



frequency converter-ATV310HU15N4E

URL:https://www.sxplc.com/frequency-converter-atv310hu15n4e

Product data sheet

inRange of product	Easy Altivar 310
product or component type	Variable speed drive
Product specific application	Simple machine
Assembly style	With heat sink
Device short name	ATV310
Network number of phases	Three phase
[Us] rated supply voltage	380460 V - 1510 %
Motor power kW	1.5 kW for heavy duty
Motor power hp	2 hp for heavy duty
Noise level	50 dB

Complementary	aryQuantity per set	Set of 1
	EMC filter	Without EMC filter
	Type of cooling	Integrated fan
	Communication port protocol	Modbus
	Connector type	RJ45 (on front face) for Modbus
	Physical interface	2-wire RS 485 for Modbus
	Transmission frame	RTU for Modbus

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Transmission rate	4900 hit/c
ransmission rate	4800 bit/s
	9600 bit/s
	19200 bit/s
	38400 bit/s
Number of addresses	1247 for Modbus
Communication service	Read holding registers (03) 29 words
	Write single register (06) 29 words
	Write multiple registers (16) 27 words
	Read/write multiple registers (23) 4/4 words
	Read device identification (43)
Line current	6.5 A at 380 V (heavy duty)
	5.4 A at 460 V (heavy duty)
Apparent power	4.3 kVA at 460 V (heavy duty)
Prospective line Isc	5 kA (heavy duty)
Continuous output current	4.1 A heavy duty
Maximum transient current	6.2 A during 60 s (heavy duty)
Power dissipation in W	60.4 W, at In (heavy duty)
Speed drive output frequency	0.5400 Hz
Nominal switching frequency	4 kHz
Switching frequency	212 kHz adjustable
Speed range	120 for asynchronous motor
Transient overtorque	170200 % of nominal motor torque depending on driv
	and type of motor
Braking torque	Up to 150 % of nominal motor torque with braking resis
	Up to 70 % of nominal motor torque without braking res
Asynchronous motor control profile	Voltage/frequency ratio (V/f)
	Voltage/frequency ratio - Energy Saving, quadratic U/f
	Sensorless vector control (SVC)
Motor slip compensation	Adjustable
Output voltage	380460 V three phase

Electrical connection	Terminal, clamping capacity: 1.52.5 mm², AWG 16A
	(L1, L2, L3, PA/+, PB, U, V, W)
Tightening torque	0.81 N.m
Insulation	Electrical between power and control
Supply	Internal supply for reference potentiometer: 5 V (4.75
	V)DC, <10 mA with overload and short-circuit protection
	Internal supply for logic inputs: 24 V (20.428.8 V)DC,
	mA with overload and short-circuit protection
Analogue input number	1
Analogue input type	Configurable current Al1 020 mA 250 Ohm
	Configurable voltage Al1 010 V 30 kOhm
	Configurable voltage Al1 05 V 30 kOhm
Discrete input number	4
Discrete input type	Programmable LI1LI4 24 V 1830 V
Discrete input logic	Negative logic (sink), > 16 V (state 0), < 10 V (state 1),
	impedance 3.5 kOhm
	Positive logic (source), 0< 5 V (state 0), > 11 V (state
Sampling duration	10 ms for analogue input
	20 ms, tolerance +/- 1 ms for logic input
Linearity error	+/- 0.3 % of maximum value for analogue input
Analogue output number	1
Analogue output type	AO1 software-configurable voltage: 010 V AC 010 V
	A, impedance: 470 Ohm, resolution 8 bits
	AO1 software-configurable current: 020 mA, impedan
	Ohm, resolution 8 bits
Discrete output number	2
Discrete output type	Logic output LO+, LO-
	Protected relay output R1A, R1B, R1C 1 C/O
Minimum switching current	5 mA at 24 V DC for logic relay
Maximum switching current	2 A at 250 V AC on inductive load cos phi = 0.4 L/R = 7

	logic relay
	2 A at 30 V DC on inductive load cos phi = $0.4 \text{ L/R} = 7 \text{ r}$
	logic relay
	3 A at 250 V AC on resistive load cos phi = $1 \text{ L/R} = 0 \text{ m}$
	logic relay
	4 A at 30 V DC on resistive load cos phi = 1 $L/R = 0$ ms
	relay
Acceleration and deceleration ramps	Linear from 0999.9 s
	S
	U
Braking to standstill	By DC injection, <30 s
Protection type	Line supply overvoltage
	Line supply undervoltage
	Overcurrent between output phases and earth
	Overheating protection
	Short-circuit between motor phases
	Against input phase loss in three-phase
	Thermal motor protection via the drive by continuous
	calculation of I²t
Frequency resolution	Analog input: converter A/D, 10 bits
	Display unit: 0.1 Hz
Time constant	20 ms +/- 1 ms for reference change
Operating position	Vertical +/- 10 degree
Height	143 mm
Width	105 mm
Depth	151 mm
net weight	1.1 kg
Supply frequency	50/60 Hz +/- 5 %

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