# Base Load Power Hub (BLPH)

PACKING, TRANSPORTATION, HANDLING, LAYING AND STORAGE OF CABLES

INSTRUMENT CABLES

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# PACKING, TRANSPORTATION, HANDLING, LAYING AND STORAGE OF CABLES

The cables, whether they are armoured or unarmoured , are manufactured with some high quality materials allowing long storage handling transport and unreeling subject to the following recommendations.

## 1 – TRANSPORTATION HANDLING AND STORAGE OF THE DRUMS

### 1.1 – Storage

Cables can be stored, in usual, on site temperature limits: -15°C to +60°C. The cables drums must be appropriately wedged and stored in a vertical position (never laid on flange) on a flat, dry and solid ground and in a covered place (applicable only for export project). They must be protected to avoid any mechanical risk and exterior shocks.
The original wooden lags have to be kept until the cable unreeling to ensure a good protection of the cable. The both ends of the cable (inner and outer end) have to be watertight in order to avoid penetration of water or humidity inside the cables. Thermo retractable polyethylene caps must be installed on the both ends.

### 1.2 – Transportation and handling

The wooden drums must be always carried vertically. They must be fixed and properly chocked with care on the vehicle, on the wagon and on the ship, in order to avoid any exterior chocs.
The unloading and the different handling will be done carefully with lifting equipments.

- In case of handling with a crane, an axle is used in crossing the drum center, lifted from both ends by two slings. It must have a length equal, at least, to the width of the drum. It is prohibited to put the slings on the lags,
- In case of handling with a forklift truck, the drum is put vertically with care on the forks,

Never let a drum fall during all kind of unloading and do not place any weight on the drums.
When the cables drums are arriving on site, they must be properly checked. The good order of the lagging and of the ends caps of the cables (a breaking of a wooden lag could tear the outer sheath of the cable).

### 1.3 – Rolling direction

If a drum has to be rolled, for transportation, it must be rolled “only” in the direction indicated by an arrow pointed on the flange of the drum: “do not roll the drum in the opposite direction arrow of the drum”.

## 2 – LAYING OF THE CABLES

### 2.1 – Laying temperature

The cables can be pulled at a minimum outer temperature of: -5°C, but with a slow and regular speed (about 20 m/mm) without shock. It is always necessary, before unreeling, to store the cables for at least 24 hours in a warmed room (about +10°).

### 2.2 – Bending radius

During the unreeling, the bending radius shall be, at least, “twice the static bending radius (as specified in our technical data sheets)”

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## 2.3 – **Pulling strength**

The pulling strengths exerted directly on the copper or aluminium cores of the cables should not exceed the values:

- 5 daN/mm² of cross section for copper conductors.
- 3 daN/mm² of cross section for aluminium conductors.

The pulling must be regular without shock and continuously checked by a dynamometer (especially in case of using a winch).

## 2.4 – **Cables unreeling**

The drum shall be settled on jacks by using a spindle through the central hole of the drum. The unreeling speed shall be monitored at a moment.
The cables must be unreeled "only in the opposite direction of the one indicated by an arrow" painted on the flange of the drum ("do not unreel the cable in the same direction of the arrow"). While unreeling, the cables shall not be twisted, waved or buckled.
The label, sticked on the flange, indicates the "correct unreeling method".
ANNEXE 1







