

low Harmonic ATV600 control unit, APM, single drive, 500...690V

APM6B0CTLY6

EAN Code: 3606489527211

Main

Range of product	Altivar Process Modular	
Product or component type	Control module	
Device short name	APM	
IP degree of protection	IP00 conforming to IEC 61800-5-1 IP00 conforming to IEC 60529	
Supply frequency	5060 Hz - 55 %	
Safety function	STO (safe torque off) SIL 3	
Discrete input logic	16 preset speeds	
Communication port protocol	Ethernet Modbus serial Modbus TCP	

Complementary

[Us] rated supply voltage	500690 V	
Frequency resolution	Display unit: 0.1 Hz Analog input: 0.012/50 Hz	
Connector type	RJ45 (on the remote graphic terminal) for Ethernet/Modbus TCP RJ45 (on the remote graphic terminal) for Modbus serial	
Physical interface	2-wire RS 485 for Modbus serial	
Transmission frame	RTU for Modbus serial	
Transmission rate	10/100 Mbit/s for Ethernet IP/Modbus TCP 4.8, 9.6, 19.2, 38.4 kbit/s for Modbus serial	
Exchange mode	Half duplex, full duplex, autonegotiation Ethernet/Modbus TCP	
Data format	8 bits, configurable odd, even or no parity for Modbus serial	
Type of polarization	No impedance for Modbus serial	
Number of addresses	1247 for Modbus serial	
Method of access	Slave Modbus TCP	
Supply	External supply for digital inputs: 24 V DC (1930 V), <1.25 mA, protection type: overload and short-circuit protection Internal supply for reference potentiometer (1 to 10 kOhm): 10.5 V DC +/- 5 %, <10 mA, protection type: overload and short-circuit protection Internal supply for digital inputs and STO: 24 V DC (2127 V), <200 mA, protection type: overload and short-circuit protection	
Local signalling	3 LEDs for local diagnostic 3 LEDs (dual colour) for embedded communication status 4 LEDs (dual colour) for communication module status	
Width	230 mm	
Height	678.3 mm	

Rates duty January 2016

Depth	108 mm	
Net weight	7.1 kg	
Analogue input number	3	
Analogue input type	Al1, Al2, Al3 software-configurable voltage: 010 V DC, impedance: 30 kOhm, resolution 12 bits Al1, Al2, Al3 software-configurable current: 020 mA/420 mA, impedance: 250 Ohm, resolution 12 bits	
Discrete input number	8	
Discrete input type	DI1DI6 programmable, 24 V DC (<= 30 V), impedance: 3.5 kOhm DI5, DI6 programmable as pulse input: 030 kHz, 24 V DC (<= 30 V) STOA, STOB safe torque off, 24 V DC (<= 30 V), impedance: > 2.2 kOhm	
nput compatibility	DI1DI6: discrete input level 1 PLC conforming to IEC 61131-2 DI5, DI6: discrete input level 1 PLC conforming to IEC 65A-68 STOA, STOB: discrete input level 1 PLC conforming to IEC 61131-2	
Discrete input logic	Positive logic (source) (DI1DI6), < 5 V (state 0), > 11 V (state 1) Negative logic (sink) (DI1DI6), > 16 V (state 0), < 10 V (state 1) Positive logic (source) (DI5, DI6), < 0.6 V (state 0), > 2.5 V (state 1) Positive logic (source) (STOA, STOB), < 5 V (state 0), > 11 V (state 1)	
Analogue output number	2	
Analogue output type	Software-configurable voltage AO1, AO2: 010 V DC impedance 470 Ohm, resolution 10 bits Software-configurable current AO1, AO2: 020 mA, resolution 10 bits	
Sampling duration	2 ms +/- 0.5 ms (DI1DI4) - discrete input 5 ms +/- 1 ms (DI5, DI6) - discrete input 5 ms +/- 0.1 ms (AI1, AI2, AI3) - analog input 10 ms +/- 1 ms (AO1) - analog output	
Accuracy	+/- 0.6 % Al1, Al2, Al3 for a temperature variation 60 °C analog input +/- 1 % AO1, AO2 for a temperature variation 60 °C analog output	
Linearity error	AI1, AI2, AI3: +/- 0.15 % of maximum value for analog input AO1, AO2: +/- 0.2 % for analog output	
Relay output number	3	
Relay output type	Configurable relay logic R1: fault relay NO/NC electrical durability 100000 cycles Configurable relay logic R2: sequence relay NO electrical durability 100000 cycles Configurable relay logic R3: sequence relay NO electrical durability 100000 cycles	
Refresh time	Relay output (R1, R2, R3): 5 ms (+/- 0.5 ms)	
Minimum switching current	Relay output R1, R2, R3: 5 mA at 24 V DC	
Maximum switching current	Relay output R1, R2, R3 on resistive load, cos phi = 1: 3 A at 250 V AC Relay output R1, R2, R3 on resistive load, cos phi = 1: 3 A at 30 V DC Relay output R1, R2, R3 on inductive load, cos phi = 0.4 and L/R = 7 ms: 2 A at 250 V AC Relay output R1, R2, R3 on inductive load, cos phi = 0.4 and L/R = 7 ms: 2 A at 30 V DC	
 Isolation	Between power and control terminals	

Environment

Insulation resistance	> 1 MOhm 500 V DC for 1 minute to earth	
Noise level	69 dB conforming to 86/188/EEC	
Power dissipation in W	Forced convection: 2390 W, switching frequency 2.5 kHz	
Maximum THDI	<48 % full load conforming to IEC 61000-3-12	
Electromagnetic compatibility 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 1.2/50 µs - 8/20 µs surge immunity test level 3 conforming to IEC 61000-4 Conducted radio-frequency immunity test level 3 conforming to IEC 61000-4		

Pollution degree	2 conforming to IEC 61800-5-1	
Vibration resistance	1.5 mm peak to peak (f= 213 Hz) conforming to IEC 60068-2-6 0.5 gn (f= 13200 Hz) conforming to IEC 60068-2-6	
Shock resistance	7 gn for 11 ms conforming to IEC 60068-2-27	
Relative humidity	595 % without condensation conforming to IEC 60068-2-3	
Ambient air temperature for operation	-1040 °C (without derating) 4050 °C (with derating factor)	
Ambient air temperature for storage	-4070 °C	
Operating altitude	<= 1000 m without derating 10004800 m with current derating 1 % per 100 m	
Environmental characteristic	Chemical pollution resistance class 3C3 conforming to IEC 60721-3-3 Dust pollution resistance class 3S3 conforming to IEC 60721-3-3	
Standards	IEC 61800-3 IEC 61800-5-1 IEC 61000-3-12 IEC 60721-3 IEC 61508 IEC 13849-1	
Product certifications	τϋν	
Marking	CE	

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	22.1 cm
Package 1 Width	53.85 cm
Package 1 Length	61.98 cm
Package 1 Weight	11.96 kg
Unit Type of Package 2	P06
Number of Units in Package 2	2
Package 2 Height	75 cm
Package 2 Width	60 cm
Package 2 Length	80 cm
Package 2 Weight	36 kg



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 >

☑ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	2473
Environmental Disclosure	Product Environmental Profile

Use Better

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	5b418692-6578-4a36-aac4-0bf9526de237
REACh Regulation	REACh Declaration

Use Again

○ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins