



**VECTOR
FREQUENCY
CONVERTER
type AFC200
0,37 - 3,0 kW**



UWAGA:

Niebezpieczne napięcie
Przed zdjęciem pokrywy
odczekać 5 minut
po wyłączeniu zasilania

- Input: **1 x 230V**, 45..66Hz
- Output: 0 - 320 Hz, **3 x 230V**
- Switching frequency: 4/8/16 kHz, modulator SVPWM
- Operation mode: **U/f** (linear, exponential), **Vector**
- **2 analog inputs** 0(2)..10V, 0(4)..20mA
- **1 analog output** 0(4)..20mA
- **6 fully separated digital inputs** 0/(15..24)V
- **2 relays** (250V/5A AC)
- Communication port RS485 - ModBus RTU (9600/19200), remote control of unit operation and programming of all parameters of the frequency converter
- **Internal PI regulator**
- **7 constant frequencies:** operation with constant frequencies, switching through digital inputs
- **Band frequency elimination**
- High-contrast **LED control panel**
- **Motopotentiometer** functions
- **Programmable control structure** (local/remote)
- **Displayed parameters:** output frequency, mechanical speed, reference frequency, heatsink temperature, DC link voltage
- **Protection:** undervoltage, overvoltage, overcurrent, short-circuit, from loosing RS485 communication
- **Build-in** RFI filter



TECHNICAL DATA:

Type	Constant torque Load		Pump & Fan Load		Overcurrent 60s. every 10min. [A]	Dimensions (H x W x D) [mm]
	Rated motor power [kW]	Rated output current [A]	Rated motor power [kW]	Rated output current [A]		
AFC200-0,37kW	0,37	2,2	0,55	3,0	3,3	70x168x133
AFC200-0,55kW	0,55	3,0	0,75	4,0	4,5	70x168x133
AFC200-0,75kW	0,75	4,0	1,1	5,5	6,0	70x168x133
AFC200-1,1kW	1,1	5,5	1,5	7,0	8,3	70x168x133
AFC200-1,5kW	1,5	7,0	2,2	9,5	10,5	73x187x166
AFC200-2,2kW	2,2	9,5	3,0	13,0	14,5	73x187x166
AFC200-3,0kW	3,0	13,0	3,0	13,0	14,5	73x187x166

Power	Voltage U_n	Single-phase power : 230V -15% +10%, 45...66Hz – other voltage available
Output	Output voltage	$0...U_n$ [V] / 0,0...320Hz
	Frequency resolution	0,01Hz
Control system	Modulator	SVPWM
	Operation mode	U/f (linear, exponential), Vector (sensorless)
	Switching frequency	4,8,16kHz
	Rotation speed setting	Analog inputs, control panel, motopotentiometer, PI-regulator, communication unit RS485 and other possibilities. Resolution of 0.1% for analog inputs or 0.1Hz /1 rpm for the control panel i RS
Control inputs/outputs	Analog inputs	2 analog inputs (AI1 and AI2): AI1: voltage mode 0(2)..10V, $R_{in} \geq 470k\Omega$ AI2: current mode 0(4)..20mA, $R_{in} = 500k\Omega$ accuracy 0,5% of the full range
	Digital inputs	6 digital separated inputs 0/(15...24)V $R_{in} \geq 8k\Omega$
	Analog outputs	1 output 0(4)...20mA – configuration with the help of parameters and switches, accuracy: 0.5 % of the full range
	Digital outputs	2 relays (K1, K2) – breaking capacity: 250V/1A AC
Communication	Connectors	RS485 with optoisolation
	Communication protocol	MODBUS RTU. Function 3 (Read Register); Function 6 (Write Register)
	Transmission speed	9600 or 19200 bit/s
	Application	Remote control of unit operation and programming of all parameters of the frequency converter.
Special functions	PI-regulator	Choice of referencing-unit signal source and feedback signal source, possibility of inverting polarity of an control error signal, output erasing on STOP signal, limitation of an output value
	Restore Factory Parameters	Ability to restore factory parameters of frequency inverter
Protection	Short-circuit protection	Short-circuit on unit output
	Overcurrent protection	Instantaneous value $3.5 I_n$; effective value $2.5 I_n$
	Device thermal protection	Radiator's heat sensor
	Motor thermal protection	I^2t limit, motor heat sensor
	Supervision of communication through RS	Established permissible time of connection absence
	Control of analog inputs	Check of absence of "living null" in modes 2...10V and 4...20mA



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