

Bus refreshing module XI/ON, 24 V DC



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

General specifications		
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

		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.

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

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

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