DATASHEET - XV-313-10-B00-A00-1C

Rear mounting control panel; 24VDC;10 Inches PCT-Displ.;1024x600;2xEthernet;1xRS232;1xRS485;1xCAN;1xSD slot;PLC function can be fitted by user

Part no. **XV-313-10-B00-A00-1C**
179672

General specifications

Product name	Eaton XV-313 Touch panel
Part no.	XV-313-10-B00-A00-1C
EAN	7640130098824
Product Length/Depth	282 millimetre
Product height	55.7 millimetre
Product width	190 millimetre
Product weight	1.21 kilogram
Certifications	UL File No.: E205091 UL 61010-2-201 CE DNV GL EN 50178 CUL IEC/EN 61131-2 Certified by UL for use in Canada UL EMC according to 2014/30/EU
Product Tradename	XV-313
Product Type	Touch panel
Product Sub Type	None

Features & Functions

Enclosure material	Insulated material
Features	USB device Portrait format RS485 Ethernet interface Integrated Runtime visualization software license CAN Target and web visualization RS232 Fanless CPU and system cooling, natural convection-based passive cooling Operating System Windows Embedded Compact 7 pro USB Host Slot for SD card
Fitted with:	1 x USB device (built-in interface) Message system (incl. buffer and confirmation) Message indication 1 x RS485 (built-in interface) 1 x USB host 2.0 (built-in interface) 1 x CANopen®/easyNet (built-in interfaces) Recipes Color display SW interfaces Printer output 1 x RS232 (built-in interface) 1 x Ethernet 10/100 Mbps (built-in interfaces)
Functions	Additional software components, loadable Process default value (input) possible Process value representation (output) possible

General information

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 aluminum mounting frame
Mounting method	Rear mounting Flush mounting - Inclination from vertical: ±45° (if using natural convection)

	Flush mounting - Clearance: Width x Height x Depth ≥ 30 mm (1.18")
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-3, PLC-Programming software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering GALILEO, Visualization software, Engineering XSOFT-CODESYS, Visualization software, Engineering
Type	Control panel with PLC for rear mounting
Voltage type	DC
Ambient conditions, mechanical	
Shock resistance	15 g, 11 ms, Mechanical
Vibration resistance	5 - 9 Hz, ± 3.5 mm 9 - 60 Hz, ± 0.15 mm 60 - 150 Hz, ± 2 g
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	Cold to EN 60068-2-1 Dry heat to IEC 60068-2-2 Damp heat, constant, to IEC 60068-2-3
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	≤ 10 ms from rated voltage (24 V DC) 5 ms from undervoltage (19.2 V DC)
Electrical rating	
Permissible voltage	18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %) 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 %)
Power consumption	15.5 W 18 W typ. Max. 18 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	RS485 (not galvanically isolated, 9-pin SUB-D plug, UNC) CAN (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) 10/100 Mbps Ethernet connection USB 2.0 host (not galvanically isolated)
Number of slots	1 (for SD-Card)
Protocol	EtherCAT MODBUS CAN TCP/IP EtherNet/IP
Display	
Display contrast ratio	500:1
Display lighting	Dimmable via software LED

Display size			222.72 x 125.28 mm 16:9
Display type			Anti-glare tempered glass without bezel TFT Color display, TFT, anti-glare
Luminance intensity			400 cd/m²
Number of colors of the display			16777216
Resolution			WSVGA 1024 x 600 px
Screen size (diagonal)			10.1 in
Touch technology			Projected Capacitive Touch (PCT) Capacitive multitouch Multi-touch touch panel touch sensor
System			
Backup time			10 years, typ. (time at zero voltage)
Memory			DRAM: 512 MByte RAM SD card, Type: SDSC, SDHC (external memory) NVRAM: 128kByte Retain Flash: 1 GByte SLC
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			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 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	18
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 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	10.1
Number of pixels, horizontal		1024
Number of pixels, vertical		600
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	254.4
Height of the front		mm	164.5
Built-in depth		mm	57.1