DATASHEET - XN-BR-24VDC-D

Bus refreshing module XI/ON, 24 V DC

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

Powering Business Worldwide™

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 (ecl@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