Modular PLC, 24 V DC, 8DI, 6DO, ethernet, RS232, CAN, 256kB

Part no. XC-CPU201-EC256K-8DI-6DO
Article no. 262155
Catalog No. XC-CPU201-EC256K

Powering Business Worldwide

Delivery programme

Digital input count			Digital: 8; of which usable as interrupt: 6
Quantity of outputs			Transistor: 6
Built-in interfaces			CANopen®/easyNet RS232 Ethernet 100Base-TX/10Base-T
Instructions			expandable with → expansions XI/OC Only on connection with →XI/OC rack
User memory			256 Kbyte
Cycle time for 1 k of instructions (Bit, Byte)		ms	0.15
Memory			
Application/marker/retain data		KByte	256 KB/16 KB/32 KB
Integrated Web server			no
Information about equipment supplied			The following accessory equipment is required: terminal clamps, module rack, battery

Technical data

General

Standards			IEC/EN 61131-2 EN 50178
Ambient temperature		°C	0 - +55
Storage	ϑ	°C	-25 - +70
Mounting position			Horizontal
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	10 - 95
Air pressure (operation)		hPa	795 - 1080
Vibration resistance			10 - 57 Hz ±0.075 mm 57 - 150 Hz ±1.0 g
Mechanical shock resistance		g	15 Shock duration 11 ms
Overvoltage category/pollution degree			II/2
Degree of Protection			IP20
Rated impulse withstand voltage	U_{imp}	V	850
Emitted interference			EN 61000-6-4, Class A
Interference immunity			EN 61000-6-2
Battery (service life)			normally 5 years
Weight		kg	0.23
Terminations			Plug-in terminal block
Terminal capacities		mm^2	
Screw terminals			
Flexible with ferrule		mm^2	0.5 - 1.5
Solid		mm^2	0.5 - 2.5
Spring-loaded terminals			
flexible		mm^2	0.34 - 1.0
Solid		mm^2	0.14 - 1.0

Power supply

Duration of mains dip		ms	10
Repetition rate		s	1
Input voltage		V DC	24
Admissible range		V DC	20.4 - 28.8
Input rating		W	max. 33
Residual ripple		%	5

Maximum power loss	P_v	W	6
Note on heat dissipation			Without local I/O
Overvoltage protection			Yes
Protection against polarity reversal			Yes
Mains filter			Yes
Inrush current		x I_n	No limitation (limited only by upstream 24 V DC power supply unit)
Signal module output voltage			
Rated value		V DC	5
Output current		A	3.2
Short-circuit rating			Yes
Electrically isolated from the supply voltage			No

CPU

Processor			NEC VR4181 A MIPS

Memory

Program code/program data			256 kByte/256 kByte
Marker/retentive data		KByte	16/32
Cycle time for 1 k of instructions (Bit, Byte)		ms	< 0.15

Interfaces

Ethernet			
Data transfer rate		MBit/s	10/100 Autodetect
Connection type			RJ45
Potential isolation			No
Serial interface (RS232) without handshake lines			
Data transfer rate		kbit/s	max. 115.2
Connection technique			RJ45
Potential isolation			No
USB interface			1.0
CANopen®			
Maximum data transfer rate		MBit/s	1
Potential isolation			Yes
Device profile			To DS 301 V4
PDO type			Asyn., cyc., acyc.
Connection			Plug-in terminal block
Bus terminating resistors			External
Stations		Number	max. 126
Watchdog			Yes
RTC (real-time clock)			Yes

Power supply of local inputs/outputs (24 V_Q/0 V_Q)

Input voltage		V DC	24
Voltage range		V DC	19.2 - 30, note polarity
Potential isolation			
Power supply against CPU voltage			Yes
Power supply against inputs/outputs			No
Status indication			LED
Terminations			Plug-in terminal block
Overvoltage protection			Yes
Protection against polarity reversal			Yes

Digital inputs

Input current per channel at nominal voltage		mA	Normally 3.5
Power loss per channel			Normally 85 mW
Voltage level to IEC/EN 61131-2			
Limit value type 1			Low < 5 V DC, high > 15 V DC
Input delay			
Off → On		ms	Normally 0.1
On → Off		ms	Normally 0.1
Inputs		Number	8, 2 of which programmable as 50 kHz counters, 2 as interrupt inputs, 1 as incremental input

Channels with the same reference potential		Qty.	8
Status indication			LED

Digital outputs

Channels		Number	6
Power loss per channel		W	0.08
QX0.0 to QX0.3		A	0.5
Output delay			
Off → On			Normally 0.1 ms
On → Off			Normally 0.1 ms
Channels with the same reference potential		Qty.	6
Status indication			LED
Switching capacity			IEC/EN 60947-5-1, utilization category DC-13
duty factor		% DF	100
Utilization factor		g	1

Design verification as per IEC/EN 61439

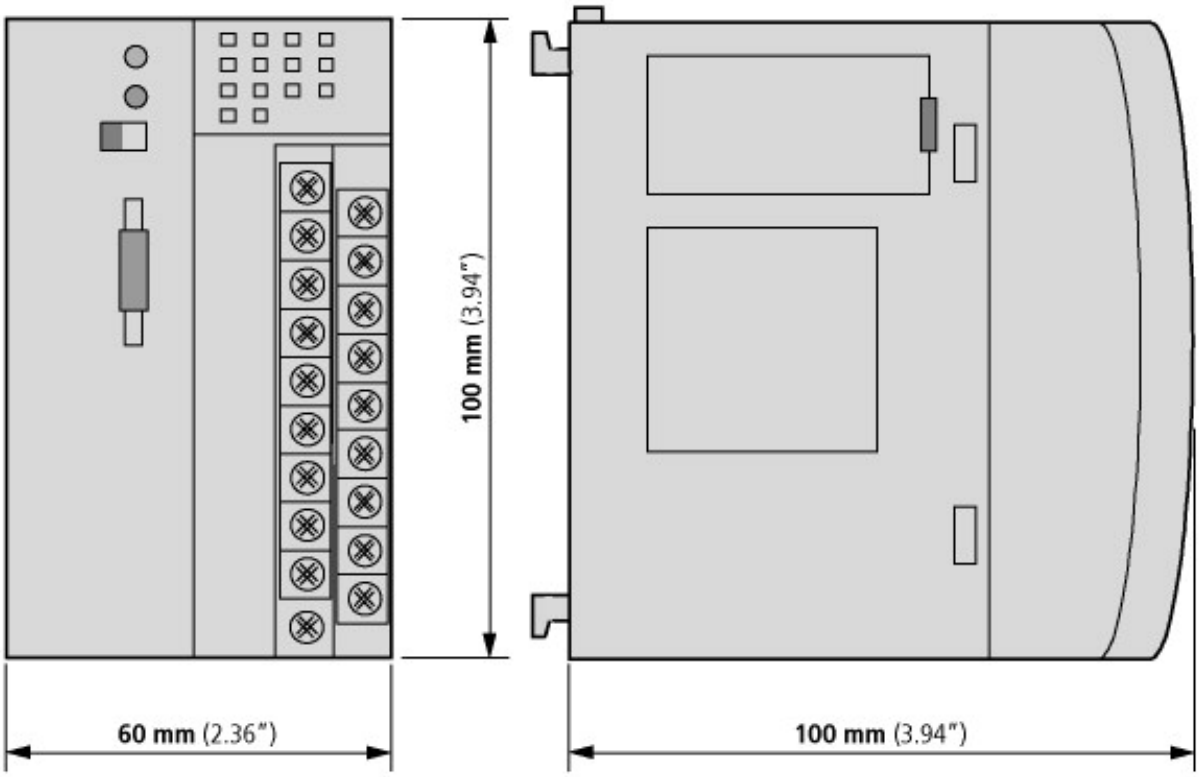
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	0
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	6
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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.

Approvals

Product Standards			IEC: see Technical Data; UL508; CSA-C22.2 No. 0-M; CSA-C22.2 No. 142-M; CE marking
UL File No.			E135462
UL Category Control No.			NRAQ

CSA File No.	012528
CSA Class No.	2252-01
North America Certification	UL listed, CSA certified
Specially designed for North America	No
Current Limiting Circuit-Breaker	No
Degree of Protection	IEC: IP20, UL/CSA Type: -

Dimensions



Additional product information (links)

MN05003001Z-EN User manual Modular PLC XC-CPU201-...(-XV), XC-CPU202-...-XV	
MN05003001Z Handbuch Modular PLC XC-CPU201-...(-XV), XC-CPU202-...-XV - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003001Z-DE.pdf
MN05003001Z Handbuch Modular PLC XC-CPU201-...(-XV), XC-CPU202-...-XV - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003001Z_DE.pdf
MN05003001Z-EN User manual Modular PLC XC-CPU201-...(-XV), XC-CPU202-...-XV - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003001Z-EN.pdf
MN05003001Z-EN User manual Modular PLC XC-CPU201-...(-XV), XC-CPU202-...-XV - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05003001Z_EN.pdf