

Variable speed drives

Altivar 61 and Altivar 61 Plus

for asynchronous motors
from 0.75 kW/1 HP to 2400 kW

Catalogue

April 2014





ATV61HC31N4,
ATV61HD22M3X, ATV61HU22N4



ATV61W075N4,
ATV61W075N4C



ATV61EXS5●●●●●

Presentation

The Altivar 61 drive is a frequency inverter for 0.75 kW/1 HP to 2400 kW three-phase synchronous and asynchronous motors.

It has been designed for common fluid management applications in industrial and commercial buildings and infrastructures.

The Altivar 61 can increase the performance of equipment and reduce operating costs in buildings by optimizing energy consumption whilst improving user comfort.

Environmentally-friendly and energy-saving

The drive is designed to be environmentally-friendly:

- Energy saving with a reduction in energy consumption of 70 % for ventilation applications and 50 % for pumping applications
- Reduction of fluid losses in distribution networks
- Use of 80 % recyclable materials - the Altivar 61 drive conforms to environmental standard ISO 14040 which defines a critical analysis of the product's impact on the environment

An environmental report is available for the Altivar 61 drive on our website www.schneider-electric.com.

Compliance with international standards and certifications

The Altivar 61 drive has been developed to meet the requirements of directives regarding the protection of the environment (RoHS, REACH, WEEE, etc.) as well as those of European Directives to obtain the CE mark.

The entire range is UL, CSA, DNV, C-Tick, NOM and GOST certified and conforms to international standards relating to electrical industrial control equipment IEC/EN 61800-2 and IEC/EN 61800-5-1.

The need for electromagnetic compatibility was taken into account at the outset when designing the drive. The entire range conforms to international standard IEC/EN 61800-3.

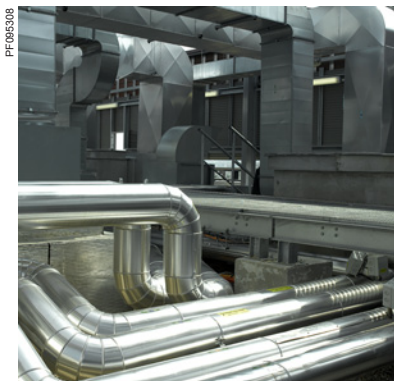
The Altivar 61 drive complies with the requirements of safety standards for applications in explosive atmospheres (ATEX). Please refer to the ATEX guide which is available on our website www.schneider-electric.com.

An extensive range

The Altivar 61 range offers numerous variants to meet the requirements of applications in a wide variety of fields and in very harsh environments. With these variants, the Altivar 61 range offers ready-to-use or modular solutions that can adapt to your needs.

Its numerous and comprehensive options enable it to be adapted and incorporated into electrical installations, sophisticated control systems, infrastructures and building management systems. They also create significant energy savings and reduce line interference.

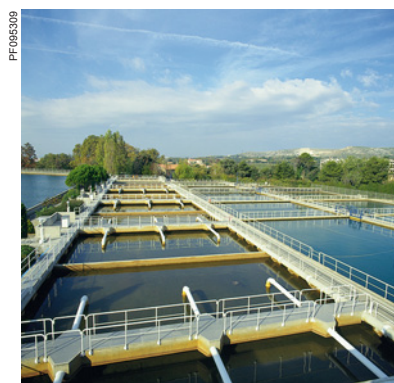
A specific option, the Active Front End, enables the Altivar 61 to be used in installations where particularly low harmonic levels are required. It also allows the Altivar 61 drive to operate on unstable line supplies.



Air treatment application



Air purification application



Water treatment application

A wide range of applications

The Altivar 61 drive incorporates advanced functions for optimum efficiency in the majority of applications in the industrial or commercial buildings sector:

- Ventilation
- Air conditioning
- Air purification, smoke extraction
- Fluid management
- Pumping and booster stations
- Irrigation stations
- Off-shore drilling rigs
- Etc.

Advanced functions

The Altivar 61 drive meets stringent requirements due to its numerous integrated application functions, while helping ensure the reliability of equipment with its protection and safety functions.

Functions designed specifically for pump and fan applications

- Energy saving ratio, 2 or 5 point quadratic ratio
- Automatic catching a spinning load with speed detection
- Adaptation of current limiting according to speed
- Noise and resonance suppression due to the possibility of adjusting the switching frequency during operation up to 16 kHz depending on the rating and the possibility of making frequency skips
- Preset speeds
- Integrated PID regulator with preset PID references and automatic/manual (Auto/Man.) mode
- Electricity and service hours meter
- Fluid absence detection, zero flow and limited flow detection
- Sleep function, wake-up function
- Customer settings with display of physical measurements (bar, l/s, °C, etc.)

Protection functions

- Motor and drive thermal protection, PTC thermal probe management
- Protection against overloads and overcurrents in continuous operation
- Machine mechanical protection via skip frequency function, output phase rotation
- Protection of the installation by means of underload, overload and zero flow detection
- Protection via management of multiple faults and configurable alarms

Safety functions

■ Machine safety via the integrated Power Removal function
This function stops the motor and helps preventing accidental restarts; it complies with machine safety standard ISO 1389-1, category 3 and the standard for functional safety IEC/EN 61508, SIL2 capability (safety control-signalling applied to processes and systems).

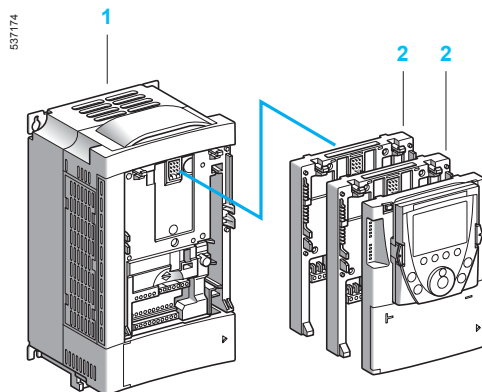
This safety function means that the drive can be installed as part of the safety system for an Electrical/Electronic/Programmable Electronic control system relating to the safety of a machine or industrial process.

- Means of the forced operation function with configurable fault inhibiting, direction of operation and references help ensure installation safety.

An open-ended offer to adapt to your applications

The Altivar 61 and Altivar 61 Plus offers cover motor power ratings from 0.75 kW/ 1 HP to 2400 kW with several types of power supply:

Three-phase power supply	Motor power	Reference
200...240 V	0.75 kW...90 kW/ 1 HP...125 HP	ATV61H●●●M3 ATV61H●●●M3X
380...415 V	55 kW...630 kW/ 75 HP...900 HP	ATV61EXC●●●N4H
	90 kW...630 kW/ 125 HP...900 HP	ATV61ES5●●●N4 ATV61EXS5●●●N4 ATV61EXC●●●N4
	630 kW...1400 kW	ATV61EXA●●●N4
380...480 V	0.75 kW...630 kW/ 1 HP...900 HP	ATV61H●●●N4
	0.75 kW...90 kW/ 1 HP...125 HP	ATV61W●●●N4 ATV61W●●●N4C
	110 kW...630 kW/ 150 HP...900 HP	ATV61Q●●●N4
500 V	90 kW...630 kW/ 125 HP...800 HP	ATV61EXS5●●●N ATV61EXC●●●N
	630 kW...1800 kW	ATV61EXA●●●N
500...600 V	1.5 kW...15 kW/ 2 HP...20 HP	ATV61H●●●S6X
500...690 V	2.2 kW...800 kW/ 3 HP...800 HP	ATV61H●●●Y
	110 kW...630 kW/ 150 HP...800 HP	ATV61Q●●●Y
690 V	110 kW...800 kW/ 125 HP...800 HP	ATV61EXC●●●Y ATV61EXS5●●●Y
	800 kW...2400 kW	ATV61EXA●●●Y ATV61EXA●●●YH



Extended functions using option cards

Altivar 61 drives with 200...240 V three-phase supply voltage can also be used with motor power ratings from 0.37 kW/0.5 HP to 5.5 kW/7.5 HP single-phase, if the motor is derated.

Flexibility in control systems and building management systems

The Altivar 61 drive **1** has numerous logic and analog inputs and outputs that can be configured to adapt better to applications. Its functions can be extended by using I/O expansion cards **2** (see page 1/47).

It includes the Modbus and CANopen protocols as standard to enhance the performance of your control systems.

It is open to other control system architectures for industry and integrates easily into building management systems (HVAC) using communication option cards **2** (see page 1/54).

Most communication protocols for use in industry (Modbus TCP, Ethernet/IP, Modbus/Uni-Telway, PROFIBUS DP V0 or V1, DeviceNet, INTERBUS, CC-Link and Ethernet POWERLINK) or in building management (LonWorks, METASYS N2, APOGEE FLN, BACnet) are available.

It can be open to a distributed architecture by using a Controller Inside programmable card **2** which allows the drive to be adapted to specific applications, quickly and in an open-ended manner, by decentralizing the control system functions (programming in IEC 61131-3 compliant languages) (see pages 1/50 to 1/53).

It can also be used to manage several pumps using multi-pump cards **2** (see pages 1/48 and 1/49).

The Controller Inside and multi-pump cards have their own I/O and can manage the drive's I/O as well as those of the I/O expansion cards. They can also use drive parameters such as speed, current, torque, etc.

The Altivar 61 drive can also take an encoder interface card to increase the safety of the application (see page 1/46).

Note: The Altivar 61 can accommodate a maximum of two option cards simultaneously; please refer to the summary table of possible combinations to find out which options are available for each drive (see pages 1/34 to 1/45).

An open-ended offer to adapt to your applications (continued)**Electromagnetic compatibility (EMC)**

The need for electromagnetic compatibility was taken into account at the outset when designing the drive.

The incorporation of EMC filters in **ATV61H●●●M3**, **ATV61●●●●N4** and **ATV61●●●●Y** drives and the observance of requirements in respect of EMC simplifies installation and provides economical means of helping ensuring that equipment meets CE marking requirements.

ATV61W●●●N4C drives have integrated EMC filters, which make them compliant with the requirements of EN 55011 (class B group 1) and IEC/EN 61800-3 (category C1) standards.

ATV61H●●●M3X, **ATV61H●●●S6X** and **ATV61Q●●●●●** drives have been designed without an EMC filter. Filters are available as an option and can be installed by the customer to reduce the level of emissions (see page 1/78).

A wide range of options

A large number of external options can be combined with the Altivar 61:

- Braking units and resistors (see pages 1/60 to 1/63)
- DC chokes, line chokes and passive filters (see pages 1/64 to 1/75) and the Active Front End option for reducing current harmonics (see pages 1/76 to 1/79)
- Additional EMC input filters for reducing conducted emissions on the line (see pages 1/80 and 1/81)
- Motor chokes and sinus filters for long cable runs or to remove the need for shielding (see pages 1/83 to 1/87)

Mounting options

The Altivar 61 drive can be mounted in a variety of ways to adapt to the various needs of an installation.

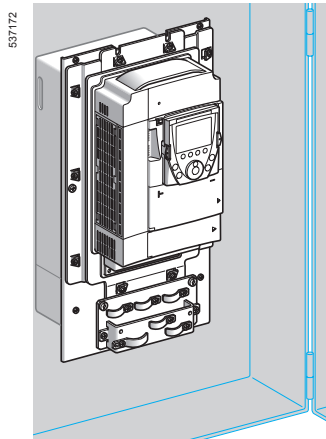
Mounting without an enclosure

The Altivar 61 drive can be mounted directly on a wall without having to be installed inside an enclosure. UL Type 1 conformity can be achieved by using kit **VW3A92●●**, or IP 21 or IP 31 conformity with kit **VW3A91●●** (see pages 1/26 and 1/27).

Flush-mounting in dust and damp proof enclosure

The Altivar 61 drive has been designed to reduce the size of enclosures (floor-standing, wall-mounted, etc.).

Flush-mounting kit **VW3A95●●** makes it possible to mount the power section outside the enclosure and limit the temperature rise inside the enclosure (see page 1/25). This variant also allows side-by-side mounting, if operating conditions require it.



ATV61HU75N4 flush-mounted



Altivar 61 drive equipped with a Vario switch disconnector

Solutions for many environments

The offer includes numerous variants which make it possible to further broaden the Altivar 61 drive's range of applications.

It is designed to meet the requirements of each application as closely as possible, and offers ready-to-use or modular solutions.

Reinforced version variant

This reinforced version variant enables the Altivar 61 drive to be used for applications in difficult ambient pollution conditions (see page 1/23).

Variant with Vario switch disconnector

IP 54 Altivar 61 drives can be supplied equipped with a Vario switch disconnector. This ready-equipped offer, **ATV61E5●●●N4**, is specially designed for applications that require an accessible drive as close as possible to the motor (such as in fluid, waste water and air treatment applications).

It covers motor power ratings from 0.75 kW/1 HP to 90 kW/125 HP (see page 1/20).

Variant for medium voltage motors

This variant enables the Altivar 61 drive to be used for applications involving medium voltage motors (see page 1/24).

Variant for industrial environments and infrastructure

To facilitate set-up in industrial environments and infrastructure contexts (such as tunnels, subways, smoke extraction and pumping), an enclosed drive solution is available, enhanced by a wide range of options.

Altivar 61 Plus drive in IP 23 or IP 54 ready-assembled, compact floor-standing enclosure

This enclosed drive solution (**ATV61EXC●●●●●**) provides IP 23 or IP 54 protection. It is supplied ready-assembled and ready to connect. A common air circuit provides enclosure ventilation.

In addition to a standard version, a modular version is available with a choice of options to suit the requirements of your installation.

The offer covers a range of drives from 90 kW/125 HP to 800 kW/800 HP (see page 2/12).

Variant for applications requiring a very low harmonic level

Altivar 61 Plus drive with harmonic filtering in "Ready to use" IP 23 or IP 54 floor-standing enclosure

This enclosed product has been designed to offer, in a compact "ready-to-use" version, a range of drives designed to meet the requirements of applications requiring very low harmonic distortion factors (THDI ≤ 5 %).

This enclosed drive solution provides, depending on the model, degree of protection IP 23 (**ATV61EXC2●●●N4H** and **ATV61EXA2●●YH**) or IP 54 (**ATV61EXC5●●●N4H** and **ATV61EXA5●●YH**).

In addition to a standard version, a modular version is available with a choice of options to suit the requirements of your installation.

The offer covers a range of drives from 55 kW/75 HP to 2400 kW (see pages 2/6 and 2/7).



Altivar 61 Plus variant with harmonic filtering in "ready to use" IP 23 or IP 54 floor-standing enclosure



Pre-equipped IP 54 kit



Altivar 61 Plus variant
in "ready to use" IP 54 floor-standing enclosure



Altivar 61 Plus variant
in an IP 23 or IP 54 enclosure with separate air flows

Solutions for many environments (continued)

Variant for environments requiring greater ruggedness

Water-cooled Altivar 61 drive

With their internal water-cooled system, Altivar 61Q (ATV61Q●●●N4 and ATV61Q●●●Y) drives represent the optimum solution for applications in which rugged versions are essential.

The integrated water-cooled system circuit can dissipate heat at its source and hence offers optimum integration of the whole electrical control system. Evacuation of thermal losses by this system also avoids the need to install an expensive air conditioning system.

The Altivar 61Q offer is also well suited to frequent start-up applications.

It covers motor power ratings between 110 kW/150 HP and 630 kW/900 HP (see pages 1/18 and 1/22).

These variants offer enclosed drive solutions with cooling systems specially designed to allow the Altivar 61 drive to operate in difficult environmental conditions.

Variants for harsh and highly polluted environments

These variants offer enclosed drive solutions with cooling systems specially designed to allow the Altivar 61 drive to operate in difficult environmental conditions.

Pre-equipped IP 54 kit

This straightforward and cost-effective solution, which is available by quoting a single reference, provides you with the mechanical components you need to create an IP 54 certified floor-standing enclosure (VW3A9541...VW3A9551) (see page 2/2).

The cooling systems enable the equipment to be installed in a variety of difficult environments (1 or 3 air circuits, depending on the model).

The overall dimensions, reduced to a minimum, allow assembly in extremely confined spaces.

The kit is available for IP 20 Altivar 61 drives from 110 kW/150 HP to 630 kW/900 HP (see page 2/2).

Altivar 61 Plus drive in "ready-to-use" IP 54 floor-standing enclosure

This enclosed drive solution (ATV61ES5●●●N4) provides IP 54 protection. It is supplied ready-assembled and ready to connect. Two separate cooling circuits help ensure optimum enclosure ventilation.

The offer covers a range of drives from 90 kW/125 HP to 630 kW/900 HP (see page 2/4).

Altivar 61 Plus drive in IP 23 or IP 54 floor-standing enclosure with separate air flows

These floor-standing enclosures are designed to operate in harsh and highly polluted environments, by using two separate cooling circuits, one for the control section and one for the power section, to optimize enclosure ventilation.

Depending on the model, they provide IP 54 protection (ATV61EXS5●●●●) and IP 23 or IP 54 (ATV61EXA●●●●●●).

It includes a standard version, a modular version via the addition of numerous options and a fully customizable version to suit your requirements.

The offer covers a range of drives from 90 kW/125 HP to 630 kW/900 HP (ATV61EXS5●●●●) and 630 kW to 2400 kW (ATV61EXA●●●●●●) (see page 2/8).

1



Dialogue and configuration tools for Altivar 61 drive

Dialogue and configuration tools**Remote graphic display terminal**

The Altivar 61 drive **1** is supplied with a remote graphic display terminal **3**.

This terminal provides a user-friendly interface with fast and easy access, on-line help screens, text in the user's language (8 languages factory-installed, plus others available via flash memory). It can be customized for the user or the machine. The advanced functions on the display unit allow easy access to the more complex configuration, setup or maintenance functions.

It can be located remotely on an enclosure door with IP 54 or IP 65 degree of protection on IP 20 drives, or built-in on IP 54 drives.

See page 1/33.

SoMove Mobile Software

SoMove Mobile software **2** is particularly suitable for maintenance operations. It can be used to edit the drive parameters from a mobile phone, save configurations, import them from a PC and export them to a PC via a Bluetooth® wireless connection.

See page 1/33.

SoMove setup software

SoMove setup software for PC **4** is used to configure, adjust and debug the Altivar 61 drive with the Oscilloscope function, as well as for drive maintenance, in the same way as for other Schneider Electric drives and starters.

See page 1/33.

Simple Loader and Multi-Loader configuration tools

The Simple Loader tool **6** enables the configuration from one powered-up drive to be duplicated on another powered-up drive.

The Multi-Loader tool **5** enables configurations from a PC or drive to be copied and duplicated on another drive; Altivar 61 drives must be powered up.

See page 1/33.

Quick programming tools

With its macro-configurations and its Simply Start menu, the Altivar 61 drive gets applications up and running immediately.

Macro-configuration

The Altivar 61 drive offers quick and easy programming using macro-configurations corresponding to different applications or uses: start-stop, pumping and ventilation, general use, connection to communication networks, PID regulator.

Each of these configurations is still fully modifiable.

Simply Start menu

The Simply Start menu can be used to help ensure that the application is working correctly, maximize motor performance and help ensure motor protection.

The architecture, the hierarchical parameter structure and the direct access functions serve to make programming quick and easy, even for the more complex functions.

537166

RUN	Term	+50.00Hz	5.4A
1.1 SIMPLY START			
Cde 2 fils/3 fils		Cde 2 fils	
Macro-configuration		Manutention	
Standard fr�q. mot		50Hz IEC	
Puissance nom. mot		2.2kW	
Tension nom. mot		400V	
Code	<<	>>	Quick

Simply Start menu

537165

RUN	Term	+50.00Hz	5.4A
1.1 SIMPLY START ☐			
Cde 2 fils/3 fils		:	Cde 2 fils
Macro-configuration		:	Manutention
Standard fréq. mot		:	50Hz IEC
Puissance nom. mot		:	2.2kW
Tension nom. mot		:	400V
Code	☐	<< ☐ >> ☐	Quick ☐

Built-in function: fault log

Integrated functions for maintenance, monitoring and diagnostics

The Altivar 61 has numerous built-in maintenance, monitoring and diagnostic functions.

The option of powering the control part separately enables communication to be maintained (monitoring, diagnostics) even if there is no power supply to the power part.

Example of functions:

- Drive test functions with diagnostic screen on the remote graphic display terminal
- I/O maps
- Communication maps for the different ports
- Oscilloscope function that can be viewed using the SoMove setup software
- Management of the drive installed base via microprocessors with flash memory
- Remote use of these functions by connecting the drive to a modem via the Modbus port
- Identification of the drive's component parts as well as the software versions
- Fault logs with display of the value of up to 16 variables on occurrence of a fault
- Downloading languages to the terminal via flash memory
- Storage of a 5-line, 24-character message in the drive

Variable speed drives

Altivar 61

Supply voltage 200...240 V 50/60 Hz

1

PF10593



ATV61H075M3

PF107574



ATV61HU22M3Z

PF107581



ATV61HD22M3X

IP 20 drives

Motor		Line supply				Altivar 61			
Power indicated on rating plate ⁽¹⁾		Line current ⁽²⁾		Apparent power	Max. prospective line Isc	Maximum continuous current ⁽¹⁾	Max. transient current for 60 s	Reference	Weight
						230 V			
kW	HP	A	A	kVA	kA	A	A		kg
Single-phase supply voltage: 200...240 V 50/60 Hz									
0.37	0.5	6.9	5.8	1.4	5	3	3.6	ATV61H075M3	3.000
0.75	1	12	9.9	2.4	5	4.8	5.7	ATV61HU15M3	3.000
1.5	2	18.2	15.7	3.7	5	8	9.6	ATV61HU22M3	4.000
2.2	3	25.9	22.1	5.3	5	11	13.2	ATV61HU30M3	4.000
3	—	25.9	22	5.3	5	13.7	16.4	ATV61HU40M3 ⁽³⁾	4.000
4	5	34.9	29.9	7	5	17.5	21	ATV61HU55M3 ⁽³⁾	5.500
5.5	7.5	47.3	40.1	9.5	22	27.5	33	ATV61HU75M3 ⁽³⁾	7.000

Three-phase supply voltage: 200...240 V 50/60 Hz

0.75	1	6.1	5.3	2.2	5	4.8	5.7	ATV61H075M3	3.000
1.5	2	11.3	9.6	4	5	8	9.6	ATV61HU15M3	3.000
2.2	3	15	12.8	5.3	5	11	13.2	ATV61HU22M3	4.000
3	—	19.3	16.4	6.8	5	13.7	16.4	ATV61HU30M3	4.000
4	5	25.8	22.9	9.5	5	17.5	21	ATV61HU40M3	4.000
5.5	7.5	35	30.8	12.8	22	27.5	33	ATV61HU55M3	5.500
7.5	10	45	39.4	16.4	22	33	39.6	ATV61HU75M3	7.000
11	15	53.3	45.8	19	22	54	64.8	ATV61HD11M3X (4)	22.000
15	20	71.7	61.6	25.6	22	66	79.2	ATV61HD15M3X (4)	22.000
18.5	25	77	69	28.7	22	75	90	ATV61HD18M3X (4)	30.000
22	30	88	80	33.3	22	88	105.6	ATV61HD22M3X (4)	30.000
30	40	124	110	45.7	22	120	144	ATV61HD30M3X (4)	37.000
37	50	141	127	52.8	22	144	172.8	ATV61HD37M3X (4)	37.000
45	60	167	147	61.1	22	176	211.2	ATV61HD45M3X (4)	37.000
55	75	200	173	71.9	35	221	265.2	ATV61HD55M3X (4)	84.000
75	100	271	232	96.4	35	285	342	ATV61HD75M3X (4)	84.000
90	125	336	288	119.7	35	359	431	ATV61HD90M3X (4)	106.000

Dimensions (overall)

Drives	W x H x D mm
ATV61H075M3, HU15M3	130 x 230 x 175
ATV61HU22M3...HU40M3	155 x 260 x 187
ATV61HU55M3	175 x 295 x 187
ATV61HU75M3	210 x 295 x 213
ATV61HD11M3X, HD15M3X	230 x 400 x 213
ATV61HD18M3X, HD22M3X	240 x 420 x 236
ATV61HD30M3X...HD45M3X	320 x 550 x 266
ATV61HD55M3X, HD75M3X	320 x 920 x 377
ATV61HD90M3X	360 x 1022 x 377

(1) These values are given for a nominal switching frequency of 12 kHz up to ATV61HD45M3X or 2.5 kHz for ATV61HD55M3X...HD90M3X drives for use in continuous operation.

The switching frequency is adjustable from 1...16 kHz up to ATV61HD45M3X, from 2.5...12 kHz for ATV61HD55M3X and from 2.5...8 kHz for ATV61HD75M3X, HD90M3X.

Above 2.5 or 12 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current, see derating curves on our website www.schneider-electric.com.

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

(3) A line choke must be used (see page 1/67).

(4) Drive supplied without EMC filter. EMC filters are available as an option (see page 1/81).

Note: Consult the summary tables of possible drive, option and accessory combinations (see pages 1/34, 1/35, 1/44 and 1/45).

PF 107483



ATV61HU22N4

PF 107575



ATV61HU40N4Z

PF 107586



ATV61HC31N4

IP 20 drives with integrated category C2 or C3 EMC filter

Motor		Line supply				Altivar 61				
Power indicated on rating plate (1)		Line current (2)		Apparent power	Max. prospective line Isc	Maximum continuous current (1)		Max. transient current for 60 s	Reference	Weight
		380 V	480 V	380 V		380 V (IEC)	460 V (NEC)			
kW	HP	A	A	kVA	kA	A		A		kg
Three-phase supply voltage: 380...480 V 50/60 Hz										
0.75	1	3.7	3	2.4	5	2.3	2.1	2.7	ATV61H075N4	3.000
1.5	2	5.8	5.3	3.8	5	4.1	3.4	4.9	ATV61HU15N4	3.000
2.2	3	8.2	7.1	5.4	5	5.8	4.8	6.9	ATV61HU22N4	3.000
3	—	10.7	9	7	5	7.8	6.2	9.3	ATV61HU30N4	4.000
4	5	14.1	11.5	9.3	5	10.5	7.6	12.6	ATV61HU40N4	4.000
5.5	7.5	20.3	17	13.4	22	14.3	11	17.1	ATV61HU55N4	5.500
7.5	10	27	22.2	17.8	22	17.6	14	21.1	ATV61HU75N4	5.500
11	15	36.6	30	24.1	22	27.7	21	33.2	ATV61HD11N4	7.000
15	20	48	39	31.6	22	33	27	39.6	ATV61HD15N4	22.000
18.5	25	45.5	37.5	29.9	22	41	34	49.2	ATV61HD18N4	22.000
22	30	50	42	32.9	22	48	40	57.6	ATV61HD22N4	30.000
30	40	66	56	43.4	22	66	52	79.2	ATV61HD30N4	37.000
37	50	84	69	55.3	22	79	65	94.8	ATV61HD37N4	37.000
45	60	104	85	68.5	22	94	77	112.8	ATV61HD45N4	44.000
55	75	120	101	79	22	116	96	139.2	ATV61HD55N4	44.000
75	100	167	137	109.9	22	160	124	192	ATV61HD75N4	44.000
90	125	166	143	109.3	35	179	179	214.8	ATV61HD90N4	84.000
110	150	202	168	133	35	215	215	258	ATV61HC11N4	84.000
132	200	239	224	157.3	35	259	259	310.8	ATV61HC13N4	106.000
160	250	289	275	190.2	50	314	314	376.8	ATV61HC16N4	116.000
200	300	357	331	235	50	427	427	512.4	ATV61HC22N4	163.000
220	350	396	383	260.6	50					
250	400	444	435	292.2	50	481	481	577.2	ATV61HC25N4	207.000
280	450	494	494	325.1	50	616	616	739.2	ATV61HC31N4	207.000
315	500	555	544	365.3	50					
355	—	637	597	419.3	50	759	759	910.8	ATV61HC40N4	320.000
400	600	709	644	466.6	50					
500	700	876	760	576.6	50	941	941	1129.2	ATV61HC50N4	330.000
560	800	978	858	643.6	50	1188	1188	1425.6	ATV61HC63N4	435.000
630	900	1091	964	718	50					

Dimensions (overall)

Drives	W x H x D mm
ATV61H075N4...HU22N4	130 x 230 x 175
ATV61HU30N4, HU40N4	155 x 260 x 187
ATV61HU55N4, HU75N4	175 x 295 x 187
ATV61HD11N4	210 x 295 x 213
ATV61HD15N4, HD18N4	230 x 400 x 213
ATV61HD22N4	240 x 420 x 236
ATV61HD30N4, HD37N4	240 x 550 x 266
ATV61HD45N4...HD75N4	320 x 630 x 290
ATV61HD90N4, HC11N4	320 x 920 x 377
ATV61HC13N4	360 x 1022 x 377
ATV61HC16N4	340 x 1190 x 377
ATV61HC22N4	440 x 1190 x 377
ATV61HC25N4, HC31N4	595 x 1190 x 377
ATV61HC40N4, HC50N4	890 x 1390 x 377
ATV61HC63N4	1120 x 1390 x 377

(1) These values are given for a nominal switching frequency of 12 kHz up to ATV61HD75N4, 4 kHz for ATV 61HD90N4 or 2.5 kHz for ATV61HC11N4...HC63N4 drives for use in continuous operation.

The switching frequency is adjustable from 1...16 kHz up to ATV61HD75N4 and from 2...8 kHz for ATV61HD90N4...ATV61HC63N4.

Above 2.5, 4 or 12 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see derating curves on our website www.schneider-electric.com).

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

Note: Consult the summary tables of possible drive, option and accessory combinations (see pages 1/36, 1/37, 1/44 and 1/45).



ATV61QC11N4

Water-cooled IP 20 drives

Motor		Line supply				Altivar 61				Reference	Weight
		Line current (2)		Apparent power	Max. prospective line Isc	Maximum continuous current (1)		Max. transient current for 60 s			
						380 V (IEC)	460 V (NEC)				
kW	HP	A	A	kVA	kA	A	A			kg	
Three-phase supply voltage: 380...480 V 50/60 Hz											
110	150	202	168	133	35	215	215	258	ATV61QC11N4	80.000	
132	200	239	224	157.3	35	259	259	310.8	ATV61QC13N4	80.000	
160	250	289	275	190.2	50	314	314	376.8	ATV61QC16N4	80.000	
200	300	357	331	235	50	387	387	464	ATV61QC20N4	140.000	
220	350	396	383	260.6	50	481	481	577.2	ATV61QC25N4	140.000	
250	400	444	435	292.2	50						
280	450	494	494	325.1	50	616	616	739.2	ATV61QC31N4	140.000	
315	500	555	544	365.3	50						
355	—	637	597	419.3	50	759	759	910.8	ATV61QC40N4	300.000	
400	600	709	644	466.6	50						
500	700	876	760	576.6	50	941	941	1129.2	ATV61QC50N4	300.000	
560	800	978	858	643.6	50	1188	1188	1425.6	ATV61QC63N4	300.000	
630	900	1091	964	718	50						
Dimensions (overall)											
Drive									W x H x D mm		
ATV61QC11N4...QC16N4									330 x 950 x 377		
ATV61QC20N4...QC31N4									585 x 950 x 377		
ATV61QC40N4...QC63N4									1110 x 1150 x 377		

(1) These values are given for a nominal switching frequency of 2.5 kHz, for use in continuous operation.

The switching frequency is adjustable from 2.5...8 kHz.

Above 2.5 kHz, the drive will reduce the switching frequency automatically in the event of excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see derating curves on our website www.schneider-electric.com).

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

Note: Consult the summary tables of possible drive, option and accessory combinations (see pages 1/36, 1/37, 1/44 and 1/45).

Variable speed drives

Altivar 61

Supply voltage 380...480 V 50/60 Hz

1

PF107495



ATV61W075N4

PF107493



ATV61WD30N4

Motor Power indicated on rating plate (1)	Line supply				Altivar 61			Reference	Weight
	Line current (2)		Apparent power	Max. prospective line Isc	Maximum continuous current (1)		Max. transient current for 60 s		
	380 V	480 V	380 V		380 V (IEC)	480 V (NEC)			
kW	HP	A	A	kVA	kA	A	A		kg

IP 54 drives with integrated category C2 EMC filter

Three-phase supply voltage: 380...480 V 50/60 Hz

0.75	1	1.8	1.5	1.2	5	2.3	2.1	2.5	ATV61W075N4	13.000
1.5	2	3.5	3	2.3	5	4.1	3.4	4.5	ATV61WU15N4	13.000
2.2	3	5	4.1	3.3	5	5.1	4.8	5.6	ATV61WU22N4	13.000
3	—	6.7	5.6	4.4	5	7.2	6.2	7.9	ATV61WU30N4	14.000
4	5	8.8	7.4	5.8	5	9.1	7.6	10	ATV61WU40N4	16.000
5.5	7.5	11.4	9.2	7.5	22	12	11	13.2	ATV61WU55N4	16.000
7.5	10	15.8	13.3	10.4	22	16	14	17.6	ATV61WU75N4	22.000
11	15	21.9	17.8	14.4	22	22.5	21	24.7	ATV61WD11N4	22.000
15	20	30.5	25.8	20	22	30.5	27	33.5	ATV61WD15N4	28.000
18.5	25	37.5	32.3	24.7	22	37	34	40.7	ATV61WD18N4	36.000
22	30	43.6	36.6	28.7	22	43.5	40	47.8	ATV61WD22N4	36.000
30	40	56.7	46.2	37.3	22	58.5	52	64.3	ATV61WD30N4	51.000
37	50	69.5	56.8	45.7	22	71.5	65	78.6	ATV61WD37N4	64.000
45	60	85.1	69.6	56	22	85	77	93.5	ATV61WD45N4	65.000
55	75	104.8	87	69	35	103	96	113.3	ATV61WD55N4	92.000
75	100	140.3	113.8	92.3	35	137	124	150.7	ATV61WD75N4	92.000
90	125	171.8	140.9	113	35	163	156	179.3	ATV61WD90N4	92.000

IP 54 drives with integrated category C1 EMC filter

Three-phase supply voltage: 380...480 V 50/60 Hz

0.75	1	1.8	1.5	1.2	5	2.3	2.1	2.5	ATV61W075N4C	19.000
1.5	2	3.5	3	2.3	5	4.1	3.4	4.5	ATV61WU15N4C	19.000
2.2	3	5	4.1	3.3	5	5.1	4.8	5.6	ATV61WU22N4C	20.000
3	—	6.7	5.6	4.4	5	7.2	6.2	7.9	ATV61WU30N4C	20.000
4	5	8.8	7.4	5.8	5	9.1	7.6	10	ATV61WU40N4C	23.000
5.5	7.5	11.4	9.2	7.5	22	12	11	13.2	ATV61WU55N4C	23.000
7.5	10	15.8	13.3	10.4	22	16	14	17.6	ATV61WU75N4C	32.000
11	15	21.9	17.8	14.4	22	22.5	21	24.7	ATV61WD11N4C	32.000
15	20	30.5	25.8	20	22	30.5	27	33.5	ATV61WD15N4C	40.000
18.5	25	37.5	32.3	24.7	22	37	34	40.7	ATV61WD18N4C	51.000
22	30	43.6	36.6	28.7	22	43.5	40	47.8	ATV61WD22N4C	50.000
30	40	56.7	46.2	37.3	22	58.5	52	64.3	ATV61WD30N4C	68.000
37	50	69.5	56.8	45.7	22	71.5	65	78.6	ATV61WD37N4C	85.000
45	60	85.1	69.6	56	22	85	77	93.5	ATV61WD45N4C	85.000
55	75	104.8	87	69	35	103	96	113.3	ATV61WD55N4C	119.000
75	100	140.3	113.8	92.3	35	137	124	150.7	ATV61WD75N4C	119.000
90	125	171.8	140.9	113	35	163	156	179.3	ATV61WD90N4C	119.000

Dimensions (overall)

Drives	W x H x D mm
ATV61W075N4 (C)...WU30N4 (C)	240 x 490 x 272
ATV61WU40N4 (C), WU55N4 (C)	240 x 490 x 286
ATV61WU75N4 (C), WD11N4 (C)	260 x 525 x 286
ATV61WD15N4 (C)	295 x 560 x 315
ATV61WD18N4 (C), WD22N4 (C)	315 x 665 x 315
ATV61WD30N4 (C)	285 x 720 x 315
ATV61WD37N4 (C), WD45N4 (C)	285 x 880 x 343
ATV61WD55N4 (C)...WD90N4 (C)	362 x 1000 x 364

(1) These values are given for a nominal switching frequency of 8 kHz up to ATV61WD15N4 or ATV61WD15N4C, or 4 kHz for ATV61WD18N4...WD90N4 or ATV61WD18N4C...WD90N4C drives for use in continuous operation. The switching frequency is adjustable from 2...16 kHz for all ratings. Above 4 or 8 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see derating curves on our website www.schneider-electric.com).

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

Note: Consult the summary tables of possible drive, option and accessory combinations (see pages 1/38, 1/39, 1/44 and 1/45).



ATV61E5D11N4

IP 54 drives with integrated Vario switch disconnecter and category C2 EMC filter

Three-phase supply voltage: 380...480 V 50/60 Hz

Motor		Line supply				Altivar 61			Reference	Weight
Power indicated on rating plate (1)		Line current (2)		Apparent power	Max. prospective line Isc	Maximum continuous current In (1)		Max. transient current for 60 s		
kW	HP	380 V	480 V	380 V		380 V	460 V			
		A	A	kVA	kA	A	A	A		kg
0.75	1	1.8	1.5	1.2	5	2.3	2.1	2.5	ATV61E5075N4	16.400
1.5	2	3.5	3	2.3	5	4.1	3.4	4.5	ATV61E5U15N4	16.400
2.2	3	5	4.1	3.3	5	5.1	4.8	5.6	ATV61E5U22N4	16.400
3	—	6.7	5.6	4.4	5	7.2	6.2	7.9	ATV61E5U30N4	16.400
4	5	8.8	7.4	5.8	5	9.1	7.6	10	ATV61E5U40N4	18.400
5.5	7.5	11.4	9.2	7.5	22	12	11	13.2	ATV61E5U55N4	18.400
7.5	10	15.8	13.3	10.4	22	16	14	17.6	ATV61E5U75N4	22.700
11	15	21.9	17.8	14.4	22	22.5	21	24.7	ATV61E5D11N4	22.700
15	20	30.5	25.8	20	22	30.5	27	33.5	ATV61E5D15N4	36.700
18.5	25	37.5	32.3	24.7	22	37	34	40.7	ATV61E5D18N4	45.400
22	30	43.6	36.6	28.7	22	43.5	40	47.8	ATV61E5D22N4	45.400
30	40	56.7	46.2	37.3	22	58.5	52	64.3	ATV61E5D30N4	52.800
37	50	69.5	56.8	45.7	22	71.5	65	78.6	ATV61E5D37N4	65.800
45	60	85.1	69.6	56	22	85	77	93.5	ATV61E5D45N4	65.800
55	75	104.8	87	69	35	103	96	113.3	ATV61E5D55N4	84.400
75	100	140.3	113.8	92.3	35	137	124	150.7	ATV61E5D75N4	84.400
90	125	171.8	140.9	113	35	163	156	179.3	ATV61E5D90N4	84.400

Dimensions (overall)

Drives

W x H x D

ATV61E5075N4...U30N4	240 x 490 x 296
ATV61E5U40N4, U55N4	240 x 490 x 310
ATV61E5U75N4, D11N4	260 x 525 x 310
ATV61E5D15N4	295 x 560 x 339
ATV61E5D18N4, D22N4	315 x 665 x 340
ATV61E5D30N4	285 x 720 x 335
ATV61E5D37N4, D45N4	285 x 880 x 383
ATV61E5D55N4...D90N4	362 x 1000 x 404

(1) These values are given for a nominal switching frequency of 8 kHz up to ATV61E5D15N4 or 4 kHz for ATV61E5D18N4...E5D90N4 drives for use in continuous operation.

The switching frequency is adjustable from 2...16 kHz for all ratings.

Above 4 or 8 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see derating curves on our website www.schneider-electric.com).

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

PF-107581



ATV61HU30S6X

IP 20 drives									
Motor			Line supply			Altivar 61			
Power indicated on rating plate (1)			Line current (2)		Max. prospective line Isc	Maximum continuous current (1) (3)		Reference	Weight
500 V	575 V	500 V 600 V				500 V	575 V		
kW	HP	A	A	kA		A	A		
Three-phase supply voltage: 500...600 V 50/60 Hz									
2.2	3	7.6	6.7	22	4.5	3.9	ATV61HU22S6X	7.500	
3	—	9.9	10	22	5.8	—	ATV61HU30S6X	7.500	
4	5	12.5	10.9	22	7.5	6.1	ATV61HU40S6X	7.500	
5.5	7.5	16.4	14.2	22	10	9	ATV61HU55S6X	7.500	
7.5	10	21.4	18.4	22	13.5	11	ATV61HU75S6X	7.500	

IP 20 drives with integrated category C3 EMC filter

Three-phase supply voltage: 500...690 V 50/60 Hz

Motor			Line supply				Altivar 61						
Power indicated on rating plate (1)			Line current (2)			Max. prospective line Isc	Maximum continuous current (1) (3)			Reference (4)	Weight		
500 V	575 V	690 V	500 V	600 V	690 V		500 V	575 V	690 V				
kW	HP	kW	A	A	A	kA	A	A	A		kg		
2.2	3	3	5.2	4.4	5.2	22	4.5	3.9	4.5	ATV61HU30Y	30.000		
3	—	4	6.8	—	6.6	22	5.8	—	5.5	ATV61HU40Y	30.000		
4	5	5.5	8.6	7.2	8.6	22	7.5	6.1	7.5	ATV61HU55Y	30.000		
5.5	7.5	7.5	11.2	9.5	11.2	22	10	9	10	ATV61HU75Y	30.000		
7.5	10	11	14.6	12.3	15.5	22	13.5	11	13.5	ATV61HD11Y	30.000		
11	15	15	19.8	16.7	20.2	22	18.5	17	18.5	ATV61HD15Y	30.000		
15	20	18.5	24.6	20.7	24	22	24	22	24	ATV61HD18Y	30.000		
18.5	25	22	29	24	27	22	29	27	27	ATV61HD22Y	30.000		
22	30	30	33	28	34	22	35	32	35	ATV61HD30Y	30.000		
30	40	37	48	41	47	22	47	41	43	ATV61HD37Y	68.000		
37	50	45	62	51	55	22	59	52	54	ATV61HD45Y	68.000		
45	60	55	68	57	63	22	68	62	62	ATV61HD55Y	68.000		
55	75	75	79	67.0	82	22	85	77	84	ATV61HD75Y	68.000		
75	100	90	109	92	101	22	110	99	104	ATV61HD90Y	68.000		
90	125	110	128	113	117	22	136	125	125	ATV61HC11Y (4)	102.000		
110	150	132	153	133	137	28	165	144	150	ATV61HC13Y (4)	102.000		
132	—	160	182	158.9	163	28	200	—	180	ATV61HC16Y (4)	102.000		
160	200	200	218	197	199	35	240	192	220	ATV61HC20Y (4)	102.000		
200	250	250	277	250	257	35	312	242	290	ATV61HC25Y (4)	181.000		
250	350	315	342	311	317	35	390	336	355	ATV61HC31Y (4)	181.000		
315	450	400	426	390	394	35	462	412	420	ATV61HC40Y (4)	181.000		
400	550	500	547	494	505	35	590	528	543	ATV61HC50Y (4)	383.000		
500	700	630	673	613	616	42	740	672	675	ATV61HC63Y (4)	383.000		
630	800	800	847	771	775	42	900	768	840	ATV61HC80Y (4)	383.000		

Dimensions (overall)

Drives	W x H x D mm
ATV61HU22S6X...HU75S6X	210 x 295 x 213
ATV61HU30Y...HD30Y	240 x 420 x 236
ATV61HD37Y...HD90Y	320 x 630 x 290
ATV61HC11Y...HC20Y	340 x 1190 x 377
ATV61HC25Y...HC40Y	595 x 1190 x 377
ATV61HC50Y...HC80Y	1120 x 1390 x 377

(1) These values are given for a nominal switching frequency of 4 kHz for ATV61HU...S6X and for ATV61HU30Y...HD30Y or 2.5 kHz for ATV61HD37Y...HC80Y drives for use in continuous operation. The switching frequency is adjustable from 2.5...6 kHz for ATV61HU...S6X and for ATV61HU30Y...HD30Y and from 2.5...4.9 kHz for ATV61HD37Y...HC80Y drives. Above 2.5 kHz or 4 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see derating curves on our website www.schneider-electric.com).

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

(3) The maximum transient current for 60 seconds is equal to 120% of the maximum continuous current.

(4) Line choke mandatory for ATV61HC11Y...HC80Y drives, unless a special transformer is used (12-pulse) or when using the "387" variant for medium voltage motors (see page 1/24). The line choke must be ordered separately (see page 1/68).

Note: Consult the summary tables of possible drive, option and accessory combinations (see pages 1/40 to 1/45).

PF-107583



ATV61HD45Y

PF-107586



ATV61HC31Y
+
VW3A4572 (line choke
mandatory) (4)

PF-107532





ATV61QC13Y

Water-cooled IP 20 drives

Three-phase supply voltage: 500...690 V 50/60 Hz

Motor			Line supply				Altivar 61				
Power indicated on rating plate (1)			Line current (2)		Max. prospective line Isc		Maximum continuous current (1) (3)		Reference (4)		Weight
500 V	575 V	690 V	500 V	600 V	690 V		500 V	575 V	690 V		
kW	HP	kW	A	A	A	kA	A	A	A		kg
110	150	132	153	133	137	28	165	144	150	ATV61QC13Y	80.000
132	—	160	182	158.9	163	28	200	—	180	ATV61QC16Y	80.000
160	200	200	218	197	199	35	240	192	220	ATV61QC20Y	80.000
200	250	250	277	250	257	35	312	242	290	ATV61QC25Y	140.000
250	350	315	342	311	317	35	390	336	355	ATV61QC31Y	140.000
315	450	400	426	390	394	35	462	412	420	ATV61QC40Y	140.000
400	550	500	547	494	505	35	590	528	543	ATV61QC50Y	300.000
500	700	630	673	613	616	42	740	672	675	ATV61QC63Y	300.000
630	800	800	847	771	775	42	900	768	840	ATV61QC80Y	300.000

Dimensions (overall)

Drives	W x H x D mm
ATV61QC13Y...QC20Y	330 x 950 x 377
ATV61QC25Y...QC40Y	585 x 950 x 377
ATV61QC50Y...QC80Y	1110 x 1150 x 377

(1) These values are given for a nominal switching frequency of 2.5 kHz, for use in continuous operation.

The switching frequency is adjustable from 2.5...4.9 kHz.

Above 2.5 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current (see derating curves on our website www.schneider-electric.com).

(2) Typical value for the indicated motor power and for the maximum prospective line Isc.

(3) The maximum transient current for 60 seconds is equal to 120% of the maximum continuous current.

(4) A line choke must be used (see page 1/68).

Note: Consult the summary tables of possible drive, option and accessory combinations (see pages 1/42 to 1/45).