# **Product data sheet**

Specifications





# Drive controller card, Altivar IMC, 24VRDC, 16 discrete I/O, CANopen, EtherNet

- Discontinued on: 9/06/2022

# VW3A3521

() To be end-of-service on: 31/12/2026

## Main

range of product	Altivar IMC	
product or component type	Drive controller card	
Module configuration	Configured and programmed with SoMachine software	
Product specific application	-	
Discrete I/O number	16	
Analogue I/O number	4	

## Complementary

Discrete input number	6 for input 4 for fast input
Discrete input type	Configurable as single phase counter (LI51, LI59 terminals) Configurable for incremental encoder (LI51, LI52 terminals) Configurable for incremental encoder (LI59, LI60 terminals)
Discrete input logic	Sink or source (positive/negative) for input Positive logic (sink) for fast input
Discrete input voltage	2430 V
Discrete input voltage type	DC
Number of common point	1 for analogue output 1 for analogue input 3 for logic input
Voltage state 1 guaranteed	>= 11 V for logic input
Voltage state 0 guaranteed	<= 5 V for logic input
Input impedance	500 Ohm for analogue output 4.4 kOhm for logic input
Network frequency	<= 100 kHz fast input (counter mode) <= 100 kHz fast input (encoder mode)
Discrete output number	6 transistor output
Discrete output logic	Positive logic (source)
Discrete output voltage	2430 V DC for transistor output
Discrete output current	2 A for transistor output (LO51LO56)
Output compatibility	Level 1 PLC for transistor output
Absolute accuracy error	+/- 1 % for a temperature variation 60 °C for analogue input +/- 1 % for a temperature variation 60 °C for analogue output
Short-circuit protection	With output and fast output

Overvoltage protection	With overvoltage protection for output and fast output
Overload protection	With overload protection for output and fast output
Analogue input number	2
Analogue input type	Configurable voltage or current
Analogue input range	05 V 020 mA
Analogue input resolution	10 bits
Analogue output number	2
analogue output range	020 mA
Analogue output resolution	12 bits
Linearity error	+/- 0.4 % of maximum value for analogue input +/- 0.2 % of maximum value for analogue output
[Us] rated supply voltage	24 V DC
Supply voltage limits	1930 V
Memory description	Internal RAM 2000 kB Flash 2000 kB Internal data storage (FRAM) 64 ko Program memory 1 Mo
Integrated connection type	MDI/MDX port with RJ45 connectorEthernet, physical interface: 10BASE-T/ 100BASE-TX Programmation port with mini B USB connector, transmission rate: 480 Mbit/s CANopen with male SUB-D 9 connectorCANopen with master
CANopen feature profile	DS 301 V4.02 DR 303-1
Level or class	Class M20 - 32 slave(s) for CANopen
communication service	320 TPDOs and RPDOs maxi 10 PDOs per slave (transmission/emission)
Transmission rate	1000 kbit/s for bus length of 20 m for CANopen 500 kbit/s for bus length of 100 m for CANopen 250 kbit/s for bus length of 250 m for CANopen 125 kbit/s for bus length of 500 m for CANopen 50 kbit/s for bus length of 1000 m for CANopen 20 kbit/s for bus length of 2500 m for CANopen
Local signalling	<ol> <li>LED (green/yellow) for ETH (Ethernet activity)</li> <li>LED (green/red) for NS (Network Status)</li> <li>LED (green/red) for MS (Module Status)</li> <li>LED (green/red) for CAN (CANopen activity)</li> <li>LED (green/red) for USER (programmable)</li> </ol>
Electrical connection	1 connector with removable screw terminal block - 3 contacts - <= 1 x 1.5 mm <sup>2</sup> - AWG 16 for connecting the 24 V DC power supply 3 connectors with screw terminal block - <= 1 x 1.5 mm <sup>2</sup> - AWG 16 for inputs/outputs 1 connector - mini B USB for programming with SoMachine software 1 male connector - SUB-D 9 for connection to the CANopen bus 1 connector - RJ45 for programming with SoMachine software/Ethernet Modbus TCP network
Tightening torque	0.25 N.m
Associated complete product	ATV71 ATV61 TCSXCNAMUM3P

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1

Package 1 Height	7.5 cm
Package 1 Width	17.0 cm
Package 1 Length	23.5 cm
Package 1 Weight	404.0 g
Unit Type of Package 2	\$03
Number of Units in Package 2	2
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	1.308 kg

# **Contractual warranty**

Warranty

18 months

# Sustainability Screen Premium

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

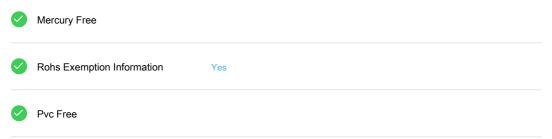
Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

## Well-being performance

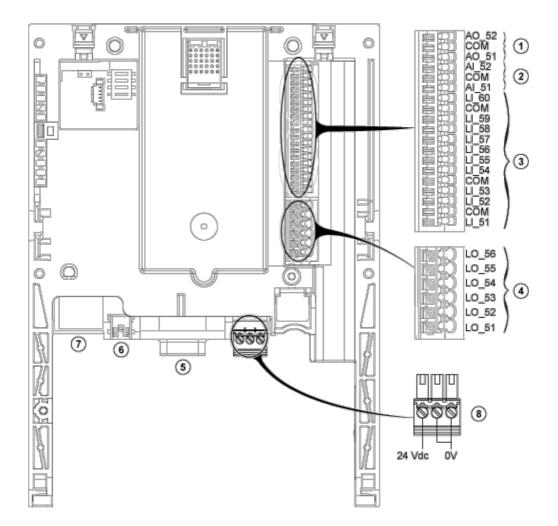


## **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations

Connections and Schema

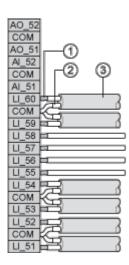
## Terminals of the Card



- (1) Analog Outputs
- (2) Analog Inputs
- (3) Digital Inputs
- (4) Digital Outputs
- (5) CANopen SubD9
- (6) Mini USB
- (7) Ethernet RJ45
- (8) 24 Vdc terminal block

## Logic Inputs LI51...LI60

#### **Shielded Twisted Pair**

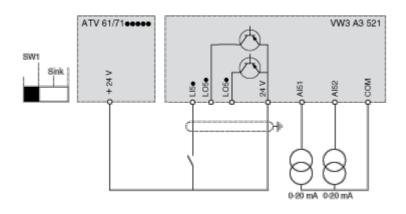


(1) Signal

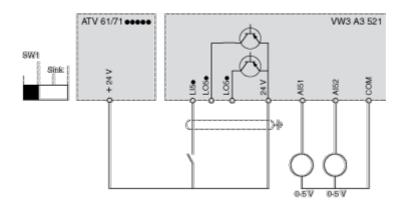
- (2) Common
- (3) Shield connected to the ground

#### I/O Wiring Diagrams

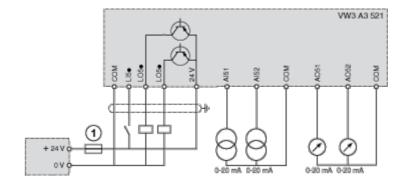
Current Mode, Power Consumption < 200 mA



## Voltage Mode, Power Consumption < 200 mA



#### Current Mode, Card Powered by External Power Supply



(1) 2 A fast blow fuse for power supply