



Galvenā

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| Produkta sērija | Altivar Machine ATV320 |
| Produkta vai sastāvdaļas veids | Variable speed drive |
| Produkta specifiskais pielietojums | Complex machines |
| Variants | Standard version Standard version |
| Format of the drive | Compact |
| Montāžas veids | Wall mount |
| Komunikācijas porta protokols | Modbus serial CANopen |
| Option card | Communication module, CANopen Communication module, EtherCAT Communication module, Profibus DP V1 Communication module, Profinet Communication module, Ethernet Powerlink Communication module, Ethernet/IP Communication module, DeviceNet |
| [Us] rated supply voltage | 380...500 V - 15...10 % |
| Nominal output current | 1,9 A |
| Motor power kW | 0,55 kW heavy duty |
| EMC filter | Class C2 EMC filter integrated |
| IP degree of protection | IP20 |

Papildinošs

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| Discrete input number | 7 |
| Discrete input type | STO safe torque off, 24 V DC 1.5 kOhm DI1...DI6 logic inputs, 24 V DC 30 V) DI5 programmable as pulse input 0...30 kHz, 24 V DC 30 V) |
| Discrete input logic | Positive logic (source) Negative logic (sink) |
| Discrete output number | 3 |
| Discrete output type | Open collector DQ+ 0...1 kHz 30 V DC 100 mA Open collector DQ- 0...1 kHz 30 V DC 100 mA |
| Analogue input number | 3 |
| Analogue input type | AI1 voltage 0...10 V DC 30 kOhm 10 bits AI2 bipolar differential voltage +/- 10 V DC 30 kOhm 10 bits AI3 current 0...20 mA (or 4-20 mA, x-20 mA, 20-x mA or other patterns by configuration) 250 Ohm 10 bits |
| Analogue output number | 1 |
| Analogue output type | Software-configurable current AQ1 0...20 mA 800 Ohm 10 bits Software-configurable voltage AQ1 0...10 V DC 470 Ohm 10 bits |
| Relay output type | Configurable relay logic R1A 1 NO 100000 cikli Configurable relay logic R1B 1 NC 100000 cikli Configurable relay logic R1C Configurable relay logic R2A 1 NO 100000 cikli Configurable relay logic R2C |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

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| Maximum switching current | Relay output R1A, R1B, R1C pretestības, cos phi = 1 3 A 250 V AC Relay output R1A, R1B, R1C pretestības, cos phi = 1 3 A 30 V DC Relay output R1A, R1B, R1C, R2A, R2C induktīvs, cos phi = 0,4 7 ms 2 A 250 V AC Relay output R1A, R1B, R1C, R2A, R2C induktīvs, cos phi = 0,4 7 ms 2 A 30 V DC Relay output R2A, R2C pretestības, cos phi = 1 5 A 250 V AC Relay output R2A, R2C pretestības, cos phi = 1 5 A 30 V DC |
| Minimum switching current | Relay output R1A, R1B, R1C, R2A, R2C 5 mA 24 V DC |
| Method of access | Slave CANopen |
| 4 quadrant operation possible | "True" |
| Asynchronous motor control profile | Voltage/Frequency ratio, 5 points Flux vector control without sensor, standard Voltage/Frequency ratio - Energy Saving, quadratic U/f Flux vector control without sensor - Energy Saving Voltage/frequency ratio, 2 points |
| Synchronous motor control profile | Vector control without sensor |
| Transient overtorque | 170...200 % of nominal motor torque |
| Maximum output frequency | 0,599 kHz |
| Acceleration and deceleration ramps | Linear U S CUS Ramp switching Acceleration/Deceleration ramp adaptation Acceleration/deceleration automatic stop with DC injection |
| Motor slip compensation | Automatic whatever the load Adjustable 0...300 % Not available in voltage/frequency ratio (2 or 5 points) |
| Switching frequency | 2...16 kHz adjustable 4...16 kHz with derating factor |
| Nominal switching frequency | 4 kHz |
| Braking to standstill | By DC injection |
| Brake chopper integrated | "True" |
| Line current | 2,8 A 380 V heavy duty) 2,2 A 500 V heavy duty) |
| Maksimālā ieejas strāva | 2,8 A |
| Maximum output voltage | 500 V |
| Apparent power | 1,9 kVA 500 V heavy duty) |
| Tīkla frekvence | 50...60 Hz |
| Relative symmetric network frequency tolerance | 5 % |
| Prospective line I _{sc} | 5 kA |
| Base load current at high overload | 7,1 A |
| Power dissipation in W | Fan 27,0 W 380 V 4 kHz |
| With safety function Safely Limited Speed (SLS) | "True" |
| With safety function Safe brake management (SBC/SBT) | False |
| With safety function Safe Operating Stop (SOS) | False |
| With safety function Safe Position (SP) | False |
| With safety function Safe programmable logic | False |
| With safety function Safe Speed Monitor (SSM) | False |
| With safety function Safe Stop 1 (SS1) | "True" |
| With sft fct Safe Stop 2 (SS2) | False |
| With safety function Safe torque off (STO) | "True" |
| With safety function Safely Limited Position (SLP) | False |
| With safety function Safe Direction (SDI) | False |
| Protection type | Input phase breaks drive Overcurrent between output phases and earth drive Aizsardzība pret pārkaršanu drive Short-circuit between motor phases drive Termiskā aizsardzība drive |
| Platums | 105,0 mm |
| Augstums | 142,0 mm |

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| Dziļums | 158,0 mm |
| Neto svars | 1,2 kg |



Vide

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| Operating position | Vertical +/- 10 degree |
| Produkta sertifikācija | CE[RETURN]ATEX[RETURN]NOM[RETURN]GOST[RETURN]EAC[RETURN]RCM[RETURN] |
| Marķējums | CE ATEX UL CSA EAC RCM |
| Standarti | IEC 61800-5-1 |
| Electromagnetic compatibility | Electrostatic discharge immunity test level 3 IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test level 3 IEC 61000-4-3 Electrical fast transient/burst immunity test level 4 IEC 61000-4-4 1.2/50 µs - 8/20 µs surge immunity test level 3 IEC 61000-4-5 Conducted radio-frequency immunity test level 3 IEC 61000-4-6 Voltage dips and interruptions immunity test IEC 61000-4-11 |
| Environmental class (during operation) | Class 3C3 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 |
| Maximum acceleration under shock impact (during operation) | 150 m/s ² at 11 ms |
| Maximum acceleration under vibrational stress (during operation) | 10 m/s ² at 13...200 Hz |
| Maximum deflection under vibratory load (during operation) | 1.5 mm at 2...13 Hz |
| Permitted relative humidity (during operation) | Class 3K5 according to EN 60721-3 |
| Volume of cooling air | 18,0 m ³ /h |
| Pārsprieguma kategorija | III |
| Regulation loop | Adjustable PID regulator |
| Speed accuracy | +/- 10 % of nominal slip 0.2 Tn to Tn |
| Piesārņojuma pakāpe | 2 |
| Ambient air transport temperature | -25...70 °C |
| Ambient air temperature for operation | -10...50 °C without derating 50...60 °C with derating factor |
| Apkārtējā gaisa temperatūra uzglabāšanai | -25...70 °C |

Iepakojšanas vienības

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| Pirmā iepakojuma vienības tips | PCE |
| Vienību skaits 1. iepakojumā | 1 |
| 1. iepakojuma augstums | 18,000 cm |
| 1. iepakojuma platums | 18,500 cm |
| 1. iepakojuma garums | 18,700 cm |
| 1. iepakojuma svars | 1,672 kg |
| Otrā iepakojuma vienības tips | P06 |
| Vienību skaits 2. iepakojumā | 30 |
| 2. iepakojuma augstums | 75,000 cm |
| 2. iepakojuma platums | 60,000 cm |
| 2. iepakojuma garums | 80,000 cm |
| 2. iepakojuma svars | 63,340 kg |

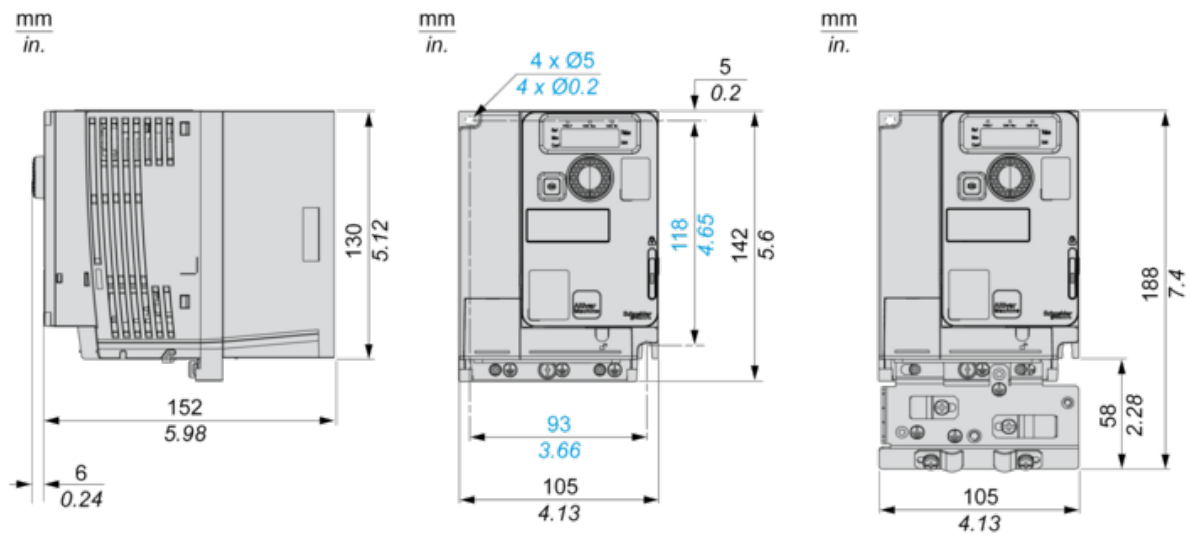
Piedāvājiēt ilgtspēju

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| Ilgspējīgs piedāvājuma statuss | Green Premium izstrādājums |
| REACH regula |  REACH Deklarācija |
| ES RoHS direktīva | Proaktīva atbilstība (uz izstrādājumu neattiecas ES RoHS juridiskās saistības) |
| Nesatur dzīvsudrabu | Jā |
| Ķīnas RoHS regula |  Ķīnas RoHS Deklarācija |

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| Informācija par RoHS izņēmumiem | Jā |
| Vides informācijas publicēšana | Produkta Ietekme Uz Vidi |
| Cirkularitātes profils | Informācija Par Eksploatācijas Izbeigšanu |
| WEEE | Eiropas Savienības tirgū no šī produkta ir jāatbrīvojas, ievērojot noteiktu atkritumu savākšanas kārtību, un produkts nedrīkst nonākt sadzīves atkritumu tvertnēs. |
| Atjaunināšanas iespējas | Pieejamas atjauninātas komponentes |

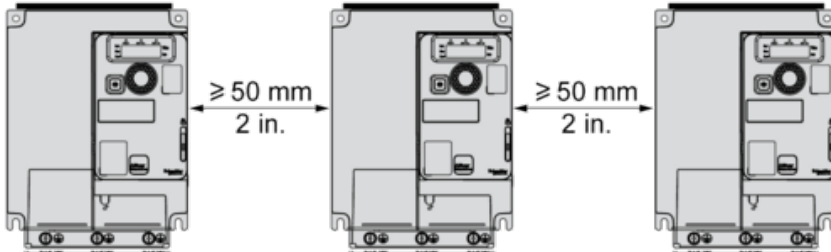
Dimensions

Right View, Front View and Front View with EMC Plate



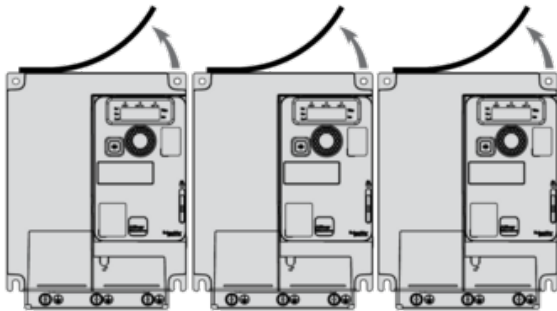
Mounting Types

Mounting Type A: Individual with Ventilation Cover

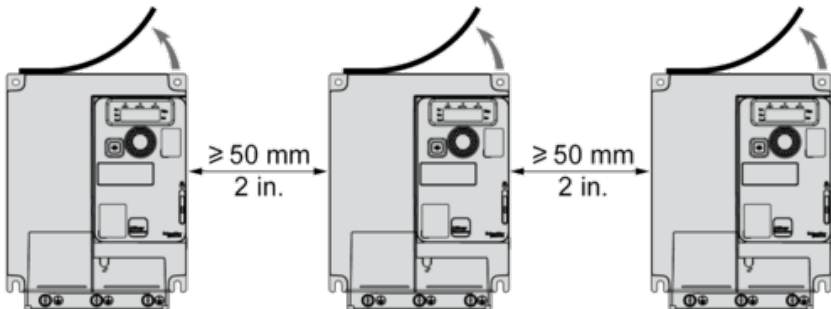


Only Possible at Ambient Temperature Less or Equal to 50 °C (122 °F)

Mounting Type B: Side by Side, Ventilation Cover Removed



Mounting Type C: Individual, Ventilation Cover Removed

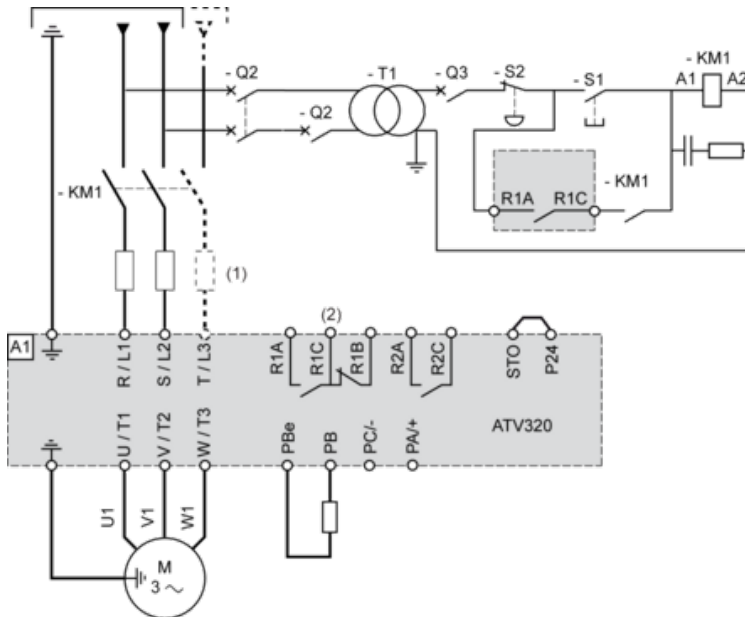


For Operation at Ambient Temperature Above 50 °C (122 °F)

Connection Diagrams

Diagram with Line Contactor

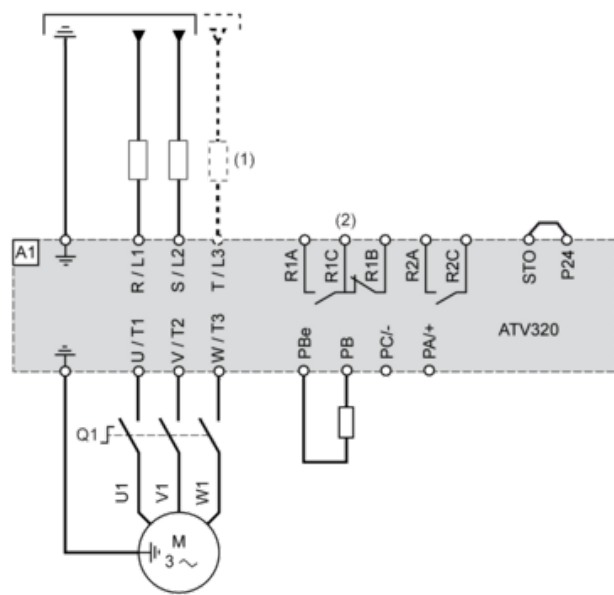
Connection diagrams conforming to standards ISO13849 category 1 and IEC/EN 61508 capacity SIL1, stopping category 0 in accordance with standard IEC/EN 60204-1.



- (1) Line choke (if used)
- (2) Fault relay contacts, for remote signaling of drive status

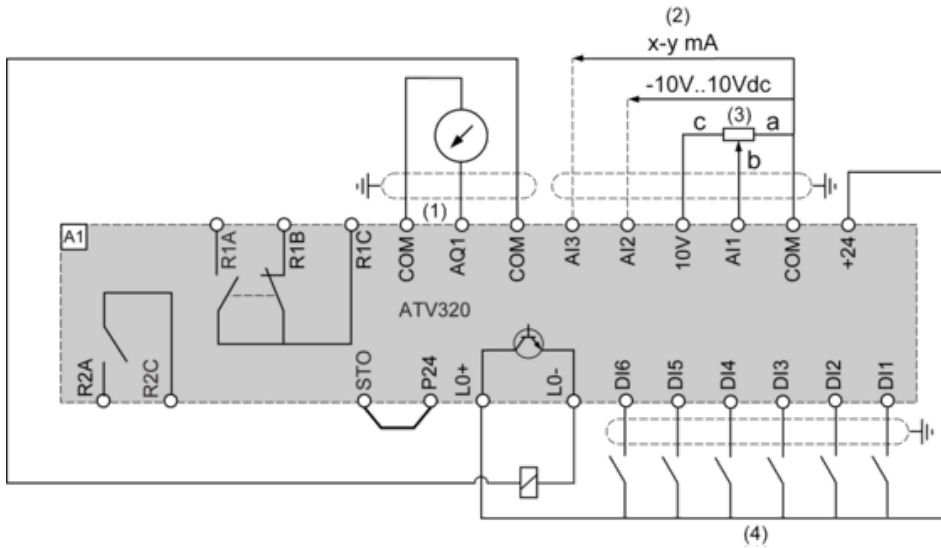
Diagram with Switch Disconnect

Connection diagrams conforming to standards EN 954-1 category 1 and IEC/EN 61508 capacity SIL1, stopping category 0 in accordance with standard IEC/EN 60204-1.



- (1) Line choke (if used)
- (2) Fault relay contacts, for remote signaling of drive status

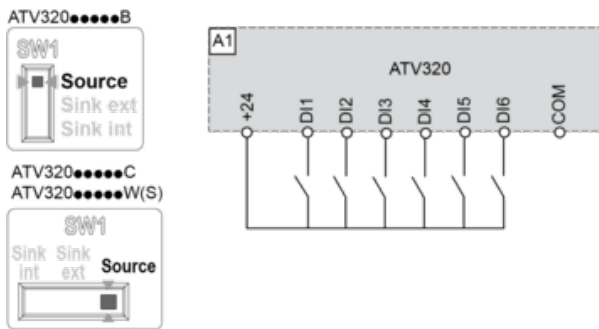
Control Connection Diagram in Source Mode



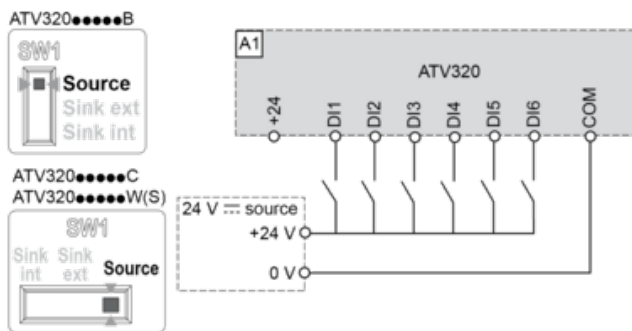
- (1) Analog output
- (2) Analog inputs
- (3) Reference potentiometer (10 kOhm maxi)
- (4) Digital inputs

Digital Inputs Wiring

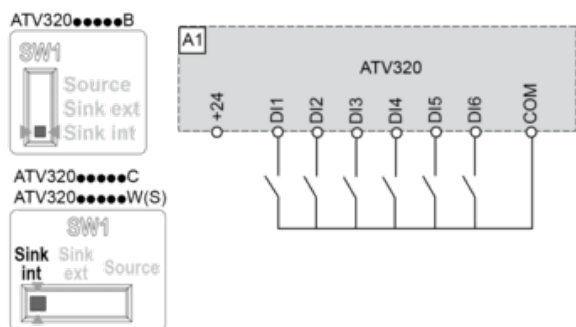
The logic input switch (SW1) is used to adapt the operation of the logic inputs to the technology of the programmable controller outputs. Switch SW1 set to “Source” position and use of the output power supply for the DIs.



Switch SW1 set to “Source” position and use of an external power supply for the DIs.

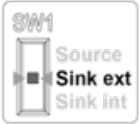


Switch SW1 set to “Sink Int” position and use of the output power supply for the DIs.

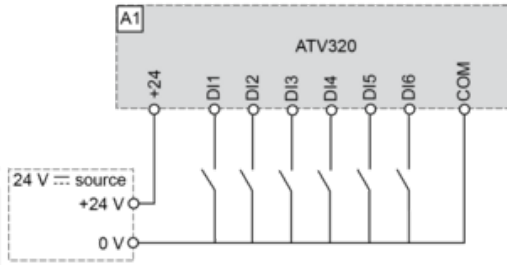
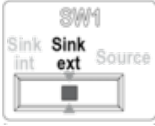


Switch SW1 set to “Sink Ext” position and use of an external power supply for the DIs.

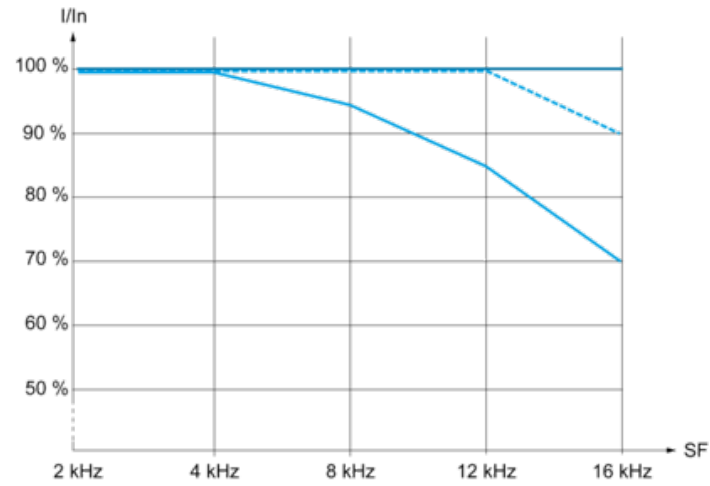
ATV320●●●●●B



ATV320●●●●●C
ATV320●●●●●W(S)



Derating Curves



- 40 °C (104 °F) - Mounting type A, B and C
- - - 50 °C (122 °F) - Mounting type A, B and C
- 60 °C (140 °F) - Mounting type B and C

In : Nominal Drive Current

SF : Switching Frequency