DATASHEET - XC-CPU202-EC4M-8DI-6DO-XV

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
EL Number (Norway)	**4519641**

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
Public Consumption	Yes
Product Family Description	ES-PMCC-ICP-Eaton XC100/XC200 modular programmable logic controllers
Globally Marketable	Yes

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

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

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

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)

Emitted interference	Class A (according to IEC/EN 61000-6-4)
Interference immunity	According to EN 61000-6-2

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

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
Supply voltage at AC, 50 Hz - max	0
Supply voltage at DC - min	20.4
Voltage dips	10 ms
Supply voltage at DC - max	28.8

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

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)

Explosion safety category for gas	None
Protection against polarity reversal	Yes Yes, for AS-Interface
Explosion safety category for dust	None

Memory capacity	4,000 kByte

Equipment heat dissipation, current-dependent Pvid	0.08 W
Heat dissipation capacity Pdiss	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 8.0

Programmable logic controllers PLC (EG000024) / PLC CPU-module (EC000236)

Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS - basic device (ecl@ss10.0.1-27-24-22-07 [AKE530014])

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 of supply voltage		DC
Number of relay outputs		0

Max. number of time switches			1,000
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 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 Wi-Fi 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	4,000
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
Width		mm	60
Height		mm	100
Depth		mm	100