

I/O expansion, 240VAC, 12DI, 6DO relays, easyLink



Part no. EASY618-AC-RE
212314
EL Number 4520945
(Norway)

| General specifications | | |
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| Product name | | Eaton Moeller® series EASY I/O expansion |
| Part no. | | EASY618-AC-RE |
| EAN | | 4015082123147 |
| Product Length/Depth | | 71 millimetre |
| Product height | | 90 millimetre |
| Product width | | 108 millimetre |
| Product weight | | 0.248 kilogram |
| Certifications | | CSA-C22.2 No. 213-M1987 UL UL File No.: E135462 CSA-C22.2 No. 142-M1987 CSA Class No.: 2252-01 + 2258-02 IEC/EN 61000-4-2, Level 3 CSA File No.: 012528 CSA UL 508 CE UL Category Control No.: NRAQ, NRAQ7 UL hazardous location group B (hydrogen) UL hazardous location group A (acetylene) UL hazardous location division 2 UL hazardous location group C (ethylene) UL hazardous location class I UL hazardous location group D (propane) |
| Product Tradename | | EASY |
| Product Type | | I/O expansion |
| Product Sub Type | | None |
| Features & Functions | | |
| Features | | Expansion device |
| Fitted with: | | Relay output |
| Functions | | Expansion for Easy devices |
| Indication | | LCD-display used as status indication of Digital inputs 115/230 V AC |
| General information | | |
| Degree of protection | | IP20 |
| Input frequency | | 50/60 Hz (Digital inputs, at 115/230 V AC) 50/60 Hz (Digital inputs, at 24 V DC) |
| Insulation resistance | | According to EN 50178 |
| Lifespan, electrical | | 25,000 Operations (Fluorescent lamp load 1 x 58 W at 230/240 V AC, conventional, compensated) 25,000 Operations (Filament bulb load at 500 W, 115/120 V AC) 25,000 Operations (Filament bulb load at 1000 W, 230/240 V AC) 25,000 Operations (Fluorescent lamp load 10 x 58 W at 230/240 V AC, with upstream electrical device) 25,000 Operations (Fluorescent lamp load 10 x 58 W at 230/240 V AC, uncompensated) |
| Lifespan, mechanical | | 10,000,000 Operations 10,000,000 Operations (Relay outputs) |
| Mounting method | | Rail mounting possible Wall mounting/direct mounting |
| Overvoltage category | | II |
| Pollution degree | | 2 |
| Product category | | Compact PLCs Control relay easyRelay Multi-function-display MFD-Titan Remote I/O systems |
| Protection | | Miniature circuit-breaker B16 or fuse 8 A (slow), Protection of an output relay |
| Rated impulse withstand voltage (Uimp) | | 6 kV (contact-coil) |
| Switching frequency | | 0.5 Hz, Inductive load, Relay outputs 10 Hz, Relay outputs |

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| Type | 2 Hz, Resistive load/lamp load, Relay outputs |
| Used with | Expansions I/O expansions, digital |
| Utilization category | Can be used through easyLink |
| Voltage type | B 300 Light Pilot Duty, UL/CSA Control Circuit Rating Codes AC R 300 Light Pilot Duty, UL/CSA Control Circuit Rating Codes DC |
| Ambient conditions, mechanical | |
| Constant acceleration | 2 g, 57 - 150 Hz, according to IEC/EN 60068-2-6, Vibrations |
| Constant amplitude | 0,15 mm, 10 - 57 Hz, according to IEC/EN 60068-2-6, Vibrations |
| Drop and topple | 50 mm Drop height, Drop to IEC/EN 60068-2-31 |
| Height of fall (IEC/EN 60068-2-32) - max | 1 m |
| Mounting position | Vertical Horizontal |
| Shock resistance | 15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 18 Impacts |
| Climatic environmental conditions | |
| Air pressure | 795 - 1080 hPa (operation) |
| Ambient operating temperature - min | -25 °C |
| Ambient operating temperature - max | 55 °C |
| Ambient storage temperature - min | -40 °C |
| Ambient storage temperature - max | 70 °C |
| Environmental conditions | Condensation: prevent with appropriate measures |
| Relative humidity | 5 - 95 % |
| Electro magnetic compatibility | |
| Air discharge | 8 kV |
| Burst impulse | 2 kV, Signal cable According to IEC/EN 61000-4-4 2 kV, Supply cable |
| Contact discharge | 6 kV |
| Immunity to line-conducted interference | 10 V (according to IEC/EN 61000-4-6) |
| Surge rating | 2 kV, Supply cables, symmetrical, EASY...AC, power pulses (Surge), EMC 0.5 kV, Supply cables, symmetrical, EASY...DC, power pulses (Surge), EMC According to IEC/EN 61000-4-5, power pulses (Surge), EMC |
| Voltage dips | 20 ms |
| Electrical rating | |
| Conventional thermal current I _{th} of auxiliary contacts (1-pole, open) | 8 A |
| Heat dissipation | 10 VA (at 115/120 V AC) 10 VA (at 115/230 V AC) |
| Power consumption | 5 W |
| Rated breaking capacity | 300000 Operations at AC-15, 250 V AC, 3 A (600 Ops./h) 200000 Operations at DC-13, 24 V DC, 1 A (500 Ops./h) |
| Rated insulation voltage (U _i) | 250 V |
| Rated operational voltage | Max. 300 V AC Max. 300 V DC 85 - 264 V AC 250 V AC 100/110/115/120/230/240 AC (-15 %/+10 %) |
| Supply frequency | 50/60 Hz (± 5%) |
| Supply voltage at AC, 50 Hz - min | 85 V AC |
| Supply voltage at AC, 50 Hz - max | 264 V AC |
| Supply voltage at DC - min | 0 V DC |
| Supply voltage at DC - max | 0 V DC |
| Uninterrupted current | 8 A DC, at 24 V DC (UL/CSA) 10 A AC, at 240 V AC (UL/CSA) 1 A DC, at R 300 (UL/CSA) 5 A AC, max. thermal continuous current cos φ = 1 at B 300 (UL/CSA) |
| Short-circuit rating | |
| Short-circuit protection | 16 A, Short-circuit-proof cos φ = 0.5 to 0.7, characteristic B16 at 900 A, Contacts, Relay outputs 16 A, Short-circuit-proof cos φ = 1, characteristic B16 at 600 A, Contacts, Relay outputs |
| Cable | |

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| Cable length | | 100 m (max. permissible per input I7 to I8), Digital inputs 115/230 V AC 40 m (max. permissible per input I1 to I6), Digital inputs 115/230 V AC 40 m (max. permissible per input I9 to I12), Digital inputs 115/230 V AC 40 m (max. permissible per input R1 to R12), Digital inputs 115/230 V AC |
| Input/Output | | |
| Delay time | | 16 ms, Digital inputs 115/230 V AC 60 Hz (I7, I8), Delay time from 1 to 0, Debounce OFF 66½ ms, Digital inputs 115/230 V AC 60 Hz (I1 - I6, I9 - I12, R1 - R12), Delay time from 0 to 1, Debounce ON 20 ms, Digital inputs 115/230 V AC 50 Hz (I1 - I6, I9 - I12, R1 - R12), Delay time from 1 to 0, Debounce OFF 20 ms, Digital inputs 115/230 V AC 50 Hz (I7, I8), Delay time from 0 to 1, Debounce OFF 16 ms, Digital inputs 115/230 V AC 60 Hz (I7, I8), Delay time from 0 to 1, Debounce OFF 16½ ms, Digital inputs 115/230 V AC 60 Hz (I1 - I6, I9 - I12, R1 - R12), Delay time from 1 to 0, Debounce OFF 80 ms, Digital inputs 115/230 V AC 50 Hz (I1 - I6, I9 - I12, R1 - R12), Delay time from 0 to 1, Debounce ON 20 ms, Digital inputs 115/230 V AC 50 Hz (I7, I8), Delay time from 1 to 0, Debounce OFF |
| Input current | | 12 x 0.25 mA (R1 - R12, at 115/230 V AC, at signal 1) 12 x 0.5 mA (Digital inputs, at 230 V AC, 50 Hz, at signal 1) |
| Input voltage | | Signal 1: 79 - 264 V AC (sinusoidal, Digital inputs, 115/230 V AC) Signal 0: 0 - 40 V AC (sinusoidal, Digital inputs, 115/230 V AC) |
| Making/breaking capacity | | 28/28 VA (DC, at R 300) 3600/360 VA (AC, at B 300) |
| Number of inputs (analog) | | 0 |
| Number of inputs (digital) | | 12 |
| Number of outputs (analog) | | 0 |
| Number of outputs (digital) | | 6 |
| Output | | > 500 mA (Relay outputs, Recommended for load: 12 V AC/DC) 6 Relay Outputs Relay outputs in groups of 1 Voltage Current |
| Parallel switching | | Not permitted |
| Safety | | |
| Explosion safety category for gas | | None |
| Potential isolation | | Basic isolation: 600 V AC (Relay outputs) Safe isolation according to EN 50178: 300 V AC (Relay outputs) Between Relay outputs and Inputs: yes In groups (Relay outputs) Between Relay outputs and Power supply: yes Between Digital inputs 115/230 V AC and Outputs: yes |
| Explosion safety category for dust | | None |
| Safe isolation | | 300 V AC, Between two contacts, According to EN 50178 300 V AC, Between coil and contact, According to EN 50178 |
| Design verification | | |
| Equipment heat dissipation, current-dependent Pvid | | 0 W |
| Heat dissipation capacity Pdis | | 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 | | 10 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 | | 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. |

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| 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

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| Programmable logic controllers PLC (EG000024) / Logic module (EC001417) | | |
| Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / Logic module (ecl@ss10.0.1-27-24-22-16 [AKE539014]) | | |
| 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 |
| Switching current | A | 8 |
| Number of analogue inputs | | 0 |
| Number of analogue outputs | | 0 |
| Number of digital inputs | | 12 |
| Number of digital outputs | | 6 |
| With relay output | | Yes |
| 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 | | 1 |
| With optical interface | | No |
| 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 |

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| 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 |
| Redundancy | | | No |
| With display | | | No |
| Degree of protection (IP) | | | IP20 |
| Basic device | | | No |
| Expandable | | | No |
| Expansion device | | | Yes |
| With time switch clock | | | No |
| Rail mounting possible | | | Yes |
| Wall mounting/direct mounting | | | Yes |
| Front built-in possible | | | No |
| Rack-assembly possible | | | No |
| Suitable for safety functions | | | No |
| SIL according to IEC 61508 | | | None |
| Performance level according to EN ISO 13849-1 | | | None |
| Appendant operation agent (Ex ia) | | | No |
| Appendant operation agent (Ex ib) | | | No |
| Explosion safety category for gas | | | None |
| Explosion safety category for dust | | | None |
| Width | | mm | 108 |
| Height | | mm | 90 |
| Depth | | mm | 71 |