



Touch display for easyE4, 24 V DC, 3.5z, TFTcolor, ethernet

Part no. XV-102-A0-35TQRB-1E4  
198513

General specifications		
Product name		Eaton XV-102 Touch panel
Part no.		XV-102-A0-35TQRB-1E4
EAN		7640130099500
Product Length/Depth		136 millimetre
Product height		30 millimetre
Product width		100 millimetre
Product weight		0.24 kilogram
Compliances		Eaton supports the product until its end of life
Certifications		UL 60950-01 CUL508 UL File No.: E208621 Certified by UL for use in Canada CSA Class No.: NWGQ8 UL Category Control No.: NWGQ2 EAC CSA-C22.2 No. 60950-1 UL report applies to both US and Canada CE marking IEC/EN 61131-2 UL Recognized
Product Tradename		XV-102
Product Type		Touch panel
Product Sub Type		None
Features & Functions		
Enclosure material		Plastic
Features		Fanless CPU and system cooling, natural convection-based passive cooling UL508, cUL approvals Ethernet interface Slot for SD card USB device
Fitted with:		1 x USB host (built-in interface) 1 x Ethernet 100base-TX/10base-T (built-in interface) Printer output Color display Numeric keyboard SW interfaces Message system (incl. buffer and confirmation) Message indication Recipes Alpha numeric keyboard
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: CR 2032, non-replaceable (soldered)
Conditions of acceptability		The investigated Pollution Degree is: 2 The unit must be supplied via a SELV source. The following end-product enclosures are required: Fire The provided Ethernet Connection is only allowed to connect to inhouse networks. UL/CSA
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)
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
Product category		XV-100
RoHs conformity		Yes
Software		GALILEO, Visualization software, Engineering

Type		Touch display for easyE4
Used with		EASY-E4
Voltage type		DC
<b>Ambient conditions, mechanical</b>		
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
<b>Climatic environmental conditions</b>		
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		50 °C
Relative humidity		10 - 90 % (non-condensing)
<b>Electrical rating</b>		
Power consumption		5 W 9.5 W total 2.5 W (USB Slave to USB Host)
Rated control supply voltage		24 V DC (UAUX, -20 %/+25 %)
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		20.4 V DC
Supply voltage at DC - max		28.8 V DC
<b>Communication</b>		
Interfaces		USB 2.0 host (not galvanically isolated) Ethernet (100Base-TX/10Base-T)
Number of slots		1 (for SD-Card)
Protocol		TCP/IP MODBUS Other bus systems EtherNet/IP
<b>Display</b>		
Display lighting		Dimmable via software LED
Display size		70 x 53 mm
Display type		Standard front with standard membrane (fully enclosed) Color display, TFT TFT
Number of colors of the display		65536
Screen size (diagonal)		3.5 in
Touch technology		Glass with film touch sensor Resistive touch
<b>Input/Output</b>		
Resolution		QVGA 320 x 240 px
<b>Safety</b>		
Explosion safety category for gas		Explosion protection according to EN 60079-0 Explosion protection according to EN 61241-1 Explosion protection according to EN 13463_x
Protection against polarity reversal		Yes
<b>System</b>		
Memory		SD Memory Card Slot: SDA Specification 1.00 (External)
Memory capacity		64,000 kByte
Operating system		Windows CE 5.0 (license included)
Processor		RISC CPU, 32 Bit, 400 MHz
<b>Design verification</b>		

Equipment heat dissipation, current-dependent Pvid			5 W
Heat dissipation capacity Pdis			0 W
Heat dissipation per pole, current-dependent Pvid			0 W
Static heat dissipation, non-current-dependent Pvs			5 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	20.4 - 28.8
Voltage type (supply voltage)			DC
Power consumption		W	2.5
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			Yes
Supporting protocol for EtherCAT			No
Supporting protocol for TCP/IP			Yes
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			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 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	3.5
Number of pixels, horizontal		320
Number of pixels, vertical		240
Useful project memory/user memory	kByte	64000
With numeric keyboard		Yes
With alpha numeric keyboard		Yes
Number of function buttons, programmable		0
Number of buttons with LED		0
Number of system buttons		1
Touch technology		Resistive touch
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		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 - 50
Rail mounting possible			No
Wall mounting/direct mounting			No
Suitable for safety functions			No
Width of the front		mm	136
Height of the front		mm	100
Built-in depth		mm	25