HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Only appropriately trained persons who are familiar with and understand the contents of this manual and all other pertinent product documentation and who have received safety training to recognize and avoid hazards involved are authorized to work on and with this drive system. Installation, adjustment, repair and maintenance must be performed by qualified personnel.

- The system integrator is responsible for compliance with all local and national electrical code requirements as well as all other applicable regulations with respect to grounding of all equipment.

- Many components of the product, including the printed circuit boards, operate with mains voltage.

- Only use properly rated, electrically insulated tools and measuring equipment.

- Do not touch unshielded components or terminals with voltage present.

- Motors can generate voltage when the shaft is rotated. Prior to performing any type of work on the drive system, block the motor shaft to prevent rotation.

- AC voltage can couple voltage to unused conductors in the motor cable. Insulate both ends of unused conductors of the motor cable.

- Do not short across the DC bus terminals or the DC bus capacitors or the braking resistor terminals.

- Before performing work on the drive system:
  - Disconnect all power, including external control power that may be present.
  - Take into account that the circuit breaker or main switch does not de-energize all circuits.
  - Place a "Do Not Turn On" label on all power switches related to the drive system.
  - Lock all power switches in the open position.
  - Wait 15 minutes to allow the DC bus capacitors to discharge.
  - Follow the instructions given in the chapter "Verifying the Absence of Voltage" in the installation manual of the product.

- Before applying voltage to the drive system:
  - Verify that the work has been completed and that the entire installation cannot cause hazards.
  - If the mains input terminals and the motor output terminals have been grounded and short-circuited, remove the ground and the short circuits on the mains input terminals and the motor output terminals.
  - Verify proper grounding of all equipment.
  - Verify that all protective equipment such as covers, doors, grids is installed and/or closed.

Failure to follow these instructions will result in death or serious injury.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this product.

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Minimum wire size: 0.2 mm² (AWG 24)
Maximum wire size: 1.0 mm² (AWG 16)
Stripping length: 10 mm

Note: Only one VW3A3203 can be installed for one drive

<table>
<thead>
<tr>
<th>PIN SIGNAL</th>
<th>FUNCTION</th>
<th>ELECTRIC CHARACTERISTICS</th>
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</table>
| 1 SHLD     | Shield connection AI4 | Software-configurable Voltage, current, PT100, PT1000, KTY84, PTC measurement:
  - Voltage differential input circuit:
    - Range: -10Vdc...+10Vdc
    - Impedance: 20kΩ
    - Accuracy: ± 0.6% for a temperature variation of 60°C
    - Linearity: ± 0.15% of maximum value
  - PTx measurement:
    - Type of PTx and mode selected via parameter PT100, PT1000, PTC, KTY84

| 2 AI4+     | Differential Analog Input 4 Depending on SW configuration Differential Voltage measurement |  · Range: X-Y mA by programming X and Y from 0 to 20 mA
  · Impedance: 250 Ω
  · Resolution: 10bit
  · Accuracy: ± 0.6% for a temperature variation of 60°C
  · Linearity: ± 0.15% of maximum value
  · Sampling period: 1ms

| 3 AI4-     | PTx measurement 0…20mA measurement AI4- reference potential for AI4+ AI4- must be connected to Drive COM | PTx measurement: Type of PTx and mode selected via parameter PT100, PT1000, PTC, KTY84

| 4 AI4+L    | 3 wire PTx compensation connection |
| 5 SHLD     | Shield connection AI5 | · PT100:
  · 1 or 3 thermal sensors mounted in series (configurable by software)
  · Thermal sensor current: 7.5 mA maximum
  · Range: -20...200°C
  · Accuracy: ±3°C final for a temperature variation of 60°C

| 6 AI5+     | Differential Analog Input 5 Depending on SW configuration Differential Voltage measurement | · PT1000, KTY84:
  · 1 or 3 thermal sensors mounted in series (configurable by software)
  · Thermal sensor current: 1mA maximum
  · Range: -20...200°C
  · Accuracy: ±3°C final for a temperature variation of 60°C

| 7 AI5-     | PTx measurement 0…20mA measurement AI5- reference potential for AI5+ AI5- must be connected to Drive COM | · PTC:
  · 3 or 6 thermal sensors mounted in series (configurable by software)
  · Thermal sensor current: 1mA maximum
  · Nominal value: <1.5 kΩ
  · Overheat trigger threshold: 3 kΩ
  · Overheat reset threshold: 1.8 kΩ
  · protected for low impedance: <50 Ω
  · detection of high impedance: >100kΩ

<p>| 8 AI5+L    | 3 wire PTx compensation connection |</p>
<table>
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</tr>
</thead>
</table>
| 9 DQ12     | Digital Output 12 (Open collector output) | The levels of the digital 24 Vdc output signals DQ, comply with IEC/EN61131-2 standard  
  • Logic Type selected via DQCOM wiring  
  • Output voltage: ≤ 30Vdc  
  • Switching current: ≤ 100mA  
  • Voltage drop at 100mA load: ≤ 3Vdc  
  • Sampling period: 1ms |
| 10 DICOM   | Digital input common Reference potential for the digital inputs | The levels of the digital 24 Vdc input signals DI, comply with IEC/EN61131-2 standard  
  • Logic Type selected via DICOM wiring  
  • Positive logic (Source) : State 0 if ≤ 5Vdc, state 1 if ≥11Vdc  
  • Negative logic (Sink) : State 0 if ≥16Vdc, state 1 if ≤ 10Vdc  
  • Maximum voltage: 30Vdc  
  • Input current (typical): 2.5mA  
  • Sampling period: 1ms |
| 11 DI11    | Digital input 11 |  
  | 12 DI12    | Digital input 12 |
| 13 DI13    | Digital input 13 |
| 14 DI14    | Digital input 14 |
| 15 DI15    | Digital input 15 |
| 16 DI16    | Digital input 16 |
| 17 DQCOM   | Digital output common Reference potential for the digital outputs | The levels of the digital 24 Vdc output signals DQ, comply with IEC/EN61131-2 standard  
  • Logic Type selected via DQCOM wiring  
  • Output voltage: ≤ 30Vdc  
  • Switching current: ≤ 100mA  
  • Voltage drop at 100mA load: ≤ 3Vdc  
  • Sampling period: 1ms |
| 18 DQ11    | Digital Output 11 (Open collector output) |  

**Logic Type: Source**

-24V...+24V  
0V...2.5mA

**Logic Type: Sink**

-24V...+24V  
0V...2.5mA
1) Removing ATV900

2) Removing ATV340

3) Removing