



Single touch display, 12.1-inch display, 24 VDC, IR, 800 x 600 pixels, 2x Ethernet, 1x RS232, 1x RS485, 1x CAN, 1x DP, PLC function can be fitted by user



Part no. **XV-363-12-C02-A00-1B**  
 Catalog No. **197669**

## Delivery program

Product range			XV360 12.1"
Product range			XV-363
Function			HMI (SPS function, retrofittable)
Description			XV300 series single touch display based on infrared technology for flush mounting plates
Description			Operating panel for front installation Pluggable SD memory card Infrared single touch display 2xEthernet,1xRS232,1xRS485,1xCAN,1xDP 24 V DC
Common features of the model series			Ethernet interface CAN USB device USB Host RS232 RS485 Slot for SD card PLC function can be fitted by user
Display - Type			Color display, TFT
Touch-technology			Infra-red touch
Number of colours			65535 colors
Resolution		Pixel	800 x 600
Portrait format			yes
Screen diagonal		Inch	12.1
Model			Metal housing and glass front in aluminum frame
Operating system			Windows Embedded Compact 7 Pro
PLC-licence			Can be fitted by user with article no. 181585 LIC-PLC-A
License certificates for onboard interfaces			Not required
built-in interfaces			2 x Ethernet 10/100 Mbps 1 x RS232 1 x RS485 1 x CAN 1 x PROFIBUS 1 x USB host 2.0 1 x USB device
Front type			Laminated safety glass, anti-glare in aluminum frame
Utilization			Flush mounting
Slots			for SD card: 1
Memory card automation			Optionally with SD card -> article no. 181638 or 139807
Pluggable communication cards (optional)			no
Touch sensor			Single-Touchdisplay

## Technical data

<b>Display</b>			
Display - Type			Color display, TFT
Screen diagonal		Inch	12.1
Resolution		Pixel	800 x 600
Visible screen area		mm	246 x 185
Format			4:3
Number of colours			65535 colors
Contrast ratio (Normally)			Normally 500:1
Infra-red touch protective screen			Laminated safety glass, non-reflective

## Operation

Technology			Infra-red touch
Touch sensor			Single-Touchdisplay

## System

Processor			ARM Cortex-A9 800 MHz
Internal memory			DRAM: 512 MB RAM Flash: 1GB SLC NVRAM: 128kB Retain
External memory			SD card, Type: SDSC, SDHC
Cooling			Fanless CPU and system cooling, natural convection-based passive cooling
Back-up of real-time clock			
Battery (service life)			non-replaceable, BR2330 soldered in
Backup (time at zero voltage)			Normally 10 years

## Engineering

Visualisation software			GALILEO XSOF-CODESYS
PLC-Programming software			XSOF-CODESYS-2 XSOF-CODESYS-3
PLC-licence			Can be fitted by user with article no. 181585 LIC-PLC-A
Operating system			Windows Embedded Compact 7 Pro

## Interfaces, communication

built-in interfaces			2 x Ethernet 10/100 Mbps 1 x RS232 1 x RS485 1 x CAN 1 x PROFIBUS 1 x USB host 2.0 1 x USB device
USB Host			USB 2.0, not galvanically isolated
USB device			USB 2.0, not galvanically isolated
RS-232			Not galvanically isolated, 9-pin D-sub plug, UNC
RS-485			Not galvanically isolated, 9-pin D-sub plug, UNC
CAN			Not galvanically isolated, 9-pin D-sub plug, UNC
Profibus			PROFIBUS-DP, not galvanically isolated, 9 pole SUB-D socket, UNC
Slots			for SD card: 1
Ethernet			10/100 Mbps
MPI			Yes

## Power supply

Nominal voltage			24 V DC SELV (safety extra low voltage)
permissible voltage			Effective: 19.2-30.0 V DC (rated operating voltage -20%/+25%) Absolute with ripple: 19.2-30.0 V DC Battery powered: 18,0-31,2 V DC (rated operating voltage -25%/+30%) 35 V DC for a duration of < 100 ms
Voltage dips		ms	≤ 10 ms from rated voltage (24 V DC) 5 ms from undervoltage (19.2 V DC)
Power consumption	P <sub>max.</sub>	W	20.5
Note on heat dissipation			Heat dissipation at current consumption 24 V DC 18 W for basic device + 2.5 W for USB module
Type of fuse			Yes (fuse not accessible)

## General

Front type			Laminated safety glass, anti-glare in aluminum frame
Dimensions (W x H x D)		mm	361.2 x 279.2 x 68.0
flush mounted			Clearance: W x H x D ≥ 30 mm (1.18")
Weight		kg	3.8
Degree of protection (IEC/EN 60529, EN50178, VBG 4)			IP65 (in the front as per EN 60529-1), IP20 (on rear as per EN 60529-1)
Approvals			
Approvals			EAC
Applied standards and directives			
EMC			2014/30/EU
Interference immunity			IEC/EN 61000-6-2
Product standards			EN50178/IEC/EN 61131-2
Mechanical shock resistance		g	15g / 11ms
Free fall, packaged		m	IEC/EN 60068-2-31

RoHS			conform
Electromagnetic compatibility (EMC)			
Radio interference suppression			Class A

## Environmental conditions

Climatic environmental conditions			
Climatic proofing			Cold to EN 60068-2-1 Dry heat to IEC 60068-2-2 Damp heat as per EN 60068-2-3
Air pressure (operation)		hPa	795 - 1080
Temperature			
Storage / Transport	θ	°C	-20 - +60
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	+ 50
Relative humidity			
Condensation			Non-condensing
Relative humidity			10 - 95%, non-condensing

## Design verification as per IEC/EN 61439

Technical data for design verification			
Static heat dissipation, non-current-dependent	$P_{vs}$	W	20.5
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	50
Degree of Protection			IP65 (in the front as per EN 60529-1), IP20 (on rear as per EN 60529-1)
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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.

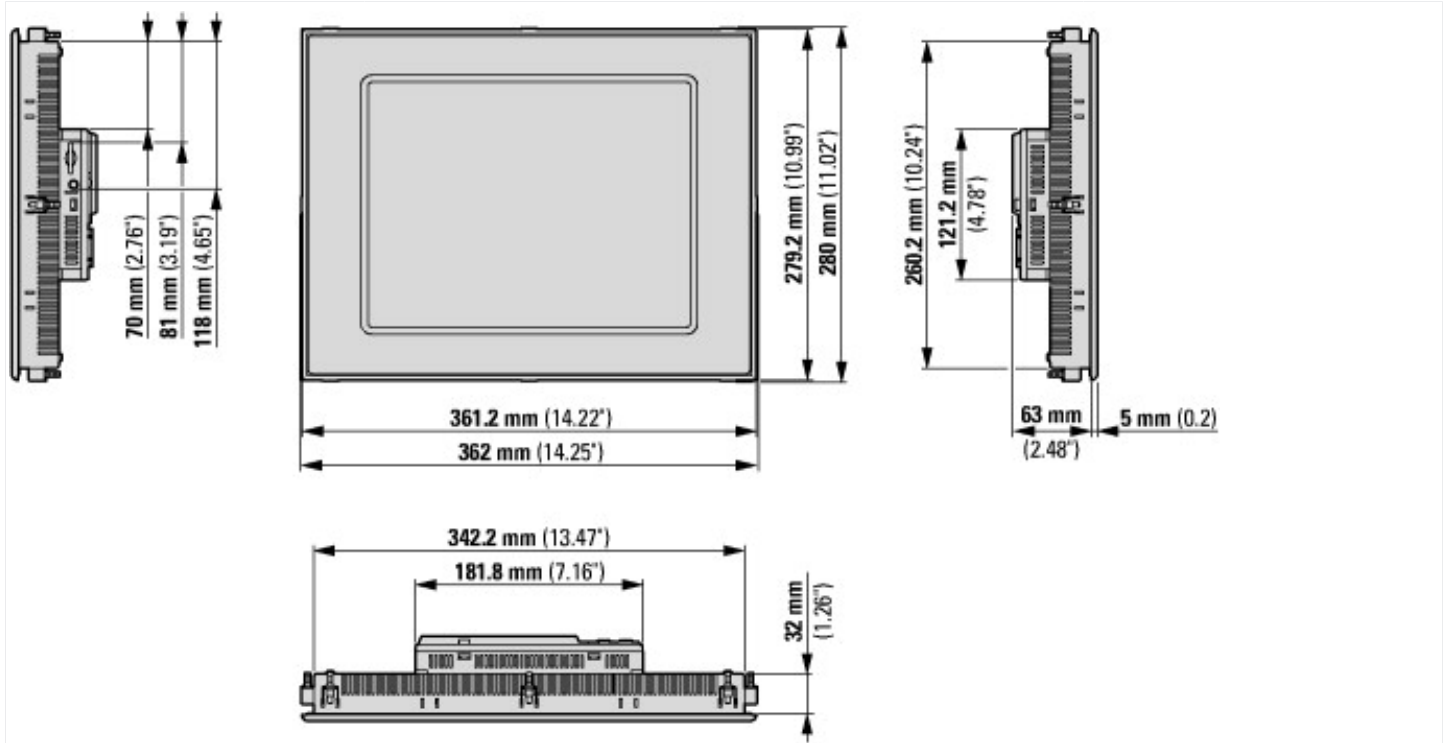
## Technical data ETIM 8.0

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	19.2 - 30

Voltage type of supply voltage		DC
Number of HW-interfaces industrial Ethernet		2
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		3
With SW interfaces		No
Supporting protocol for TCP/IP		Yes
Supporting protocol for PROFIBUS		Yes
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		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		65536
Number of grey-scales/blue-scales of display		0
Screen diagonal	inch	12.1
Number of pixels, horizontal		800
Number of pixels, vertical		600
Useful project memory/user memory	kByte	512000
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		Infrared 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		No
Number of online languages		100
Additional software components, loadable		Yes
Degree of protection (IP), front side		IP65
Degree of protection (NEMA), front side		12
Operating temperature	°C	0 - 50
Rail mounting possible		No
Wall mounting/direct mounting		No
Suitable for safety functions		No
Width of the front	mm	361.2
Height of the front	mm	279.2
Built-in depth	mm	63

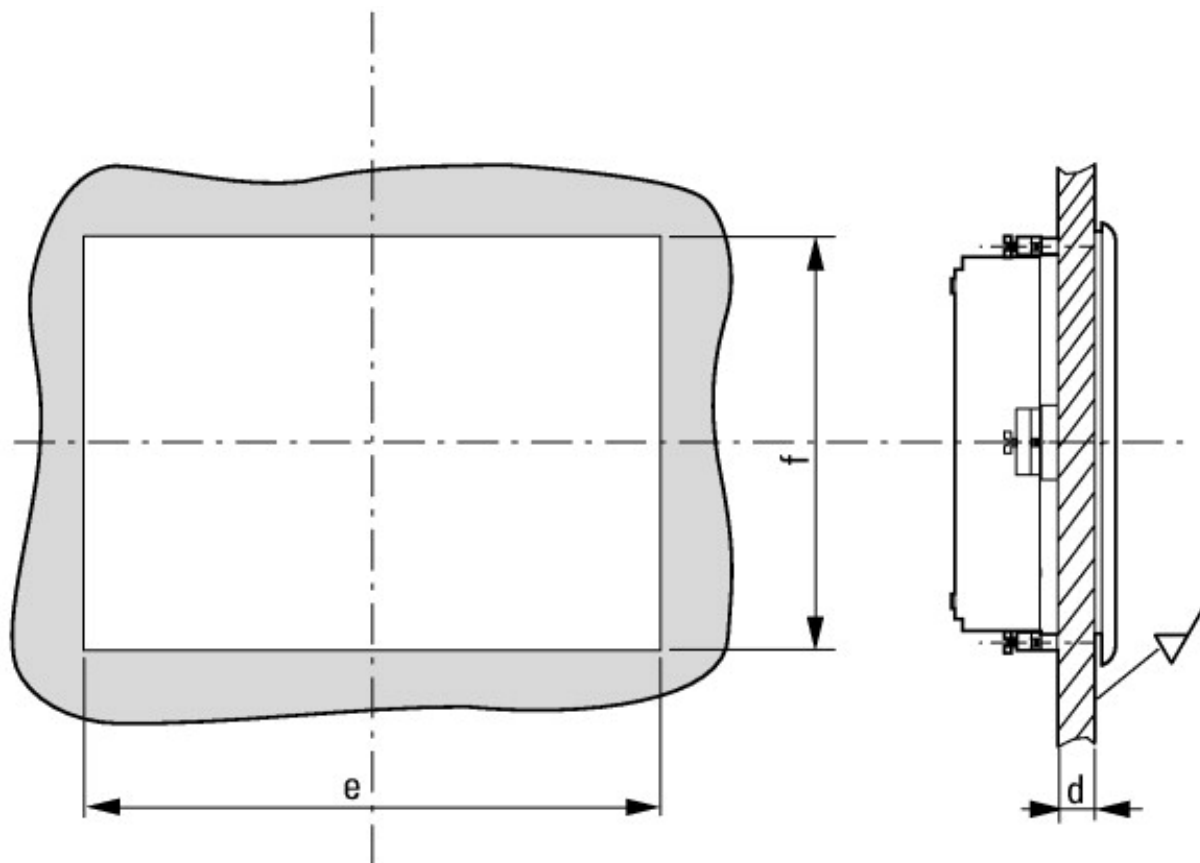
## Dimensions



XV-363-touch panel ... version with 12.1" screen diagonal: Flush mounting



$a, b, c \geq 30 \text{ mm}, 0 \leq T \leq 50 \text{ }^\circ\text{C}$



$2 \text{ mm} \leq d \leq 5 \text{ mm}, e = 344 \text{ mm}, f = 262 \text{ mm}$

## Additional product information (links)

f1=1454&f2=1242&f3=1773;Download Software GALILEO	<a href="http://applications.eaton.eu/sdlc?LX=11&amp;amp">http://applications.eaton.eu/sdlc?LX=11&amp;amp</a>
Product overview (Web)	<a href="http://www.eaton.eu/DE/Europe/Electrical/ProductsServices/AutomationControl/AutomationControlVisualization/TouchPanelHMIPLC/index.htm">http://www.eaton.eu/DE/Europe/Electrical/ProductsServices/AutomationControl/AutomationControlVisualization/TouchPanelHMIPLC/index.htm</a>