



Communication module/power supply unit for remote text display, 100-240VAC, easy/EC4P/ES4P

Part no. MFD-AC-CP4
Catalog No. 286822

EL-Nummer 4560852
(Norway)

Delivery program

| | | |
|----------------------|--|--|
| Product range | | Multi-function-display MFD-Titan |
| Product range | | Compact PLCs |
| Basic function | | Power supply unit/CPU modules |
| Function | | Accessories |
| Accessories | | Remote text display |
| Supply voltage | | 100 - 240 V AC |
| Description | | Degree of protection IP20 |
| | | can be combined with display/operating unit MFD-80... as detachable touch display for easyRelais |
| Description | | Without connection cable |
| Degree of Protection | | IP20 |

Technical data

General

| | | |
|------------------------|----|--|
| Standards | | EN 61000-6-1/-2/-3/-4, IEC 60068-2-6, IEC 60068-2-27 |
| Dimensions (W x H x D) | mm | 107.5 x 90 x 30 |
| Weight | kg | 0.145 |
| Mounting | | Fitted on the fixing shaft of the display or on top-hat rail according to IEC/EN 60715, 35 mm deep (without display) |

Terminal capacities

| | | |
|-----------------------|-----------------|----------------------|
| Solid | mm ² | 0.24 (AWG 24 - 12) |
| Flexible with ferrule | mm ² | 0.22.5 (AWG 24 - 12) |
| Standard screwdriver | mm | 3.5 x 0.6 |

Climatic environmental conditions

| | | |
|---|-----|---|
| Operating ambient temperature | °C | -25 to 55, cold as per IEC 60068-2-1, heat as per IEC 60068-2-2 |
| Condensation | | Take appropriate measures to prevent condensation |
| Storage | °C | - 40 - 70 |
| Relative humidity, non-condensing (IEC/EN 60068-2-30) | % | 5 - 95 |
| Air pressure (operation) | hPa | 795 - 1080 |

Ambient conditions, mechanical

| | | |
|--|----------------|------------------------|
| Protection type (IEC/EN 60529, EN50178, VBG 4) | | IP20 |
| Vibrations (IEC/EN 60068-2-6) | Hz | |
| Constant amplitude 0.15 mm | Hz | 10 - 57 |
| Constant acceleration 2 g | Hz | 57 - 150 |
| Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms | Impacts | 18 |
| Drop to IEC/EN 60068-2-31 | Drop height mm | 50 |
| Free fall, packaged (IEC/EN 60068-2-32) | m | 1 |
| Mounting position | | Vertical or horizontal |

Electromagnetic compatibility (EMC)

| | | |
|--|-----|------------------------------------|
| Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD) | kV | |
| Air discharge | kV | 8 |
| Contact discharge | kV | 6 |
| Electromagnetic fields (RFI) to IEC EN 61000-4-3 | V/m | 10 |
| Radio interference suppression | | EN 55011 Class B, EN 55022 Class B |
| Burst Impulse (IEC/EN 61000-4-4, Level 3) | | |
| Supply cable | kV | 2 |
| Signal lines | kV | 2 |

| | | |
|---|---|----|
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) | V | 10 |
|---|---|----|

Insulation resistance

| | | |
|---|--|--------------------------------------|
| Clearance in air and creepage distances | | EN 50178, UL 508, CSA C22.2, No. 142 |
| Insulation resistance | | EN 50178 |

Back-up of real-time clock

| | | |
|---------------------------------|-------|--|
| Accuracy of the real-time clock | s/day | Normally ± 5 s/day (± 0.5 h/Year) |
|---------------------------------|-------|--|

Repetition accuracy of timing relays

| | | |
|---------------------------------------|-----|------------|
| Accuracy of timing relays (of values) | % | ± 0.02 |
| Resolution | | |
| Range "S" | ms | 5 |
| Range "M:S" | s | 1 |
| Range "H:M" | min | 1 |

Retentive memory

| | | |
|--------------------------------------|--|-------------------------------|
| Write cycles of the retentive memory | | 10^{10} (read/write cycles) |
|--------------------------------------|--|-------------------------------|

Power supply

| | | | |
|-----------------------------|-------|------|---|
| Rated operational voltage | U_e | V | 100/110/115/120//230/240 AC (+10/-15 %) |
| Admissible range | | V AC | 85 ... 264 |
| Frequency | | Hz | 50/60 ($\pm 5\%$) |
| Input current | | | |
| at 115/120 V AC 60 Hz | | mA | Normally 90 |
| at 230/240 V AC 50 Hz | | mA | Normally 60 |
| Power loss | | | |
| Heat dissipation at 24 V DC | | W | 17 |
| at 115/120 V AC | | VA | Normally 11 |
| at 230/240 V AC | | VA | Normally 15 |

Network easyNet

| | | |
|---|--------|--|
| Stations | Number | max. 8 |
| Data transfer rate/distance | | 1000 kBit/s, 6 m 500 Kbit/s, 25 m 250 Kbit/s, 40 m 125 kBit/s, 125 m 50 Kbit/s, 300 m 20 Kbit/s, 700 m 10 Kbit/s, 1000 m |
| Distance | m | 5 |
| Potential isolation | | |
| From power supply | | Yes |
| From the inputs | | Yes |
| to PC interface, memory card, easyNet, easyLink | | Yes |
| Bus termination (first and last station) | | Yes |
| Connection technique | | RJ45, 8-pole |

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 | 17 |
| Heat dissipation capacity | P_{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 55 |
| 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. |

| | | |
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| 10.2.4 Resistance to ultra-violet (UV) radiation | | Meets the product standard's requirements. |
| 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) / Text panel (EC001426)

Electric engineering, automation, process control engineering / Display and control component / Panel (HMI) / Text panel (HMI) (ecl@ss10.0.1-27-33-02-03 [AFX018003])

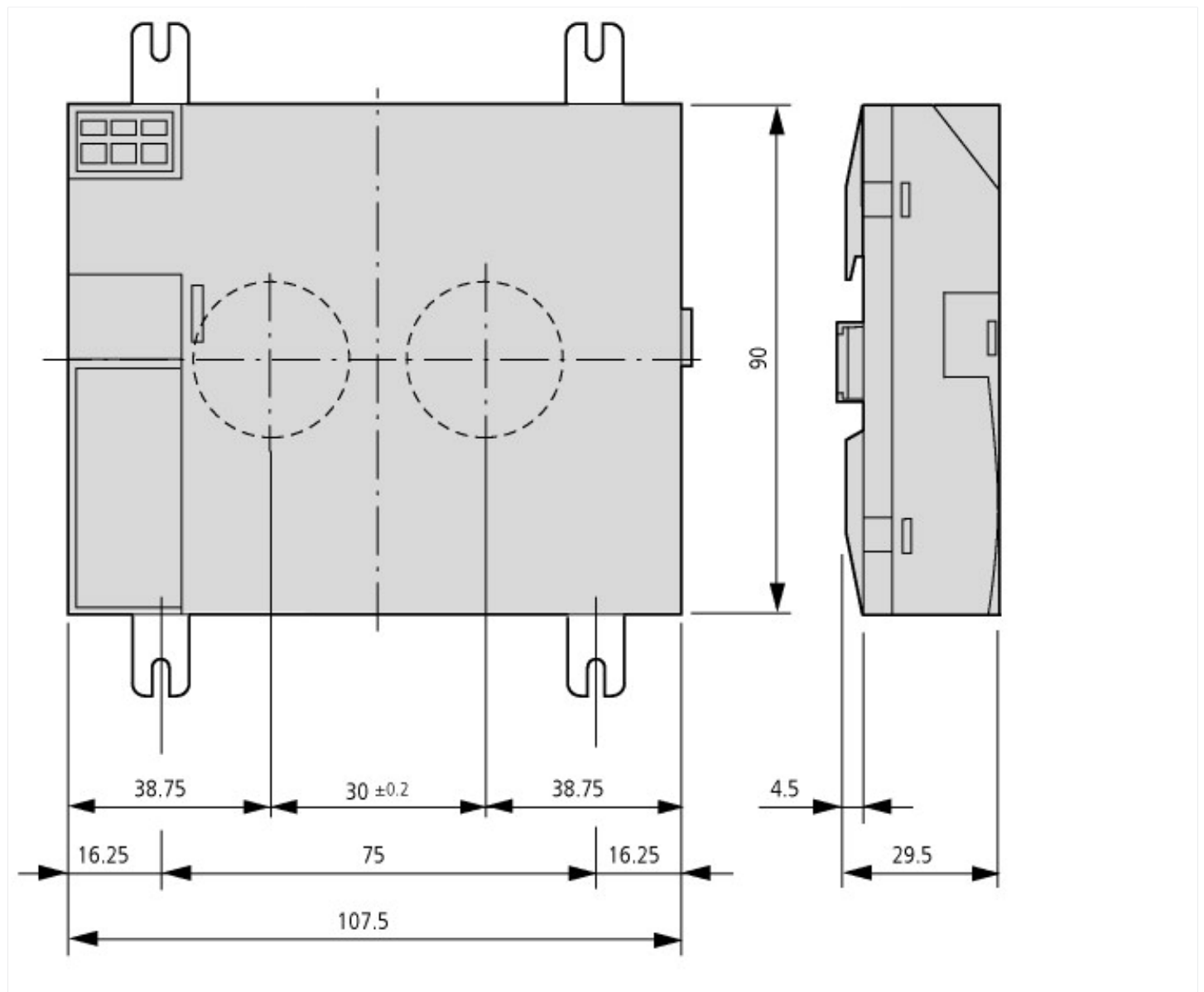
| | | |
|---|---|----------|
| Supply voltage AC 50 Hz | V | 85 - 264 |
| Supply voltage AC 60 Hz | V | 85 - 264 |
| Supply voltage DC | V | 0 - 0 |
| Voltage type of supply voltage | | AC |
| Number of HW-interfaces industrial Ethernet | | 0 |
| Number of interfaces PROFINET | | 0 |
| Number of HW-interfaces RS-232 | | 0 |
| Number of HW-interfaces RS-422 | | 0 |
| Number of HW-interfaces RS-485 | | 0 |
| Number of HW-interfaces serial TTY | | 0 |
| Number of HW-interfaces USB | | 0 |
| Number of HW-interfaces parallel | | 0 |
| Number of HW-interfaces Wireless | | 0 |
| Number of HW-interfaces other | | 2 |
| Supporting protocol for TCP/IP | | No |
| 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 | | No |
| 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 | | No |
| 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 | | | LCD with background illumination |
| Number of display lines | | | 4 |
| Number of characters per line | | | 16 |
| Max. character height, display | | mm | 32 |
| Useful project memory/user memory | | kByte | 0 |
| With numeric keyboard | | | No |
| With alpha numeric keyboard | | | No |
| Number of function buttons, programmable | | | 4 |
| Number of buttons with LED | | | 0 |
| Number of system buttons | | | 0 |
| With message indication | | | Yes |
| With message system (incl. buffer and confirmation) | | | No |
| Process value representation (output) possible | | | Yes |
| Process default value (input) possible | | | Yes |
| With recipes | | | No |
| Number of password levels | | | 1 |
| With printer output | | | No |
| Number of online languages | | | 13 |
| Degree of protection (IP), front side | | | IP65 |
| Degree of protection (NEMA) | | | 12 |
| Operation temperature | | °C | 25 - 55 |
| Graphic objects presentable | | | No |
| Suitable for safety functions | | | No |
| Width of the front | | mm | 86.5 |
| Height of the front | | mm | 86.5 |
| Built-in depth | | mm | 36.2 |

Approvals

| | | | |
|-----------------------------|--|--|---|
| Product Standards | | | IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-M1987; CE marking |
| UL File No. | | | E135462 |
| UL Category Control No. | | | NRAQ |
| CSA File No. | | | 012528 |
| CSA Class No. | | | 2252-01 + 2258-02 |
| North America Certification | | | UL listed, CSA certified |
| Degree of Protection | | | IEC: IP20, UL/CSA Type: - |

Dimensions



Assets (links)

Declaration of CE Conformity

00002517

Instruction Leaflets

IL05013018Z2018_02

Additional product information (links)

Instruction leaflet "power supply unit, communication module" IL05013018Z (AWA2528-2175)

Instruction leaflet "power supply unit, communication module" IL05013018Z (AWA2528-2175)

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013018Z2018_02.pdf

f1=1454&f2=1179;Labeleditor

<http://applications.eaton.eu/sdlc?LX=11&am>