

variable speed drive, ATV320, 0.75 kW, 380...500 V, 3 phases, compact

ATV320U07N4C

Main

Range of product	Altivar Machine ATV320	
Product or component type	Variable speed drive	
Product specific application	Complex machines	
Variant	Standard version	
Format of the drive	Compact	
Mounting mode	Wall mount	
communication port protocol	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	380500 V - 1510 %	
nominal output current	2.3 A	
Motor power kW	0.75 kW for heavy duty	
EMC filter	Class C2 EMC filter integrated	
IP degree of protection	IP20	

Complementary

Discrete input number	7	
Discrete input type	STO safe torque off, 24 V DC, impedance: 1.5 kOhm DI1DI6 logic inputs, 24 V DC (30 V) DI5 programmable as pulse input: 030 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+ 01 kHz 30 V DC 100 mA Open collector DQ- 01 kHz 30 V DC 100 mA	
Analogue input number	3	
Analogue input type Al1 voltage: 010 V DC, impedance: 30 kOhm, resolution 10 bits Al2 bipolar differential voltage: +/- 10 V DC, impedance: 30 kOhm, resolution Al3 current: 020 mA (or 4-20 mA, x-20 mA, 20-x mA or other patterns by configuration), impedance: 250 Ohm, resolution 10 bits		
Analogue output number	1	

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Analogue output type Schware-configurable current AQ1: 020 mA impedance 800 Ohm, resolution 10 bits Schware-configurable voltage AQ1: 010 V DC impedance 470 Ohm, resolution 10 bits Schware-configurable voltage AQ1: 010 V DC impedance 470 Ohm, resolution 10 bits Schware-configurable voltage AQ1: 010 V DC impedance 470 Ohm, resolution 10 bits Schware-configurable voltage AQ1: 010 V DC impedance 470 Ohm, resolution 10 bits Schware-configurable voltage AQ1: 010 V DC impedance 470 Ohm, resolution 10 obstacles and configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable relay logic R14 IN Celectrical durability 100000 cycles Configurable R14 IN Celectrical durability 100000 cycles Configurable R14 IN R18 R16 Celectrical durability 100000 cycles Configurable R14 IN R18		
Relay output type Configurable relay logic R1A 1 NO electrical durability 100000 cycles Configurable relay logic R1A 1 NO electrical durability 100000 cycles Configurable relay logic R1A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 100000 cycles Configurable relay logic R2A 1 NO electrical durability 1 NO configurable relay logic R2A 1 NO electrical durability 2 NO configurability 1 NO configurability	Analogue output type	bits Software-configurable voltage AQ1: 010 V DC impedance 470 Ohm, resolution 10
Configurable relay logic R18 I NC electrical durability 100000 cycles Configurable relay logic R10 Configurable relay logic R20 Configurable relay computer R20 Configurable relay control R20 Configurable relay co		DIES
Configurable relay logic RZC configurable relations and relationship r	Relay output type	
Configurable relay logic RZC Maximum switching current Relay output R1A, R1B, R1C on resistive load, cos phi = 1: 3 A at 350 V DC Relay output R1A, R1B, R1C on resistive load, cos phi = 1: 3 A at 350 V DC Relay output R1A, R1B, R1C on resistive load, cos phi = 0.4 and LIR = 7 ms: 2 A at 250 V AC Relay output R1A, R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and LIR = 7 ms: 2 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 250 V AC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 250 V AC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 250 V AC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 250 V AC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V R2A R2C on resistive load, cos phi = 1: 5 A at 30 V R2A R2C R2A R2C R2C R2A R2A R2C R2A R2A R2C R2A R2A R2C R2C R2A R2C R2C R2A R2C R2A R2C R2A R2C R2A R2C		
Relay output R1A, R1B, R1C on resistive load, cos phi = 1.3 A at 30 V DC Relay output R1A, R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and LIR = 7 ms: 2 A at 250 V AC Relay output R1A, R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and LIR = 7 ms: 2 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1.5 A at 250 V AC Relay output R2A, R2C on resistive load, cos phi = 1.5 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1.5 A at 30 V DC Minimum switching current Relay output R1A, R1B, R1C, R2A, R2C; 5 mA at 24 V DC Minimum switching current Relay output R1A, R1B, R1C, R2A, R2C; 5 mA at 24 V DC Minimum switching current Voltage/frequency ratio, 5 points Filture control without sensor, standard Voltage/frequency ratio, 2 points Filture vector control without sensor - Energy Saving, quadratic U/f Filture vector control without sensor - Energy Saving Voltage/frequency ratio, 2 points Filture vector control without sensor - Energy Saving Voltage/frequency ratio, 2 points Filture vector control without sensor - Energy Saving Voltage/frequency at 170200 % of nominal motor torque Maximum output frequency 0.599 kHz Acceleration and deceleration Acceleration ramp adaptation Acceleration adoresidate residence adaptation Acceleration deceleration ramp adaptation Acceleration deceleration ramp adaptation Acceleration deceleration ramp adaptation Acceleration frequency 2.16 kHz adjustable 416 kHz with derating factor Nominal switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True 2.18 kHz adjustable 416 kHz with derating factor Nominal switching frequency 3.6 A at 380 V (heavy duty) Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Maximum output voltage Follower disable frequency 5.4 A at 500 V (heavy duty) Filture decreased frequency 4 kHz Filture current at high 7.1 A Filture decreased frequency 4 kHz With safety function Safety Filture decreased frequency 4 kHz		
Relay output R1A, R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and L/R = 7 ms; 2 A at 250 V AC Relay output R1A, R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and L/R = 7 ms; 2 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 350 V AC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R1A, R1B, R1C, R2A, R2C; 5 mA at 24 V DC Method of access Slave CANopen 4 quadrant operation possible True Voltage/frequency ratio, 5 points Flix vector control without sensor, standard Voltage/frequency ratio, 5 points Flix vector control without sensor - Energy Saving Voltage/frequency ratio, 5 points Synchronous motor control profile Vector control without sensor - Energy Saving Voltage/frequency ratio, 5 points Synchronous motor control profile Transient overtorque 170200 % of nominal motor torque Maximum output frequency 170200 % of nominal motor torque Maximum output frequency Acceleration/doceleration automatic stop with DC injection Motor slip compensation Automatic whatever the load Adjustable 0300 % Not available to voltage/frequency ratio (2 or 5 points) Switching frequency 216 kHz adjustable 416 kHz with derating factor Nominal switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True Line current 3.8 A at 380 V (heavy duty) Maximum input current 3.8 A Maximum input current 3.8 A Maximum input current 5 % Relative symmetric network frequency 5060 Hz Relative symmetric network frequency 5060 Hz Relative symmetric network frequency 10 kHz With safety function Safety True With safety function Safety True	Maximum switching current	Relay output R1A, R1B, R1C on resistive load, cos phi = 1: 3 A at 250 V AC
Relay output R1A. R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and L/R = 7 mis: 2 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R1A, R1B, R1C, R2A, R2C: 5 mA at 24 V DC Minimum switching current Relay output R1A, R1B, R1C, R2A, R2C: 5 mA at 24 V DC Minimum switching current Relay output R1A, R1B, R1C, R2A, R2C: 5 mA at 24 V DC Minimum switching current Voltage/frequency ratio. 5 points Flux vector control without sensor, standard voltage/frequency ratio. 5 points Flux vector control without sensor - Energy Saving voltage/frequency ratio. 2 points Synchronous motor control profile Vector control without sensor Vector control		Relay output R1A, R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and L/R = 7
Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 250 V AC Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 30 V DC Minimum switching current Relay output R1A, R1B, R1C, R2A, R2C: 5 mA at 24 V DC Method of access Slave CANopen True Asynchronous motor control Profile Asynchronous motor control Profile Asynchronous motor control Profile Asynchronous motor control Profile Vector control without sensor, standard Flux vector control without sensor, standard Flux vector control without sensor - Energy Saving Voltage/frequency ratio, 2 points Synchronous motor control profile Vector control without sensor Transient overtorque 170200 % of nominal motor torque Maximum output frequency 0.599 kHz Acceleration and deceleration Acceleration automatic stop with DC injection Motor slip compensation Automatic whatever the load Adjustable 0300 % Not available in voltage/frequency ratio (2 or 5 points) Switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True Line current 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5 % Frequency load in the standard frequency of kHz With safety function Safety True		Relay output R1A, R1B, R1C, R2A, R2C on inductive load, cos phi = 0.4 and L/R = 7
Method of access Slave CANopen True Asynchronous motor control profile Asynchronous motor control profile Flux vector control without sensor, standard Voltage/frequency ratio, 5 points Flux vector control without sensor, standard Voltage/frequency ratio, 2 points Synchronous motor control profile Vector control without sensor Transient overtorque 170200 % of nominal motor torque Maximum output frequency 0.599 kHz Acceleration and deceleration ramps CUS Ramp switching Acceleration ramp adaptation Acceleration/deceleration ramp adaptation Acceleration/deceleration automatic stop with DC injection Motor slip compensation Automatic whatever the load Adjustable 0300 % Not available in voltage/frequency ratio (2 or 5 points) Switching frequency 216 kHz adjustable 416 kHz with derating factor Nominal switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True Line current 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5 % Frequency tolerance Prospective line Isc 5 % Relative symmetric network frequence Prospective line Isc 5 kA Base load current at high over dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safety True With safety function Safety True With safety function Safety		Relay output R2A, R2C on resistive load, cos phi = 1: 5 A at 250 V AC
A quadrant operation possible Asynchronous motor control profile Asynchronous motor control profile Flux vector control without sensor, standard Voltage/frequency ratio, 2 points Flux vector control without sensor standard Voltage/frequency ratio, 2 points Synchronous motor control profile Vector control without sensor Transient overtorque 170200 % of nominal motor torque Maximum output frequency Acceleration and deceleration Tamps Linear U S CUS Ramp switching Acceleration ramp adaptation Acceleration/deceleration ramp adaptation Acceleration/deceleration automatic stop with DC injection Motor slip compensation Automatic whatever the load Agjustable 0300 % Not available in voltage/frequency ratio (2 or 5 points) Switching frequency 216 kHz adjustable 416 kHz with derating factor Nominal switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Apparent power 2.4 kVA at 500 V (heavy duty) Neximum input current 3.6 A Maximum input current 3.6 A Maximum input current 5 % Featilities symmetric network frequency tolerance Prospective line Isc 5 kA Base load current at high 7.1 A Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safety True	Minimum switching current	Relay output R1A, R1B, R1C, R2A, R2C: 5 mA at 24 V DC
Asynchronous motor control profile Nottage/frequency ratio . 5 points Flux vector control without sensor . standard Voltage/frequency ratio . 2 prints Flux vector control without sensor . Standard 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 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 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Maximum input current 3.6 A Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5 60 Hz Relative symmetric network frequency (blerance Prospective line Isc 5 kA Base load current at high 7.1 A Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safety True	Method of access	Slave CANopen
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Voltage/frequency ratio - Energy Saving, quadratic U/f Flux vector control without sensor - Energy Saving Voltage/frequency ratio - Z points Synchronous motor control profile Vector control without sensor - Energy Saving Voltage/frequency ratio - Z points Synchronous motor control profile Transient overtorque 170200 % of nominal motor torque Maximum output frequency 0.599 kHz Acceleration and deceleration Linear U S S CUS Ramp switching Acceleration/deceleration ramp adaptation Acceleration/deceleration automatic stop with DC injection Motor slip compensation Automatic whatever the load Adjustable 0300 % Not available in voltage/frequency ratio (2 or 5 points) Switching frequency 216 kHz adjustable 416 kHz with derating factor Nominal switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True Line current 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Maximum input current 3.6 A Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 560 Hz Relative symmetric network frequency tolerance Prospective line Isc 5 kA Base load current at high over-diasipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	•	
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Synchronous motor control profile Vector control without sensor Transient overtorque 170200 % of nominal motor torque 0.599 kHz Acceleration and deceleration ramps Linear U S CUS Ramp switching Acceleration/deceleration automatic stop with DC injection Motor slip compensation Automatic whatever the load Adjustable 0300 % Not available in voltage/frequency ratio (2 or 5 points) Switching frequency 216 kHz adjustable 416 kHz with derating factor Nominal switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True Line current 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Maximum input current 3.6 A Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5060 Hz Relative symmetric network frequency 5060 Hz Relative symmetric network frequency 5 kA Base load current at high overload Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safety True With safety function Safety True		
Transient overtorque 170200 % of nominal motor torque Maximum output frequency 0.599 kHz Acceleration and deceleration ramps		Voltage/frequency ratio, 2 points
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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 0300 % Not available in voltage/frequency ratio (2 or 5 points) Switching frequency 216 kHz adjustable 416 kHz with derating factor Nominal switching frequency 4 kHz Braking to standstill By DC injection Brake chopper integrated True Line current 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Maximum input current 3.6 A Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5060 Hz Relative symmetric network frequency 5 % Prospective line Isc 5 kA Base load current at high overload Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Transient overtorque	170200 % of nominal motor torque
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Braking to standstill By DC injection Brake chopper integrated True Line current 3.6 A at 380 V (heavy duty) 2.8 A at 500 V (heavy duty) Maximum input current 3.6 A Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5060 Hz Relative symmetric network frequency tolerance Prospective line Isc 5 kA Base load current at high overload Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True		·
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2.8 A at 500 V (heavy duty) Maximum input current 3.6 A Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5060 Hz Relative symmetric network frequency tolerance 5 % Prospective line Isc 5 kA Base load current at high overload 7.1 A Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Brake chopper integrated	True
Maximum output voltage 500 V Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5060 Hz Relative symmetric network frequency tolerance Prospective line Isc 5 kA Base load current at high overload Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Line current	` , ,,
Apparent power 2.4 kVA at 500 V (heavy duty) Network frequency 5060 Hz Relative symmetric network frequency tolerance 5 % Prospective line Isc 5 kA Base load current at high overload 7.1 A Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Maximum input current	3.6 A
Network frequency 5060 Hz Relative symmetric network frequency tolerance 5 % Prospective line Isc 5 kA Base load current at high overload 7.1 A Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Maximum output voltage	500 V
Relative symmetric network frequency tolerance 5 % Prospective line Isc 5 kA Base load current at high overload 7.1 A overload Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Apparent power	2.4 kVA at 500 V (heavy duty)
frequency tolerance Prospective line Isc 5 kA Base load current at high overload Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Network frequency	5060 Hz
Base load current at high overload Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True		5 %
overload Power dissipation in W Fan: 32.0 W at 380 V, switching frequency 4 kHz With safety function Safely True	Prospective line Isc	5 kA
With safety function Safely True		7.1 A
	Power dissipation in W	Fan: 32.0 W at 380 V, switching frequency 4 kHz
		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
	False
Limited Position (SLP) With safety function Safe	
Limited Position (SLP) With safety function Safe Direction (SDI)	Input phase breaks: drive Overcurrent between output phases and earth: drive Overheating protection: drive Short-circuit between motor phases: drive
Limited Position (SLP) With safety function Safe Direction (SDI) Protection type	False Input phase breaks: drive Overcurrent between output phases and earth: drive Overheating protection: drive Short-circuit between motor phases: drive Thermal protection: drive
Limited Position (SLP) With safety function Safe Direction (SDI) Protection type Width	Input phase breaks: drive Overcurrent between output phases and earth: drive Overheating protection: drive Short-circuit between motor phases: drive Thermal protection: drive 105.0 mm

Environment

Operating position	Vertical +/- 10 degree
Product certifications	CE ATEX NOM GOST EAC RCM KC
Marking	CE ATEX UL CSA EAC RCM
Standards	IEC 61800-5-1
Electromagnetic compatibility	Electrostatic discharge immunity test level 3 conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4 1.2/50 µs - 8/20 µs surge immunity test level 3 conforming to IEC 61000-4-5 Conducted radio-frequency immunity test level 3 conforming to IEC 61000-4-6 Voltage dips and interruptions immunity test conforming to 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/s² at 11 ms
Maximum acceleration under vibrational stress (during operation)	10 m/s² at 13200 Hz
Maximum deflection under vibratory load (during operation)	1.5 mm at 213 Hz
Permitted relative humidity (during operation)	Class 3K5 according to EN 60721-3

Volume of cooling air	18.0 m3/h
overvoltage category	III
Regulation loop	Adjustable PID regulator
Speed accuracy	+/- 10 % of nominal slip 0.2 Tn to Tn
pollution degree	2
Ambient air transport temperature	-2570 °C
Ambient air temperature for operation	-1050 °C without derating 5060 °C with derating factor
Ambient air temperature for storage	-2570 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	18.000 cm
Package 1 Width	18.500 cm
Package 1 Length	18.500 cm
Package 1 Weight	1.680 kg
Unit Type of Package 2	S06
Number of Units in Package 2	30
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	63.490 kg



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

∇ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	908
Environmental Disclosure	Product Environmental Profile

Use Better

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	C0283eca-aee5-4ec9-9f8c-c7e056d0a8d7
China RoHS Regulation	China RoHS declaration
[⋯] Energy efficiency	
Product contributes to saved and avoided emissions	Yes

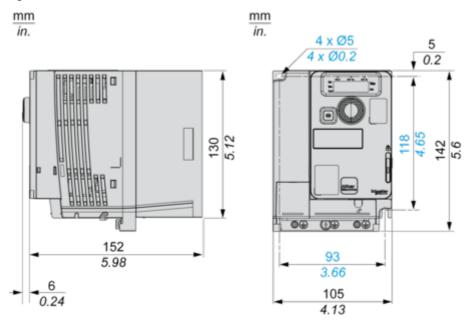
Use Again

○ Repack and remanufacture	
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Take-back	No

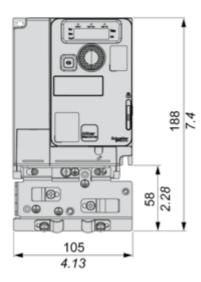
Dimensions Drawings

Dimensions

Right View, Front View and Front View with EMC Plate



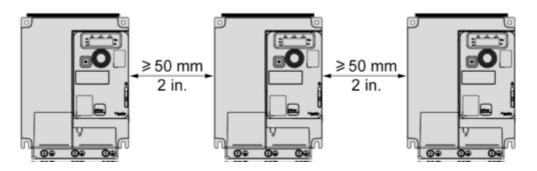
mm in.



Mounting and Clearance

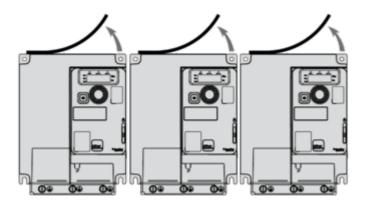
Mounting Types

Mounting Type A: Individual with Ventilation Cover

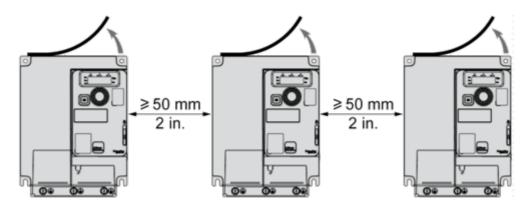


Only Possible at Ambient Temperature Less or Equal to 50 °C (122 °F)

Mounting Type B: Side by Side, Ventilation Cover Removed



Mounting Type C: Individual, Ventilation Cover Removed



For Operation at Ambient Temperature Above 50 $^{\circ}\text{C}$ (122 $^{\circ}\text{F})$

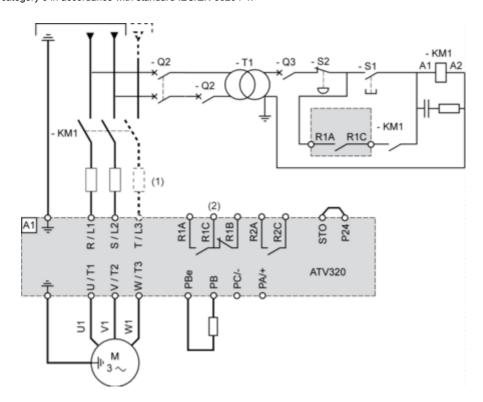
ATV320U07N4C

Connections and Schema

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.



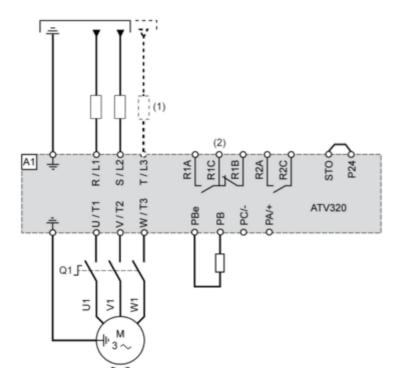
- (1) Line choke (if used)
- (2) Fault relay contacts, for remote signaling of drive status

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.

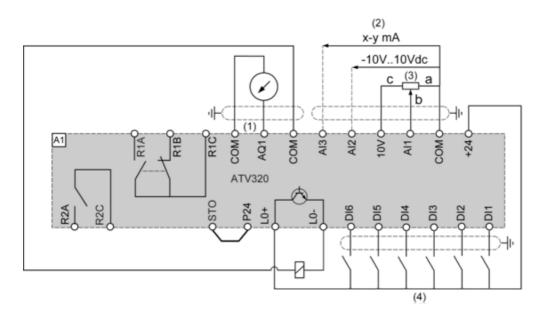
Product datasheet

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

Control Connection Diagram in Source Mode

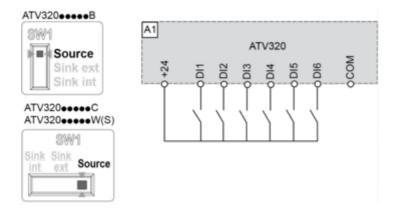


- (1) Analog output
- (2) Analog inputs
- (3) Reference potentiometer (10 kOhm maxi)
- (4) Digital inputs

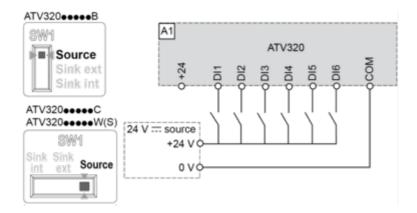
Digital Inputs Wiring

The logic input switch (SW1) is used to adapt the operation of the logic inputs to the technology of the programmable controller outputs.

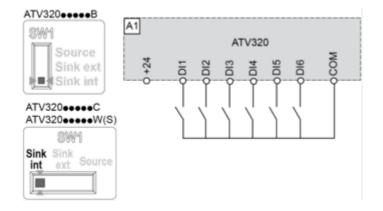
Switch SW1 set to "Source" position and use of the output power supply for the DIs.



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

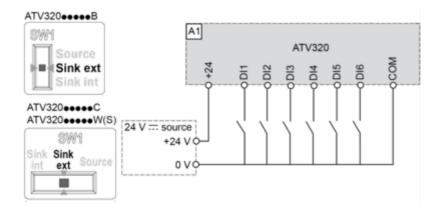


Switch SW1 set to "Sink Int" position and use of the output power supply for the DIs.



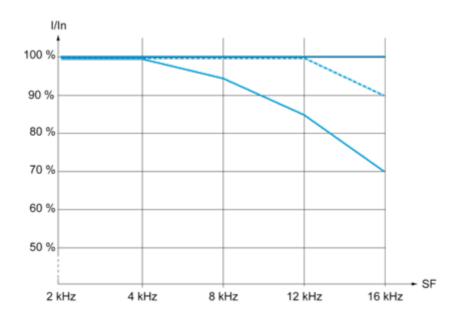
Switch SW1 set to "Sink Ext" position and use of an external power supply for the DIs.

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Performance Curves

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