



XV-303-15-C00-A00-1D - Control panel with PLC, 24VDC, 15.6-inch PCT widescreen display, 1366x768 pixels, 2xEthernet, 1xRS232, 1xRS485, 1xCAN, 1xSD card slot, VisualDesigner



191077

XV-303-15-C00-A00-1D

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DELIVERY PROGRAM

Product range
XV300 15.6"

Product range
XV-303

Function
HMI-PLC (SPS function, retrofittable)

Description
Control panel with 2nd Ethernet port
Software (Engineering): visualization = Visual Designer

Common features of the model series
Ethernet interface
CAN
USB device
USB Host
RS232
RS485
Slot for SD card
Operating System Windows Embedded Compact 7 pro
Integrated Runtime visualization software license

Display - Type
Color display, TFT, anti-glare

Touch-technology
Capacitive multi-touch technology (PCT)

Number of colours
16777216 (Color depth 24 bit)

Resolution
WXGA
1366 x 768 Pixel

Portrait format
yes

Screen diagonal
15.6
widescreen Inch

Model
Plastic enclosure and glass panel in plastic frame

Operating system
Windows Embedded Compact 7 Pro

FLC-licence
Can be fitted by user with article no. 181585 LIC-
FLC-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 CANopen@/easyNet
1 x USB host 2.0
1 x USB device

Front type
Non-reflective tempered glass in aluminum frame

Utilization
Flush mounting

Slots
for SD card: 1

Memory card automation
Optionally with SD card -> article no. 181638

Pluggable communication cards (optional)
no

Touch sensor
Multi-touch touch panel

Heat dissipation
21.6 W

TECHNICAL DATA

Display

Display - Type
Color display, TFT, anti-glare

Screen diagonal
15.6
widescreen Inch

Resolution
WXGA
1366 x 768 Pixel

Visible screen area
344.23 x 193.54 mm

Format
16:9

Viewing range [[left/right/up/down]]
85°/85°/80°/80° ° (Degrees)

Number of colours

16777216 (Color depth 24 bit)

Contrast ratio (Normally)
Normally 500:1

Brightness
Normally 300 cd/m²

Back-lighting
LED
dimnable via software

Service life of back-lighting
Normally 50000 h

Operation

Technology
Projected Capacitive Touch (PCT)

Touch sensor
Multi-touch touch panel

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

Back-up of real-time clock
Backup (time at zero voltage)
Normally 10 years

Engineering

Visualisation software
VISUAL DESIGNER
XSOF-ODESYS

PLC-Programming software
XSOF-ODESYS-2
XSOF-ODESYS-3

Target and web visualization
Yes

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 CANopen@easyNet
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

Slots
for SD card: 1

Ethernet
10/100 Mbps

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: 18,0-31,2 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
≤ 10 ms from rated voltage (24 V DC)
5 ms from undervoltage (19.2 V DC) ms

Power consumption [P_{\max}]
21.6 W

Power consumption
Normally 16 W

Heat dissipation
21.6 W

Note on heat dissipation
Heat dissipation with power consumption for 24 V
19.1 W for basic device + 2.5 W for USB module

Protection against polarity reversal
yes

Type of fuse
Yes (fuse not accessible)

Potential isolation
no

General

Housing material
Aluminium die-cast (glass panel)
Insulated material black

Front type
Non-reflective tempered glass in aluminum frame

Dimensions (W x H x D)
404 x 255 x 53 mm

flush mounted
Clearance: W x H \geq 50 mm (1.97"), T \geq 20 mm (0.79")
Mounting plate: min. 1.5 mm (0.06"), max. 4 mm
Inclination from vertical: $\square \square \pm 10^\circ$ (if using natural convection)
Inclination from vertical: $\square \square \pm 45^\circ$ at operating temperature $\square 45^\circ\text{C}$ (113°F) (if using natural convection)

Weight
3.9 kg

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)
NEMA 4X
NEMA 12 (as per NEMA 250-2003)

Approvals
Approvals
cUL 61010-2-201

Applied standards and directives
EMC
2004/108/EEC

Applied standards and directives
Emitted interference
IEC/EN 61000-6-4

Applied standards and directives

Interference immunity
IEC/EN 61000-6-2

Applied standards and directives
Product standards
EN 50178/IEC/EN 61131-2

Mechanical shock resistance
15g / 11ms g

Vibration
5...9 Hz +/- 3.5 mm
9...60 Hz +/- 0.15 mm
60...150 Hz ± 2 g

Free fall, packaged
IEC/EN 60068-2-31 m

RoHS
conform

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

Climatic environmental conditions
Air pressure (operation)
795 - 1080 hPa

Temperature
Storage / Transport [9]
-20 - +60 °C

Temperature
Operating ambient temperature min.
0 °C

Temperature
Operating ambient temperature max.
+50 °C

Relative humidity
Condensation

Non-condensing

Relative humidity
Relative humidity
10 - 95%, non-condensing

DESIGN VERIFICATION AS PER IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat
dissipation [I_r]
0 A

Heat dissipation per pole, current-dependent [P_{id}]
0 W

Equipment heat dissipation, current-dependent
[P_{id}]
0 W

Static heat dissipation, non-current-dependent [P_{is}]
21.6 W

Heat dissipation capacity [P_{diss}]
0 W

Operating ambient temperature min.
0 °C

Operating ambient temperature max.
+50 °C

Degree of Protection
IP65 (in the front as per EN 60529-1), IP20 (on rear
as per EN 60529-1)
NEMA 4X
NEMA12 (as per NEMA 250-2003)

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 Strength of materials and parts

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts

10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts

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 Strength of materials and parts

10.2.4 Resistance to ultra-violet (UV) radiation

Please enquire

10.2 Strength of materials and parts

10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts

10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts

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 Insulation properties
10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.

10.9 Insulation properties
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 7.0

FLCs (EG000024) / Graphic panel (EC001412)

Electric engineering, automation, process control engineering / Display and control component / Panel (HM) / Graphic panel (HM) (ecl@ss10.0.1-27-33-02-01 [AFX016003])

Supply voltage AC 50 Hz
0 - 0 V

Supply voltage AC 60 Hz
0 - 0 V

Supply voltage DC
19.2 - 30 V

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
1

With SW interfaces

Yes

Supporting protocol for TCP/IP
Yes

Supporting protocol for PROFIBUS
No

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
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

With colour display
Yes

Number of colours of the display
16777.216

Number of grey-scales/blue-scales of display
0

Screen diagonal
15.6 inch

Number of pixels, horizontal
1.366

Number of pixels, vertical
768

Useful project memory/user memory
512 kByte

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

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

12

Operation temperature

0 - 50 °C

Rail mounting possible

No

Wall mounting/direct mounting

No

Suitable for safety functions

No

Width of the front
404 mm

Height of the front
255 mm

Built-in depth
75.5 mm

APPROVALS

North America Certification
Request filed for UL

Specially designed for North America
No

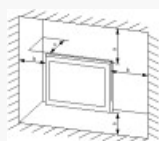
Current Limiting Circuit-Breaker
No

Degree of Protection
IEC: IP65, NA: NEMA4X, NEMA12

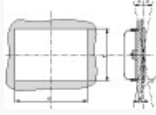
DIMENSIONS



XV-303-... multi-touch panel with 15.6" screen
diagonal; version: flush mounting



a, b \square 50 mm, c \square 20 mm, \varnothing 0 \square T \square 50 °C



1.5 mm \square d \square 4 mm, e = 388 mm, f = 239 mm, \square =
10°

