DATASHEET - XV-303-70-B00-A00-1C

Control panel with PLC, 24 V DC, 7 Inches PCT-Display, 1024x600 pixels, 1xEthernet, 1xRS232, 1xRS485, 1xCAN, 1xSD card slot

Powering Business Worldwide

Part no.	**XV-303-70-B00-A00-1C**
	179649
EL Number (Norway)	**4501302**

Product name	Eaton XV-303 Touch panel
Part no.	XV-303-70-B00-A00-1C
EAN	7640130098657
Product Length/Depth	196 millimetre
Product height	51 millimetre
Product width	135 millimetre
Product weight	0.78 kilogram
Certifications	UL EN 50178 CUL CE EMC according to 2014/30/EU UL File No.: E205091 UL 61010-2-201 IEC/EN 61131-2 Certified by UL for use in Canada DNV GL
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 Integrated Runtime visualization software license Fanless CPU and system cooling, natural convection-based passive cooling RS485 Target and web visualization Operating System Windows Embedded Compact 7 pro Portrait format USB Host Ethernet interface CAN
Fitted with:	1 x USB device (built-in interface) 1 x USB host 2.0 (built-in interface) Recipes 1 x CANopen®/easyNet (built-in interfaces) 1 x Ethernet 10/100 Mbps (built-in interfaces) Message indication Message system (incl. buffer and confirmation) Printer output SW interfaces 1 x RS232 (built-in interface) Color display 1 x RS485 (built-in interface)
Functions	Process value representation (output) possible Process default value (input) possible Additional software components, loadable
Battery runtime	Back-up of real-time clock: BR 2330, non-replaceable (soldered)
Degree of protection	NEMA 4X NEMA 12 IP20, rear (according to EN 60529-1)
Degree of protection (front side)	IP65 NEMA 12
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: ±45° (if using natural convection) Flush mounting - Clearance: Width x Height x Depth ≥ 30 mm (1.18") Flush mounting
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 GALILEO, Visualization software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering XSOFT-CODESYS, Visualization software, Engineering
Type	Control panel with PLC
Voltage type	DC
Shock resistance	15 g, 11 ms, Mechanical
Vibration resistance	5 - 9 Hz, ± 3.5 mm 60 - 150 Hz, ± 2 g 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	Cold to EN 60068-2-1 Damp heat, constant, to IEC 60068-2-3 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)
Emitted interference	According to IEC/EN 61000-6-4
Interference immunity	According to EN 61000-6-2
Voltage dips	≤ 10 ms from rated voltage (24 V DC) 5 ms from undervoltage (19.2 V DC)
Permissible voltage	18.0 - 31.2 V DC, absolute with ripple 35 V DC (for a duration of < 100 ms) 19.2 - 30 V DC, effective (rated operating voltage -20 %/+25 %) 18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %)
Power consumption	Max. 14.4 W 14 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
Interfaces	10/100 Mbps Ethernet connection RS232 (not galvanically isolated, 9-pin SUB-D plug, UNC) CAN (not galvanically isolated, 9-pin SUB-D plug, UNC) RS485 (not galvanically isolated, 9-pin SUB-D plug, UNC) USB 2.0 device (not galvanically isolated) USB 2.0 host (not galvanically isolated)
Number of slots	1 (for SD-Card)
Protocol	EtherNet/IP CAN MODBUS TCP/IP
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 Color display, TFT, anti-glare TFT
Luminance intensity			400 cd/m²
Number of colors of the display			16777216
Resolution			1024 x 600 px WSVGA
Screen size (diagonal)			7 in
Touch technology			Capacitive multitouch Multi-touch touch panel touch sensor Projected Capacitive Touch (PCT)
Backup time			10 years, typ. (time at zero voltage)
Memory			DRAM: 512 MByte RAM NVRAM: 128kByte Retain Flash: 1 GByte SLC SD card, Type: SDSC, SDHC (external memory)
Memory capacity			512,000 kByte
Operating system			Windows Embedded Compact 7 Pro
Processor			ARM Cortex-A9 800 MHz
Equipment heat dissipation, current-dependent Pvid			14.4 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			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		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		1
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 PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
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

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