1. Product Description

Nexto Series is a powerful and complete Programmable Logic Controller (PLC) with unique and innovative features. Due to its flexibility, smart design, enhanced diagnostics capabilities and modular architecture, Nexto PLC can be used for control systems in medium and high-end applications or in high speed machinery.

NX8000 module provides up to 30 W, delivered to Nexto Series modules through backplane rack. The module has an isolated 24 Vdc input with an internal fuse protection accessible through the module's side cover. Due to its internal high-efficiency switching power supply, NX8000 presents a compact size and high output power.

Its main features are:

- High-efficiency switching power supply
- 30 W of output power
- 24 Vdc input voltage
- Internal fuse protection
- Protection against polarity inversion
- Protection against voltage surges
- Compact size
- Fanless design (no moving parts inside)
- Module diagnostics via LEDs

2. Ordering Information

2.1. Included Items

The product package contains the following items:

- NX8000 module
- Connector block
- Installation guide

2.2. Product Code

The following code should be used to purchase the product:

Code	Description
NX8000	30 W 24 Vdc Power Supply Module

Table 1: Power Supply Modules

3. Innovative Features

Nexto Series brings to the user many innovations regarding utilization, supervision and system maintenance. These features were developed focusing a new concept in industrial automation.

iF Product Design Award 2012: Nexto Series was the winner of iF Product Design Award 2012 in industry + skilled trades group. This award is recognized internationally as a seal of quality and excellence, considered the Oscars of the design in Europe..

4. Product Features

	NX8000
Backplane rack occupation	2 sequential slots
Nominal input voltage	24 Vdc
Maximum output power	30 W
Maximum output current	6 A
Input voltage	19.2 to 30 Vdc
Maximum input current	2 A
Typical efficiency	92% @ 24 Vdc
Maximum input voltage interrupt time	10 ms
Redundancy support	No
One Touch Diag (OTD)	No
Electronic Tag on Display (ETD)	No
Protections	Protection against polarity inversion Input short-circuit protection with internal fuse Output protection against short-circuit and overcurrent Input protection against voltages below the minimum input voltage with automatic recovery
Isolation **Input to output** **Input to protective earth** ⏚ **Input to functional earth** ⏚	 1500 Vdc / 1 minute (1000 Vac / 1 minute) 2000 Vdc / 1 minute (1500 Vac / 1 minute) 2000 Vdc / 1 minute (1500 Vac / 1 minute)
Status and diagnostics indication	Via LEDs
Hot swap support	Yes
Wire size	2.5 mm^2
IP level	IP 20
Operating temperature	0 to 60 °C
Storage temperature	-25 to 75 °C
Operating and storage relative humidity	5% to 96%, non-condensing
Conformal coating	Yes
Module dimensions (W x H x D)	36.00 x 114.63 x 115.30 mm
Package dimensions (W x H x D)	42.00 x 122.00 x 147.00 mm
Weight	400 g
Weight with package	450 g

Table 2: Product Features

Notes:

One Touch Diag (OTD): The power supply module NX8000 has a diagnostic switch on top, but with no diagnostics functionality.

Conformal coating: Conformal coating protects the electronic components inside the product from moisture, dust and other harsh elements to electronic circuits.

4.1. Standards and Certifications

Standards and Certifications	
IEC	61131-2: Industrial-process measurement and control - Programmable controllers - Part 2: Equipment requirements and tests
	DNV Type Approval – DNV-CG-0339 (TAA000013D)
	2014/30/EU (EMC) 2014/35/EU (LVD) 2011/65/EU and 2015/863/EU (ROHS)
	S.I. 2016 No. 1091 (EMC) S.I. 2016 No. 1101 (Safety) S.I. 2012 No. 3032 (ROHS)
	UL/cUL Listed – UL 61010-1 UL 61010-2-201 (file E473496)
	TR 004/2011 (LVD) CU TR 020/2011 (EMC)

Table 3: Standards and Certifications

5. Physical Dimensions

Dimensions in mm.

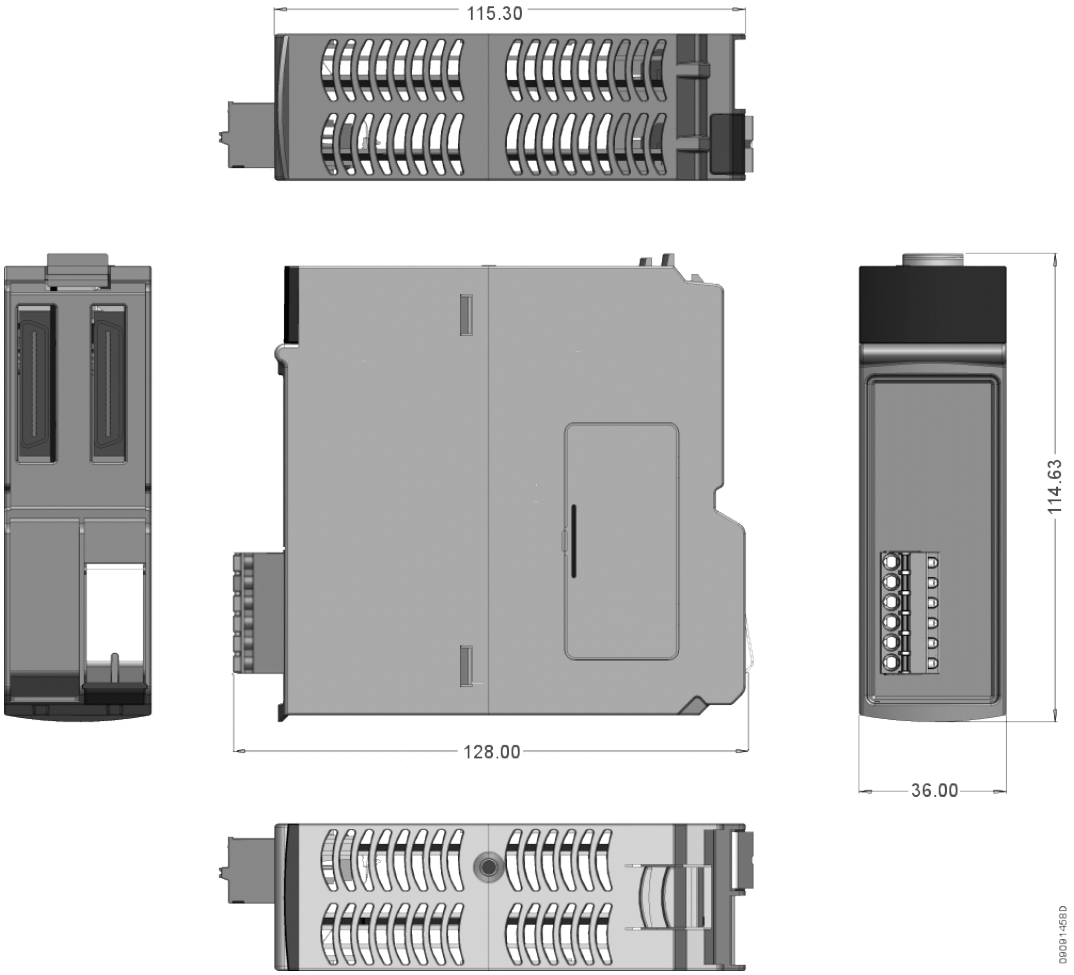

Figure 1: Physical Dimensions of the NX8000

6. Installation

6.1. Electrical Installation

NX8000 must be placed on slot 0 of Nexto Series backplane rack. NX8000 requires 2 sequential slots, it means that NX8000 will occupy slots 0 and 1.

The following diagram shows NX8000's electrical installation.

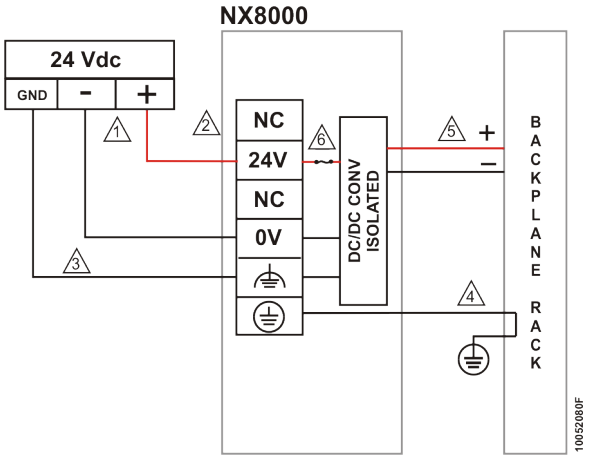

Figure 2: Diagram A

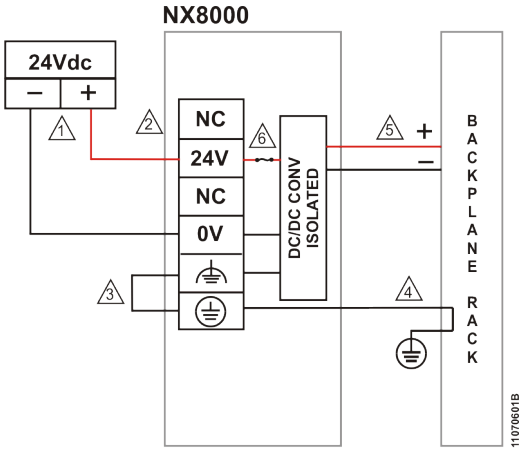

Figure 3: Diagram B

Diagram Notes:

1. The power supply is connected to terminals 24V and 0V. Use 2.5 mm² cables.

2. NC terminals: not connected.

3. Ground from the external power supply is connected to terminal ⏚ as shown on the diagram A. If the ground of the external power supply is the same of the backplane rack, the terminal ⏚ must be only connected to the terminal ⏚, as shown on diagram B. Use 2.5 mm² cables.

4. The module is grounded through Nexto Series backplane racks.

5. The module supplies Nexto Series modules through the connection to the backplane rack.

6. Input protection with internal fuse, accessible through the module's side cover.

6.2. Mechanical Assembly

Information and orientations about correct mechanical installation can be found at Nexto Series User Manual - MU214600.

7. Maintenance

Altus recommends that every module connection must be checked and dust or any kind of dirt located at the module enclosure must be removed at least every 6 months.

Fuse replacement procedure is described on Nexto Series User Manual - MU214600.

7.1. Diagnostics LEDs

7.1.1. DG

Green color	Description	Causes
On	Input voltage above minimum input voltage	Normal condition
Off	Input voltage below minimum input voltage	Input voltage below minimum input voltage, open fuse or hardware failure

Table 4: LED DG

7.1.2. PW

Green color	Description	Causes
On	Power supply operational	Power supply module is able to supply Nexto backplane rack and connected modules
Off	Power supply not operational	Input voltage below minimum input voltage, open fuse or hardware failure

Table 5: LED PW

8. Manuals

For further technical details, configuration, installation and programming of Nexto Series, consult the table below.

This table is only a guide of some relevant documents that can be useful during the use and maintenance of NX8000. The complete and updated table containing all documents of Nexto Series can be found at Nexto Series User Manual – MU214600.

Code	Description	Language
CE114000	Nexto Series – Technical Characteristics	English
CT114000	Série Nexto – Características Técnicas	Portuguese
CS114000	Serie Nexto – Características Técnicas	Spanish
MU214600	Nexto Series User Manual	English
MU214000	Manual de Utilização Série Nexto	Portuguese

Table 6: Related Documents