Catalog | February 2026

Altivar HVAC ATH200

Variable speed drives for compact HVAC machines

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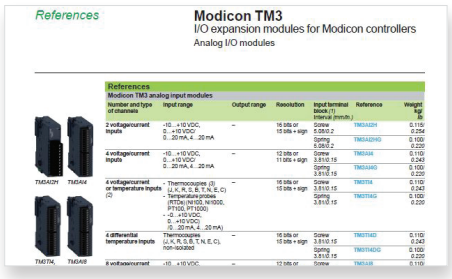

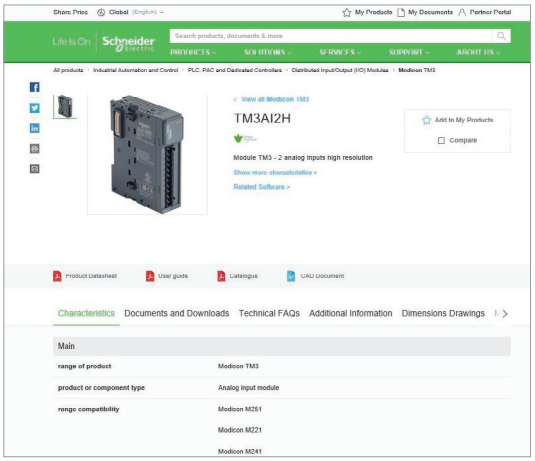

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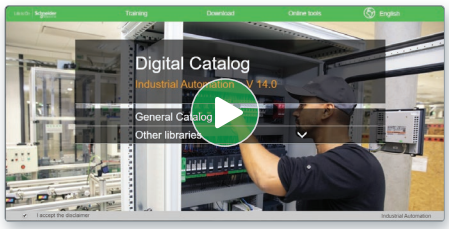

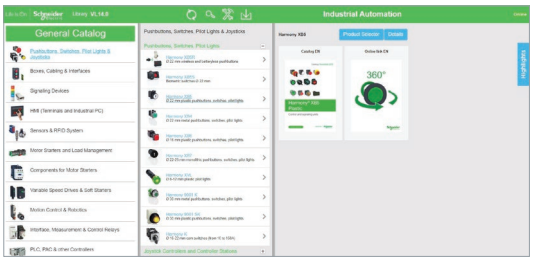

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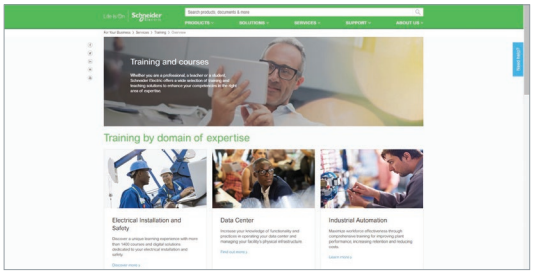

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Digital tools to help you select your Altivar HVAC ATH200 solution easily

Product selector for ATH200

- Easy selection of the ATH200 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

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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

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Environmental Data Program

Enhance durability with Altivar™ HVAC ATH200 drives

Superior performance thanks to upgradability and modernization solutions

Altivar HVAC ATH200 is **RoHS** and **REACH** compliant
- Transparent product environmental impact information
- Life cycle assessment compliant with ISO 14025
- Circularity profile

Altivar HVAC ATH200 drives bring key benefits to machine builders in achieving superior upgradable performance by enhancing functionality, performance, and capacity of both hardware and software.

The additional power options and firmware upgradability capabilities offered by Altivar HVAC help you maximize machine control continuity and operation, as well as reduce operating expenses, by avoiding the need to change your drive or modify your existing installation, thanks to its retrofit capability.

Benefits

- Maximize energy efficiency
- Reduce your OPEX
- Easy scalability of your automation system
- Improve the power quality of your system with a low investment
- Improve the functional safety, integration, and efficiency of your application
- Optimize your maintenance costs and drive service life

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

Programmable functions

The embedded programmable functions can be applied in diverse applications. These functions are software-based and therefore require no additional hardware.

Options (line choke, motor choke, EMC filter)

The power options of Altivar HVAC offer you the possibility to improve your installation's power quality and efficiency.

Communication modules

The additional communication modules allow Altivar HVAC ATH200 drives to be easily integrated into a scalable automation system, giving you easy access to the real data provided by the drive, helping the digitalization and easy integration of the drive in Industry 4.0 technologies.

Firmware updates and service expertise

Our global network of service experts offers you the possibility of upgrading your drive's firmware and modernizing its hardware to extend its service life. As part of our circular economy ambition, we are currently deploying a global take-back platform for end-of-life products, which are then either refurbished to “like new” in our agreed repair centers, or dismantled and recycled.

Experience our offer

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Altivar HVAC ATH200 variable speed drives

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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

Market segments		**HVAC machines**	**HVAC machines and buildings**		**Large and critical buildings, infrastructure**			
Types of machine		**Pumps, fans, and compressors**						
								
Mounting type		Cabinet integration	Cabinet integration or wall mounting	Wall mounting	Cabinet integration	Wall mounting	Wall mounting	Wall mounting
Degree of protection		IP20	IP21	IP55	IP20	IP20 and IP21/UL Type 1	IP55	IP55 with Vario disconnect switch
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*	–			0.75…75 kW/*1…100 HP*	–	
	Three-phase 380...480V	–	0.75…75 kW/*1…100 HP*		0.75…90 kW/*1…125 HP*	0.75…315 kW/*1…500 HP*	0.75…90 kW/*1…125 HP*	
	Three-phase 380...500V	0.55…22 kW/*0.75…30 HP*	–					
	Three-phase 525...600V	1.5…15 kW/*2…20 HP*	–					
	Three-phase 500...690V	–	–			1.5…75 kW/*2…100 HP*	–	
Drive	Output frequency	0.1…599 Hz	0.5...200 Hz		0.1…500 Hz			
	Control type Asynchronous motor	U/F ratio (2 points, 5 points, energy saving, quadratic), sensorless flux vector control (standard and energy saving)	Sensorless flux vector control, voltage/frequency ratio (2 points), energy saving ratio		Standard constant torque, variable standard torque, optimized torque mode			
	Synchronous motor	Sensorless vector control						
Functions	Transient overcurrent	110% rated current for 60s			110% of the rated current in normal duty during 60s 150% of the rated current in heavy duty during 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, forced fire mode, damper control, flow compensation, sleep/wake-up, PID controller, scroll compressor management, skip frequencies		PID controller, sleep/wake-up, feedback monitoring, pump characteristics, friction loss compensation, sensoreless flow estimation, smoke extraction error detection disabling			
	Integrated functional safety functions	Safe Torque Off up to SIL3/PLe	–		Safe Torque Off 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)	2: 1 switch-configurable as voltage (0...10 V) or current (X-Y mA) input, and 1 voltage input (0...10 V) configurable as a PTC probe input		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	3: Configurable (positive or negative logic)		6: Voltage 24 V ⎓ (positive or negative logic)			
	Analog outputs	1: Configurable as voltage (0...10 V) or current (0-20 mA)	1: Configurable as voltage (0...10 V) or current (X-Y mA)		2: Configurable as voltage (0...10 V) or current (0-20 mA)			
	Digital outputs	1: Configurable as sink or source	–		2: Assignable			
	Relay outputs	2: 1 with NO/NC contacts and 1 with NO contacts	2: Configurable relays with NO/NC contacts		3: 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, METASYS N2, APOGEE FLN, BACnet MS/TP		Modbus/TCP, Modbus serial link			
	Optional	BACnet/IP	LonWorks		Ethernet/IP, Modbus TCP and MD-Link dual port, CANopen RJ45 daisy chain, SUB-D, and screw terminal block, PROFINET, PROFIBUS DP V1, DeviceNet, BACnet MS/TP, POWERLINK			
Configuration and runtime tools		Integrated display, DTM (device type manager), SoMove software, Multi-Loader (optional), and remote graphic terminal (optional)	PC Soft for ATV212, IP54, or IP65 remote graphic display terminal		Graphic display terminal, embedded Web server, DTM (Device Type Manager), SoMove software			
Standards	EMC	EN 61800-3 (environments 1 and 2, category C2, C3, C1 with optional EMC filter)	IEC 61800-3 (environments 1 and 2, categories C1 to C3, cat. C1 with optional EMC filter), EN 55011: Group 1, class A and class B with option card		EN 61800-3 (environments 1 and 2, category C2, C3, C1 with optional EMC filter)			
	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 61800-5-1		86/188/EEC, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, EN/IEC 61800-3, EN/IEC 61800-5-1, IEC 60721-3, IEC 61508, IEC 13849-1			
Certifications		CE, UKCA, ATEX, cULus, UL61800-5-1, CSA 22.2 N274, EAC, KC	CE, UL, CSA, C-Tick, NOM		CE, CSA, UL, ATEX zone 2/22, DNV-GL, TÜV, KC, EAC, RCM			
References		**ATH230●●●●●**	**ATV212H●●●●●**	**ATV212W●●●●●**	**ATV630●●●●●N4Z**	**ATV630●●●●●N4**	**ATV650●●●●●N4**	**ATV650●●●●●N4E**

More technical information on www.se.com

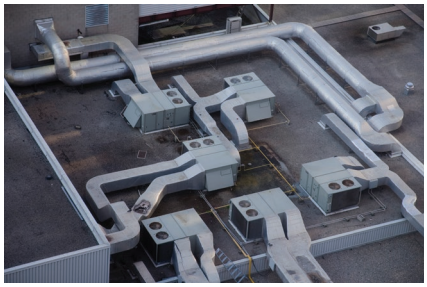
Market segments			**Large and critical buildings**	
Types of machine			**Pumps, fans, and compressors**	
				
Power range for 50...60 Hz line supply	Three-phase: 315...415 V, 480 V		90...800 kW	
Main characteristics			Compact Drive Systems with an integrated line reactor to reduce the current harmonics 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 ATH200
General presentation

Altivar HVAC ATH200 drives

A competitive solution delivering high-performance, energy efficiency, and durability

Altivar HVAC ATH200 is a range of IP20 variable speed drives designed to be mounted in the control panel of compact HVAC machines. Altivar HVAC ATH200 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 ATH200 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.



Compact HVAC machines

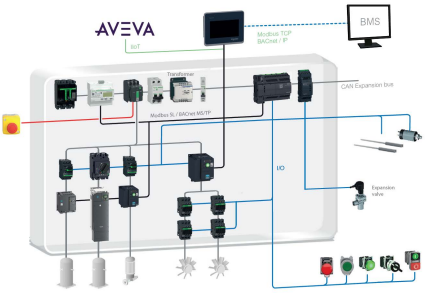
Altivar HVAC ATH200 drives are specifically designed to meet the requirements of compact HVAC machines and incorporate functions suitable for:
- Air-cooled chillers
- Heat pumps
- Rooftop units
- Air handling units
- Boilers

Integration in automation architectures

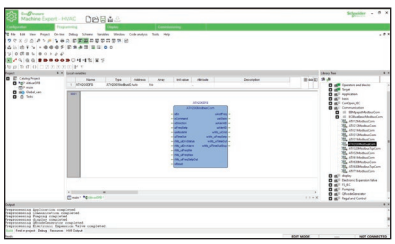
The connectivity of the Altivar HVAC ATH200 range and its companion offers facilitates integration into automation architectures.
Altivar HVAC ATH200 drives can be connected to:
- Modbus
- BACnet MS/TP
- BACnet/IP

The typical architectures proposed simplify the automation design for various types of machine:
- Air-cooled chillers
- Air handling units
- Etc.

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.



Typical HVAC architecture



Altivar HVAC ATH200 Derivated Function blocks for EcoStruxure Machine Expert - HVAC

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Variable speed drives
Altivar HVAC ATH200
General presentation

Side-by-side mounting of ATH200 drives, even at 50 °C/122 °F

Operation up to 60 °C/140 °F

Optimized control panel design

Altivar HVAC ATH200 drives help to improve competitiveness by optimizing control panel design in the following ways:

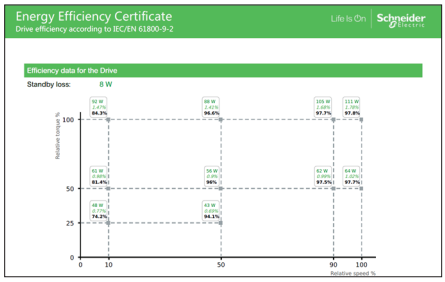
- Mechanical design: A compact solution allowing side-by-side mounting to reduce the footprint combined with a depth of less than 200 mm/*8 in.* for drives rated up to 15 kW/*20 HP* makes them ideally suited for installation in an HVAC panel.
- Thermal design: Altivar HVAC ATH200 drives are an ideal solution for outdoor-mounted machines and harsh environments. They can operate within a temperature range of -10 to 60 °C/*14 to 140 °F*, and up to 50 °C/*122 °F* without derating.
- Electrical design: The built-in features of Altivar HVAC ATH200 drives remove the need for external devices, reducing the footprint and total cost of the solution:
  - EMC filter, category C2 or C3
  - Safe Torque Off function
  - Programmable logic functions

Certified Safe Torque Off function

Altivar HVAC ATH200 drives embed the Safe Torque Off function certified Safety Integrity Level 3 according to IEC 61508 and Performance Level “e” according to ISO 13849-1. The STO function brings the machine or functional unit to a no-torque state so that it cannot restart unexpectedly, without the need for an external line contactor.

Applications for explosive atmospheres

- Altivar HVAC ATH200 drives are A2L refrigerant certified.
- The Safe Torque Off (STO) function is an ATEX-certified function according to the ATEX directive 94/9/EC and directive 2014/34/EU.
  The use of the STO function is required for the ATH200 soft starter to control and command motors installed in an explosive atmosphere (ATEX).
  ATEX-certified devices and components such as 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 cut to help ensure that the temperature of the motor frame remains below the maximum temperature depending on the gas or the dust atmosphere in which the ATEX motor is installed.
  Altivar HVAC ATH200 drives must be installed outside the hazardous Ex zone.



Efficiency data of an ATH230U40N4 drive according to IEC/EN 61800-9-2

Environmental Data Program

Superior sustainability performance

Energy efficiency

Energy consumption can be reduced by more 40% with Altivar HVAC ATH200. Energy efficiency is provided at every level: motor, motor control, ATH200 drives, and applications:

- Altivar HVAC ATH200 complies with efficiency class IE2 according to IEC 61800-9-2.
- Altivar HVAC ATH200 is adapted to high efficiency asynchronous or permanent magnet synchronous motors.
- The motor control algorithm further increases efficiency thanks to dynamic optimization of the motor supply according to the application load.

Conserving resources

- Use of plastic with at least 20% bio-based content
- Use of ASI-certified aluminum for responsible production, sourcing, and material stewardship
- Packaging made with over 70% recycled cardboard
- No single-use plastics

Environmental data

Altivar HVAC ATH200 meets the following requirements:

- Use of hazardous substances
- ☐ Compliance with the European RoHS directive (2011/65/EU and amendment 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 accordance with ISO 14025 that helps to ensure appropriate reliability and transparency. Based on a life cycle assessment (LCA) of the product along 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 “ATH200 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 ATH200 product pages on our website to access the environmental data of 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 ATH200
An offer dedicated to HVAC machines

An offer dedicated to HVAC machines

The Altivar HVAC ATH200 range of variable speed drives covers motor power ratings from 0.37 to 22 kW/*0.5 to 30 HP* with four types of main power supply:
- 200…240 V single-phase, 0.37 to 2.2 kW/*0.5 to 3 HP* (ATH230●●●M2)
- 200…240 V three-phase, 0.37 to 15 kW/*0.5 to 20 HP* (ATH230●●●M3)
- 380…500 V three-phase, 0.55 to 22 kW/*0.75 to 30 HP* (ATH230●●●N4)
- 525…600 V three-phase, 1.5 to 15 kW/*2 to 20 HP* (ATH230●●●S6)

Altivar HVAC ATH200 drives integrate the Modbus and BACnet MS/TP communication protocols as standard. They can also be connected to BACnet/IP by adding the optional communication module.

EMC filter embedded in an ATH230U15N4 drive

Designed for optimization of the control panel

The Altivar HVAC ATH200 range offers compact solutions:
- The drives have a compact format with a reduced footprint, making them suitable for HVAC control panels with a depth of less than 200 mm/*8 in.* for drives rated up to 15 kW/*20 HP*.
- The drives can be mounted side by side to further increase the compactness of the solutions without compromising the thermal design.
- Embedded functions such as Safe Torque Off and the programmable logic functions remove the need for external devices, therefore reducing costs.
- Integrated EMC filters: Altivar HVAC ATH200 drives have a built-in EMC filter in ATH230U●●M2 and ATH230●●●N4 drives to meet EMC standard requirements.

Drive	Maximum length of shielded cable *(1)(2)* according to	
	IEC/EN 61800-3 Category C2	IEC/EN 61800-3 Category C3
	m/*ft*	m/*ft*
ATH230●●●M2	10/*33*	10/*33*
ATH230U04N4...U15N4	10/*33*	10/*33*
ATH230U22N4...U40N4	10/*33*	20/*66*
ATH230U55N4...U75N4	2/*6.6*	20/*66*
ATH230D11N4...D15N4	–	25/*82*
ATH230D18N4...D22N4	5/*16.4*	25/*82*

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

(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 a switching frequency of 4 kHz.

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	< 1000 V	–	–	> 1000 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).

Variable speed drives
Altivar HVAC ATH200
An offer dedicated to HVAC machines

Air-cooled chiller

Motor

An offer dedicated to HVAC machines *(continued)*

Designed for optimization of the control panel

Altivar HVAC ATH200 are robust drives with a high level of resistance to interference from environmental source, which helps to minimize limiting events. Limiting events can cause downtime, reduced user comfort, and increased maintenance costs. Altivar HVAC ATH200 drives can also withstand harsh environments.

Description	Performance
Degree of protection conforming to IEC/EN 6100-5-1 and IEC/EN 60529	IP20, IP21 on the upper part, UL Type 1 with option
Ambient air temperature around the device	-10…50 °C/*14...122 °F* without derating, 60 °C/*140 °F* with derating *(1)*
Relative humidity without condensing	5 to 95%
Environmental conditions conforming to IEC 60721-3-3 edition 2002	■ Chemical substances class 3C3 (printed circuit boards with protective coating) ■ Mechanical substances class 3S2
Altitude	■ Up to 1,000 m/*3,281 ft* without derating ■ 1,000...2,000 m/*3,281...6,562 ft* with derating of 1% for each additional 100 m/*328 ft* above 1,000 m/*3,281 ft* ■ 2,000...3,000 m/*6,561...9,843 ft* with derating and restrictions (refer to the Altivar HVAC ATH230 Installation Manual)

EMC standards

Immunity category Subcategory	Test standard
Electrostatic discharge (ESD) test	IEC 61000-4-2
Radioactive radio-frequency magnetic contactor field	IEC 61000-4-3
Electrical fast transient (EFT)/burst transients test	IEC 61000-4-4
Electrical Surge Test	IEC 61000-4-5
Immunity to conducted disturbances induced by radio-frequency fields	IEC 61000-4-6
Voltage dip/interruption of power	IEC 61000-4-11

Efficient motor control

The control of both asynchronous and synchronous motors is both simple and energy efficient.
Altivar HVAC ATH200 drives integrate different controls for adaptation to the application and the motor:

- Energy Saving flux vector control without sensor -
- Quadratic voltage/frequency ratio for energy saving
- Voltage/frequency ratio, 2 points U/f
- Voltage/frequency ratio, 5 points
- Flux vector control without sensor
- Synchronous motor vector control without sensor

Calculate the energy efficiency of your drive with the Altivar Efficiency Calculator

Altivar Efficiency Calculator

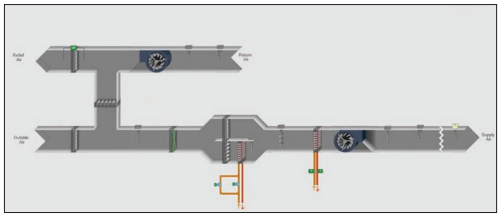
This tool calculates the energy efficiency of your variable speed drive according to the Ecodesign standard EN/IEC 61800-9-2.

- **Drive Efficiency (CDM Complete Drive Module)**
  Drive performance is determined according to eight operating points taking into account torque and speed.

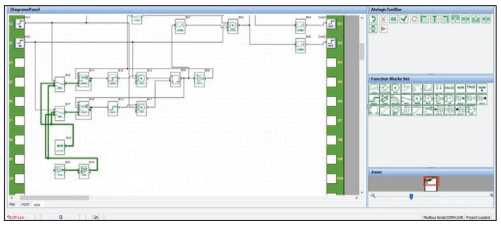
- **System Efficiency (PDS Power Drive System)**
  System performance is determined according to eight operating points taking into account torque and speed. This includes the efficiency of the variable speed drive and its motor.

(1) Refer to the derating curves depending on PWM frequency and mounting types provided in the Altivar HVAC ATH230 Installation Manual.

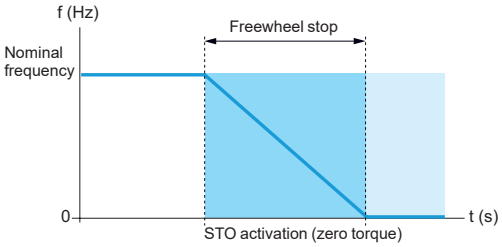
Variable speed drives
Altivar HVAC ATH200
Simplify automation and reduce cost with ATH200 functions



HVAC functions for AHU: damper control, PID controller, additional PID, run permissive



Programmable logic functions using ATV Logic



Activation of the STO function

Simplify automation and reduce cost with ATH200 functions

Application functions

Altivar HVAC ATH200 variable speed drives feature 150 functions, including:

- Configurations: standard or customizable
- Application-specific for pumps and fans in HVAC such as run permissive, fire mode, PID controller, additional PID controller, damper control, broken belt detection, and skipped frequencies
- Adjustable switching frequency (adjusted motor current, reduced motor noise)
- Adjustable monitoring function to create “My Menu” function to obtain user-specific monitoring
- Ability to upload/download drive configurations with the power off

ATV Logic

ATV Logic is used to adapt Altivar HVAC ATH200 variable speed drives to specific applications by means of customizable integrated control system functions.

The integrated control system functions featuring ATV Logic can be used to perform simple operations without adding further devices, which reduces costs.
ATV Logic is programmed via the SoMove configuration software (consult the SoMove catalog for more information) and provides access to the following functions:

- Arithmetical operations, Boolean operators, counters, timers, etc.
- Programming of up to 50 functions by an automated sequence
- Access to the drive’s internal variables
- Internal function blocks such as timer, counter, and logic unit to achieve customized and advanced functions as per user requirements

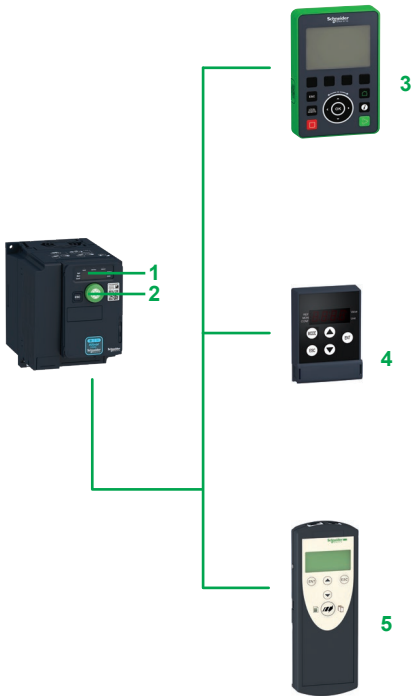
Safe Torque Off (STO) function

The Altivar HVAC ATH200 range of variable speed drives integrates the Safe Torque Off function Safety Integrity Level 3 according to standard IEC 61508 that is comparable with performance level “e” (PL e) according to standard ISO/EN 13849-1-2.

This function helps machines to meet functional safety requirements, whether or not they are used in conjunction with a Preventa safety module *(1)*.
The Safe Torque Off (STO) function brings the machine into a no-torque state and/or prevents it from starting unexpectedly.

(1) Please refer to our machine safety web page.

Variable speed drives: page 15
Options: page 19
Communication buses: page 32
Motor starters: page 34
Dimensions: page 38



ATH200 dialog and configuration tools

Accessories and configuration tools

Accessories and external options

Accessories and external options are available with Altivar HVAC ATH200 drives.
The type of external accessories and options depends on the drive rating.

Accessories

- UL Type 1 conformity kits, plates for direct mounting on 35 mm/*1.38 in.* rails, etc.

External options

- Line chokes
- Motor chokes
- Additional EMC filters
- Adapter for communication module

Dialog and configuration tools

Human-Machine interface

The 4-digit display **1** shows drive states, detected error codes, and parameter values.
The navigation button **2** is used to navigate through the menus, modify values, and change the motor speed in local mode.

HMI terminals

Altivar HVAC ATH200 drives can be connected to a graphic display terminal (VW3A1111) **3** or a remote display terminal **4**, which are available as options.
The HMI terminals can be mounted on an enclosure door with IP65 degree of protection. They provide the same level of access as the on-board Human-Machine interface.
The HMI terminal displays text in the majority of user languages, and provides a user-friendly format for configuration, debugging, and maintenance.

SoMove setup software

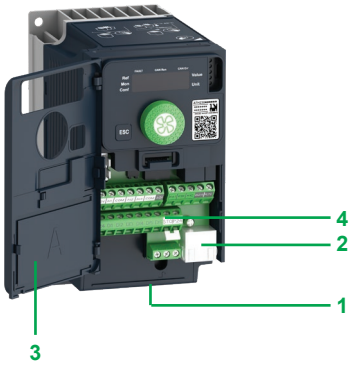
SoMove setup software is used to configure, adjust, debug (using the Oscilloscope function), and maintain Altivar HVAC ATH200 drives in the same way as for other Schneider Electric drives and starters.
For more information, please refer to the SoMove catalog.

Multi-loader configuration tool

The Multi-Loader tool **5** enables configurations from a PC or drive to be copied and duplicated on another drive; the drives do not need to be powered up.

The graphic display terminal (VW3A1111) **3** enables configurations from a PC or drive to be copied and duplicated on another drive, and also supports REMOTE/LOCAL operation (see page 22).

Variable speed drives
Altivar HVAC ATH200
Description, standards, and certifications



Description

1 Power terminals
2 RJ45 communication port for access to integrated protocols: Modbus serial link and BACnet MS/TP
3 Protective cover for access to the control terminals (also includes a label with a wiring diagram)
4 Control terminals for I/O connection:
- ■ 6 digital inputs:
  - □ 4 configurable for positive input (Sink) or negative input (Source)
  - □ 1 input configurable as a PTC probe input
  - □ 1 x 20 kHz pulse control input, 24 V ⎓, impedance 3.5 kΩ, sampling time 8 ms
- ■ 1 digital output:
  - □ 24 V ⎓, sampling time 2 ms, maximum voltage 30 V, maximum current 100 mA
- ■ 3 analog inputs:
  - □ 1 current input, by programming X and Y from 0 to 20 mA, impedance 250 Ω
  - □ 1 bipolar differential input ± 10 V, impedance 30 kΩ
  - □ 1 voltage input 0...10 V, impedance 30 kΩ, sampling time 2 ms
- ■ 1 analog output configurable as:
  - □ voltage output 0…10 V ⎓, minimum load impedance 470 Ω
  - □ current output 0…20 mA, maximum load impedance 800 Ω
- ■ 2 relay outputs:
  - □ 1 NC contact and 1 NO contact with common point. Minimum switching capacity 5 mA for 24 V ⎓, maximum switching capacity 3 A on resistive load, 2 A on inductive load for 250 V ∿ or 30 V ⎓
  - □ 1 NO contact, maximum switching capacity 5 A on resistive load

Standards and certifications *(1)*

Altivar HVAC ATH200 drives have been developed to conform to the strictest international standards and recommendations relating to industrial electrical control devices (IEC), in particular:

- ■ IEC 61800-5-1
- ■ IEC 61800-3:
  - □ EMC immunity: IEC 61800-3, Environments 1 and 2
  - □ Conducted emission compliance:
    - IEC 61800-3, category C2, C3 with integrated EMC filter for ATH230●●●M2, ATH230U06N4...D22N4● drives
    - IEC 61800-3, category C1, C2, C3 with additional EMC filter for ATH230●●●M2, ATH230●●●M3 and ATH230●●●N4 drives
- ■ EN ISO 13849-1/-2 category 3 (PLe)
- ■ A2L refrigerant (protected component for use in refrigeration and air-conditioning equipment 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 ATH200 drives are certified:

- ■ CE - Low Voltage EMC
- ■ CE - Machine
- ■ ATEX
- ■ UL61800-5-1
- ■ CSA 22.2 N274
- ■ EAC
- ■ KC
- ■ SIL

They are CE marked according to the European low voltage (2014/35/UE) and EMC (2014/30/UE) directives.
They also comply with environmental directives (RoHS).

(1) A complete list of certifications and characteristics is available on our website.

Variable speed drives
Altivar HVAC ATH200
IP20 drives for cabinet mounting
Single-phase and three-phase 200...240 V

ATH230U04M2...U07M2

ATH230U11M2...U22M2
ATH230U06N4...U15N4

ATH230U55M3

IP20 drives for cabinet mounting

Motor		Line supply				Altivar HVAC ATH200				
Power indicated on rating plate *(1)*		Max. line current *(2) (3)*		Apparent power	Max. prospective line Isc *(4)*	Max. continuous output current (In) *(1)*	Max. transient current for 60s	Power dissipated at maximum output current (In) *(1)*	Reference *(1)*	Weight
		at U1	at U2	at U2						
kW	*HP*	A	A	kVA	kA	A	A	W		kg/ *lb*
Single-phase supply voltage: 200…240 V 50/60 Hz, with integrated EMC filter *(5)*										
0.37	*0.5*	5.9	4.9	1.4	1	3.3	3.6	30	ATH230U04M2	1/ *2.2*
0.55	*0.75*	7.8	6.6	1.9	1	3.7	4.1	33	ATH230U06M2	1.1/ *2.4*
0.75	*1*	10	8.4	2.4	1	4.8	5.3	45	ATH230U07M2	
1.1	*1.5*	13.7	11.5	3.3	1	6.9	7.6	61	ATH230U11M2	1.6/ *3.5*
1.5	*2*	17.8	14.9	4.3	1	8	8.8	76	ATH230U15M2	
2.2	*3*	24	20.2	5.8	1	11	12.1	99	ATH230U22M2	
Three-phase supply voltage: 200…240 V 50/60 Hz, without integrated EMC filter										
0.37	*0.5*	3.6	3	1.5	5	3.3	3.6	27	ATH230U04M3	0.9/ *2*
0.55	*0.75*	4.9	4.2	2	5	3.7	4.1	31	ATH230U06M3	1/ *2.2*
0.75	*1*	6.3	5.3	2.6	5	4.8	5.3	42	ATH230U07M3	
1.1	*1.5*	8.6	7.2	3.6	5	6.9	7.6	58	ATH230U11M3	1.4/ *3.1*
1.5	*2*	11.1	9.3	4.6	5	8	8.8	72	ATH230U15M3	
2.2	*3*	14.9	12.5	6.2	5	11	12.1	91	ATH230U22M3	
3	*3*	18.7	15.7	7.8	5	13.7	15.1	105	ATH230U30M3	2.2/ *4.8*
4	*5*	23.8	19.9	9.9	5	17.5	19.3	140	ATH230U40M3	
5.5	*7.5*	35.4	29.8	14.7	22	27.5	30.3	242	ATH230U55M3	3.5/ *7.7*
7.5	*10*	45.3	38.2	18.8	22	33	36.3	293	ATH230U75M3	3.6/ *7.9*
11	*15*	60.9	51.4	25.3	22	54	59.4	468	ATH230D11M3	6.8/ *15*
15	*20*	79.7	67.1	33.1	22	66	72.6	551	ATH230D15M3	6.9/ *15.2*

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation. The switching frequency is adjustable from 2 to16 kHz. Above 4 kHz, derate the nominal drive current. The nominal motor current should not exceed this value (see derating curves in the Altivar HVAC ATH230 Installation Manual).
(2) Typical value for a 4-pole motor and a maximum switching frequency of 4 kHz, with no line choke for max. prospective line current.
(3) Nominal supply voltage, min. U1, max. U2: 200 (U1)…240 V (U2), 380 (U1)…500 V (U2), 525 (U1)...600 V (U2).
(4) If line Isc is greater than the values in the table, add line chokes.
(5) Drives supplied with category C2 integrated EMC filter. This filter can be disconnected - EMC conformity kit to be ordered separately, see page 18.

Variable speed drives
Altivar HVAC ATH200
IP20 drives for cabinet mounting
Three-phase 380...500 V and 525...600 V

ATH230U15S6

ATH230U22N4...
ATH230U40N4

ATH230U55N4

ATH230D15S6

IP20 drives for cabinet mounting

Motor		Line supply				Altivar HVAC ATH200				
Power indicated on rating plate *(1)*		Max. line current *(2) (3)*		Apparent power	Max. prospective line Isc *(4)*	Max. continuous output current (In) *(1)*	Max. transient current for 60s	Power dissipated at maximum output current (In) *(1)*	Reference *(1)*	Weight
		at U1	at U2	at U2						
kW	*HP*	A	A	kVA	kA	A	A	W		kg/ *lb*
Three-phase supply voltage: 380…500 V 50/60 Hz, with integrated EMC filter *(5)*										
0.55	*0.75*	2.8	2.2	2.4	5	1.9	2.1	27	ATH230U06N4	1.2/ *2.6*
0.75	*1*	3.6	2.8	3.1	5	2.3	3.5	32	ATH230U07N4	
1.1	*1.5*	5	3.8	4.3	5	3	3.3	40	ATH230U11N4	1.3/ *2.9*
1.5	*2*	6.4	4.9	5.5	5	4.1	4.5	56	ATH230U15N4	
2.2	*3*	8.7	6.6	7.5	5	5.5	6.1	74	ATH230U22N4	2.1/ *4.6*
3	*3*	11.1	8.4	9.6	5	7.1	7.8	93	ATH230U30N4	
4	*5*	13.7	10.6	11.9	5	9.5	10.5	111	ATH230U40N4	2.2/ *4.8*
5.5	*7.5*	20.7	14.5	17.9	22	14.3	15.7	195	ATH230U55N4	
7.5	*10*	26.5	18.7	22.9	22	17	18.7	229	ATH230U75N4	
11	*15*	36.6	25.6	31.7	22	27.7	30.5	370	ATH230D11N4	6.8/ *15*
15	*20*	47.3	33.3	41	22	33	36.3	452	ATH230D15N4	6.9/ *15.2*
18.5	*25*	55.3	42.4	47.9	22	40	44	449	ATH230D18N4	9.5/ *20.9*
22	*30*	64.6	49.4	55.9	22	46	50.6	540	ATH230D22N4	
Three-phase supply voltage: 525…600 V 50/60 Hz, without integrated EMC filter *(6)*										
1.5	*2*	2.6	2.4	2.7	5	2.7	3	54	ATH230U15S6	1.3/ *4.4*
2.2	*3*	3.7	3.2	3.8	5	3.9	4.3	77	ATH230U22S6	2/ *4.4*
4	*5*	6.5	5.8	6.8	5	6.1	6.7	96	ATH230U40S6	2.5/ *5.5*
5.5	*7.5*	8.4	7.5	8.7	22	9	9.9	148	ATH230U55S6	3.5/ *7.7*
7.5	*10*	11.6	10.5	12.1	22	11	12.1	175	ATH230U75S6	
11	*15*	15.8	14.1	16.4	22	17	18.7	267	ATH230D11S6	6.5/ *14.3*
15	*20*	22.1	20.1	23	22	22	24.2	317	ATH230D15S6	

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation. The switching frequency is adjustable from 2 to16 kHz. Above 4 kHz, derate the nominal drive current. The nominal motor current should not exceed this value (see derating curves in the Altivar HVAC ATH230 Installation Manual).
(2) Typical value for a 4-pole motor and a maximum switching frequency of 4 kHz, with no line choke for max. prospective line current.
(3) Nominal supply voltage, min. U1, max. U2: 200 (U1)…240 V (U2), 380 (U1)…500 V (U2), 525 (U1)...600 V (U2).
(4) If line Isc is greater than the values in the table, add line chokes.
(5) Drives supplied with category C2 integrated EMC filter, ATH230D11N4...D15N4 drives supplied with category C3 integrated EMC filter. This filter can be disconnected. EMC conformity kit to be ordered separately, see page 18.
(6) A line choke is mandatory with ATH230●●●S6 drives (to be ordered separately, see page 27).

VW3A980●

Accessories

Shielding connection clamp

Description	For use with	Reference	Sold in lots of
Shielding connection clamps Attachment and grounding of the cable shielding. Pack of 25 clamps including: ■ 20 clamps for Ø 4.8 mm *(0.19 in.)* cable ■ 5 clamps for Ø 7.9 mm *(0.31 in.)* cable	ATH230●●●●●●	TM200RSRCEMC	25

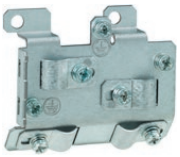
DIN rail mounting kit

Description	For use with	Reference	Weight kg/ *lb*
Plates for mounting on DIN rail Width 35 mm *(1.38 in.)*	ATH230U04M●...ATH230U07M●	VW3A9804	0.29/ *0.64*
	ATH230U11M●...ATH230U22M●, ATH230U06N4...ATH230U15N4, ATH230U15S6	VW3A9805	0.38/ *0.85*

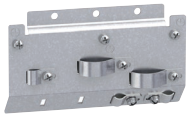
Conformity kit

Description	For use with	Reference	Weight kg/ *lb*
UL Type 1 conformity kits Mechanical device for attaching to the lower part of the drive. For direct connection of cables to the drive via tubes or cable glands.	ATH230U04M2...U07M2 ATH230U02M3...U07M3	VW3A95811	0.37/ *0.82*
	ATH230U11M2...U22M2 ATH230U04N4...U15N4 ATH230U07S6...U15S6	VW3A95812	0.44/ *0.97*
	ATH230U11M3...U22M3	VW3A95813	0.48/ *1.06*
	ATH230U22N4...U40N4 ATH230U22S6...U40S6	VW3A95814	0.55/ *1.21*
	ATH230U30M3...U40M3	VW3A95815	0.58/ *1.28*
	ATH230U55M3...U75M3 ATH230U55N4...U75N4 ATH230U55S6...U75S6	VW3A95816	0.82/ *1.81*
	ATH230D11M3...D15M3 ATH230D11N4...D15N4 ATH230D11S6...D15S6	VW3A95818	1.16/ *2.56*
	ATH230D18N4... D22N4	VW3A9925	1.9/ *4.18*

Variable speed drives
Altivar HVAC ATH200
Accessories and replacement parts


VW3A9523


VW3A9524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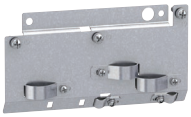
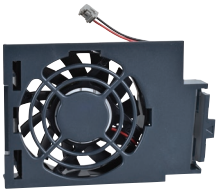

VW3A9533

Accessories (continued)

Mounting accessories

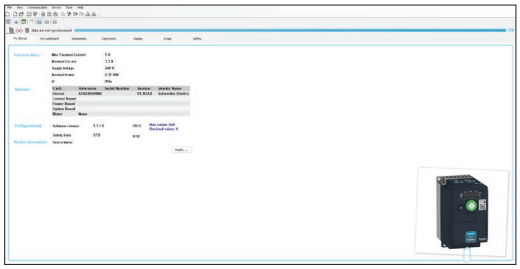
Description	For drives	Reference	Weight kg/ *lb*
EMC conformity kits These provide a connection compliant with EMC standards (for further information, please consult our website) The kit consists of: ■ The EMC plate ■ Clamps ■ Fixing accessories	ATH230U04M2...U07M2 ATH230U04M3...U07M3	VW3A9523	0.17/ *0.37*
	ATH230U11M2...U22M2 ATH230U11M3...U22M3 ATH230U06N4...U15N4 ATH230U15S6	VW3A9524	0.19/ *0.42*
	ATH230U30M3...U40M3 ATH230U22N4...U40N4 ATH230U22S6...U40S6	VW3A9525	0.21/ *0.46*
	ATH230U55M3...U75M3 ATH230U55N4...U75N4 ATH230U55S6...U75S6	VW3A9532	0.2/ *0.44*
	ATH230D11M3...D15M3 ATH230D11N4...D15N4 ATH230D11S6...D15S6	VW3A9533	0.26/ *0.57*
	ATH230D18N4... D22N4	VW3A9926	0.39/ *0.86*

Replacement parts


VZ3V1301

Description	For use with	Reference
Fans		
Fan for variable speed drive	ATH230U11M3...U40M3	VZ3V1302
	ATH230U11M2…U22M2 ATH230U06N4…U15N4 ATH230U07S6…U15S6	VZ3V1301
	ATH230U22N4…U40N4 ATH230U22S6…U40S6	VZ3V320S3
	ATH230U55M3…U75M3 ATH230U55N4…U75N4 ATH230U55S6…U75S6	VZ3V32C100
	ATH230D11M3…D15M3 ATH230D11N4…D15N4 ATH230D11N4…D15N4 ATH230D11S6…D15S6	VZ3V32D100
	ATH230D18N4... D22N4	VZ3V32E100
Other		
I/O control card	ATH230●●●●●	VW3A36201

Variable speed drives
Altivar HVAC ATH200
Option: Dialog and configuration tools
DTM



Altivar HVAC DTM in SoMove software

DTM

Presentation

Using FDT/DTM technology it is possible to configure, control, and diagnose Altivar HVAC ATH200 drives directly in EcoStruxure Machine Expert HVAC and 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 ATH200 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 ATH200 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 ATH200
- Drive parameter monitoring
- Detected error and warning logs

Advantages of the DTM library in EcoStruxure Machine Expert HVAC

EcoStruxure Machine Expert HVAC is a single tool for configuration, setup, and diagnostics of the complete machine. It can be integrated in the fieldbus topology.
EcoStruxure Machine Expert HVAC additionally offers function block library options for Altivar HVAC ATH200 drives.

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.

Variable speed drives
Altivar HVAC ATH200
Option: Dialog and configuration tools
Multi-Loader tool and SoMove software

PF080629

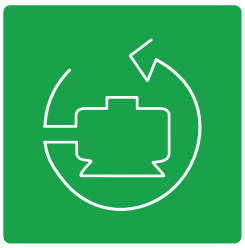
VW3A8121

Multi-Loader configuration tool

The Multi-Loader tool enables a number of configurations from a PC or drive to be copied and loaded onto other drives (Altivar HVAC ATH200 drives do not need to be powered up when using the Multi-Loader tool).

References

Description	Compatible with	Reference
Multi-Loader tool Supplied with: - 1 cordset equipped with two RJ45 connectors - 1 cordset equipped with one type A USB connector and one mini B USB connector - 1 SD memory card - 1 female/female RJ45 adapter - 4 AA/LR6 1.5 V batteries - 1 anti-shock protector - 1 carrying handle	ATH230●●●●	VW3A8121
USB/RJ45 cable Equipped with a USB connector and an RJ45 connector For connecting a PC to the Altivar HVAC ATH200 drive Length: 2.5 m *(8.2 ft)*	ATH230●●●●	TCSMCNAM3M002P



SoMove setup software and connection

SoMove setup software for PC is used to prepare drive configuration files.
The USB/RJ45 cable (reference **TCSMCNAM3M002P** or **VW3A8107**) 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 ATH200 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

(1) Please refer to our SoMove web page.

Variable speed drives
Altivar HVAC ATH200
Option: Dialog and configuration tools
Remote display terminal

Remote display terminal with cover open

Remote display terminal with cover closed

Remote display terminal

This terminal is used to locate the Human-Machine Interface of the Altivar HVAC ATH200 drive remotely on the door of an enclosure with an IP54 protection rating.
It is used to:

- Control, adjust, and configure the drive remotely
- Display the drive status and error codes

Its maximum operating temperature is 50 °C/*122 °F*.

Description

1 4-digit display
2 Navigation ▲, ▼ and selection **ENT**, **ESC** keys
3 Local motor control keys:
- **RUN**: Starts the motor
- **FWD/REV**: Reverses the direction of rotation of the motor
- **STOP/RESET**: Stops the motor/clears detected errors

4 **MODE**: Operating mode selection key
5 Cover for access to the local motor control keys

References

Description	Degree of protection	Length	Reference	Weight
		m/ *ft*		**kg/ *lb***
Remote terminals A remote-mounting cordset, VW3A1104R●●, is also required	IP54	–	VW3A1006	0.25/ *0.55*
Remote-mounting cordsets Equipped with two RJ45 connectors	–	1/ *3.28*	VW3A1104R10	0.05/ *0.11*
		3/ *9.84*	VW3A1104R30	0.15/ *0.33*

Variable speed drives
Altivar HVAC ATH200
Option: Dialog and configuration tools
Graphic display terminal

Graphic display terminal VW3A1111

Detected fault: Red screen when there is a detected error

Graphic display terminal

This terminal can be:
- Connected and mounted on an enclosure door using a remote mounting accessory
- Connected to a PC to exchange files via a Mini USB/USB connection *(1)*
- Connected to several drives in multidrop mode (see page 607257) *(2)*

This terminal is used to:
- Control, adjust, and configure the drive
- Display current values (motor, I/O, and machine data)
- Display graphic dashboards such as the energy consumption monitoring dashboard
- Store and download configurations (several configuration files can be stored in the 16 MB memory)
- Duplicate the configuration of one powered-up drive on another powered-up drive
- Copy configurations from a PC or drive and duplicate them on another drive (the drives should 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…50 °C/*5…122 °F*
- Degree of protection: IP65
- The Multipoint Screen feature of the graphic display terminal **VW3A1111** must not be used with an Altivar HVAC ATH200 drive.

Description

The graphic display terminal is a local control unit that can be mounted on the door of either a wall-mounted or floor-standing enclosure. It has a cable with connectors, which is connected to the drive Modbus serial link.
- STOP/RESET: Stop command/apply a Fault Reset.
- LOCAL/REMOTE: Used to switch between local and remote control of the drive if one of the function keys displays [T/K] (FT), otherwise the key is inactive.

  NOTE: To assign a function key (F1…F4) to the LOCAL/REMOTE function, go to the [Command] (CTL-) menu and assign [F1 key assignment] (FN1)...[F4 key assignment] (FN4) to [T/K] (FT).
- ESC: Used to quit a menu/parameter or remove the currently displayed value in order to revert to the previous value retained in the memory.
- F1 to F4: Function keys used to access quick view and submenus. Simultaneous press of F1 and F4 keys generates a screenshot file in the graphic display terminal internal memory.
- Home: Used to access the home page directly if the graphic display terminal displays “Quick” on one of its function keys.
- Information: Used to show the code of menus, submenus, and parameters if the graphic display terminal displays “Code” on one of its function keys.
- RUN: Executes the function assuming it has been configured.
- Touch wheel/OK: Used to save the current value or access the selected menu/parameter. The touch wheel provides a faster option to scroll through the menus. Up/down arrows are used for precise selections, right/left arrows are used to select digits when setting a numerical value of a parameter.
- RJ45 Modbus serial port: Used to connect the graphic display terminal to the drive in remote control.
- Mini USB port: Used to connect the graphic display terminal to a computer.
- Battery (10 years service life. Type: CR2032). The battery positive pole points toward the front face of the graphic display terminal.

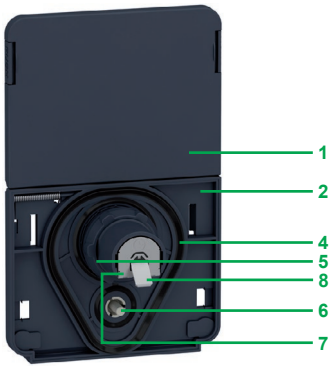
References

Description	Reference	Weight kg/ *lb*
Graphic display terminal	VW3A1111	0.2/ *0.44*

(1) Graphic display terminal used only as a handheld terminal.
(2) For ATH200 and VW3A111 firmware compatibility, please refer to the Programming Manual.

Variable speed drives
Altivar HVAC ATH200
Option: Dialog and configuration tools
Accessories for graphic display 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

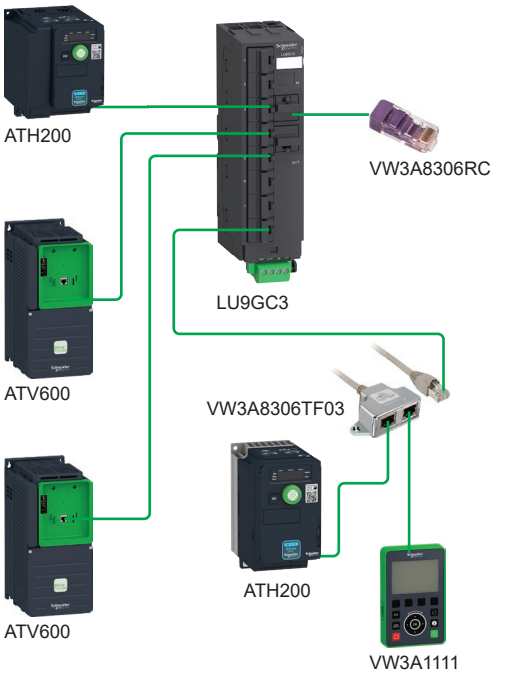
Drilling a hole with a standard Ø 22 tool, as used for a pushbutton, allows the unit to be mounted without the need for a cut-out in the enclosure (Ø 22.5 mm/*0.89 in.* drill hole).

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*
Remote-mounting kit for the Ethernet RJ45 port on the front face of the drive *(1)* Ø 22 RJ45 female/female adapter with seal	–	65	VW3A1115	0.2/ *0.44*

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

Variable speed drives
Altivar HVAC ATH200
Option: Dialog and configuration tools
Multidrop connection and configuration tools



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*

Configuration tools

Connection accessories

Description	Length m/ *ft*	Reference
SoMove setup software For configuring, adjusting, and debugging the Altivar HVAC ATH200 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

(1) For ATH200 and VW3A111 firmware compatibility, please refer to the Programming Manual.

Variable speed drives

Altivar HVAC ATH200

Combinations of options for Altivar HVAC ATH200 drives

Combinations of options for Altivar HVAC ATH200 drives

Motor		Drive	Accessories				
kW	*HP*		UL Type 1 conformity kits	Fan for variable speed drive	Shielding connection clamps	DIN rail kit	EMC conformity kits
Single-phase supply voltage: 200…240 V 50/60 Hz							
0.37	*0.5*	**ATH230U04M2**	VW3A95811	–	TM200RSRCEMC	VW3A9804	VW3A9523
0.55	*0.75*	**ATH230U06M2**	VW3A95811	–	TM200RSRCEMC	VW3A9804	VW3A9523
0.75	*1*	**ATH230U07M2**	VW3A95811	–	TM200RSRCEMC	VW3A9804	VW3A9523
1.1	*1.5*	**ATH230U11M2**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9805	VW3A9524
1.5	*2*	**ATH230U15M2**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9805	VW3A9524
2.2	*3*	**ATH230U22M2**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9805	VW3A9524
Three-phase supply voltage: 200...240 V 50/60 Hz							
0.37	*0.5*	**ATH230U04M3**	VW3A95811	–	TM200RSRCEMC	VW3A9804	VW3A9523
0.55	*0.75*	**ATH230U06M3**	VW3A95811	–	TM200RSRCEMC	VW3A9804	VW3A9523
0.75	*1*	**ATH230U07M3**	VW3A95811	–	TM200RSRCEMC	VW3A9804	VW3A9523
1.1	*1.5*	**ATH230U11M3**	VW3A95813	VZ3V1302	TM200RSRCEMC	VW3A9805	VW3A9524
1.5	*2*	**ATH230U15M3**	VW3A95813	VZ3V1302	TM200RSRCEMC	VW3A9805	VW3A9524
2.2	*3*	**ATH230U22M3**	VW3A95813	VZ3V1302	TM200RSRCEMC	VW3A9805	VW3A9524
3	*4*	**ATH230U30M3**	VW3A95815	VZ3V1302	TM200RSRCEMC	–	VW3A9525
4	*5*	**ATH230U40M3**	VW3A95815	VZ3V1302	TM200RSRCEMC	–	VW3A9525
5.5	*7.5*	**ATH230U55M3**	VW3A95816	VZ3V32C100	TM200RSRCEMC	–	VW3A9532
7.5	*10*	**ATH230U75M3**	VW3A95816	VZ3V32C100	TM200RSRCEMC	–	VW3A9532
11	*15*	**ATH230D11M3**	VW3A95818	VZ3V32D100	TM200RSRCEMC	–	VW3A9533
15	*20*	**ATH230D15M3**	VW3A95818	VZ3V32D100	TM200RSRCEMC	–	VW3A9533
Three-phase supply voltage: 380...500 V 50/60 Hz							
0.55	*0.75*	**ATH230U06N4**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9804	VW3A9524
0.75	*1*	**ATH230U07N4**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9804	VW3A9524
1.1	*1.5*	**ATH230U11N4**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9804	VW3A9524
1.5	*2*	**ATH230U15N4**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9805	VW3A9524
2.2	*3*	**ATH230U22N4**	VW3A95814	VZ3V320S3	TM200RSRCEMC	VW3A9805	VW3A9525
3	*4*	**ATH230U30N4**	VW3A95814	VZ3V320S3	TM200RSRCEMC	VW3A9805	VW3A9525
4	*5*	**ATH230U40N4**	VW3A95814	VZ3V320S3	TM200RSRCEMC	VW3A9805	VW3A9525
5.5	*7.5*	**ATH230U55N4**	VW3A95816	VZ3V32C100	TM200RSRCEMC	–	VW3A9532
7.5	*10*	**ATH230U75N4**	VW3A95816	VZ3V32C100	TM200RSRCEMC	–	VW3A9532
11	*15*	**ATH230D11N4**	VW3A95816	VZ3V32D100	TM200RSRCEMC	–	VW3A9533
15	*20*	**ATH230D15N4**	VW3A95816	VZ3V32D100	TM200RSRCEMC	–	VW3A9533
18	*25*	**ATH230D18N4**	VW3A9925	VZ3V32E100	TM200RSRCEMC	–	VW3A9926
22	*30*	**ATH230D22N4**	VW3A9925	VZ3V32E100	TM200RSRCEMC	–	VW3A9926
Three-phase supply voltage: 525…600 V 50/60 Hz							
1.5	*2*	**ATH230U15S6**	VW3A95812	VZ3V1301	TM200RSRCEMC	VW3A9805	VW3A9524
2.2	*3*	**ATH230U22S6**	VW3A95814	VZ3V320S3	TM200RSRCEMC	–	VW3A9525
4	*5*	**ATH230U40S6**	VW3A95814	VZ3V320S3	TM200RSRCEMC	–	VW3A9525
5.5	*7.5*	**ATH230U55S6**	VW3A95816	VZ3V32C100	TM200RSRCEMC	–	VW3A9532
7.5	*10*	**ATH230U75S6**	VW3A95816	VZ3V32C100	TM200RSRCEMC	–	VW3A9532
11	*15*	**ATH230D11S6**	VW3A95818	VZ3V32D100	TM200RSRCEMC	–	VW3A9533
15	*20*	**ATH230D15S6**	VW3A95818	VZ3V32D100	TM200RSRCEMC	–	VW3A9533

Options			
Line chokes	Motor chokes	Additional EMC filters	Communication adapter card
–	VW3A4552	VW3A31401	VW3A3600
VZ1L007UM50	VW3A4552	VW3A31401	VW3A3600
VZ1L007UM50	VW3A4552	VW3A31401	VW3A3600
VZ1L018UM20	VW3A4552	VW3A31403	VW3A3600
VZ1L018UM20	VW3A4552	VW3A31403	VW3A3600
VZ1L018UM20	VW3A4553	VW3A31405	VW3A3600
VW3A4551	VW3A4552	VW3A31402	VW3A3600
VW3A4551	VW3A4552	VW3A31402	VW3A3600
VW3A4551	VW3A4552	VW3A31402	VW3A3600
VW3A4552	VW3A4552	VW3A31404	VW3A3600
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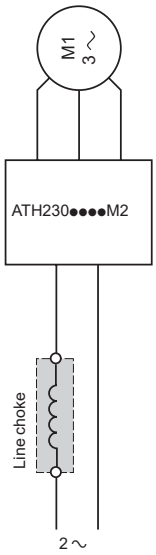
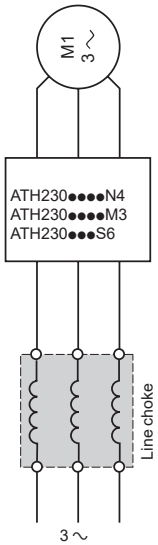
VW3A4554	VW3A4554	VW3A4425	VW3A3600
VW3A4554	VW3A4555	VW3A4425	VW3A3600
VW3A4556	VW3A4555	VW3A31410	VW3A3600
VW3A4556	VW3A4556	VW3A31410	VW3A3600
VW3A4551	VW3A4552	–	VW3A3600
VW3A4551	VW3A4552	–	VW3A3600
VW3A4552	VW3A4552	–	VW3A3600
VW3A4553	VW3A4552	–	VW3A3600
VW3A4553	VW3A4553	–	VW3A3600
VW3A4554	VW3A4554	–	VW3A3600
VW3A4554	VW3A4554	–	VW3A3600

Variable speed drives
Altivar HVAC ATH200
Option: Line chokes





Presentation

Line chokes

Line chokes, also known as line reactors, provide improved immunity against overvoltages on the line supply and can reduce harmonic distortion of the current produced by the drive.
The recommended chokes limit the line current. They have been developed in accordance with standard IEC 61800-5-1 (VDE 0160 level 1 high-energy overvoltages on the line supply).
The inductance values are defined for a voltage drop between 3% and 5% of the nominal line voltage. Values higher than this will cause loss of torque.
The use of line chokes is recommended in particular under the following circumstances:

- Line supply with significant disturbance from other equipment (interference, overvoltages)
- Line supply with voltage imbalance between phases > 1.8% of nominal voltage
- Drive powered by a line supply with very low impedance (in the vicinity of a power transformer 10 times more powerful than the drive rating)
- Installation of a large number of frequency inverters on the same line supply
- Reduction of overloads on the cos φ correction capacitors, if the installation includes a power factor correction unit

The prospective short-circuit current at the point of connection of the drive must not exceed the maximum value indicated in the reference tables. The use of chokes allows connection to the following line supplies:

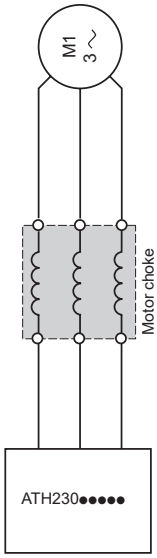
- Max. Isc 22 kA for 200/240 V
- Max. Isc 65 kA for 380/500 V

References

Drive reference	Line current, without choke		Line current, with choke		Choke	
	U min. *(1)*	U max. *(1)*	U min. *(1)*	U max. *(1)*	Reference	Weight
	A	A	A	A		kg/*lb*
Single-phase supply voltage: 200…240 V 50/60 Hz						
ATH230U06M2	7.9	6.7	5.8	5.0	VZ1L007UM50	0.88/*1.9*
ATH230U07M2	10.1	8.5	7.5	6.4		
ATH230U11M2	13.6	11.5	11.0	9.4	VZ1L018UM20	1.99/*4.4*
ATH230U15M2	17.6	14.8	14.3	12.2		
ATH230U22M2	23.9	20.1	19.9	16.8		
Three-phase supply voltage: 200…240 V 50/60 Hz						
ATH230U04M3	3.6	3.0	1.9	1.6	VW3A4551	1.5/*3.3*
ATH230U06M3	4.9	4.2	2.7	2.3		
ATH230U07M3	6.3	5.3	3.6	3.0		
ATH230U11M3	8.6	7.2	5.0	4.2	VW3A4552	3/*6.6*
ATH230U15M3	11.1	9.3	6.7	5.6		
ATH230U22M3	14.9	12.5	9.4	7.9	VW3A4553	3.5/*7.7*
ATH230U30M3	18.7	15.7	12.5	10.4		
ATH230U40M3	23.8	19.9	16.3	13.8	VW3A4554	6/*13.2*
ATH230U55M3	35.4	29.8	21.8	18.2		
ATH230U75M3	45.3	38.2	29.1	24.2		
ATH230D11M3	60.9	51.4	41.1	34.4	VW3A4555	11/*24.3*
ATH230D15M3	79.7	67.1	54.7	45.6		
Three-phase supply voltage: 380…500 V 50/60 Hz						
ATH230U06N4	2.8	2.2	1.5	1.3	VW3A4551	1.5/*3.3*
ATH230U07N4	3.6	2.7	1.9	1.6		
ATH230U11N4	5.0	3.8	2.7	2.1		
ATH230U15N4	6.5	4.9	3.5	2.7		
ATH230U22N4	8.7	6.6	5.1	4.0	VW3A4552	3/*6.6*
ATH230U30N4	11.1	8.4	6.6	5.2		
ATH230U40N4	13.7	10.5	8.5	6.6		
ATH230U55N4	20.7	14.5	11.5	9.3	VW3A4553	3.5/*7.7*
ATH230U75N4	26.5	18.7	15.3	12.0		
ATH230D11N4	36.6	25.6	21.8	17.8	VW3A4554	6/*13.2*
ATH230D15N4	47.3	33.3	28.8	22.8		
ATH230D18N4	55.3	42.4	39.9	32.4	VW3A4556	16/*35.3*
ATH230D22N4	64.6	49.4	45.8	37.8		
Three-phase supply voltage: 525…600 V 50/60 Hz *(2)*						
ATH230U15S6	–	–	2.6	2.4	VW3A4551	1.5/*3.3*
ATH230U22S6	–	–	3.7	3.2		
ATH230U40S6	–	–	6.5	5.8	VW3A4552	3/*6.6*
ATH230U55S6	–	–	8.4	7.5		3.5/*7.7*
ATH230D11S6	–	–	15.8	14.1	VW3A4553	6/*13.2*
ATH230U75S6	–	–	11.6	10.5		3.5/*7.7*
ATH230D15S6	–	–	22.1	20.1	VW3A4554	6/*13.2*

(1) Nominal supply voltage
(2) ATH230●●●S6 drives must not be used without a line choke.

Variable speed drives
Altivar HVAC ATH200
Option: Motor chokes



Presentation

Motor chokes

Motor chokes, also known as load reactors, can be inserted between the Altivar HVAC ATH200 drive and the motor to:

- Limit the dv/dt at the motor terminals (500 to 1500 V/µs), for cables longer than 50 m/*164 ft*
- Filter interference caused by the opening of a contactor placed between the filter and the motor
- Reduce the motor ground leakage current
- Smooth the motor current waveform to reduce motor noise

References

For drives	Losses	Cable length *(1)*		Nominal current	Reference	Weight
		Shielded cable	Unshielded cable			
	W	m/*ft*	m/*ft*	A		kg/*lb*
Single-phase supply voltage: 200…240 V 50/60 Hz						
ATH230U04M2…U15M2	65	≤ 100/*328*	≤ 200/*656*	10	VW3A4552	3/*6.6*
ATH230U22M2	75	≤ 100/*328*	≤ 200/*656*	16	VW3A4553	3.5/*7.7*
Three-phase supply voltage: 200…240 V 50/60 Hz						
ATH230U04M3...U15M3	65	≤ 100/*328*	≤ 200/*656*	10	VW3A4552	3/*6.6*
ATH230U22M3 ATH230U30M3	75	≤ 100/*328*	≤ 200/*656*	16	VW3A4553	3.5/*7.7*
ATH230U40M3...U75M3	90	≤ 100/*328*	≤ 200/*656*	30	VW3A4554	6/*13.2*
ATH230D11M3...D15M3	260	≤ 100/*328*	≤ 200/*656*	107	VW3A4556	16/35.2
Three-phase supply voltage: 380…500 V 50/60 Hz						
ATH230U06N4…U40N4	65	≤ 100/*328*	≤ 200/*656*	10	VW3A4552	3/*6.6*
ATH230U55N4	75	≤ 100/*328*	≤ 200/*656*	16	VW3A4553	3.5/*7.7*
ATH230U75N4 ATH230D11N4	90	≤ 100/*328*	≤ 200/*656*	30	VW3A4554	6/*13.2*
ATH230D15N4 ATH230D18N4	80	≤ 100/*328*	≤ 200/*656*	60	VW3A4555	11/*24.3*
ATH230D22N4	260	≤ 100/*328*	≤ 200/*656*	107	VW3A4556	16/*35.3*
Three-phase supply voltage: 525…600 V 50/60 Hz						
ATH230U15S6 ATH230U22S6 ATH230U40S6 ATH230U55S6	65	≤ 100/*328*	≤ 200/*656*	10	VW3A4552	3/*6.613*
ATH230U75S6	75	≤ 100/*328*	≤ 200/*656*	16	VW3A4553	3.5/*7.7*
ATH230D11S6 ATH230D15S6	75	≤ 100/*328*	≤ 200/*656*	16	VW3A4554	6/*13.2*

(1) For an application with several motors connected in parallel, the lengths of all the motor cables must be added together to determine the total cable length. If a cable longer than that recommended is used, the filters may overheat.

Variable speed drives
Altivar HVAC ATH200
Option: Additional EMC filters

Additional EMC filters mounted beside the drive

Additional EMC filters mounted underneath the drive

Presentation

Additional EMC filters

Additional EMC input filters enable the drives to meet more stringent requirements:
- They are designed to reduce conducted emissions on the line supply below the limits of standard IEC 61800-3 category C1 or C2.
- They enable the maximum permissible motor cable length for IEC 61800-3 category C3 to be extended.

Mounting

Additional EMC filters can be mounted beside or underneath ATH230●●●●● drives based on power range, except for ATH230●●●S6 drives *(1)*.
They act as a support for the drives and are attached to them via tapped holes.

Use according to the type of line supply

- Additional EMC filters can only be used on TN (neutral connection) and TT (grounded neutral) type systems.
- Standard IEC 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.
- The effectiveness of additional filters on this type of system depends on the type of impedance between neutral and ground, and therefore cannot be predicted.
- If a machine has to be installed on an IT system, one solution is to insert an isolation transformer and connect the machine locally on a TN or TT system.
- The radio interference input filters integrated in Altivar HVAC ATH200 drives can easily be disconnected by means of a selector switch without removing the drive.

(1) Please refer to the EMC filters instruction sheet.

Variable speed drives
Altivar HVAC ATH200
Option: Additional EMC filters

PF095117

VW3A4424

References

Additional EMC input filters

Corresponding drive	Additional EMC input filter						
Reference	Maximum length of shielded cable (1) (2)			In (3)	Losses (4)	Reference	Weight
	IEC 61800-3 (5)						
	Category C3	Category C2	Category C1				
	m/*ft*	m/*ft*	m/*ft*	A	W		kg/*lb*
Single-phase supply voltage: 200…240 V 50/60 Hz							
ATH230U04M2…U07M2	100/*328*	50/*164*	20/*66*	9	3.7	VW3A31401	0.6/*1.3*
ATH230U11M2…U15M2	100/*328*	50/*164*	20/*66*	16	6.9	VW3A31403	0.775/*1.71*
ATH230U22M2	100/*328*	50/*164*	20/*66*	22	7.5	VW3A31405	1.13/*2.49*
Three-phase supply voltage: 200…240 V 50/60 Hz							
ATH230U04M3...U07M3	5/*16.4*	5/*16.4*	1/*3.3*	7	2.6	VW3A31402	0.65/*1.43*
ATH230U11M3...U22M3	5/*16.4*	5/*16.4*	1/*3.3*	15	9.9	VW3A31404	1/*2.2*
ATH230U30M3...U40M3	5/*16.4*	5/*16.4*	1/*3.3*	25	15.8	VW3A31406	1.65/*3.64*
ATH230U55M3...U75M3	5/*16.4*	5/*16.4*	1/*3.3*	47	19.3	VW3A31407	3.15/*6.94*
ATH230D11M3...D15M3	5/*16.4*	5/*16.4*	1/*3.3*	83	35.2	VW3A31408	5.3/*11.68*
Three-phase supply voltage: 380…500 V 50/60 Hz							
ATH230U06N4…U15N4	150/*492*	50/*164*	20/*66*	15	9.9	VW3A31404	1/*2.2*
ATH230U22N4C…U40N4	100/*328*	50/*164*	20/*66*	25	15.8	VW3A31406	1.65/*3.64*
ATH230U55N4…U75N4	150/*492*	100/*328*	20/*66*	47	19.3	VW3A4424	3.15/*6.94*
ATH230D11N4…D15N4	150/*492*	100/*328*	5/*16.4*	49	27.4	VW3A4425	4.75/*10.47*
ATH230D18N4…D22N4	100/*328*	50/*164*	20/*66*	70	40	VW3A31410	7/*15.43*

(1) The filter selection tables give the maximum lengths for shielded cables connecting motors to drives. These 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) These values are given for a nominal switching frequency of 4 kHz.
(3) In: nominal filter current.
(4) Via heat dissipation, at the nominal filter current (In).
(5) Standard IEC 61800-3:
Environment 1 (Residential): C1 and C2
EN 55011 Group 1: Class B and Class A
Environment 2 (Industrial): C3 and C4
EN 55011 Group 2: Class A and N/A

Variable speed drives
Altivar HVAC ATH200
Option: Mechanical adapter for option module

*Example of installing a communication module **3** (view of underside) on a drive*

Presentation

Altivar HVAC ATH200 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 ATH200 drive at a time.
The option modules are compatible with all Altivar HVAC ATH200 drives (see page 15).

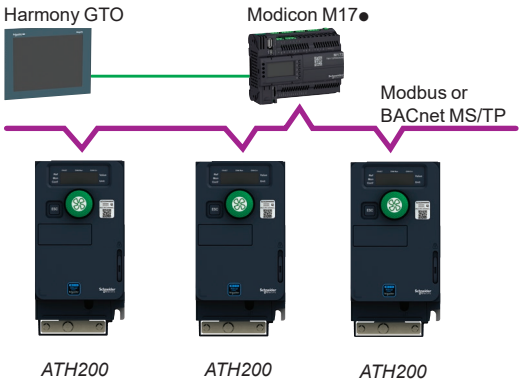
The VW3A3600 option module adapter should be added to Altivar HVAC ATH200 drives in order to connect communication modules.

1 Communication adapter card
2 Slot for the communication module

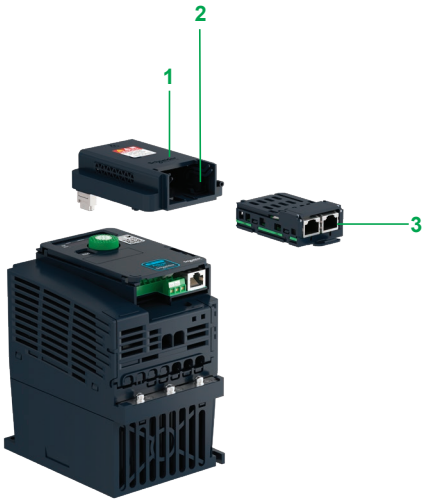
References

Description	Reference
Mechanical adapter for communication module **1**	VW3A3600

Variable speed drives
Altivar HVAC ATH200
Communication buses



Example of configuration on Modbus or BACnet MS/TP bus



*Example of installing a communication module **3** (view of underside)*

Presentation

Altivar HVAC ATH200 drives are designed to meet the configuration requirements found in the main HVAC machines.
Modbus and BACnet MS/TP communication protocols are integrated as standard and can be accessed directly via the RJ45 communication port underneath the front cover of the drive.
Altivar HVAC ATH200 drives can also be connected to BACnet/IP by using the communication modules available as an option.
The communication module is supplied in “cassette” format for ease of mounting/removal.

Modbus serial link

The Modbus serial link is used for connecting the following HMI and configuration tools:
- Harmony HMI terminal
- Remote display terminal, remote graphic display terminal
- SoMove setup software and Multi-Loader configuration tools

BACnet MS/TP

BACnet MS/TP is used to connect the Altivar HVAC ATH200 drive to the HVAC controller integrating BACnet MS/TP master connectivity.

Communication modules for HVAC applications *(1)*

The following communication modules are available:
- BACnet/IP

Description

Altivar HVAC ATH200 drives are equipped as standard with:
1 Integrated RJ45 communication port for Modbus/CANopen
The **VW3A3600** mechanical adapter for communication modules can be used to make more communication buses and networks available by inserting the corresponding module directly into the adapter.
2 Slot for the communication module
3 Communication module

(1) Altivar HVAC ATH200 drives can only take one communication module.

Variable speed drives
Altivar HVAC ATH200
Communication buses

Altivar HVAC ATH200 drive with communication module in the option module adapter

BACnet/IP communication module VW3A3726

Functions

All the following Altivar HVAC ATH200 drive functions can be accessed via the communication buses and networks:
- Control
- Monitoring
- Adjustment
- Configuration

The speed reference and command may come from different sources:
- Digital input or analog I/O terminals
- Communication bus or network
- Remote display terminals

The Altivar HVAC ATH200 drive's advanced functions can be used to manage switching of these drive control sources according to the application requirements. The communication periodic I/O data assignment can be selected using the network configuration software.
The Altivar HVAC ATH200 drive can be controlled:
- According to the CiA 402 native profile
- According to the I/O profile
- With simplified object on BACnet MS/TP and BACnet/IP

Communication is monitored according to criteria specific to each protocol. Regardless of protocol type, the response of the drive to a detected communication interruption can be configured as follows:
- Freewheel stop, stop on ramp, fast stop, or braked stop
- Maintain the last command received
- Fallback position at a predefined speed
- Ignore the detected error

Modbus serial link or BACnet MS/TP *(1)*

Connection accessories

Description		Length m/*ft*	Reference
Modbus adapter cable RJ45 to open connector adapter		0.19/ *0.62*	LV434211
Cable for Modbus serial link 1x RJ45 connector and flying leads at other end		3/ *9.84*	VW3A8306D30
Modbus line terminator For screw terminal C = 1 nf	R = 120 Ω		VW3A8306DRC
	R = 150 Ω		VW3A8306DR

(1) The Modbus serial link and BACnet MS/TP communication protocols share the RJ45 communication port. Simultaneous use of the Modbus serial link and BACnet MS/TP is not possible. Remote display terminals cannot be used when BACnet MS/TP is in use.

BACnet/IP network *(2)(3)*

Description	Reference	Weight kg/*lb*
BACnet/IP communication module Port: Two RJ45 connectors ■ BTL certified ■ Automatic IP address via DHCP ■ Foreign device capability	VW3A3726	0.3/ *0.66*

(2) Altivar HVAC ATH200 drives can only take one communication module.
(3) The VW3A3600 option module adapter is required in order to use any communication option module.

Variable speed drives
Altivar HVAC ATH200
Motor starters (circuit breaker + drive)
Supply voltage 200...240 V

Applications

Two types of combination are possible:
- Circuit breaker + variable speed drive: minimum combination.
- Circuit breaker + contactor + variable speed drive combination. The circuit breaker provides protection against accidental short circuits, disconnection, and isolation.

A contactor can be used downstream of the drive to help ensure the motor is isolated on stopping. In this case, the contactor size should be category AC-3 depending on the associated motor.

Altivar HVAC ATH200 drives include electronic monitoring functions designed to help detect phase-to-phase and phase-to-ground short-circuit conditions. This provides continuity of service and thermal monitoring of the motor.

GV3L80

ATH230D15M3

Motor starters: Circuit breaker + Drive

Standard power ratings of three-phase 4-pole 50/60 Hz motors *(1)*		Variable speed drive	Circuit breaker *(2)*
		Reference	Reference
kW	*HP*		
Single-phase supply voltage: 200…240 V 50/60 Hz			
0.37	*0.5*	ATH230U04M2	GV2L10 *(3)*
0.55	*0.75*	ATH230U06M2	GV2L14 *(3)*
0.75	*1*	ATH230U07M2	GV2L16 *(3)*
1.1	*1.5*	ATH230U11M2	GV2L16 *(3)*
1.5	*2*	ATH230U15M2	GV2L20 *(3)*
2.2	*3*	ATH230U22M2	GV2L22 *(3)*
Three-phase supply voltage: 200…240 V 50/60 Hz			
0.37	*0.5*	ATH230U04M3	GV2L08 *(3)*
0.55	*0.75*	ATH230U06M3	GV2L10 *(3)*
0.75	*1*	ATH230U07M3	GV2L14 *(3)*
1.1	*1.5*	ATH230U11M3	GV2L14 *(3)*
1.5	*2*	ATH230U15M3	GV2L16 *(3)*
2.2	*3*	ATH230U22M3	GV2L20 *(3)*
3	*4*	ATH230U30M3	GV2L22 *(3)*
4	*5*	ATH230U40M3	GV2L22 *(3)*
5.5	*7.5*	ATH230U55M3	GV3L40 *(3)*
7.5	*10*	ATH230U75M3	GV3L50 *(3)*
11	*15*	ATH230D11M3	GV3L65 *(3)*
15	*20*	ATH230D15M3	GV3L80

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.

Variable speed drives
Altivar HVAC ATH200
Motor starters (circuit breaker + drive)
Supply voltage 380...600 V

GV3P13

ATH230U15S6

Motor starters: Circuit breaker + Drive

Standard power ratings of three-phase 4-pole 50/60 Hz motors *(1)*		Variable speed drive	Circuit breaker *(2)*
		Reference	Reference
kW	*HP*		
Three-phase supply voltage: 380…500 V 50/60 Hz			
0.55	*0.75*	ATH230U06N4	GV2L08 *(3) (4)*
0.75	*1*	ATH230U07N4	GV2L08 *(3) (4)*
1.1	*1.5*	ATH230U11N4	GV2L10 *(3) (4)*
1.5	*2*	ATH230U15N4	GV2L14 *(3) (4)*
2.2	*3*	ATH230U22N4	GV2L14 *(3) (4)*
3	*4*	ATH230U30N4	GV2L16 *(3) (4)*
4	*5*	ATH230U40N4	GV2L16 *(3) (4)*
5.5	*7.5*	ATH230U55N4	GV2L22 *(3)*
7.5	*10*	ATH230U75N4	GV2L32 *(3)*
11	*15*	ATH230D11N4	GV3L40 *(3)*
15	*20*	ATH230D15N4	GV3L50 *(3)*
18.5	*25*	ATH230D18N4	GV3L65 *(3)*
22	*30*	ATH230D22N4	GV3L65 *(3)*
Three-phase supply voltage: 525…600 V 50/60 Hz			
1.5	*2*	ATH230U15S6	GV3P13
2.2	*3*	ATH230U22S6	GV3P13
4	*5*	ATH230U40S6	GV3P13
5.5	*7.5*	ATH230U55S6	GV3P13
7.5	*10*	ATH230U75S6	GV3P18
11	*15*	ATH230D11S6	GV3P25
15	*20*	ATH230D15S6	GV3P32

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.
(4) A GV2P TeSys thermal magnetic circuit breaker with the same rating can also be used with **ATH230U06N4…U40N4** *drives. The thermal release should then be set to maximum to inhibit this function.*

Variable speed drives

Altivar HVAC ATH200

Motor starters (circuit breaker + contactor + drive)

Supply voltage 200...240 V

GV2L14
+
LC1D09
+
ATH230U07M3

Motor starters: Circuit breaker + Contactor + Drive

Standard power rating of 50/60 Hz 4-pole motors *(1)*		Variable speed drive	Circuit breaker *(2)*			Contactor *(3)*
		Reference	Reference	Rating	LRM	Reference *(4)*
kW	*HP*			A	A	
Single-phase supply voltage: 200…240 V 50/60 Hz						
0.37	*0.5*	ATH230U04M2	GV2L10 *(5)*	6.3	78	**LC1D09●●**
0.55	*0.75*	ATH230U06M2	GV2L14 *(5)*	10	138	**LC1D09●●**
0.75	*1*	ATH230U07M2	GV2L16 *(5)*	14	170	**LC1D09●●**
1.1	*1.5*	ATH230U11M2	GV2L16 *(5)*	14	170	**LC1D09●●**
1.5	*2*	ATH230U15M2	GV2L20 *(5)*	18	223	**LC1D09●●**
2.2	*3*	ATH230U22M2	GV2L22 *(5)*	25	327	**LC1D09●●**
Three-phase supply voltage: 200…240 V 50/60 Hz						
0.37	*0.5*	ATH230U04M3	GV2L08 *(5)*	4	51	**LC1D09●●**
0.55	*0.75*	ATH230U06M3	GV2L10 *(5)*	6.3	78	**LC1D09●●**
0.75	*1*	ATH230U07M3	GV2L14 *(5)*	10	138	**LC1D09●●**
1.1	*1.5*	ATH230U11M3	GV2L14 *(5)*	10	138	**LC1D09●●**
1.5	*2*	ATH230U15M3	GV2L16 *(5)*	14	170	**LC1D09●●**
2.2	*3*	ATH230U22M3	GV2L20 *(5)*	18	223	**LC1D09●●**
3	*4*	ATH230U30M3	GV2L22 *(5)*	25	327	**LC1D09●●**
4	*5*	ATH230U40M3	GV2L22 *(5)*	25	327	**LC1D09●●**
5.5	*7.5*	ATH230U55M3	GV3L40 *(5)*	40	560	**LC1D25●●**
7.5	*10*	ATH230U75M3	GV3L50 *(5)*	50	700	**LC1D32●●**
11	*15*	ATH230D11M3	GV3L65 *(5)*	65	910	**LC1D50●●**
15	*20*	ATH230D15M3	GV3L80	80	1100	**LC1D65●●**

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) Composition of TeSys contactors LC1D09/D18/D25/D32/D50/D65: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact.
(4) Replace ●● with the control circuit voltage reference given in the table below:

AC control circuit

	Volts ∿	24	48	115	230	230/240
LC1D	50/60 Hz	B7	E7	FE7	P7	U7

For other voltages between 24 V and 660 V, or a DC control circuit, please refer to the TeSys catalog.

(5) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.

Variable speed drives
Altivar HVAC ATH200
Motor starters (circuit breaker + contactor + drive)
Supply voltage 380...600 V

GV2L14
+
LC1D09
+
ATH230U15N4

Motor starters: Circuit breaker + Contactor + Drive

Standard power rating of 50/60 Hz 4-pole motors *(1)*		Variable speed drive	Circuit breaker *(2)*			Contactor *(3)*
		Reference	Reference	Rating	LRM	Reference *(4)*
kW	*HP*			A	A	
Three-phase supply voltage: 380…500 V 50/60 Hz						
0.55	*0.75*	ATH230U06N4	GV2L08 *(5)*	4	51	**LC1D09●●**
0.75	*1*	ATH230U07N4	GV2L08 *(5)*	4	51	**LC1D09●●**
1.1	*1.5*	ATH230U11N4	GV2L10 *(5)*	6.3	78	**LC1D09●●**
1.5	*2*	ATH230U15N4	GV2L14 *(5)*	10	138	**LC1D09●●**
2.2	*3*	ATH230U22N4	GV2L14 *(5)*	10	138	**LC1D09●●**
3	*4*	ATH230U30N4	GV2L16 *(5)*	14	170	**LC1D09●●**
4	*5*	ATH230U40N4	GV2L16 *(5)*	14	170	**LC1D09●●**
5.5	*7.5*	ATH230U55N4	GV2L22 *(5)*	25	327	**LC1D09●●**
7.5	*10*	ATH230U75N4	GV2L32 *(5)*	32	416	**LC1D18●●**
11	*15*	ATH230D11N4	GV3L40 *(5)*	40	560	**LC1D25●●**
15	*20*	ATH230D15N4	GV3L50 *(5)*	50	700	**LC1D32●●**
18.5	*25*	ATH230D18N4	GV3L65 *(5)*	65	910	**LC1D40A●●**
22	*30*	ATH230D22N4	GV3L65 *(5)*	65	910	**LC1D50A●●**
Three-phase supply voltage: 525…600 V 50/60 Hz						
1.5	*2*	ATH230U15S6	GV3P13	13	182	**LC1D09●●**
2.2	*3*	ATH230U22S6	GV3P13	13	182	**LC1D09●●**
4	*5*	ATH230U40S6	GV3P13	13	182	**LC1D09●●**
5.5	*7.5*	ATH230U55S6	GV3P13	13	182	**LC1D09●●**
7.5	*10*	ATH230U75S6	GV3P18	18	252	**LC1D09●●**
11	*15*	ATH230D11S6	GV3P25	25	350	**LC1D18●●**
15	*20*	ATH230D15S6	GV3P32	32	448	**LC1D25●●**

(1) The HP values given are NEC-compliant (National Electrical Code).
(2) GV2L, GV3L: TeSys magnetic motor circuit breakers; for accessories see TeSys catalog.
(3) Composition of TeSys contactors LC1D09/D18/D25/D32/D50/D65: 3 poles + 1 NO auxiliary contact + 1 NC auxiliary contact.
(4) Replace ●● with the control circuit voltage reference given in the table below:

AC control circuit						
	Volts ∿	**24**	**48**	**115**	**230**	**230/240**
LC1D	50/60 Hz	B7	E7	FE7	P7	U7

For other voltages between 24 V and 660 V, or a DC control circuit, please refer to the TeSys catalog.

(5) GV●L●● circuit breaker references are not UL compliant. To achieve UL Type E compliance, a GV●P●● thermal magnetic circuit breaker must be used.

Variable speed drives

Altivar HVAC ATH200

Variable speed drives

200…240 V single-phase and three-phase

Drives

Single-phase supply voltage: 200…240 V 50/60 Hz

Reference		W x H x D *(1)*	
		mm	*in.*
ATH230U04M2		72 x 143 x 128	*2.83 x 5.63 x 5.04*
	With EMC plate	72 x 188 x 128	*2.83 x 7.40 x 5.04*
	With UL Type 1 conformity kit	72 x 195.5 x 128	*2.83 x 7.70 x 5.04*
ATH230U06M2 ATH230U07M2		72 x 143 x 143	*2.83 x 5.63 x 5.63*
	With EMC plate	72 x 188 x 143	*2.83 x 7.40 x 5.63*
	With UL Type 1 conformity kit	72 x 195.5 x 143	*2.83 x 7.70 x 5.63*
ATH230U11M2 ATH230U15M2 ATH230U22M2		105 x 142 x 158	*4.13 x 5.60 x 6.22*
	With EMC plate	105 x 188 x 158	*4.13 x 7.40 x 6.22*
	With UL Type 1 conformity kit	105 x 210.5 x 158	*4.13 x 8.29 x 6.22*

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

Reference		W x H x D *(1)*	
		mm	*in.*
ATH230U04M3		72 x 143 x 128	*2.83 x 5.63 x 5.04*
	With EMC plate	72 x 188 x 128	*2.83 x 7.40 x 5.04*
	With UL Type 1 conformity kit	72 x 195.5 x 128	*2.83 x 7.70 x 5.04*
ATH230U06M3 ATH230U07M3		72 x 143 x 138	*2.83 x 5.63 x 5.43*
	With EMC plate	72 x 188 x 138	*2.83 x 7.40 x 5.43*
	With UL Type 1 conformity kit	72 x 195.5 x 138	*2.83 x 7.70 x 5.43*
ATH230U11M3 ATH230U15M3 ATH230U22M3		105 x 143 x 138	*4.13 x 5.63 x 5.43*
	With EMC plate	105 x 189 x 138	*4.13 x 7.44 x 5.43*
	With UL Type 1 conformity kit	105 x 210.5 x 138	*4.13 x 8.29 x 5.43*
ATH230U30M3 ATH230U40M3		140 x 184 x 158	*5.51 x 7.24 x 6.22*
	With EMC plate	140 x 228 x 158	*5.51 x 8.97 x 6.22*
	With UL Type 1 conformity kit	140 x 236.5 x 158	*5.51 x 9.31 x 6.22*
ATH230U55M3 ATH230U75M3		150 x 232 x 178	*5.91 x 9.13 x 7.01*
	With EMC plate	150 x 308 x 178	*5.91 x 12.13 x 7.01*
	With UL Type 1 conformity kit	150 x 316 x 178	*5.91 x 12.44 x 7.01*
ATH230D11M3 ATH230D15M3		180 x 330 x 198	*7.09 x 12.99 x 7.80*
	With EMC plate	180 x 404 x 198	*7.09 x 15.91 x 7.80*
	With UL Type 1 conformity kit	180 x 410.5 x 198	*7.09 x 16.16 x 7.80*

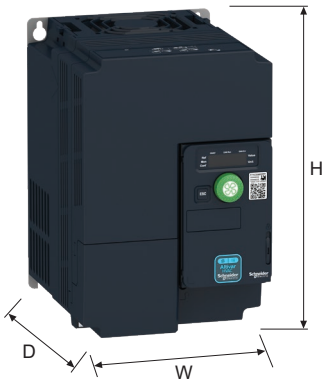
(1) The depth measurement excludes the module adapter. An additional 20 mm/0.79 in. should be added to this measurement if combined with the option module adapter.

Variable speed drives

Altivar HVAC ATH200

Variable speed drives

380…600 V three-phase



Drives *(continued)*

Three-phase supply voltage: 380…500 V 50/60 Hz

Reference		W x H x D *(1)*	
		mm	*in.*
ATH230U06N4		105 x 142 x 158	*4.13 x 5.60 x 6.22*
ATH230U07N4	With EMC plate	105 x 188 x 158	*4.13 x 7.40 x 6.22*
ATH230U11N4	With UL Type 1 conformity kit	105 x 210.5 x 158	*4.13 x 8.29 x 6.22*
ATH230U15N4			
ATH230U22N4		140 x 184 x 158	*5.51 x 7.24 x 6.22*
ATH230U30N4	With EMC plate	140 x 228 x 158	*5.51 x 8.97 x 6.22*
ATH230U40N4	With UL Type 1 conformity kit	140 x 236.5 x 158	*5.51 x 9.31 x 6.22*
ATH230U55N4		150 x 232 x 178	*5.91 x 9.13 x 7.01*
ATH230U75N4	With EMC plate	150 x 308 x 178	*5.91 x 12.13 x 7.01*
	With UL Type 1 conformity kit	150 x 316 x 178	*5.91 x 12.44 x 7.01*
ATH230D11N4		180 x 330 x 198	*7.09 x 12.99 x 7.80*
ATH230D15N4	With EMC plate	180 x 404 x 198	*7.09 x 15.91 x 7.80*
	With UL Type 1 conformity kit	180 x 410.5 x 198	*7.09 x 16.16 x 7.80*
ATH230D18N4		180 x 390 x 229	*7.09 x 15.35 x 9.02*
ATH230D22N4	With EMC plate	180 x 503 x 229	*7.09 x 19.8 x 9.02*
	With UL Type 1 conformity kit	180 x 513.5 x 229	*7.09 x 20.22 x 9.02*

Three-phase supply voltage: 525…600 V 50/60 Hz

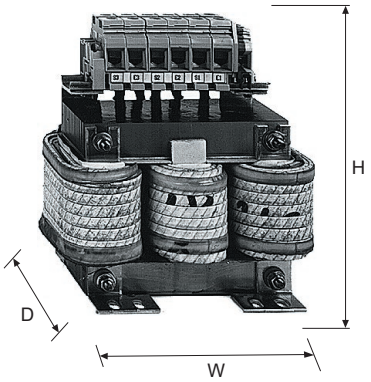
Reference		W x H x D *(1)*	
		mm	*in.*
ATH230U15S6		105 x 142 x 158	*4.13 x 5.60 x 6.22*
	With EMC plate	105 x 188 x 158	*4.13 x 7.40 x 6.22*
	With UL Type 1 conformity kit	105 x 210.5 x 158	*4.13 x 8.29 x 6.22*
ATH230U22S6		140 x 184 x 158	*5.51 x 7.24 x 6.22*
ATH230U40S6	With EMC plate	140 x 228 x 158	*5.51 x 8.97 x 6.22*
	With UL Type 1 conformity kit	140 x 236.5 x 158	*5.51 x 9.31 x 6.22*
ATH230U55S6		150 x 232 x 178	*5.91 x 9.13 x 7.01*
ATH230U75S6	With EMC plate	150 x 308 x 178	*5.91 x 12.13 x 7.01*
	With UL Type 1 conformity kit	150 x 316 x 178	*5.91 x 12.44 x 7.01*
ATH230D11S6		180 x 330 x 198	*7.09 x 12.99 x 7.80*
ATH230D15S6	With EMC plate	180 x 404 x 198	*7.09 x 15.91 x 7.80*
	With UL Type 1 conformity kit	180 x 410.5 x 198	*7.09 x 16.16 x 7.80*

(1) The depth measurement excludes the module adapter. An additional 20 mm/0.79 in. should be added to this measurement if combined with the option module adapter.

Variable speed drives

Altivar HVAC ATH200

Line chokes, motor chokes, and additional EMC filters



Line chokes and motor chokes

Reference	W x H x D	
	mm	*in.*
VW3A4551	100 x 135 x 60	*3.94 x 5.31 x 2.36*
VW3A4552 VW3A4553	130 x 155 x 90	*5.11 x 6.10 x 3.54*
VW3A4554	155 x 170 x 135	*5.90 x 6.69 x 5.31*
VW3A4555	180 x 210 x 160	*7.09 x 8.27 x 6.30*
VW3A4556	270 x 210 x 180	*10.6 x 8.27 x 7.09*
VZ1L007UM50	60 x 100 x 95	*2.36 x 9.94 x 3.74*
VZ1L018UM20	85 x 120 x 105	*3.35 x 4.72 x 4.13*

Additional EMC filters

Reference	W x H x D	
	mm	*in.*
VW3A31401 VW3A31402	72 x 195 x 37	*2.82 x 7.63 x 1.45*
VW3A31403	107 x 195 x 35	*4.2 x 7.63 x 1.37*
VW3A31404	107 x 195 x 42	*4.2 x 7.63 x 1.65*
VW3A31405	140 x 235 x 35	*5.48 x 9.2 x 1.37*
VW3A31406	140 x 235 x 50	*5.48 x 9.2 x 1.96*
VW3A31407	180 x 305 x 60	*7.09 x 12.01 x 2.36*
VW3A31408	245 x 395 x 80	*9.65 x 15.55 x 3.15*
VW3A31410	120 x 328 x 175	*4.72 x 12.91 x 6.89*
VW3A4424	180 x 305 x 60	*7.05 x 11.94 x 2.35*
VW3A4425	245 x 395 x 60	*9.59 x 15.46 x 2.35*

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.

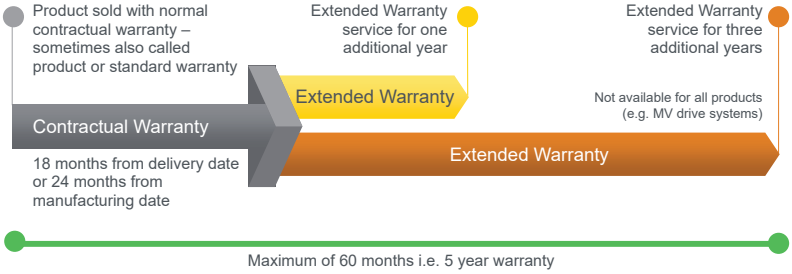
Dedicated service offers for your installed base

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

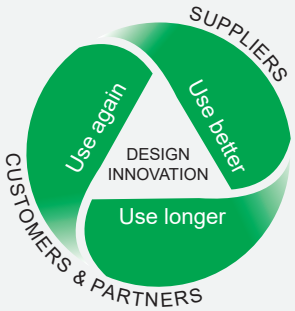
- Eco-design to use better, longer, and again
- Business model innovation: develop bundled offers with financing and retained ownership where applicable

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.

Altivar HVAC ATH200

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Life Is On Schneider Electric

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