DATASHEET - XV-102-D4-57TVR-10

Touch panel, 24 V DC, 5.7z, TFTcolor, ethernet, RS232, RS485, (PLC)



Part no.
EL Number (Norway)

XV-102-D4-57TVR-10 150620 4521125

Product name	Eaton XV-102 Touch panel
Part no.	XV-102-D4-57TVR-10
EAN	7640130097063
Product Length/Depth	170 millimetre
Product height	39 millimetre
Product width	130 millimetre
Product weight	0.54 kilogram
Certifications	IEC/EN 61131-2 CULus DNV GL UL 60950 UL508 EN 50178 CSA File No.: UL report applies to both US and Canada IEC/EN 61131-2, CE UL Category Control No.: NRAQ UL File No.: E205091 Certified by UL for use in Canada CUL508 IEC/EN 61000-6-4 IEC/EN 61000-6-2 CSA Class No.: none UL EN 60950 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 Can be expanded as required, see Accessories Can be fitted by user with article no. 142581 LIC-PLC-MXP-COMPACT Heat dissipation with power consumption for 24 V Optionally with SD card -> article no. 139807
Enclosure material	Plastic
Features	USB device Fanless CPU and system cooling, natural convection-based passive cooling Slot for SD card UL508, cUL approvals Ethernet interface USB Host Portrait format
Fitted with:	1 x Ethernet 10/100 Mbps (built-in interfaces) Color display 1 x USB host 2.0 (built-in interface) 1 x RS485 (built-in interface) Numeric keyboard Message system (incl. buffer and confirmation) SW interfaces Message indication Alpha numeric keyboard Printer output 1 x RS232 (built-in interface) 1 x USB device (built-in interface) Recipes
Functions	Additional software components, loadable Process value representation (output) possible Process default value (input) possible
Battery runtime	Back-up of real-time clock: CR 2032 (190 mA/h), zero maintenance (soldered)
Degree of protection	IP20 IP20, IP20, rear
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 Flush mounting - Inclination from vertical: ±45° (if using natural convection) Flush mounting - Clearance: Width x Height x Depth ≥ 30 mm (1.18″)
Product category	HMI-PLC (SPS function, retrofittable)
RoHs conformity	Yes
Software	XSOFT-CODESYS-2, Visualisation software, Engineering XSOFT-CODESYS-2, PLC-Programming software, Engineering GALILEO, Visualisation software, Engineering XSOFT-CODESYS-3, PLC-Programming software, Engineering XSOFT-CODESYS-3, Visualisation software, Engineering EPAM, Visualisation software, Engineering
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
Operating temperature - min	0 °C
Operating temperature - max	50 °C
Voltage dips	5 ms from undervoltage (19.2 V DC) ≤ 10 ms from rated voltage (24 V DC)
Permissible voltage	19.2 - 30 V DC, effective (rated operating voltage -20 %/+25 %) 18 - 31.2 V DC, battery powered (rated operating voltage -25 %/+30 %) 35 V DC (for a duration of < 100 ms) 18.0 - 31.2 V DC, absolute with ripple
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 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
Interfaces	Ethernet (100Base-TX/10Base-T) USB 2.0 device (not galvanically isolated) USB 2.0 host (1.5 - 12 Mbit/s, not galvanically isolated)
Number of slots	1 (for SD-Card)
Protocol	TCP/IP EtherNet/IP Other bus systems MODBUS
Disalass activation	
Display contrast ratio	300:1
Display lighting	LED Dimmable via software
Display type	Standard front with standard membrane (fully enclosed) Color display, TFT TFT
Luminance intensity	250 cd/m ²
Number of colors of the display	65536
Screen size (diagonal)	5.7 in
Touch technology	Resistive touch
	Glass with film touch sensor Touch sensor (glass with foil), Resistive touch protective screen

Resolution	640 x 480 px VGA
Explosion safety category for dust	ATEX dust-ex-protection, in relation to CE ATEX dust-ex-protection, II 3D Ex II T70°C IP5x: Zone 22, Category 3D
Potential isolation	Supply voltage UAUX: no Power supply: no
Protection against polarity reversal	Yes Yes, for supply voltage (Siemens MPI optional)
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		1	
Number of HW-interfaces RS-422		0	

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With recipes Yes	Process value representation (output) possible		
	Process default value (input) possible		Yes
Number of password levels 200	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	°C	0 - 50
Rail mounting possible			No
Wall mounting/direct mounting			No
Suitable for safety functions			No
Width of the front	I	mm	170
Height of the front	I	mm	130
Built-in depth	r	mm	34