DATASHEET - XV-102-E8-57TVRC-10

Touch panel, 24 V DC, 5.7z, TFTcolor, ethernet, RS485, profibus, SWDT, PLC

Powering Business Worldwide

Part no.	**XV-102-E8-57TVRC-10**
	153526
EL Number (Norway)	**4521129**

Product name	Eaton XV-102 Touch panel
Part no.	XV-102-E8-57TVRC-10
EAN	7640130097612
Product Length/Depth	170 millimetre
Product height	39 millimetre
Product width	130 millimetre
Product weight	0.56 kilogram
Certifications	UL 60950 IEC/EN 61131-2 EN 50178 UL File No.: E205091 EN 60950 CUL508 UL CSA File No.: UL report applies to both US and Canada UL508 IEC/EN 61131-2, CE DNV GL Certified by UL for use in Canada IEC/EN 61000-6-4 UL Category Control No.: NRAQ CULus CSA Class No.: none IEC/EN 61000-6-2 EAC
Product Tradename	XV-102
Product Type	Touch panel
Product Sub Type	None
Catalog Notes	4-wire Technology 7 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. 139807 PLC license inclusive
Enclosure material	Plastic
Features	Fanless CPU and system cooling, natural convection-based passive cooling USB device Target and web visualization Slot for SD card USB Host Ethernet interface UL508, cUL approvals Overload proof Portrait format
Fitted with:	1 x Ethernet 10/100 Mbps (built-in interfaces) 1 x RS485 (built-in interface) Message indication 1 x USB device (built-in interface) 1 x USB host 2.0 (built-in interface) Recipes 1 x PROFIBUS/MPI (built-in interface) Message system (incl. buffer and confirmation) SW interfaces Alpha numeric keyboard Printer output 1 x SmartWire-DT (built-in interface) MPI interface Numeric keyboard Color display
Functions	Process value representation (output) possible Process default value (input) possible SmartWire-DT coordination Additional software components, loadable
Battery runtime	Back-up of real-time clock: CR 2032 (190 mA/h), zero maintenance (soldered)
Degree of protection	IP20, rear

	IP20
Degree of protection (front side)	IP65 NEMA 4X
Fuse type	Built-in fuse (not accessible)
Lifespan	40,000 h (Service life of back-lighting)
Model	Insulating enclosure and front plate
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	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	EPAM, Visualisation software, Engineering GALILEO, Visualisation software, Engineering XSOFT-CODESYS-2, Visualisation software, Engineering XSOFT-CODESYS-3, Visualisation software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering
Terminal capacity	0.2 - 1.5 mm^2, solid 24 - 16 AWG, solid or stranded 0.25 - 1.5 mm^2, flexible with ferrule
Type	Coordinator for the SmartWire-DT communications system
Voltage type	DC
Shock resistance	Mechanical, According to IEC/EN 60068-2-27
Vibration resistance	According to IEC/EN 60068-2-6
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
Operating temperature - min	0 °C
Operating temperature - max	50 °C
Relative humidity	10 - 95 % (non-condensing)
Voltage dips	≤ 10 ms, Bridging voltage dips 5 ms from undervoltage (19.2 V DC) ≤ 10 ms from rated voltage (24 V DC)
Inrush current	12.5 A (for 6 ms)
Permissible voltage	18.0 - 31.2 V DC, absolute with ripple 18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %) 35 V DC (for a duration of < 100 ms) 19.2 - 30 V DC, effective (rated operating voltage -20 %/+25 %)
Power consumption	Max. 10 W 2.5 W (USB Slave to USB Host) 9.5 W total
Rated control supply voltage	24 V DC (UAUX, -20 %/+25 %) 24 V DC (UPOW, -20 %/+25 %)
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 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 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 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	20.4 V DC

Supply voltage at DC - max	28.8 V DC
Addressing	Address set automatically
Communication interface	PROFIBUS 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	125 kBit/s, SmartWire-DT 250 kBit/s, SmartWire-DT
Interfaces	RS485 Ethernet (100Base-TX/10Base-T) USB 2.0 device (not galvanically isolated) USB 2.0 host (1.5 - 12 Mbit/s, not galvanically isolated)
LED indicator	Status indication of SmartWire-DT master: Green and red LEDs Status indication of Supply voltage: LED 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 PROFIBUS MODBUS Other bus systems EtherNet/IP
Station	SmartWire-DT master, SmartWire-DT network
Display contrast ratio	300:1
Display lighting	Dimmable via software LED
Display size	115 x 86 mm
Display type	Color display, TFT TFT Standard front with standard membrane (fully enclosed)
Luminance intensity	250 cd/m^2
Number of colors of the display	65536
Screen size (diagonal)	7 in
Touch technology	Resistive touch Touch sensor (glass with foil), Resistive touch protective screen Glass with film touch sensor
Resolution	640 x 480 px VGA
Explosion safety category for dust	ATEX dust-ex-protection, II 3D Ex II T70°C IP5x: Zone 22, Category 3D ATEX dust-ex-protection, in relation to CE
Explosion safety category for gas	Explosion protection according to EN 61241-1 Explosion protection according to EN 13463_x Explosion protection according to EN 60079-0
Potential isolation	Supply voltage UAUX: no Power supply: no Between UPow and 15 V SmartWire-DT supply voltage: no
Protection against polarity reversal	Yes, for supply voltage (Siemens MPI optional) Yes
Backup time	10 years, typ. (time at zero voltage)
Memory	128 MByte internal NAND-Flash (can be used for data backup) 64 MByte internal DRAM (OS, Program and data memory) 32 kByte internal NVRAM (retained data) 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
Equipment heat dissipation, current-dependent Pvid	9.5 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			9.5 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 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	20.4 - 28.8
Voltage type of supply voltage		DC
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		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		Yes
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 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		65,536
Number of grey-scales/blue-scales of display		0
Screen diagonal	inch	7
Number of pixels, horizontal		640
Number of pixels, vertical		480
Useful project memory/user memory	kByte	64,000
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
Operating temperature	°C	0 - 50
Rail mounting possible		No
Wall mounting/direct mounting		No
Suitable for safety functions		No
Width of the front	mm	170
Height of the front	mm	130
Built-in depth	mm	34

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