DATASHEET - XH-303-70-A10-A00-2B

HMI Webpanel XH-303, capacitive multi-touch, 7" widescreen, 1024 x 600 Pixel, 1 x Ethernet 1000Base-T/100Base-TX/10Base-T, 1 x USB host 2.0

Part no.	**XH-303-70-A10-A00-2B**
	199882
EL Number (Norway)	**4507293**

General specifications

Product name		Eaton XH web panel
Part no.		XH-303-70-A10-A00-2B
EAN		7640130099777
Product Length/Depth		196 millimetre
Product height		51 millimetre
Product width		135 millimetre
Product weight		0.781 kilogram
Certifications		EMC EN 61000-6-2 EN 61000-6-3 CE RoHS
Product Tradename		XH
Product Type		Web panel
Product Sub Type		None
Catalog Notes		Heat dissipation with power consumption for 24 V, all ports and interfaces connected

Features & Functions

Enclosure material		Insulated material
Features		USB Host Ethernet interface Fanless CPU and system cooling, natural convection-based passive cooling Portrait format
Fitted with:		Color display 1 x USB host (built-in interface)

General information

Degree of protection		IP20, rear (according to EN 60529-1)
Degree of protection (front side)		NEMA 4X 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 ≥ 30 mm (1.18") Flush mounting - Inclination from vertical: ±45° (if using natural convection)
Protection against polarity reversal		Yes
Product category		XH-300 HMI Webpanel
Voltage type		DC

Ambient conditions, mechanical

Shock resistance		15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 18 Impacts
Vibration resistance		According to IEC/EN 60068-2-6

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
Environmental conditions		Condensation: prevent with appropriate measures
Operating temperature - min		0 °C
Operating temperature - max		0 °C

Relative humidity		10 - 95 % (non-condensing)

Electro magnetic compatibility

Voltage dips		5 ms from undervoltage (19.2 V DC) ≤ 10 ms from rated voltage (24 V DC)

Electrical rating

Permissible voltage		18.0 - 31.2 V DC, absolute with ripple 35 V DC (for a duration of < 100 ms) 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		10.5 W typ. Max. 14.4 W 2.5 W (USB Slave to USB Host) 11.9 W
Rated control supply voltage		24 V DC (UAUX, -20 %/+25 %)
Rated operational current (Ie)		0.6 A
Rated operational voltage		24 V DC (power-supply - safety extra low voltage)
Supply voltage at AC, 50 Hz - min		0 V
Supply voltage at AC, 50 Hz - max		0 V
Supply voltage at DC - min		19.2 V
Supply voltage at DC - max		30 V

Communication

Interfaces		USB 2.0 host (not galvanically isolated) Ethernet (100Base-TX/10Base-T)

Display

Display lighting		LED Dimmable via software
Display type		TFT Color display, TFT
Luminance intensity		350 cd/m^2
Number of colors of the display		65536
Screen size (diagonal)		7 in
Touch technology		Capacitive multitouch Multi-touch touch panel touch sensor

System

Memory		DDR4-RAM: 2 GByte eMMC: 8 GByte
Memory capacity		2,000,000 kByte
Operating system		Linux
Processor		ARM Cortex-A53, Quad-Core, 1.8 GHz

Design verification

Equipment heat dissipation, current-dependent Pvid		10.5 W
Heat dissipation capacity Pdiss		0 W
Heat dissipation per pole, current-dependent Pvid		0 W
Static heat dissipation, non-current-dependent Pvs		10.5 W
10.2.2 Corrosion resistance		Please enquire
10.2.3.1 Verification of thermal stability of enclosures		Please enquire
10.2.3.2 Verification of resistance of insulating materials to normal heat		Please enquire
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects		Please enquire
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		Please enquire
10.3 Degree of protection of assemblies		Please enquire
10.4 Clearances and creepage distances		Please enquire
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. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
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	10.5
Number of HW-interfaces industrial Ethernet		1
Number of interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		1
Number of HW-interfaces parallel		0
Number of HW-interfaces wireless		0
Number of HW-interfaces other		0
With SW interfaces		No
Supporting protocol for EtherCAT		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for Modbus		No
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		No
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		65536
Number of grey-scales/blue-scales of display		0
Screen diagonal	inch	7
Number of pixels, horizontal		600
Number of pixels, vertical		1024
Useful project memory/user memory	kByte	2000000
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		No
With message system (incl. buffer and confirmation)		No
Process value representation (output) possible		No
Process default value (input) possible		No
With recipes		No
Number of password levels		1
With printer output		No
Number of online languages		2
Additional software components, loadable		No
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		4X
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 - 0
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	35
Built-in depth	mm	43.1