



Modular PLC, 24 V DC, 8DI, 6DO, ethernet, RS232, CAN, 4MB, web Server



Powering Business Worldwide™

Part no. **XC-CPU202-EC4M-8DI-6DO-XV**
134238

General specifications		
Product name		Eaton XC Modular PLC
Part no.		XC-CPU202-EC4M-8DI-6DO-XV
EAN		4015081311088
Product Length/Depth		100 millimetre
Product height		100 millimetre
Product width		60 millimetre
Product weight		0.25 kilogram
Certifications		EN 50178 IEC/EN 61131-2 EAC
Product Tradename		XC
Product Type		Modular PLC
Product Sub Type		None
Features & Functions		
Features		Mains filter (power supply) Asynchronous, cyclic, acyclic PDO types (CANopen®) Mains overvoltage protection (power supply) Expandable with XI/OC expansions Short-circuit protection (power supply) Integrated Web server
Fitted with:		Real time clock
Functions		Overvoltage protection Additional program memory possible
Processor		ARM 532 MHz
General information		
Accessories		Order terminal clamps, module rack and battery separately.
Battery runtime		5 years typ.
Connection type		RJ45, Ethernet Plug-in terminal block, CANopen® Plug-in terminal block
Degree of protection		IP20
Model		Modular
Mounting method		Wall mounting/direct mounting Rail mounting possible
Overvoltage category		II
Pollution degree		2
Potential isolation		Power supply of local inputs/outputs (24 V/0 V) against CPU voltage: yes CANopen®: yes Ethernet: no
Rated impulse withstand voltage (Uimp)		850 V (auxiliary and control circuits)
Residual ripple		≤ 5 %
Voltage type		DC
Ambient conditions, mechanical		
Mounting position		Horizontal
Shock resistance		15 g, Mechanical, Shock duration 11 ms
Vibration resistance		57 - 150 Hz, ± 1.0 g 10 - 57 Hz, ± 0.075 mm
Climatic environmental conditions		
Air pressure		795 - 1080 hPa (operation)
Ambient operating temperature - min		0 °C
Ambient operating temperature - max		55 °C
Ambient storage temperature - min		-25 °C
Ambient storage temperature - max		70 °C

Relative humidity		10 - 95 % (non-condensing)
Electro magnetic compatibility		
Emitted interference		Class A (according to IEC/EN 61000-6-4)
Interference immunity		According to EN 61000-6-2
Terminal capacities		
Terminal capacity (flexible with ferrule)		0.5 - 1.5 mm ²
Terminal capacity (flexible)		0.34 - 1.0 mm ²
Terminal capacity (solid)		0.14 - 1.0 mm ² 0.5 - 2.5 mm ²
Power supply		
Input power		33 W
Input voltage		24 V DC (Power supply of local inputs/outputs) 24 V DC (Power supply)
Inrush current		No limitation (limited only by upstream 24 V DC power supply unit)
Output current		3.2 A
Output voltage		5 V DC (signal module)
Power loss		6 W Normally 85 mW
Repetition rate		1 s
Supply voltage		20.4 - 28.8 V DC
Supply voltage at AC, 50 Hz - min		0 V AC
Supply voltage at AC, 50 Hz - max		0 V AC
Supply voltage at DC - min		20.4 V DC
Voltage dips		10 ms
Supply voltage at DC - max		28.8 V DC
Communication		
Bus termination		Internal, CANopen®
Cycle time		< 0.025 ms, for 1 k of instructions (Bit, Byte), memory
Data transfer rate		1 MBit/s, CANopen® 10/100 MBit/s, autodetect, Ethernet 115.2 kBit/s, Serial interface (RS232) without handshake lines
Interfaces		USB Host (built-in) USB 2.0 RS232 (built-in) Ethernet 100Base-TX/10Base-T (built-in) CANopen®/easyNet (built-in)
Memory		64 kByte Retain Memory 512 kByte Program memory data 4 MByte Program memory code 16 kByte Marker Memory 4 MByte (User memory)
Number of modules		Max. 126
Operating mode		Watchdog
Protocol		PROFIBUS MODBUS SUCONET EtherNet/IP Other bus systems CANopen® (To DS 301 V4) TCP/IP CAN
Input/Output		
Delay time		0.1 ms typ., Output delay, On -> Off 0.1 ms typ., Digital inputs, Delay time from 0 to 1, Debounce OFF 0.1 ms typ., Digital inputs 24 V DC, Delay time from 1 to 0, Debounce OFF
Duty factor		100 %, Digital outputs
Input current		3.5 mA (per channel at nominal voltage, Digital inputs)
LED indicator		Status indication of Power supply of local inputs/outputs: LED
Limit value type 1		High: > 15 V DC Low: < 5 V DC
Making/breaking delay		0.1 ms
Number of channels		6
Number of inputs (analog)		0
Number of inputs (digital)		8

Number of outputs		6 (transistor outputs)
Number of outputs (analog)		0
Number of outputs (digital)		6
Number of relay outputs		0
Rated operational current (Ie)		0.5 A at AC-3, 230 V
Signal range		19.2 - 30 V DC (Power supply of local inputs/outputs, note polarity)
Switching capacity		IEC/EN 60947-5-1, utilization category DC-13, Digital outputs
Utilization factor		1 (Inductive load to EN 60947-5-1, Without external suppressor circuit, T0.95 = 1 ms, R = 48 Ω, L = 16 mH)
Safety		
Explosion safety category for gas		None
Protection against polarity reversal		Yes Yes, for AS-Interface
Explosion safety category for dust		None
System		
Memory capacity		4,000 kByte
Design verification		
Equipment heat dissipation, current-dependent Pvid		0.08 W
Heat dissipation capacity Pdis		0 W
Heat dissipation per pole, current-dependent Pvid		0 W
Rated operational current for specified heat dissipation (In)		0 A
Static heat dissipation, non-current-dependent Pvs		6 W
Heat dissipation details		Without local I/O
10.2.2 Corrosion resistance		Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures		Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat		Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects		Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation		Meets the product standard's requirements.
10.2.5 Lifting		Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact		Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions		Meets the product standard's requirements.
10.3 Degree of protection of assemblies		Meets the product standard's requirements.
10.4 Clearances and creepage distances		Meets the product standard's requirements.
10.5 Protection against electric shock		Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components		Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections		Is the panel builder's responsibility.
10.8 Connections for external conductors		Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength		Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage		Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material		Is the panel builder's responsibility.
10.10 Temperature rise		The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating		Is the panel builder's responsibility.
10.12 Electromagnetic compatibility		Is the panel builder's responsibility.
10.13 Mechanical function		The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 9.0

Programmable logic controllers PLC (EG000024) / PLC CPU-module (EC000236)		
Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Programmable logic control (SPS) / SPS - basic device (ecl@ss13-27-24-22-07 [AKE530019])		
Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	20.4 - 28.8
Voltage type (supply voltage)		DC
Number of relay outputs		0
Max. number of time switches		1000

Model		Modular
Processing time (1K, binary operation)	ms	0.025
Number of HW-interfaces industrial Ethernet		1
Number of interfaces PROFINET		0
Number of HW-interfaces RS-232		1
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces USB		1
Number of HW-interfaces parallel		0
Number of HW-interfaces wireless		0
Number of HW-interfaces other		1
Number of analogue outputs		0
Number of analogue inputs		0
Number of digital inputs		8
Number of digital outputs		6
With optical interface		No
Supporting protocol for TCP/IP		Yes
Supporting protocol for PROFIBUS		Yes
Supporting protocol for CAN		Yes
Supporting protocol for EtherCAT		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for Modbus		Yes
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		Yes
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		Yes
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Supporting protocol for DNP3		No
Supporting protocol for IEC 60870		No
Supporting protocol for IEC 61850 Ethernet		No
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
Long-Term Evolution (LTE)		No
IO link master		No
System accessory		Yes
Redundancy		No
With display		No
Type of memory		RAM
Memory size	kByte	4000
Additional program memory possible		Yes

Rail mounting possible			Yes
Wall mounting/direct mounting			Yes
Front built-in possible			No
Rack-assembly possible			No
Suitable for safety functions			No
SIL according to IEC 61508			None
Performance level according to EN ISO 13849-1			None
Appendant operation agent (Ex ia)			No
Appendant operation agent (Ex ib)			No
Explosion safety category for gas			None
Explosion safety category for dust			None
Certified for UL hazardous location class I			No
Certified for UL hazardous location class II			No
Certified for UL hazardous location class III			No
Certified for UL hazardous location division 1			No
Certified for UL hazardous location division 2			No
Certified for UL hazardous location group A (acetylene)			No
Certified for UL hazardous location group B (hydrogen)			No
Certified for UL hazardous location group C (ethylene)			No
Certified for UL hazardous location group D (propane)			No
Certified for UL hazardous location group E (metal dusts)			No
Certified for UL hazardous location group F (carbonaceous dusts)			No
Certified for UL hazardous location group G (non-conductive dusts)			No
Width		mm	60
Height		mm	100
Depth		mm	100