Specifications

Eaton 140070



Catalog Number: 140070

Eaton XN Power supply module XI/ON, 24 V DC

General specifications

Product Name
Eaton XN Power supply module

Catalog Number
140070

EAN
7640130121027

Product Length/Depth
55.4 mm

Product Height
74.1 mm

Product Width
12.6 mm

Product Weight
0.025 kg

Certifications
UL Recognized
UL report applies to both US and Canada
CSA Class No.: 2252-01, 2252-81
UL 508
IEC/EN 6113-2
UL Category Control No.: NRAQ, NRAQ7
IEC/EN 61000-6-2
CE
CSA-C22.2 No. 142
IEC/EN 61000-6-4
IEC/EN 61131-2
CULus
UL File No.: E205091
Certified by UL for use in Canada

Powering Business Worldwide

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

Admissible range

18 - 30 V DC, Supply module

Current consumption

28 mA, from module bus, Supply modules

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 with C-connection: 4-wire

Base modules without C-Connection: 2-/3-wire

Suitable as

Segment module

Type

XI/ON power supply module

Used with

XN-P3T-SBB

XN-P4S-SBBC

XN-P3S-SBB

XN-P4T-SBBC

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

Mechanical, According to IEC/EN 60068-2-27

Continuous according to IEC/EN 60068-2-29

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 - H2S: 1 ppm (relative humidity < 75%, no condensation)
Harmful gasses - SO2: 10 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

230 - 1000 MHz (radiated, high frequency, according to EN 55016-2-3)
30 - 230 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

10 A, IEI, Maximum operating current, Supply modules

Supply voltage at AC, 50 Hz - min

0 VAC

Supply voltage at AC, 50 Hz - max

0 VAC

Supply voltage at DC - min

18 VDC

Supply voltage at DC - max

30 VDC

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.

Resources

Brochures

eaton-xc300-modular-plc-brochure-br050008en-en-us.pdf

Slice card modular I/O system for the machine building industry XN300 - brochure

Declarations of conformity

DA-DC-00003875.pdf

DA-DC-00003698.pdf

Drawings

eaton-io-modules-xion-xn-input-card-dimensions.eps

eaton-electronic-devices-xion-xn-input-card-3d-drawing.eps

eCAD model

DA-CE-ETN.XN-PF-24VDC-D

Manuals and user guides

MN05002010Z_EN

mCAD model

DA-CS-xn_pf_24vdc_d

DA-CD-xn_pf_24vdc_d

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.

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