

QUICK INSTALL GUIDE - PoLRE24/48

The PoLRE (Power over Long Reach Ethernet) family of data switches delivers Ethernet and PoE (Power over Ethernet) over a single pair of telephony grade wire (CAT 3) with 4 times the reach of traditional data switches. With the PoLRE switch customers can transform their existing voice infrastructure into an IP network with power ideal for IP device deployment. For complete details refer to the Hardware Installation Guide at www.nvtpybridge.com.

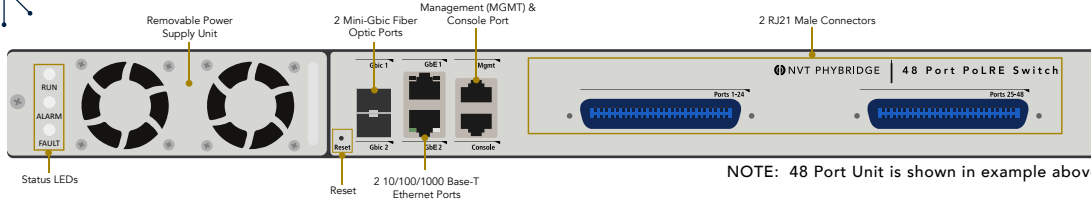
NOTE: Please see page 3 for important safety instructions

PoLRE24

PoLRE48



PoLRE24/48



PoLRE Package Includes:

- 1 x PoLRE24- or 48-port Unit
- 1 x Rackmount Bracket Kit
- 1 x Console Cable
- 1 x Power Cable
- 1 x Quick Install Guide

Installation Details

System Grounding: See Page 5

Location and Regional Specifications:

PoLRE kan installeres overalt indendørs undtagen i Finland, Norge og Sverige, hvor i disse tre nordiske lande den skal installeres på et sted med begrænset adgang.

PoLRE kan installeres innendørs i alle land unntatt Finland, Norge og Sverige. I disse tre nordiske landene må den installeres på et sted med begrenset tilgang.

Space Requirements:

1. Select a standard 19" equipment rack or, for a standalone installation, a flat, stable surface capable of supporting the size and weight of the PoLRE, its installable components and cabling.
2. Ensure that you have enough rack space for all equipment. Shelves and rear supporting brackets are not mandatory.

Location Requirements:

Power - The PoLRE switch must be placed within 6 feet of an available power source. Do not use an extension cord to connect the equipment to a power outlet.

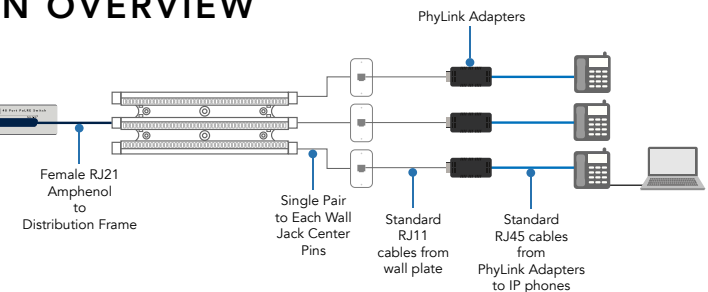
Downlink - The PhyLinks can be installed up to 1200ft (365m) away from the PoLRE switch.

Installation procedures will be trouble-free if you ensure that the following items are available before you begin:

- The PoLRE switch, all cables and accessories you received in the PoLRE package.
- All PhyLinks required for connecting the IP endpoint devices, provided with the product package according to the quantity ordered.
- SFP transceiver modules for the **Gbic** uplink trunks if connecting over fiber.
- Fiber optic LAN cables for the **Gbic** uplink trunks (user-supplied) if connecting over fiber.
- Standard CAT5e copper LAN cables for the **Gbe** uplink trunks (user-supplied).
- Standard CAT3 unshielded single twisted pair cables, 24 AWG, for the downlink ports (user-supplied).
- Serial console cable for the **CONSOLE** port, provided with the product package.
- Standard CAT5e or CAT-6 Ethernet LAN cable for the **MGMT** port. Optional, only if out-of-band management is required (user-supplied).
- Protective ground cable (user-supplied).

HARDWARE TOPOLOGY AND INSTALLATION OVERVIEW

1. Remove the PoLRE switch and all accompanying accessories.
2. Install the rackmount brackets for rack mounting. Unit fits in standard 19" racks.
3. Install the protective grounding conductor (please refer to the System Grounding section of this guide).
4. Remove all legacy analog devices from the RJ11 wall jacks.
Note: It is extremely important that no legacy devices be connected when you power on the PoLRE.
5. Connect a PhyLink to the Network jack on each IP phone and connect the other end of the PhyLink into the RJ11 cable that is connected to wall jack.
Note: It is extremely important that no legacy devices be connected when you power on the PoLRE.
6. Connect the Telco cable (female end) to RJ21 connectors.
7. To firmly secure the RJ21 cable ensure to fasten by means of the screw on the RJ21 cable connector.
8. Connect the uplink cable from a Gigabit port to the IP Server or network switch.
Note: This connection also permits inband management over Ethernet.
9. For power share, daisy chain PoLRE switches using DC cables (see below).
10. Power up the PoLRE.
Note: Ensure that all end points on the RJ21 are connected before powering up the unit.
11. For troubleshooting, please refer to the Hardware Installation Guide located at www.nvtpybridge.com.
12. To revert back to factory defaults, hold the reset button for at least 10 seconds.



The Most Robust PoE Capabilities on the Market

Four switches can be stacked together for power sharing, load balancing and power redundancy. The PoLRE switch comes standard with PowerWISE technology.

POWER CAPABILITIES AND CONSIDERATIONS

PoLRE switches are amongst the lowest power consuming switches in the industry and come standard with a hot swappable PowerWise power supply for power/load sharing. The switch will support either an AC or DC power source.

For a redundant power configuration, daisy-chain multiple PoLRE switches:

You can connect up to a maximum of 4 units for power/load sharing.

- Mount all PoLRE switches in the same equipment rack, with no more than 1U space between any two units.

Note: You can daisy-chain the units together while they are up and running or power them up afterward.

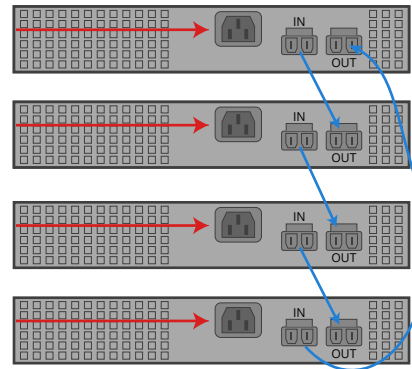
- Facing the rear of the units, install the DC cables (available through NVT Phybridge) as follows:

Note: To fit properly, the DC cable must be inserted into the DC input/output connector with its hairpin clip on top.

- For the top unit, insert the first cable into the DC input connector on the left until it clicks into place. Bring the other end of the cable down to the next unit, and connect to the DC output connector on the right.
- Continue in the same way for each pair of units, connecting the DC input (left) connector on the upper unit to the DC output (right) connector on the lower unit.

Important: For the bottom unit, the last cable from the DC input (left) connector goes up to the DC output (right) connector on the top unit. **This is required to create a fully redundant ring.**

Note: If you need to move a cable to a different DC connector on the PoLRE, press the hairpin clip at the top of the DC cable and pull the cable out.



NEW: Port Protection & Power Save Features

PoLRE switches now come with port protection and Power Save features that will automatically enable after 12 hours. The switch will disable ports that are not in use and will reset a port if it believes there is a problem. Every 60 seconds, the switch will scan for new adapters and enable the port when an adapter is detected.

CONFIGURING THE POLRE (2 METHODS)

Connecting to the Admin GUI

Default IP Address:

- MGMT = 192.168.1.1
- GBE1 & GBE2 = 192.168.100.1

Default User Name & Password:

- User Name: admin
- Password: admin

Connecting to PoLRE:

1. Change the IP address of your PC or Laptop to 192.168.100.2
2. Connect your Ethernet port on the PC or Laptop to the GBE1 port on the PoLRE.
3. Open a web browser (Chrome only) and type in/go to `http://192.168.100.1`
4. Login is "admin" password is "admin" (without quotes)
5. You are now in the Admin GUI.

NOTE: Change IP addresses to avoid conflict. (Ethernet/Uplink Ports)

Steps to Change the IP Address:

1. Click on Ethernet menu option on the top bar.
2. Once Ethernet page is displayed select UPLINK PORTS.
3. Type in new IP address in the IP Address section for in-band IP configuration.
4. Type in new Net Mask in the Net Mask section (e.g. 255.255.255.0).
5. Type in new IP address of the system default gateway in the Default Gateway section.
6. Click Save Changes button to apply the modifications.
7. Refer to admin guide for more software details.

Connecting to the Command Line Interface (CLI)

Accessibility:

- Console cable connected directly to the console port.

Console Port Serial Settings:

- 115200/8/N/1

Default User Name & Password:

- User Name: admin
- Password: admin

Changing Management Port Default IP Address

The Mgmt IP default address of 192.168.1.1 may conflict with other PoLRE devices. To avoid this from happening, you must change the IP address of the Mgmt Port to an IP which will never be used on the network. For example, if your network belongs to the "192.168.X.X" subnet, change the Mgmt Port IP to "10.10.1.1".

Steps to Change the Management Port IP Address:

1. Log into the unit via the serial console port (115200,8,N,1,None).
2. Type in "pal-set-sys-ip mgmt 10.10.1.1 255.255.255.0 10.10.1.255"
Substitute the provided example IP information for your own.
 - a. The usage is: pal-set-sys-ip mgmt <IPADDRESS> <NETMASK> <BROADCAST>
3. You will be prompted to confirm this information.
4. Refer to the CLI section of the administration guide for more information.

Connect to the Console Port:

1. Connect the RJ45 end of the serial cable to the console port of the PoLRE. Connect the serial end of the serial cable to the serial port of your PC.
2. Configure your serial port to 115200/8/N/1.
3. Login is "admin", password is "admin" (without quotes)
4. You are now connected to the CLI via the console port.

Steps to Change the IP Address:

1. Type in "pal-set-sys-ip GbE 192.168.9.1 255.255.255.0 192.168.9.255" Substitute the provided example IP information for your own.
 - a. The usage is: pal-set-sys-ip GbE <IPADDRESS> <NETMASK> <BROADCAST>
2. You will be prompted to confirm this information.
3. Refer to the CLI section of the administration guide for more information.

NOTE THE FOLLOWING:

All of the above instructions provide basic installation information necessary for the proper and safe functioning of this equipment. Persons installing or maintaining this product must read all of the safety instructions and the parts of system grounding, which are applicable to the system being maintained. Only trained, qualified service personnel shall install or maintain this product.

WARNINGS

FAILURE TO FOLLOW ALL INSTRUCTIONS MAY RESULT IN IMPROPER EQUIPMENT OPERATION AND/OR RISK OF ELECTRICAL SHOCK.

ANY CONNECTION TO AN OUTSIDE PLANT LEAD, AN OFF-PREMISE APPLICATION, OR ANY OTHER EXPOSED PLANT APPLICATION MAY RESULT IN A FIRE OR SHOCK HAZARD, AND/OR DEFECTIVE OPERATION, AND/OR EQUIPMENT DAMAGE.

Keep these instructions with the equipment.

Do not attempt to install or service this equipment unless you are skilled in the installation and maintenance of electronic telecommunications equipment and have successfully completed specific training for this equipment.

SAFETY WARNINGS AND PRECAUTIONS

- Access to the interior of this unit shall be made only by a qualified technician.
- This unit may have more than one power input. To reduce the risk of energy or shock hazard, disconnect all power inputs before servicing.
- To ensure adequate cooling of the equipment, a 2-inch unobstructed space must be provided around all sides of the unit.
- The Power Socket shall be installed near the equipment and shall be easily accessible
- To prevent the risk of shock or fire hazard, replace fuse with same type and rating.

CAUTION: The ground lug is a main earth terminal that must be permanently connected to earth.

- Der Zugang ins Innere des Gerätes ist nur einem fachlich qualifizierten Techniker gestattet.
- Dieses Gerät kann mehr als eine Leistungsaufnahme. Um das Risiko von Energie oder Gefahr eines elektrischen Schlags zu reduzieren, trennen Sie alle Macht Eingaben, bevor Wartungsarbeiten an der Einheit.
- Um die Kühlung des Gerätes nicht zu beeinträchtigen, ist es notwendig, an allen Seiten des Gerätes ca 5 cm Raum zu lassen.
- Stellen Sie das Gerät in der Nähe eines geerdeten Schutzkontaktsteckers so auf, dass der Stecker leicht erreichbar und zugänglich ist.
- Zur Vermeidung der Stromschlag- und Feuergefahr beim Auswechseln Sicherungen des gleichen Typs und der gleichen Nennleistung einsetzen.

VORSICHT: Die Erdungsöse ist einer der wichtigsten Erdungsklemme, die dauerhaft auf die Erde angeschlossen werden muss.

- Seul un spécialiste doit avoir accès l'appareil.
- Cette unité peut avoir plus d'une entrée d'alimentation. Pour réduire le risque de danger de l'énergie ou de choc, débranchez toutes les entrées d'alimentation avant de réparer l'unité.
- Afin de ne pas nuire au processus de refroidissement, il est nécessaire de laisser un espace d'environ 5 cm de chaque côté de l'appareil.
- Placez l'appareil près d'une prise de courant facilement accessible.
- Afin d'éviter tout risque d'incendie ou d'électrocution, remplacez les fusibles par des fusibles de même type et de même ampérage.

ATTENTION: La cosse de terre est une borne de terre principale qui doit être connectée en permanence à la terre.

- El servicio de antenimiento y reparación de esta unidad solo puede ser realizado por técnicos autorizados por el fabricante.
- Esta unidad puede tener más de una entrada de energía. Para reducir el riesgo de peligro de descargas eléctricas o descargas eléctricas, desconecte todas las entradas de alimentación antes de reparar la unidad.
- No bloquee las ranuras de ventilación del equipo, ya que los componentes podrían sobrecalentarse y sufrir daños.
- Para evitar el riesgo de choque eléctrico o de incendio, reemplace el fusible con otro del mismo tipo y capacidad nominal.
- Para su propia protección, cerciórese de que todas las conexiones eléctricas de los servicios públicos, incluyendo la puesta a tierra, las líneas telefónicas y el sistema de tuberías de agua metálicas internas, si las hubiera, estén conectadas entre sí.

PRECAUCIÓN: El terminal de tierra es un terminal de tierra principal que debe estar permanentemente conectada a la tierra.

- L'accesso all'interno di questa unità `deve essere effettuata solo da un tecnico qualificato.
- Questo unisce possono avere più di un ingresso di potenza. Per ridurre il rischio di pericolo di energia o scosse, scollegare tutti gli ingressi di alimentazione prima di.
- Per garantire un adeguato raffreddamento dell'apparecchiatura, uno spazio libero da 2 pollici deve essere fornita intorno a tutti i lati dell'unità.
- The Power Socket `deve essere installata vicino all'apparecchio e `devono essere facilmente accessibili
- Per evitare che la prevenzione del rischio di scossa o di pericolo di incendio, sostituire il fusibile con lo stesso tipo e valore.

ATTENZIONE: Il capocorda è mano che il terminale di terra deve essere collegato a terra in modo permanente.

- Достъп до вътрешността на този уред трябва да се извършва само от квалифициран техник.
- Това устройство може да има повече от един вход. За да намалите риска от опасност от електрически или токов удар, изключете всички входове за захранване преди извършване на сервис.
- За да се осигури подходящо охлаждане на оборудването, трябва да се осигури 2-инчово свободно пространство около всички страни на устройството.
- Захранващият щепсел ще бъде инсталиран в близост до оборудването и ще бъде лесно достъпен
- За да предотвратите опасност от удар или пожар, сменете предпазителя със същия тип и квалификация.

ВНИМАНИЕ: Заземената ухo е основна заземяваща клемма, която трябва да бъде постоянно свързана към земята.

- Juurdepääs interjööri selle üksuse tehakse ainult kvalifitseeritud tehnik.
- See üksus võib olla rohkem kui üks võimsustoide. Et vähendada energia või elektrilöögi vältimiseks lahutage kõik sisendvõimsus enne hooldamist.
- Jahutuse tagamiseks seadme, 2-tolline vaba ruum peab olema ümber kõik küljed üksus.
- Pistikupesa peab olema seadme lähedal ning olema kergesti ligipääsetavad
- Selleks, et vältida riski ning tulekahjuoht, vaheta kaitse sama tüüpi ja hinnang.

ETTEVAATUST: Maapind kõrv on peamine Maa terminal peab olema püsivalt ühendatud maaga.

- Η πρόσβαση στο εσωτερικό της μονάδας πρέπει να γίνεται μόνο από εξειδικευμένο τεχνικό.
 - Αυτή η μονάδα μπορεί να έχει περισσότερες από μία εισόδους ισχύος. Για να μειώσετε τον κίνδυνο ηλεκτροπληξίας ή ηλεκτροπληξίας, αποσυνδέστε όλες τις εισόδους ισχύος πριν από τη συντήρηση.
 - Για να εξασφαλιστεί η κατάλληλη ψύξη του εξοπλισμού, πρέπει να υπάρχει ένας ελεύθερος χώρος 2 ιντσών γύρω από όλες τις πλευρές της μονάδας.
 - Η πρίζα πρέπει να είναι εγκατεστημένη κοντά στον εξοπλισμό και να είναι εύκολα προσβάσιμη
 - Για να αποφύγετε τον κίνδυνο κρούσης ή πυρκαγιάς, αντικαταστήστε την ασφάλεια με τον ίδιο τύπο και την ίδια βαθμολογία.
- ΠΡΟΣΟΧΗ:** Η προεξοχή γείωσης είναι ένας κύριος ακροδέκτης γείωσης που πρέπει να είναι μόνιμα συνδεδεμένος με τη γείωση.

- Piekļuve interjera šīs vienības veic tikai kvalificēts tehniķis.
 - Šī vienība var būt vairāk nekā viena jaudas ievadi. Lai samazinātu risku, enerģijas vai strāvas triecienu, atvienojiet visus strāvas ieejas pirms apkopes.
 - Lai nodrošinātu pietiekamu dzesēšanu iekārtu, 2 collu aizsegts telpu jānodrošina ap visām pusēm vienības.
 - Power Socket jāuzstāda pie iekārtas, un jābūt viegli pieejamai
 - Lai novērstu risku, ka trieciena vai ugunsgrēka briesmas, nomainīt drošinātāju ar tāda paša veida un reitingu.
- UZMANĪBU:** Zemes lug ir galvenais zemes terminālis, kas ir pastāvīgi savienots ar zemi.

- Prieiga prie šio įrenginio viduje, turi būti atlikti tik kvalifikuotas specialistas.
 - Šis įrenginys gali turėti daugiau kaip vieno galios įvestį. Sumažinti energijos arba elektros smūgio pavojaus riziką, prieš aptarnaujant atjunkite visus maitinimo jėjimai.
 - Siekiant užtikrinti tinkamą aušinimą įranga, 2 colių užgriozdinti erdvė turi būti pateikta apie visus įrenginio pusių.
 - Maitinimo lizdas turi būti netoli įrenginio ir turi būti lengvai prieinama
 - Siekiant užkirsti kelią šoko ar gaisro pavojus riziką, pakeiskite saugiklį su tos pačios rūšies ir įvertinimas.
- ATSARGIAI:** Pirmame rankena yra pagrindinis žemės terminalas, turi būti neišardomai sujungti į žemę.

- A készülék belsejét csak szakképzett szakember végezheti.
 - Ennek a készüléknek több áramforrása is lehet. Az energia vagy az áramütés veszélyének csökkentése érdekében szüntesse meg az összes tápellátást a szervizelés előtt.
 - A berendezés megfelelő hűtésének biztosítása érdekében egy 2 hüvelykes, akadálytalan helyet kell biztosítani a készülék minden oldalán.
 - A tápegységet a berendezés közelében kell felszerelni, és könnyen hozzáférhetővé kell tenni
 - Az ütésveszély vagy a tűzveszély elkerülése érdekében cserélje ki az azonos típusú és minősített biztosítékot
- FIGYELMEZTETÉS:** A földelőfülk egy olyan fő földelő kapocs, amelyet állandóan a földhöz kell csatlakoztatni.

- Toegang tot het interieur van dit toestel wordt alleen door een gekwalificeerde technicus uitgevoerd.
 - Dit apparaat kan meer dan één stroominvoer hebben. Om het risico op energie- of schokgevaar te verminderen, moet u alle voedingsinvoer uitschakelen voordat u onderhoudt.
 - Om een adequate afkoeling van de apparatuur te garanderen, moet een 2-inch vrijstaande ruimte rondom alle kanten van het apparaat worden aangebracht.
 - De stekker moet dichtbij de uitrusting worden geïnstalleerd en zijn gemakkelijk bereikbaar
 - Om het risico op schokken of brandgevaar te voorkomen, vervang de zekering met hetzelfde type en de waarde.
- VOORZICHTIG:** De grondvliegtuig is een hoofdterminal die permanent op aarde moet worden aangesloten.

- Tilgang til det indre av denne enheten skal kun utføres av en kvalifisert tekniker.
 - Denne enheten kan ha mer enn én strømningang. For å redusere risikoen for energi eller støtfare, koble fra alle strømningangene før service.
 - For å sikre tilstrekkelig kjøling av utstyret, må det være 2 tommers uhindret plass rundt alle sider av enheten.
 - Strømuttaket skal installeres i nærheten av utstyret og skal være lett tilgjengelig
 - For å unngå fare for støt eller brannfare, bytt sikring med samme type og karakter.
- FORSIKTIG:** Jorden er en hoved jordterminal som må være permanent forbundet med jord.

- Dostęp do wnętrza tego urządzenia wykonuje tylko wykwalifikowany technik.
 - Urządzenie może mieć więcej niż jedno wejście zasilania. W celu zmniejszenia ryzyka porażenia prądem lub porażenia prądem elektrycznym, przed przystąpieniem do obsługi należy odłączyć wszystkie zasilanie.
 - W celu zapewnienia odpowiedniego chłodzenia urządzenia, wokół wszystkich stron urządzenia musi być umieszczona 2-calowa przestrzeń bez przeszkód.
 - Gniazdo zasilania powinno być zainstalowane w pobliżu urządzenia i powinno być łatwo dostępne
 - Aby uniknąć ryzyka porażenia prądem lub pożaru, wymień bezpiecznik na ten sam typ i poziom.
- UWAGA:** Uziemienie jest głównym zaciskiem uziemienia, które musi być trwale połączone z ziemią

- O acesso ao interior desta unidade deve ser efectuado apenas por um técnico qualificado.
 - Esta unidade pode ter mais de uma entrada de alimentação. Para reduzir o risco de energia ou choque elétrico, desconecte todas as entradas de alimentação antes de realizar a manutenção.
 - Para assegurar o resfriamento adequado do equipamento, um espaço sem obstruções de 2 polegadas deve ser fornecido em torno de todos os lados da unidade.
 - O Power Socket deve ser instalado perto do equipamento e deve ser facilmente acessível
 - Para evitar o risco de choque ou incêndio, substitua o fusível pelo mesmo tipo e classificação.
- CUIDADO:** O terminal de aterramento é um terminal de aterramento principal que deve ser permanentemente conectado à terra.

- Accesul la interiorul acestui aparat trebuie efectuat numai de către un tehnician calificat.
 - Această unitate poate avea mai multe intrări de alimentare. Pentru a reduce riscul de pericol de energie sau de șoc, deconectați toate intrările de alimentare înainte de a efectua lucrările de service.
 - Pentru a asigura o răcire adecvată a echipamentului, trebuie prevăzut un spațiu liber de 2 inci pe toate laturile unității.
 - Priza de alimentare trebuie instalată în apropierea echipamentului și trebuie să fie ușor accesibilă.
 - Pentru a preveni riscul de șoc sau de pericol de incendiu, înlocuiți siguranța cu același tip și clasificare.
- ATENȚIE:** Urechea de împământare este un terminal principal de împământare care trebuie conectat permanent la pământ.

- Dostop do notranjosti te enote se izvede le strokovnjak.
 - Ta enota ima lahko več kot en vnos energije. Da bi zmanjšali tveganje za energijo ali udara, izvlcite vse napajalne vhodov pred servisiranjem.
 - Da bi zagotovili ustrezno hlajenje opreme, mora 2-palčni neoviran prostor, je treba zagotoviti okoli vse strani enote.
 - Vtičnica naj bo nameščena blizu opreme in zlahka dostopen.
 - Da bi preprečili nevarnost udara ali nevarnosti požara, zamenjajte varovalko iste vrste in jakosti.
- POZOR:** Tla nos je glavni zemlja terminal, ki mora biti stalno povezan z zemljo.

- Prístup do interiéru tohto prístroja môže vykonať iba kvalifikovaný technik.
 - Táto jednotka môže mať viac ako jeden vstupný výkon. Aby ste znížili riziko výskytu nebezpečnosti úrazu elektrickým prúdom alebo úrazu elektrickým prúdom, pred servisom odpojte všetky napájacie vstupy.
 - Aby bolo zabezpečené dostatočné chladenie zariadenia, musí byť okolo všetkých strán jednotky k dispozícii 2-palcový neobmedzený priestor.
 - Sieťová zásuvka musí byť inštalovaná v blízkosti zariadenia a musí byť ľahko prístupná.
 - Aby ste zabránili nebezpečenstvu výbuchu alebo požiaru, vymeňte poistku rovnakého typu a typu.
- UPOZORNENIE:** Uzemňovacia svorka je hlavná zemniaca svorka, ktorá musí byť trvalo pripojená k uzemneniu.

- Tämän laitteen sisätilojen saa suorittaa ainoastaan pätevä teknikko.
 - Laitteessa voi olla enemmän kuin yksi virtälähde. Jos haluat vähentää energian tai sähköiskun vaaraa, irrota kaikki virtälähteet ennen huoltoa.
 - Laitteen riittävän jäähdytyksen varmistamiseksi on järjestettävä 2 tuuman esteettömät tilat laitteen kaikkien puolien ympärille.
 - Virtapistoke on asennettava lähelle laitetta ja sen on oltava helposti saatavilla.
 - Vaihda sulake saman tyyppisellä ja luokalla, jotta iskun tai tulipalon vaara ei onnistu.
- VAROITUS:** Maadoituskappale on maadoitusliitin, joka on kytkettävä pysyvästi maahan.

- Tillgång till det inre av denna enhet ska endast utföras av en kvalificerad tekniker.
 - Denna enhet kan ha mer än en strömingång. För att minska risken för energi- eller chockfare, koppla bort alla strömingångar före service.
 - För att säkerställa tillräcklig kylning av utrustningen måste ett 2-tums fritt utrymme tillhandahållas runt alla sidor av enheten.
 - Strömuttaget ska installeras nära utrustningen och vara lättillgängligt.
 - För att undvika risk för chock eller brandfara, byt ut säkring med samma typ och betyg.
- FÖRSIKTIGT:** Jordslangen är en huvud jordterminal som måste vara permanent ansluten till jorden.

- Aðgangur að innanverðu þessa eininga skal aðeins gerð af viðurkenndum tæknimanni.
 - Þessi eining getur haft fleiri en eina aflgjafa. Til að draga úr hættu á orku- eða lostáhættu skal aftengja öll inntak rafmagns fyrir þjónustu.
 - Til að tryggja fullnægjandi kælingu búnaðarins verður að vera með 2 tommu óhindrað pláss fyrir alla hliðum tækisins.
 - Rafmagnstengi skal komið fyrir nálægt búnaði og skal vera aðgengilegur.
 - Til að koma í veg fyrir hættu á losti eða eldhættu skal skipta um öryggi með sömu tegund og einkunn.
- VARÚÐ:** Jörðin er aðal jarðstöðvar sem verður að vera varanlega tengdur við jörðina.

- Access għall-intern ta 'din l-unità għandha ssir biss minn tekniku kkwalfikat.
 - Din l-unità jista 'jkollhom qawwa aktar minn wiehed. Biex jitnaqqas ir-riskju ta 'energija jew xokk periklu, skonnettja l-inputs kollha ta' enerģija qabel servicing.
 - Biex jiġi żgurat tkessiġh adegwat tat-tagħmir, 2-pulzier spazju mhux mfixkel għandhom ikunu provduti madwar naħat kollha tal-unità.
 - Il Socket Qawwa għandha tkun installata hdejn it-tagħmir u għandhom ikunu aċċessibbli faċilment.
 - Biex ikun evitat ir-riskju ta 'xokk jew perikolu ta' nar, jissostitwixxu fjus bil istess tip u ratifika.
- ATTENZJONI:** Il lug art huwa terminal prinċipali art li għandha tiġi mqabbda b'mod permanenti mal-art.

- Adgang til det indre af denne enhed skal kun foretages af en kvalificeret tekniker.
 - Denne enhed kan have mere end en strømninggang. For at reducere risikoen for energi eller stødfare skal du afbryde alle strømninggange inden service.
 - For at sikre tilstrækkelig afkøling af udstyret skal der være en 2-tommers uhindret plads på alle sider af enheden.
 - Stikkontakten skal installeres i nærheden af udstyret og skal være let tilgængeligt.
 - For at undgå risiko for stød eller brandfare udskiftes sikringen med samme type og rating.
- FORSIGTIG:** Ground lug er en hoved jord terminal, der skal være permanent forbundet til jorden

- Prístup unutrašnjosti ove jedinice obavljaju samo ovlaštene tehničari.
 - Ova jedinica može imati više od jednog ulaznog napajanja. Da biste smanjili opasnost od opasnosti od strujnog udara, isključite sve napajanje prije servisiranja.
 - Kako bi se osiguralo odgovarajuće hlađenje opreme, na svim stranama uređaja mora se osigurati neometan prostor od 2 inča.
 - Utičnica napajanja mora biti instalirana blizu opreme i mora biti lako dostupna.
 - Da biste spriječili opasnost od udara ili opasnosti od požara, zamijenite osigurač istom vrstom i ocjenom.
- OPREZ:** Podnožje za uzemljenje je glavni zemaljski terminal koji mora biti trajno spojen na zemlju.

COMPLIANCE AND ENVIRONMENTAL INFORMATION

All the compliance and environmental information is available on our website www.nvtpybridge.com.

SYSTEM GROUNDING (EARTHING)

General grounding

GROUND ALL SYSTEMS ACCORDING TO THESE INSTRUCTIONS BEFORE YOU CONNECT POWER LEADS. FOLLOW INSTRUCTIONS EXPLICITLY TO ENSURE THE SAFETY OF PERSONNEL.

Cabinets always require redundant and independent equipment grounding conductors between the cabinet and the wiring system ground: an insulated grounding conductor and a supplementary (protective) ground.

Grounding conductor

The grounding conductor is provided as part of the three-wire, 15-Amp, AC-power cord set included with the equipment. If the power cord must be replaced, use a power cord of the same gauge that has the same insulation, number of conductors, and usage ratings.

Protective Grounding conductor

Install the protective grounding conductor to the system.



The ground symbol within a circle identifies the terminal to be connected to an external protective conductor. Connect this terminal to earth ground before you make any other connections to the equipment. The protective grounding conductor must be:

- An Insulated wire, #5 (13mm²) to #14 (2mm²) AWG, with green and yellow stripes
- Connected to the grounding stud on the back of the cabinet.

TECHNICAL SUPPORT

The **NVT Phybridge Technical Support Group** is available to assist you with product installation, configuration, monitoring and troubleshooting procedures. Should you experience trouble with this equipment or for repair or warranty information, please contact NVT Phybridge Inc. at **+1 905.901.3633** or support@nvtphybridge.com.

TECHNICAL SPECIFICATIONS

Model	PoLRE24/48
Part Number	NV-PL-024 / NV-PL-048
Dimensions	19 inches x 1U Without rack ears: (HxWxD) 1.75" x 17.13" x 9.92" (4.45cm x 43.5cm x 25.2cm)
Weight	7.94lb (3.6kg)
Mounting	Standalone or rack or shelf-mountable 2 brackets included for installation
Processor	Broadcom BCM56018 switch processor, 266MHz
Memory	32MB FLASH, 64MB DDR SDRAM
Interface: Ethernet Uplink (Trunk IP)	Maximum 2 uplinks, each 1Gb/s (full duplex), either: <ul style="list-style-type: none"> • 2 mini-GBIC ports: 1000 Base-TX/SX/LX/EX/ZX/LHX (determined by SFP, transceiver module installed), Ethernet IEEE 802.3z, fiber optic cable, or • 2 RJ45 ports: 10/100/1000 Base-T autosensing, independent speed selection, Ethernet IEEE 802.3, CAT5e copper cable
Interface; Downlink (PoE and IP to adapter)	PL-024: 1 RJ21 male telco connector (standard), 24 pairs used PL-048: 2 RJ21 male telco connectors (standard), 48 pairs used Maximum Distance: 1200ft (365m) over CAT3 UTP cable, 24 AWG Speed: 10 Mbps (full duplex) Power: 1 Watts
Management	1 LAN port (MGMT): RJ45 10/100 base-T autosensing, IEEE 802.3 1 UART console port: RJ45 to DB9 cable
Power Supply	Unit auto-sensing 100-240VAC, 50/60 Hz Power output: 500W max at 100VAC, 1000W max at 240VAC
Power Consumption	PL-024: 16.5W PL-048: 22W
Power Injection (PoE)	DC Voltage: -54VDC; Endpoint devices must be compliant with IEEE 802.3af
PowerWISE® Power Sharing	2 male connectors (rear), DC IN and DC OUT: 48VDC to 56VDC
Operating Temperature	14°F to 122°F (-10°C to +50°C)
Humidity	10% to 95% (non-condensing) at 35° C

Specifications subject to change without notice.

Model	PhyLink
Part Number	NV-PL-PA011-6
Dimensions	(HxWxD) 0.71" x 1.1" x 2.56" (1.8cm x 2.8cm x 6.5cm)
Weight	0.78oz (22g)
Interface: Ethernet Uplink (Trunk IP)	1 RJ11 port: CAT3 unshielded single twisted pair cable. Between the wall plate and adapter, you can reuse the existing silver satin when doing a DNIC/POTS displacement. BT wall plate connectors may required optional BT Adapter Cables
Interface: Downlink (PoE and IP to adapter)	1 RJ45 port: 10/100 Base-T autosensing, IEEE 802.3af 10 Mb connection to IP end device
Power Consumption	2.9W (PoLRE unit)
Power Injection (PoE)	48VDC Endpoint devices must be compliant with IEEE 802.3af
Operating Temperature	32°F to 104°F (0°C to +40°C)
Humidity	10% to 95% (non-condensing) at 35° C

Specifications subject to change without notice.