# DATASHEET - XVH-342-57SKS-1-10

**Touch panel, ir, 24 V DC, 5.7z, STNcolor, ethernet, RS232, RS485**

**Part no.**      XVH-342-57SKS-1-10
**Catalog No.**    139873

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## Delivery program

| | | |
|---|---|---|
| Product range | | XVH300 |
| Function | | HMI |
| Display - Type | | Color display, CSTN |
| Touch-technology | | Infra-red touch |
| Number of colours | | 256 colors |
| Resolution | Pixel | 320 x 240 |
| Portrait format | | yes |
| Screen diagonal | Inch | 5.7 |
| Model | | Metal enclosure and front plate |
| Operating system | | Windows CE (license required) |
| PLC-licence | | no PLC function possible |
| License certificates for onboard interfaces | | Can be expanded as required, see Accessories -> License product certificates |
| built-in interfaces | | 1 x Ethernet 100base-TX/10base-T<br>1 x USB device<br>1 x RS485<br>1 x RS232 |
| Front type | | Standard front with standard membrane<br>Laminated safety glass, non-reflective |
| Utilization | | Flush mounting |
| Slots | | for Compact-Flash$^{TM}$-Cards: 1 |
| Memory card automation | | required, see Accessories -> Memory cards |
| Pluggable communication cards (optional) | | no |
| Heat dissipation | W | 24 |

## Technical data
### Display

| | | |
|---|---|---|
| Display - Type | | Color display, CSTN |
| Screen diagonal | Inch | 5.7 |
| Resolution | Pixel | 320 x 240 |
| Visible screen area | mm | 115 x 86 |
| Number of colours | | 256 colors |
| Contrast ratio (Normally) | | Normally 35:1 |
| Brightness | cd/m$^2$ | Normally 150 |
| Back-lighting | | 1 x CCFL<br>dimmable via software |
| Service life of back-lighting | h | Normally 50000 |
| Infra-red touch protective screen | | Laminated safety glass, non-reflective |

### Operation

| | | |
|---|---|---|
| Technology | | Infra-red touch<br>47 x 31 logic channels |

### System

| | | |
|---|---|---|
| Processor | | RISC CPU, 32 Bit, 200 MHz |
| Internal memory | | DRAM (OS, Program and data memory): 64 MByte<br>Flash (can be used for data backup): approx. 1.5 MByte available |
| External memory | | CF-Slot: 1 x CompactFlash Card type I/II for operating system, programs and data |
| Back-up of real-time clock | | |
|     Battery (service life) | | non-replaceable, CR2032 soldered in |
|     Backup (time at zero voltage) | | Normally 10 years |
| Operating system | | Windows CE (license required) |

## Engineering

| | | | |
|---|---|---|---|
| Visualisation software | | | GALILEO/EPAM |

## Interfaces, communication

| | | | |
|---|---|---|---|
| built-in interfaces | | | 1 x Ethernet 100base-TX/10base-T<br>1 x USB device<br>1 x RS485<br>1 x RS232 |
| PLC-licence | | | no PLC function possible |
| USB device | | | USB 1.1, not galvanically isolated |
| RS-232 | | | RS232 (Sucom A), not isolated (Sub-D 9.pin plug, UNC) |
| RS-485 | | | RS485 (Suconet K), isolated (Sub-D 9-pin socket, UNC) |
| Slots | | | for Compact-Flash$^{TM}$-Cards: 1 |
| Ethernet | | | 100Base-TX/10Base-T |

## Power supply

| | | | |
|---|---|---|---|
| Nominal voltage | | | 24 V DC SELV (safety extra low voltage) |
| permissible voltage | | | Effective: 20.4-28.8 V DC (rated operating voltage -15%/+20%)<br>Absolute with ripple: 19.2-30.0 V DC<br>35 V DC for a duration of < 100 ms |
| Voltage dips | | ms | ≤ 20 ms from rated voltage (24 V DC)<br>2 ms from undervoltage (20.4 V DC) |
| Power consumption | $P_{max.}$ | W | 21 |
| Power consumption | | W | Normally 17 |
| Heat dissipation | | W | 24 |
| Note on heat dissipation | | | Heat dissipation with power consumption for 24 V, all ports and interfaces connected |
| Siemens MPI, (optional) | | | yes |
| Type of fuse | | | Yes (fuse not accessible) |
| Potential isolation | | | no potential isolation (0 V-connection to housing potential) |

## General

| | | | |
|---|---|---|---|
| Housing material | | | Metal, anodized |
| Front type | | | Standard front with standard membrane<br>Laminated safety glass, non-reflective |
| Weight | | kg | 1.9 |
| Degree of protection (IEC/EN 60529, EN50178, VBG 4) | | | IP65 (at front), IP20 (at rear) |
| Approvals | | | |
|    Approvals | | | cUL |
|    Explosion protection (according to ATEX 94/9/EC) | | | II 3D Ex II T70°C IP5x: Zone 22, Category 3D<br>(in relation to CE)<br>EN60079-0, EN61241-1, EN13463 |
| Applied standards and directives | | | |
|    Product standards | | | EN 50178<br>EN 50178 |
|    Security | | | EN 60950<br>UL 60950 |
| Mechanical shock resistance | | g | according to IEC 60068-2-27 |
| Vibration | | | To IEC 68-2-6 |

## Environmental conditions

| | | | |
|---|---|---|---|
| Temperature | | | |
|    Operation | ϑ | °C | 0 - +50 |
|    Storage / Transport | ϑ | °C | -20 - +60 |
|    Operating ambient temperature min. | | °C | 0 |
|    Operating ambient temperature max. | | °C | + 50 |
| Relative humidity | | | |
|    Relative humidity | | | 10 - 95%, non-condensing |

## Supply voltage U$_{Aux}$

| | | | |
|---|---|---|---|
| Rated operational voltage | $U_{Aux}$ | V | 24 V DC (-15/+20%) |
| Protection against polarity reversal | | | Yes |
| Potential isolation | | | No |

# Design verification as per IEC/EN 61439

| | | | |
|---|---|---|---|
| Technical data for design verification | | | |

| | | | |
|---|---|---|---|
| Rated operational current for specified heat dissipation | $I_n$ | A | 0 |
| Heat dissipation per pole, current-dependent | $P_{vid}$ | W | 0 |
| Equipment heat dissipation, current-dependent | $P_{vid}$ | W | 0 |
| Static heat dissipation, non-current-dependent | $P_{vs}$ | W | 24 |
| Heat dissipation capacity | $P_{diss}$ | W | 0 |
| Operating ambient temperature min. | | °C | 0 |
| Operating ambient temperature max. | | °C | 50 |
| 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 7.0

| PLC's (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 |
| 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 |
| Number of HW-interfaces RS-485 | | | 1 |
| 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 | | | 1 |
| With SW interfaces | | | Yes |
| 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 | | Yes |
| 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 | | STN |
| With colour display | | Yes |
| Number of colours of the display | | 256 |
| Number of grey-scales/blue-scales of display | | 0 |
| Screen diagonal | inch | 5.7 |
| 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 | | 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 | | Yes |
| Number of online languages | | 100 |
| Additional software components, loadable | | Yes |
| Degree of protection (IP), front side | | IP65 |
| Degree of protection (NEMA), front side | | |
| Operation temperature | °C | 0 - 50 |
| Rail mounting possible | | No |
| Wall mounting/direct mounting | | No |
| Suitable for safety functions | | No |

| | | | |
|---|---|---|---|
| Width of the front | | mm | 212 |
| Height of the front | | mm | 156 |
| Built-in depth | | mm | 55 |

## Approvals

| | | |
|---|---|---|
| Product Standards | | UL 60950-01; CSA-C22.2 No. 60950-1; IEC/EN 61131-2; CE marking |
| UL File No. | | E208621 |
| UL Category Control No. | | NWGQ2, NWGQ8 |
| CSA File No. | | UL report applies to both US and Canada |
| CSA Class No. | | – |
| North America Certification | | UL recognized, certified by UL for use in Canada |
| Conditions of Acceptability | | The investigated Pollution Degree is: 2<br>Proper bonding to the end-product main protective earthing termination is: Required<br>The following end-product enclosures are required: Fire, Electrical<br>The unit must be supplied via a SELV source.<br>The provided Ethernet Connection is only allowed to connect to inhouse networks. |
| Specially designed for North America | | No |
| Current Limiting Circuit-Breaker | | No |
| Degree of Protection | | IEC: IP65, UL/CSA Type: - |

## Dimensions

| |
|---|
| Dimensions |

## Additional product information (links)

| IL04802008Z Enclosed kit information | |
|---|---|
| IL04802008Z Enclosed kit information | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04802008Z2018_02.pdf |
| **MN04802008Z Operator manual XVH300** | |
| MN04802008Z Bedienerhandbuch XVH300 - Deutsch | ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802008Z_DE.pdf |
| MN04802008Z Operator manual XVH300 - English | ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802008Z_EN.pdf |