Specifications



variable speed drive ATV12 - 1.5kW - 2hp - 200..240V - 1ph - with heat sink

ATV12HU15M2

Main

Main	
Range of product	Altivar 12
Product or component type	Variable speed drive
Product specific application	Simple machine
Mounting mode	Cabinet mount
Communication port protocol	Modbus
Supply frequency	50/60 Hz +/- 5 %
[Us] rated supply voltage	200240 V - 1510 %
Nominal output current	7.5 A
Motor power hp	2 hp
Motor power kW	1.5 kW
	2 hp
EMC filter	Integrated
IP degree of protection	IP20

Complementary

Discrete input number	4
Discrete output number	2
Analogue input number	1
Analogue output number	1
Relay output number	1
Physical interface	2-wire RS 485
Connector type	1 RJ45
Continuous output current	7.5 A at 4 kHz
Method of access	Server Modbus serial
Speed drive output frequency	0.5400 Hz
Speed range	120
Sampling duration	20 ms, tolerance +/- 1 ms for logic input 10 ms for analogue input
Linearity error	+/- 0.3 % of maximum value for analogue input
Frequency resolution	Analog input: converter A/D, 10 bits



	Display unit: 0.1 Hz
Time constant	20 ms +/- 1 ms for reference change
Transmission rate	9.6 kbit/s 19.2 kbit/s 38.4 kbit/s
Transmission frame	RTU
Number of addresses	1247
Data format	8 bits, configurable odd, even or no parity
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)
Type of polarization	No impedance
4 quadrant operation possible	False
Asynchronous motor control profile	Sensorless flux vector control Quadratic voltage/frequency ratio Voltage/frequency ratio (V/f)
Maximum output frequency	4 kHz
Transient overtorque	150170 % of nominal motor torque depending on drive rating and type of motor
Acceleration and deceleration ramps	U S Linear from 0 to 999.9 s
Motor slip compensation	Adjustable Preset in factory
Switching frequency	216 kHz adjustable 416 kHz with derating factor
Nominal switching frequency	4 kHz
Braking to standstill	By DC injection
Braking to standstill Brake chopper integrated	By DC injection False
Brake chopper integrated	False 17.8 A at 100 V (heavy duty)
Brake chopper integrated Line current	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty)
Brake chopper integrated Line current Maximum input current	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty) 14.9 A
Brake chopper integrated Line current Maximum input current Maximum output voltage	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty) 14.9 A 240 V
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty) 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty)
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty) 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty)
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current Network frequency Relative symmetric network	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty) 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty) 5060 Hz
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current Network frequency Relative symmetric network frequency tolerance	False 17.8 A at 100 V (heavy duty) 14.9 A 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty) 5060 Hz
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current Network frequency Relative symmetric network frequency tolerance Prospective line lsc Base load current at high	False 17.8 A at 100 V (heavy duty) 14.9 A 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty) 5060 Hz 5 % 1 kA
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current Network frequency Relative symmetric network frequency tolerance Prospective line lsc Base load current at high overload	False 17.8 A at 100 V (heavy duty) 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty) 5060 Hz 5 % 1 kA 7.5 A
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current Network frequency Relative symmetric network frequency tolerance Prospective line lsc Base load current at high overload Power dissipation in W With safety function Safely	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty) 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty) 5060 Hz 5 % 1 kA 7.5 A Forced cooling: 72.0 W
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current Network frequency Relative symmetric network frequency tolerance Prospective line lsc Base load current at high overload Power dissipation in W With safety function Safely Limited Speed (SLS) With safety function Safe brake	False 17.8 A at 100 V (heavy duty) 14.9 A at 120 V (heavy duty) 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty) 5060 Hz 5 % 1 kA 7.5 A Forced cooling: 72.0 W False
Brake chopper integrated Line current Maximum input current Maximum output voltage Apparent power Maximum transient current Network frequency Relative symmetric network frequency tolerance Prospective line lsc Base load current at high overload Power dissipation in W With safety function Safely Limited Speed (SLS) With safety function Safe brake management (SBC/SBT) With safety function Safe	False 17.8 A at 100 V (heavy duty) 14.9 A 240 V 3.6 kVA at 240 V (heavy duty) 11.2 A during 60 s (heavy duty) 11.2 A during 60 s (heavy duty) 12.4 A during 2 s (heavy duty) 5060 Hz 5 % 1 kA 7.5 A Forced cooling: 72.0 W False False

With adiety function Safe Saped False With safety function Safe Stop 1 (SS1) False With addety function Safe Stop 2 (SS1) False With addety function Safe Stop 2 (SS1) False With addety function Safe Stop 2 (SS1) False With addety function Safe Mith addety function Safe Math addet Mith Addet Mith Mith Mith Addet Mith Mith Mith Addet Mith Mith Mith Addet Mith Mith Mith Mith Addet Mith Mith Mith Mith Addet Mith Mith Mith Mith Mith Mith Mith Mith			
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Limited Position (SLP) False With safety function Safe Direction (SDI) False Protection type Line supply indevoltage Overlating position Supple consultage Overlating position Tightening torque 1.2 km Insulation Electrical between noive the durine by continuous calculation of Pt Tightening torque 1.2 km Insulation Electrical between noiver and control Quantity per set Set of 1 With all 0.05 mm 105 2 mm Popth 105 2 mm Net weight 1.4 kg Environment 000200 m with current derating 1 % per 100 m Operating position Variation 4 · 10 degree Product certifications NOM COVER Operating visition Variating - 1 · 10 degree Product certifications NOM COVER CoVER Electroated tast transient/burst immunity test (well 4 conforming to ENEC 6 1000-4 - 4 Electroated diatribary electroming to ENEC 6 1000-4 - 4 Electroated diatribary electroming to ENEC 6 1000-4 - 4 Electroated diatribary electroming to ENEC 6 1000-4 - 4 Readiated rate-0 frequency diatribary electroming to ENEC 6 1000-4 - 4 Readiated rate-0 frequency diatribary electroming to ENEC 6 1000-4 - 4 Readiated rate-0 frequency diatrimmunity test level 3 conforming to ENEC 6 1000-4 - 4 R		False	
Direction (SD) Protection type Line supply undervoltage Overheating protection phases and earth Overheating protection phases Against input phase is and earth Strot-tricoit between more phases Against input phase is in three phase Against input phase is in three phase Against input phase is in three phase Against input protection via the drive by continuous calculation of I*I Tightening forque 12 N.m Insulation Electrical between nower and control Quantity per set Set of 1 Width 105 mm Height 142 mm Depth 156.2 mm Net weight 1.4 kg Environment Conc. 2000 m with current derating 1 % per 100 m < < 1000 m. Conc.		False	
Line supply undervoltage Overcarrent Devieen output phases and earth Overcarrent Devieen notice phases Anti-Cristian Devieen notice phases Marking Classes Departing brown Insulation Electrical between notice phases Anti-Cristian Mith Operating position Plant 142 mm Dapth 156 2 mm Nat weight 14 kg Environment Operating position Vertail via Underviating Operating position Vertail via Underviating Classes Operating position Vertail via Underviating Classes Operating position Vertail via Underviating Classes U. B (2000-5-1 ENVIEC 6 #000-5-1 ENVIEC 6 #000-5-1 EN		False	
Insulation Electrical between power and control Quantity per set Set of 1 Width 105 mm Height 142 mm Depth 156.2 mm Net weight 1.4 kg Environment Operating altitude Operating altitude > 1000. 2000 m with current derating 1 % per 100 m < <td><= 1000 m without derating</td> Operating position Vertical +/- 10 degree Product certifications NOM KC Marking CE Standards UL 508C UL 61800-5-1 ENVEC 61800-5-1 ENVEC 61800-5-1 ENVEC 61800-5-1 ENVEC 61800-5-1 ENVEC 61800-5-1 ENVEC 61800-5-1 ENVEC 61800-4-2 Immunity to conduced altransient/burst immunity test level 3 conforming to ENVEC 61000-4-2 Immunity to conduced altransient/burst immunity test level 3 conforming to ENVEC 61000-4-2 Immunity to conduced altransient/burst immunity test level 3 conforming to ENVEC 61000-4-2 Immunity to conduced altransient/burst immunity test level 3 conforming to ENVEC 61000-4-2 Immunity test level 3 conforming to ENVEC 61000-4-2 Immunity test level 3 conforming to ENVEC 61000-4-3 Surge immunity test level 3 conforming to ENVEC 61000-4-3 Surge immunity test level 3 conforming to ENVEC 61000-4-4 Itervice float radio-frequency electromagnetic field immunity test level 3 conforming to ENVEC 61000-4-3 Surge immunity test level 3 conforming to ENVEC 61000-4-4 Itervice float radio-frequency electromagnetic field immunity test level 3 conforming to ENVEC 61000-4-3 Surge immunity test level 3 conforming to ENVEC 61000-4-4 Itervice float radio-fre	<= 1000 m without derating	Protection type	Line supply undervoltage Overcurrent between output phases and earth Overheating protection Short-circuit between motor phases Against input phase loss in three-phase
Quantity per set Set of 1 Width 105 mm Height 142 mm Depth 156.2 mm Net weight 1.4 kg Environment - Operating altitude > 10002000 m with current derating 1 % per 100 m < <td><= 1000 m without derating</td> Operating position Vertical +/- 10 degree Product certifications NOM CSA C-Tick UL GOST RCM Marking CE Standards UL 608C UL 81000-5-1 ENIEC 61600-3 Assembly style With heat sink Electromagnetic compatibility Electrical fast transient/burst immunity test level 4 conforming to ENIEC 61000-4.2 Immunity conduced stimmunity test sevel 3 conforming to ENIEC 61000-4.2 Immunity conduced stimmunity test conforming to ENIEC 61000-4.3 Stoge dips and interpriors immunity test conforming to ENIEC 61000-4.3 Stoge dips and interpriors immunity test conforming to ENIEC 61000-4.3 Stoge dips and interpriors immunity test conforming to ENIEC 61000-4.3 Stoge dips and interpriors immunity test conforming to ENIEC 61000-4.3 Stoge dips and interpriors immunity test conforming to ENIEC 61000-4.3 Stoge dips and interpriors immunity test conforming to ENIEC 61000-4.3 Stoge dips and interpriors immunity test conforming to	<= 1000 m without derating	Tightening torque	1.2 N.m
Width 105 mm Height 142 mm Depth 156.2 mm Net weight 1.4 kg Environment	Insulation	Electrical between power and control	
Height 142 mm Depth 156.2 mm Net weight 1.4 kg Environment	Quantity per set	Set of 1	
Depth 156.2 mm Net weight 1.4 kg Environment	Width	105 mm	
Net weight 1.4 kg Environment	Height	142 mm	
Environment Operating altitude > 10002000 m with current derating 1 % per 100 m <= 1000 m without derating	Depth	156.2 mm	
Operating altitude > 10002000 m with current derating 1 % per 100 m Operating position Vertical +/- 10 degree Product certifications NOM CSA C.Tick UL GOST RCM KC Marking CE Standards UL 508C UL 618000-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-3 Assembly style With heat sink Electromagnetic compatibility Electrical fast transient/burst immunity test level 4 conforming to EN/IEC 61000-4-4 Related radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity to conducted disturbances level 3 conforming to EN/IEC 61000-4-2 Immunity to conducted disturbances level 3 conforming to EN/IEC 61000-4-1 Rediated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-1 Environmental class (during Class 352 according to IEC 60721-3-3 Operation) Class 352 according to IEC 60721-3-3 Maximum acceleration under shock impact (during operation) 10 m/s ² at 11 ms Maximum acceleration under vibrational stress (during 10 m/s ² at 13200 Hz Vibratory load (during	Net weight	1.4 kg	
Operating altitude > 10002000 m with current derating 1 % per 100 m Operating position Vertical +/- 10 degree Product certifications NOM CSA C.Tick UL GOST RCM KC Marking CE Standards UL 508C UL 618000-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-3 Assembly style With heat sink Electromagnetic compatibility Electrical fast transient/burst immunity test level 4 conforming to EN/IEC 61000-4-4 Related radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity test level 3 conforming to EN/IEC 61000-4-3 Surge immunity test level 3 conforming to EN/IEC 61000-4-1 Environmental class (during Class 352 according to IEC 60721-3-3 Operation) Class 352 according to IEC 60721-3-3 Maximum acceleration under shock impact (during operation) 10 m/s ² at 11 ms Maximum acceleration under vibrational stress (during 10 m/s ² at 13200 Hz Vibratory load (during 1.5 mm at 213 Hz			
<= 1000 m without derating			
Product certifications NOM CSA C-Tick UL GOST RCM KC Marking CE Standards UL 508C UL 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-3 Assembly style With heat sink Electromagnetic compatibility Electrical fast transient/burst immunity test level 3 conforming to EN/IEC 61000-4-4 Electrostatic discharge immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-5 Voltage dips and interruptions immunity test conforming to EN/IEC 61000-4-5 Voltage dips and interruptions immunity test conforming to EN/IEC 61000-4-11 Environmental class (during operation) Class 3C3 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Maximum acceleration under vibratory local (during operation) 10 m/s ^a at 13200 Hz Maximum deflection under vibratory local (during 1.5 mm at 213 Hz	Operating altitude		
CSA C-Tick UL GOST RCM KC Standards CE Marking CE Standards UL 508C UL 61800-5-1 EN/IEC 61800-5-1 EN/IEC 61800-3 Assembly style With heat sink Electromagnetic compatibility Electrical fast transient/burst immunity test level 4 conforming to EN/IEC 61000-4-4 Electrostatic discharge immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity to conducted disturbances level 3 conforming to EN/IEC 61000-4-3 Surge immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-1 Environmental class (during operation) Class 3C3 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Maximum acceleration under vibrational stress (during operation) 10 m/s ² at 11 ms Maximum deflection under vibratory load (during 1.5 mm at 213 Hz	Operating position	Vertical +/- 10 degree	
Standards UL 508C UL 618000-5-1 EN/IEC 61800-5-1 EN/IEC 61800-3 Assembly style With heat sink Electromagnetic compatibility Electrical fast transient/burst immunity test level 3 conforming to EN/IEC 61000-4-4 Electrostatic discharge immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-5 Voltage dips and interruptions immunity test conforming to EN/IEC 61000-4-5 Voltage dips and interruptions immunity test conforming to EN/IEC 61000-4-11 Environmental class (during operation) Class 3C3 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Maximum acceleration under vibrational stress (during operation) 10 m/s² at 11 ms Maximum deflection under vibratory load (during 1.5 mm at 213 Hz	Product certifications	CSA C-Tick UL GOST RCM	
UL 618000-5-1 EN/IEC 61800-3 Assembly style With heat sink Electromagnetic compatibility Electrical fast transient/burst immunity test level 4 conforming to EN/IEC 61000-4-4 Electrostatic discharge immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity to conducted disturbances level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-5 Voltage dips and interruptions immunity test conforming to EN/IEC 61000-4-11 Environmental class (during operation) Class 3C3 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Maximum acceleration under vibrational stress (during operation) 10 m/s² at 11 ms Maximum deflection under vibratory load (during 1.5 mm at 213 Hz	Marking	CE	
Electromagnetic compatibility Electrical fast transient/burst immunity test level 4 conforming to EN/IEC 61000-4-4 Electrostatic discharge immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity to conducted disturbances level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-5 Voltage dips and interruptions immunity test level 3 conforming to EN/IEC 61000-4-11 Environmental class (during operation) Class 3C3 according to IEC 60721-3-3 Maximum acceleration under shock impact (during operation) 150 m/s² at 11 ms Maximum deflection under vibrational stress (during operation) 10 m/s² at 13200 Hz Maximum deflection under vibratory load (during 1.5 mm at 213 Hz	Standards	UL 618000-5-1 EN/IEC 61800-5-1	
Electrostatic discharge immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity to conducted disturbances level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-3 Surge immunity test level 3 conforming to EN/IEC 61000-4-5 Voltage dips and interruptions immunity test conforming to EN/IEC 61000-4-11 Environmental class (during operation) Class 3C3 according to IEC 60721-3-3 Class 3S2 according to IEC 60721-3-3 Maximum acceleration under shock impact (during operation) 150 m/s² at 11 ms Maximum acceleration under vibrational stress (during operation) 10 m/s² at 13200 Hz Maximum deflection under vibratory load (during 1.5 mm at 213 Hz	Assembly style	With heat sink	
operation) Class 3S2 according to IEC 60721-3-3 Maximum acceleration under shock impact (during operation) 150 m/s² at 11 ms Maximum acceleration under vibrational stress (during operation) 10 m/s² at 13200 Hz Maximum deflection under vibratory load (during 1.5 mm at 213 Hz	Electromagnetic compatibility	Electrostatic discharge immunity test level 3 conforming to EN/IEC 61000-4-2 Immunity to conducted disturbances level 3 conforming to EN/IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to EN/IEC 61000-4-3 Surge immunity test level 3 conforming to EN/IEC 61000-4-5	
shock impact (during operation) Maximum acceleration under vibrational stress (during operation) Maximum deflection under vibratory load (during 1.5 mm at 213 Hz			
vibrational stress (during operation) Maximum deflection under vibratory load (during		150 m/s² at 11 ms	
vibratory load (during	vibrational stress (during	10 m/s² at 13200 Hz	
	vibratory load (during	1.5 mm at 213 Hz	

Sep 30, 2023

Volume of cooling air

Life Is On Schneider

16 m3/h

Overvoltage category	Class III	
Regulation loop	Adjustable PID regulator	
Electromagnetic emission	Radiated emissions environment 1 category C2 conforming to EN/IEC 61800-3 216 kHz shielded motor cable Conducted emissions with integrated EMC filter environment 1 category C1 conforming to EN/IEC 61800-3 2, 4, 8, 12 and 16 kHz shielded motor cable <5 m Conducted emissions with additional EMC filter environment 1 category C1 conforming to EN/IEC 61800-3 412 kHz shielded motor cable <20 m Conducted emissions with additional EMC filter environment 1 category C2 conforming to EN/IEC 61800-3 412 kHz shielded motor cable <20 m Conducted emissions with additional EMC filter environment 1 category C2 conforming to EN/IEC 61800-3 412 kHz shielded motor cable <50 m Conducted emissions with additional EMC filter environment 2 category C3 conforming to EN/IEC 61800-3 412 kHz shielded motor cable <50 m Conducted emissions with integrated EMC filter environment 1 category C2 conforming to EN/IEC 61800-3 412 kHz shielded motor cable <50 m Conducted emissions with integrated EMC filter environment 1 category C2 conforming to EN/IEC 61800-3 416 kHz shielded motor cable <50 m Conducted emissions with integrated EMC filter environment 1 category C2 conforming to EN/IEC 61800-3 416 kHz shielded motor cable <5 m Conducted emissions with integrated EMC filter environment 1 category C2 conforming to EN/IEC 61800-3 416 kHz shielded motor cable <5 m	
Vibration resistance	1 gn (f = 13200 Hz) conforming to EN/IEC 60068-2-6 1.5 mm peak to peak (f = 313 Hz) - drive unmounted on symmetrical DIN rail - conforming to EN/IEC 60068-2-6	
Shock resistance	15 gn conforming to EN/IEC 60068-2-27 for 11 ms	
Relative humidity	595 % without condensation conforming to IEC 60068-2-3 595 % without dripping water conforming to IEC 60068-2-3	
Noise level	45 dB	
Pollution degree	2	
Ambient air transport temperature	-2570 °C	
Ambient air temperature for operation	-1050 °C without derating 5060 °C with current derating 2.2 % per °C	
Ambient air temperature for storage	-2570 °C	

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	23.000 cm
Package 1 Width	20.000 cm
Package 1 Length	21.500 cm
Package 1 Weight	1.716 kg
Unit Type of Package 2	P06
Number of Units in Package 2	30
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	64.840 kg

Offer Sustainability

REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

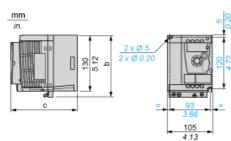
Warranty

18 months

Dimensions Drawings

Dimensions

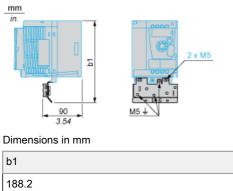
Drive without EMC Conformity Kit



Dimensions in mm

b	C
142	156.2
Dimensions in in.	
b	c
5.59	6.15

Drive with EMC Conformity Kit



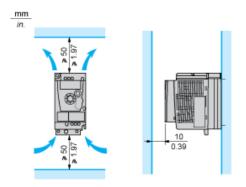
	_
1	
88.2	
imensions in in.	_
1	
.41	

Mounting and Clearance

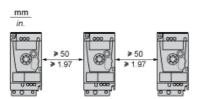
ATV12HU15M2

Mounting Recommendations

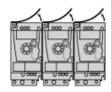
Clearance for Vertical Mounting



Mounting Type A

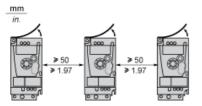


Mounting Type B



Remove the protective cover from the top of the drive.

Mounting Type C

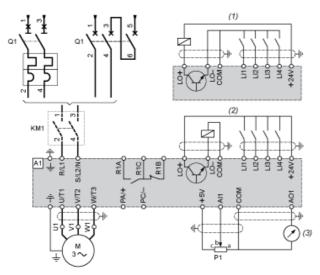


Remove the protective cover from the top of the drive.



Connections and Schema

Single-Phase Power Supply Wiring Diagram



- Drive Contactor (only if a control circuit is needed) 2.2 kΩ reference potentiometer. This can be replaced by a 10 kΩ potentiometer (maximum). Circuit breaker Negative logic (Sink) Positive logic (Source) (factory set configuration) 0...10 V or 0...20 mA
- A1 KM1 P1 Q1 (1) (2) (3)

Connections and Schema

Recommended Schemes

2-Wire Control for Logic I/O with Internal Power Supply



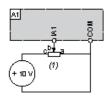
LI• : Reverse A1 : Drive

3-Wire Control for Logic I/O with Internal Power Supply



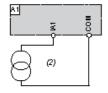
LI• : Reverse A1 : Drive

Analog Input Configured for Voltage with Internal Power Supply



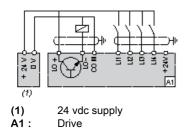
(1) A1 : 2.2 k $\Omega...10$ k Ω reference potentiometer Drive

Analog Input Configured for Current with Internal Power Supply

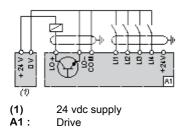


(2) A1 : 0-20 mA 4-20 mA supply Drive

Connected as Positive Logic (Source) with External 24 vdc Supply



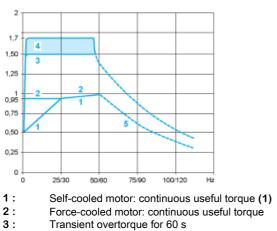
Connected as Negative Logic (Sink) with External 24 vdc supply



ATV12HU15M2

Performance Curves

Torque Curves



- 4: Transient overtorque for 2 s
- 5: Torque in overspeed at constant power (2)
- (1) (2) For power ratings ≤ 250 W, derating is 20% instead of 50% at very low frequencies.
 - The nominal motor frequency and the maximum output frequency can be adjusted from 0.5 to 400 Hz. The mechanical overspeed capability of the

Recommended replacement(s)