

Dell EMC PowerSwitch N3200-ON Series Warnings and Specifications

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N3200-ON Series Warnings and Specifications

This document lists Warnings, Regulatory information, and Specifications for the Dell EMC PowerSwitch N3200-ON Series switch.

Table 1. Document revision history

Revision	Date	Description
A00	2020-03	Initial release.
A01	2021-02	Added Ukrainian to the output. Minor edits.


Support and documentation

- For installation instructions, see the *Dell EMC PowerSwitch N3200-ON Series Installation Guide* at www.dell.com/support/.
- To access the support site, go to www.dell.com/support/. To display information in your language, at the bottom of the page, select your country or region from the drop-down menu.


Information icon definitions:

 **WARNING:** The Warning icon signals information about hardware handling that could result in injury.

 **CAUTION:** The Caution icon signals information about situations that could result in equipment damage or loss of data.


 **NOTE:** The Note icon signals important operational information.


Warnings

 **WARNING:** To avoid electrostatic discharge (ESD) damage, wear grounding wrist straps when handling this equipment.

 **WARNING:** Only trained and qualified personnel can install this equipment. Read the safety instructions in your *Safety, Environmental, and Regulatory*.

 **WARNING:** This switch has multiple power cables. Disconnect all power cables before servicing.

 **WARNING:** This switch has optical transceivers, which comply with the limits of Class 1 laser radiation. When working with optical fibers, follow all warning labels and always wear eye protection.

 **WARNING:** When no cable is connected, visible and invisible laser radiation may be emitted from the aperture of the optical transceiver ports. Avoid exposure to laser radiation; do not stare into open apertures.

 **WARNING:** Never power up the switch if no fan module is installed. (Fixed-fan switches always have a fan module installed.)

⚠ WARNING: Prevent exposure and contact with hazardous voltages. Do not attempt to operate this switch with the safety cover removed. To comply with the GR-1089 Lightning Criteria for Equipment Interfacing with AC or DC Power Ports, use an external surge protection device (SPD) at the AC or DC input of the router.

⚠ WARNING: Equipment that provides DC input to the DC port must be certified for CCC and meet the relevant standards.

⚠ WARNING: This equipment must be grounded. Connect the power plug to a properly wired earth-ground socket outlet.

Cautions

⚠ CAUTION: Operate the equipment at an ambient temperature not higher than 45°C (113°F).

⚠ CAUTION: Stationary pluggable equipment Type-A used in a location with equipotential bonding, such as a telecommunication center, a dedicated computer room, or a restricted access area, must have installation instructions that require protective earth-ground connection verification by a skilled electrician.

Stationäres steckbares Gerät Typ A, das an einem Ort mit Potenzialausgleich (z. B. in einem Telekommunikationszentrum, einem speziellen Computerraum oder einem Bereich mit beschränktem Zugang) verwendet werden soll und über Installationsanweisungen verfügt, die eine Überprüfung der Schutzerdung der Steckdose erfordern von einem Fachmann.

⚠ CAUTION: Illustration of the earth-ground verification Caution in German. Illustration of the power cord Caution with translations.



Notes

i NOTE: If necessary, to upgrade your software or firmware images, go to the *Drivers and Downloads* page of your switch at www.dell.com/support/.

i NOTE: For proper ventilation, position the switch with a minimum of 12.7 cm (5 in) of clearance around the exhaust vents.

i NOTE: Install the switch into a rack or cabinet before installing any additional components such as cables or optics.

i NOTE: For the N3208PX-ON switch only: If you are using two external power adapters (EPAs) in a two-post front or center mount, you must have two-rack units space available in your rack. Install the switch in the bottom portion of the two-rack units and the EPA in the top portion above the switch.

i NOTE: Dell Technologies recommends you ground your switch. Use the switch in a common bond network (CBN). Grounding conductors must be made of copper. Copper conductors offer better conductivity and durability. Do not use aluminum conductors. Coat the one-hole lug with an anti-oxidant compound before crimping. Bring any unplated mating surfaces to a clean finish and coat with an anti-oxidant before mating.

NOTE: For RoHS information, see [Restricted Material Compliance](#).

NOTE: This device is not intended for use in the direct field of view at visual display workplaces. To avoid incommoding reflections at visual display workplaces, this device must not be placed in the direct field of view.

Bemerkung: Dieses Gerät ist nicht für den Einsatz im direkten Sichtfeld am Bildschirmarbeitsplatz vorgesehen. Um störende Reflexionen am Bildschirmarbeitsplatz zu vermeiden, darf dieses Gerät nicht im direkten Sichtfeld platziert werden.

Table 2. N3208PX-ON and N3224T-ON

Marketing model name	N3208PX-ON	N3224T-ON
Regulatory Model # (RMN)	E30W	E31W
Regulatory type # (RTN)	E30W001	E31W002
BASE-T RJ45	x 4 (1G) 802.3bt Type-4 (90 W) PoE x 4 (5G) 802.3bt Type-4 (90 W) PoE	x 24 (1G)
10G SFP+	x 2	x 4
25G SFP28	—	—
Stacking	—	x 2 QSFP28 (100G per port)
AC or (optional) DC PSU⁽¹⁾	One fixed AC PSU	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs
(Optional) External power adapter (EPA)	x 2	—
(Optional) External power supply (EPS)	—	—
Fans	x 1	x 3
Size in (H x W x D) mm (H x W x D) Size excludes the PSU and fan tray handle	1.71 x 11 x 12.28 43.5 x 279.4 x 312	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU handle adds 1.18 in or 30 mm)
Weight⁽²⁾	8.44 lbs/3.83 kg—240 W	13.75 lbs/6.24 kg 1 PSU: 1.75 lbs/0.79 kg—550 W

⁽¹⁾Maximum number of PSUs available for the switch.

⁽²⁾Chassis weight with one PSU.

Table 3. N3224F-ON, N3224PX-ON, and N3224P-ON

Marketing model name	N3224F-ON	N3224P-ON	N3224PX-ON
Regulatory Model # (RMN)	E31W	E32W	E32W
Regulatory type # (RTN)	E31W003	E32W002	E32W001
BASE-T RJ45	—	x 24 (1G) 802.3at PoE	x 24

Table 3. N3224F-ON, N3224PX-ON, and N3224P-ON (continued)

Marketing model name	N3224F-ON	N3224P-ON	N3224PX-ON
			(1G/2.5G/5G/10G) 802.3bt Type-4 (90 W) PoE
1G SFP	x 24	—	—
10G SFP+	x 4	x 4	—
25G SFP28	—	—	x 4
Stacking	x 2 QSFP28 (100G per port)	x 2 QSFP28 (100G per port)	x 2 QSFP28 (100G per port)
AC or (optional) DC PSU⁽¹⁾	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs
(Optional) External power adapter (EPA)	—	—	—
(Optional) External power supply (EPS)	—	—	x 1
Fans	x 3	x 3	x 3
Size in (H x W x D) mm (H x W x D) Size excludes the PSU and fan tray handle	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU and fan tray handle adds 1.18 in or 30 mm)	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU and fan tray handle adds 1.18 in or 30 mm)	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU and fan tray handle adds 1.18 in or 30 mm)
Weight⁽²⁾	14.25 lbs/6.46 kg 1 PSU: 1.75 lbs/0.79 kg	15.6 lbs/7.08 kg 1 PSU: 2.0 lbs/0.90 kg—1050 W	16.0 lbs/7.26 kg 1 PSU: 2.0 lbs/0.90 kg—1600 W

⁽¹⁾Maximum number of PSUs available for the switch.

⁽²⁾Chassis weight with one PSU.

Table 4. N3248X-ON, N3248TE-ON, N3248P-ON, and N3248PXE-ON

Marketing model name	N3248TE-ON	N3248P-ON	N3248X-ON	N3248PXE-ON
Regulatory Model # (RMN)	E31W	E32W	E31W	E32W
Regulatory type # (RTN)	E31W005	E32W003	E31W004	E32W004
BASE-T RJ45	x 48 (1G)	x 48 (1G) 802.3at (30 W) PoE	x 48 (1G/2.5G/5G/10G)	x 48 (1G/2.5G/5G/10G) 802.3bt Type-4 (90 W) PoE
10G SFP+	—	x 4	—	—
25G SFP28	—	—	x 4	x 4
10G SFP28	x4	—	—	—
Stacking	x 2 QSFP28 (100G per port)	x 2 QSFP28 (100G per port)	x 2 QSFP28 (100G per port)	x 2 QSFP28 (100G per port)

Table 4. N3248X-ON, N3248TE-ON, N3248P-ON, and N3248PXE-ON (continued)

Marketing model name	N3248TE-ON	N3248P-ON	N3248X-ON	N3248PXE-ON
AC or (optional) DC PSU⁽¹⁾	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs	1 default AC PSU and second optional AC PSU (or) 2 optional DC PSUs
(Optional) External power adapter (EPA)	—	—	—	—
(Optional) External power supply (EPS)	—	x 1	—	x 1
Fans	x 3	x 3	x 3	x 3
Size in (H x W x D) mm (H x W x D) Size excludes the PSU and fan tray handle	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU and fan tray handle adds 1.18 in or 30 mm)	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU and fan tray handle adds 1.18 in or 30 mm)	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU and fan tray handle adds 1.18 in or 30 mm)	1.71 x 17.09 x 15.75 43.5 x 434 x 400 (PSU and fan tray handle adds 1.18 in or 30 mm)
Weight⁽²⁾	15.4 lbs/6.99 kg 1 PSU: 1.75 lbs/0.79 kg—550 W	16.7 lbs/7.57 kg 1 PSU: 2.0 lbs/0.90 kg—1050 W	16.1/7.30 kg 1 PSU: 1.75 lbs/0.79 kg—550 W	17.6 lbs/7.98 kg 1 PSU: 2.0 lbs/0.90 kg—1600 W

⁽¹⁾Maximum number of PSUs available for the switch.

⁽²⁾Chassis weight with one PSU.

Mexico-only NOM information

The following information is in compliance with the requirements of the official Mexican standards (NOM):

Table 5. NOM

Description	Details
Exporter	Dell Inc. One Dell Way, Round Rock, TX 78682
Importer	Dell México, S.A. de C.V. Av. Javier Barros Sierra, no 540, Piso 10, Col. Lomas de Santa Fe Delegación Álvaro Obregón, Ciudad de México. C.P. 01219 R.F.C: DME9204099R6
Ship to	Dell México, S.A. de C.V. Av. Javier Barros Sierra, no 540, Piso 10, Col. Lomas de Santa Fe Delegación Álvaro Obregón, Ciudad de México. C.P. 01219 R.F.C: DME9204099R6
Supply voltage	100V–240 VAC

Table 5. NOM (continued)

Description	Details
Frequency	50–60 Hz
Maximum steady state current consumption	See the <i>Power consumption parameters</i> table listed below.

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Table 6. Environmental parameters


Parameter	Specifications
Operating temperature	0° to 45°C (32°F to 113°F) continuously  NOTE: Reduce maximum temperature by 1°C/125 meters (1°F/228 feet) above 950 meters (3,117 ft).
Operating humidity	5% to 95% (RH), noncondensing
Storage temperature	–40°C to 70°C (–40°F to 149°F)
Storage humidity	5% to 95%, noncondensing
Maximum thermal output without PoE	<ul style="list-style-type: none"> • N3208PX-ON: 49.48 W = 168.83 BTU/Hr • N3224T-ON: 95.58 W = 326.13 BTU/Hr • N3224F-ON: 122.08 W = 416.55 BTU/Hr • N3224P-ON: 100.74 W = 343.74 BTU/Hr • N3224PX-ON: 173.01 W = 590.33 BTU/Hr • N3248TE-ON: 102.3 W = 349.06 BTU/Hr • N3248X-ON: 300.06 W = 1023.85 BTU/Hr • N3248P-ON: 112.26 W = 383.05 BTU/Hr • N3248PXE-ON: 325.72 W = 1111.40 BTU/Hr
Maximum operational altitude	10,000 ft (3,048 m)
Maximum non-operational altitude	39,370 ft (12,000 meters)
Shock	Dell EMC Spec SV0115

Table 7. Power consumption parameters

Parameter	Specifications
Input voltage	AC: 100 to 240 VAC 50/60 Hz DC: –40 VDC to –60 VDC
Input current without PoE	<ul style="list-style-type: none"> • N3208PX-ON: 1.12 Amps @ 110 VAC and 0.56 Amps @ 220 VAC • N3224T-ON: 2.08 Amps @ 110 VAC and 1.04 Amps @ 220 VAC • N3224F-ON: 2.32 Amps @ 110 VAC and 1.16 Amps @ 220 VAC • N3224P-ON: 2.26 Amps @ 110 VAC and 1.13 Amps @ 220 VAC • N3224PX-ON: 3.44 Amps @ 110 VAC and 1.72 Amps @ 220 VAC • N3248TE-ON: 2.22 AMps @ 110 VAC and 1.11 Amps @ 220 VAC • N3248P-ON: 2.4 Amps @ 110 VAC and 1.2 Amps @ 220 VAC

Table 7. Power consumption parameters (continued)

Parameter	Specifications
	<ul style="list-style-type: none"> ● N3248X-ON: 4.9 Amps @ 110 VAC and 2.5 Amps @ 220 VAC ● N3248PXE-ON: 5.44 Amps @ 110 VAC and 1.72 Amps @ 220 VAC
PSU configuration	Main PSU
Maximum steady current consumption	7A@110VAC 3.5A@220VAC
Total PoE budget i NOTE: To support a full-load PoE power budget, you must have external power adapters for the N3208PX-ON switch. For the N3224PX-ON, N3248P-ON, and N3248PXE-ON switches, use the EPS for full-load PoE redundancy.	<ul style="list-style-type: none"> ● N3208PX-ON: 720 W ● N3224P-ON: 720 W ● N3224PX-ON: 2160 W ● N3248P-ON: 1440 W ● N3248PXE-ON: 4320 W
PoE output per port	<ul style="list-style-type: none"> ● N3208PX-ON: 4x1000GBase-T Ports with 4 ports of 802.3bt Type-4 (90 W) PoE and 4x5GBase-T Ports with 4 ports of 802.3bt Type-4 (90 W) PoE ● N3224P-ON: 24x1000Base-T Ports with 802.3at Type-2 (30 W) PoE ● N3224PX-ON: 24x10GBase-T Ports with 802.3bt Type-4 (90 W) PoE ● N3248P-ON: 48x1000Base-T Ports with 802.3at Type-2 (30 W) PoE ● N3248PXE-ON: 48x10GBase-T MACSec Ports with 802.3bt Type-4 (90 W) PoE