DATASHEET - XV-313-70-CE0-A00-1C

User interface with PLC for rear mounting as SWD coordinator,24VDC,7-inch PCT displ.,1024x600 pixels,2xEthernet,1xRS232,1xRS485,1xCAN,1xSWD,1xSD

Part no. **XV-313-70-CE0-A00-1C**
191003

Product name	Eaton XV-313 Touch panel
Part no.	XV-313-70-CE0-A00-1C
EAN	7640130099050
Product Length/Depth	209 millimetre
Product height	50 millimetre
Product width	151 millimetre
Product weight	0.8 kilogram
Certifications	EMC according to 2014/30/EU IEC/EN 61131-2 CE UL EN 50178 Certified by UL for use in Canada UL 61010-2-201 UL File No.: E205091 CUL DNV GL
Product Tradename	XV-313
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	Slot for SD card CAN Ethernet interface RS485 RS232 Portrait format USB Host Integrated Runtime visualization software license Overload proof USB device Operating System Windows Embedded Compact 7 pro Fanless CPU and system cooling, natural convection-based passive cooling Target and web visualization
Fitted with:	1 x RS232 (built-in interface) 1 x RS485 (built-in interface) SW interfaces Message indication Recipes Color display 1 x USB host 2.0 (built-in interface) Printer output 1 x SmartWire-DT (built-in interface) Message system (incl. buffer and confirmation) 1 x USB device (built-in interface) 1 x CANopen®/easyNet (built-in interfaces) 2 x Ethernet 10/100 Mbps (built-in interface)
Functions	Process value representation (output) possible SmartWire-DT coordination 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 IP20, rear (according to EN 60529-1) NEMA 12
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 aluminum mounting frame
Mounting method	Flush mounting - Clearance: Width x Height x Depth ≥ 30 mm (1.18") Flush mounting - Inclination from vertical: ±45° (if using natural convection) Rear mounting
Potential isolation	Supply voltage UAUX: no Power supply: no Between UPow and 15 V SmartWire-DT supply voltage: no
Protection against polarity reversal	Yes Yes, for supply voltage (Siemens MPI optional)
Product category	SmartWire-DT coordinators
Repetition rate	1 s
Residual ripple	≤ 5 % (input voltage)
RoHs conformity	Yes
Short-circuit protection	Yes, Short-circuit rating, SmartWire-DT supply voltage No, external fuse FAZ Z3, Supply voltage UAux
Software	GALILEO, Visualisation software, Engineering XSOFT-CODESYS, Visualisation software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering
Terminal capacity	0.25 - 1.5 mm^2, flexible with ferrule 0.2 - 1.5 mm^2, solid 24 - 16 AWG, solid or stranded
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 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) 18.0 - 31.2 V DC, absolute with ripple 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	14 W typ. Max. 14.4 W
Rated control supply voltage	24 V DC (UPOW, -15 %/+20 %) 24 V DC (UAUX, -15 %/+20 %)
Rated operational current (Ie)	0.7 A
Rated operational voltage	14.5 V (± 3 % - SmartWire-DT) 24 V DC (power-supply - safety extra low voltage) Typically UAUX -0.2 V (for 24 V DC slaves)
Supply current	3 A, Imax, Supply voltage UAux 0.7 A, Imax, SmartWire-DT supply

	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 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
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	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) USB 2.0 device (not galvanically isolated) RS232 (not galvanically isolated, 9-pin SUB-D plug, UNC) USB 2.0 host (not galvanically isolated) CAN (not galvanically isolated, 9-pin SUB-D plug, UNC)
LED indicator	Status indication of Supply voltage: LED Status indication of SmartWire-DT master: Green and red LEDs Status indication of SmartWire-DT network: Configurable green or red LED
Number of slots	1 (for SD-Card)
Number of SmartWire-DT slaves	99
Protocol	TCP/IP EtherNet/IP CAN MODBUS
Station	SmartWire-DT master, SmartWire-DT network
Display contrast ratio	500:1
Display lighting	Dimmable via software LED
Display size	153.6 x 90.0 mm 16:9
Display type	Anti-glare tempered glass without 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	Multi-touch touch panel touch sensor Projected Capacitive Touch (PCT) Capacitive multitouch
Backup time	10 years, typ. (time at zero voltage)
Memory	DRAM: 512 MByte RAM Flash: 1 GByte SLC NVRAM: 128kByte Retain 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		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 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	404
Height of the front	mm	255
Built-in depth	mm	43.1

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