



User interface with PLC, 24 VDC, 15.6z PCT widescreen display, 1366x768 pixels, 2xEthernet, 1xRS232, 1xRS485, 1xCAN, 1xSD card slot, VisualDesigner

Part no. XV-303-15-C00-A00-1E
191078
EL Number 4501328
(Norway)

General specifications		
Product name		Eaton XV-303 Touch panel
Part no.		XV-303-15-C00-A00-1E
EAN		7640130099173
Product Length/Depth		403.7 millimetre
Product height		76.6 millimetre
Product width		254.9 millimetre
Product weight		3.9 kilogram
Certifications		CUL EMC according to 2014/30/EU EN 50178 DNV GL IEC/EN 61131-2
Product Tradename		XV-303
Product Type		Touch panel
Product Sub Type		None
Features & Functions		
Enclosure material		Aluminum (die-cast, glass panel) Insulated material
Features		CAN Ethernet interface Portrait format RS485 Target and web visualization Slot for SD card USB Host USB device Operating System Windows Embedded Compact 7 pro RS232 Fanless CPU and system cooling, natural convection-based passive cooling Integrated Runtime visualization software license
Fitted with:		1 x USB device (built-in interface) 1 x RS232 (built-in interface) 1 x USB host 2.0 (built-in interface) 1 x CANopen®/easyNet (built-in interfaces) Printer output Message indication 2 x Ethernet 10/100 Mbps (built-in interface) Color display Recipes Message system (incl. buffer and confirmation) SW interfaces 1 x RS485 (built-in interface)
Functions		Process default value (input) possible Additional software components, loadable Process value representation (output) possible
General information		
Battery runtime		Back-up of real-time clock: BR 2330, non-replaceable (soldered)
Degree of protection		IP20, rear (according to EN 60529-1) NEMA 4X 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 - Inclination from vertical: # ≤ ± 10 ° (if using natural convection) Flush mounting - Inclination from vertical: # ≤ ± 45° at operating temperature ≤ 45°C (113°F) (if using natural convection) Flush mounting - Mounting plate: min. 1.5 mm (0.06"), max. 4 mm Flush mounting

		Flush mounting - Clearance: Width x Height ≥ 50 mm (1.97"), Depth ≥ 20 mm (0.79")
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, Visualization software, Engineering Software (Engineering): visualization = Visual Designer XSOFT-CODESYS-3, PLC-Programming software, Engineering VISUAL DESIGNER XSOFT-CODESYS-2, PLC-Programming software, Engineering
Type		Control panel with 2nd Ethernet port
Voltage type		DC
Ambient conditions, mechanical		
Shock resistance		15 g, 11 ms, Mechanical
Vibration resistance		9 - 60 Hz, ± 0.15 mm 60 - 150 Hz, ± 2 g 5 - 9 Hz, ± 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 Dry heat to IEC 60068-2-2 Cold to EN 60068-2-1
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		5 ms from undervoltage (19.2 V DC) ≤ 10 ms from rated voltage (24 V DC)
Electrical rating		
Permissible voltage		18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %) 19.2 - 30 V DC, effective (rated operating voltage -20 %/+25 %) 18.0 - 31.2 V DC, absolute with ripple 35 V DC (for a duration of < 100 ms)
Power consumption		19.1 W 16 W typ. Max. 21.6 W
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		
Interfaces		CAN (not galvanically isolated, 9-pin SUB-D plug, UNC) 10/100 Mbps Ethernet connection RS485 (not galvanically isolated, 9-pin SUB-D plug, UNC) USB 2.0 device (not galvanically isolated) RS232 (not galvanically isolated, 9-pin SUB-D plug, UNC) USB 2.0 host (not galvanically isolated)
Number of slots		1 (for SD-Card)
Protocol		EtherCAT TCP/IP MODBUS EtherNet/IP CAN
Display		
Display contrast ratio		500:1
Display lighting		LED

		Dimmable via software
Display size		344.23 x 193.54 mm 16:9
Display type		Color display, TFT, anti-glare TFT Non-reflective tempered glass in aluminum frame
Display viewing angle		85°/85°/80°/80° (left/right/up/down)
Luminance intensity		300 cd/m ²
Number of colors of the display		16777216
Resolution		WXGA 1366 x 768 px
Screen size (diagonal)		15.6 in
Touch technology		Capacitive multitouch Multi-touch touch panel touch sensor Projected Capacitive Touch (PCT)
System		
Backup time		10 years, typ. (time at zero voltage)
Memory		Flash: 1 GByte SLC SD card, Type: SDSC, SDHC (external memory) NVRAM: 128kByte Retain DRAM: 512 MByte RAM
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 Pvid		0 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		21.6 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)		
Electric engineering, automation, process control engineering / Display and control component / Panel (HMI) / Graphic panel (HMI) (ecl@ss13-27-33-02-01 [AFX016008])		
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	21.6
Number of HW-interfaces industrial Ethernet		2
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		1
With SW interfaces		Yes
Supporting protocol for EtherCAT		Yes
Supporting protocol for TCP/IP		Yes
Supporting protocol for PROFIBUS		No
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	15.6
Number of pixels, horizontal		1366
Number of pixels, vertical		768
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	404
Height of the front		mm	255
Built-in depth		mm	75.5