

variable speed drive ATV312 - 1.5kW - 3.8kVA - 86W - 200..240 V- 3-phase supply

ATV312HU15M3412

Discontinued on: Apr 12, 2023

! Discontinued

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	Altivar 312 Solar	
Product or Component Type	Variable speed drive	
Product destination	Asynchronous motors	
Product Specific Application	Pumping station with photovoltaic arrays	
Assembly style	With heat sink	
Device short name	ATV312	

Complementary

Motor power kW	1.5 kW	
Maximum Horse Power Rating	2 hp	
[Us] rated supply voltage	200240 V - 55 %	
Supply voltage limits	170264 V	
Supply frequency	5060 Hz - 55 %	
Network Frequency	47.563 Hz	
Phase	3 phase	
Line current	11.1 A 200 V, Isc = 1 kA 9.6 A 240 V	
EMC filter	Without EMC filter	
Apparent power	3.8 kVA	
Prospective line Isc	1 kA	
Continuous output current	8 A 4 kHz	
Maximum transient current	12 A 60 s	
Power dissipation in W	86 W at nominal load	
Speed drive output frequency	0.5500 Hz	
Nominal switching frequency	4 kHz	
Switching frequency	216 kHz adjustable	
Speed range	150	
Transient overtorque	150170 % of nominal motor torque	
Braking torque	<= 150 % 60 s with braking resistor 100 % with braking resistor continuously 150 % without braking resistor	

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Asynchronous motor control	Factory set: energy saving mode	
profile Regulation loop	Fraguesey Pl regulator	
	Frequency PI regulator	
Motor slip compensation	Automatic whatever the load Suppressable Adjustable	
Output voltage	<= power supply voltage	
Electrical connection	Al1, Al2, Al3, AOV, AOC, R1A, R1B, R1C, R2A, R2B, Ll1Ll6 terminal 0.004 in² (2.5 mm²) AWG 14 L1, L2, L3, U, V, W, PA, PB, PA/+, PC/- terminal 0.004 in² (2.5 mm²) AWG 14	
Tightening torque	Al1, Al2, Al3, AOV, AOC, R1A, R1B, R1C, R2A, R2B, Ll1Ll6 5.3 lbf.in (0.6 N.m) L1, L2, L3, U, V, W, PA, PB, PA/+, PC/- 7.08 lbf.in (0.8 N.m)	
Insulation	Electrical between power and control	
Supply	Internal supply for logic inputs 1930 V, <100 A overload and short-circuit protection Internal supply for reference potentiometer (2.2 to 10 kOhm) 1010.8 V, <10 A overload and short-circuit protection	
Analogue input number	3	
Analogue input type	Al1 configurable voltage 010 V 30 V max 30000 Ohm Al2 configurable voltage +/- 10 V 30 V max 30000 Ohm Al3 configurable current 020 mA 250 Ohm	
Sampling duration	Al1, Al2, Al3 8 ms analog Ll1Ll6 4 ms discrete	
Response time	AOV, AOC 8 ms analog R1A, R1B, R1C, R2A, R2B 8 ms discrete	
Linearity error	+/- 0.2 % output	
Analogue output number	2	
Analogue output type	AOC configurable current 020 mA 800 Ohm 8 bits AOV configurable voltage 010 V 470 Ohm 8 bits	
Discrete input logic	Logic input not wired LI1LI4), < 13 V Negative logic (source) LI1LI6), > 19 V Positive logic (source) LI1LI6), < 5 V, > 11 V	
Discrete output number	2	
Discrete output type	Configurable relay logic R1A, R1B, R1C) 1 NO + 1 NC - 100000 cycles Configurable relay logic R2A, R2B) NC - 100000 cycles	
Minimum switching current	R1-R2 10 mA 5 V DC	
Maximum switching current	2 A 250 V AC inductive cos phi = 0.4 L/R = 7 ms R1-R2) 2 A 30 V DC inductive cos phi = 0.4 L/R = 7 ms R1-R2) 5 A 250 V AC resistive cos phi = 1 L/R = 0 ms R1-R2) 5 A 30 V DC resistive cos phi = 1 L/R = 0 ms R1-R2)	
Discrete input number	6	
Discrete input type	LI1LI6) programmable 24 V, 0100 mA PLC 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	
Dielectric strength	2040 V DC between earth and power terminals 2880 V AC between control and power terminals	
Insulation resistance	>= 500 mOhm 500 V DC for 1 minute	

Local signalling	for drive voltage 1 LED (red) for CANopen bus status four 7-segment display units	
Time constant	5 ms for reference change	
Frequency resolution	Analog input 0.1100 Hz Display unit 0.1 Hz	
Communication Port Protocol	Modbus CANopen	
Connector type	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	1127 CANopen 1247 Modbus	
Number of drive	127 CANopen 31 Modbus	
Electromagnetic compatibility	1.2/50 µs - 8/20 µs surge immunity test level 3 conforming to IEC 61000-4-5 Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4 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	
Standards	IEC 61800-5-1 IEC 61800-3	
Marking	CE	
Height	13.0 in (329.5 mm)	
Width	9.6 in (245 mm)	
Depth	7.6 in (192 mm)	
Product Weight	3.7 lb(US) (1.7 kg)	
Option card	Communication card CANopen daisy chain Communication card DeviceNet Communication card Fipio Communication card Modbus TCP Communication card Profibus DP	

Environment

IP degree of protection	IP20 without cover plate	
pollution degree	2	
Protective treatment	TC	
Vibration resistance	1 gn (f= 13150 Hz) conforming to EN/IEC 60068-2-6 1.5 mm (f= 313 Hz) conforming to EN/IEC 60068-2-6	
Shock resistance	15 gn 11 ms EN/IEC 60068-2-27	
Relative humidity	595 % without condensation IEC 60068-2-3 595 % without dripping water IEC 60068-2-3	
Ambient Air Temperature for Storage	-13158 °F (-2570 °C)	
Ambient air temperature for operation	14122 °F (-1050 °C) without derating with protective cover on top of the drive) 14140 °F (-1060 °C) with derating factor without protective cover on top of the drive)	
Operating altitude	<= 3280.84 ft (1000 m) without derating >= 3280.84 ft (1000 m) with current derating 1 % per 100 m	
Operating position	Vertical +/- 10 degree	

Ordering and shipping details

Category	US1CP4B22152	
Discount Schedule	CP4B	
GTIN	3606480508516	
Returnability	No	
Country of origin	ID	

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.87 in (20.0 cm)
Package 1 Width	8.46 in (21.5 cm)
Package 1 Length	10.04 in (25.5 cm)
Package 1 Weight	4.6 lb(US) (2.1 kg)

Contractual warranty

Warranty 18 months



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Use Better

Materials and Substances	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	787777d2-e97f-4bc5-bdb9-5048c1c31fa1
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Use Again

○ Repack and remanufacture	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.