



Control panel with PLC, 24 VDC, 10 Inches PCT-Display, 1024x600 pixels, 1xEthernet, 1xRS232, 1xRS485, 1xCAN, 1xProfibus, 1xSD card slot

Part no. XV-303-10-B02-A00-1C

179665

**EL Number
(Norway)**

4501324

General specifications		
Product name		Eaton XV-303 Touch panel
Part no.		XV-303-10-B02-A00-1C
EAN		7640130098763
Product Length/Depth		269 millimetre
Product height		58 millimetre
Product width		174 millimetre
Product weight		1.195 kilogram
Certifications		Certified by UL for use in Canada EMC according to 2014/30/EU IEC/EN 61131-2 DNV GL UL CUL EN 50178 CE UL File No.: E205091 UL 61010-2-201
Product Tradename		XV-303
Product Type		Touch panel
Product Sub Type		None
Catalog Notes		PLC license inclusive Optionally with SD card -> article no. 181638 License certificates for onboard interfaces not required Heat dissipation with power consumption for 24 V 12 W for basic device + 2.5 W for USB module
Features & Functions		
Enclosure material		Insulated material
Features		USB device Fanless CPU and system cooling, natural convection-based passive cooling Integrated Runtime visualization software license RS485 CAN Slot for SD card Operating System Windows Embedded Compact 7 pro Ethernet interface Portrait format Target and web visualization USB Host RS232
Fitted with:		1 x USB host 2.0 (built-in interface) Message system (incl. buffer and confirmation) 1 x RS485 (built-in interface) 1 x RS232 (built-in interface) 1 x PROFIBUS/MPI (built-in interface) 1 x USB device (built-in interface) SW interfaces 1 x CANopen®/easyNet (built-in interfaces) Printer output Recipes Color display Message indication MPI interface 1 x Ethernet 10/100 Mbps (built-in interfaces)
Functions		Additional software components, loadable Process default value (input) possible Process value representation (output) possible
General information		
Battery runtime		Back-up of real-time clock: BR 2330, non-replaceable (soldered)
Degree of protection		NEMA 4X IP20, rear (according to EN 60529-1) NEMA 12
Degree of protection (front side)		NEMA 12 IP65

Fuse type		Built-in fuse (not accessible)
Lifespan		50,000 h (Service life of back-lighting)
Model		Plastic enclosure and glass panel in plastic frame
Mounting method		Flush mounting Flush mounting - Clearance: Width x Height x Depth \geq 30 mm (1.18") Flush mounting - Inclination from vertical: $\pm 45^\circ$ (if using natural convection)
Potential isolation		Power supply: no
Protection against polarity reversal		Yes, for supply voltage (Siemens MPI optional)
Product category		HMI-PLC (integrated SPS function)
RoHs conformity		Yes
Software		XSOFT-CODESYS-2, PLC-Programming software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering GALILEO, Visualization software, Engineering XSOFT-CODESYS, Visualization software, Engineering
Type		Control panel with PLC and Profibus
Voltage type		DC
Ambient conditions, mechanical		
Shock resistance		15 g, 11 ms, Mechanical
Vibration resistance		9 - 60 Hz, \pm 0.15 mm 60 - 150 Hz, \pm 2 g 5 - 9 Hz, \pm 3.5 mm
Climatic environmental conditions		
Air pressure		795 - 1080 hPa (operation)
Ambient operating temperature - min		0 °C
Ambient operating temperature - max		50 °C
Ambient storage temperature - min		-20 °C
Ambient storage temperature - max		60 °C
Climatic proofing		Damp heat, constant, to IEC 60068-2-3 Cold to EN 60068-2-1 Dry heat to IEC 60068-2-2
Environmental conditions		Condensation: Non-condensing
Operating temperature - min		0 °C
Operating temperature - max		50 °C
Relative humidity		10 - 95 % (non-condensing)
Electro magnetic compatibility		
Emitted interference		According to IEC/EN 61000-6-4
Interference immunity		According to EN 61000-6-2
Voltage dips		\leq 10 ms from rated voltage (24 V DC) 5 ms from undervoltage (19.2 V DC)
Electrical rating		
Permissible voltage		18.0 - 31.2 V DC, absolute with ripple 18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %) 19.2 - 30 V DC, effective (rated operating voltage -20 %/+25 %) 35 V DC (for a duration of $<$ 100 ms)
Power consumption		15.5 W Max. 18 W 18 W typ.
Rated operational voltage		24 V DC (power-supply - safety extra low voltage)
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		19.2 V DC
Supply voltage at DC - max		30 V DC
Communication		
Communication interface		PROFIBUS-DP, not galvanically isolated, 9 pole SUB-D socket, UNC
Interfaces		CAN (not galvanically isolated, 9-pin SUB-D plug, UNC) RS485 (not galvanically isolated, 9-pin SUB-D plug, UNC) 10/100 Mbps Ethernet connection USB 2.0 device (not galvanically isolated) USB 2.0 host (not galvanically isolated) RS232 (not galvanically isolated, 9-pin SUB-D plug, UNC)
Number of slots		1 (for SD-Card)
Protocol		EtherCAT PROFIBUS EtherNet/IP

		CAN MODBUS TCP/IP
Display		
Display contrast ratio		500:1
Display lighting		LED Dimmable via software
Display size		16:9 222.72 x 125.28 mm
Display type		TFT Anti-glare tempered glass in plastic bezel Color display, TFT, anti-glare
Luminance intensity		400 cd/m ²
Number of colors of the display		16777216
Resolution		WSVGA 1024 x 600 px
Screen size (diagonal)		10.1 in
Touch technology		Projected Capacitive Touch (PCT) Capacitive multitouch Multi-touch touch panel touch sensor
System		
Backup time		10 years, typ. (time at zero voltage)
Memory		DRAM: 512 MByte RAM SD card, Type: SDSC, SDHC (external memory) NVRAM: 128kByte Retain Flash: 1 GByte SLC
Memory capacity		512,000 kByte
Operating system		Windows Embedded Compact 7 Pro
Processor		ARM Cortex-A9 800 MHz
Design verification		
Equipment heat dissipation, current-dependent P _{vid}		18 W
Heat dissipation capacity P _{diss}		0 W
Heat dissipation per pole, current-dependent P _{vid}		0 W
Rated operational current for specified heat dissipation (I _n)		0 A
Static heat dissipation, non-current-dependent P _{vs}		18 W
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		Please enquire
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) / Graphic panel (EC001412)

Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	19.2 - 30
Voltage type (supply voltage)		DC
Power consumption	W	18
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		1
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		2
Number of HW-interfaces parallel		0
Number of HW-interfaces wireless		0
Number of HW-interfaces other		2
With SW interfaces		Yes
Supporting protocol for EtherCAT		Yes
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		No
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		No
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
Type of display		TFT
Colour display		Yes
Number of colours of the display		16777216
Number of grey-scales/blue-scales of display		0
Screen diagonal	inch	10.1
Number of pixels, horizontal		1024
Number of pixels, vertical		600
Useful project memory/user memory	kByte	512000
With numeric keyboard		No

With alpha numeric keyboard		No
Number of function buttons, programmable		0
Number of buttons with LED		0
Number of system buttons		1
Touch technology		Capacitive multitouch
With message indication		Yes
With message system (incl. buffer and confirmation)		Yes
Process value representation (output) possible		Yes
Process default value (input) possible		Yes
With recipes		Yes
Number of password levels		200
With printer output		Yes
Number of online languages		100
Additional software components, loadable		Yes
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		12
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
Operating temperature	°C	0 - 50
Rail mounting possible		No
Wall mounting/direct mounting		No
Suitable for safety functions		No
Width of the front	mm	269
Height of the front	mm	174
Built-in depth	mm	50.1