

Control panel with PLC as SWD coordinator, 24 VDC, 7 Inches PCT-Display, 1024x600 pixels, 1xEthernet, 1xRS232, 1xRS485, 1xCAN, 1xSWD,1xSD card slot



Part no. XV-303-70-CE0-A00-1C
179656
EL Number 4501313
(Norway)

Product name	Eaton XV-303 Touch panel
Part no.	XV-303-70-CE0-A00-1C
EAN	7640130098701
Product Length/Depth	196 millimetre
Product height	51 millimetre
Product width	135 millimetre
Product weight	0.84 kilogram
Certifications	CUL IEC/EN 61131-2 UL 61010-2-201 DNV GL UL EN 50178 CE Certified by UL for use in Canada UL File No.: E205091 EMC according to 2014/30/EU
Product Tradename	XV-303
Product Type	Touch panel
Product Sub Type	None
Catalog Notes	11.9 W for basic device + 2.5 W for USB module Heat dissipation with power consumption for 24 V License certificates for onboard interfaces not required Optionally with SD card -> article no. 181638 PLC license inclusive
Enclosure material	Insulated material
Features	USB device RS232 Slot for SD card Target and web visualization Integrated Runtime visualization software license Fanless CPU and system cooling, natural convection-based passive cooling USB Host Overload proof RS485 Operating System Windows Embedded Compact 7 pro Portrait format Ethernet interface CAN
Fitted with:	1 x USB device (built-in interface) 1 x CANopen®/easyNet (built-in interfaces) 1 x USB host 2.0 (built-in interface) 2 x Ethernet 10/100 Mbps (built-in interface) 1 x RS485 (built-in interface) 1 x SmartWire-DT (built-in interface) SW interfaces Message indication Message system (incl. buffer and confirmation) Recipes Printer output 1 x RS232 (built-in interface) Color display
Functions	Process value representation (output) possible Process default value (input) possible SmartWire-DT coordination Additional software components, loadable
Battery runtime	Back-up of real-time clock: BR 2330, non-replaceable (soldered)
Degree of protection	IP20, rear (according to EN 60529-1) NEMA 12 NEMA 4X
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 - Clearance: Width x Height x Depth \geq 30 mm (1.18") Flush mounting - Inclination from vertical: $\pm 45^\circ$ (if using natural convection) Flush mounting
Potential isolation		Supply voltage UAUX: no Between UPOW and 15 V SmartWire-DT supply voltage: no Power supply: no
Protection against polarity reversal		Yes, for supply voltage (Siemens MPI optional) Yes
Product category		SmartWire-DT coordinators
Repetition rate		1 s
Residual ripple		$\leq 5\%$ (input voltage)
RoHs conformity		Yes
Short-circuit protection		No, external fuse FAZ Z3, Supply voltage UAUX Yes, Short-circuit rating, SmartWire-DT supply voltage
Software		XSOFT-CODESYS, Visualisation software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering GALILEO, Visualisation software, Engineering
Terminal capacity		0.25 - 1.5 mm ² , flexible with ferrule 24 - 16 AWG, solid or stranded 0.2 - 1.5 mm ² , solid
Type		Control panel with PLC as a SmartWire-DT coordinator and 2nd Ethernet port
Voltage type		DC
Shock resistance		15 g, 11 ms, Mechanical
Vibration resistance		60 - 150 Hz, ± 2 g 5 - 9 Hz, ± 3.5 mm 9 - 60 Hz, ± 0.15 mm
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)
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, Bridging voltage dips ≤ 10 ms from rated voltage (24 V DC)
Inrush current		12.5 A (for 6 ms)
Permissible voltage		35 V DC (for a duration of < 100 ms) 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 %)
Power consumption		14 W typ. Max. 14.4 W
Rated control supply voltage		24 V DC (UAUX, -15 %/+20 %) 24 V DC (UPOW, -15 %/+20 %)
Rated operational current (Ie)		0.7 A
Rated operational voltage		Typically UAUX -0.2 V (for 24 V DC slaves) 14.5 V ($\pm 3\%$ - SmartWire-DT) 24 V DC (power-supply - safety extra low voltage)
Supply current		0.7 A, I _{max} , SmartWire-DT supply

			<p>If SmartWire-DT modules with a total power consumption > 0.7 A are connected, a power feeder module EU5C-SWD-PF2 has to be used; SmartWire-DT supply 3 A, I_{max}, Supply voltage UAux</p> <p>If contactors with a total power consumption > 3 A are connected, a power feeder module EU5C-SWD-PF1/2 has to be used, Supply voltage UAux</p>
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
Addressing			Address set automatically
Communication interface			SmartWire-DT master
Connection			SmartWire-DT blade terminal SWD4-8MF2
Connection to SmartWire-DT			Yes
Connection type			Push in terminals, Supply voltage SWD: Plug, 8-pole
Data transfer rate			125 kBit/s, SmartWire-DT 250 kBit/s, SmartWire-DT
Interfaces			10/100 Mbps Ethernet connection USB 2.0 device (not galvanically isolated) CAN (not galvanically isolated, 9-pin SUB-D plug, UNC) RS232 (not galvanically isolated, 9-pin SUB-D plug, UNC) RS485 (not galvanically isolated, 9-pin SUB-D plug, UNC) USB 2.0 host (not galvanically isolated)
LED indicator			Status indication of SmartWire-DT network: Configurable green or red LED Status indication of SmartWire-DT master: Green and red LEDs Status indication of Supply voltage: LED
Number of slots			1 (for SD-Card)
Number of SmartWire-DT slaves			99
Protocol			TCP/IP Other bus systems EtherNet/IP CAN MODBUS
Station			SmartWire-DT master, SmartWire-DT network
Display contrast ratio			850:1
Display lighting			LED Dimmable via software
Display size			153.6 x 90.0 mm 16:9
Display type			Anti-glare tempered glass in plastic bezel TFT Color display, TFT, anti-glare
Luminance intensity			400 cd/m ²
Number of colors of the display			16777216
Resolution			1024 x 600 px WSVGA
Screen size (diagonal)			7 in
Touch technology			Projected Capacitive Touch (PCT) Capacitive multitouch Multi-touch touch panel touch sensor
Backup time			10 years, typ. (time at zero voltage)
Memory			DRAM: 512 MByte RAM Flash: 1 GByte SLC SD card, Type: SDSC, SDHC (external memory) NVRAM: 128kByte Retain
Memory capacity			512,000 kByte
Operating system			Windows Embedded Compact 7 Pro
Processor			ARM Cortex-A9 800 MHz
Equipment heat dissipation, current-dependent P _{vid}			14.4 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}			14.4 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 8.0

Programmable logic controllers PLC (EG000024) / Graphic panel (EC001412)		
Electric engineering, automation, process control engineering / Display and control component / Panel (HMI) / Graphic panel (HMI) (ecl@ss10.0.1-27-33-02-01 [AFX016003])		
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 of supply voltage		DC
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		2
With SW interfaces		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 PROFI-safe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Radio standard Bluetooth		No
Radio standard Wi-Fi 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
Type of display		TFT
With colour display		Yes
Number of colours of the display		16,777,216
Number of grey-scales/blue-scales of display		0
Screen diagonal	inch	7
Number of pixels, horizontal		1,024
Number of pixels, vertical		600
Useful project memory/user memory	kByte	512,000
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
Operating temperature	°C	0 - 50
Rail mounting possible		No
Wall mounting/direct mounting		No
Suitable for safety functions		No
Width of the front	mm	196
Height of the front	mm	135
Built-in depth	mm	43.1