Product datasheet
Characteristics

ATV32HD15N4

variable speed drive ATV32 - 15 kw - 400 V - 3 phase - with heat sink

Main

Range of product	Altivar 32
Product or component type	Variable speed drive
Product destination	Asynchronous motors Synchronous motors
Product specific application	Complex machines
Function available	-
Assembly style	With heat sink
Component name	ATV32
EMC filter	Class C2 EMC filter integrated
Network number of phases	3 phases
[Us] rated supply voltage	380...500 V - 15...10 %
Supply voltage limits	323...550 V
Supply frequency	50...60 Hz - 5...5 %
Network frequency limits	47.5...63 Hz
Motor power kW	15 kW 380...500 V
Motor power hp	20 hp 380...500 V

Complementary

Line current	33.3 A 500 V 3 phases 15 kW 20 hp 47.3 A 380 V 3 phases 15 kW 20 hp
Apparent power	41 kVA 500 V 3 phases 15 kW 20 hp
Prospective line Isc	<= 22 kA 3 phases
Nominal output current	33 A 4 kHz 500 V 15 kW 20 hp
Maximum transient current	49.5 A 60 s 15 kW 20 hp
Speed drive output frequency	0.5...599 Hz
Nominal switching frequency	4 kHz
Switching frequency	2...16 kHz adjustable
Speed range	1...100 asynchronous motor in open-loop mode
Speed accuracy	+/- 10 % of nominal slip 0.2 Tn to Tn
Torque accuracy	+/- 15 %
Transient overtorque	170...200 %
Braking torque	< 170 % with braking resistor
Asynchronous motor control profile	Voltage/frequency ratio, 2 points Voltage/frequency ratio, 5 points Flux vector control without sensor - Energy Saving, NoLoad law Flux vector control without sensor, standard Voltage/frequency ratio - Energy Saving, quadratic U/f
Synchronous motor control profile	Vector control without sensor
Regulation loop	Adjustable PID regulator
Motor slip compensation	Automatic whatever the load Not available in voltage/frequency ratio (2 or 5 points) Adjustable 0...300 %
Local signalling	1 LED red drive voltage 1 LED green CANopen run 1 LED red CANopen error 1 LED red drive fault
Output voltage	<= power supply voltage
Noise level	43 dB 86/188/EEC
Insulation	Electrical between power and control
Electrical connection	Screw terminal 16 mm² AWG 6 power supply Screw terminal 0.5...1.5 mm² AWG 18...AWG 14 control

	Removable screw terminals 6…16 mm² AWG 8...AWG 6 motor/braking resistor
Tightening torque	0.5 N.m 4.4 lb/ft control 1.2 N.m 10.6 lb/ft motor/braking resistor 1.2 N.m 10.6 lb/ft power supply
Supply	Internal supply for reference potentiometer (1 to 10 kOhm) 10.5 V DC +/- 5 % <= 10 mA overload and short-circuit protection
Analogue input number	3
Analogue input type	Voltage AI1 0...10 V DC 30000 Ohm 10 bits Bipolar differential voltage AI2 +/- 10 V DC 30000 Ohm 10 bits Current AI3 0...20 mA (or 4-20 mA, x-20 mA, 20-x mA or other patterns by configuration) 250 Ohm 10 bits
Sampling duration	2 ms AI1, AI2, AI3 analog 2 ms AO1 analog
Response time	8 ms +/- 0.7 ms LI1...LI6 logic 2 ms R1A, R1B, R1C relay 2 ms R2A, R2C relay
Accuracy	+/- 0.2 % AI1, AI2, AI3 for a temperature of -10...60 °C +/- 0.5 % AI1, AI2, AI3 for a temperature of 25 °C +/- 1 % AO1 for a temperature of 25 °C +/- 2 % AO1 for a temperature of -10...60 °C
Linearity error	+/- 0.2...0.5 % of maximum value AI1, AI2, AI3 +/- 0.3 % AO1
Analogue output number	1
Analogue output type	Software-configurable current AO1 0...20 mA 800 Ohm 10 bits Software-configurable voltage AO1 0...10 V 470 Ohm 10 bits
Discrete output number	3
Discrete output type	Configurable relay logic R1A, R1B, R1C NO/NC 100000 cycles Configurable relay logic R2A, R2B NO 100000 cycles Logic LO
Minimum switching current	5 mA 24 V DC configurable relay logic
Maximum switching current	3 A 250 V AC resistive cos phi = 1 R1 4 A 30 V DC resistive cos phi = 1 R1 2 A 250 V AC inductive cos phi = 0.4 R1, R2 2 A 30 V DC inductive cos phi = 0.4 R1, R2 5 A 250 V AC resistive cos phi = 1 R2 5 A 30 V DC resistive cos phi = 1 R2
Discrete input number	7
Discrete input type	Programmable (sink/source) LI1...LI4 24...30 V DC level 1 PLC Programmable as pulse input 20 kpps LI5 24...30 V DC level 1 PLC Switch-configurable PTC probe LI6 24...30 V DC Safe torque off STO 24...30 V DC 1500 Ohm
Discrete input logic	Positive logic (source) LI1...LI6 < 5 V > 11 V Negative logic (sink) LI1...LI6 > 19 V < 13 V
Acceleration and deceleration ramps	S U CUS Deceleration ramp automatic stop DC injection Deceleration ramp adaptation Linear Ramp switching
Braking to standstill	By DC injection
Protection type	Input phase breaks drive Overcurrent between output phases and earth drive Overheating protection drive Short-circuit between motor phases drive Thermal protection drive
Communication port protocol	CANopen Modbus
Type of connector	1 RJ45 Modbus/CANopen on front face
Physical interface	2-wire RS 485 Modbus
Transmission frame	RTU Modbus
Type of polarization	No impedance Modbus
Number of addresses	1...247 Modbus 1...127 CANopen
Method of access	Slave CANopen
Electromagnetic compatibility	1.2/50 µs - 8/20 µs surge immunity test level 3 IEC 61000-4-5 Electrical fast transient/burst immunity test level 4 IEC 61000-4-4

	Electrostatic discharge immunity test level 3 IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test level 3 IEC 61000-4-3 Conducted radio-frequency immunity test level 3 IEC 61000-4-6 Voltage dips and interruptions immunity test IEC 61000-4-11
Width	180 mm
Height	404 mm
Depth	232 mm
Product weight	8.8 kg
Option card	Communication card CANopen daisy chain Communication card CANopen open style Communication card DeviceNet Communication card Ethernet/IP Communication card Profibus DP V1
Functionality	Mid
Specific application	Other applications

Environment

Standards	EN 55011 class A group 1 EN 61800-3 environments 1 category C2 EN 61800-3 environments 2 category C2 EN/IEC 61800-3 EN/IEC 61800-5-1
Product certifications	CSA C-Tick GOST NOM 117 UL
Marking	CE
Pollution degree	2 EN/IEC 61800-5-1
IP degree of protection	IP20 EN/IEC 61800-5-1
Vibration resistance	1 gn 13...200 Hz EN/IEC 60068-2-6 1.5 mm peak to peak 3...13 Hz EN/IEC 60068-2-6
Shock resistance	15 gn 11 ms EN/IEC 60068-2-27
Relative humidity	5...95 % without condensation IEC 60068-2-3 5...95 % without dripping water IEC 60068-2-3
Ambient air temperature for operation	-10...50 °C without derating 50...60 °C with derating factor
Ambient air temperature for storage	-25...70 °C
Operating altitude	<= 1000 m without derating 1000...3000 m with current derating 1 % per 100 m
Operating position	Vertical +/- 10 degree

Offer Sustainability

Sustainable offer status	Not Green Premium product
RoHS (date code: YYWW)	Compliant - since 1012 - Schneider Electric declaration of conformity

Contractual warranty

Period	18 months