



Principal

Gama de producto	Altivar 312
Tipo de producto o componente	Variable speed drive
Destino del producto	Asynchronous motors
Product specific application	Simple machine
Assembly style	With heat sink
Component name	ATV312
Motor power kW	2.2 kW
Motor power hp	3 hp
[Us] rated supply voltage	380...500 V (- 15...10 %)
Supply frequency	50...60 Hz (- 5...5 %)
Network number of phases	3 phases
Line current	8.9 Afor 380 V, 5 kA 6.7 Afor 500 V
EMC filter	Integrated
Apparent power	5.9 kVA
Maximum transient current	8.3 Afor 60 s
Power dissipation in W	79 W at nominal load
Speed range	1...50
Asynchronous motor control profile	Factory set : constant torque Sensorless flux vector control with PWM type motor control signal
Electrical connection	L1, L2, L3, U, V, W, PA, PB, PA+, PC/- terminal 5 mm ² AWG 10 AI1, AI2, AI3, AOV, AOC, R1A, R1B, R1C, R2A, R2B, L1...L16 terminal 2.5 mm ² AWG 14
Supply	Internal supply for logic inputs at 19...30 V, <= 100 mAfor overload and short-circuit protection Internal supply for reference potentiometer (2.2 to 10 kOhm) at 10...10.8 V, <= 10 mAfor overload and short-circuit protection
Communication port protocol	CANopen Modbus
IP degree of protection	IP20 on upper part without cover plate IP21 on connection terminals IP31 on upper part IP41 on upper part
Option card	CANopen daisy chain communication card DeviceNet communication card Fipio communication card Modbus TCP communication card Profibus DP communication card

Complementos

Supply voltage limits	323...550 V
Frecuencia de red	47.5...63 Hz
Prospective line Isc	5 kA
Continuous output current	5.5 A at 4 kHz
Output frequency	0...500 kHz

Nominal switching frequency	4 kHz
Switching frequency	2...16 kHz adjustable
Transient overtorque	170...200 % of nominal motor torque
Braking torque	100 % with braking resistor continuously 150 % without braking resistor 150 % with braking resistor for 60 s
Regulation loop	Frequency PI regulator
Motor slip compensation	Automatic whatever the load Suppressable Adjustable
Tensión de salida	<= power supply voltage
Tightening torque	1.2 N.m L1, L2, L3, U, V, W, PA, PB, PA/+, PC/- 0.6 N.m AI1, AI2, AI3, AOV, AOC, R1A, R1B, R1C, R2A, R2B, LI1...LI6
Insulation	Electrical between power and control
Analogue input number	3
Analogue input type	AI1 configurable voltage 0...10 V, input voltage 30 V max, impedance 30000 Ohm AI2 configurable voltage +/- 10 V, input voltage 30 V max, impedance 30000 Ohm AI3 configurable current 0...20 mA, impedance 250 Ohm
Sampling duration	AI1, AI2, AI3 8 msfor analog LI1...LI6 4 msfor discrete
Response time	AOV, AOC 8 msfor analog R1A, R1B, R1C, R2A, R2B 8 msfor discrete
Linearity error	+/- 0.2 %for output
Analogue output number	1
Analogue output type	AOC configurable current 0...20 mA, impedance 800 Ohm, resolution 8 bits AOV configurable voltage 0...10 V, impedance 470 Ohm, resolution 8 bits
Discrete input logic	(LI1...LI4) logic input not wired, < 13 V (state 1) (LI1...LI6) negative logic (source), > 19 V (state 0) (LI1...LI6) positive logic (source), < 5 V (state 0), > 11 V (state 1)
Discrete output number	2
Discrete output type	(R1A, R1B, R1C) configurable relay logic 1 NO + 1 NC, electrical durability 100000 Ciclos (R2A, R2B) configurable relay logic NC, electrical durability 100000 Ciclos
Minimum switching current	R1-R2 10 mA at 5 V DC
Maximum switching current	R1-R2 on inductive load, 2 A at 250 V AC, (cos phi = 0.4, and L/R = 7 ms) R1-R2 on inductive load, 2 A at 30 V DC, (cos phi = 0.4, and L/R = 7 ms) R1-R2 on resistive load, 5 A at 250 V AC, (cos phi = 1, and L/R = 0 ms) R1-R2 on resistive load, 5 A at 30 V DC, (cos phi = 1, and L/R = 0 ms)
Discrete input number	6
Discrete input type	(LI1...LI6) programmable, 24 V 0...100 mA with PLC, impedance 3500 Ohm
Acceleration and deceleration ramps	Linear adjustable separately from 0.1 to 999.9 s S, U or customized
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 at 500 V DC for 1 minute
Señalizaciones en local	1 LED redfor drive voltage Four 7-segment display unitsfor CANopen bus status
Time constant	5 ms for reference change
Frequency resolution	Analog input 0.1...100 Hz Display unit 0.1 Hz
Tipo de conector	1 RJ45 Modbus/CANopen
Physical interface	RS485 multidrop serial link
Transmission frame	RTU
Transmission rate	10, 20, 50, 125, 250, 500 kbps or 1 Mbps CANopen 4800, 9600 or 19200 bps Modbus

Number of addresses	1...247 Modbus 1...127 CANopen
Number of drive	127 CANopen 31 Modbus
Marca	CE
Operating position	Vertical +/- 10 degree
Outer dimension	215 x 185 x 158 mm 184 x 140 x 150 mm 402 x 239 x 192 mm
Altura	184 mm
Anchura	142 mm
Profundidad	152 mm
Peso del producto	3.1 kg

Ambiente

Dielectric strength	2410 V DC between earth and power terminals 3400 V AC between control and power terminals
Electromagnetic compatibility	Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 level 4 Electrostatic discharge immunity test conforming to IEC 61000-4-2 level 3 Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3 level 3 1.2/50 µs - 8/20 µs surge immunity test conforming to IEC 61000-4-5 level 3
Normas	IEC 61800-3 IEC 61800-5-1
Certificaciones de producto	DNV UL CSA NOM GOST C-Tick
Pollution degree	2
Protective treatment	TC
Vibration resistance	1.5 mm (f = 3...13 Hz) conforming to EN/IEC 60068-2-6 1 gn (f = 13...150 Hz) conforming to EN/IEC 60068-2-6
Shock resistance	15 gn para 11 ms conforme a EN/IEC 60068-2-27
Relative humidity	5...95 % without condensation conforme a IEC 60068-2-3 5...95 % without dripping water conforme a IEC 60068-2-3
Temperatura ambiente de almacenamiento	-25...70 °C
Ambient air temperature for operation	-10...50 °C without derating with protective cover on top of the drive -10...60 °C with derating factor without protective cover on top of the drive
Operating altitude	<= 1000 m without derating 1000...3000 m with current derating 1 % per 100 m

Oferta sustentable

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0913 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available Perfil Medioambiental
Product end of life instructions	Available Perfil Medioambiental

Garantía contractual

Warranty period	18 months
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