Catalog | April 2026

Altivar HVAC ATH600

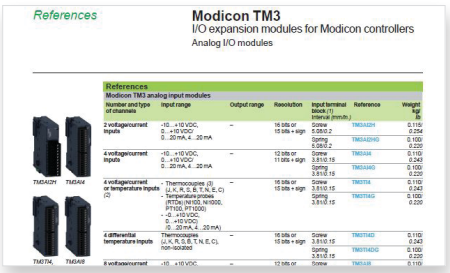
Variable speed drives for HVAC machines and buildings

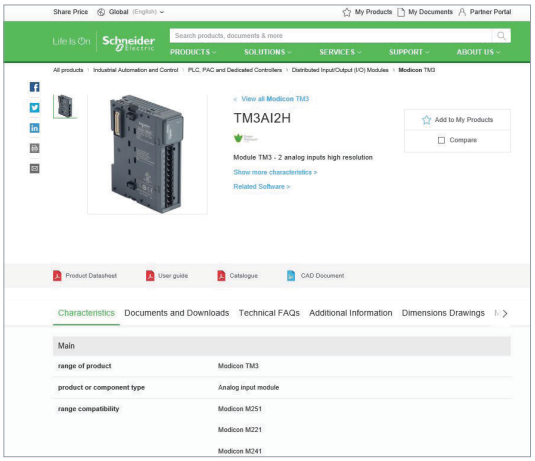
www.se.com

Schneider Electric

Quick access to product information

Get technical information about your product

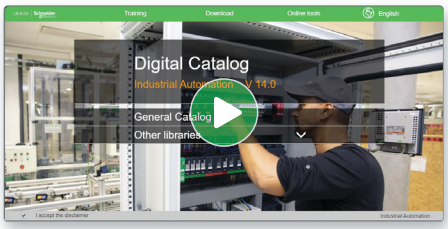


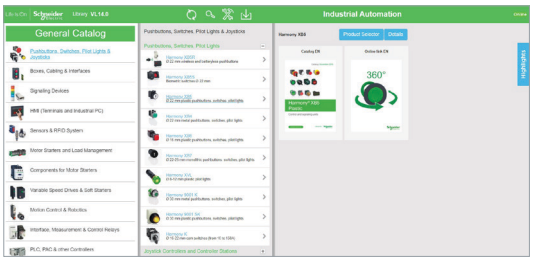


Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

Find your catalog



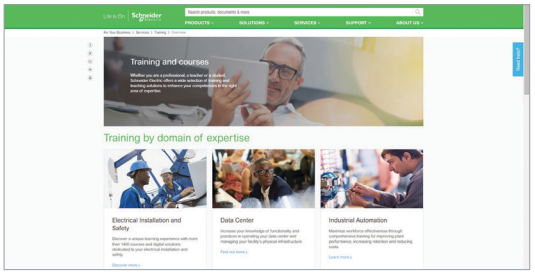


> With just 3 clicks, you can access the Industrial Automation and Control catalogs, in both English and French

> Consult digital automation catalogs at Digi-Cat Online

- Up-to-date catalogs
- Embedded product selectors, 360° pictures
- Optimized search by commercial references

Select your training



> Find the right Training for your needs on our Global website

> Locate the training center with the selector tool, using this link

Schneider Electric

mySchneider, your personalized digital experience

Access an all-in-one customized online experience and benefit from tailored business services, resources, and tools to efficiently support your business operations.

- **Efficiency:** In just a few clicks, find all the information and support you need to get the job done.
- **Simplicity:** Use a single login to access all business services, in one place, available 24/7. You no longer need to log in to multiple platforms.
- **Personalization:** Benefit from content, tools, and business services tailored to your activity, and customize your landing page based on your preferences.

Watch the How-to Videos

Order management

> Select Products and Add to Cart
> Check for Products' Price and Availability
> Order Products with Generic Commercial References

Product information

> Find a Product Data Sheet and Related Documents
> Select Products and Add to Cart
> Stay Up to Date on the Status of My Products

Support

> Get Quicker Answers Thanks to Online Support

Training

> Access Trainings Dedicated to My Activity

Create your account

Schneider Electric

Digital tools to help you select your Altivar HVAC ATH600 solution easily

Product selector for ATH600

- Easy selection of the ATH600 commercial reference
- Expand it with options and accessories
- Get the Bill of Material in standard format
- Drop it into the product cart
- Access technical information and documentation

Scan or click on the QR code

EcoStruxure™ Motor Control Configurator

- From your application, select your drive reference
- Expand it with coordinated combinations, options, and accessories
- Convert into Bill of Material, add the product to the cart
- Directly access product documentation
- Save, rework, share your solution with unique ID

Scan or click on the QR code

EcoStruxure™ Motor Management Design

- From your project, perform electrical design calculation
- Compare direct-on-line, soft starter, and variable speed drive
- Verify starting feasibility from mechanical standpoint
- Verify that power factor and harmonics levels objectives are met
- Build a complete Motor Management solution: circuit breakers, soft starters, drives, contactors, MCC panels, power quality monitoring
- Get a summary report with calculations and recommended offers

Scan or click on the QR code

Schneider Electric

Altivar

Discover Altivar

Soft starters and variable speed drives for industry

Discover a wide range of variable speed drives and soft starters for industry offering a powerful and reliable combination for your motor control solutions up to 20 MW. Starting from compact products to custom-engineered solutions, they are developed to the highest quality level to meet your needs in various applications, such as industrial processes, machines or buildings.

Explore our offer

- Altivar Process
- Altivar Machine
- Altivar HVAC
- Altivar Soft Starters
- Altivar Low Voltage AC Industry - Specialized Drives

Schneider Electric

Environmental Data Program

Enhance durability with Altivar™ HVAC ATH600 drives

Superior performance thanks to upgradability and modernization solutions

Environmental data available on mySchneider or the data sheet:

- Altivar HVAC ATH600 is RoHS and REACH compliant
- Transparent product environmental footprint information
- Life cycle assessment compliant with ISO 14025
- Transparent packaging information
- Transparent information about the removable battery
- Circularity profile and Recyclability Potential

Altivar HVAC ATH600 drives bring key benefits to help you achieve enhanced sustainability thanks to high-durability performance:

- by increasing the reliability of the system to maximize continuity of operations
- by allowing hardware and firmware upgradability to extend the lifetime of the equipment and keep it up to date
- by providing repairability and diagnostics to minimize downtime

Durability = Reliability + Upgradability + Repairability

Benefits

- Maximize continuity of operations
- Reduce your operational expenditure OPEX
- Increase energy efficiency
- Accelerate deployment
- Optimize control panel design
- Reduce your engineering time and cost
- Lower execution time
- Enhance sustainability
- Extend the service life of your equipment

Use the Motor Management tool to calculate **your energy savings**.

Experience our offer

Reliability

The Altivar HVAC ATH600 has been designed to deliver enhanced reliability to withstand high stress, whatever the origin - whether thermal, mechanical, or operational - to reduce downtime.

Additionally, the ATH600 integrates IEC 62443-4-2 SL-C1 certified cybersecurity features that help to protect against casual or coincidental violation, as well as the IEC/IEN 61508 certified SIL 3 Safe Torque Off function to help protect operators and HVAC machines.

Upgradability

Hardware and firmware upgrades are available. You can upgrade your Altivar HVAC ATH600 by adding either a module in the dedicated slot or an external option.

It is also possible to upgrade the ATH600 firmware. Available on the Schneider Electric website, the firmware is digitally signed and authenticity is verified by the ATH600.

Repairability

The Altivar HVAC ATH600 drives are designed to simplify on-site maintenance and repair processes thanks to integrated diagnostic functions, spare parts available from stock, and fast, documented replacement operations.

In addition, Schneider Electric implements a circular model, offering replacement with repaired or refurbished products so that your asset can be put back into service quickly.

General contents

Altivar HVAC ATH600 variable speed drives

EcoStruxure™
Innovation At Every Level

Our solution for Smart HVAC Control Systems

EcoStruxure™ Machine, our open, interoperable, IoT-enabled system architecture, helps OEMs quickly build smarter cost-optimized HVAC control systems with onboard energy-efficiency solutions while reducing maintenance and improving reliability. EcoStruxure Machine encompasses key technologies for product technology and edge control on premises, using cloud technologies to provide analytics and digital services.

EcoStruxure™ Machine

HVAC

Apps, Analytics & Services

AVEVA
Engineering, Operations, Performance

Edge Control


Secure interface


Modicon M171/M172/M173


EcoStruxure
Machine Expert - HVAC


EcoStruxure
Machine SCADA Expert

Connected products

Harmony

Advanced operator interfaces and industrial relays

Altivar

Variable speed drives and soft starters

PowerLogic

Basic Multi-function Metering

TeSys

Innovative and connected solutions for motor starters

SpaceLogic

Valves, Actuators & Sensors

Modicon

Power supplies for industrial & commercial use

Pact Series

World-class breakers and switches

End-to-end Cybersecurity

Cloud and/or On Premise

Altivar HVAC variable speed drives

HVAC drives

Market segments		**HVAC machines**	**HVAC machines and buildings**			
Types of machine		**Pumps, fans, and compressors**				
						
Mounting type		Cabinet integration	Cabinet integration	Wall mounting		
Degree of protection		IP20	IP00 and IP20	IP21/UL type 1	IP55/UL type 12	IP55 with C1 EMC filter
Power range for 50...60 Hz supply	Single-phase 200...240V	0.37...2.2 kW/*0.5...3 HP*	–			
	Three-phase 200...240V	0.37…15 kW/*0.5…20 HP*	–			
	Three-phase 380...480V	–	0.75…250 kW/*1…400 HP*	0.75…90 kW/*1…125 HP*	0.75…90 kW/*1…125 HP*	0.75…18.5 kW/*1…25 HP*
	Three-phase 380...500V	0.55…22 kW/*0.75…30 HP*	–			
	Three-phase 525...600V	1.5…15 kW/*2…20 HP*	–			
Drive	Output frequency	0.1…599 Hz	0.1...400 Hz up to 18.5 kW/*25 HP*, 0.1... 500 Hz from 22 kW/*30 HP*			
	Control type Asynchronous motor	U/F ratio (2 points, 5 points, energy saving, quadratic), sensorless flux vector control (standard and energy saving)	Standard U/F control, quadratic U/F control, energy saving control, sensoreless vector control			
	Synchronous motor	Sensorless vector control	Sensorless vector control for PM and SynRM motors			
Functions	Transient overcurrent	110% rated current for 60s	110% of the rated current in normal duty for 60s 150% of the rated current in heavy duty for 60s			
	Application functions	Run permissive, fire mode, forced fire mode, PID controller, additional PID controller, damper control, underload detection (broken belt), skip frequencies	Fire mode, run permissive, PID controller, 2 additional PID, damper control, broken belt detection, AI threshold detection, pump start/stop, sleep/ wake-up, dry run monitoring, low flow monitoring, booster control, scroll compressor management functions, jump frequencies, catch on the fly, ramp switching			
	Integrated functional safety functions	Safe Torque Off up to SIL3/PLe				
Number of integrated I/O	Analog inputs	3: 1 bipolar differential ±10 V, 1 voltage (0...10 V), and 1 current (0-20 mA)	3: Configurable as voltage (0...10 V) or current (0-20 mA/4-20 mA), 2 of them including probes (PTC, PT100, PT1000, or KTY84)			
	Digital inputs	6: 4 configurable (positive or negative logic), 1 with PTC probe input, 1x 20 kHz pulse input	6: Voltage 24 V ⎓ (positive or negative logic)			
	Analog outputs	1: Configurable as voltage (0...10 V) or current (0-20 mA)	2: Configurable as voltage (0...10 V) or current (0-20 mA)			
	Digital outputs	1: Configurable as sink or source	–			
	Relay outputs	2: 1 with NO/NC contacts and 1 with NO contacts	3: 1 with NO/NC contacts and 2 with NO contacts			
	Safety function inputs	1 + 1: 1 with STO and 1 digital input configurable for STO function	2: For STO function			
Communication	Integrated	Single port compatible with Modbus and BACnet MS/TP serial line	Modbus serial line, BACnet MS/TP serial line			
	Optional	BACnet/IP	BACnet/IP, EtherNet/IP, Modbus TCP dual port, PROFINET			
Configuration and runtime tools		Integrated display, DTM (device type manager), SoMove software, Multi-Loader (optional), and remote graphic terminal (optional)	Plain text display terminal, graphic display terminal, DTM (Device Type Manager), SoMove software			
Standards	EMC	EN 61800-3 environments 1 and 2, category C2, C3, C1 with optional EMC filter	EN 61800-3 environment 1 category C2 and environment 2 category C3			EN 61800-3 environment 1 category C1
	Harmonics	IEC 61000-3-12 and EN 61000-3-2 with optional line chokes	IEC 61000-3-12			
	Other standards	EN 61800-5-1, EN 61800-5-2 up to SIL3, EN ISO 13849-1 up to PLe, EN ISO 13849-2, EN 62061, EN 50495, EN 61800-9-2, EN IEC 63000, CSA 22.2N274	IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN/IEC 61000-3-12, EN/IEC 61800-5-1, IEC 60721-3, IEC 61508, ISO 13849-1			
Certifications		CE, UKCA, ATEX, IECEx, cULus, UL61800-5-1, UL61800-5-2, A2L, CSA 22.2 N274, EAC, KCC				
References		**ATH230●●●●●**	**ATH630●●●N4Z**	**ATH630●●●N4**	**ATH650●●●N4/ATH650●●●N4U** *(1)*	**ATH650●●●N4C**

(1) ATH650●●●N4U UL type 12 from 30 HP to 125 HP

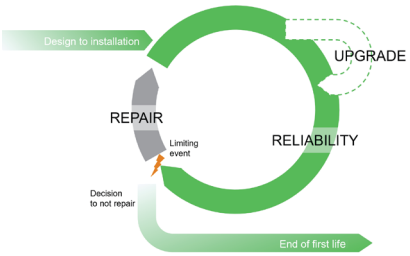
More technical information on www.se.com

Market segments			**Large and critical buildings**	
Types of machine			**Pumps, fans, and compressors**	
				
Power range for 50...60 Hz line supply	Three-phase: 315...415 V, 480 V		90...800 kW	
Main characteristics			Compact Drive Systems with an integrated line reactor to reduce the current harmonics THDi < 48%	Low Harmonic Drive Systems with 3-level technology to reach a total distortion factor THDi of around 2%, which fulfills the requirements according to IEEE 519 of THDi < 5%
Variants			Compact Standard offer Modular with integrated options (CTO) User-definable on request (ETO, Full ETO)	Low Harmonic Standard offer Modular with integrated options (CTO) User-definable on request (ETO, Full ETO)
Degree of protection			IP23 IP54 with separate air flows as an option	
Drive	Output frequency		0.1...500 Hz	
	Type of control	Asynchronous motor	Standard constant torque, variable standard torque, optimized torque mode	
		Synchronous motor	PM (permanent magnet) motor, synchronous reluctance motor	
Communication	Integrated		Modbus/TCP Modbus serial link Ethernet	
	As an option		EtherNet/IP and Modbus/TCP dual port PROFINET CANopen RJ45 daisy chain, SUB-D9, and screw terminal block Profibus DP V1 DeviceNet	
Interfaces and runtime tools			Graphic display terminal in the enclosure door Control terminals inside the enclosure Control terminals can be extended Reading of the parameters via USB interface on the keypad Embedded Web server, DTM (Device Type Manager), SoMove software	
Standards and certifications			CE, EAC, RCM, EN/IEC 61439 EN/IEC 61800-3, EN/IEC 61800-3 environment 2 category C3 EN/IEC 61800-5-1, IEC 60721-3,IEC 61508, ATEX 2/22, ATEX 1/21	CE, EAC, RCM, EN/IEC 61439 EN/IEC 61800-3, EN/IEC 61800-3 environment 2 category C3 EN/IEC 61800-5-1, IEC 60721-3,IEC 61508, ATEX 2/22, ATEX 1/21, IEEE 519
References			**ATV660●●●●4X1**	**ATV680●●●●4X1**

Variable speed drives
Altivar HVAC ATH600
Elevate HVAC performance, improving operational resilience

Altivar HVAC
Elevate HVAC performance

- IP20/IP00Drives for cabinet integration from 0.75 to 250 kW (*1…400 HP*)
- Wall-mounting IP21/UL type 1 drives or integrated in cabinet from 0.75 to 90 kW (*1…125 HP*)
- Wall-mounting IP55 drives from 0.75 to 90 kW (*1…125 HP*)



Durability = Reliability + Upgradability + Repairability

Altivar HVAC ATH600 is the new comprehensive range of variable speed drives from Schneider Electric, covering HVAC application needs and installation requirements:

- Drives integrated in HVAC machines by Original Equipment Manufacturers
- Drives installed in buildings by mechanical contractors and system integrators

Depending on customer requirements, Altivar HVAC drives are available as wall-mounting, and optimized solutions for integration in cabinets.

Altivar HVAC ATH600 drives control three-phase synchronous and asynchronous motors in open loop control on pumps, fans, and compressors to increase energy efficiency, as energy is the first component of the total cost of ownership (TCO) of HVAC machines.
Designed with reliability in mind, Altivar HVAC ATH600 drives offer a high level of resistance to operating environment conditions, which helps to avoid limiting events and reduce maintenance - the second largest component of TCO.

Improving operational resilience

Altivar HVAC is designed for high-durability performance to help ensure continuity of operation.

Durability = Reliability + Upgradability + Repairability

Enhanced reliability

ATH600 withstands high stress from several origins, whether environmental or operational. It offers enhanced robustness against:

- Thermal conditions with an extended ambient operating temperature from -15 up to 60 °C/*-13 to 140 °F* (with derating above 50 °C/*122 °F*)
- Mechanical conditions by complying with class 3S3 according to IEC 60721-3-3
- Chemical conditions by complying with class 3C3 according to IEC 60721-3-3 ed.2002 with salt mist
- Electrical conditions by complying to EMC category C1, C2 or C3 and to IEC61000-3-12 with THDi below 48%

Certified cybersecurity functions

As limiting events causing downtime are not specifically related to equipment, the Altivar HVAC ATH600 integrates IEC 62443-4-2 cybersecurity features Security Level Capability 1 certified by TÜV Rheinland with a development process that is IEC 62443-4-1 certified. The embedded functions include:

- User account management that includes user authentication, authorization according to the role of the user, access channels, and strong passwords.
- Hardening to restrict access to communication ports and related functions or services
- Threat intelligence to manage cybersecurity-related events
- Cybersecurity-compliant firmware upgrade

Certified Safe Torque Off function

ATH600 embeds the Safe Torque Off function compliant with IEC 61508 Safety Integrity Level 3, with ISO 13849-1 Performance level “e” and certified by INERIS and TÜV Sud. The STO function brings the machine or functional unit to a no-torque state and prevents it from starting accidentally without an external line contactor.

Upgradability

It is easy to extend the equipment service time with ATH600 and keep it up to date. Two types of upgrade are possible:

- Firmware upgrade:

  The firmware is available on the Schneider Electric website and the upgrade can be performed directly by customers with SoMove or EcoStruxure Automation Device Maintenance software over a Modbus Serial port. Firmware upgrades follow the cybersecurity rules in terms of authorization and authenticity
- Hardware upgrade, by adding an optional module in the dedicated slot of the ATH600 or by adding external options

Repairability

To reduce the Mean Time To Repair (MTTR) and therefore minimize downtime, the Altivar HVAC ATH600 offers:

- Diagnostics: online help on the graphic display terminal, direct access to troubleshooting by using the dynamic QR code or QR code to documentation
- Wear parts, such as fans, available with documented operation for easy replacement by the user
- Spare parts available for replacement by Schneider Electric after-sales service or authorized partners. In addition, Schneider Electric implements a circular model offering replacement with repaired or reconditioned products

Energy efficiency at every level

With Altivar HVAC ATH600, you can reach up to 70% energy savings thanks to ATH600 motor control and the use of high efficiency motors.

Advanced efficiency with motor control

- ATH600 dynamically adapts the motor supply according to the load to optimize the energy consumption
- The tune in rotation enhances energy efficiency by identifying the motor data in depth to adapt the algorithm to the connected motor.

Suitable for high-efficiency motors

The adaptability of ATH600 motor control to various technology offers flexibility in selecting the motor type:

- Asynchronous motor (up to IE4)
- Permanent magnet synchronous motors
- Synchronous reluctance (minimum compatible ATH600 firmware version is V1.2 available on Q3/2026)
- BLDC motors

Calculate your level of energy efficiency with the Altivar Efficiency Calculator

Energy efficiency at every level *(continued)*

High-efficiency drive

Altivar Efficiency Calculator tool calculates the level of energy efficiency of your variable speed drive according to the Ecodesign standard EN/IEC 61800-9-2.

- **Drive Efficiency (CDM Complete Drive Module)**

  Drive performance is determined according to 8 operating points that take account of torque and speed

- **System Efficiency (PDS Power Drive System)**

  System performance is determined according to 8 operating points that take account of torque and speed. This includes the efficiency of the variable speed drive and its motor.

Harmonic mitigation is embedded on Altivar HVAC ATH600 to comply with IEC61000-3-12. The resulting THDi is lower than 48% even at 80% of the load to reduce the line current and power losses in the power distribution. This contributes to improved global efficiency of the installation.

Enhanced sustainability

Preserved resources

- Use of plastic with at least 20% bio-based content for drives from 0.75 to 22 kW/*1 to 30 HP*
- Use of ASI-certified aluminum for responsible production, sourcing, and material stewardship
- Packaging using recycled cardboard
- No single use plastic for wedges for drives from 0.75 to 22 kW/*1 to 30 HP*

Environmental Data Program

Environmental data

ATH600 meets the following requirements:

- **Use of hazardous substances**

  Compliance with the European RoHS directive (2011/65/EU and 2015/863/EU) and RoHS China.

  Compliance with REACH regulation No.1907/2006 for the declaration of substances of very high concern (SVHC), authorization (Annex XIV), and restriction (Annex XVII).

- **Environmental impact**

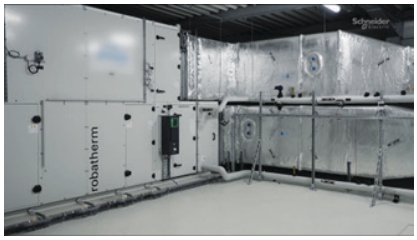
  The Product Environmental Profile (PEP) is a quantitative Type III Environmental Declaration in compliance with ISO 14025 that helps to ensure appropriate reliability and transparency. Based on a Life Cycle Assessment (LCA) of the product throughout its whole life cycle, the document presents the different impacts such as energy consumption, carbon footprint, consumption of raw materials, and pollution of air, water, and soil.

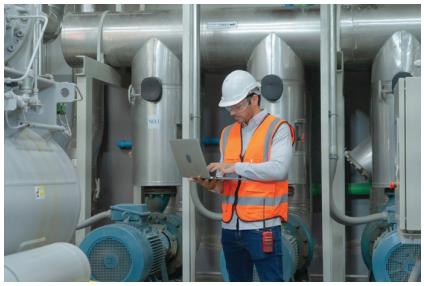
- **End-of-Life management**

  The “ATH600 End-of-life” information document in accordance with IEC 62635 guidance contains the instructions for responsible disposal of the products and maximizes recycling in a step towards a more circular economy, improving operational efficiency and reducing environmental hazards.

Please consult the Altivar HVAC ATH600 product pages on our website to access the environmental data for the given reference: environmental and carbon footprint data, material and substances data, energy efficiency data, service life extension, repacking and remanufacturing data.

Variable speed drives
Altivar HVAC ATH600
HVAC applications





HVAC applications

Altivar HVAC ATH600 drives are specifically designed to meet the requirements of HVAC machines in cooling production, air treatment, fluid distribution such as air, chilled water and hot water:

- Air cooled chiller
- Water cooled chiller
- Roof top
- Cooling tower
- Condenser pump
- Air handling unit
- Variable primary pump
- Secondary pump
- Condenser

HVAC specific functions

ATH600 embeds functions for HVAC machine requirements in the following applications:

Pump

- Pump Start/Stop
- Pump Cycle Monitoring
- Dry Run Monitoring
- Pump Low Flow Monitoring
- Outlet Pressure Monitoring
- Booster Control
- Sleep/wake up

Fan

- Fire Mode
- Run Permissive
- PID Controller
- 2 Additional PIDs
- PID Summing Feedback
- Damper Control
- Broken Belt Detection
- AI Threshold Detection

Compressor

- Pre-start management
- Periodic oiling cycle management
- Oiling management after low speed
- Oiling management after high speed
- Scroll protection
- Discharge gas by sensor
- Crankcase heating

Generic functions

- Jump frequencies
- Catch on the fly
- Ramp switching

Variable speed drives
Altivar HVAC ATH600
Flexibility for optimized HVAC machines design

Altivar HVAC ATH600 drives

ATH600 drives mounted side-by-side

Operation up to 60 °C/144 °F

Flexibility for optimized HVAC machines design

Altivar HVAC ATH600 is available with various degrees of protection offering flexibility to match the installation requirements:
- IP20 or IP21/UL type 1 for cabinet mounting
- IP21 or IP55/UL type 12 for mounting on the machines

Streamlined electrical design of control panels

The built-in features of Altivar HVAC ATH600 reduce the need for external devices, reducing the Bill of Materials, the total cost and footprint of the solution:
- EMC filter, category C2 or C3, category C1 for IP55 drives
- Harmonic mitigation complying with IEC61000-3-12 that reduces the THDi to below 48% even at 80% of the load
- Safe Torque Off related functions according to machinery directive (2006/42/EC) that is certified Safety Integrity Level 3 following IEC61508, and certified Performance Level "e" following ISO13849-1.
- STO safety function is also certified ATEX according to ATEX directive 2014/34/EU, and certified IECEx.
- Motor thermal protection by PTC, PT100 or KTY84 sensor monitoring

Optimized mechanical design of control panels

ATH600 offers a compact solution with a reduced footprint, allowing side-by-side mounting with a depth of less than 200 mm/ *8 in.* for drives rated up to 18.5 kW/ *25 HP* makes them ideal for installation in an HVAC panel.

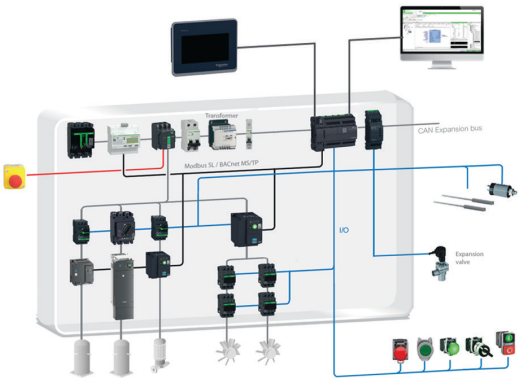
Simplified thermal design of control panels

IP20 and IP21 ATH600 are very well adapted to outdoor mounted machines:
- They can operate within a temperature range of -15 to 50 °C/*5 to 122 °F* without derating, and up to 60 °C/*144 °F* with derating
- Advanced optimization of the panel thermal design can be achieved by using a flange mounting kit to remove the heat generated by the power section outside the cabinet

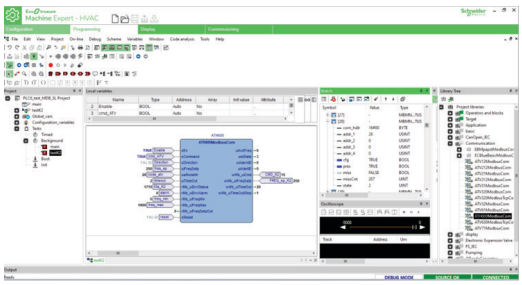
Adapted to HVAC refrigerants

Altivar HVAC ATH600 drives are adapted to machines with low Global Warming Potential refrigerants. By mitigating the risk of ignition, managing thermal drive efficiently, minimizing sparks, arcs and hot surfaces, ATH600 is:
- A2L refrigerant certified
- A3 ready up to 18.5 kW/*25 HP*

Variable speed drives
Altivar HVAC ATH600
Flexibility for optimized HVAC machines design



Typical HVAC architecture



EcoStruxure Machine Expert - HVAC

Flexibility for optimized HVAC machines design (continued)

Simplified integration into automation system

Openess to HVAC communication protocol

The connectivity of the Altivar HVAC ATH600 range and its companion offers facilitates integration into automation architectures.
Altivar HVAC ATH600 drives have an embedded native connection which is available on open style and an RJ45 port to be connected to:
- Modbus
- BACnet MS/TP

Optional communication modules extend the connectivity to:
- BACnet /IP
- Modbus TCP *(1)*
- EtherNET/IP *(1)*
- PROFINET *(1)*

Reduce machine automation design time

To reduce the system design time, tested and validated typical architectures including bill of materials are available for different machines such as an air cooled chiller, or air handling unit.

Quickly build your automation with EcoStruxure Machine Expert - HVAC

Derived function blocks (DFBs) are available for EcoStruxure Machine Expert - HVAC to help simplify configuration, programming, and commissioning of your applications based on M172 and M173 logic controllers.

Simulation mode integrated in ATH600

The simulation mode *(1)* integrated in ATH600 enables testing of the operating modes, without machines or motors.
- The application type is configurable
- The load curve is configurable
- All drive functions can be activated
- Power monitoring and motor monitoring are available

Valuable data for energy management

ATH600 drives provide valuable data:
- Mechanical power
- Motor voltage
- Current
- Energy
- Operating time
- Power elapsed time
- Speed
- Torque
- Mains voltage

Those data are available through:
- The fieldbuses
- The display terminals
- The EcoStruxure softwares

(1) Minimum compatible ATH600 firmware version is V1.2 available on Q3/2026.

Variable speed drives
Altivar HVAC ATH600
Fast deployment in buildings

Altivar HVAC ATH600 IP21/UL type 1 drive

Altivar HVAC ATH600 IP55/UL type 12 drive

Main menu of the graphic display terminal

Fast deployment in buildings

Mechanical variants for quick installation

Altivar HVAC ATH600 is available as IP21/UL type 1 or as IP55/UL type 12 drives for direct wall mounting according to the installation room environment.

To reduce the installation time, Altivar HVAC ATH600 includes the following functions:
- ■ EMC filters
- □ C2 or C3 category on IP21/UL type 1 and IP55/UL type 12 drives
- □ C1 category for IP55 drives ≤18.5 kW/*25 HP*
- ■ EMC connection for power and control cable:
- □ Romex cable clamp on IP21/UL type 1 drives
- □ Clamps and glands on IP55/UL type 12 drives
- ■ Harmonic mitigation complying with IEC61000-3-12 that reduces the THDi to below 48% even at 80% of the load
- ■ Display terminal with Hand / OFF / Auto keys
- □ Plain text for IP21/UL type 1 drives
- □ Graphic for IP55/UL type 12 drives

ATH600 integrates functions that simplify the control wiring when the drive is installed close to the machine, or the motor :
- ■ Safe Torque Off safety related functions certified IEC 61508 Safety Integrity Level 3, and ISO 13849-1 Performance Level “e”. The STO safety function is also an ATEX-certified function according to the ATEX directive 94/9/EC and directive 2014/34/EU
- ■ Embedded application functions such as run permissive, fire mode, etc. for simplicity
- ■ Motor thermal protection by PTC, PT100 or KTY84 sensor monitoring

Save time and resources during commissioning

Several tools can be used for set-up and commissioning:
- ■ Plain text display terminal with Hand/Off/Auto control
- ■ Graphic display terminal with Hand/Off/Auto control
- ■ SoMove

Simply Start

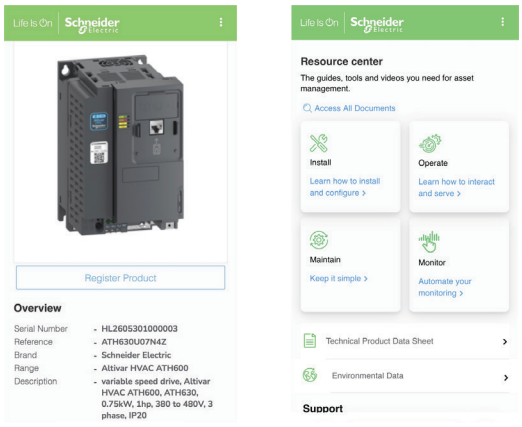
To simplify the configuration, ATH600 embeds:
- ■ A Simply Start menu that contains the essentials to be set
- ■ Automatic acceleration ramp time settings
- ■ Autotuning of motor parameters
- ■ "My Menu” that is a configurable menu to access the parameters selected for users
- ■ Macro configurations that enable functions according to the application

From minimum to advanced cybersecurity

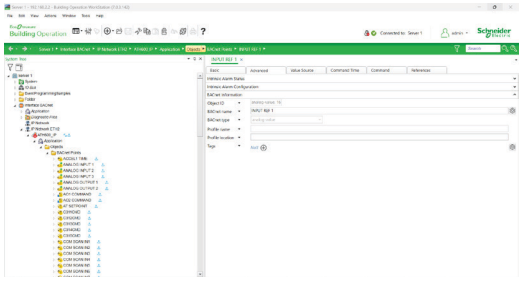
The Cybersecurity configuration can be delayed by selecting the minimum security level that does not require specific configuration. The administrator will be able to configure cybersecurity after commissioning even by duplication.

Duplication of configuration

The configuration can be duplicated from one drive to another one by using a display terminal or SoMove. The drive configuration consists of an application configuration and the cybersecurity configuration that are independent. When duplicating a drive configuration, the user can select either the application configuration or the cybersecurity configuration, or both.



Altivar HVAC ATH600 digital support



EcoStruxure Building Operation software

Fast deployment in buildings *(continued)*

Embedded troubleshooting and digital support

ATH600 provides differentiated errors that help to identify the root cause.

- Troubleshooting help is embedded in the drive to provide potential causes and checks to be performed
- Dynamic QR codes available with the graphic display terminal provide contextual access to the technical documentation
- ATH600 also gives the context of the operation before the error occurred
- Scanning the QR code located in the front of the drive provides access to the manuals, detailed identification of the drives, the data sheet and to other services such technical support, registering the drive

Accelerate deployment in the building automation system

Connectivity and simplicity

Altivar HVAC ATH600 drives have an embedded native connection which is available on open style and an RJ45 port, for daisy chain and star architecture, and includes a termination resistor to be connected to:

- Modbus
- BACnet MS/TP

Optional communication modules extend the connectivity to:

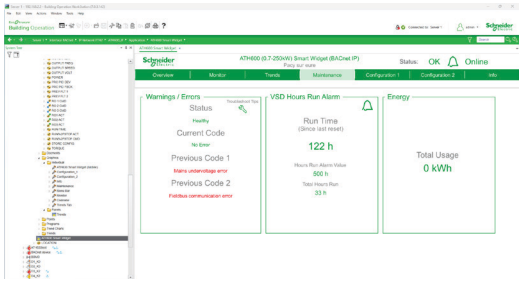
- BACnet /IP
- Modbus TCP *(1)*
- EtherNet/IP *(1)*
- PROFINET *(1)*

Simulation mode

The simulation mode *(1)* integrated in ATH600 enables testing of the operating modes using inputs/outputs and a fieldbus, without machines or motors.

- The application type is configurable
- The load curve is configurable
- All drive functions can be activated
- Power monitoring and motor monitoring are available

(1) Minimum compatible ATH600 firmware version is V1.2 available on Q3/2026.



EcoStruxure Building software

Fast deployment in buildings *(continued)*

Accelerate deployment in the building automation system *(continued)*

Seamless integration in EcoStruxure Building operation

The smart widget in Altivar HVAC ATH600 drives provides simplified plug and play methods to integrate ATH600 in EcoStruxure Building Operation solutions in a quick and easy way.

Two smart widgets are available on ATH600 product pages according to the fieldbus BACnet MS/TP or BACnet/IP. Smart widgets can be downloaded from the ATH600 page on Schneider Electric web site.

Reduced engineering time
Smart widgets provide pre-configured objects that are automatically displayed even without a connected ATH600 during offline engineering.

Improved efficiency with Smart widget
Smart widgets provide faceplates that can be customized to:
- Display and monitor
- Adjust and diagnose
- Troubleshoot
- Access technical documentation without an internet connection

From valuable data to energy management for sustainable savings

Altivar HVAC ATH600 can measure mechanical power with accuracy of more than 95% and also: motor voltage, current, power, operating time, power elapsed time, speed, torque, mains voltage, etc.

These data are available on the display terminal, EcoStruxure software and via fieldbuses.

Integration in EcoStruxure Power Monitoring Expert.
Power Monitoring Expert provides:
- A dashboard, trends, warnings and reports
- A detailed ATH600 view that includes energy and power, thermal monitoring and diagnostics

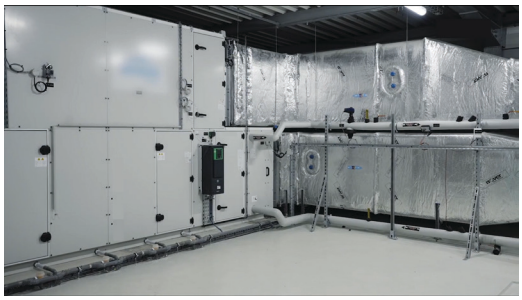
Variable speed drives
Altivar HVAC ATH600
An offer dedicated to HVAC machines and buildings

An offer dedicated to HVAC machines and buildings

Altivar HVAC drives can help improve equipment performance and reduce operating costs by optimizing energy consumption and user comfort.

ATH600 drives embed a wide range of integrated functions, such as:
- Safety and automation functions that meet the requirements of some of the most demanding applications
- Various optional fieldbus modules available for seamless integration into the main machine and building automation architectures
- Numerous configurable I/O as standard to facilitate adaptation to specific applications
- Intuitive commissioning using the graphic display terminal
- Local and remote access and monitoring
- Energy savings and protection of the grid by means of integrated harmonic filters
- Installation EMC conformity by means of integrated EMC filters

Depending on the power range, Altivar HVAC is available with several mounting types, protection ratings:
- Wall-mounting or cabinet mounting IP21/UL type 1
  - From 0.75 kW to 90 kW/*1 to 125 HP*, 380 to 480 V
  - Ready-to-use for easy integration inside or without an enclosure in an electrical room
- Wall-mounting IP55/UL type12
  - From 0.75 to 90 kW/*1 to 125 HP*, 380 to 480 V
  - Ready-to-use for easy integration in harsh environments and installations close to the system to reduce the length of the motor cable
- Cabinet integration IP20 or IP00
  - From 0.75 to 250 kW/*1 to 400 HP*, 380 to 480 V
  - For easy and cost-effective drive configuration inside enclosures



Altivar HVAC ATH600 IP55 mounted on an air handling unit inside building

Altivar HVAC ATH600 IP20 mounted in the control panel of an air-cooled chiller

An offer dedicated to HVAC machines and buildings (continued)

Robust

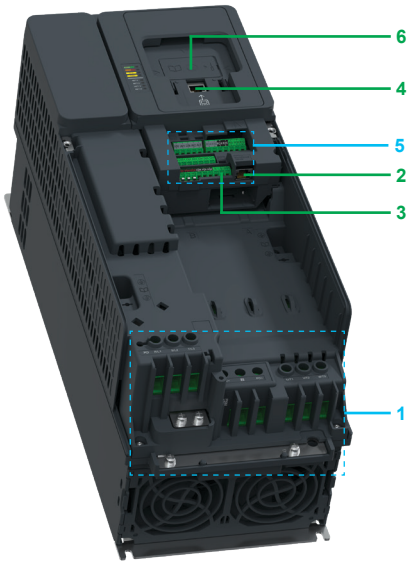
Altivar HVAC drives are designed to adapt to the harshest environments.

- ■ Ambient operating temperature
- □ Wall-mounting drives:
  - IP21/UL type 1: up to 90 kW/*125 HP*, -15...50 °C/*5...122 °F* as standard, up to 60 °C/*140 °F* with derating
  - IP55/UL type 12: -15...+40 °C/*5...104 °F* as standard,up to 50 °C/*122 °F* with derating
- □ Cabinet integration drives:
  - IP21/IP20 up to 160 kW/*250 HP*: -15...50 °C/*5...122 °F* as standard, up to 60 °C/*140 °F* with derating
  - IP20 220...250kW/*300...400 HP*: -15...40 °C/*5...104 °F* as standard, up to 60 °C/*140 °F* with derating
- ■ Non-condensing relative humidity: 5...95%
- ■ Storage and transport temperature: -40…+70 °C/*-40…158 °F*
- ■ Operating altitude:
- □ 0…1,000 m/*0…3,281 ft* without derating
- □ 1,000...4,800 m/*3,281…5,700 ft* with derating of 1% per 100 m/*328 ft*
- ■ Withstand to harsh environments:
- □ Chemical class 3C3 conforming to IEC/EN 60721-3-3 edition 2002
- □ Mechanical class 3S3 conforming to IEC/EN 60721-3-3
- □ Climatic class 3K3 conforming to IEC/EN 60721-3-3
- □ Printed circuit boards with protective coating
- ■ Protection rating to suit requirements:
- □ IP00/IP20 for mounting in an enclosure, depending on the model
- □ IP21/UL type 1 for wall mounting in a plant room and in an enclosure
- □ IP55/UL type12 for wall mounting, with protection against dust and water jets

Flexibilty to match application requirements.
A large number of external options can be associated with the Altivar ATH600:

- ■ Passive filters (see page 50) to reduce current harmonic level to 5%
- ■ Additional EMC input filters for reducing conducted emissions on the line (see page 52)
- ■ Dv/dt filters for long cable runs (see page 54)
- ■ IP20 and IP21/UL type 1 conformity can be achieved by using kits, for drives from 110 kW/*150 HP* at 380...480 V (see page 33).
- ■ A flange mounting kit is available to evacuate the heat generated by the power unit outside the enclosure when the variable speed drive is integrated in a cabinet for further thermal design optimization (see page 33).

Variable speed drives
Altivar HVAC ATH600
Description, standards and certifications



Altivar HVAC ATH600 description

Description

1 Power terminals
2 RJ45 communication port for access to integrated Modbus serial link and BACnet MS/TP
3 Open style connector for Modbus / BACnet MS/TP RS485 differential pair
4 RJ45 communication port for a PC, a remote display terminal
5 Control terminals for I/O connection:
- ■ 6 Digital inputs
- □ 24 V, 30 V maximum voltage
- □ Configurable as negative (sink) or positive (source) logic
- ■ 3 Analog inputs
- □ Configurable as 0-10 V or 0/4-20 mA
- □ 2 of which can be configured to control temperature or level sensors
- ■ 2 configurable Analog outputs
- □ 0-10 VDC, minimum load impedance 470 Ohms
- □ X-Y mA (from 0 to 20 mA), maximum load impedance 500 Ohms
- ■ 3 relay outputs, 5 A for 250 VAC or 30 VDC on resistive load, 2 A for 250 VAC or 30 VDC on inductive load (see Installation Manual)
- □ 1 NO/NC contacts with common point
- □ 2 NO contacts
- ■ 2 Safety STO inputs
- ■ 24 V External input supply to keep control, display, communication active even without drive power supply
- □ Minimum 19 V, maximum 30 V, 0.8 A max.

6 Battery for real time clock

Standards and certifications

Altivar HVAC ATH600 drives have been developed to conform to the strictest international standards and certifications relating to Industrial Electrical Control devices (IEC), in particular:
- ■ IEC 61800-5-1
- ■ IEC 61800-3
- □ EMC immunity, environments 1 and 2
- □ Conducted emission compliance
  - Category C2, C3 with integrated EMC filters
- ■ IEC61000-3-12
- ■ EN ISO13849-1/-2 category 3 (Ple)
- ■ A2L refrigerant (protected component for use in refrigeration and air conditioning equipments using A2L refrigerants)
- □ UL 60335-2-40 and UL 60335-1
- □ CSA C22.2 No. 60335-2-40 and CAN/CSA-C22.2 No. 60335-1

Altivar HVAC ATH600 drives are certified:
- ■ CE - low voltage EMC
- ■ CE - Machine
- ■ ATEX
- ■ UL 61800-5-1
- ■ UL61800-5-2
- ■ CSA 22.2 N274
- ■ EAC
- ■ KCC

EMC filter embedded in an ATH630D11N4Z drive

General presentation of the offer

Power quality

Altivar HVAC drives help to optimize power consumption by reducing the rms input current for the same load.

- ■ Standard offer:
- □ THDi < 48% for 80 to 100% load, which is used to maintain an optimum power factor on the most common operating range
- □ Embedded harmonic mitigation technology complying with standard IEC 61000-3-12
- ■ Passive filter options to reduce THDi to 5%

Electromagnetic compatibility (EMC)

Compliance with electromagnetic compatibility requirements has been incorporated into the design of the Altivar HVAC ATH600 drives, which simplifies installation and provides an economical means of helping to ensure equipment meets CE marking requirements.
To comply with conducted emissions standards, Altivar HVAC drives embed a category C1, C2 or C3 EMC filter:

Drive	Maximum length of shielded cable *(1) (2)* according to IEC/EN 61800-3 category		
	C1	C2	C3
	m/*ft*	m/*ft*	m/*ft*
ATH630U07N4...D22N4 ATH630U07N4Z...D22N4Z	–	10/*33*	10/*33*
ATH630D30N4...D45N4 ATH630D30N4Z...D45N4Z	–	50/*164*	50/*164*
ATH630D55N4...D90N4 ATH630D55N4Z...D90N4Z	–	–	50/*164*
ATH630C11N4Z...C16N4Z	–	–	150/*492*
ATH630C22N4Z...C25N4Z	–	–	50/*164*
ATH650U07N4…D18N4	–	10/*33*	10/*33*
ATH650U07N4C…D18N4C	20/*66*	20/*66*	20/*66*
ATH650D22N4…D45N4 ATH650D22N4U…D45N4U	–	50/*164*	50/*164*
ATH650D55N4…D90N4 ATH650D55N4U…D90N4U	–	–	150/*492*

(1) If motors are connected in parallel, it is the total cable length that should be taken into account.
(2) The maximum motor cable length is stated for the nominal switching frequency.

EMC standard description

IEC 61800-3 category	C1	C2	C3	C4
Environment	1st environment	1st or 2nd environment (choice of the user)	2nd environment	
Supply voltage/current	< 1,000 V	–	–	> 1,000 V, or > 400 A, or IT supply network
Knowledge and requirement	No requirements	Installation and commissioning by EMC expert only	EMC plan required	–

The EMC filter enables compliance with standard IEC/EN 61800-3, category C2 or C3 in environment 1 or 2 and to comply with the European Electromagnetic Compatibility Directive (EMC).

Integrated functions

Altivar HVAC ATH600 drives include numerous advanced functions

Power measurement function

Altivar HVAC ATH600 drives integrate a power measurement function with an accuracy better than 95%.
Motor voltage, current, power, energy are available through display terminals, SoMove, fieldbuses to monitor and analyze installation global performances over time.
ATH600 is integrated in EcoStruxure Power Monitoring Expert to manage energy by using data provided by the drive.

Safety and monitoring functions

The safety function STO is provided to help protect people and equipment.

- Advantages:
  - Time savings in terms of installation design and compliance
  - Fewer components and cables
  - Optimum space
  - Simplified setup of machines
  - Improved maintenance performance; limited machine intervention time and installation downtime
  - Optimized conditions for maintenance operations
- Conformity to standards EN/IEC 61508, EN/ISO 13849, and IEC 61800-5-2
- Integrated STO (Safe Torque Off) function, SIL3/Ple

Usage in explosive atmospheres

- A2L refrigerant certified
- A3 ready up to 18.5 kW/*25 HP*
- The use of the STO function is required for ATH600 drives to control and command motors installed in an explosive atmosphere (ATEX). ATEX-certified devices and components such as a motor, thermal sensor(s), switching system, and thermal protection control unit must be used. In the event of the ATEX motor reaching an excessive temperature, the control system triggers the STO function. The motor power is switched off to help ensure that the temperature of the motor frame remains below the maximum temperature depending on the gas or dust atmosphere in which the ATEX motor is installed.

Altivar HVAC ATH600 drives must be installed outside the hazardous Ex zone.

Integrated functions *(continued)*

Cybersecurity

The Altivar HVAC drive ATH600 embeds IEC/EN 62443-2 SL-C1 certified cybersecurity features as standard. These features contribute to the enhanced protection of your process against casual or coincidental violations from insiders, such as well-intentioned yet careless employees or contractors with no cybersecurity attack skills, which represent 60% of cyberattacks.
Cybersecurity features help to:

- ■ Enforce authorization of users through:
  - □ User profile assignment
  - □ User authentication
  - □ Administrator ability to override user authorization
  - □ Strong password requirement
  - □ PIN code with display terminal
  - □ Password encrypted in a non-reversible way
  - □ After-sales service authorization
  - □ Authorization managed according to channels
- ■ Restrict and disable functions or services:
  - □ Sign-in required after a configurable period of inactivity
  - □ Prohibit or restrict the use of ports, protocols
  - □ Enable/disable services
  - □ Counter brute force attacks by blocking repeat login attempts
  - □ Cybersecurity events recorded in a dedicated database
  - □ Reports include user's name, type of operation, time stamp
  - □ Alert when storage capacity is approaching maximum
  - □ Storage capacity up to 500 logins
  - □ 10 year battery lifetime, alert when low battery is approaching
- ■ Protect authenticity of the firmware through:
  - □ Digitally signed firmware
  - □ Cryptographic firmware keys
  - □ Original firmware stored in secure location
  - □ Verification of firmware validity on each power-up
  - □ Verification of operation of the Altivar Soft Starter
- ■ Lock the hardware topology:
  - □ Prevents unauthorized addition or exchange of a communication module

Cybersecurity settings can be exported from the ATH600 as an individual file that can be saved and duplicated by transfer to other ATH600 devices.

Plain text display terminal HVAC VW3A1123

Graphic display terminal HVAC VW3A1121

SoMove software

Integration

Fieldbus protocols

- ■ BACnet MS/TP and Modbus serial link embedded
- □ Standard Modbus protocols
- □ RJ45 and open type connector
- □ Switchable line terminal resistor included
- □ Connection of configuration and runtime tools
- ■ BACnet IP, Modbus TCP, EtherNET/IP, PROFINET available through optional communication modules.
- ■ Functions possible through fieldbuses:
- □ Control and supervision of the Altivar HVAC in building and HVAC machine automation architectures (controllers, Building Management Systems, HMIs, etc.) and industrial networks.
- □ Diagnostic, monitoring, and fieldbus management functions

Configuration and runtime tools

- ■ Altivar HVAC ATH600 drives can be monitored and configured with the help of display terminals (see page 35)
- □ Drive control, adjustment, and configuration
- □ Display of current values (motor, I/O, etc.)
- □ Configuration storage and downloading
- □ Duplication of one drive configuration on another drive from a PC or another drive
- □ Remote use by means of appropriate accessories (see pages 36 and 38)
- □ Network diagnostics in real time
- □ Read/write values
- ■ Display equipment differs according to the range. A plain text or graphic display can be connected to all ATH600 drives.
- □ IP20 range delivered without display terminal
- □ IP21/UL type1 range delivered with plain text display terminal
- □ IP55/UL type12 range delivered with graphic display terminal
- ■ SoMove software (see page 34):
- □ Advanced functions for configuration, setup, and maintenance of Altivar HVAC drives

Variable speed drives
Altivar HVAC ATH600
Selection criteria and selection of ATH600 commercial reference

Selection criteria for Altivar HVAC ATH600

- The mains voltage
- The rated motor power and rated motor current
- The type of application:
  - ☐ Normal duty
  - ☐ Heavy duty

Select normal duty or heavy duty application

Normal duty and heavy duty are differentiated by the required overload that is defined by the following:

- Overcurrent value
- Overcurrent duration

Typical applications for Normal duty in HVAC are pumps, fans, and compressors when starting at reduced load.
Typical application for Heavy duty in HVAC is a compressor when starting at full load.

Application duty	Overcurrent	Duration
Normal duty (ND)	110%	1 minute
Heavy duty (HD)	150%	1 minute

Selection of ATH600 commercial reference

Once the appropriate application has been selected from the previous page, select the Altivar HVAC ATH600 from page 24 according to the supply voltage and the motor power. Check that the rated motor current is lower than the ATH600 operational current.
The Altivar HVAC ATH600 is designed for the operations shown in the table in the “Select normal duty or heavy duty application” section above without triggering an overheat error from 40 to 50°C/*104 to 122°F* max. and at an altitude of 1,000 m/*3,281 ft*. Above those limits it is necessary to derate the drive operational current.

Breakdown of ATH600 product reference:

ATH 630 D 11 N4

Product range
ATH Altivar HVAC

Type
630 IP20 or IP21/UL type 1
650 IP55/UL type 12

Factor for power rating
U Power x 0.1
D Power x 1
C Power x 10

Power multiplicand
07-11-…....55-75-90

Mains voltage
N4 380 to 480 V (-15...10%) three phases AC

Extension
– IP21/UL type 1 with plain text display terminal
Z IP00 or IP20 without plain text display terminal and without EMC plate
C IP55 complying with EMC C1 category
U UL type 12

For example, for the reference ATH630D11N4, the drive’s degree of protection is IP21/UL type 1, with plain text display and the power rating is:

- 11 kW in normal duty: 11 x 1 (power multiplicand x factor)
- 7.5 kW in heavy duty (refer to the table page 28)

Variable speed drives
Altivar HVAC ATH600
Presentation

Presentation

The Altivar HVAC products cover motor power ratings from 0.75...250 kW/*1...400 HP* for three-phase voltages 380...480 V.

Three-phase power supply	Motor power	Degree of protection	Reference
380...480 V (-15...10%)	0.75 kW...22 kW *1...30 HP*	IP20	**ATH630U07N4Z...D22N4Z**
	30 kW...250 kW *40...400 HP*	IP00	**ATH630D30N4Z...C25N4Z**
	0.37 kW...90 kW *0.5...125 HP*	IP21/UL type 1	**ATH630U07N4...D90N4**
	0.75 kW...90 kW *1...125 HP*	IP55 with C2 or C3 integrated EMC filter	**ATH650U07N4...D90N4**
	0.75 kW...18.5 kW *1...25 HP*	IP55 with C1 integrated EMC filter	**ATH650U07N4C...D18N4C**
	0.75 kW...18.5 kW *1...25 HP*	UL type 12	**ATH650U07N4...D18N4**
	22 kW...90 kW *30...125 HP*		**ATH650D22N4U...D90N4U**

Accessories, options, and replacement parts

Altivar HVAC drives are designed to take numerous accessories, options and replacement parts to increase their functionality and also their capacity for integration and adaptation.

Accessories

■ Drive:
□ EMC plates
□ IP21 kits for large power drives
□ Flange mounting kits

■ Graphic display terminal:
□ Remote mounting kit for mounting on enclosure door (see page 38)
□ Multidrop connection accessories for connecting several drives to the RJ45 terminal port (see page 39)

Options

■ Modules (see page 46):
□ Extended I/O module:
- 2 analog inputs
- 6 digital inputs
- 2 digital outputs

□ Extended relay module:
- 3 NO contacts

□ Communication: in addition to native Modbus and BACnet MS/TP, options can be added to connect on:
- EtherNet/IP and Modbus TCP dual port
- PROFINET bus
- BACnet IP

■ Passive filters for low harmonic that reach a THDi ≤ 5% (see page 50)

■ Additional EMC input filters for reducing conducted emissions on the line (see page 52)

■ Output filters for long motor cable length:
□ Dv/dt filters (see page 55)

Motor starters

Schneider Electric offers combinations of circuit breakers, fuses, and contactors in order to be able to use Altivar HVAC drives in optimum conditions (see page 58).

Replacement parts

■ Fan kit (see page 32)

Variable speed drives
Altivar HVAC ATH600
Three-phase supply voltage: 380...480 V 50/60 Hz
IP00 or IP20 drives, normal duty

380...480 V (-15...10%) IP00 or IP20 drives

Motor		Line supply				Altivar HVAC					
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Degree of protection	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V				
kW	*HP*	A	A	kVA	kA	A	A	A			kg/*lb*
Normal duty (ND) ***(3)***											
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	ATH630U07N4Z	IP20	1.7/*3.7*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	ATH630U15N4Z	IP20	1.7/*3.7*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	ATH630U22N4Z	IP20	1.7/*3.7*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	ATH630U30N4Z	IP20	2.4/*5.3*
4	*5*	7	6	4.6	5	9.1	7.6	10	ATH630U40N4Z	IP20	2.4/*5.3*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	ATH630U55N4Z	IP20	2.4/*5.3*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	ATH630U75N4Z	IP20	3.8/*8.4*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	ATH630D11N4Z	IP20	3.8/*8.4*
15	*20*	24.3	21	16	22	30.5	27	33.6	ATH630D15N4Z	IP20	4.6/*10.1*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	ATH630D18N4Z	IP20	4.6/*10.1*
22	*30*	39.6	34.4	26.1	50	46.3	46.3	50.9	ATH630D22N4Z	IP20	13.7/*30.2*
30	*40*	53.3	45.9	35.1	50	61.5	61.5	67.7	ATH630D30N4Z	IP00	25.8/*56.9*
37	*50*	66.2	57.3	43.6	50	74.5	74.5	82	ATH630D37N4Z	IP00	26/*57.3*
45	*60*	79.8	69.1	52.5	50	88	88	96.8	ATH630D45N4Z	IP00	26.5/*58.4*
55	*75*	97.2	84.2	64	50	106	106	116.6	ATH630D55N4Z	IP00	52.6/*116*
75	*100*	131.3	112.7	86.4	50	145	145	159.5	ATH630D75N4Z	IP00	54.1/*119.3*
90	*125*	156.2	135.8	102.8	50	173	173	190.3	ATH630D90N4Z	IP00	54.6/*120.4*
110	*150*	201	165	132.3	50	211	211	232.1	ATH630C11N4Z	IP00	82/*180.8*
132	*200*	237	213	156	50	250	250	275	ATH630C13N4Z	IP00	82/*180.8*
160	*250*	284	262	186.9	50	302	302	332.2	ATH630C16N4Z	IP00	82/*180.8*
220	*350*	397	324	261.3	50	427	427	469.7	ATH630C22N4Z	IP00	172/*379.2*
250	*400*	451	366	296.8	50	481	481	529.1	ATH630C25N4Z	IP00	203/*447.5*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH630U07N4Z...D18N4Z),4kHz (ATH630D22N4Z...D45N4Z), or 2.5 kHz (ATH630D55N4Z...C25N4Z), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH630U07N4...D18N4), 2...16 kHz (ATH630D22N4Z...D45Z), or 2...8 kHz (ATH630D55Z...C25Z). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)

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

(3) Values given for applications requiring a slight overload (up to 110%).

Variable speed drives
Altivar HVAC ATH600
Three-phase supply voltage: 380...480 V 50/60 Hz
IP00 or IP20 drives, heavy duty

380...480 V (-15...10%) IP00 or IP20 drives											
Motor		**Line supply**				**Altivar HVAC**					
Power indicated on rating plate *(1)*		**Line current** *(2)*		**Apparent power**	**Maximum prospective line Isc**	**Maximum continuous current** *(1)*		**Max. transient current for 60 s**	**Reference**	**Degree of protection**	**Weight**
380 V	**460 V**	**380 V**	**480 V**	**380 V**		**380 V**	**480 V**				
kW	***HP***	**A**	**A**	**kVA**	**kA**	**A**	**A**	**A**			**kg/*lb***
Heavy duty (HD) ***(3)***											
0.37	*0.5*	1.2	1	0.8	5	1.2	1.1	1.8	ATH630U07N4Z	IP20	1.7/*3.7*
0.75	*1*	2	1.7	1.3	5	2.2	2.1	3.3	ATH630U15N4Z	IP20	1.7/*3.7*
1.5	*2*	3.5	2.8	2.3	5	3.7	3.4	5.6	ATH630U22N4Z	IP20	1.7/*3.7*
2.2	*3*	4.2	3.6	2.8	5	5.1	4.8	7.7	ATH630U30N4Z	IP20	2.4/*5.3*
3	*3*	5.4	4.7	3.6	5	7.2	6.2	10.8	ATH630U40N4Z	IP20	2.4/*5.3*
4	*5*	7	6	4.6	5	9.1	7.6	13.7	ATH630U55N4Z	IP20	2.4/*5.3*
5.5	*7.5*	9.7	8.3	6.4	22	12	11	18	ATH630U75N4Z	IP20	3.8/*8.4*
7.5	*10*	13	11	8.6	22	16	14	24	ATH630D11N4Z	IP20	3.8/*8.4*
11	*15*	18.3	15.7	12	22	22.5	21	33.8	ATH630D15N4Z	IP20	4.6/*10.1*
15	*20*	24.4	21.1	16.1	22	30.5	27	45.8	ATH630D18N4Z	IP20	4.6/*10.1*
18.5	*25*	34.1	29.9	22.4	50	39.2	39.2	58.8	ATH630D22N4Z	IP20	13.7/*30.2*
22	*30*	40.5	35.8	26.7	50	46.3	46.3	69.5	ATH630D30N4Z	IP00	25.8/*56.9*
30	*40*	54.8	48.3	36.1	50	61.5	61.5	92.3	ATH630D37N4Z	IP00	26/*57.3*
37	*50*	67.1	59	44.2	50	74.5	74.5	111.8	ATH630D45N4Z	IP00	26.5/*58.4*
45	*60*	81.4	71.8	53.6	50	88	88	132	ATH630D55N4Z	IP00	52.6/*116*
55	*75*	98.9	86.9	65.1	50	106	106	159	ATH630D75N4Z	IP00	54.1/*119.3*
75	*100*	134.3	118.1	88.4	50	145	145	217.5	ATH630D90N4Z	IP00	54.6/*120.4*
90	*125*	170	143	111.9	50	173	173	259.5	ATH630C11N4Z	IP00	82/*180.8*
110	*150*	201	165	132.3	50	211	211	316.5	ATH630C13N4Z	IP00	82/*180.8*
132	*200*	237	213	156	50	250	250	375	ATH630C16N4Z	IP00	82/*180.8*
160	*250*	296	246	194.8	50	302	302	453	ATH630C22N4Z	IP00	172/*379.2*
200	*300*	365	301	240.2	50	387	387	580.5	ATH630C25N4Z	IP00	203/*447.5*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH630U07N4Z...D18N4Z),4kHz (ATH630D22N4Z...D45N4Z), or 2.5 kHz (ATH630D55N4Z...C25N4Z), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH630U07N4...D18N4), 2...16 kHz (ATH630D22N4Z...D45Z), or 2...8 kHz (ATH630D55Z...C25Z). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)

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

(3) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives
Altivar HVAC ATH600
Three-phase supply voltage: 380...480 V 50/60 Hz
IP21/UL type1 drives

380...480 V (-15...10%) IP21/UL type1 drives

Motor		Line supply				Altivar HVAC				
Power indicated on rating plate *(1) (2)*		Line current *(3)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(2)*		Max. transient current for 60 s	Reference	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V			
kW	*HP*	A	A	kVA	kA	A	A	A		kg/*lb*
Normal duty (ND) *(4)*										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	ATH630U07N4	2.3/*5.1*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	ATH630U15N4	2.3/*5.1*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	ATH630U22N4	2.3/*5.1*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	ATH630U30N4	3.4/*7.5*
4	*5*	7	6	4.6	5	9.1	7.6	10	ATH630U40N4	3.4/*7.5*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	ATH630U55N4	3.4/*7.5*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	ATH630U75N4	4.7/*10.4*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	ATH630D11N4	4.7/*10.4*
15	*20*	24.3	21	16	22	30.5	27	33.6	ATH630D15N4	5.7/*12.6*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	ATH630D18N4	5.7/*12.6*
22	*30*	39.6	34.4	26.1	50	46.3	46.3	50.9	ATH630D22N4	14.3/*31.5*
30	*40*	53.3	45.9	35.1	50	61.5	61.5	67.7	ATH630D30N4	28/*61.7*
37	*50*	66.2	57.3	43.6	50	74.5	74.5	82	ATH630D37N4	28.2/*62.2*
45	*60*	79.8	69.1	52.5	50	88	88	96.8	ATH630D45N4	28.7/*63.3*
55	*75*	97.2	84.2	64	50	106	106	116.6	ATH630D55N4	56.5/*124.6*
75	*100*	131.3	112.7	86.4	50	145	145	159.5	ATH630D75N4	58/*127.9*
90	*125*	156.2	135.8	102.8	50	173	173	190.3	ATH630D90N4	58.5/*129*
Heavy duty (HD) *(5)*										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	ATH630U07N4	2.3/*5.1*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	ATH630U15N4	2.3/*5.1*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	ATH630U22N4	2.3/*5.1*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	ATH630U30N4	3.4/*7.5*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	ATH630U40N4	3.4/*7.5*
4	5	7	6	4.6	5	9.1	7.6	13.7	ATH630U55N4	3.4/*7.5*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	ATH630U75N4	4.7/*10.4*
7.5	10	13	11	8.6	22	16	14	24	ATH630D11N4	4.7/*10.4*
11	15	18.3	15.7	12	22	22.5	21	33.8	ATH630D15N4	5.7/*12.6*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	ATH630D18N4	5.7/*12.6*
18.5	25	34.1	29.9	22.4	50	39.2	39.2	58.8	ATH630D22N4	14.3/*31.5*
22	30	40.5	35.8	26.7	50	46.3	46.3	69.5	ATH630D30N4	28/*61.7*
30	40	54.8	48.3	36.1	50	61.5	61.5	92.3	ATH630D37N4	28.2/*62.2*
37	50	67.1	59	44.2	50	74.5	74.5	111.8	ATH630D45N4	28.7/*63.3*
45	60	81.4	71.8	53.6	50	88	88	132	ATH630D55N4	56.5/*124.6*
55	75	98.9	86.9	65.1	50	106	106	159	ATH630D75N4	58/*127.9*
75	100	134.3	118.1	88.4	50	145	145	217.5	ATH630D90N4	58.5/*129*

(1) From 110 to 250 kW IP21 type1 protection degree reached by using an ATH630●●●N4Z drive with a conformity kit (see page xxx/11)and a plain text display terminal VW3A1123.

(2) These values are given for a nominal switching frequency of 6 kHz (ATH630U07N4...D18N4), 4kHz (ATH630D22N4...D45N4), or 2.5 kHz (ATH630D55N4...D90N4), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH630U07N4...D18N4), 2...16 kHz (ATH630D22N4...D45), or 2...8 kHz (ATH630D55...D90N4). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)

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

(4) Values given for applications requiring a slight overload (up to 110%).

(5) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives

Altivar HVAC ATH600

Three-phase supply voltage: 380...480 V 50/60 Hz
IP55 drives with category C2 or C3 integrated EMC filter

380...480 V (-15...10%) IP55 drives with category C2 or C3 integrated EMC filter

Motor		Line supply				Altivar HVAC				
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Weight
380 V	460 V	380 V	480 V	380 V		380 V	480 V			
kW	*HP*	A	A	kVA	kA	A	A	A		kg/*lb*
Normal duty (ND) *(3)*										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	ATH650U07N4	4.5/*9.9*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	ATH650U15N4	4.5/*9.9*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	ATH650U22N4	4.5/*9.9*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	ATH650U30N4	5.1/*11.2*
4	*5*	7	6	4.6	5	9.1	7.6	10	ATH650U40N4	5.1/*11.2*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	ATH650U55N4	5.1/*11.2*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	ATH650U75N4	7.3/*16.1*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	ATH650D11N4	7.3/*16.1*
15	*20*	24.3	21	16	22	30.5	27	33.6	ATH650D15N4	7.9/*17.4*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	ATH650D18N4	7.9/*17.4*
22	*30*	39.6	34.4	26.1	50	46.3	46.3	50.9	ATH650D22N4	20.6/*45.4*
30	*40*	53.3	45.9	35.1	50	61.5	61.5	67.7	ATH650D30N4	50/*100.2*
37	*50*	66.2	57.3	43.6	50	74.5	74.5	82	ATH650D37N4	50/*100.2*
45	*60*	79.8	69.1	52.5	50	88	88	96.8	ATH650D45N4	50/*100.2*
55	*75*	97.2	84.2	64	50	106	106	116.6	ATH650D55N4	87/*191.8*
75	*100*	131.3	112.7	86.4	50	145	145	159.5	ATH650D75N4	87/*191.8*
90	*125*	156.2	135.8	102.8	50	173	173	190.3	ATH650D90N4	87.7/*193.3*
Heavy duty (HD) *(4)*										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	ATH650U07N4	4.5/*9.9*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	ATH650U15N4	4.5/*9.9*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	ATH650U22N4	4.5/*9.9*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	ATH650U30N4	5.1/*11.2*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	ATH650U40N4	5.1/*11.2*
4	5	7	6	4.6	5	9.1	7.6	13.7	ATH650U55N4	5.1/*11.2*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	ATH650U75N4	7.3/*16.1*
7.5	10	13	11	8.6	22	16	14	24	ATH650D11N4	7.3/*16.1*
11	15	18.3	15.7	12	22	22.5	21	33.8	ATH650D15N4	7.9/*17.4*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	ATH650D18N4	7.9/*17.4*
18.5	25	34.1	29.9	22.4	50	39.2	39.2	58.8	ATH650D22N4	20.6/*45.4*
22	30	40.5	35.8	26.7	50	46.3	46.3	69.5	ATH650D30N4	50/*100.2*
30	40	54.8	48.3	36.1	50	61.5	61.5	92.3	ATH650D37N4	50/*100.2*
37	50	67.1	59	44.2	50	74.5	74.5	111.8	ATH650D45N4	50/*100.2*
45	60	81.4	71.8	53.6	50	88	88	132	ATH650D55N4	87/*191.8*
55	75	98.9	86.9	65.1	50	106	106	159	ATH650D75N4	87/*191.8*
75	100	134.3	118.1	88.4	50	145	145	217.5	ATH650D90N4	87.7/*193.3*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH650U07N4...D18N4), 4kHz (ATH650D22N4...D45N4), or 2.5 kHz (ATH650D55N4...D90N4), for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH650U07N4...D18N4), 2...16 kHz (ATH650D22N4...D45), or 2...8 kHz (ATH650D55...D90N4). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)

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

(3) Values given for applications requiring a slight overload (up to 110%).

(4) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives

Altivar HVAC ATH600

Three-phase supply voltage: 380...480 V 50/60 Hz
IP55 drives with category C1 integrated EMC filter

380...480 V (-15...10%) IP55 drives with category C1 integrated EMC filter										
Motor		**Line supply**				**Altivar HVAC**				
Power indicated on rating plate *(1)*		**Line current** *(2)*		**Apparent power**	**Maximum prospective line Isc**	**Maximum continuous current** *(1)*		**Max. transient current for 60 s**	**Reference**	**Weight**
380 V	**460 V**	**380 V**	**480 V**	**380 V**		**380 V**	**480 V**			
kW	***HP***	**A**	**A**	**kVA**	**kA**	**A**	**A**	**A**		**kg/*lb***
Normal duty (ND) ***(3)***										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	ATH650U07N4C	5/*11*
1.5	*2*	3.5	2.7	2.3	5	3.7	3.4	4.1	ATH650U15N4C	5/*11*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	ATH650U22N4C	5/*11*
3	*3*	5.4	4.6	3.5	5	7.2	6.2	7.9	ATH650U30N4C	5.6/*12.3*
4	*5*	7	6	4.6	5	9.1	7.6	10	ATH650U40N4C	5.6/*12.3*
5.5	*7.5*	9.3	8.1	6.1	5	12	11	13.2	ATH650U55N4C	5.6/*12.3*
7.5	*10*	12.9	11	8.5	22	16	14	17.6	ATH650U75N4C	8.1/*17.9*
11	*15*	18.5	15.8	12.2	22	22.5	21	24.8	ATH650D11N4C	8.1/*17.9*
15	*20*	24.3	21	16	22	30.5	27	33.6	ATH650D15N4C	8.7/*19.2*
18.5	*25*	29.6	25.5	19.5	22	37	34	40.7	ATH650D18N4C	8.7/*19.2*
Heavy duty (HD) ***(4)***										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	ATH650U07N4C	5/*11*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	ATH650U15N4C	5/*11*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	ATH650U22N4C	5/*11*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	ATH650U30N4C	5.6/*12.3*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	ATH650U40N4C	5.6/*12.3*
4	5	7	6	4.6	5	9.1	7.6	13.7	ATH650U55N4C	5.6/*12.3*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	ATH650U75N4C	8.1/*17.9*
7.5	10	13	11	8.6	22	16	14	24	ATH650D11N4C	8.1/*17.9*
11	15	18.3	15.7	12	22	22.5	21	33.8	ATH650D15N4C	8.7/*19.2*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	ATH650D18N4C	8.7/*19.2*

(1) These values are given for a nominal switching frequency of 6 kHz for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz.
Above the nominal switching frequency, the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)

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

(3) Values given for applications requiring a slight overload (up to 110%).

(4) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives
Altivar HVAC ATH600
Three-phase supply voltage: 380...480 V 50/60 Hz
UL type 12 drives

380...480 V (-15...10%) UL type 12 drives

Motor		Line supply				Altivar HVAC				
Power indicated on rating plate *(1)*		Line current *(2)*		Apparent power	Maximum prospective line Isc	Maximum continuous current *(1)*		Max. transient current for 60 s	Reference	Weight
380 V	460 V	380 V	480 V	480 V		380 V	480 V			
kW	*HP*	A	A	kVA	kA	A	A	A		kg/*lb*
Normal duty (ND) *(3)*										
0.75	*1*	2	1.6	1.3	5	2.2	2.1	2.4	ATH650U07N4	4.5/*9.9*
1.5	*2*	3.5	2.7	2.2	5	3.7	3.4	4.1	ATH650U15N4	4.5/*9.9*
2.2	*3*	4.8	3.8	3.2	5	5.1	4.8	5.6	ATH650U22N4	4.5/*9.9*
3	*3*	5.4	4.6	3.8	5	7.2	6.2	7.9	ATH650U30N4	5.1/*11.2*
4	*5*	7	6	5	5	9.1	7.6	10	ATH650U40N4	5.1/*11.2*
5.5	*7.5*	9.3	8.1	6.7	5	12	11	13.2	ATH650U55N4	5.1/*11.2*
7.5	*10*	12.9	11	9.1	22	16	14	17.6	ATH650U75N4	7.3/*16.1*
11	*15*	18.5	15.8	13.1	22	22.5	21	24.8	ATH650D11N4	7.3/*16.1*
15	*20*	24.3	21	17.5	22	30.5	27	33.6	ATH650D15N4	7.9/*17.4*
18.5	*25*	29.6	25.5	21.2	22	37	34	40.7	ATH650D18N4	7.9/*17.4*
22	*30*	39.6	34.4	28.6	50	46.3	46.3	50.9	ATH650D22N4U	21.4/*47.2*
30	*40*	53.3	45.9	38.2	50	61.5	61.5	67.7	ATH650D30N4U	51.6/*113.8*
37	*50*	66.2	57.3	47.6	50	74.5	74.5	82	ATH650D37N4U	51.6/*113.8*
45	*60*	79.8	69.1	57.4	50	88	88	96.8	ATH650D45N4U	51.6/*113.8*
55	*75*	97.2	84.2	70	50	106	106	116.6	ATH650D55N4U	89.3/*196.9*
75	*100*	131.3	112.7	93.7	50	145	145	159.5	ATH650D75N4U	89.3/*196.9*
90	*125*	156.2	135.8	112.9	50	173	173	190.3	ATH650D90N4U	90/*198.4*
Heavy duty (HD) *(4)*										
0.37	0.5	1.2	1	0.8	5	1.5	1.5	2.3	ATH650U07N4	4.5/*9.9*
0.75	1	2	1.7	1.3	5	2.2	2.1	3.3	ATH650U15N4	4.5/*9.9*
1.5	2	3.5	2.8	2.3	5	3.7	3.4	5.6	ATH650U22N4	4.5/*9.9*
2.2	3	4.2	3.6	2.8	5	5.1	4.8	7.7	ATH650U30N4	5.1/*11.2*
3	3	5.4	4.7	3.6	5	7.2	6.2	10.8	ATH650U40N4	5.1/*11.2*
4	5	7	6	4.6	5	9.1	7.6	13.7	ATH650U55N4	5.1/*11.2*
5.5	7.5	9.7	8.3	6.4	22	12	11	18	ATH650U75N4	7.3/*16.1*
7.5	10	13	11	8.6	22	16	14	24	ATH650D11N4	7.3/*16.1*
11	15	18.3	15.7	12	22	22.5	21	33.8	ATH650D15N4	7.9/*17.4*
15	20	24.4	21.1	16.1	22	30.5	27	45.8	ATH650D18N4	7.9/*17.4*
18.5	25	34.1	29.9	22.4	50	39.2	39.2	58.8	ATH650D22N4U	20.6/*45.4*
22	30	40.5	35.8	26.7	50	46.3	46.3	69.5	ATH650D30N4U	50/*100.2*
30	40	54.8	48.3	36.1	50	61.5	61.5	92.3	ATH650D37N4U	50/*100.2*
37	50	67.1	59	44.2	50	74.5	74.5	111.8	ATH650D45N4U	50/*100.2*
45	60	81.4	71.8	53.6	50	88	88	132	ATH650D55N4U	87/*191.8*
55	75	98.9	86.9	65.1	50	106	106	159	ATH650D75N4U	87/*191.8*
90	*125*	134,3	118,1	98,2	50	145	145	217,5	ATH650D90N4U	90/*198.4*

(1) These values are given for a nominal switching frequency of 6 kHz (ATH650U07N4...D18N4), 4kHz (ATH650D22N4U...D45N4U), or 2.5 kHz (ATH650D55N4U...D90N4U) for use in continuous operation.
The switching frequency is adjustable from 6…16 kHz (ATH650U07N4...D18N4), 2...16 kHz (ATH650D22N4U..D45U), or 2...8 kHz (ATH650D55U...D90N4U). Above the nominal switching frequency (depending on the rating), the drive will automatically reduce the switching frequency in the event of an excessive temperature rise.
For continuous operation above the nominal switching frequency, derate the nominal drive current (see the derating curves in the Installation Manual)

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

(3) Values given for applications requiring a slight overload (up to 110%).

(4) Values given for applications requiring a significant overload (up to 150%).

Variable speed drives
Altivar HVAC ATH600
Replacement parts

Power fan VX5VPS4001

Power fan VX5VPS5001

Replacement parts

Description	Corresponding drive	Reference *(1)*
Fan kits		
Power fan for IP21 and IP55 drives: Bracket Instruction sheets	ATH630U07N4...U22N4 ATH650U07N4...U22N4	VX5VPHVAS0001
	ATH630U30N4...U55N4 ATH650U30N4...U55N4	VX5VPHVAS1001
	ATH630U75N4...D11N4 ATH650U75N4...D11N4	VX5VPHVAS2001
	ATH630D15N4...D18N4 ATH650D15N4...D18N4	VX5VPHVAS2002
	ATH630D22N4	VX5VPS3001
	ATH630D30N4...D45N4 ATH650D30N4...D45N4	VX5VPS4001
	ATH630D55N4...D90N4 ATH650D55N4...D90N4	VX5VPS5001
	ATH630C11N4...C16N4	VX5VPS6001
	ATH630C22N4	VZ3V1212
	ATH630C25N4	VZ3V1213 *(2)*
Control fan for IP55 drives: Bracket Instruction sheets	ATH650U07N4...D18N4	VZ3V32066S2
	ATH650D22N4	VX5VP50A001
	ATH650D30N4...D90N4	VX5VP50BC001

(1) Available on Q3/2026

(2) Electronic power fan for drive, 2 units for ATH630C25N4.

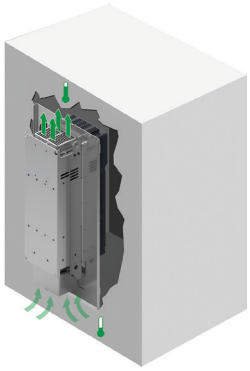
Variable speed drives
Altivar HVAC ATH600
Accessories

EMC plate VW3A47803

EMC plates

Description	Corresponding drive	Reference	Weight kg/ *lb*
EMC plates to provide a connection compliant with EMC standards (for further information, consult our website)**:** EMC plate Screws Clamp	ATH630U07N4Z...U22N4Z	VW3A4433	0.3/ *0.66*
	ATH630U30N4Z...U55N4Z	VW3A4434	
	ATH630U75N4Z...D11N4Z	VW3A4435	0.4/ *0.88*
	ATH630D15N4Z...D18N4Z	VW3A4436	0.5/ *1.1*
	ATH630D22N4Z	VW3A47803	0.52/ *1.15*
	ATH630D30N4Z...D45N4Z	VW3A47804	1/ *2.2*
	ATH630D55N4Z...D90N4Z	VW3A47805	1.67/ *3.68*

Universal Enclosures catalog



Flange-mounting kit installed inside cabinet

Accessories for flange mounting

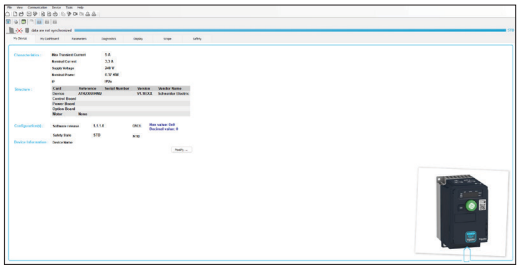
Description	Corresponding kit or drive	Enclosure max.height (mm/*in.*)	Enclosure max. width (mm/*in.*)	Reference
Flange-mounting kit for separate air flow: Cutting and drilling template Instruction sheet Metal frame of the right size for drive rating Corner pieces Fixing accessories Seals	ATH630U07N4...U22N4 ATH630U07N4Z...U22N4Z	–	–	VW3A95011
	ATH630U30N4...U55N4 ATH630U30N4Z...U55N4Z	–	–	VW3A95012
	ATH630U75N4...D11N4 ATH630U75N4Z...D11N4Z	–	–	VW3A95013
	ATH630D15N4...D18N4 ATH630D15N4Z...D18N4Z	–	–	VW3A95014
	ATH630D22N4 ATH630D22N4Z	*555/21.9*	*295/11.6*	NSYPTDS3
	ATH630D30N4...D45N4 ATH630D30N4Z...D45N4Z	800/31.5	385/15.2	NSYPTDS4
	ATH630D55N4...D90N4 ATH630D55N4Z...D90N4Z	975/38.4	427/16.8	NSYPTDS5
	ATH630C11N4Z...C16N4Z	–	–	VW3A95116
	ATH630C22N4Z	–	–	VW3A9513
	ATH630C25N4Z	–	–	VW3A9514

UL Type 1 conformity kit VW3A9212

IP21/UL Type 1 conformity kits

Description	Corresponding drive	Reference
IP21/UL Type 1 conformity kit: Housing Fixing accessories Instruction sheet	ATH630C11N4Z...C16N4Z	VW3A9704
UL Type 1 conformity kit: Cover Casing Plates Fixing accessories Instruction sheet	ATH630C22N4Z	VW3A9212
	ATH630C25N4Z	VW3A9213

Variable speed drives
Altivar HVAC ATH600
Dialog and configuration tools
DTM, SoMove setup software and connection



Altivar HVAC DTM in SoMove software

DTM

Presentation

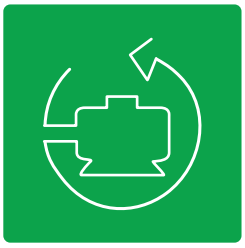
Using FDT/DTM technology, it is possible to configure, control, and diagnose Altivar HVAC ATH600 drives directly in SoMove software by means of the same software brick (DTM).
FDT/DTM technology standardizes the communication interface between field devices and host systems. The DTM contains a uniform structure for managing drive access parameters.
The Altivar HVAC ATH600 DTM library is a flexible, open, and interactive tool that can be used in a third-party FDT.
DTMs can be downloaded from our website.

Specific functions of the Altivar HVAC ATH600 DTM

- Offline or online access to drive data
- Transfer of configuration files from and to the drive
- Customization (My Menu)
- Access to drive parameters and option cards
- Oscilloscope function
- Graphic interface to assist with configuration of the Altivar HVAC ATH600
- Drive parameter monitoring
- Detected error and warning logs

Advantages of the DTM library in SoMove

SoMove is a drive-oriented software environment.
It allows a wired connection directly to the drive Modbus serial port.



SoMove setup software and connection

SoMove setup software for PC is used to prepare drive configuration files.
The USB/RJ45 cable (reference **TCSMCNAM3M002P** or **VW3A8127**) connects to the USB port of the PC running the software and to the RJ45 port on the device.
For more information, refer to the SoMove catalog.

References

Description	Length m/ *ft*	Reference
SoMove setup software For configuring, adjusting, and debugging the Altivar HVAC ATH600 drive	–	– *(1)*
USB/RJ45 cable Equipped with a USB connector and an RJ45 connector For connecting a PC to the drive	2.5/ *8.2*	**TCSMCNAM3M002P**
High-speed USB-A/RJ45 flashing cordset	2.5/ *8.2*	**VW3A8127**

(1) Please refer to our SoMove web page.

Variable speed drives
Altivar HVAC ATH600
Dialog and configuration tools
Compatible display terminals, plain text display terminal HVAC

Plain text display terminal HVAC VW3A1123

Altivar HVAC ATH600 compatible display terminals

The display terminals compatibles with the ATH600 drives are:
- The plain text display terminal HVAC **VW3A1123**
- The graphic display terminal HVAC **VW3A1121**
- The plain text display terminal **VW3A1113** without the Hand/off/Auto function
- The graphic display terminal **VW3A1111** without the Hand/off/Auto function

Plain text display terminal HVAC (supplied with ATH630●●●N4 drives)

The plain text display terminal HVAC can be ordered separately for mounting on IP00/IP20/IP21 drives or on a cabinet door with an IP43 solution, using a mounting accessory and a remote connection to the ATH630.

This terminal is used to:
- Control, adjust, and configure the ATH630
- Display current values (motor, I/O, and machine data)
- Store and download configuration (one configuration file can be stored)
- Duplicate the configuration of an ATH630 on another ATH630

Other features:
- Two-line display
- Languages (Chinese, English, French, German, Italian, Korean, Russian, Spanish, Traditional Chinese, Turkish). The language update is implemented via the drive firmware update.
- White backlit LCD screen
- Operating range: -15...60 °C/5...140 °F
- Removable, easy plug-in with RJ45 port

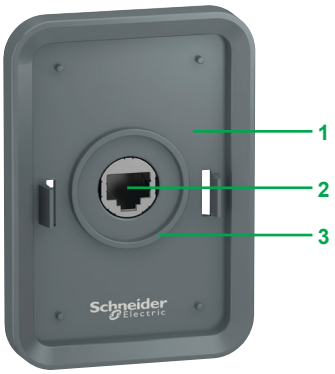
Description

The front of the display terminal comprises:
1 LCD backlit screen
3 **HAND** button: switch to local (display terminal), in local control, used for the motor run command
4 **OFF/RESET** button: local control of motor stop command/clearing detected errors
5 **ESC** button: aborts a value, parameter, or menu to return to the previous selection
6 **AUTO** button: switch from local (display terminal) to remote control of the drive.

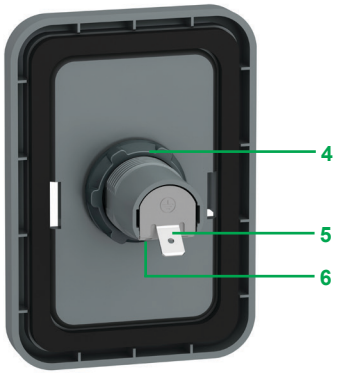
Navigation buttons:
2 **OK** button: Saves the current value (ENT), selects the menu
7 Turn ±: Increases or decreases the value, goes to the next or previous line

References

Description	Reference	Weight kg/ *lb*
Plain text display terminal HVAC	VW3A1123	0.2/ *0.44*



Remote-mounting kit VW3A1114 (front panel)



Remote-mounting kit VW3A1114 (rear panel)

Accessories for plain text display terminal

Remote-mounting kit for mounting on an enclosure door with IP43 degree of protection as standard.

The kit comprises:
- Tightening tool (also sold separately under the reference **ZB5AZ905**)
1 Mounting plate
2 RJ45 port for the plain text display terminal
3 Seal
4 Fixing nut
5 Grounding connector
6 RJ45 port for connecting the remote-mounting cordset. Cordsets should be ordered separately depending on the length required.

Drilling a hole with a standard Ø 22 tool, as used for a pushbutton, allows the unit to be mounted without the need for a cut-out in the enclosure (Ø 22.5 mm/*0.89 in.* drill hole). When the kit is locked tightly onto the panel by the nut, the gasket on the back cannot rotate.

References

Description	Length m/*ft*	IP rating	Reference
Remote-mounting kit Order with remote mounting cordset VW3A1104R●●●	–	43	VW3A1114
Tightening tool For door mounting kit	–	–	ZB5AZ905
Remote-mounting cordset Equipped with two RJ45 connectors	1/*3.3*	–	VW3A1104R10
	3/*9.8*	–	VW3A1104R30

Variable speed drives
Altivar HVAC ATH600
Dialog and configuration tools
Graphic display terminal HVAC

Graphic display terminal HVAC VW3A1121

Detected fault: Red screen when there is a detected error

Graphic display terminal HVAC (supplied with ATH650 drives)

This terminal can be:
- Connected and mounted on the front of the drive (ATH650 drives)
- Connected and mounted on an enclosure door using a remote mounting accessory (All ATH600 drives)
- Connected to a PC to exchange files via a Mini USB/USB connection *(1)*
- Connected to several drives in multipoint mode (see page 39)

This terminal is used to:
- Control, adjust, and configure the drive
- Display current values (motor, I/O, and process data)
- Display graphic dashboards such as the energy consumption monitoring dashboard
- Store and download configurations (several configuration files can be stored)
- Copy the configuration of one powered-up drive and duplicate it to another powered-up drive
- Copy configurations from a PC or drive and duplicate them on another drive (the drives must be powered on for the duration of the duplication operations)

Other characteristics:
- Up to 24 languages (complete alphabets) covering the majority of countries around the world (languages can be removed, added, and updated according to user requirements; consult the graphic display terminal page on our website)
- 2-color backlit display (white and red); if an error is detected, the red backlight is activated automatically (function can be disabled)
- Operating range: -15…60 °C/*5…140 °F*
- Degree of protection: IP65
- Trend curves: Graphic display of changes over time in monitoring variables, energy data, and process data
- Embedded dynamic QR codes for contextual, instantaneous access to online help (diagnostics and settings, etc.) using a smartphone or tablet
- Real-time clock with 10-year backup battery providing data acquisition and event timestamping functions even when the drive is stopped

Description

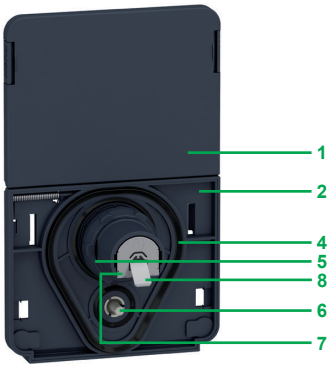
The graphic display terminal HVAC is composed of:
- 8 lines, 240 x 160 pixels
- A display of bar charts, gauges, and trend charts
- 4 function keys to facilitate navigation and provide contextual links for enabling functions
- **OFF/RESET** button: Local control of the motor stop command/clearing detected errors
- **AUTO** button: Switch from local (display terminal) to remote control of the drive.
- **HAND** button: Switch to local (display terminal), in local control, used for motor run command
- Navigation buttons:
  - OK button: Saves the current value (ENT)
  - Turn ±: Increases or decreases the value, goes to the next or previous line
- **ESC** button: Aborts a value, parameter, or menu to return to the previous selection
- Home: Root menu
- Information ⓘ: Contextual help

References

Description	Reference	Weight kg/ *lb*
Graphic display terminal HVAC	VW3A1121	0.2/ *0.44*

(1) Graphic display terminal used only as a handheld terminal.

Door mounting kit for mounting graphic display terminal on enclosure door (front panel)



Door mounting kit for graphic display terminal (rear panel)

Accessories for graphic display terminal

A door mounting kit for mounting on enclosure door with IP65/UL type 12 protection rating as standard.

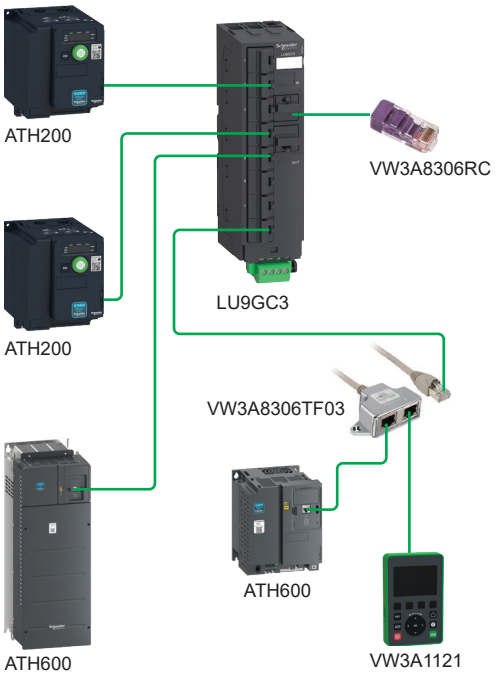
The kit comprises:
- \- Tightening tool (also sold separately under the reference **ZB5AZ905**)
- 1 Cover plate to maintain IP65 protection when there is no terminal connected
- 2 Mounting plate
- 3 RJ45 port for the graphic display terminal
- 4 Seal
- 5 Fixing nut
- 6 Anti-rotation pin
- 7 RJ45 port for connecting the remote-mounting cordset (10 m/*33 ft* maximum). Cordsets should be ordered separately depending on the length required.
- 8 Grounding connector

Drilling a hole with a standard Ø 22 tool, as used for a pushbutton, allows the unit to be mounted without the need for a cut-out in the enclosure (Ø 22.5 mm/*0.89 in.* drill hole).

References

Description	Length m/ *ft*	IP rating	Reference	Weight kg/ *lb*
Door mounting kit Order with remote-mounting cordset VW3A1104R●●●	–	65/ UL Type 12	VW3A1112	–
Tightening tool For door mounting kit	–	–	ZB5AZ905	0.016/ *0.035*
Remote-mounting cordset Equipped with two RJ45 connectors	1/ *3.28*	–	VW3A1104R10	0.05/ *0.11*
	3/ *9.84*	–	VW3A1104R30	0.15/ *0.33*
	5/ *16.4*	–	VW3A1104R50	0.25/ *0.55*
	10/ *32.8*	–	VW3A1104R100	0.5/ *1.1*

(1) Graphic display terminal used only as a handheld terminal.



Example of multidrop architecture for graphic display terminal

Multidrop connection accessories

These accessories are used to connect a graphic display terminal to several drives via a multidrop link. This multidrop connection uses the RJ45 terminal port on the front of the drive.

Connection accessories

Description		Sold in lots of	Unit reference	Weight kg/ *lb*
Modbus splitter box 10 RJ45 connectors and 1 screw terminal block		–	LU9GC3	0.5/ *1.1*
Modbus T-junction boxes	With 0.3 m/*0.98 ft* integrated cable	–	VW3A8306TF03	0.19/ *0.42*
	With 1 m/*3.28 ft* integrated cable	–	VW3A8306TF10	0.21/ *0.46*
Modbus line terminator For RJ45 connector	R = 120 Ω C = 1 nf	2	VW3A8306RC	0.01/ *0.02*

Cordsets (equipped with two RJ45 connectors)

Used for	Length m/ *ft*	Reference	Weight kg/ *lb*
Serial link	0.3/ *0.98*	VW3A8306R03	0.025/ *0.055*
	1/ *3.28*	VW3A8306R10	0.06/ *0.13*
	3/ *9.84*	VW3A8306R30	0.13/ *0.29*

Variable speed drives
Altivar HVAC ATH600
Options compatibility table of ATH630 drives

Table showing possible combinations of options for Altivar HVAC ATH630 drives

Motor		Drive	Wear parts	Accessories			Options				
			Power fan kit	EMC plate	UL Type 1 (IP21) conformity kit	Flange-mounting kit	Passive filters (50 Hz)	Passive filters (60 Hz)	EMC filters	dv/dt filters	
kW	*HP*						THDi < 5%	THDi < 5%	Filter	Filter	IP20 and IP21kit
Three-phase supply voltage: 380...480 V 50/60 Hz - IP21/UL type 1											
0.75	*1*	**ATH630U07N4**	VX5VPHVAS0001	–	–	VW3A95011	–	–	VW3A4422	VW3A5301	VW3A53902
1.5	*2*	**ATH630U15N4**	VX5VPHVAS0001	–	–	VW3A95011	–	–	VW3A4422	VW3A5301	VW3A53902
2.2	*3*	**ATH630U22N4**	VX5VPHVAS0001	–	–	VW3A95011	–	–	VW3A4422	VW3A5301	VW3A53902
3	*3*	**ATH630U30N4**	VX5VPHVAS1001	–	–	VW3A95012	–	–	VW3A4422	VW3A5302	VW3A53902
4	*5*	**ATH630U40N4**	VX5VPHVAS1001	–	–	VW3A95012	–	–	VW3A4422	VW3A5302	VW3A53902
5.5	*7.5*	**ATH630U55N4**	VX5VPHVAS1001	–	–	VW3A95012	–	–	VW3A4422	VW3A5302	VW3A53902
7.5	*10*	**ATH630U75N4**	VX5VPHVAS2001	–	–	VW3A95013	–	–	VW3A4703	VW3A5303	VW3A53902
11	*15*	**ATH630D11N4**	VX5VPHVAS2001	–	–	VW3A95013	–	–	VW3A4703	VW3A5303	VW3A53902
15	*20*	**ATH630D15N4**	VX5VPHVAS2002	–	–	VW3A95014	–	–	VW3A4703	VW3A5304	VW3A53903
18.5	*25*	**ATH630D18N4**	VX5VPHVAS2002	–	–	VW3A95014	–	–	VW3A4703	VW3A5304	VW3A53903
22	*30*	**ATH630D22N4**	VX5VPS3001	–	–	NSYPTDS3	VW3A46126	VW3A46164	VW3A4704	VW3A5304	VW3A53903
30	*40*	**ATH630D30N4**	VX5VPS4001	–	–	NSYPTDS4	VW3A46127	VW3A46165	VW3A4705	VW3A5305	VW3A53905
37	*50*	**ATH630D37N4**	VX5VPS4001	–	–	NSYPTDS4	VW3A46128	VW3A46166	VW3A4706	VW3A5305	VW3A53905
45	*60*	**ATH630D45N4**	VX5VPS4001	–	–	NSYPTDS4	VW3A46129	VW3A46167	VW3A4706	VW3A5305	VW3A53905
55	*75*	**ATH630D55N4**	VX5VPS5001	–	–	NSYPTDS5	VW3A46130	VW3A46168	VW3A4707	VW3A5306	–
75	*100*	**ATH630D75N4**	VX5VPS5001	–	–	NSYPTDS5	VW3A46131	VW3A46169	VW3A4708	VW3A5306	–
90	*125*	**ATH630D90N4**	VX5VPS5001	–	–	NSYPTDS5	VW3A46132	VW3A46170	VW3A4708	VW3A5306	–
Three-phase supply voltage: 380...480 V 50/60 Hz - IP00/IP20											
0.75	*1*	**ATH630U07N4Z**	VX5VPHVAS0001	VW3A4433	–	VW3A95011	–	–	VW3A4422	VW3A5301	VW3A53902
1.5	*2*	**ATH630U15N4Z**	VX5VPHVAS0001	VW3A4433	–	VW3A95011	–	–	VW3A4422	VW3A5301	VW3A53902
2.2	*3*	**ATH630U22N4Z**	VX5VPHVAS0001	VW3A4433	–	VW3A95011	–	–	VW3A4422	VW3A5301	VW3A53902
3	*3*	**ATH630U30N4Z**	VX5VPHVAS1001	VW3A4434	–	VW3A95012	–	–	VW3A4422	VW3A5302	VW3A53902
4	*5*	**ATH630U40N4Z**	VX5VPHVAS1001	VW3A4434	–	VW3A95012	–	–	VW3A4422	VW3A5302	VW3A53902
5.5	*7.5*	**ATH630U55N4Z**	VX5VPHVAS1001	VW3A4434	–	VW3A95012	–	–	VW3A4422	VW3A5302	VW3A53902
7.5	*10*	**ATH630U75N4Z**	VX5VPHVAS2001	VW3A4435	–	VW3A95013	–	–	VW3A4703	VW3A5303	VW3A53902
11	*15*	**ATH630D11N4Z**	VX5VPHVAS2001	VW3A4435	–	VW3A95013	–	–	VW3A4703	VW3A5303	VW3A53902
15	*20*	**ATH630D15N4Z**	VX5VPHVAS2002	VW3A4436	–	VW3A95014	–	–	VW3A4703	VW3A5304	VW3A53903
18.5	*25*	**ATH630D18N4Z**	VX5VPHVAS2002	VW3A4436	–	VW3A95014	–	–	VW3A4703	VW3A5304	VW3A53903
22	*30*	**ATH630D22N4Z**	VX5VPS3001	VW3A47803	–	NSYPTDS3	VW3A46126	VW3A46164	VW3A4704	VW3A5304	VW3A53903
30	*40*	**ATH630D30N4Z**	VX5VPS4001	VW3A47804	–	NSYPTDS4	VW3A46127	VW3A46165	VW3A4705	VW3A5305	VW3A53905
37	*50*	**ATH630D37N4Z**	VX5VPS4001	VW3A47804	–	NSYPTDS4	VW3A46128	VW3A46166	VW3A4706	VW3A5305	VW3A53905
45	*60*	**ATH630D45N4Z**	VX5VPS4001	VW3A47804	–	NSYPTDS4	VW3A46129	VW3A46167	VW3A4706	VW3A5305	VW3A53905
55	*75*	**ATH630D55N4Z**	VX5VPS5001	VW3A47805	–	NSYPTDS5	VW3A46130	VW3A46168	VW3A4707	VW3A5306	–
75	*100*	**ATH630D75N4Z**	VX5VPS5001	VW3A47805	–	NSYPTDS5	VW3A46131	VW3A46169	VW3A4708	VW3A5306	–
90	*125*	**ATH630D90N4Z**	VX5VPS5001	VW3A47805	–	NSYPTDS5	VW3A46132	VW3A46170	VW3A4708	VW3A5306	–
110	*150*	**ATH630C11N4Z**	VX5VPS6001	–	VW3A9704	VW3A95116	VW3A46133	VW3A46171	–	VW3A5307	–
132	*200*	**ATH630C13N4Z**	VX5VPS6001	–	VW3A9704	VW3A95116	VW3A46134	VW3A46172	–	VW3A5307	–
160	*250*	**ATH630C16N4Z**	VX5VPS6001	–	VW3A9704	VW3A95116	VW3A46135	VW3A46173	–	VW3A5307	–
220	*350*	**ATH630C22N4Z**	VZ3C1212	–	VW3A9212	VW3A9513	VW3A46137	VW3A46174	VW3A4411	VW3A5106	–
250	*400*	**ATH630C25N4Z**	VZ3V1213 (x2)	–	VW3A9213	VW3A95134	VW3A46138	VW3A46176	VW3A4411	VW3A5107	–
Pages		26	32	33	33	33	50	51	52	55	56

Variable speed drives
Altivar HVAC ATH600
Options compatibility table of ATH650 drives

Table showing possible combinations of options for Altivar HVAC ATH650 drives

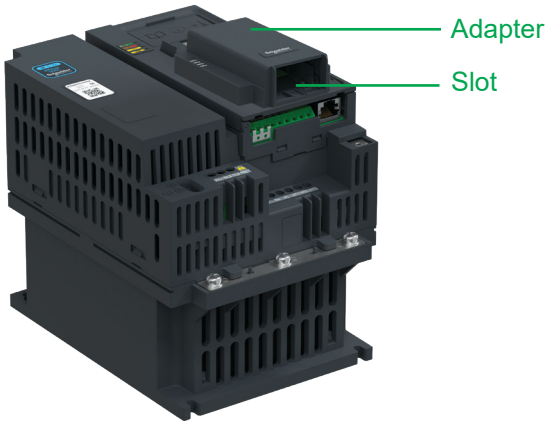
Motor		Drive	Wear parts		Options			
			Fan kit		Passive filters (50 Hz)	Passive filters (60 Hz)	dv/dt filters	
kW	*HP*		Power	Control	THDi < 5%	THDi < 5%	Filter	IP20 and IP21kit
Three-phase supply voltage: 380…480 V 50/60 Hz IP55/ UL type 12 drives with category C2 or C3 integrated EMC filter								
0.75	*1*	**ATH650U07N4**	VX5VPHVAS0001	VZ3V32066S2	–	–	VW3A5301	VW3A53902
1.5	*2*	**ATH650U15N4**	VX5VPHVAS0001	VZ3V32066S2	–	–	VW3A5301	VW3A53902
2.2	*3*	**ATH650U22N4**	VX5VPHVAS0001	VZ3V32066S2	–	–	VW3A5301	VW3A53902
3	*3*	**ATH650U30N4**	VX5VPHVAS1001	VZ3V32066S2	–	–	VW3A5302	VW3A53902
4	*5*	**ATH650U40N4**	VX5VPHVAS1001	VZ3V32066S2	–	–	VW3A5302	VW3A53902
5.5	*7.5*	**ATH650U55N4**	VX5VPHVAS1001	VZ3V32066S2	–	–	VW3A5302	VW3A53902
7.5	*10*	**ATH650U75N4**	VX5VPHVAS2001	VZ3V32066S2	–	–	VW3A5303	VW3A53902
11	*15*	**ATH650D11N4**	VX5VPHVAS2001	VZ3V32066S2	–	–	VW3A5303	VW3A53902
15	*20*	**ATH650D15N4**	VX5VPHVAS2002	VZ3V32066S2	–	–	VW3A5304	VW3A53903
18.5	*25*	**ATH650D18N4**	VX5VPHVAS2002	VZ3V32066S2	–	–	VW3A5304	VW3A53903
Three-phase supply voltage: 380…480 V 50/60 Hz IP55 drives with category C2 or C3 integrated EMC filter								
22	*30*	**ATH650D22N4**	VX5VPS3001	VX5VP50A001	VW3A46126	VW3A46164	VW3A5304	VW3A53903
30	*40*	**ATH650D30N4**	VX5VPS4001	VX5VP50BC001	VW3A46127	VW3A46165	VW3A5305	VW3A53905
37	*50*	**ATH650D37N4**	VX5VPS4001	VX5VP50BC001	VW3A46128	VW3A46166	VW3A5305	VW3A53905
45	*60*	**ATH650D45N4**	VX5VPS4001	VX5VP50BC001	VW3A46129	VW3A46167	VW3A5305	VW3A53905
55	*75*	**ATH650D55N4**	VX5VPS5001	VX5VP50BC001	VW3A46130	VW3A46168	VW3A5306	–
75	*100*	**ATH650D75N4**	VX5VPS5001	VX5VP50BC001	VW3A46131	VW3A46169	VW3A5306	–
90	*125*	**ATH650D90N4**	VX5VPS5001	VX5VP50BC001	VW3A46132	VW3A46170	VW3A5306	–
Three-phase supply voltage: 380…480 V 50/60 Hz IP55 drives with category C1 integrated EMC filter								
0.75	*1*	**ATH650U07N4C**	–	–	–	–	VW3A5301	VW3A53902
1.5	*2*	**ATH650U15N4C**	–	–	–	–	VW3A5301	VW3A53902
2.2	*3*	**ATH650U22N4C**	–	–	–	–	VW3A5301	VW3A53902
3	*3*	**ATH650U30N4C**	–	–	–	–	VW3A5302	VW3A53902
4	*5*	**ATH650U40N4C**	–	–	–	–	VW3A5302	VW3A53902
5.5	*7.5*	**ATH650U55N4C**	–	–	–	–	VW3A5302	VW3A53902
7.5	*10*	**ATH650U75N4C**	–	–	–	–	VW3A5303	VW3A53902
11	*15*	**ATH650D11N4C**	–	–	–	–	VW3A5303	VW3A53902
15	*20*	**ATH650D15N4C**	–	–	–	–	VW3A5304	VW3A53903
18.5	*25*	**ATH650D18N4C**	–	–	–	–	VW3A5304	VW3A53903
Three-phase supply voltage: 380…480 V 50/60 Hz UL type 12 drives								
22	*30*	**ATH650D22N4U**	–	–	VW3A46126	VW3A46164	VW3A5304	VW3A53903
30	*40*	**ATH650D30N4U**	–	–	VW3A46127	VW3A46165	VW3A5305	VW3A53905
37	*50*	**ATH650D37N4U**	–	–	VW3A46128	VW3A46166	VW3A5305	VW3A53905
45	*60*	**ATH650D45N4U**	–	–	VW3A46129	VW3A46167	VW3A5305	VW3A53905
55	*75*	**ATH650D55N4U**	–	–	VW3A46130	VW3A46168	VW3A5306	–
75	*100*	**ATH650D75N4U**	–	–	VW3A46131	VW3A46169	VW3A5306	–
90	*125*	**ATH650D90N4U**	–	–	VW3A46132	VW3A46170	VW3A5306	–
Pages		29	32	32	50	51	55	56

Variable speed drives
Altivar HVAC ATH600
Optoin modules compatibility table

Table showing possible combinations of modules for ATH600 drives *(1)*		
Option module adapter *(2)*		
Description	**Reference**	**Page**
Adapter for ATH600 modules (drives up to 18.5 kW/*25 HP*)	VW3A36001	46
Additional I/O modules		
Description	**Reference**	**Page**
Extended I/O module	VW3A3203	44
Extended relay module	VW3A3204	44
Communication modules		
Description	**Reference**	**Page**
BACnet/IP	VW3A3726	49
EtherNet/IP and Modbus TCP dual port *(3)*	VW3A3720	48
PROFINET v2 *(3)*	VW3A3647	49

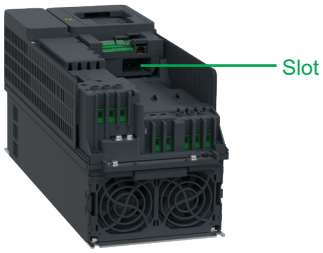
(1) Only one module can be equipped.
(2) For ratings up to 18.5 kW/25 HP (included) it is necessary to add an option module adapter to be able to add an I/O or communication module.
(3) Minimum compatible ATH600 firmware version is V1.2 available on Q3/2026.

Altivar HVAC ATH600 drive slot (ratings above 18.5 kW/25 HP)

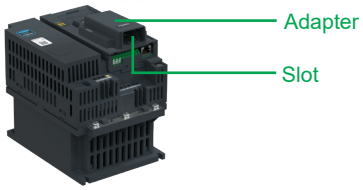


Altivar HVAC ATH600 drive with adapter (ratings up to18.5 kW/25 HP)

Variable speed drives
Altivar HVAC ATH600
Option: Additional I/O modules



ATH600 drive additional module slot (ratings above 18.5 kW/25 HP)



ATH600 drive equipped with the mechanical adapter for module VW3A36001 (ratings up to 18.5 kW/25 HP)

Extended I/O module VW3A3203

Extended relay module VW3A3204

Additional I/O modules

Presentation

By installing additional I/O modules, Altivar HVAC drives can be adapted to meet the needs of applications that manage additional sensors or specific sensors.

Two additional I/O modules are available:
- Extended I/O module
- Extended relay module

For ratings up to 18.5 kW/*25 HP* (included), the mechanical adapter for module **VW3A36001** is required.

Extended I/O module

- 2 differential analog inputs configurable via software as current (0-20 mA/4-20 mA), or for PTC, PT100, or PT1000, 2- or 3-wire probe
- 14-bit resolution
- 6 x 24 V ⎓ positive or negative digital inputs
- Sampling: 1 ms max
- 2 assignable digital outputs
- 2 removable spring terminal blocks

Extended relay module

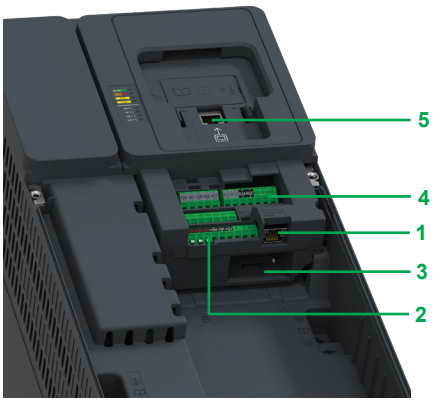
- 3 relay outputs with NO contacts
- 1 fixed screw terminal block

Additional I/O modules

Description	I/O type				Reference	Weight kg/ *lb*
	Digital inputs	Digital outputs	Analog inputs	Relay outputs		
Mechanical adapter for module	–	–	–	–	VW3A36001	0.094/ *0.207*
Extended I/O module	6	2	2 *(1)*	–	VW3A3203	0.500/ *1.102*
Extended relay module	–	–	–	3 *(2)*	VW3A3204	0.400/ *0.882*

(1) Differential analog inputs configurable via software as current (0-20 mA/4-20 mA), or for PTC, PT100, or PT1000, 2- or 3-wire probe. When configured as PTC probe inputs, they must never be used to monitor the temperature of an ATEX motor for applications in explosive atmospheres. To make an installation compliant with ATEX recommendations, please refer to the Installation Manual for each product.
(2) NO contacts.

Variable speed drives
Altivar HVAC ATH600
Communication buses
Presentation



ATH600 drive communication ports

Presentation

Altivar HVAC drives have 2 built-in RJ45 serial communication ports as standard.

Integrated communication protocols

Altivar HVAC drives integrate Modbus serial and BACnet MS/TP communication protocols as standard, and 2 independant serial links.

- ■ Serial ports:
- □ Modbus HMI serial link available on the front face RJ45 for multidrop connection of the following HMIs and configuration tools:
  - The remote graphic display terminal supplied with the drive
  - A Harmony industrial HMI terminal
  - A PC with SoMove or EcoStruxure Automation Device Maintenance software
- □ Fieldbus connection on Modbus RTU or BACnet MS/TP by means of:
  - RJ45 port
  - Open style terminal communication port

The detailed specifications for the communication ports are available on our website.

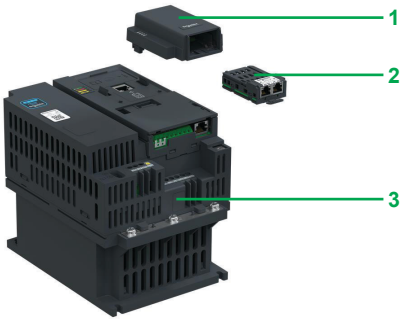
Description

1 RJ45 serial port
2 Open type serial port (RS-485)
3 Slot for additional I/O or communication (fieldbus) modules
4 Screw terminal blocks for 24 V ⎓ power supply and integrated I/O
5 RJ45 serial link for HMI (remote graphic display terminal, Harmony HMI terminal, etc.)

Altivar HVAC drives can only take one module, so it is not possible to have a communication module and extended I/O modules at the same time.

Note: *The User Manuals and description files (gsd, eds) for the devices on the communication buses and networks are available on our website.*

Variable speed drives
Altivar HVAC ATH600
Communication buses
Optional communication modules and functions



ATH600 drive, mechanical adapter for extended I/O module and communication module

Optional communication modules

The Altivar HVAC drive can also be connected to other industrial communication buses and networks by using one of the communication modules available as an option. Communication modules are supplied in “cassette” format for ease of mounting/removal.

Dedicated communication modules are:
- BACnet/IP
- EtherNet/IP *(1)* and Modbus TCP dual port *(1)*
- PROFINET V2 *(1)*

It is possible to maintain communication using a separate power supply for the control section. Monitoring and diagnostics are possible via the network even if there is no power supply to the power section.

Altivar HVAC ATH600 drives are designed for use with option modules according to machine and application requirements; only one option module can be used with an Altivar HVAC ATH600 drive at a time.

For ratings up to 18.5 kW, the VW3A36001 mechanical adapter for module **1** should be added to Altivar HVAC ATH600 drives **3** in order to connect communication modules **2**.

Reference

Description	Reference
Mechanical adapter for module	VW3A36001

Functions

The drive functions can be accessed via the various communication networks:
- Configuration
- Adjustment
- Control
- Monitoring

Altivar HVAC drives offer a high degree of interfacing flexibility with the possibility of assigning, by configuration, the different control sources (I/O, communication networks, and HMI terminal) to control functions in order to meet the requirements of complex applications.

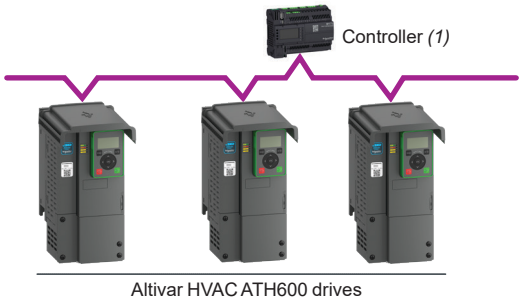
Network services and parameters are configured using the SoMove drive setup software or drive local HMI.

Integration in the Ecostruxure Building architecture is simplified.

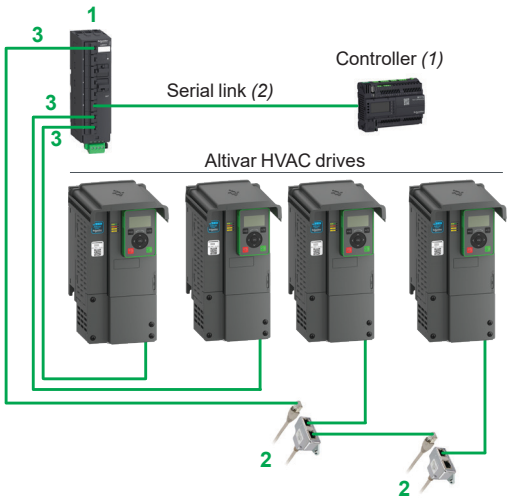
Communication is monitored according to the specific criteria for each protocol. However, regardless of the protocol, it is possible to configure how the drive responds to a detected communication interruption, as follows:
- Define the type of stop when a communication interruption is detected
- Maintain last command received
- Fallback position at preset speed
- Ignore the detected communication interruption

(1) Minimum compatible ATH600 firmware version is V1.2 available on Q3/2026.

Variable speed drives
Altivar HVAC ATH600
Communication buses
Integrated serial ports



Example of connection on Modbus or BACnet MS/TP bus using open style connector and twisted pair cables



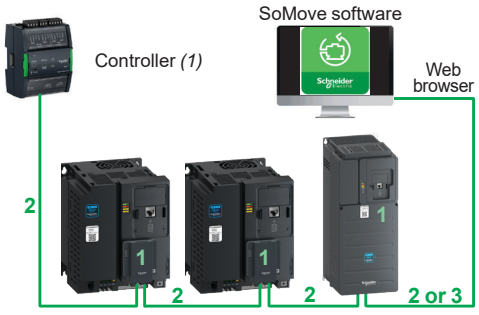
Example of connection on Modbus or BACnet MS/TP bus using RJ45 cordsets

Integrated serial port					
Description		**Item**	**Length m/ *ft***	**Reference**	**Weight kg/ *lb***
Connection accessories					
Splitter box 10 RJ45 connectors and 1 screw terminal block		1	–	LU9GC3	0.5/ *1.1*
Modbus T-junction boxes	With 0.3 m/*0.98 ft* integrated cable	2	0.3/ *0.98*	VW3A8306TF03	0.19/ *0.42*
	With 1 m/*3.28 ft* integrated cable	2	1/ *3.28*	VW3A8306TF10	0.21/ *0.46*
Cordsets equipped with 2 RJ45 connectors		3	0.3/ *0.98*	VW3A8306R03	0.025/ *0.055*
			1/ *3.28*	VW3A8306R10	0.06/ *0.13*
			3/ *9.84*	VW3A8306R30	0.13/ *0.29*

(1) Please refer to the Modicon automation platform catalogs.
(2) Cable depends on the controller.

Variable speed drives
Altivar HVAC ATH600
Communication buses
Option: EtherNet/IP and Modbus TCP networks

EtherNet/IP and Modbus TCP dual port module VW3A3720



Example of connection on Modbus TCP network

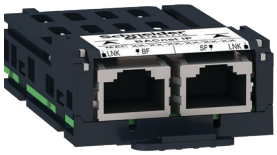
EtherNet/IP and Modbus TCP networks

Description	Item	Length m/ *ft*	Reference	Weight kg/ *lb*
Communication module				
EtherNet/IP and Modbus TCP dual port module For connection to the Modbus TCP or EtherNet/IP network Ports: 2 RJ45 connectors ■ 10/100 Mbps, half duplex and full duplex ■ Embedded Web server Requires cordset 490NTW000●●/●●U or 490NTC000●●/●●U	1	–	VW3A3720 *(2)*	0.02/ *0.044*
ConneXium cordsets *(3)*				
Straight shielded twisted pair cables equipped with 2 RJ45 connectors conforming to EIA/TIA-568 category 5 and IEC 11801/EN 50173-1, class D	2	2/ *6.6*	490NTW00002	–
		5/ *16.4*	490NTW00005	–
		12/ *39*	490NTW00012	–
Crossover shielded twisted pair cables equipped with 2 RJ45 connectors conforming to EIA/TIA-568 category 5 and IEC 11801/EN 50173-1, class D	3	5/ *16.4*	490NTC00005	–
Straight shielded twisted pair cables equipped with 2 RJ45 connectors conforming to UL and CSA 22.1	2	2/ *6.6*	490NTW00002U	–
		5/ *16.4*	490NTW00005U	–
		12/ *39*	490NTW00012U	–

(1) Please refer to the Modicon automation platform catalogs.
(2) Minimum compatible ATH600 firmware version is V1.2 available on Q3/2026.
(3) For more lengths or other ConneXium connection accessories, please refer to the Modicon Switch catalog.

Variable speed drives
Altivar HVAC ATH600
Communication buses
Option: PROFINET and BACnet/IP

PROFINET V2 module VW3A3647



BACnet/IP communication module VW3A3726

PROFINET network *(1)*

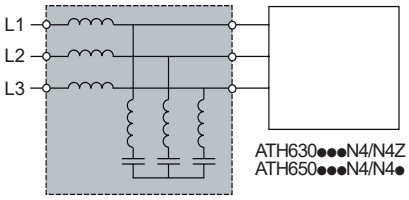
Description	Reference	Weight kg/ *lb*
Communication module		
PROFINET V2 module Equipped with 2 RJ45 connectors ■ Compliant with Architecture S1 and S2 redundancy on PROFINET ■ Automatic IP adress assignment via DHCP and DCP ■ Support of MRP (Media Redundancy Protocol) ■ PNIO_Version 2.44 ■ PROFIDRIVE Version 4.2 ■ Support of LLDP (Link Layer Discovery Protocol) ■ Security Level 1 Class III	VW3A3647	0.29/ *0.64*

BACnet/IP network

Description	Reference	Weight kg/ *lb*
Communication module		
BACnet/IP communication module Equipped with 2 RJ45 connectors ■ BTL certified ■ Automatic IP adress via DHCP ■ Foreign device capability	VW3A3726	0.29/ *0.64*

(1) Minimum compatible ATH600 firmware version is V1.2 available on Q3/2026.

Variable speed drives
Altivar HVAC ATH600
Option: Passive filters
Presentation, 50 Hz passive filters



Altivar HVAC drive with passive filter

50 Hz passive filter VW3A46130

Presentation

Passive filters are used to obtain total harmonic distortion of less than 5%.
Reactive power increases at no load or low load. To help reduce this reactive power, the filter capacitors can be disconnected (see the diagrams on our website).
Passive filters meet IP20 protection level.

50 Hz three-phase supply passive filter

Motor rating		Corresponding drive	Filter		Reference (1)	Weight
			Nominal current			
			Input	Output		
kW	*HP*		A	A		kg/ *lb*
THDi < 5%						
22	*30*	ATH630D22N4/N4Z ATH650D22N4/N4●	43	45	VW3A46126	58/ *128*
30	*40*	ATH630D30N4/N4Z ATH650D30N4/N4●	58	60	VW3A46127	76/ *168*
37	*50*	ATH630D37N4/N4Z ATH650D37N4/N4●	72	75	VW3A46128	98/ *216*
45	*60*	ATH630D45N4/N4Z ATH650D45N4/N4●	86	90	VW3A46129	104/ *229*
55	*75*	ATH630D55N4/N4Z ATH650D55N4/N4U	101	105	VW3A46130	106/ *234*
75	*100*	ATH630D75N4/N4Z ATH650D75N4/N4U	144	150	VW3A46131	126/ *278*
90	*125*	ATH630D90N4/N4Z ATH650D90N4/N4U	180	187	VW3A46132	135/ *298*
110	*150*	ATH630C11N4Z	217	225	VW3A46133	172/ *379*
132	*200*	ATH630C13N4Z	252	262	VW3A46134	206/ *454*
160	*250*	ATH630C16N4Z	304	316	VW3A46135	221/ *487*
220	350	ATH630C22N4Z	380	395	VW3A46137	265/ *584*
250	400	ATH630C25N4Z	433	450	VW3A46138	272/ *600*

(1) When used with ATH650U07N4/N4C...D90N4/N4C drives, the filter must be mounted in a separate enclosure to maintain required protection for the installation.

Variable speed drives
Altivar HVAC ATH600
Option: Passive filters
60 Hz passive filters

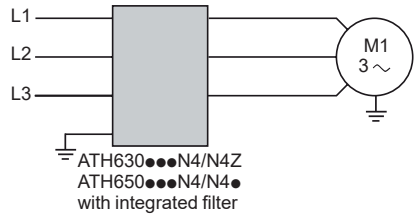
60 Hz passive filter VW3A46170

60 Hz three-phase supply passive filter

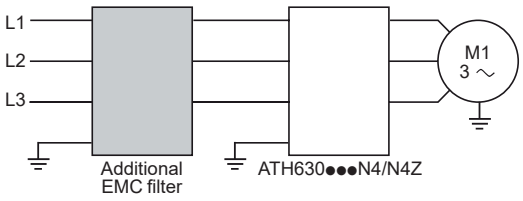
Motor rating		Corresponding drive	Filter		Reference (1)	Weight
			Nominal current			
			Input	Output		
kW	*HP*		A	A		kg/ *lb*
THDi < 5%						
22	*30*	ATH630D22N4/N4Z ATH650D22N4/N4●	36	37	VW3A46164	53/ *117*
30	*40*	ATH630D30N4/N4Z ATH650D30N4/N4●	48	50	VW3A46165	57/ *126*
37	*50*	ATH630D37N4/N4Z ATH650D37N4/N4●	60	62	VW3A46166	75/ *165*
45	*60*	ATH630D45N4/N4Z ATH650D45N4/N4●	73	76	VW3A46167	97/ *214*
55	*75*	ATH630D55N4/N4Z ATH650D55N4/N4U	95	99	VW3A46168	104/ *229*
75	*100*	ATH630D75N4/N4Z ATH650D75N4/N4U	118	122	VW3A46169	106/ *234*
90	*125*	ATH630D90N4/N4Z ATH650D90N4/N4U	154	160	VW3A46170	126/ *2782*
110	*150*	ATH630C11N4Z	183	190	VW3A46171	135/ *298*
132	*200*	ATH630C13N4Z	231	240	VW3A46172	172/ *379*
160	*250*	ATH630C16N4Z	291	302	VW3A46173	221/ *487*
220	350	ATH630C22N4Z	355	369	VW3A46174	229/ *505*
250	400	ATH630C25N4Z	436	450	VW3A46176	270/ *595*

(1) When used with ATH650U07N4/N4C...D90N4/N4C drives, the filter must be mounted in a separate enclosure to maintain required protection for the installation.

Variable speed drives
Altivar HVAC ATH600
Option: EMC filters
Integrated and additional EMC filters



Altivar HVAC drive with integrated EMC filter



Altivar HVAC drive with additional EMC filter

Integrated EMC filters

Altivar HVAC drives have integrated radio frequency interference input filters in accordance with the EMC standard for variable speed electrical power drive “products” IEC/EN 61800-3, edition 2, category C2 or C3 in environment 1 or 2, and to comply with the European EMC (electromagnetic compatibility) directive.

The integrated EMC filter runs off the leakage current to ground. The leakage current can be reduced by disconnecting the built-in EMC filter (please refer to the Installation Manual). In this configuration, the product does not comply with the European EMC directive.

Additional EMC input filters

Additional EMC input filters can be used to meet more stringent requirements and are designed to reduce conducted emissions on the line supply below the limits of standard IEC/EN 61800-3 category C1, C2, or C3.

Use according to the type of line supply

Use of these additional filters is only possible on TN (neutral connection) and TT (grounded neutral) type systems.

Standard IEC/EN 61800-3, appendix D2.1, states that on IT systems (isolated or impedance grounded neutral), filters can cause permanent insulation monitors to operate in a random manner.

If a machine needs to be installed on an IT system, one solution is to insert an isolation transformer and connect the machine locally to a TN or TT system.

(1) The maximum lengths are given as examples only, as they vary depending on the stray capacitance of the motors and the cables used. If motors are connected in parallel, it is the total length of all cables that should be taken into account.

Variable speed drives
Altivar HVAC ATH600
Option: EMC filters
Additional EMC input filters

EMC input filter VW3A4422

EMC input filter VW3A4708

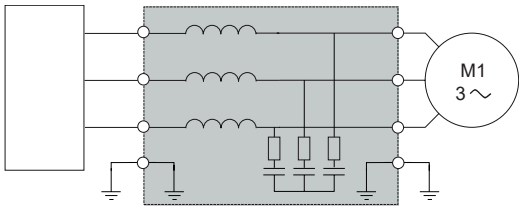
Additional EMC input filters

References

Corresponding drive	Maximum length of shielded cable (1) according to IEC/EN 61800-3 category			In (2)	If	Degree of protection	Reference	Weight
	C1 (3)	C2 (3)	C3 (3)					
	m/*ft*	m/*ft*	m/*ft*	A	mA	IP		kg/*lb*
Three-phase supply voltage: 380...480 V 50 Hz								
ATH630U07N4...U22N4 ATH630U07N4Z...U22N4Z	40/*131*	40/*131*	40/*131*	8	7.6	20	VW3A4422	0.9/*1.98*
ATH630U30N4...U55N4 ATH630U30N4Z...U55N4Z	50/*164*	50/*164*	50/*164*					
ATH630U75N4…D18N4 ATH630U75N4Z…D18N4Z	50/*164*	50/*164*	50/*164*	35	7.6	20	VW3A4703	4.1/*9*
ATH630D22N4 ATH630D22N4Z	50/*164*	150/*492*	150/*492*	50	7.6	20	VW3A4704	5.2/*11.5*
ATH630D30N4 ATH630D30N4Z	50/*164*	150/*492*	150/*492*	70	13.9	20	VW3A4705	6.1/*13.4*
ATH630D37N4...D45N4 ATH630D37N4Z...D45N4Z	50/*164*	150/*492*	150/*492*	100	13.9	20	VW3A4706	6.5/*14.3*
ATH630D55N4 ATH630D55N4Z	–	50/*164*	50/*164*	160	13.9	20	VW3A4707	8.5/*18.7*
ATH630D75N4...D90N4 ATH630D75N4Z...D90N4Z	–	50/*164*	50/*164*	200	13.9	20	VW3A4708	9.5/*20.9*
ATH630C22N4Z...C25N4Z	–	–	150/*492*	546	500	00	VW3A4411	25/*57.3*

(1) The maximum lengths are given as examples only, as they vary depending on the stray capacitance of the motors and the cables used. If motors are connected in parallel, it is the total length of all cables that should be taken into account.
(2) Nominal filter current.
(3) Values given depend on the drive nominal switching frequency. This frequency depends on the drive rating.

Variable speed drives
Altivar HVAC ATH600
Option: Output filters
dv/dt filters



ATH630●●●N4/N4Z
ATH650●●●N4/N4●

dv/dt filter

Altivar HVAC drive with dv/dt filter

Presentation

Altivar HVAC ATH600 drive maximum motor cable lengths are defined according to the following table:

Supply voltage	Type of cable	Maximum motor cable lengths
380...480 V	Shielded	150 m/*492 ft*
	Unshielded	300 m/*984 ft*

To limit the impact of dv/dt and overvoltages in the motor, it is advisable to add an output filter if the motor insulation type does not conform to IEC 600034-25.

For further information, please consult the white paper An Improved Approach for Connecting VSD and Electric Motors.

Output filters are used to limit dv/dt at the motor terminals to 500 V/µs maximum for supply voltages up to 480 V.

Output filters are designed to limit overvoltages at the motor terminals to less than:

Supply voltage	Type of cable	Cable length	Overvoltage limited to
400 V	Shielded	0...50 m/ *0...164 ft*	800 V
		50...150 m/ *164...492 ft*	1,000 V
		150...300 m/ *492...984 ft*	1,500 V
	Unshielded	0...500 m/ 0...*1,640 ft*	

The switching frequency must be limited to nominal switching frequency.
The performance of dv/dt filters will be affected if the maximum cable lengths are exceeded. For an application with several motors connected in parallel, the cable length must include all cabling. If a cable longer than that specified is used, the dv/dt filters may overheat.

Variable speed drives
Altivar HVAC ATH600
Option: Output filters
dv/dt filters

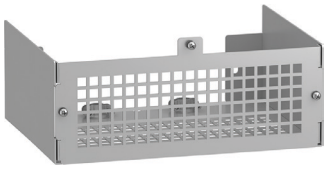
Dv/dt output filter VW3A5304

dv/dt output filters

Corresponding drive	Maximum length of motor cable		Degree of protection	In *(3)*	Reference *(4)*	Weight
	Maximum switching frequency *(1)*	Shielded cable *(2)*				
	kHz	m/*ft*	IP	A		kg/*lb*
Three-phase supply voltage: 380...480 V						
ATH630U07N4...U22N4 ATH630U07N4Z...U22N4Z ATH650U07N4...U22N4 ATH650U07N4C...U22N4C	6	100/ *328*	20	6	VW3A5301	11/ *24.3*
ATH630U30N4...U55N4 ATH630U30N4Z...U55N4Z ATH650U30N4...U55N4 ATH650U30N4C...U55N4C	6	100/ *328*	20	15	VW3A5302	12/ *26.5*
ATH630U75N4...D11N4 ATH630U75N4Z...D11N4Z ATH650U75N4...D11N4 ATH650U75N4C...D11N4C	6	100/ *328*	20	25	VW3A5303	12/ *26.4*
ATH630D15N4...D18N4 ATH630D15N4Z...D18N4Z ATH650D15N4...D18N4 ATH650D15N4C...D18N4C	6	100/ *328*	20	50	VW3A5304	18/ *39.7*
ATH630D22N4 ATH630D22N4Z ATH650D22N4 ATH650D22N4●	4	300/ *984*				
ATH630D30N4...D45N4 ATH630D30N4Z...D45N4Z ATH650D30N4...D45N4 ATH650D30N4...D45N4●	4	300/ *984*	20	95	VW3A5305	19/ *41.9*
ATH630D55N4...D90N4 ATH630D55N4Z...D90N4Z ATH650D55N4...D90N4 ATH650D55N4U...D90N4U	2.5	300/ *984*	00	180	VW3A5306	22/ *48.5*
ATH630C11N4Z...C16N4Z	2.5	300/ *984*	00	305	VW3A5307	40/ *88.2*
ATH630C22N4Z	2.5	250/ *820*	00	481	VW3A5106	58/ *128*
ATH630C25N4Z	2.5	200/ *656*	00	759	VW3A5107	93/ *205*

(1) The filters are designed to operate in a switching frequency range of between 2 and 8 kHz.
(2) Values given depend on the drive nominal switching frequency. This frequency depends on the drive rating. These cable lengths are given as examples only as they can vary depending on the application. They correspond to motors conforming to IEC 6034-25 and NEMA MG1/31.2006.
(3) Nominal filter current.
(4) When used with ATH650U07N4...D90N4 drives, the filter must be mounted in a separate enclosure to maintain IP55 protection for the installation.

Variable speed drives
Altivar HVAC ATH600
Option: Output filters
Protection kits for dv/dt filters



IP21 protection kit VW3A53902 for IP20 dv/dt output filter

IP21 protection kit for IP20 dv/dt filters filters

Description	Corresponding dv/dt filter	Reference	Weight kg/ *lb*
Metal kit IP21: Cover Cable clamps	VW3A5301 VW3A5302 VW3A5303	VW3A53902	1.3/ *2.9*
	VW3A5304	VW3A53903	1.7/ *3.7*
	VW3A5305	VW3A53905	3.2/ *7.1*

Variable speed drives
Altivar HVAC ATH600
Firmware update

Firmware update through Modbus TCP/Ethernet/IP or Modbus serial using SoMove

Firmware upload of several ATH600s at the same time through Modbus TCP/Ethernet/IP or Modbus serial using Ecostruxure Automation Device Maintenance

Firmware update using SoMove or EcoStruxure Automation Device Maintenance

Presentation

The firmware in the Altivar HVAC ATH600 offer can be updated.
This includes:
- The ATH600 product firmware
- The display terminal texts and languages
- The display terminal firmware
- The communication module firmware

The firmware and languages are available from the Altivar HVAC ATH600 page on our website. By using the Schneider Electric Software Update tool, notifications are automatically sent when new updates are available.

Firmware update process

There are two different ways to update the firmware:
- Single product firmware update using SoMove software (see page 34)
- Single or multiple product firmware update using EcoStruxure Automation Device Maintenance *(1)*

The update process comprises two steps:
- The first step is to transfer the firmware to the product, which can be performed when the motor is either running or stopped. The control section of the ATH600 must be powered on. The package of product firmware and keypad languages can be uploaded in one operation via the Modbus serial port or the Ethernet port of the **VW3A3720** communication module. The Modbus TCP/EtherNet/IP communication module firmware is uploaded in a separate package.
- The second step is to apply the uploaded firmware in the products: the control section must be powered on and this operation can only be performed with the motor stopped. The firmware can be applied from EcoStruxure Automation Device Maintenance, SoMove, or the display terminal.

This two-step process avoids the risk of a potential loss of usability of the product in case something goes wrong during the firmware update process, while reducing the amount of time that the motor is stopped.

Cybersecurity-related features in the firmware update:
- The firmware is delivered with a digital certificate that is generated by a cryptographic key.
- The ATH600 checks the authenticity of the firmware before applying it. The authenticity of the firmware is also checked at each power-up.
- The firmware can only be updated and applied by a registered user with a valid user account and associated rights.
- Firmware update operations are recorded as events in the security-related reports.

Connection accessories

Description	Length m/ *ft*	Reference	Weight kg/ *lb*
High-speed USB-A/RJ45 flashing cordset	2.5/ *8.20*	VW3A8127	–
Connection cable USB/RJ45 For connection between PC and drive	2.5/ *8.20*	TCSMCNAM3M002P	–

(1) Download EcoStruxure Automation Device Maintenance from its dedicated page on our website.

Applications

Circuit breaker/contactor/drive combinations help to ensure continuity of service in the installation.

The drive controls the motor, provides a monitoring function against short circuits between the drive and the motor, and helps protect the motor cable against overloads. Overload monitoring is provided by the drive's motor thermal monitoring function if this has been enabled. Otherwise, an external monitoring device such as a probe or thermal overload relay must be provided.

Selecting short circuit protection devices (fuses or circuit breakers) is key to helping to protect the overall installation against potential damage due to short circuits. It is recommended that you refer to the EcoStruxure™ Motor Control Configurator and Installation Manual for more information.

GV4LE115

+

LC1D80●●

+

ATH630D45N4

IEC standard motor starters

Drive	Circuit breaker *(1)*				Line contactor
Reference	Reference *(2)*	Rating	Irm	Min cubicle volume	Reference *(3)(4)*
		A	A	L/*In*³	
IP20/IP21 Products installed in enclosure					
ATH630U07N4/N4Z	GV2L07	2,5	33,5	25/*1526*	LC1D09●●
ATH630U15N4/N4Z	GV2L08	4	51	25/*1526*	
ATH630U22N4/N4Z	GV2L10	6,3	78	25/*1526*	
ATH630U30N4/N4Z					
ATH630U40N4/N4Z	GV2L14	10	138	25/*1526*	
ATH630U55N4/N4Z					LC1D12●●
ATH630U75N4/N4Z	GV3L25	25	350	25/*1526*	LC1D18●●
ATH630D11N4/N4Z					LC1D25●●
ATH630D15N4/N4Z					
ATH630D18N4/N4Z	GV3L32	32	448	25/*1526*	LC1D32●●
ATH630D22N4/N4Z	GV3L50	50	700	56/*3417*	LC1D40A●●
ATH630D30N4/N4Z	GV3L65	65	910	115/*7018*	LC1D50A●●
ATH630D37N4/N4Z	GV4L80●/ GV4LE80●	80	480	115/*7018*	LC1D65A●●
ATH630D45N4/N4Z	GV4L115●/ GV4LE115●	115	690	115/*7018*	LC1D80●●
ATH630D55N4/N4Z					LC1D115●●
ATH630D75N4/N4Z	C16●3MA150	150	1350	132/*8055*	LC1D150●●
ATH630D90N4/N4Z	C25●3MA220	220	1980	132/*8055*	LC1G185●●●●
ATH630C11N4Z					LC1G225●●●●
ATH630C13N4Z	C40●31M320	320	1600	478/*29169*	LC1G265●●●●
ATH630C16N4Z					LC1G330●●●●
ATH630C22N4Z	C63●31M500	500	4500	878/*53579*	LC1G400●●●●
ATH630C25N4Z					LC1G500●●●●

(1) For Isc value refer to the tables page 26 for ATH630●●●N4Z references and page 28 for ATH630●●●N4 references.

(2) For references to be completed, replace ● with the letter corresponding to the breaking performance of the circuit breaker (F, N, H, S, or R). You can use the EcoStruxure™ Motor Control Configurator tool to support your customization.
Breaking capacity of circuit breakers according to standard IEC 60947-2:

Circuit breaker	Icu (kA) for 380…415 V						
		B	F	N	H	S	R
GV2L07...L14	>100	–	–	–	–	–	–
GV2L16...L22	50	–	–	–	–	–	–
GV3L32...L65	50	–	–	–	–	–	–
GV4L80●/ GV4LE80●	–	25	–	50	–	100	–
GV4L115●/ GV4LE115●	–	25	–	50	–	–	–
C16●3MA150	–	–	36	50	70	–	–
C25●3MA220 C40●31M320 C63●31M500	–	–	36	50	70	–	200

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

(3) Composition of contactors:
LC1D09...D150: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact
LC1G185...G500: 3 poles
To add auxiliary contacts or other accessories, please refer to the TeSys catalog or use the EcoStruxure™ Motor Control Configurator tool to support your customization.

(4) Replace ●● or ●●●● with the control circuit voltage code indicated in the table below:

	Volts ∿	24	48	110	220	230	240
LC1D09...D150	50 Hz	**B5**	**E5**	**F5**	**M5**	**P5**	**U5**
	60 Hz	**B6**	**E6**	**F6**	**M6**	**–**	**U6**
	50/60 Hz	**B7**	**E7**	**F7**	**M7**	**P7**	**U7**
	AC/DC volts	**24...48**	**48...130**	**100...250**		**200...500**	
LC1G185...G500		**BEEA**	**EHEN**	**KUEN**		**LSEA**	

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

Variable speed drives
Altivar HVAC ATH600
Motor starters
IP21 wall mounted products


GV2LE10

+


LC1D09●●

+


ATH630U22N4

IEC standard motor starters

Drive	Circuit breaker *(1)*	Fuse type: gG *(2)(3)*				Line contactor
Reference	Reference *(4)(5)*	Rating	Size	Reference	Fuse holder reference	Reference *(6)(7)*
		A	mm			
IP21 Wall mounted products						
ATH630U07N4	GV2L07	4	10x38	DF2CN04	DF103	LC1D09●●
ATH630U15N4	GV2L08	6	10x38	DF2CN06	DF103	
ATH630U22N4	GV2L10	8	10x38	DF2CN08	DF103	
ATH630U30N4	GV2L10	10	10x38	DF2CN10	DF103	
ATH630U40N4	GV2L14	12	10x38	DF2CN12	DF103	
ATH630U55N4	GV2L14	16	10x38	DF2CN16	DF103	LC1D12●●
ATH630U75N4	GV3L25	25	14x51	DF2EN25	DF143C	LC1D18●●
ATH630D11N4	GV3L25	32	14x51	DF2EN32	DF143C	LC1D25●●
ATH630D15N4	GV3L25	40	14x51	DF2EN40	DF143C	
ATH630D18N4	GV3L32	50	14x51	DF2EN50	DF143C	LC1D32●●
ATH630D22N4	–	80	22x58	DF2FN80	DF223C	LC1D40A●●
ATH630D30N4	–	100	22x58	DF2FN100	DF223C	LC1D50A●●
ATH630D37N4	–	125	NH00	–	GS2LL3	LC1D65A●●
ATH630D45N4	–	160	NH00	–	GS2LL3	LC1D80●●
ATH630D55N4	–	160	NH00	–	GS2LL3	LC1D115●●
ATH630D75N4	–	250	NH1	–	GS2N3	LC1D150●●
ATH630D90N4	–	250	NH1	–	GS2N3	LC1G185●●●●

(1) Isc max: 5 kA.

(2) General use fuses, conform to IEC60263-1.

(3) For Isc value refer to the table page 28.

(4) Breaking capacity of circuit breakers according to standard IEC 60947-2:

Circuit breaker	Icu (kA) for 380…415 V
GV2L07...L14	>100
GV3L25	100
GV3L32	50

(5) Maximum short circuit current accepted by drive/circuit breaker association is limited to 5 kA if the drive is not in an enclosure.

(6) Composition of contactors:
LC1D09...D150: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact
LC1G185: 3 poles
To add auxiliary contacts or other accessories, please refer to the TeSys catalog.

(7) Replace ●● or ●●●● with the control circuit voltage code indicated in the table below:

	Volts ∼	24	48	110	220	230	240
LC1D09...D150	50 Hz	**B5**	**E5**	**F5**	**M5**	**P5**	**U5**
	60 Hz	**B6**	**E6**	**F6**	**M6**	–	**U6**
	50/60 Hz	**B7**	**E7**	**F7**	**M7**	**P7**	**U7**
	AC/DC volts	**24...48**	**48...130**	**100...250**		**200...500**	
LC1G185		**BEEA**	**EHEN**	**KUEN**		**LSEA**	

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

GS2LL3

+

LC1D65A●●

+

ATH650D37N4U

IEC standard motor starters

Drive Reference	Circuit breaker *(1)* Reference *(4)(5)*	Fuse type: gG *(2)(3)* Rating	Size	Reference	Fuse holder reference	Line contactor Reference *(6)(7)*
		A	mm			
IP55 Wall mounted products						
ATH650U07N4/N4C	GV2L07	4	10x38	DF2CN04	DF103	LC1D09●●
ATH650U15N4/N4C	GV2L08	6	10x38	DF2CN06	DF103	
ATH650U22N4/N4C	GV2L10	8	10x38	DF2CN08	DF103	
ATH650U30N4/N4C	GV2L10	10	10x38	DF2CN10	DF103	
ATH650U40N4/N4C	GV2L14	12	10x38	DF2CN12	DF103	
ATH650U55N4/N4C	GV2L14	16	10x38	DF2CN16	DF103	LC1D12●●
ATH650U75N4/N4C	GV3L25	25	14x51	DF2EN25	DF143C	LC1D18●●
ATH650D11N4/N4C	GV3L25	32	14x51	DF2EN32	DF143C	LC1D25●●
ATH650D15N4/N4C	GV3L25	40	14x51	DF2EN40	DF143C	
ATH650D18N4/N4C	GV3L32	50	14x51	DF2EN50	DF143C	LC1D32●●
ATH650D22N4/N4U	–	80	22x58	DF2FN80	DF223C	LC1D40A●●
ATH650D30N4/N4U	–	100	22x58	DF2FN100	DF223C	LC1D50A●●
ATH650D37N4/N4U	–	125	NH00	–	GS2LL3	LC1D65A●●
ATH650D45N4/N4U	–	160	NH00	–	GS2LL3	LC1D80●●
ATH650D55N4/N4U	–	160	NH00	–	GS2LL3	LC1D115●●
ATH650D75N4/N4U	–	250	NH1	–	GS2N3	LC1D150●●
ATH650D90N4/N4U	–	250	NH1	–	GS2N3	LC1G185●●●●

(1) Isc max: 5 kA.

(2) General use fuses, conform to IEC60263-1.

(3) For Isc value refer to the tables page 29 for ATH650●●●N4 references, page 28 for ATH650●●●N4C references, and page 31 for ATH650●●●N4U references.

(4) Breaking capacity of circuit breakers according to standard IEC 60947-2:

Circuit breaker	Icu (kA) for 380…415 V
GV2L07...L14	>100
GV3L25	100
GV3L32	50

(5) Maximum short circuit current accepted by drive/circuit breaker association is limited to 5 kA if the drive is not in an enclosure.

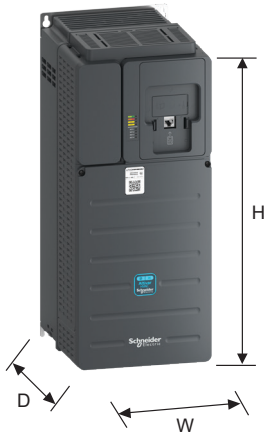
(6) Composition of contactors:
LC1D09...D150: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact
LC1G185: 3 poles
To add auxiliary contacts or other accessories, please refer to the TeSys catalog.

(7) Replace ●● or ●●●● with the control circuit voltage code indicated in the table below:

	Volts ∿	24	48	110	220	230	240
LC1D09...D150	50 Hz	**B5**	**E5**	**F5**	**M5**	**P5**	**U5**
	60 Hz	**B6**	**E6**	**F6**	**M6**	**–**	**U6**
	50/60 Hz	**B7**	**E7**	**F7**	**M7**	**P7**	**U7**
	AC/DC volts	**24...48**	**48...130**	**100...250**		**200...500**	
LC1G185		**BEEA**	**EHEN**	**KUEN**		**LSEA**	

For other voltages available between 24 V and 660 V, or a DC control circuit, please consult our Customer Care Teams.

Variable speed drives
Altivar HVAC ATH600
IP00/IP20 and UL type 1drives



IP00/IP20 drives

Overall dimensions

Reference	W x H x D	
	mm	*in.*
ATH630U07N4Z	115 x 196 x 158	*4.53 x 7.72 x 6.2*
ATH630U15N4Z	115 x 196 x 158	*4.53 x 7.72 x 6.2*
ATH630U22N4Z	115 x 196 x 158	*4.53 x 7.72 x 6.2*
ATH630U30N4Z	145 x 197 x 166	*5.71 x 7.76 x 6.53*
ATH630U40N4Z	145 x 197 x 166	*5.71 x 7.76 x 6.53*
ATH630U55N4Z	145 x 197 x 166	*5.71 x 7.76 x 6.53*
ATH630U75N4Z	160 x 232 x 183	*6.3 x 9.13 x 7.2*
ATH630D11N4Z	160 x 232 x 183	*6.3 x 9.13 x 7.2*
ATH630D15N4Z	190 x 232 x 183	*7.48 x 9.13 x 7.2*
ATH630D18N4Z	190 x 232 x 183	*7.48 x 9.13 x 7.2*
ATH630D22N4Z	195 x 480 x 225.5	*7.68 x 18.9 x 8.88*
ATH630D30N4Z	210 x 597 x 261.85	*8.27 x 23.5 x 10.3*
ATH630D37N4Z	210 x 597 x 261.85	*8.27 x 23.5 x 10.3*
ATH630D45N4Z	210 x 597 x 261.85	*8.27 x 23.5 x 10.3*
ATH630D55N4Z	265 x 748 x 306.85	*10.43 x 29.45 x 12.08*
ATH630D75N4Z	265 x 748 x 306.85	*10.43 x 29.45 x 12.08*
ATH630D90N4Z	265 x 748 x 306.85	*10.43 x 29.45 x 12.08*
ATH630C11N4Z	316.6 x 852 x 390.02	*12.46 x 33.54 x 15.36*
With IP21/UL type 1 conformity kit	*(1)*	
ATH630C13N4Z	316.6 x 852 x 390.02	*12.46 x 33.54 x 15.36*
With IP20/UL type 1 conformity kit	*(1)*	
ATH630C16N4Z	316.6 x 852 x 390.02	*12.46 x 33.54 x 15.36*
With IP20/UL type 1 conformity kit	*(1)*	
ATH630C22N4Z	440 x 1195.38 x 379.88	*17.32 x 47.06 x 14.96*
With UL type 1 conformity kit	*(1)*	
ATH630C25N4Z	598 x 1195.38 x 379.88	*23.54 x 47.06 x 14.96*
With UL type 1 conformity kit	*(1)*	

IP21/UL Type 1

Overall dimensions

Reference	W x H x D	
	mm	*in.*
ATH630U07N4	134 x 264 x 197	*5.28 x 10.39 x 7.76*
ATH630U15N4	134 x 264 x 197	*5.28 x 10.39 x 7.76*
ATH630U22N4	134 x 264 x 197	*5.28 x 10.39 x 7.76*
ATH630U30N4	178 x 334 x 230	*7.01 x 13.15 x 9.06*
ATH630U40N4	178 x 334 x 230	*7.01 x 13.15 x 9.06*
ATH630U55N4	178 x 334 x 230	*7.01 x 13.15 x 9.06*
ATH630U75N4	178 x 335 x 231	*7.01 x 13.19 x 9.09*
ATH630D11N4	178 x 335 x 231	*7.01 x 13.19 x 9.09*
ATH630D15N4	208 x 342 x 231	*8.19 x 13.46 x 9.09*
ATH630D18N4	208 x 342 x 231	*8.19 x 13.46 x 9.09*
ATH630D22N4	195 x 480 x 229	*7.68 x 18.9 x 9.02*
ATH630D30N4	210 x 597 x 265	*8.27 x 23.5 x 10.43*
ATH630D37N4	210 x 597 x 265	*8.27 x 23.5 x 10.43*
ATH630D45N4	210 x 597 x 265	*8.27 x 23.5 x 10.43*
ATH630D55N4	265 x 748 x 310	*10.43 x 29.45 x 12.2*
ATH630D75N4	265 x 748 x 310	*10.43 x 29.45 x 12.2*
ATH630D90N4	265 x 748 x 310	*10.43 x 29.45 x 12.2*

(1) For further information, please consult our Customer Care Teams

IP55 drives with category C2 or C3 integrated EMC filter

Overall dimensions

Reference	W x H x D	
	mm	*in.*
ATH650U07N4	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U15N4	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U22N4	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U30N4	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U40N4	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U55N4	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U75N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D11N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D15N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D18N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D22N4	263.4 x 728.4 x 301	*10.37 x 28.68 x 11.85*
ATH650D30N4	307 x 948.5 x 340	*12.09 x 37.34 x 13.39*
ATH650D37N4	307 x 948.5 x 340	*12.09 x 37.34 x 13.39*
ATH650D45N4	307 x 948.5 x 340	*12.09 x 37.34 x 13.39*
ATH650D55N4	361.8 x 1261.5 x 375	*14.24 x 49.67 x 14.76*
ATH650D75N4	361.8 x 1261.5 x 375	*14.24 x 49.67 x 14.76*
ATH650D90N4	361.8 x 1261.5 x 375	*14.24 x 49.67 x 14.76*

IP55 drives with category C1 integrated EMC filter

Overall dimensions

Reference	W x H x D	
	mm	*in.*
ATH650U07N4C	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U15N4C	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U22N4C	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U30N4C	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U40N4C	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U55N4C	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U75N4C	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D11N4C	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D15N4C	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D18N4C	234 x 427 x 266	*9.21 x 16.81 x 10.47*

Variable speed drives
Altivar HVAC ATH600
UL type 12 drives

UL type 12 drives		
Overall dimensions		
Reference	**W x H x D**	
	mm	***in.***
ATH650U07N4	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U15N4	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U22N4	189 x 375 x 247	*7.44 x 14.76 x 9.72*
ATH650U30N4	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U40N4	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U55N4	189 x 375 x 254	*7.44 x 14.76 x 10*
ATH650U75N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D11N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D15N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D18N4	234 x 427 x 266	*9.21 x 16.81 x 10.47*
ATH650D22N4U	271 x 783.5 x 301	*10.67 x 30.85 x 11.85*
ATH650D30N4U	322 x 1041 x 340	*12.68 x 40.98 x 13.39*
ATH650D37N4U	322 x 1041 x 340	*12.68 x 40.98 x 13.39*
ATH650D45N4U	322 x 1041 x 340	*12.68 x 40.98 x 13.39*
ATH650D55N4U	376.8 x 1387.5 x 375	*14.83 x 54.63 x 14.76*
ATH650D75N4U	376.8 x 1387.5 x 375	*14.83 x 54.63 x 14.76*
ATH650D90N4U	376.8 x 1387.5 x 375	*14.83 x 54.63 x 14.76*

Variable speed drives
Altivar HVAC ATH600
Options: Passive filters 400V

50 Hz three-phase supply passive filters

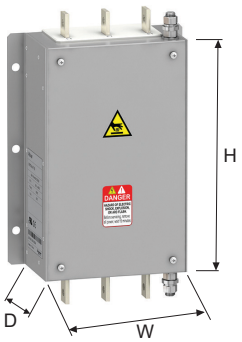
Overall dimensions

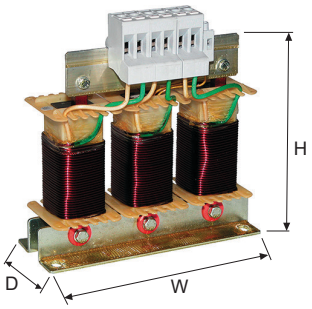
Reference	W x H x D	
	mm	*in.*
VW3A46126	378 x 594.08 x 242	*14.88 x 23.39 x 9.53*
VW3A46127	378 x 623.6 x 333	*14.88 x 24.55 x 13.11*
VW3A46128	378 x 623.6 x 333	*14.88 x 24.55 x 13.11*
VW3A46129	418 x 736.8 x 333	*16.46 x 29.01 x 13.11*
VW3A46130	418 x 736.8 x 333	*16.46 x 29.01 x 13.11*
VW3A46131	418 x 767.6 x 400	*16.46 x 30.22 x 15.75*
VW3A46132	418 x 767.6 x 400	*16.46 x 30.22 x 15.75*
VW3A46133	468 x 900.06 x 448.5	*18.42 x 35.43 x 17.66*
VW3A46134	468 x 900.06 x 448.5	*18.42 x 35.43 x 17.66*
VW3A46135	468 x 900.06 x 510	*18.42 x 35.43 x 20.00*
VW3A46137	468 x 900.06 x 510	*18.42 x 35.43 x 20.00*
VW3A46138	468 x 900.06 x 510	*18.42 x 35.43 x 20.00*

60 Hz three-phase supply passive filters

Overall dimensions

Reference	W x H x D	
	mm	*in.*
VW3A46164	378 x 594.08 x 242	*14.88 x 23.39 x 9.53*
VW3A46165	378 x 594.08 x 242	*14.88 x 23.39 x 9.53*
VW3A46166	378 x 623.6 x 333	*14.88 x 24.55 x 13.11*
VW3A46167	378 x 623.6 x 333	*14.88 x 24.55 x 13.11*
VW3A46168	418 x 736.8 x 333	*16.46 x 29.01 x 13.11*
VW3A46169	418 x 736.8 x 333	*16.46 x 29.01 x 13.11*
VW3A46170	418 x 767.6 x 400	*16.46 x 30.22 x 15.75*
VW3A46171	418 x 767.6 x 400	*16.46 x 30.22 x 17.75*
VW3A46172	468 x 900.06 x 448.5	*18.42 x 35.43 x 17.66*
VW3A46173	468 x 900.06 x 510	*18.42 x 35.43 x 20.00*
VW3A46174	468 x 900.06 x 510	*18.42 x 35.43 x 20.00*
VW3A46176	468 x 900.06 x 510	*18.42 x 35.43 x 20.00*





Additional EMC input filters

Overall dimensions

Reference	W x H x D	
	mm	*in.*
VW3A4422	107 x 195 x 42	*4.21 x 7.68 x 1.65*
VW3A4703	80 x 302 x 155	*3.15 x 11.89 x 6.10*
VW3A4704	90 x 283 x 165	*3.54 x 11.14 x 6.50*
VW3A4705	100 x 328 x 175	*3.94 x 12.91 x 6.89*
VW3A4706	120 x 340 x 180	*4.72 x 13.39 x 7.09*
VW3A4707	130 x 395 x 240	*5.12 x 15.55 x 9.45*
VW3A4708	200 x 445 x 320	*7.87 x 17.52 x 12.60*
VW3A4411	800 x 261 x 139	*31.49 x 10.27 x 5.47*

Dv/dt filters

Overall dimensions

Reference	W x H x D	
	mm	*in.*
VW3A5106	245 x 250 x 200	*9.65 x 9.84 x 7.87*
VW3A5107	320 x 250 x 220	*12.60 x 9.84 x 8.66*
VW3A5301	285 x 520 x 215	*11.22 x 20.47 x 8.46*
With IP21/UL Type 1 conformity kit	285 x 530 x 215	*11.22 x 20.87 x 8.46*
VW3A5302	285 x 520 x 215	*11.22 x 20.47 x 8.46*
With IP21/UL Type 1 conformity kit	285 x 530 x 215	*11.22 x 20.87 x 8.46*
VW3A5303	285 x 520 x 215	*11.22 x 20.47 x 8.46*
With IP21/UL Type 1 conformity kit	285 x 530 x 215	*11.22 x 20.87 x 8.46*
VW3A5304	300 x 545 x 245	*11.81 x 21.46 x 9.65*
With IP21/UL Type 1 conformity kit	300 x 560 x 245	*11.81 x 22.05 x 9.65*
VW3A5305	300 x 590 x 245	*11.81 x 23.23 x 9.65*
With IP21/UL Type 1 conformity kit	300 x 610 x 245	*11.81 x 24.02 x 9.65*
VW3A5306	380 x 235 x 325	*14.96 x 9.25 x 12.80*
VW3A5307	420 x 270 x 350	*16.54 x 10.63 x 13.78*

Dedicated service offers for your installed base

Services offer by Schneider Electric

We offer a comprehensive suite of services tailored for industrial automation systems—including process control systems, variable speed drives, HMIs, turbomachinery control systems, machine elements, and more.

Our service portfolio is designed to help you maximize the performance and lifespan of your systems, enhance operational efficiency, and reduce your environmental impact.

For a detailed summary of our service offerings and capabilities, please refer to our services web page: Industrial automation services

Consult and Design

Our **EcoConsult Lifecycle Audit** service leverages the power of IA³ (Industrial Automation Audit & Assessment) tools, applied by a team of experts who understand your operations. The result: clear, actionable recommendations and a tailored improvement plan.

Through our consulting services, we deliver:

- **Inventory Mapping** - A unified, comprehensive view of all automation assets on site.
- **Lifecycle Assessments** - Evaluate the current state and future viability of your equipment.
- **Spare Parts Assessments** - Identify gaps and optimize your spare parts strategy.
- **Version Assessments** - Detect potential downtime risks due to outdated firmware or software.
- **Criticality Review** - Prioritize assets based on their impact on your operations.

For more information, visit our EcoConsult web page, select your country and discover more.

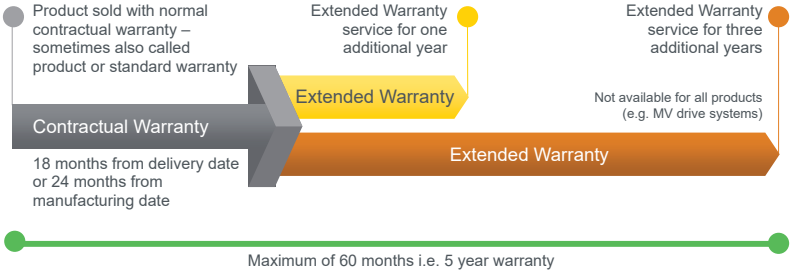
Dedicated service offers for your installed base

Implement and Install

With our Implement and Install services we can help you:

- Minimize start-up time
- Reduce the risk of unplanned downtime
- Help ensure that equipment performs as designed
- Reduce lifecycle costs with an installation that complies with Schneider Electric requirements and avoids warranty issues

Our **Extended Warranty** options can help you control your maintenance costs. Schneider Electric will provide a replacement component or repair the product on site during a period of one or three years more than the standard warranty, in all conditions covered by the extended warranty.



For more information, visit our Extended Warranty web page.

Our **Start-up** service is the first step in maintenance and optimal operational performance for drives rated up to 90 kW and the entire soft starters range. Our comprehensive review checks up to 100 parameters and is especially designed for drives and soft starters in simple applications.

Action		Drive start-up		
		Remote	On premise	
Support	FSR/CCC support level	Advanced	Advanced	Expert
	Maxiumum support defined time	2H	4H	8H
	Support type	Online	Local	Local
	Customer investment cost	$	$$	$$$
	Applicable drive power (kW)	Up to 90 kW	Up to 90 kW	Over 90 kW
Reference	Commercial reference	SRVSTRTUPVSDREM	SRVSTRTUPVSDADV	SRVSTRTUPVSDEXP
Drive measurement	Voltage input/output, DC bus, FAT report	■	■	■
Drive installation/inspection/ validation	Wiring, module assembly, cooling, rotation direction, communication	■	■	■
Basic settings	Motor nameplate, simple start, commands, save/restore parameters	■	■	■
Generic functions	Basic functions (speed limits, ramps, stop, PID, torque limit)	■	■	■
Dedicated functions	Breaking sequence, motor control types, hoisting functions, fan control, conveyer	■	■	■
Load application & Others	With or without load and communication	■	■	■
Final report	Documented final report	■	■	■

Installation check	■ SE FSR measures and validates installation	■ Customer reports installation validation and FSR conducts a functional visual inspection of the drive and peripherals installation	■ Not applicable

Dedicated service offers for your installed base

Operate and Manage

Our **Preventive Maintenance** service performs predetermined maintenance actions according to a product-specific schedule. The work is carried out by certified technical experts following Schneider Electric instructions. This service minimizes unplanned downtime and extends your equipment lifetime.

Our **Remote Technical Support** brings you expert product assistance over the phone, email, chat, or web for any technical questions relating to your drives and soft starters, including configuration, diagnostics, and maintenance. Our global support team is multi-lingual with support available up to R&D level experts if needed.

Our **On-Site Expert Assistance** service offers you access to highly skilled field service experts to troubleshoot and resolve drive or soft starter equipment-related matters at your site, as a back-up source of expertise for your personnel.

Support and Maintain

Our **Service Plans** manage the operation and lifecycle of your assets through well-defined maintenance plans tailored to your operational needs, from the basic Advantage Service Plans and associated EcoStruxure Service Plans to comprehensive EcoCare. Learn how you can help protect your valuable industrial assets, helping reduce the risk of unplanned downtime and saving costs. Service agreements are built in the Support and Maintain phases with service levels defining availability, response, and lead times matching your needs. You will enjoy priority access to Schneider Electric support when you need it, as well as having an expert partner to plan the long-term evolution of your drives and soft starters.

We can help you by:

- Providing remote or on-site expertise
- Offering a range of support programs to enable customization
- Offering preventive and comprehensive predictive maintenance options
- Revitalizing systems to extend asset life
- Offering advanced services to improve operator performance

EcoCare

EcoCare provides membership-based service plans from on-site and preventive maintenance to next-level predictive capabilities. Enabled by AI-powered analytics, gain 24x7 direct access to global network of dedicated experts, digitized asset monitoring and alarming, and periodic reports on connected assets.

3 Offers Tiers purposed to cover all your needs

EcoCare Essential	EcoCare Advanced	EcoCare Advanced+
Available when you need us As EcoCare members, you have **exclusive access to resources and expertise** from Schneider Electric **to resolve issues faster and improve the resiliency** and **efficiency** of your business and operations	**You are fully empowered** We **empower your teams** to run a resilient, safe, efficient and sustainable operation by anticipating and remotely **helping you mitigate downtime events**	**Maximum uptime** We anticipate risks of downtime to give you the **right support** at the **right time**, and we **optimize the lifecycle** of your assets to **maximize your business continuity**

Dedicated service offers for your installed base

Support and Maintain *(continued)*

EcoStruxure Service Plan for Drives - We offer an advanced digital service built on a robust, cybersecure architecture and powered by a 24/7 Connected Services Hub. This platform delivers real-time insights and actionable recommendations to optimize performance and reliability.

Key features – focused on drives:

- **24/7 Remote Expert Support**: Continuous access to specialized consultancy for rapid issue resolution and guidance.
- **Real-Time Data Monitoring & Advanced Analytics**: Proactive performance tracking with intelligent diagnostics and predictive insights.
- **Elite Field Services**: On-site expertise and flawless execution from top-tier service professionals.

For more information, visit our ESP for Drives web page.

Our **EcoStruxure Service Plan for Rotating Equipment** helps reduce unplanned downtime for important equipment by detecting both electrical and mechanical faults by monitoring rotating equipment located in areas that are hard to reach, or where it is not possible to fit sensors, or in harsh conditions where other technologies cannot be installed. It allows you to monitor your motor fleet from multiple manufacturers centrally with a high level of detection accuracy, having information at your fingertips in a mobile and web app.

For more information, visit our ESP for Rotating Equipment web page.

Our **Advantage Service Plan for Drives** offers flexibility and scalability to adapt to your needs. It helps to reduce and avoid unplanned downtime, with Premium Support offering a best-in-class experience, and consistent experience across the globe and across technologies.

These services leverage our capabilities for supporting and maintaining your variable speed drives and soft starters, offering:

- A choice of plans with services included
- Optional services for further customization
- Scalability according the number of drives you have

Original equipment parts from Schneider Electric are readily available from our local, regional, and global stocks. They will help to keep your product in operation for longer.

Our **Spare Parts Management** service identifies and manages your important spare parts either on your site or offsite. This service helps to ensure that you have access to the spares you need without having to invest in capital to maintain the stock.

Repair allows you to extend the life of your drive or soft starter. The affected product can be replaced, or repaired on-site or at our repair centers, depending on the type of product in question.

Exchange gives a second life to inoperative drives or soft starters. In this case, we offer an immediate exchange with a replacement refurbished drive or soft starter and take back the product, repair it, and keep it ready for the next exchange.

Circularity is key to minimizing waste and pollution, keeping products and materials in use, and regenerating natural systems.

Dedicated service offers for your installed base

Support and Maintain *(continued)*

DESIGN AND INNOVATE FOR CIRCULARITY

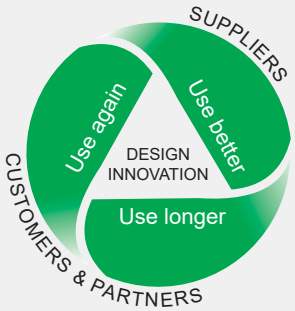
- Eco-design to use better, longer, and again
- Business model innovation: develop bundled offers with financing and retained ownership where applicable

Recycle raw materials & substances

- Recover SF6 gas
- Material recycling

Repack & refurbish

- Take back and buy back services
- Redistribute and refurbish
- Harvest spares



Source better

- Use sustainable materials, packaging

Manufacture & operate better

- Waste-to-resource sites
- Zero waste management
- Optimized logistics
- Local biodiversity actions
- Single-use-plastic-free sites
- Net-zero-ready operations
- Water action plans in water-stressed sites

Modernize & upgrade

- Retrofit and upgrade solutions to avoid replacing with new equipment

Maintain & repair

- Condition-based maintenance powered by analytics and artificial intelligence

At Schneider Electric, we have chosen to adopt end-to-end circularity by leveraging innovation and changing our offer creation, product design, and manufacturing to use better, use longer, and use again.

> **Use better**: Make the most of resources and maximize value retention through design, sourcing, and manufacturing decisions.

> **Use longer**: Supercharge your maintenance strategy and extend the life of your equipment with next-generation service plans, repairability, and modernization services.

> **Use again**: Learn more about how we recirculate products, parts, and materials to retrofit highly performing solutions.

Training

Our **Training** service offers eLearning, classroom, and on-site training provision to enhance the technical installation, commissioning, and maintenance competencies of your personnel. Added competence translates into further process efficiency and reliability, as well as employee satisfaction.

Find out more on our Training web page.

Variable speed drives
Altivar HVAC ATH600
Product reference index

Variable speed drives
Altivar HVAC ATH600
Product reference index

Variable speed drives
Altivar HVAC ATH600
Product reference index

Legal information

The information provided in this Catalog contains description of Schneider Electric products, solutions and services (“Offer”) with technical specifications and technical characteristics of the performance of the corresponding Offer.

The content of this document is subject to revision at any time without notice due to continued progress in methodology, design and manufacturing.

To the extent permitted by applicable law, no responsibility or liability is assumed by Schneider Electric and its subsidiaries for any type of damages arising out of or in connection with (i) informational content of this Catalog not conforming with or exceeding the technical specifications, or (ii) any error contained in this Catalog, or (iii) any use, decision, act or omission made or taken on basis of or in reliance on any information contained or referred to in this Catalog.

SCHNEIDER ELECTRIC MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO WHETHER THIS CATALOG OR ANY INFORMATION CONTAINED THEREIN SUCH AS PRODUCTS AND SERVICES WILL MEET REQUIREMENTS, EXPECTATIONS OR PURPOSE OF ANY PERSON MAKING USE THEREOF.

Schneider Electric brand and any trademarks of Schneider Electric and its subsidiaries referred to in this Catalog are property of Schneider Electric or its subsidiaries. All other brands are trademarks of their respective owners.

Schneider Electric

Learn more about our products at www.se.com/drives

Design: Schneider Electric
Photos: Schneider Electric

Schneider Electric Industries SAS
Head Office
35, rue Joseph Monier - CS 30323
F-92500 Rueil-Malmaison Cedex
France

DIA2ED2260301EN
April 2026 - V1.0