DATASHEET - XV-303-10-BE2-A00-1C

User interface with PLC as SWD coordinator,24VDC, 10.1-inch PCT display, 1024x600 pixels, 1xEthernet, 1xRS232,1xRS485,1xCAN,1xSWD,1xProfibus,1xSD slot

Part no.	**XV-303-10-BE2-A00-1C**
	179669
EL Number (Norway)	**4501316**

Product name	Eaton XV-303 Touch panel
Part no.	XV-303-10-BE2-A00-1C
EAN	7640130098572
Product Length/Depth	269 millimetre
Product height	58 millimetre
Product width	174 millimetre
Product weight	1.225 kilogram
Certifications	CE Certified by UL for use in Canada IEC/EN 61131-2 DNV GL UL EN 50178 UL File No.: E205091 EMC according to 2014/30/EU CUL UL 61010-2-201
Product Tradename	XV-303
Product Type	Touch panel
Product Sub Type	None
Catalog Notes	12 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	Fanless CPU and system cooling, natural convection-based passive cooling Ethernet interface RS485 Portrait format USB Host Target and web visualization Slot for SD card CAN Integrated Runtime visualization software license RS232 Operating System Windows Embedded Compact 7 pro Overload proof USB device
Fitted with:	Message indication Color display Printer output SW interfaces 1 x USB device (built-in interface) 1 x SmartWire-DT (built-in interface) 1 x Ethernet 10/100 Mbps (built-in interfaces) 1 x CANopen®/easyNet (built-in interfaces) 1 x PROFIBUS/MPI (built-in interface) 1 x USB host 2.0 (built-in interface) Message system (incl. buffer and confirmation) Recipes MPI interface 1 x RS232 (built-in interface) 1 x RS485 (built-in interface)
Functions	Process value representation (output) possible Additional software components, loadable Process default value (input) possible SmartWire-DT coordination
Battery runtime	Back-up of real-time clock: BR 2330, non-replaceable (soldered)
Degree of protection	NEMA 12 NEMA 4X IP20, rear (according to EN 60529-1)

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: ±45° (if using natural convection) Flush mounting Flush mounting - Clearance: Width x Height x Depth ≥ 30 mm (1.18")
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	≤ 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 PROFIBUS
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	Dry heat to IEC 60068-2-2 Damp heat, constant, to IEC 60068-2-3 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 from rated voltage (24 V DC) ≤ 10 ms, Bridging voltage dips
Inrush current	12.5 A (for 6 ms)
Permissible voltage	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 %) 18.0 - 31.2 V DC, absolute with ripple
Power consumption	Max. 18 W 18 W typ.
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 (± 3 % - SmartWire-DT) 24 V DC (power-supply - safety extra low voltage)

Supply current	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, Imax, Supply voltage UAux 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 0.7 A, Imax, SmartWire-DT supply
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	PROFIBUS-DP, not galvanically isolated, 9 pole SUB-D socket, UNC SmartWire-DT master
Connection	SmartWire-DT blade terminal SWD4-8MF2
Connection to SmartWire-DT	Yes
Connection type	SWD: Plug, 8-pole Push in terminals, Supply voltage
Data transfer rate	250 kBit/s, SmartWire-DT 125 kBit/s, SmartWire-DT
Interfaces	10/100 Mbps Ethernet connection RS485 (not galvanically isolated, 9-pin SUB-D plug, UNC) CAN (not galvanically isolated, 9-pin SUB-D plug, UNC) USB 2.0 host (not galvanically isolated) RS232 (not galvanically isolated, 9-pin SUB-D plug, UNC) USB 2.0 device (not galvanically isolated)
LED indicator	Status indication of SmartWire-DT master: Green and red LEDs Status indication of SmartWire-DT network: Configurable green or red LED Status indication of Supply voltage: LED
Number of slots	1 (for SD-Card)
Number of SmartWire-DT slaves	99
Protocol	Other bus systems MODBUS EtherNet/IP PROFIBUS CAN TCP/IP
Station	SmartWire-DT master, SmartWire-DT network
Display contrast ratio	500:1
Display lighting	LED Dimmable via software
Display size	222.72 x 125.28 mm 16:9
Display type	Color display, TFT, anti-glare TFT Anti-glare tempered glass in plastic bezel
Luminance intensity	400 cd/m^2
Number of colors of the display	16777216
Resolution	1024 x 600 px WSVGA
Screen size (diagonal)	10.1 in
Touch technology	Multi-touch touch panel touch sensor Projected Capacitive Touch (PCT) Capacitive multitouch
Backup time	10 years, typ. (time at zero voltage)
Memory	NVRAM: 128kByte Retain DRAM: 512 MByte RAM 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	18 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		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 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		3
With SW interfaces		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		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	10.1
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	269
Height of the front	mm	174
Built-in depth	mm	50.1

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