Product datasheet

Specifications





variable speed drive ATV312 -11kW - 22kVA - 477 W - 200..240 V - 3-phase supply

ATV312HD11M3

(!) To be discontinued on: Sep 4, 2027

() Discontinued - Service only

(!) To be end-of-service on: Sep 4, 2033

Main

Range Of Product	Altivar 312
Product Or Component Type	Variable speed drive
Product Destination	Asynchronous motors
Product Specific Application	Simple machine
Assembly Style	With heat sink
Component Name	ATV312
Motor Power Kw	11 kW
Motor Power Hp	15 hp
[Us] Rated Supply Voltage	200240 V - 1510 %
Supply Frequency	5060 Hz - 55 %
Network Number Of Phases	3 phases
Line Current	63.5 A at 200 V, Isc = 22 kA 55.6 A at 240 V
Emc Filter	Without EMC filter
Apparent Power	22 kVA
Maximum Transient Current	81 A for 60 s
Power Dissipation In W	477 W at nominal load
Speed Range	150
Asynchronous Motor Control Profile	Sensorless flux vector control with PWM type motor control signal Factory set : constant torque
Electrical Connection	Al1, Al2, Al3, AOV, AOC, R1A, R1B, R1C, R2A, R2B, L11Ll6 terminal 2.5 mm² AWG 14 L1, L2, L3, U, V, W, PA, PB, PA/+, PC/- terminal 25 mm² AWG 3
Supply	Internal supply for logic inputs: 1930 V 100 mA, protection type: overload and short-circuit protection Internal supply for reference potentiometer (2.2 to 10 kOhm): 1010.8 V 10 mA, protection type: overload and short-circuit protection
Communication Port Protocol	Modbus CANopen
Ip Degree Of Protection	IP20 on upper part without cover plate IP21 on connection terminals IP31 on upper part IP41 on upper part

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

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Communication card for CANopen daisy chain Communication card for DeviceNet Communication card for Fipio Communication card for Modbus TCP Communication card for Profibus DP

Complementary

Supply Voltage Limits	170264 V
Prospective Line Isc	22 kA
Continuous Output Current	54 A at 4 kHz
Output Frequency	0500 Hz
Nominal Switching Frequency	4 kHz
Switching Frequency	216 kHz adjustable
Transient Overtorque	170200 % of nominal motor torque
Braking Torque	150 % during 60 s with braking resistor 100 % with braking resistor continuously 150 % without braking resistor
Regulation Loop	Frequency PI regulator
Motor Slip Compensation	Automatic whatever the load Suppressable Adjustable
Output Voltage	<= power supply voltage
Tightening Torque	AI1, AI2, AI3, AOV, AOC, R1A, R1B, R1C, R2A, R2B, LI1LI6: 0.6 N.m L1, L2, L3, U, V, W, PA, PB, PA/+, PC/-: 4.5 N.m
Insulation	Electrical between power and control
Analogue Input Number	3
Analogue Input Type	Al1 configurable voltage 010 V, input voltage 30 V max, impedance: 30000 Ohm Al2 configurable voltage +/- 10 V, input voltage 30 V max, impedance: 30000 Ohm Al3 configurable current 020 mA, impedance: 250 Ohm
Sampling Duration	AI1, AI2, AI3: 8 ms analog LI1LI6: 4 ms discrete
Response Time	AOV, AOC 8 ms for analog R1A, R1B, R1C, R2A, R2B 8 ms for discrete
Linearity Error	+/- 0.2 % for output
Analogue Output Number	1
Analogue Output Type	AOC configurable current: 020 mA, impedance: 800 Ohm, resolution: 8 bits AOV configurable voltage: 010 V, impedance: 470 Ohm, resolution: 8 bits
Discrete Input Logic	Logic input not wired (LI1LI4), < 13 V (state 1) Negative logic (source) (LI1LI6), > 19 V (state 0) Positive logic (source) (LI1LI6), < 5 V (state 0), > 11 V (state 1)
Discrete Output Number	2
Discrete Output Type	Configurable relay logic: (R1A, R1B, R1C) 1 NO + 1 NC - 100000 cycles Configurable relay logic: (R2A, R2B) NC - 100000 cycles
Minimum Switching Current	R1-R2 10 mA at 5 V DC
Maximum Switching Current	R1-R2: 2 A at 250 V AC inductive load, cos phi = 0.4 and L/R = 7 ms R1-R2: 2 A at 30 V DC inductive load, cos phi = 0.4 and L/R = 7 ms R1-R2: 5 A at 250 V AC resistive load, cos phi = 1 and L/R = 0 ms R1-R2: 5 A at 30 V DC resistive load, cos phi = 1 and L/R = 0 ms
Discrete Input Number	6
Discrete Input Type	(LI1LI6) programmable at 24 V, 0100 mA for PLC, impedance: 3500 Ohm

Acceleration And Deceleration	
Ramps	S, U or customized Linear adjustable separately from 0.1 to 999.9 s
Braking To Standstill	By DC injection
Protection Type	Input phase breaks: drive Line supply overvoltage and undervoltage safety circuits: drive Line supply phase loss safety function, for three phases supply: drive Motor phase breaks: drive Overcurrent between output phases and earth (on power up only): drive Overheating protection: drive Short-circuit between motor phases: drive Thermal protection: motor
Insulation Resistance	>= 500 mOhm 500 V DC for 1 minute
Local Signalling	1 LED (red) for drive voltage Four 7-segment display units for CANopen bus status
Time Constant	5 ms for reference change
Frequency Resolution	Analog input: 0.1100 Hz Display unit: 0.1 Hz
Connector Type	1 RJ45 for Modbus/CANopen
Physical Interface	RS485 multidrop serial link
Transmission Frame	RTU
Transmission Rate	10, 20, 50, 125, 250, 500 kbps or 1 Mbps for CANopen 4800, 9600 or 19200 bps for Modbus
Number Of Addresses	1127 for CANopen 1247 for Modbus
Number Of Drive	127 for CANopen 31 for Modbus
Marking	CE
Operating Position	Vertical +/- 10 degree
Outer Dimension	330 x 245 x 190 mm
Height	329.5 mm
Width	245 mm
Depth	192 mm
Net Weight	10.5 kg

Environment

2040 V DC between earth and power terminals
2880 V AC between control and power terminals
1.2/50 µs - 8/20 µs surge immunity test level 3 conforming to IEC 61000-4-5
Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4
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
IEC 61800-5-1
IEC 61800-3
GOST
C-Tick
UL
CSA
DNV
NOM
2

Vibration Resistance	1 gn (f= 13150 Hz) conforming to EN/IEC 60068-2-6 1.5 mm (f= 313 Hz) conforming to EN/IEC 60068-2-6
Shock Resistance	15 gn for 11 ms conforming to EN/IEC 60068-2-27
Relative Humidity	595 % without condensation conforming to IEC 60068-2-3 595 % without dripping water conforming to IEC 60068-2-3
Ambient Air Temperature For Storage	-2570 °C
Ambient Air Temperature For Operation	-1050 °C without derating (with protective cover on top of the drive) -1060 °C with derating factor (without protective cover on top of the drive)
Operating Altitude	<= 1000 m without derating 10003000 m with current derating 1 % per 100 m

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	28.0 cm
Package 1 Width	29.0 cm
Package 1 Length	39.0 cm
Package 1 Weight	11.446 kg
Unit Type Of Package 2	P06
Number Of Units In Package 2	4
Package 2 Height	80.0 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	58.78 kg

Contractual warranty

Warranty

18 months

Sustainability Screen

Green PremiumTM 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-CO₂ 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 >



RoHS/REACh

Well-being performance

Mercury Free

Rohs Exemption Information Yes

Certifications & Standards

Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
	EU RoHS Declaration
China Rohs Regulation	China RoHS declaration
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information