

# Product datasheet

Specifications



Variable speed drive, Altivar  
Process ATV900, ATV930, 110 kW,  
380...480 V, with braking unit, IP20

ATV930C11N4

## Main

Range of product	Altivar Process ATV900	
Device application	Industrial application	
Product or component type	Variable speed drive	
Product destination	Synchronous motors Asynchronous motors	
Product specific application	Process for industrial	
Variant	Standard version With braking chopper	بذار نوع دريوا، استاندارد با مدار چاير
Network number of phases	3 phases Single phase	
Mounting mode	Wall mount	
Communication port protocol	Ethernet IP/Modbus TCP Modbus	
[Us] rated supply voltage	380...480 V -	
Motor power kW	110.0 kW for normal duty 90.0 kW for heavy duty	
Motor power hp	150.0 hp for normal duty 125.0 hp for heavy duty	
Continuous output current	211 A at 4 kHz for normal duty 173 A at 4 kHz for heavy duty	
EMC filter	Integrated With EMC plate option	
IP degree of protection	IP21	
Degree of protection	UL type 1	
Option module	Slot A: communication module for Profibus DP V1 Slot A: communication module for PROFINET Slot A: communication module for DeviceNet Slot A: communication module for EtherCAT Slot A: communication module for CANopen daisy chain RJ45 Slot A: communication module for CANopen SUB-D 9 Slot A: communication module for CANopen screw terminals Slot A/slot B/slot C: digital and analog I/O extension module Slot A/slot B/slot C: output relay extension module Slot B: 5/12 V digital encoder interface module Slot B: analog encoder interface module Slot B: resolver encoder interface module	
Asynchronous motor control profile	Constant torque standard Variable torque standard Optimized torque mode	
Synchronous motor control profile	Permanent magnet motor Synchronous reluctance motor	

اينو بذار

نميخواد

X	Maximum output frequency	599 Hz	بذار
X	Switching frequency	1...8 kHz adjustable 2.5...8 kHz with derating factor	
X	Nominal switching frequency	2.5 kHz	
X	Line current	201.0 A at 380 V (normal duty) 170.0 A at 380 V (heavy duty) 165.0 A at 480 V (normal duty) 143.0 A at 480 V (heavy duty)	
X	Apparent power	121.8 kVA at 380...480 V (normal duty) 102.6 kVA at 380...480 V (heavy duty)	
	<u>Maximum transient current</u>	253 A during 60 s (normal duty) 259.5 A during 60 s (heavy duty)	
X	Network frequency	50...60 Hz	
	<u>Prospective line Isc</u>	50 kA	
<b>Complementary</b>			
X	Discrete input number	10	
	<u>Relay output type</u>	Configurable relay logic R1: fault relay NO/NC electrical durability 100000 cycles Configurable relay logic R2: sequence relay NO electrical durability 1000000 cycles Configurable relay logic R3: sequence relay NO electrical durability 1000000 cycles	
X	Physical interface	Ethernet 2-wire RS 485	
X	Connector type	2 RJ45 1 RJ45	
	<u>Method of access</u>	Slave Modbus TCP	
X	Transmission rate	10, 100 Mbits 4.8 kbps 9600 bit/s 19200 bit/s	
X	Transmission frame	RTU	
X	Number of addresses	1...247	
X	Data format	8 bits, configurable odd, even or no parity	بذار
	<u>Type of polarization</u>	No impedance	
X	4 quadrant operation possible	True	قابلیت عملکرد در نواحی چهارگانه سرعت و گشتاور: دارد
X	Acceleration and deceleration ramps	Linear adjustable separately from 0.01...9999 s S, U or customized	
	<u>Motor slip compensation</u>	Adjustable Automatic whatever the load Can be suppressed Not available in permanent magnet motor law	
	<u>Braking to standstill</u>	By DC injection	
X	Brake chopper integrated	True	مدار چاپر داخلی: دارد
X	Maximum input current	201.0 A	بذار
X	Maximum output voltage	480.0 V	بذار
	<u>Relative symmetric network frequency tolerance</u>	5 %	نمیخواهد
X	Base load current at high overload	173.0 A	کمینه جریان بار هنگام اضافه بار شدید انگلیسیش هم بذار high overload
X	Base load current at low overload	211.0 A	کمینه جریان هنگام اضافه بار معمولی انگلیسیش هم بذار
	<u>With safety function Safely Limited Speed (SLS)</u>	True	نمیخواهد
	<u>With safety function Safe brake management (SBC/SBT)</u>	True	نمیخواهد

<del>With safety function Safe Operating Stop (SOS)</del>	False	نمیخواه
<del>With safety function Safe Position (SP)</del>	False	نمیخواه
<del>With safety function Safe programmable logic</del>	False	نمیخواه
<del>With safety function Safe Speed Monitor (SSM)</del>	False	نمیخواه
<del>With safety function Safe Stop 1 (SS1)</del>	True	نمیخواه
<del>With safety function Safe Stop 2 (SS2)</del>	False	نمیخواه
<del>With safety function Safe torque off (STO)</del>	True	نمیخواه
<del>With safety function Safely Limited Position (SLP)</del>	False	نمیخواه
<del>With safety function Safe Direction (SDI)</del>	False	نمیخواه
<b>X</b> Protection type	Thermal protection: motor Safe torque off: motor Motor phase break: motor Thermal protection: drive Safe torque off: drive Overheating: drive Overcurrent between output phases and earth: drive Overload of output voltage: drive Short-circuit protection: drive Motor phase break: drive Overvoltages on the DC bus: drive Line supply overvoltage: drive Line supply undervoltage: drive Line supply phase loss: drive Overspeed: drive Break on the control circuit: drive	
<del>Quantity per set</del>	1	نمیخواه
<b>X</b> Width	320 mm	
<b>X</b> Height	1205 mm	
<b>X</b> Depth	393 mm	
<b>X</b> Net weight	104 kg	
<del>Electrical connection</del>	Line side: screw terminal 2 x 50...3 x 120 mm <sup>2</sup> /2 x AWG 1/0...2 x 300 kcmil DC bus: screw terminal 0.5...1.5 mm <sup>2</sup> /AWG 20...AWG 16 Control: screw terminal 0.5...1.5 mm <sup>2</sup> /AWG 20...AWG 16  10/100 Mbit/s for Ethernet IP/Modbus TCP 4.8, 9.6, 19.2, 38.4 kbit/s for Modbus serial  8 bits, configurable odd, even or no parity for Modbus serial  No impedance for Modbus serial  1...247 for Modbus serial	
<b>X</b> Local signalling	Local diagnostic: 3 LEDs (mono/dual colour) 5 LEDs (dual colour) 2 LEDs (dual colour) 1 LED (red)	
<del>Isolation</del>	Between power and control terminals	
<b>Environment</b>		
<b>X</b> Operating position	Vertical +/- 10 degree	
<del>Product certifications</del>	UL CSA TÜV	محیطی ها هم کلن بی خیال
<del>Marking</del>	CE	
<b>X</b> Standards	UL 508C EN/IEC 61800-3 EN/IEC 61800-5-1	

IEC 61000-3-12  
 IEC 60721-3  
 IEC 61508  
 IEC 13849-1

<b>Maximum THDI</b>	<48 % full load conforming to IEC 61000-3-12
<b>Assembly style</b>	Enclosed
<b>Electromagnetic compatibility</b>	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
<b>Environmental class (during operation)</b>	Class 3C3 according to IEC 60721-3-3 Class 3S3 according to IEC 60721-3-3
<b>Maximum acceleration under shock impact (during operation)</b>	150 m/s <sup>2</sup> at 11 ms
<b>Maximum acceleration under vibrational stress (during operation)</b>	10 m/s <sup>2</sup> at 13...200 Hz
<b>Maximum deflection under vibratory load (during operation)</b>	1.5 mm at 2...13 Hz
<b>Permitted relative humidity (during operation)</b>	Class 3K5 according to EN 60721-3
<b>Overvoltage category</b>	III
<b>Regulation loop</b>	Adjustable PID regulator
<b>Insulation resistance</b>	> 1 MOhm 500 V DC for 1 minute to earth
<b>Noise level</b>	69.9 dB conforming to 86/188/EEC
<b>Vibration resistance</b>	1.5 mm peak to peak (f= 2...13 Hz) conforming to IEC 60068-2-6 1 gn (f= 13...200 Hz) conforming to IEC 60068-2-6
<b>Shock resistance</b>	6 gn for 11 ms conforming to IEC 60068-2-27
<b>Environmental characteristic</b>	Chemical pollution resistance class 3C3 conforming to EN/IEC 60721-3-3 Dust pollution resistance class 3S3 conforming to EN/IEC 60721-3-3
<b>Relative humidity</b>	5...95 % without condensation conforming to IEC 60068-2-3
<b>Ambient air temperature for operation</b>	-15...50 °C (without derating) 50...60 °C (with derating factor)
	69.9 dB
<b>Pollution degree</b>	2
<b>Ambient air transport temperature</b>	-25...70 °C
<b>Ambient air temperature for storage</b>	-25...70 °C

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	68.000 cm
<b>Package 1 Width</b>	48.500 cm
<b>Package 1 Length</b>	144.500 cm
<b>Package 1 Weight</b>	128.000 kg

## Offer Sustainability

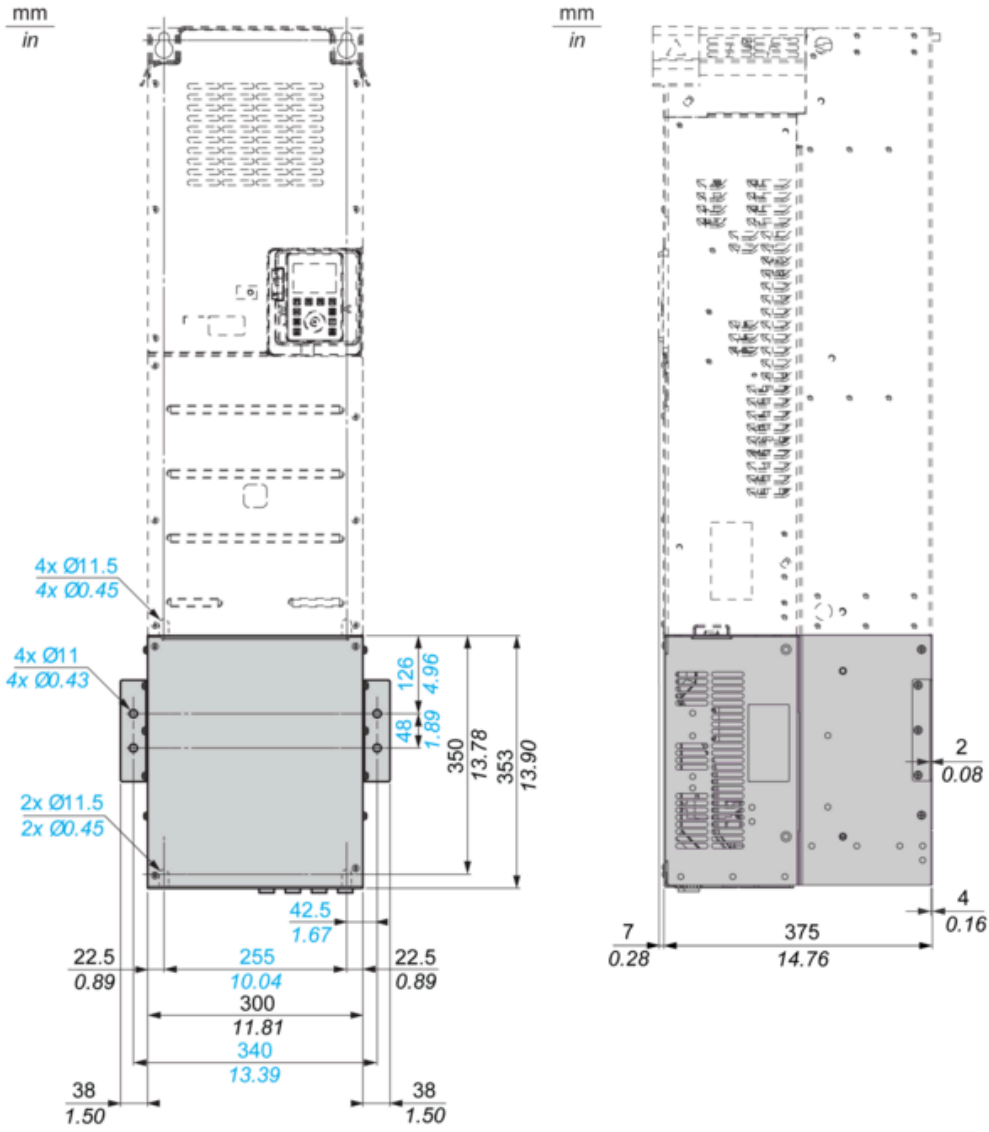
<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope)

[EU RoHS Declaration](#)

<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>RoHS exemption information</b>	Yes
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>Upgradeability</b>	Upgraded components available

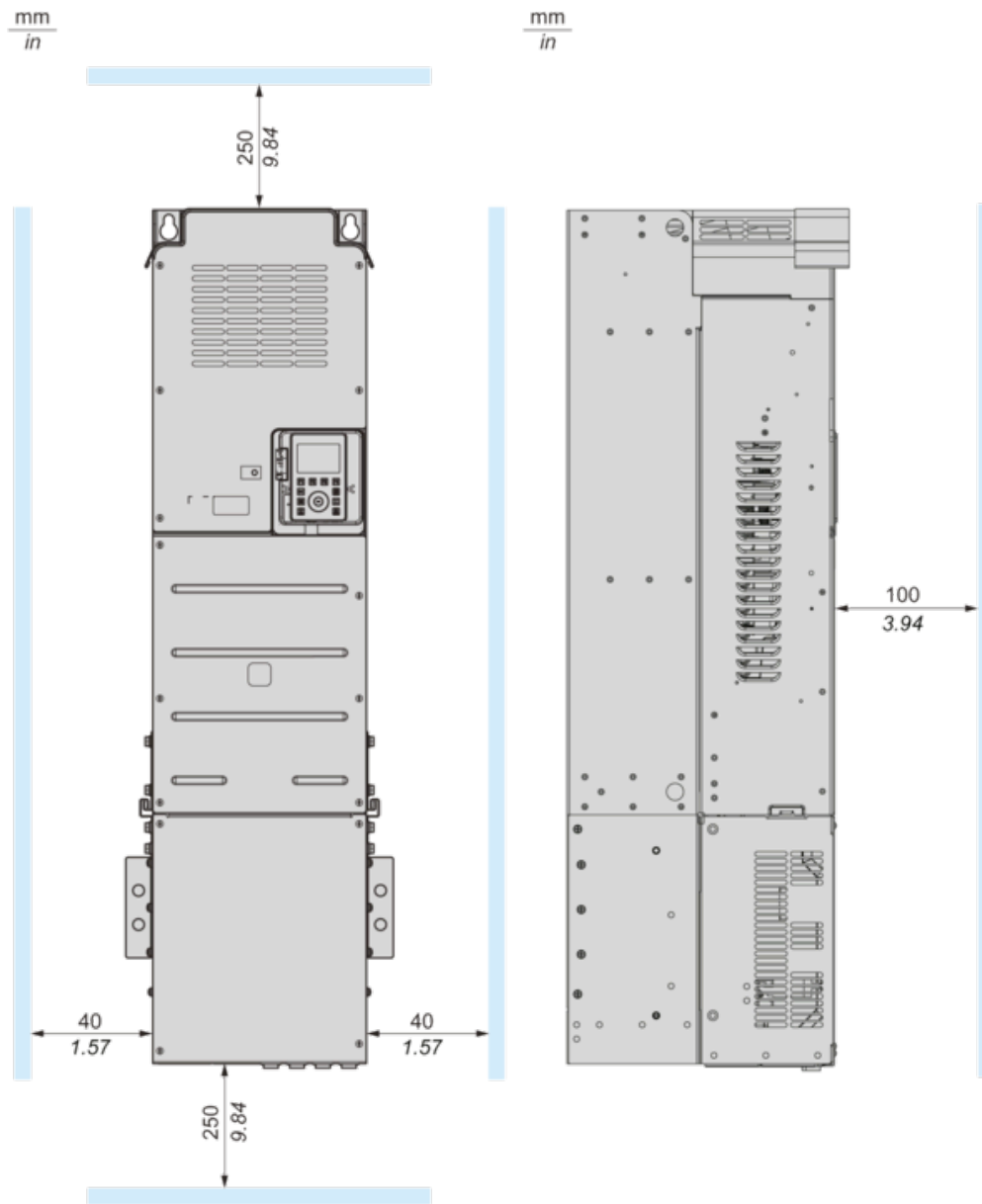
Dimensions

Front and Side Views

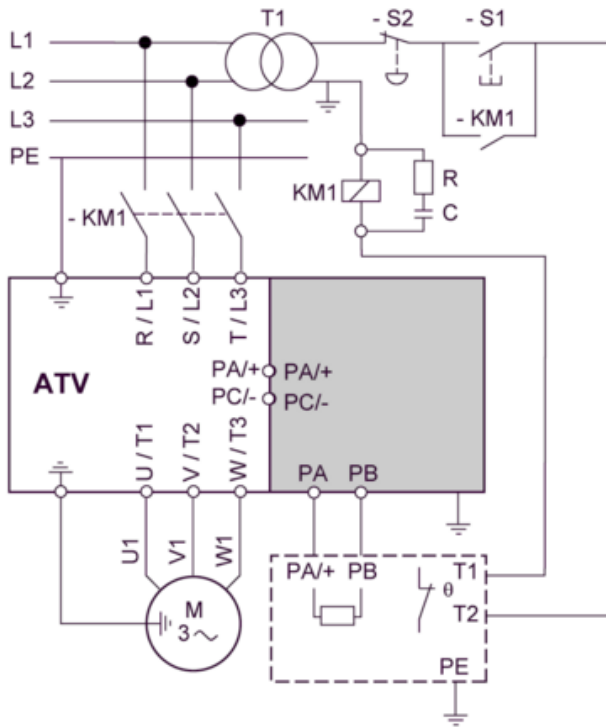


Dimensions

Front and Side Views



**Standard Connection Diagram**



**Recommended replacement(s)**