

Bus refreshing module XI/ON, 24 V DC



Part no. XN-BR-24VDC-D
140071
EL Number 4520627
(Norway)

| General specifications | | |
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| Product name | | Eaton XN Bus refreshing module |
| Part no. | | XN-BR-24VDC-D |
| EAN | | 7640130120518 |
| Product Length/Depth | | 55.4 millimetre |
| Product height | | 74.1 millimetre |
| Product width | | 12.6 millimetre |
| Product weight | | 0.037 kilogram |
| Compliances | | CE Marked RoHS Compliant |
| Certifications | | UL Listed IEC/EN 61000-6-2 CULus Certified by UL for use in Canada UL File No.: E205091 CE UL Category Control No.: NRAQ, NRAQ7 UL 508 IEC/EN 61131-2 IEC/EN 61000-6-4 UL report applies to both US and Canada CSA-C22.2 No. 142 IEC/EN 6113-2 CSA Class No.: 2252-01, 2252-81 UL Recognized |
| Product Tradename | | XN |
| Product Type | | Bus refreshing module |
| Product Sub Type | | None |
| Catalog Notes | | System power supply 24 V DC for generation of power for module bus and gateway (XN-GW-...) |
| Features & Functions | | |
| Electric connection type | | Screw-/spring clamp connection |
| Features | | Fieldbus connection over separate bus coupler possible |
| Fitted with: | | Potential separation |
| Functions | | Bus diagnosis possible |
| General information | | |
| Admissible range | | 18 - 30 V DC, Supply module |
| Degree of protection | | IP20 |
| Mounting method | | Rail mounting possible |
| Product category | | XN Slice module |
| Residual ripple | | < 5 % (according to EN 61131-2) |
| Suitable for | | Base modules without C-Connection: 2-/3-wire Base modules with C-connection: 4-wire |
| Suitable as | | Segment module |
| Type | | XI/ON power supply module |
| Used with | | XN-P3T-SBB XN-P3S-SBB XN-P4S-SBBC-B XN-P4S-SBBC, XN-P3T-SBB-B XN-P4T-SBBC XN-P4T-SBBC-B XN-P3S-SBB-B XN-P4S-SBBC XN-P3T-SBB-B |
| Voltage type | | DC |
| Ambient conditions, mechanical | | |
| Drop and topple | | According to IEC 60068-2-31, free fall according to IEC 60068-2-32 |
| Shock resistance | | Continuous according to IEC/EN 60068-2-29 |

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| | | Mechanical, According to IEC/EN 60068-2-27 |
| Vibration resistance | | According to IEC/EN 60068-2-6 |
| Climatic environmental conditions | | |
| Ambient operating temperature - min | | 0 °C |
| Ambient operating temperature - max | | 55 °C |
| Ambient storage temperature - min | | -25 °C |
| Ambient storage temperature - max | | 85 °C |
| Environmental conditions | | Harmful gasses - SO2: 10 ppm (relative humidity < 75%, no condensation) Harmful gasses - H2S: 1 ppm (relative humidity < 75%, no condensation) |
| Relative humidity | | 5 - 95 % (indoor, Level RH-2, non-condensing for storage at 45°C) |
| Electro magnetic compatibility | | |
| Air discharge | | According to EN 61000-4-2 |
| Burst impulse | | According to IEC/EN 61000-4-4 |
| Electromagnetic fields | | According to IEC EN 61100-4-2 |
| Emitted interference | | 30 - 230 MHz (radiated, high frequency, according to EN 55016-2-3) 230 - 1000 MHz (radiated, high frequency, according to EN 55016-2-3) |
| Radiated RFI | | IEC/EN 61100-4-6 |
| Surge rating | | According to IEC/EN 61000-4-5 Level 4 |
| Voltage dips | | According to EN 61131-2 (Voltage fluctuations/voltage dips) |
| Electrical rating | | |
| Power loss | | Normally 1.3 W |
| Rated insulation voltage (Ui) | | 500 V |
| Supply current | | 1.5 A, IMB, Maximum system supply current, Supply modules 10 A, IEI, Maximum operating current, Supply modules |
| Supply voltage at AC, 50 Hz - min | | 0 V AC |
| Supply voltage at AC, 50 Hz - max | | 0 V AC |
| Supply voltage at DC - min | | 18 V DC |
| Supply voltage at DC - max | | 30 V DC |
| Communication | | |
| Field voltage | | 24 V DC (UL) |
| Number of bytes | | 4 diagnostic bytes |
| Protocol | | Other bus systems |
| Safety | | |
| Explosion safety category for dust | | None |
| Explosion safety category for gas | | None |
| Potential isolation | | Through optocoupler: yes |
| Design verification | | |
| Equipment heat dissipation, current-dependent Pvid | | 0 W |
| Heat dissipation capacity Pdiss | | 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 | | 1.3 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 9.0

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| Programmable logic controllers PLC (EG000024) / Fieldbus, decentr. periphery - power supply/segment module (EC001600) | | |
| Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Field bus, decentralized peripheral / Field bus, decentralized peripheral - feed and segment module (ecI@ss13-27-24-26-10 [BAA071018]) | | |
| Supply voltage AC 50 Hz | V | 0 - 0 |
| Supply voltage AC 60 Hz | V | 0 - 0 |
| Supply voltage DC | V | 18 - 30 |
| Voltage type (supply voltage) | | DC |
| 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 parallel | | 0 |
| Number of HW-interfaces wireless | | 0 |
| Number of HW-interfaces USB | | 0 |
| Number of HW-interfaces other | | 1 |
| With optical interface | | No |
| Supporting protocol for EtherCAT | | 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 | | Yes |
| Radio standard Bluetooth | | No |
| Radio standard WLAN 802.11 | | No |
| Radio standard GPRS | | No |
| Radio standard GSM | | No |

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| Radio standard UMTS | | No |
| System accessory | | Yes |
| Degree of protection (IP) | | IP20 |
| Type of electric connection | | Screw-/spring clamp connection |
| With potential separation | | Yes |
| With power supply module | | No |
| Suitable as segment module | | Yes |
| Remote module | | No |
| Fieldbus connection over separate bus coupler possible | | Yes |
| Bus diagnosis possible | | Yes |
| Rail mounting possible | | Yes |
| Wall mounting/direct mounting | | No |
| 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 |
| Certified for UL hazardous location class I | | No |
| Certified for UL hazardous location class II | | No |
| Certified for UL hazardous location class III | | No |
| Certified for UL hazardous location division 1 | | No |
| Certified for UL hazardous location division 2 | | No |
| Certified for UL hazardous location group A (acetylene) | | No |
| Certified for UL hazardous location group B (hydrogen) | | No |
| Certified for UL hazardous location group C (ethylene) | | No |
| Certified for UL hazardous location group D (propane) | | No |
| Certified for UL hazardous location group E (metal dusts) | | No |
| Certified for UL hazardous location group F (carbonaceous dusts) | | No |
| Certified for UL hazardous location group G (non-conductive dusts) | | No |
| Width | mm | 12.6 |
| Height | mm | 74.1 |
| Depth | mm | 55.4 |