

NBP30 / Dual Voltage Battery Housing

■ **Main Features:**





- Designed for hosting 2 standard sealed lead acid batteries 12Vdc / 1.2Ah
- Settable output voltage: 12-24Vdc / 2.4-1.2Ah
- Integrated self resettable overcurrent protection
- Batteries not included



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READ THIS CAREFULLY BEFORE INSTALLATION!	LEGGERE ATTENTAMENTE PRIMA DELL'INSTALLAZIONE!	A LIRE ATTENTIVEMENT AVANT L'INSTALLATION!
<p>Before operating, read this document thoroughly and retain it for future reference.</p> <p>Non-respect of these instructions may reduce performances and safety of the devices and cause danger for people and property.</p> <p>The products must be installed, operated, serviced and maintained by qualified personnel in compliance with applicable standards and regulations.</p> <p>Don't open the device, it does not contain replaceable components, the tripping of the internal fuse (if included) is caused by an internal failure.</p> <p>Don't repair or modify the device, if malfunction or failure should occur during operation, send unit to the factory for inspection. No responsibility is assumed by TDK-Lambda Switzerland SA for any consequences deriving from the use of this material.</p>	<p>Prima dell'installazione, leggere attentamente questo documento istruzioni e conservarle per future consultazioni.</p> <p>L'inosservanza delle presenti istruzioni può compromettere le caratteristiche e la sicurezza dell'apparecchio e causare pericolo per le persone e le cose.</p> <p>Il prodotto deve essere installato, utilizzato e riparato da personale qualificato e nel rispetto delle normative vigenti.</p> <p>Non aprire il prodotto, esso non contiene componenti sostituibili, il guasto del fusibile interno (se previsto) è causato da un guasto interno. Non tentare di riparare o modificare il prodotto, se durante il funzionamento si verificano guasti o anomalie, inviarlo al produttore per il controllo.</p> <p>TDK-Lambda Switzerland SA non si assume nessuna responsabilità per qualunque conseguenza derivante dall'uso di questo materiale.</p>	<p>Lire ces instructions avant l'installation, conserver ce manuel pour référence future.</p> <p>Défaut de se conformer à ces instructions peut affecter les caractéristiques et la sécurité du dispositif, et causer du danger aux personnes ou aux biens.</p> <p>Les produits doivent être installés, exploités et entretenus par du personnel qualifié et en conformité avec les règlements.</p> <p>N'ouvrez pas le produit, il ne contient aucune pièce réparable, le déclenchement du fusible interne (le cas échéant) est causé par un défaut interne. Ne pas essayer de réparer ou modifier le produit; si des défaillances se produisent pendant le fonctionnement, retourner le produit au fabricant pour inspection. TDK-Lambda Switzerland SA n'assume aucune responsabilité des conséquences éventuelles découlant de l'utilisation des produits.</p>
CAUTION	ATTENZIONE	AVERTISSEMENT
<p><b>RISK OF BURNS, EXPLOSION, FIRE, ELECTRICAL SHOCK, PERSONAL INJURY.</b></p> <p>Never carry out work on live parts! Danger of fatal injury! The product's enclosure may be hot, allow time for cooling product before touching it. Do not allow liquids or foreign objects to enter into the products.</p> <p>To avoid sparks, do not connect or disconnect the device before having previously turned-off input power and wait for internal capacitors discharge (minimum 1 minute).</p>	<p><b>RISCHIO USTIONI, ESPLOSIONE, INCENDIO, SCOSSA, LESIONI GRAVI.</b></p> <p>Non effettuare mai operazioni sulle parti sotto tensione! Pericolo di lesioni letali! Il contenitore può scottare, lasciar quindi raffreddare il dispositivo prima di toccarlo. Non far entrare liquidi o oggetti estranei nel dispositivo.</p> <p>Per evitare scintille, non collegare o scollegare l'apparecchiatura prima di avere tolto tensione di ingresso e prima che sia avvenuta la scarica dei condensatori interni (min. 1 minuto).</p>	<p><b>RISQUE DE BRULURES, EXPLOSION, INCENDIE, ELECTROCUTION, DOMMAGE AUX PERSONNES.</b></p> <p>Ne jamais effectuer des opérations sur les parties sous tension! Danger de mort! Le boîtier peut produire des brûlures, le laisser refroidir avant de toucher l'appareil. Ne faire pas pénétrer des liquides ou des corps étrangers dans l'appareil. Pour éviter des étincelles, ne pas connecter ou déconnecter l'équipement jusqu'à ce que la tension d'entrée a été supprimée et avant qu'il n'ait eut lieu la décharge des condensateurs internes (minimum 1 minute).</p>
INTENDED USE	USO PREVISTO	UTILISATION
<p>These are isolated devices suitable for SELV and PELV circuitry and are designed to be mounted on DIN rail and installed inside a protective enclosure. They are intended for general use such as in industrial control, communication, and instrumentation equipment.</p> <p>Don't use these devices in applications where malfunction may cause injury or death.</p>	<p>I dispositivi sono isolati, adatti per applicazioni SELV e PELV, sono dotati di aggancio per il montaggio su guida DIN all'interno di quadri elettrici o contenitori di protezione, per l'utilizzo con controllori industriali, unità di comunicazione o apparecchi di misura.</p> <p>Non utilizzare in applicazioni in cui un eventuale guasto può comportare rischio di lesioni o di morte.</p>	<p>Les produits sont isolés, appropriés pour les circuits TBTS et TBTP et sont équipés d'un crochet pour montage sur rail DIN dans des armoires ou conteneurs de protection, pour utilisation avec les contrôleurs industriels, des modules de communication ou des unités de mesure.</p> <p>Ne pas utiliser ces dispositifs dans une application où un dysfonctionnement pourrait entraîner le risque des blessures ou de mort.</p>
ENVIRONMENTAL CHARACTERISTICS	CARATTERISTICHE AMBIENTALI	CARACTÉRISTIQUES ENVIRONNEMENTALES
<p>Installation in a Pollution Degree 2 environment, Overvoltage Category I, according to IEC60664-1.</p> <p>Do not use in wet area or subject to moisture.</p> <p>Carefully recycle the product and related batteries according to local regulations.</p> <p><b>Radio interference!</b> This is an electrical appliance according to EN55032, class A. It may cause radio interference in residential areas.</p>	<p>Usare in ambienti con Grado di Inquinamento 2 e Categoria di Sovratensione I, secondo IEC60664-1.</p> <p>Non far funzionare l'apparecchio in un ambiente umido o soggetto a formazione di condensa. Riciclare il prodotto e le batterie collegate, nel rispetto delle normative locali vigenti.</p> <p><b>Interferenza radio!</b> Questo apparecchio è un dispositivo di classe A secondo lo standard EN55032. Può causare interferenze radio nelle aree residenziali.</p>	<p>Utiliser les produits dans des environnements avec degré de pollution 2, catégorie de surtension I selon IECN60664-1.</p> <p>Ne pas employer l'appareil dans un environnement humide ou soumis à la condensation. Recycler les produits et les batteries, conformément à la réglementation locale.</p> <p><b>Perturbations radioélectriques!</b> Cet appareil est un dispositif de catégorie A selon le standard EN55032. Il peut causer des perturbations radioélectriques dans les zones résidentielles.</p>

## DECLARATION OF CONFORMITY

	<p><b>TDK-LAMBDA SWITZERLAND SA</b> Via Luserte Sud 6, 6572 Quartino - Switzerland Phone: +41-(0)91 840 14 46 / 840 14 48; Fax: +41-(0)91 840 14 47 E-mail: <a href="mailto:TLN.info@tdk.com">TLN.info@tdk.com</a></p>
<p>This Declaration of Conformity is suitable to the European Standard EN45014 "General criteria for supplier's declaration of conformity". We declare under our sole responsibility that the device included in this box, has passed all processing inspections and the final test and it is in conformity with the product requirements, including all reference codes and supply specifications.</p>	
<p><b>ROHS compliance:</b> the product respects the EC requirements related to ROHS substances, according to "Restriction of Hazardous Substances" as per document 2011/65/UE <b>REACH compliance:</b> the product respects the EC requirements related to REACH SVHC directive (EC) 1907/2006 <b>Note:</b> all the reported information comes from our suppliers, TDK-LAMBDA SWITZERLAND SA has not run any test to evaluate if the specific elements are present.</p>	
<p>All indicated devices are designed according to the latest Reference standards, if not expressly indicated through the official documents or files, they have been tested through our internal pre-compliance testing. Consult directly on <a href="http://www.nextys.com">www.nextys.com</a> the reference standards applied to each model.</p>	
<p><b>Code</b> NBP30</p>	<p><b>Description</b> Sealed Lead Acid Battery dual voltage housing</p>
<p><b>Certifications and approvals</b></p>	<p>  </p>
<p><b>Reference standards</b></p>	<p>2014/35/EU (2014) (Low Voltage Directive)</p>

**USER INSTRUCTIONS**

- 1) Description:** DIN rail mountable Settable sealed Lead Acid Battery dual voltage housing.
- 2) Installation:** use DIN-rails according to EN60715. Installation should be made vertically (see Fig.4). For better device stability fix the rail to the wall close to the point where the device is to be mounted. In order to guarantee sufficient convection, we recommend observing a minimum distance to other modules (see Fig.3).
- 3) Connections:** the device is equipped with pluggable screw terminals. To avoid sparks, do not connect or disconnect the connectors before having previously turned-off input power and waited for internal capacitors discharge (minimum 1 minute)  
In order to comply with UL certification, use appropriate copper cables of indicated cross section, designed for an operating temperatures of:  
60°C for ambient up to 45°C  
75°C for ambient up to 60°C  
90°C for ambient up to 70°C  
Strip the connecting ends of the wires according to the indication and ensure that all strands of a stranded wire enter the terminal connection (see Fig.5)
- 4) Input protection:** the device input is provided with polyswitch against overcurrent.
- 5) DC Input/Output connection:** connect **BATT. +** terminal to + pole, **BATT. -** terminal to - pole.  
The device is suitable for **SELV** and **PELV** circuitry.
- 6) Warranty:** Battery pack are guaranteed free from factory defects for the time specified in the "Sales Conditions"  
Failures caused by misuse, external and/or abnormal events (i.e. overvoltage, over temperatures) or non-respect of above parameters and standards, are not covered by warranty. Opening the housing of the product makes warranty to be no longer valid.
- 7) Battery:** Please pay attention, **the batteries are not included**, we recommended to use batteries with final dimension (W x H x D) 48.5 x 54.5 x 97.5mm Max terminals included.

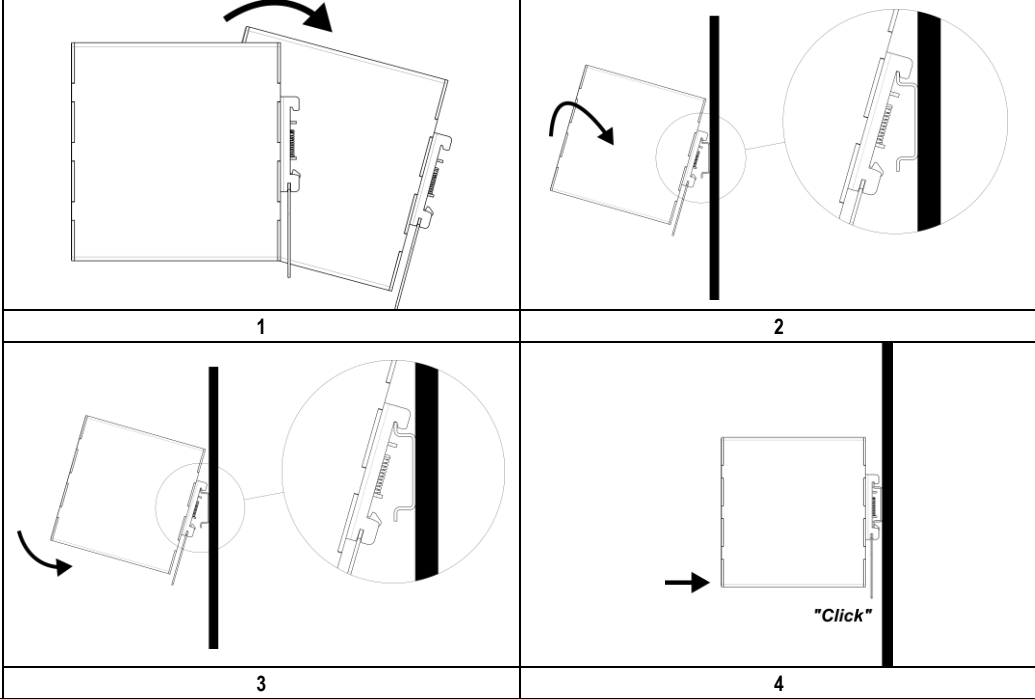
Fig.1 Connections	Fig.2 Dimensions	Fig.3 Distances														
	<p>(1) Battery Connection (2) Place wire Jumper to Set 24Vdc/1.2Ah (3) Place wire Jumpers to Set 12Vdc/2.4Ah</p> <p><b>Attention!</b> Do not Set the configuration 2 and 3 at the same time.</p>															
	<table border="1" style="margin: auto;"> <thead> <tr> <th>Dimension</th> <th>mm (inch)</th> </tr> </thead> <tbody> <tr> <td>W</td> <td>54 (2.12)</td> </tr> <tr> <td>D</td> <td>110 (4.33)</td> </tr> <tr> <td>H</td> <td>115 (4.52)</td> </tr> </tbody> </table>	Dimension	mm (inch)	W	54 (2.12)	D	110 (4.33)	H	115 (4.52)	<table border="1" style="margin: auto;"> <thead> <tr> <th>Distance</th> <th>mm (inch)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>20 (0.8)</td> </tr> <tr> <td>B</td> <td>20 (0.8)</td> </tr> </tbody> </table>	Distance	mm (inch)	A	20 (0.8)	B	20 (0.8)
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**Fig.4**  
**Mounting / Dismounting Instructions**

For DIN rail fastening according to IEC 60715 TH35-7.5(-15)  
Mounting as shown in figure, with input terminals on lower side, with suitable cooling and maintaining a proper distance between adjacent devices as specified in the I.S. manual of each family.

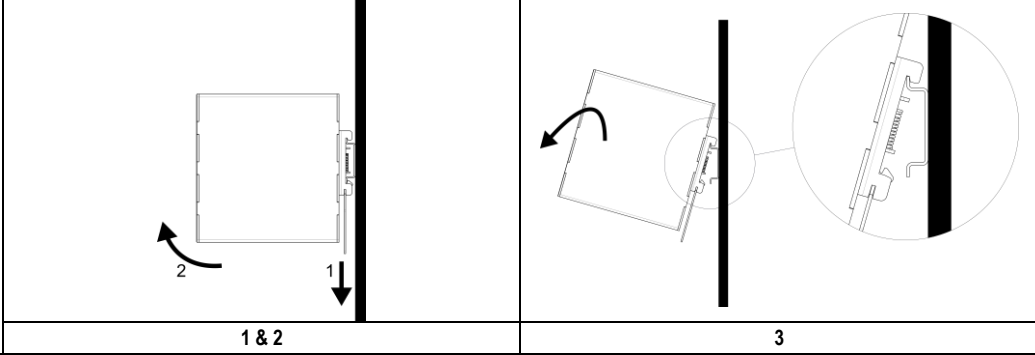
**Mounting:**

1. Tilt the unit slightly backwards.
2. Fit the unit over the top edge of the rail.
3. Slide it downward until it hits the stop.
4. Press against the bottom for locking.



**Dismounting:**

1. Pull down the slide clamp lever
2. Tilt the unit upward
3. Unhook the unit from the rail



**Fig.5**  
**Recommended connecting cable**

	<p><b>Recommended Tightening torque</b> 0.5-0.6 Nm 4.42-5.30 lbf in</p>		<p>Solid: 2.5mm<sup>2</sup> / 12AWG Stranded: 1.5mm<sup>2</sup> / 12AWG L: 6.0-7.5mm / 0.24-0.30 in</p>
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Assembly STEPS	
<p>The diagram shows an NBP30 PCB at the bottom with four wires extending upwards. From left to right, they are labeled WR3, WR4, WR2, and WR1. These wires connect to two batteries, BATT.2 on the left and BATT.1 on the right. WR1 and WR2 connect to BATT.1, while WR3 and WR4 connect to BATT.2.</p>	<p><b>USE only Lead-acid Batteries 12Vdc 1.2Ah.</b>  <b>Dimension 48.5x54.5x97.5mm.</b>  <b>Faston type 4.8mm</b></p> <p><b>WR1:</b> Red stranded wire 1.5mm<sup>2</sup>, length 140mm.  <b>WR2:</b> Black stranded wire 1.5mm<sup>2</sup>, length 140mm.  <b>WR3:</b> Black stranded wire 1.5mm<sup>2</sup>, length 120mm.  <b>WR4:</b> Red stranded wire 1.5mm<sup>2</sup>, length 120mm.</p> <p><b>Attention!</b></p> <p>WR1 and WR2 must be connected at the Battery 1.          WR3 and WR4 must be connected at the Battery 2.          The colored wires must respect the Battery polarity.          The colored wires should respect the bending as indicated in the diagram on side.</p>
<p>The diagram shows the two batteries, BATT.2 and BATT.1, being placed into the enclosure. The wires from the previous step are shown extending from the top of the enclosure.</p>	<p>A 3D perspective view of the NBP30 enclosure with the two batteries (BATT.2 and BATT.1) installed inside. The enclosure is shown from a slightly elevated angle, highlighting the battery compartment.</p>
<p><b>Attention! Do not stress mechanically the cables!</b></p>	
<p>The final assembly view shows the NBP30 device with the battery compartment closed. The device is shown from a front-facing perspective, with the battery compartment cover in place.</p>	
<p>After connecting the wires on the batteries and after having placed the batteries in the enclosure, the NBP30 should appear as on the picture above.</p>	

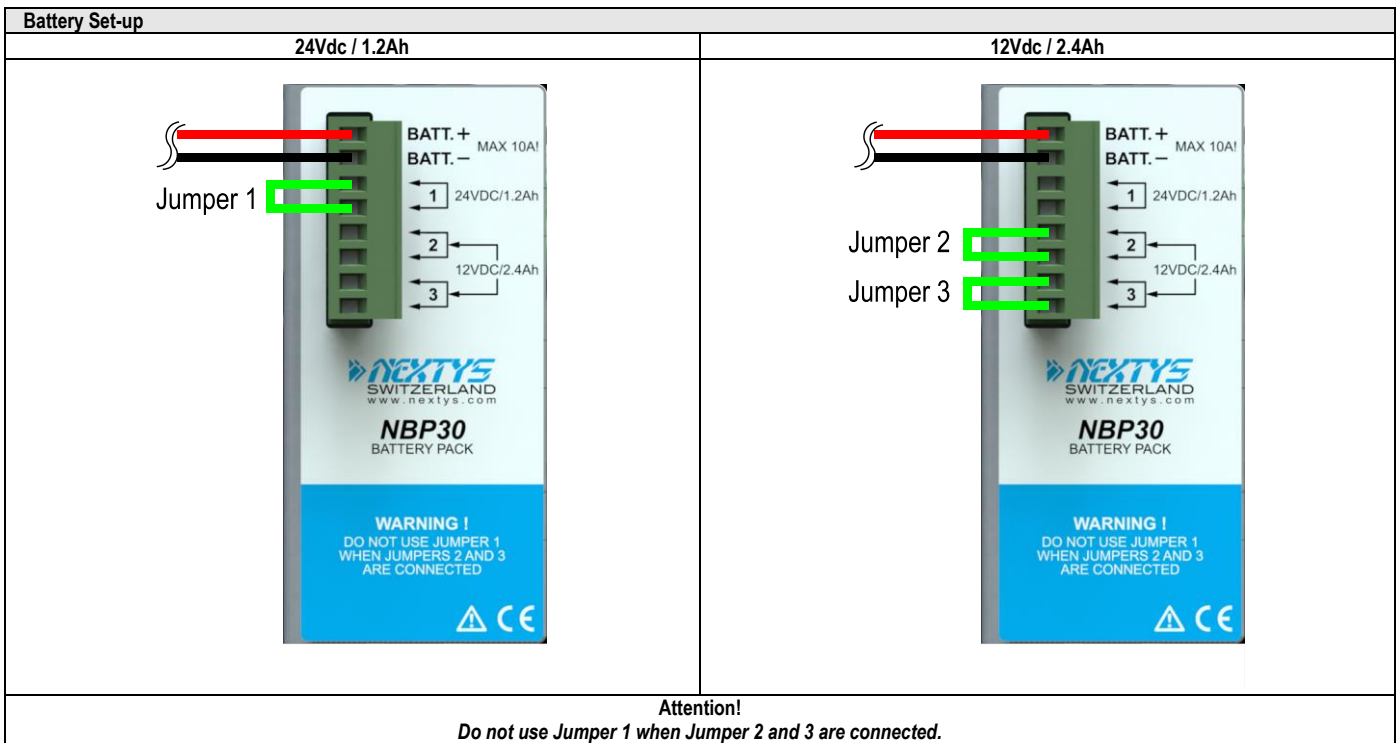


Fig.8
Environment
Operating temperature
- 20°C...40°C
According to battery limits indicated by the manufacturer

<b>Note:</b>
<ul style="list-style-type: none"> <li>▪ Data may change without prior notice in order to improve the product.</li> <li>▪ Please refer to the latest version of the "Instruction Manual" for each product by visiting <a href="http://www.nextys.com">www.nextys.com</a></li> </ul>