-10 V) or current (0-20 mA)			
Relay outputs	2					
<b>Dialogue</b>		4-digit display, remote display terminal (IP54 or IP55), remote graphic display terminal.				
<b>Communication</b>	Integrated	Modbus and CANopen - Bluetooth® link				
	As an option	DeviceNet, PROFIBUS DP V1, EtherNet/IP, Modbus TCP, EtherCat				
<b>Reduction of current harmonics</b>						
<b>EMC filter</b>	Integrated	C2 EMC				
	As an option	C1 EMC				
<b>Motor power</b>	kW/HP	0.18/1/4	ATV32H018M2	T1	–	
		0.37/1/2	ATV32H037M2	T1	ATV32H037N4	T1
		0.55/3/4	ATV32H055M2	T1	ATV32H055N4	T1
		0.75/1	ATV32H075M2	T1	ATV32H075N4	T1
		1.1/11/2	ATV32HU11M2	T2	ATV32HU11N4	T1
		1.5/2	ATV32HU15M2	T2	ATV32HU15N4	T1
		2.2/3	ATV32HU22M2	T2	ATV32HU22N4	T2
		3/-	–	–	ATV32HU30N4	T2
		4/5	–	–	ATV32HU40N4	T2
		5.5/71/2	–	–	ATV32HU55N4	T4
		7.5/10	–	–	ATV32HU75N4	T4
		11/15	–	–	ATV32HD11N4	T5
		15/20	–	–	ATV32HD15N4	T5

## Accessories and options available

Type of accessory	
Description	<ul style="list-style-type: none"><li>Panel cut-out adaptor for mounting control unit at 90°</li><li>Mechanical base kit for mounting GV2 circuit-breaker</li><li>IP54 remote display terminal</li><li>IP65 remote display terminal</li><li>Remote graphic display terminal</li><li>Simple Loader tool</li><li>Multi-Loader tool</li><li>USB/RJ45 cable for programming via SoMove software</li><li>EMC filters</li><li>Motor chokes</li><li>Braking resistors</li><li>Communication modules</li><li>DC bus cable</li></ul>
Reference	<b>Please refer to the Schneider Electric catalogue</b>

4

Dimensions (in mm)		width x height x depth	
<b>T2</b>	: 130 x 230 x 175	<b>T3</b>	: 155 x 260 x 187
<b>T4</b>	: 175 x 295 x 187	<b>T5A</b>	: 210 x 295 x 213
<b>T5B</b>	: 230 x 400 x 213	<b>T6</b>	: 240 x 420 x 236
<b>T7A</b>	: 240 x 550 x 266	<b>T7B</b>	: 320 x 550 x 266
<b>T8</b>	: 320 x 630 x 290	<b>T9</b>	: 320 x 920 x 377
<b>T10</b>	: 360 x 1022 x 377	<b>T11</b>	: 340 x 1190 x 377
<b>T12</b>	: 440 x 1190 x 377	<b>T13</b>	: 595 x 1190 x 377
<b>T14</b>	: 890 x 1390 x 377	<b>T15</b>	: 1120 x 1390 x 377



Type of drive		Single-phase	Three-phase	Three-phase
Supply voltage		200...240 V	200...240 V	380...480 V
Degree of protection		IP20 for unprotected drives and IP41 on the upper part		
Drive	Output frequency	0.5...1600 Hz up to 37 kW; 0.5...500 Hz from 45 to 800 kW		
	Type of control	Asynchronous motor K <sup>n2</sup> quadratic ratio, flux vector control with or without sensor, voltage/frequency ratio (2 or 5 points), energy saving ratio		
	Synchronous motor	Vector control without speed feedback		
Transient overtorque		120...130% of the nominal drive current for 60 seconds		
Speed range		1...100 in open loop mode		
Functions	Number of functions	> 150		
	Number of preset speeds	16		
	Number of I/O	Analog inputs 2...4/Logic inputs 6...20 Analog outputs 1...3/Logic outputs 0...8 Relay outputs 2...4 Safety input 1		
Dialogue		Remote graphic display terminal or SoMove software workshop		
Communication	Integrated	Modbus and CANopen		
	As an option	HVAC protocols: LonWorks, BACnet, METASYS N2, APOGEE FLN Industrial: Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DP, PROFIBUS DPv1, DeviceNet, Ethernet IP, CC-Link, INTERBUS		
Cards (available as an option)		Multi-pump cards, I/O extension cards, "Controller Inside" programmable card		
Reduction of current harmonics		DC choke integrated or supplied with the drive		
EMC filter	Integrated	C2 EMC	C2 EMC up to 7.5 kW	C2 EMC up to 4 kW C3 EMC from 5.5 to 630 kW
	As an option	C1 EMC	C1 EMC	C1 EMC from 0.75 to 630 kW
Motor power	kW/HP	0.37/0.5	ATV61H075M3 T2	-
		0.75/1	ATV61HU15M3 T2	ATV61H075M3 T2 ATV61H075N4 T2
	1.5/2	ATV61HU22M3 T3	ATV61HU15M3 T2	ATV61HU15N4 T2
	2.2/3	ATV61HU30M3 T3	ATV61HU22M3 T3	ATV61HU22N4 T2
	3/-	ATV61HU40M3 (1) T3	ATV61HU30M3 T3	ATV61HU30N4 T3
	4/5	ATV61HU55M3 (1) T4	ATV61HU40M3 T3	ATV61HU40N4 T3
	5.5/7.5	ATV61HU75M3 (1) T5A	ATV61HU55M3 T4	ATV61HU55N4 T4
	7.5/10	-	ATV61HU75M3 T5A	ATV61HU75N4 T4
	11/15	-	ATV61HD11M3X(2) T5B	ATV61HD11N4 T5A
	15/20	-	ATV61HD15M3X(2) T5B	ATV61HD15N4 T5B
	18.5/25	-	ATV61HD18M3X(2) T6	ATV61HD18N4 T5A
	22/30	-	ATV61HD22M3X(2) T6	ATV61HD22N4 T6
	30/40	-	ATV61HD30M3X(2) T7B	ATV61HD30N4 T7A
	37/50	-	ATV61HD37M3X(2) T7B	ATV61HD37N4 T7A
	45/60	-	ATV61HD45M3X(2) T7B	ATV61HD45N4 T8
	55/75	-	ATV61HD55M3X(2) T9	ATV61HD55N4 T8
	75/100	-	ATV61HD75M3X(2) T9	ATV61HD75N4 T8
	90/125	-	ATV61HD90M3X(2) T10	ATV61HD90N4 T9
	110/150	-	-	ATV61HC11N4 T9
	132/200	-	-	ATV61HC13N4 T10
	160/250	-	-	ATV61HC16N4 T11
	200/300	-	-	ATV61HC20N4 T12
	220/350	-	-	ATV61HC22N4 T12
	250/400	-	-	ATV61HC25N4 T13
	280/450	-	-	ATV61HC28N4 T13
	315/500	-	-	ATV61HC31N4 T13
	400/600	-	-	ATV61HC40N4 T14
	500/700	-	-	ATV61HC50N4 T14
	630/900	-	-	ATV61HC63N4 T15

(1) Must be used with a line choke, refer to the Schneider Electric catalogue.

(2) Drive supplied without EMC filter

For all other variants, please refer to the Schneider Electric catalogue.



Dimensions (in mm)	width x height x depth
<b>T6</b>	: 240 x 420 x 236
<b>T8</b>	: 320 x 630 x 290
<b>T11</b>	: 340 x 1190 x 377
<b>T13</b>	: 595 x 1190 x 377
<b>T15</b>	: 1120 x 1390 x 377

Type of drive		Three-phase				
Supply voltage		500...690 V				
Degree of protection		IP20 and IP41 on the upper part				
Drive	Output frequency	0.5...1600 Hz up to 37 kW; 0.5...500 Hz from 45 to 800 kW				
	Type of control	Asynchronous motor	Kn <sup>2</sup> quadratic ratio, flux vector control with or without sensor, voltage/frequency ratio (2 or 5 points), energy saving ratio			
		Synchronous motor	Vector control without speed feedback			
	Transient overtorque	120...130% of the nominal drive current for 60 seconds				
Speed range		1...100 in open loop mode				
Functions	Number of functions	> 150				
	Number of preset speeds	16				
	Number of I/O	Analog inputs 2...4/Logic inputs 6...20 Analog outputs 1...3/Logic outputs 0...8 Relay outputs 2...4 Safety input 1				
Dialogue		Remote graphic display terminal or SoMove software workshop				
Communication	Integrated	Modbus and CANopen				
	As an option	HVAC protocols: LonWorks, BACnet, METASYS N2, APOGEE FLN Industrial: Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DP, PROFIBUS DPv1, DeviceNet, Ethernet IP, CC-Link, INTERBUS				
Cards (available as an option)		Multi-pump cards, I/O extension cards, "Controller Inside" programmable card				
Reduction of current harmonics		DC choke integrated or supplied with the product				
EMC filter		Integrated C3 EMC				
Motor power	kW/HP	Integrated				
		500 V kW	575 V HP	690 V kW		
		2.2	3	3	<b>ATV61HU30Y</b>	T6
		3	–	4	<b>ATV61HU40Y</b>	T6
		4	5	5.5	<b>ATV61HU55Y</b>	T6
		5.5	7.5	7.5	<b>ATV61HU75Y</b>	T6
		7.5	10	11	<b>ATV61HD11Y</b>	T6
		11	15	15	<b>ATV61HD15Y</b>	T6
		15	20	18.5	<b>ATV61HD18Y</b>	T6
		18.5	25	22	<b>ATV61HD22Y</b>	T6
		22	30	30	<b>ATV61HD30Y</b>	T6
		30	40	37	<b>ATV61HD37Y</b>	T8
		37	50	45	<b>ATV61HD45Y</b>	T8
		45	60	55	<b>ATV61HD55Y</b>	T8
		55	75	75	<b>ATV61HD75Y</b>	T8
		75	100	90	<b>ATV61HD90Y</b>	T8
		90	125	110	<b>ATV61HC11Y</b>	T11
		110	150	132	<b>ATV61HC13Y</b>	T11
		132	–	160	<b>ATV61HC16Y</b>	T11
		160	200	200	<b>ATV61HC20Y</b>	T11
		200	250	250	<b>ATV61HC25Y</b>	T13
		250	350	315	<b>ATV61HC31Y</b>	T13
		315	450	400	<b>ATV61HC40Y</b>	T13
		400	550	500	<b>ATV61HC50Y</b>	T15
		500	700	630	<b>ATV61HC63Y</b>	T15
		630	800	800	<b>ATV61HC80Y</b>	T15

4

For all other variants, please refer to the Schneider Electric catalogue.

# Altivar 61

0.37...800 kW

## Pumping and ventilation machines

### IP54 drives



Dimensions (in mm)		width x height x depth	
<b>ATV61W...</b>			
<b>TA2</b> : 235 x 490 x 272	<b>TD</b> : 310 x 665 x 315		
<b>TA3</b> : 235 x 490 x 286	<b>TE</b> : 284 x 720 x 315		
<b>TB</b> : 255 x 525 x 286	<b>TF</b> : 284 x 880 x 343		
<b>TC</b> : 290 x 560 x 315	<b>TG</b> : 362 x 1000 x 364		

4

Type of drive		Three-phase 380...480 V				
<b>Degree of protection</b>		<b>Type 12 (1) / IP54</b>				
<b>Drive</b>	Output frequency	0.5...1600 Hz up to 37 kW; 0.5...500 Hz from 45 to 800 kW				
	Type of control	Asynchronous motor	Kn <sup>2</sup> quadratic ratio, flux vector control with or without sensor, voltage/frequency ratio (2 or 5 points), energy saving ratio			
		Synchronous motor	Vector control without speed feedback			
	Transient overtorque	120...130% of the nominal drive current for 60 seconds				
<b>Speed range</b>		1...100 in open loop mode				
<b>Functions</b>	Number of functions	> 150				
	Number of preset speeds	16				
	Number of I/O	Analog inputs 2...4/Logic inputs 6...20				
		Analog outputs 1...3/Logic outputs 0...8				
	Relay outputs 2...4					
	Safety input 1					
<b>Dialogue</b>		Remote graphic display terminal or SoMove software workshop				
<b>Communication</b>	Integrated	Modbus and CANopen				
	As an option	HVAC protocols: LonWorks, BACnet, METASYS N2, APOGEE P1 Industrial: Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DP, Profibus DPv1, DeviceNet, Ethernet IP, CC-Link <small>INTERBUS</small>				
<b>Cards (available as an option)</b>		Multi-pump cards, I/O extension cards, "Controller Inside" programmable card				
<b>Reduction of current harmonics</b>		Integrated DC choke				
<b>EMC filter</b>	Integrated	C2 EMC				
	As an option	-				
<b>Motor power</b>	kW/HP	0.75/1	<b>ATV61W075N4</b>	TA2	<b>ATV61E5075N4</b>	TA2
		1.5/2	<b>ATV61WU15N4</b>	TA2	<b>ATV61E5U15N4</b>	TA2
		2.2/3	<b>ATV61WU22N4</b>	TA2	<b>ATV61E5U22N4</b>	TA2
		3/-	<b>ATV61WU30N4</b>	TA3	<b>ATV61E5U30N4</b>	TA3
		4/5	<b>ATV61WU40N4</b>	TA3	<b>ATV61E5U40N4</b>	TA3
		5.5/7.5	<b>ATV61WU55N4</b>	TB	<b>ATV61E5U55N4</b>	TB
		7.5/10	<b>ATV61WU75N4</b>	TB	<b>ATV61E5U75N4</b>	TB
		11/15	<b>ATV61WD11N4</b>	TC	<b>ATV61E5D11N4</b>	TC
		15/20	<b>ATV61WD15N4</b>	TD	<b>ATV61E5D15N4</b>	TD
		18.5/25	<b>ATV61WD18N4</b>	TD	<b>ATV61E5D18N4</b>	TD
		22/30	<b>ATV61WD22N4</b>	TE	<b>ATV61E5D22N4</b>	TE
		30/40	<b>ATV61WD30N4</b>	TF	<b>ATV61E5D30N4</b>	TF
		37/50	<b>ATV61WD37N4</b>	TF	<b>ATV61E5D37N4</b>	TF
		45/60	<b>ATV61WD45N4</b>	TG	<b>ATV61E5D45N4</b>	TG
		55/75	<b>ATV61WD55N4</b>	TG	<b>ATV61E5D55N4</b>	TG
		75/100	<b>ATV61WD75N4</b>	TG	<b>ATV61E5D75N4</b>	TG
90/125	<b>ATV61WD90N4</b>	TG	<b>ATV61E5D90N4</b>	TG		

Drive with integrated C1 filter: add the letter **C** at the end of the reference For example, ATV61W075N4 becomes ATV61W075N4C

For other variants, please refer to the Schneider Electric catalogue.

(1) For ATV61W... range only.

# Altivar 61

0.37...2400 kW

## Pumping and ventilation machines

### IP54 Altivar 61 kit with preassembled enclosure



Drive	Kit
ATV61HC11N4	VW3A9541
ATV61HC13N4	VW3A9542
ATV61HC16N4	VW3A9543
ATV61HC22N4	VW3A9544
ATV61HC25N4	VW3A9545
ATV61HC31N4	
ATV61HC25N4	VW3A9546
ATV61HC31N4	
ATV61HC40N4	VW3A9547
ATV61HC50N4	
ATV61HC63N4	VW3A9548
	VW3A7102 braking unit
	VW3A9549
	Additional empty enclosure (600 mm)
	VW3A9550
	Additional empty enclosure (800 mm)
	VW3A9551

4

# Altivar 61 Plus

90...2400 kW

## Pumping and ventilation machines Solutions in IP23 and IP54 ready-assembled enclosures



Dimensions (in mm)	width x height x depth
<b>ATV61EXC2C...</b>	
<b>E1</b>	: 616 x 2159 x 659
<b>E2</b>	: 816 x 2159 x 659
<b>E3</b>	: 1016 x 2159 x 659
<b>E4</b>	: 1220 x 2159 x 659

4

Enclosure types		Three-phase 380...480 V - 500 V - 690 V (1)
<b>Degree of protection</b>		
<b>Drive</b>	Output frequency	0.5...1600 Hz up to 37 kW; 0.5...500 Hz from 45...2400 kW
	Type of control	Asynchronous motor Synchronous motor
	Transient overtorque	120...130% of the nominal drive current for 60 seconds
	<b>Speed range</b>	1...100 in open loop mode
<b>Functions</b>	Number of functions	> 150
	Number of preset speeds	16
	Number of I/O	Analog inputs 2...4/Logic inputs 6...20
		Analog outputs 1...3/Logic outputs 0...8
		Relay outputs 2...4
<b>Dialogue</b>		Safety input 1 Remote graphic display terminal or SoMove software workshop
<b>Communication</b>	Integrated	Modbus and CANopen
	As an option	HVAC protocols: LonWorks, BACnet, METASYS N2, APOGEE P1 Industrial: Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DPv1, DeviceNet, INTERBUS
<b>Cards (available as an option)</b>		Multi-pump cards, I/O extension cards, "Controller Inside" programmable card
<b>Reduction of current harmonics</b>		Integrated DC choke
<b>EMC filter</b>	Integrated	C2 EMC
<b>Equipment</b>		A wide range of options listed in the catalogue provides add-ons for the standard offer as required. As well as the options listed in the catalogue, it is possible to customise the equipment. Just contact our teams of experts direct. - Water cooling solution - Integration of specific options



IP23	Three-phase 380...415 V			Three-phase 500 V			Three-phase 690 V		
	kW/HP		Dimensions	kW		Dimensions	kW		Dimensions
	-			90	ATV61 EXC2D90N	E1	-		
	110/150	ATV61EXC2C11N4	E1	110	ATV61 EXC2C11N	E1	110	ATV61 EXC2C11Y	E1
	132/200	ATV61EXC2C13N4	E1	132	ATV61 EXC2C13N	E1	132	ATV61 EXC2C13Y	E1
	160/250	ATV61EXC2C16N4	E1	160	ATV61 EXC2C16N	E1	160	ATV61 EXC2C16Y	E1
	220/350	ATV61EXC2C22N4	E1	200	ATV61 EXC2C20N	E2	200	ATV61 EXC2C20Y	E1
	250/400	ATV61EXC2C25N4	E2	250	ATV61 EXC2C25N	E2	250	ATV61 EXC2C25Y	E2
	315/500	ATV61EXC2C31N4	E2	315	ATV61 EXC2C31N	E2	315	ATV61 EXC2C31Y	E2
	400/600	ATV61EXC2C40N4	E3	400	ATV61 EXC2C40N	E4	400	ATV61 EXC2C40Y	E2
	500/700	ATV61EXC2C50N4	E3	500	ATV61 EXC2C50N	E4	500	ATV61 EXC2C50Y	E4
	630/900	ATV61EXC2C63N4	E4	630	ATV61 EXC2C63N	E4	630	ATV61 EXC2C63Y	E4
							800	ATV61 EXC2C80Y	E4

(1) The Altivar 61 range in ready-assembled enclosure consists of:

- An ATV61H... drive
- A switch and fast-acting fuses
- An IP65 remote mounting kit for graphic display terminal

IP23 offer available up to 2400 kW. For ratings above 800 kW, please consult your Regional Sales Office.

Dimensions (in mm)		width x height x depth	
<b>ATV61EX...</b>			
<b>E5</b>	: 616 x 2264 x 659	<b>E9</b>	: 616 x 2359 x 659
<b>E6</b>	: 816 x 2264 x 659	<b>E10</b>	: 816 x 2359 x 659
<b>E7</b>	: 1016 x 2264 x 659	<b>E11</b>	: 608 x 2359 x 659
<b>E8</b>	: 1216 x 2264 x 659	<b>E12</b>	: 808 x 2359 x 6590
		<b>E13</b>	: 1008 x 2359 x 659
		<b>E14</b>	: 1208 x 2359 x 659

IP54	Three-phase 380...415 V			Three-phase 500 V			Three-phase 690 V		
	kW/HP	Dimensions		kW	Dimensions		kW	Dimensions	
Compact floor-standing enclosure									
				90	ATV61EXC5D90N	E5			
	110/150	ATV61EXC5C11N4	E5	110	ATV61EXC5C11N	E5	110	ATV61EXC5C11Y	E5
	132/200	ATV61EXC5C13N4	E5	132	ATV61EXC5C13N	E5	132	ATV61EXC5C13Y	E5
	160/250	ATV61EXC5C16N4	E5	160	ATV61EXC5C16N	E5	160	ATV61EXC5C16Y	E5
	220/350	ATV61EXC5C22N4	E5	200	ATV61EXC5C20N	E6	200	ATV61EXC5C20Y	E5
	250/400	ATV61EXC5C25N4	E6	250	ATV61EXC5C25N	E6	250	ATV61EXC5C25Y	E6
	315/500	ATV61EXC5C31N4	E6	315	ATV61EXC5C31N	E6	315	ATV61EXC5C31Y	E6
	400/600	ATV61EXC5C40N4	E7	400	ATV61EXC5C40N	E8	400	ATV61EXC5C40Y	E6
	500/700	ATV61EXC5C50N4	E7	500	ATV61EXC5C50N	E8	500	ATV61EXC5C50Y	E8
	630/900	ATV61EXC5C63N4	E8	630	ATV61EXC5C63N	E8	630	ATV61EXC5C63Y	E8
							800	ATV61EXC5C80Y	E8

IP54	Three-phase 380...415 V			Three-phase 500 V			Three-phase 690 V		
	kW/HP	Dimensions		kW	Dimensions		kW	Dimensions	
Separate air flow									
				90	ATV61EXS5D90N	E11			
	110/150	ATV61EXS5C11N4	E9	110	ATV61EXS5C11N	E11	110	ATV61EXS5C11Y	E11
	132/200	ATV61EXS5C13N4	E9	132	ATV61EXS5C13N	E11	132	ATV61EXS5C13Y	E11
	160/250	ATV61EXS5C16N4	E9	160	ATV61EXS5C16N	E11	160	ATV61EXS5C16Y	E11
	220/350	ATV61EXS5C22N4	E9	200	ATV61EXS5C20N	E12	200	ATV61EXS5C20Y	E11
	250/400	ATV61EXS5C25N4	E10	250	ATV61EXS5C25N	E12	250	ATV61EXS5C25Y	E12
	315/500	ATV61EXS5C31N4	E10	315	ATV61EXS5C31N	E12	315	ATV61EXS5C31Y	E12
	400/600	ATV61EXS5C40N4	E13	400	ATV61EXS5C40N	E14	400	ATV61EXS5C40Y	E12
	500/700	ATV61EXS5C50N4	E13	500	ATV61EXS5C50N	E14	500	ATV61EXS5C50Y	E14
	630/900	ATV61EXS5C63N4	E14	630	ATV61EXS5C63N	E14	630	ATV61EXS5C63Y	E14
							800	ATV61EXS5C80Y	E14



Type of card	I/O extension Logic	Extended
<b>Description</b>	1 relay logic output ("C/O" contact) 4 x 24 VDC positive or negative logic inputs 2 x 24 VDC open collector positive or negative logic outputs 1 input for PTC probes	1 x 0...20 mA differential current analog input 1 software-configurable voltage (0...10 VDC) or current (0...20 mA) analog input 2 software-configurable voltage ( $\pm 10V$ , 0...10 VDC) or current (0...20 mA) analog inputs 1 relay logic output ("C/O" contact) 4 x 24 VDC positive or negative logic inputs 2 x 24 VDC open collector positive or negative logic outputs 1 input for PTC probes 1 frequency control input
<b>Reference</b>	<b>VW3A3201</b>	<b>VW3A3202</b>

4

**"Controller Inside" programmable card**



Type of card	Programmable "Controller Inside"
<b>Description</b>	10 logic inputs, 2 of which can be used for 2 counters or 4 of which can be used for 2 incremental encoders 2 analog inputs, 6 logic outputs, 2 analog outputs, a master port for the CANopen bus, a PC port for programming with the PS 1131 software workshop.
<b>Reference</b>	<b>VW3A3501</b>

**Multi-pump cards**



Type of card	Multi-pump
<b>Description</b>	The pump switching card ensures compatibility of applications developed on the Altivar 38. This card is specific to pump switching. It ensures optimum flow for an impeccable quality of service. Its algorithm both saves energy and prolongs equipment service life.
<b>Reference</b>	<b>VW3A3502</b>
<b>Description</b>	The VWA3503 "Water Solution" card can be used to support all multi-pump applications. This card offers all the functions needed to manage a pumping, booster, irrigation station, etc with the operational safety of a control and monitoring system.
<b>Reference</b>	<b>VW3A3503</b>

# Accessories and options

## Braking resistors



The network braking unit can be used to restore the following to the line supply:

- The energy from the motor
- The energy from the motors controlled by several drives connected on the same DC bus

Type of drive Supply voltage	Three-phase	
	200...240 V 50/60 Hz	380...480 V 50/60 Hz
ATV61H075M3	VW3A7701	–
ATV61HU15M3, HU22M3	VW3A7702	–
ATV61HU30M3, HU40M3	VW3A7703	–
ATV61HU55M3, HU75M3	VW3A7704	–
ATV61HD11M3X	VW3A7705	–
ATV61HD15M3X	VW3A7706	–
ATV61HD18M3X, HD22M3X	VW3A7707	–
ATV61HD30M3X	VW3A7708	–
ATV61HD37M3X, HD45M3X	VW3A7709	–
ATV61HD55M3X, HD75M3X	VW3A7713	–
ATV61HD90M3X	VW3A7714	–
ATV61H075N4...HU40N4, ATV61W075N4...WU55N4, ATV61W075N4C...WU55N4C	–	VW3A7701
ATV61HU55N4, HU75N4, ATV61WU75N4, WD11N4, ATV61WU75N4C, WD11N4C	–	VW3A7702
ATV61HD11N4, HD15N4, ATV61WD15N4, WD18N4, ATV61WD15N4C, WD18N4C	–	VW3A7703
ATV61HD18N4...HD30N4, ATV61WD22N4...WD37N4, ATV61WD22N4C...WD37N4C	–	VW3A7704
ATV61HD37N4, ATV61WD45N4, WD45N4C	–	VW3A7705
ATV61WD55N4...WD90N4, ATV61WD55N4C...WD90N4C	–	VW3A7706
ATV61HD45N4...HD75N4	–	VW3A7707
ATV61HD90N4, HC11N4	–	VW3A7710
ATV61HC13N4, HC16N4, E5C16N4	–	VW3A7711
ATV61HC22N4	–	VW3A7712
ATV61HC25N4	–	VW3A7715
ATV61HC31N4	–	VW3A7716
ATV61HC40N4, HC50N4, E5C50N4	–	VW3A7717
ATV61HC63N4	–	VW3A7718

4

### Other accessories (see references in the Schneider Electric Catalogue)

- > Resistance braking units (integrated in ATV61 drives up to 220 kW)
- > Additional EMC input filters
- > AC line chokes
- > Optional DC chokes
- > Passive filters
- > Sinus filters
- > Motor chokes

# Altivar 71

0.37...630 kW

## Complex, high-power machines

### High performance drives

Dimensions (in mm)		width x height x depth	
<b>T2</b>	: 130 x 230 x 175	<b>T3</b>	: 155 x 260 x 187
<b>T4</b>	: 175 x 295 x 187	<b>T5A</b>	: 210 x 295 x 213
<b>T5B</b>	: 230 x 400 x 213	<b>T6</b>	: 240 x 420 x 236
<b>T7A</b>	: 240 x 550 x 266	<b>T7B</b>	: 320 x 550 x 266
<b>T8</b>	: 320 x 630 x 290	<b>T9</b>	: 320 x 920 x 377
<b>T10</b>	: 360 x 1022 x 377	<b>T11</b>	: 340 x 1190 x 377
<b>T12</b>	: 440 x 1190 x 377	<b>T13</b>	: 595 x 1190 x 377
<b>T14</b>	: 890 x 1390 x 377	<b>T15</b>	: 1120 x 1390 x 377



Type of drive		Single-phase	Three-phase	Three-phase				
Supply voltage		200...240 V (3) (4)	200...240 V (3) (4)	380...480 V (3)				
Degree of protection		IP20 for unprotected drives and IP41 on the upper part						
Drive	Output frequency	0.1...1600 Hz up to 37 kW, 0.1...500 Hz from 45 to 500 kW						
	Type of control	Asynchronous motor	Flux vector control with or without sensor, voltage/frequency ratio (2 or 5 points), ENA System					
		Synchronous motor	Vector control with and without speed feedback (...383)					
Transient overtorque		220% of nominal motor torque for 2 seconds, and 170% for 60 seconds						
Speed range		1...1000 in closed loop mode with encoder feedback, 1...100 in open loop mode						
Functions	Number of functions	> 150						
	Number of preset speeds	16						
	Number of I/O	Analog inputs	2...4					
		Logic inputs	6...20					
	Analog outputs	1...3						
	Logic outputs	0...8						
	Relay outputs	2...4						
Safety input	1							
Dialogue		Remote graphic display terminal or SoMove software workshop						
Communication	Integrated	Modbus and CANopen						
	As an option	Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DP, PROFIBUS DPV1, DeviceNet, Ethernet IP, CC-Link, INTERBUS						
Cards (available as an option)		Encoder interface cards, I/O extension cards, "Controller Inside" programmable card, "Crane" card						
Reduction of current harmonics		DC choke integrated or supplied with the product						
EMC filter	Integrated	C2 EMC up to 4 kW						
	As an option	External C2 EMC from 5.5 kW						
Motor power	kW/HP	0.37/0.5	ATV71H075M3	T2	ATV71H037M3	T2	-	
		0.75/1	ATV71HU15M3	T2	ATV71H075M3	T2	ATV71H075N4	T2
		1.5/2	ATV71HU22M3	T3	ATV71HU15M3	T2	ATV71HU15N4	T2
		2.2/3	ATV71HU30M3	T3	ATV71HU22M3	T3	ATV71HU22N4	T2
		3/-	ATV71HU40M3 (1)	T3	ATV71HU30M3	T3	ATV71HU30N4	T3
		4/5	ATV71HU55M3 (1)	T4	ATV71HU40M3	T3	ATV71HU40N4	T3
		5.5/7.5	ATV71HU75M3 (1)	T5A	ATV71HU55M3	T4	ATV71HU55N4	T4
		7.5/10	-	-	ATV71HU75M3	T5A	ATV71HU75N4	T4
		11/15	-	-	ATV71HD11M3X (2)	T5B	ATV71HD11N4	T5A
		15/20	-	-	ATV71HD15M3X (2)	T5B	ATV71HD15N4	T5B
		18.5/25	-	-	ATV71HD18M3X (2)	T6	ATV71HD18N4	T5B
		22/30	-	-	ATV71HD22M3X (2)	T6	ATV71HD22N4	T6
		30/40	-	-	ATV71HD30M3X (2)	T7B	ATV71HD30N4	T7A
		37/50	-	-	ATV71HD37M3X (2)	T7B	ATV71HD37N4	T7A
		45/60	-	-	ATV71HD45M3X (2)	T7B	ATV71HD45N4	T8
		55/75	-	-	ATV71HD55M3X (2)	T9	ATV71HD55N4	T8
		75/100	-	-	ATV71HD75M3X (2)	T10	ATV71HD75N4	T8
		90/125	-	-	-	-	ATV71HD90N4	T9
		110/150	-	-	-	-	ATV71HC11N4	T10
		132/200	-	-	-	-	ATV71HC13N4	T11
		160/250	-	-	-	-	ATV71HC16N4	T12
		200/300	-	-	-	-	ATV71HC20N4	T13
		220/350	-	-	-	-	ATV71HC25N4	T13
280/450	-	-	-	-	ATV71HC28N4	T13		
315/500	-	-	-	-	ATV71HC31N4	T14		
355/-	-	-	-	-	ATV71HC40N4	T14		
500/700	-	-	-	-	ATV71HC50N4	T15		

(1) Must be used with a line choke, Refer to the Schneider Electric catalogue.

(2) Drive supplied without EMC filter.

(3) A three-phase 380...480 V range on base plate is available from 0.75 to 11 kW. Please refer to the Schneider Electric catalogue.

# Altivar 71

0.37...630 kW

## Complex, high-power machines High performance drives

Dimensions (in mm)		width x height x depth	
<b>T2</b>	: 130 x 230 x 175	<b>T3</b>	: 155 x 260 x 187
<b>T4</b>	: 175 x 295 x 187	<b>T5A</b>	: 210 x 295 x 213
<b>T5B</b>	: 230 x 400 x 213	<b>T6</b>	: 240 x 420 x 236
<b>T7A</b>	: 240 x 550 x 266	<b>T7B</b>	: 320 x 550 x 266
<b>T8</b>	: 320 x 630 x 290	<b>T9</b>	: 320 x 920 x 377
<b>T10</b>	: 360 x 1022 x 377	<b>T11</b>	: 340 x 1190 x 377
<b>T12</b>	: 440 x 1190 x 377	<b>T13</b>	: 595 x 1190 x 377
<b>T14</b>	: 890 x 1390 x 377	<b>T15</b>	: 1120 x 1390 x 377



Type of drive		Three-phase				
Supply voltage		500... 690 V				
Degree of protection		IP20 for unprotected drives and IP41 on the upper part				
Drive	Output frequency	0.1...1600 Hz up to 37 kW, 0.1...500 Hz from 45 to 630 kW				
	Type of control	Asynchronous motor Flux vector control with or without sensor, voltage/frequency ratio (2 or 5 points), ENA System				
	Synchronous motor	Vector control with and without speed feedback (...383)				
Transient overtorque		220% of nominal motor torque for 2 seconds, and 170% for 60 seconds				
Speed range		1...1000 in closed loop mode with encoder feedback, 1...100 in open loop mode				
Functions	Number of functions	> 150				
	Number of preset speeds	16				
	Number of I/O	Analog inputs	2...4			
		Logic inputs	6...20			
	Analog outputs	1...3				
	Logic outputs	0...8				
	Relay outputs	2...4				
Safety input	1					
Dialogue		Remote graphic display terminal or SoMove software workshop				
Communication	Integrated	Modbus and CANopen				
	As an option	Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DP, PROFIBUS DPv1, DeviceNet, Ethernet IP, CC-Link, INTERBUS				
Cards (available as an option)		Encoder interface cards, I/O extension cards, "Controller Inside" programmable card, "Crane" card				
Reduction of current harmonics		DC choke integrated or supplied with the drive				
EMC filter		Integrated				
Motor power	kW/HP	500 V	575 V	690 V		
		kW	HP	kW		
		1.5	2	2.2	ATV71HU22Y	T6
		2.2	3	3	ATV71HU30Y	T6
		3	-	4	ATV71HU40Y	T6
		4	5	5.5	ATV71HU55Y	T6
		5.5	7.5	7.5	ATV71HU75Y	T6
		7.5	10	11	ATV71HD11Y	T6
		11	15	15	ATV71HD15Y	T6
		15	20	18.5	ATV71HD18Y	T6
		18.5	25	22	ATV71HD22Y	T6
		22	30	30	ATV71HD30Y	T6
		30	40	37	ATV71HD37Y	T8
		37	50	45	ATV71HD45Y	T8
		45	60	55	ATV71HD55Y	T8
		55	75	75	ATV71HD75Y	T8
		75	100	90	ATV71HD90Y	T8
		90	125	110	ATV71HC11Y	T11
		110	150	132	ATV71HC13Y	T11
		132	-	160	ATV71HC16Y	T11
		160	200	200	ATV71HC20Y	T13
		200	250	250	ATV71HC25Y	T13
		250	350	315	ATV71HC31Y	T13
		315	450	400	ATV71HC40Y	T15
		400	550	500	ATV71HC50Y	T15
		500	700	630	ATV71HC63Y	T15

4

For all other variants, please refer to the Schneider Electric catalogue.

# Altivar 71

0.37...630 kW

## Complex, high-power machines IP54 drives



Dimensions (in mm)		width x height x depth
ATV71W..., ATV71E5... up to 75 kW		
TA2	: 235 x 490 x 272	TD : 310 x 665 x 315
TA3	: 235 x 490 x 286	TE : 284 x 720 x 315
TB	: 255 x 525 x 286	TF : 284 x 880 x 343
TC	: 290 x 560 x 315	TG : 362 x 1000 x 364

4

Type of drive		Three-phase 380...480 V (3)   With switch				
Degree of protection		UL Type 12 (1) / IP54				
Drive	Output frequency	0.1...1600 Hz up to 37 kW, 0.1...500 Hz from 45...75 kW				
	Type of control	Asynchronous motor	Flux vector control with or without sensor, voltage/frequency ratio (2 or 5 points), ENA System			
	Synchronous motor	Vector control without speed feedback				
Transient overtorque		220% of nominal motor torque for 2 seconds, and 170% for 60 seconds				
Speed range		1...1000 in closed loop mode with encoder feedback, 1...100 in open loop mode				
Functions	Number of functions		> 150			
	Number of preset speeds		16			
	Number of I/O	Analog inputs	2...4			
		Logic inputs	6...20			
		Analog outputs	1...3			
		Logic outputs	0...8			
		Relay outputs	2...4			
Safety input	1					
Dialogue		Remote graphic display terminal or SoMove software workshop				
Communication	Integrated	Modbus and CANopen				
	As an option	Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DP, Profibus DPv1, DeviceNet, INTERBUS, CC-Link, Ethernet IP				
Cards (available as an option)		Encoder interface cards, I/O extension cards, "Controller Inside" programmable card, "Crane" card				
Reduction of current harmonics		Optional chokes and passive filters				
EMC filter	Integrated	C2 EMC				
	As an option	External C1 EMC				
Motor power	kW/HP	0.75/1	ATV71W075N4	TA2	ATV71E5075N4	TA2
		1.5/2	ATV71WU15N4	TA2	ATV71E5U15N4	TA2
		2.2/3	ATV71WU22N4	TA2	ATV71E5U22N4	TA2
		3/-	ATV71WU30N4	TA3	ATV71E5U30N4	TA3
		4/5	ATV71WU40N4	TA3	ATV71E5U40N4	TA3
		5.5/7.5	ATV71WU55N4	TB	ATV71E5U55N4	TB
		7.5/10	ATV71WU75N4	TB	ATV71E5U75N4	TB
		11/15	ATV71WD11N4	TC	ATV71E5D11N4	TC
		15/20	ATV71WD15N4	TD	ATV71E5D15N4	TD
		18.5/25	ATV71WD18N4	TD	ATV71E5D18N4	TD
		22/30	ATV71WD22N4	TD	ATV71E5D22N4	TD
		30/40	ATV71WD30N4	TF	ATV71E5D30N4	TF
		37/50	ATV71WD37N4	TF	ATV71E5D37N4	TF
		45/60	ATV71WD45N4	TG	ATV71E5D45N4	TG
		55/75	ATV71WD55N4	TG	ATV71E5D55N4	TG
75/100	ATV71WD75N4	TG	ATV71E5D75N4	TG		

(1) For ATV71W... range only.

# Altivar 71

0.37...500 kW

## Complex, high-power machines

### IP54 Altivar 71 kit with preassembled enclosure



Drive		Kit
ATV71HD90N4		VW3A9541
ATV71HC11N4		VW3A9542
ATV71HC13N4		VW3A9543
ATV71HC16N4		VW3A9544
ATV71HC20N4		VW3A9545
ATV71HC25N4		
ATV71HC28N4		
ATV71HC20N4	With VW3A7101 braking unit	VW3A9546
ATV71HC25N4	With VW3A7101 braking unit	
ATV71HC28N4	With VW3A7101 braking unit	
ATV71HC31N4	Without braking unit	VW3A9547
ATV71HC40N4		
ATV71HC50N4		VW3A9548
	VW3A7102 braking unit	VW3A9549
	Additional empty enclosure (600 mm)	VW3A9550
	Additional empty enclosure (800 mm)	VW3A9551

4

# Altivar 71 Plus

90...2000 kW

Complex, high-power machines  
Solutions in IP23 and IP54 ready-assembled enclosures



Dimensions (in mm)		width x height x depth	
<b>ATV71EXC2C...</b>			
<b>E1</b>	: 616 x 2159 x 659	<b>E3</b>	: 1016 x 2159 x 659
<b>E2</b>	: 816 x 2159 x 659	<b>E4</b>	: 1216 x 2159 x 659

4

Type of drive		Three-phase 380...480 V (1)	
Degree of protection			
Drive	Output frequency	0.1...1600 Hz up to 37 kW, 0.1...500 Hz from 45...2000 kW	
	Type of control	Asynchronous motor: Flux vector control with or without sensor, voltage/frequency ratio (2 or 5 points), ENA System Synchronous motor: Vector control without speed feedback	
	Transient overtorque	220% of nominal motor torque for 2 seconds, and 170% for 60 seconds	
Speed range		1...1000 in closed loop mode with encoder feedback, 1...100 in open loop mode	
Functions	Number of functions	> 150	
	Number of preset speeds	16	
	Number of I/O	Analog inputs	2...4
		Logic inputs	6...20
	Analog outputs	1...3	
	Logic outputs	0...8	
	Relay outputs	2...4	
Safety input	1		
Dialogue		Remote graphic display terminal or SoMove software workshop	
Communication	Integrated	Modbus and CANopen	
	As an option	Modbus TCP, Modbus/Uni-Telway, Fipio, Modbus Plus, Profibus DP, Profibus DPv1, DeviceNet, INTERBUS, CC-Link, Ethernet IP.	
Cards (available as an option)		Encoder interface cards, I/O extension cards, "Controller Inside" programmable card, "Crane" card	
Reduction of current harmonics		Optional chokes and passive filters	
EMC filter	Integrated	C2 EMC	
	As an option	External C1 EMC	
Equipment		A wide range of options listed in the catalogue provides add-ons for the standard offer as required. As well as the options listed in the catalogue, it is possible to customise the equipment. Just contact our teams of experts direct. - Water cooling solution - Integration of specific options	

IP23	Three-phase 380...415 V			Three-phase 500 V			Three-phase 690 V		
	kW/HP	Dimensions		kW	Dimensions		kW	Dimensions	
	90/125	ATV71EXC2D90N4	E1	90	ATV71 EXC2D90N	E1	-	-	-
	110/150	ATV71EXC2C11N4	E1	110	ATV71 EXC2C11N	E1	110	ATV71 EXC2C11Y	E1
	132/200	ATV71EXC2C13N4	E1	132	ATV71 EXC2C13N	E1	132	ATV71 EXC2C13Y	E1
	160/250	ATV71EXC2C16N4	E1	160	ATV71 EXC2C16N	E2	160	ATV71 EXC2C16Y	E1
	200/300	ATV71EXC2C20N4	E2	200	ATV71 EXC2C20N	E2	200	ATV71 EXC2C20Y	E2
	250/400	ATV71EXC2C25N4	E2	250	ATV71 EXC2C25N	E2	250	ATV71 EXC2C25Y	E2
	280/450	ATV71EXC2C28N4	E2	-	-	-	-	-	-
	315/500	ATV71EXC2C31N4	E3	315	ATV71 EXC2C31N	E4	315	ATV71 EXC2C31Y	E2
	400/600	ATV71EXC2C40N4	E3	400	ATV71 EXC2C40N	E4	400	ATV71 EXC2C40Y	E4
	500/700	ATV71EXC2C50N4	E4	500	ATV71 EXC2C50N	E4	500	ATV71 EXC2C50Y	E4

(1) The Altivar 71 range in ready-assembled enclosure consists of:  
 - An ATV71H... drive  
 - A switch and fast-acting fuses  
 - An IP65 remote mounting kit for graphic display terminal

IP23 offer available up to 2000 kW. For ratings above 630 kW, please consult your Regional Sales Office.

# Altivar 71 Plus

90...2000 kW

Complex, high-power machines  
Solutions in IP23 and IP54 ready-assembled enclosures



Dimensions (in mm)		width x height x depth	
<b>ATV71EX...</b>			
<b>E5</b>	: 616 x 2264 x 659	<b>E9</b>	: 616 x 2359 x 659
<b>E6</b>	: 816 x 2264 x 659	<b>E10</b>	: 816 x 2359 x 659
<b>E7</b>	: 1016 x 2264 x 659	<b>E11</b>	: 608 x 2359 x 659
<b>E8</b>	: 1216 x 2264 x 659	<b>E12</b>	: 808 x 2359 x 6590
		<b>E13</b>	: 1008 x 2359 x 659
		<b>E14</b>	: 1208 x 2359 x 659

IP54	Three-phase 380...415 V			Three-phase 500 V			Three-phase 690 V		
	kW/HP	Dimensions		kW	Dimensions		kW	Dimensions	
Compact floor-standing enclosure	90/125	ATV71EXC5D90N4	E5	90	ATV71EXC5D90N	E5	–		
	110/150	ATV71EXC5C11N4	E5	110	ATV71EXC5C11N	E5	110	ATV71EXC5C11Y	E5
	132/200	ATV71EXC5C13N4	E5	132	ATV71EXC5C13N	E5	132	ATV71EXC5C13Y	E5
	160/250	ATV71EXC5C16N4	E5	160	ATV71EXC5C16N	E6	160	ATV71EXC5C16Y	E5
	220/350	ATV71EXC5C20N4	E6	200	ATV71EXC5C20N	E6	200	ATV71EXC5C20Y	E6
	250/400	ATV71EXC5C25N4	E6	250	ATV71EXC5C25N	E6	250	ATV71EXC5C25Y	E6
	280/450	ATV71EXC5C28N4	E6	–	–	–	–	–	–
	315/500	ATV71EXC5C31N4	E7	315	ATV71EXC5C31N	E8	315	ATV71EXC5C31Y	E6
	400/600	ATV71EXC5C40N4	E7	400	ATV71EXC5C40N	E8	400	ATV71EXC5C40Y	E8
	500/700	ATV71EXC5C50N4	E8	500	ATV71EXC5C50N	E8	500	ATV71EXC5C50Y	E8
							630	ATV71EXC5C63Y	E8

4

IP54	Three-phase 380...415 V			Three-phase 500 V			Three-phase 690 V		
	kW/HP	Dimensions		kW	Dimensions		kW	Dimensions	
Separate air flow	90/125	ATV71EXS5D90N4	E9	90	ATV71EXS5D90N	E11	–		
	110/150	ATV71EXS5C11N4	E9	110	ATV71EXS5C11N	E11	110	ATV71EXS5C11Y	E11
	132/200	ATV71EXS5C13N4	E9	132	ATV71EXS5C13N	E11	132	ATV71EXS5C13Y	E11
	160/250	ATV71EXS5C16N4	E9	160	ATV71EXS5C16N	E12	160	ATV71EXS5C16Y	E11
	220/350	ATV71EXS5C20N4	E10	200	ATV71EXS5C20N	E12	200	ATV71EXS5C20Y	E12
	250/400	ATV71EXS5C25N4	E10	250	ATV71EXS5C25N	E12	250	ATV71EXS5C25Y	E12
	280/450	ATV71EXS5C28N4	E10	–	–	–	–	–	–
	315/500	ATV71EXS5C31N4	E13	315	ATV71EXS5C31N	E14	315	ATV71EXS5C31Y	E12
	400/600	ATV71EXS5C40N4	E13	400	ATV71EXS5C40N	E14	400	ATV71EXS5C40Y	E14
	500/700	ATV71EXS5C50N4	E14	500	ATV71EXS5C50N	E14	500	ATV71EXS5C50Y	E14
							630	ATV71EXS5C63Y	E14

# Altivar 71 Lift

2.2...75 kW

## Complex, high-power machines Drives for lifts



Dimensions (in mm)		width x height x depth	
<b>T2</b>	: 130 x 230 x 175	<b>T3</b>	: 155 x 260 x 187
<b>T4</b>	: 175 x 295 x 187	<b>T5A</b>	: 210 x 295 x 213
<b>T5B</b>	: 230 x 400 x 213	<b>T6</b>	: 240 x 420 x 236
<b>T7A</b>	: 240 x 550 x 266	<b>T7B</b>	: 320 x 550 x 266
<b>T8</b>	: 320 x 630 x 290		

Type of drive		Single-phase	Three-phase	Three-phase				
Supply voltage		200 V	200 V	380 V				
<b>Degree of protection</b>		IP20 for unprotected drives and IP41 on the upper part						
<b>Drive</b>	Output frequency	0.1...1600 Hz up to 37 kW, 0.1...500 Hz from 45 to 500 kW						
	Type of control	Asynchronous motor	Flux vector control with or without sensor, voltage/frequency ratio					
		Synchronous motor	Vector control with and without speed feedback					
	Transient overtorque	220% of nominal motor torque for 2 seconds, and 170% for 60 seconds						
<b>Speed range</b>		1...1000 in closed loop mode with encoder feedback, 1...100 in open loop mode						
<b>Functions</b>	Number of functions	> 150						
	Number of preset speeds	16						
	Number of I/O	Analog inputs	2...4					
		Logic inputs	6...20					
		Analog outputs	1...3					
		Logic outputs	0...8					
		Relay outputs	2...4					
Safety input	1							
<b>Dialogue</b>		Remote graphic display terminal or SoMove software workshop						
<b>Communication</b>	Integrated	Modbus and CANopen						
	As an option	Fipio, Ethernet, Modbus Plus, Profibus DP, DeviceNet, Uni-Telway, InterBus						
<b>Cards (available as an option)</b>		Encoder interface cards, I/O extension cards, "Controller Inside" programmable card, Encoder emulation card						
<b>Reduction of current harmonics</b>		DC choke integrated or supplied with the product						
<b>EMC filter</b>	Integrated	C2 EMC up to 5.5 kW						
	As an option	External C2 EMC from 7.5 kW						
<b>Motor power</b>	kW/HP	1.5/2	<b>ATV71LU22M3Z</b>	T3	–	–		
		2.2/3	<b>ATV71LU30M3Z</b>	T3	<b>ATV71LU22M3Z</b>	T3	–	
		3/–	<b>ATV71LU40M3Z</b>	T3	<b>ATV71LU30M3Z</b>	T3	<b>ATV71LU30N4Z</b>	T3
		4/5	<b>ATV71LU55M3Z</b>	T4	<b>ATV71LU40M3Z</b>	T3	<b>ATV71LU40N4Z</b>	T3
		5.5/7.5	<b>ATV71LU75M3Z</b>	T5A	<b>ATV71LU55M3Z</b>	T4	<b>ATV71LU55N4Z</b>	T4
		7.5/10	–	–	<b>ATV71LU75M3Z</b>	T5A	<b>ATV71LU75N4Z</b>	T4
		11/15	–	–	<b>ATV71LD11M3XZ</b>	T5B	<b>ATV71LD11N4Z</b>	T5A
		15/20	–	–	<b>ATV71LD15M3XZ</b>	T5B	<b>ATV71LD15N4Z</b>	T5B
		18.5/25	–	–	<b>ATV71LD18M3XZ</b>	T6	<b>ATV71LD18N4Z</b>	T5B
		22/30	–	–	<b>ATV71LD22M3XZ</b>	T6	<b>ATV71LD22N4Z</b>	T6
		30/40	–	–	<b>ATV71LD30M3XZ</b>	T6	<b>ATV71LD30N4Z</b>	T7A
		37/50	–	–	<b>ATV71LD37M3XZ</b>	T7B	<b>ATV71LD37N4Z</b>	T7A
		45/60	–	–	<b>ATV71LD45M3XZ</b>	T7B	<b>ATV71LD45N4Z</b>	T8
		55/75	–	–	–	–	<b>ATV71LD55N4Z</b>	T8
75/100	–	–	–	–	<b>ATV71LD75N4Z</b>	T8		

4



Type of card	I/O extension	Extended
	<b>Logic</b>	
<b>Description</b>	1 relay logic output ("C/O" contact) 4 x 24 VDC positive or negative logic inputs 2 x 24 VDC open collector positive or negative logic outputs 1 input for PTC probes	1 x 0...20 mA differential current analog input 1 software-configurable voltage (0...10 VDC) or current (0...20 mA) analog input 2 software-configurable voltage ( $\pm 10V$ , 0...10 VDC) or current (0...20 mA) analog inputs 1 relay logic output ("C/O" contact) 4 x 24 VDC positive or negative logic inputs 2 x 24 VDC open collector positive or negative logic outputs, 1 input for PTC probes, 1 frequency control input
<b>Reference</b>	<b>VW3A3201</b>	<b>VW3A3202</b>

4

### "Controller Inside" programmable card



Type of card	Programmable "Controller Inside"
<b>Description</b>	10 logic inputs, 2 of which can be used for 2 counters or 4 of which can be used for 2 incremental encoders 2 analog inputs, 6 logic outputs, 2 analog outputs, a master port for the CANopen bus, a PC port for programming with the PS 1131 software workshop
<b>Reference</b>	<b>VW3A3501</b>

### "Crane" cards

Type of card	"Crane" card for overhead cranes
<b>Description</b>	10 logic inputs, 2 of which can be used for 2 counters or 4 of which can be used for 2 incremental encoders 2 analog inputs, 6 logic outputs, 2 analog outputs, a master port for the CANopen bus
<b>Application-specific functions</b>	Management of load sway up to heights of 30 m
<b>References</b>	Sensorless: Management of the stop and slowdown limit switches on translational and directional movements <b>VW3A3510</b>



Type of card		Encoder interface with		
		Differential outputs (RS422)	Open collector outputs (NPN)	Push-pull outputs
Operating frequency		300 kHz		
Reference	5 V	VW3A3401	–	–
	12 V	–	VW3A3403	VW3A3405
	15 V	VW3A3402	VW3A3404	VW3A3406
	24 V	–	–	VW3A3407

**4**

Type of card	Resolver	Universal	Sincos Absolute	Incremental with emulation
Speed feedback resolution	12 bits	16 bits	16 bits	10,000
Encoder type supported	Resolver with 2, 4, 6 or 8 poles	"SinCos, SinCosHiperface, EnDat, SSI"	Sincos Absolute	"Incremental RS 422 - 5 V or 15 V"
References	VW3A3408	VW3A3409	VW3A3410	VW3A3411

Type of accessory	
<b>Description</b>	Additional EMC input filters AC line chokes Optional DC chokes Passive filters Sinus filters Motor chokes Braking units Braking resistors
<b>Reference</b>	<b>Please refer to the Schneider Electric catalogue</b>

### Communication accessories



Type of accessory	Remote graphic display terminal	Remote mounting kit (1)
<b>Description</b>	This display terminal is attached to the front of the drive. It includes the integrated 7-segment display terminal for drives supplied without a graphic display terminal.	A remote mounting kit for mounting on an enclosure door with IP54 degree of protection. It includes: <ul style="list-style-type: none"> <li>■ All the mechanical fittings</li> <li>■ Fixing accessories</li> </ul>
<b>References</b>	<b>VW3A1101</b>	<b>VW3A1102</b>

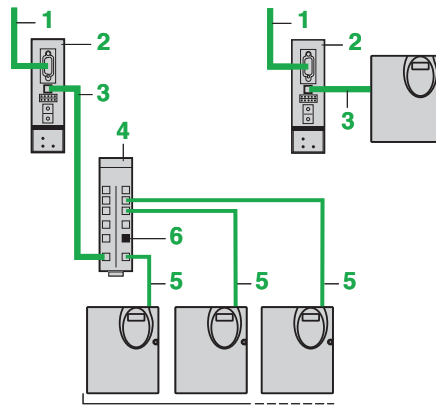
(1) Use a VW3A1104Rpp remote-mounting cordset, to be ordered separately (please refer to the Schneider Electric catalogue.)

### Other accessories available

Type of accessory	
<b>Description</b>	Multi-Loader configuration tool Simple Loader configuration tool Bluetooth adaptor SoMove multilingual configuration software workshop for PC SoMobile software for mobile phones Connection accessories for CANopen communication bus (tap junctions, adaptor, connector, cables, etc.) Modbus connection accessories (communication module, gateways, splitter boxes, cordsets and cables, etc.)
<b>Reference</b>	<b>Please refer to the Schneider Electric catalogue</b>



Altistart 48/Altivar 31 starters/drives		Ethernet/Modbus	DeviceNet/Modbus	Fipio/Modbus	Profibus DP/Modbus	
Parameter setting		–	–	–	Standard configurator	ABC configurator program
References	Bridge	<b>TSXETG100</b>	–	–	–	–
	Gateway	–	<b>LUFP9</b>	<b>LUFP1</b>	<b>LA9P307</b>	<b>LUFP7</b>
Cable references	L = 0.3 m	–	VW3A8306R03	VW3A8306R03	–	VW3A8306R03
	L = 1 m	–	VW3A8306R10	VW3A8306R10	VW3P07306R10	VW3A8306R10
	L = 3 m	VW3A8306D30	VW3A8306R30	VW3A8306R30	–	VW3A8306R30



- 1 To network
- 2 Communication modules
- 3 PLC cables VW3A8 306 R●●, VW3 P07 306 R10
- 4 Modbus splitter box LU9 GC3
- 5 Modbus drop cables VW3A8 306 R●●
- 6 Line terminator VW3A8 306 RC

4

Transparent  
Ready



Drives Altivar 61, Altivar 71	Modbus TCP	Modbus TCP Daisy Chain	Modbus/Uni-Telway	Fipio
Maximum number of drives controlled	–	–	–	–
Transmission speed	10/100 Mbps	10/100 Mbps	147/247 Mbps	62 Mbps
References	VW3A3310	VW3A3310d	VW3A3303	VW3A3311

Drives Altivar 61, Altivar 71	Modbus Plus	Profibus DP	Profibus DPv1	INTERBUS
Maximum number of drives controlled	64	126	126	64
Transmission speed	1 Mbps	9600 bps...12 Mbps	9600 bps...12 Mbps	1 Mbps
References	VW3A3302	VW3A3307	VW3A3307S371	VW3A3304

4

Drives Altivar 61, Altivar 71	CC-Link	Ethernet/IP	DeviceNet
Maximum number of drives controlled	64	–	63
Transmission speed	...10 Mbps	10/100 Mbps	125/250/500 Kbps
References	VW3A3317	VW3A3316	VW3A3309

Drives Altivar 61	LONWORKS	METASYS N2	APOGEE FLN	BACnet
Connector	1 removable 3-way screw terminal block	1 removable 4-way screw terminal block	1 removable 4-way screw terminal block	1 removable 4-way screw terminal block
Transmission speed	78 Kbps	–	–	–
References	VW3A3312	VW3A3313	VW3A3314	VW3A3315

For other connection accessories, please refer to the Schneider Electric catalogue.