



TECHNICAL GUIDE



XL³ HP LOGISTICS BEST PRACTICES GUIDE

LEGRAND SUPPORTS YOU ON ALL YOUR PROJECTS

This logistics guide aims to support all stakeholders involved in the delivery chain of XL³ HP cabinets (carriers, panel builders, installers, and end customers) by providing best practices to follow at each stage of the process. Its purpose is to ensure safe handling, loading, transportation (by road, sea, or air), unloading, reception, and storage operations, whether the cabinets are delivered empty or fully wired.

Compliance with these recommendations is essential to prevent any mechanical, electrical, or aesthetic damage that could affect the performance or compliance of the enclosures. Improper handling or unsuitable transportation can lead to structural deformation, tearing of internal components, or sealing defects, thereby compromising the safety and reliability of the final installation.

LEGAL INFORMATION

Presentation pictures do not always include Personal Protective Equipment (PPE), but this is a legal and regulatory obligation that must be scrupulously respected.

In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations without notice. All illustrations, descriptions and technical information included in this document are provided as indications and cannot be held against Legrand.

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SAFETY INSTRUCTIONS



Any failure to strictly apply the procedures and to respect these recommendations could lead to serious risk of accident, endangering people and property (in particular, without limitation, risk of burns, electric shocks, etc.).



General information

- Use only the products and accessories recommended by the Legrand Group in the catalogue, instructions, technical data sheets and all other documents provided by Legrand (hereinafter referred to as “the Documentation”) in compliance with the installation rules.
- Legrand declines all responsibility for any modification or repair of the equipment making up the enclosure that is not authorized by the Legrand Group, as well as any failure to comply with the rules and recommendations specified by Legrand in the Documentation. In addition, in the cases mentioned above, the warranty granted by Legrand will not be applicable.
- It is necessary to check that the characteristics of the products are appropriate for their environment and use during maintenance operations, and to refer to the Documentation.
- If you have any questions or require clarification, please contact Legrand Group.

Protection/security



- The installation, use and maintenance of the enclosures and their components must be carried out by qualified, trained and authorized personnel, in accordance with the regulations in force in each country.
- People working on the installation must have the appropriate electrical authorizations for the work to be carried out.
- Wear the PPE (Personal Protective Equipment) necessary to work on live products.



- Respect the safety rules related to electrical work.
- Improper electrical and mechanical use of equipment can be dangerous and may result in personal injury or damage to property.

Maintenance

- Depending on the maintenance operations to be carried out, partial or total power cuts of the enclosure concerned should be planned before any work.
- When performing operations that involve access to the inside of the enclosure, be aware of the risk of burns before touching any.
- Before turning the power back on, make sure that there are no foreign bodies and that all physical protections have been put back in place (e.g.: screens, covers, faceplates).



Risk of electric shock, burns and explosion.

The rules and recommendations in this document are based on our knowledge of the typical conditions of use of our products in the fields of application usually encountered. However, it is always the customer’s responsibility to verify and validate that Legrand products are suitable for its installation and use.

The customer must ensure proper installation, maintenance and operation of the equipment to avoid any risk of injury to personnel or damage to property in the event of product failure, especially for applications that require a very high level of safety (e.g., those in which the failure of a component may endanger human life or health).

The rules for storage, handling, installation and maintenance and the appropriate precautions and warnings must be strictly observed and applied.



XL³ HP LOGISTICS BEST PRACTICES GUIDE

BEST PRACTICES



POSITIONING OF ENCLOSURES FOR TRANSPORT

Transport conditions for empty enclosures and pre-wired enclosures must take into account the total weight, the size of the enclosures, and the risks inherent to the type of transport.

 Loading, unloading, and specific handling precautions are detailed in the “Carriers” section

The position of the products during transport must be respected to preserve their integrity upon delivery. Pre-wired enclosures must be transported either flat (provided they do not exceed the pallet dimensions) or in a vertical position, according to the recommendations in the table below.



For long-distance transport of pre-wired enclosures, it is recommended to set up all securing measures, both inside and outside the enclosures, to reduce the impact of vibrations and protect the components.

RANGE	HEIGHT	WIDTH	DEPTH			SUPPORT	POSITION
			without door	with door	with door and handle		
XL ³ HP 160 Surface-mounting (metal)	450 - 1350 mm	250 - 800 mm	147 mm	170 mm ⁽¹⁾ 190 mm ⁽²⁾	198.5 mm ⁽¹⁾ 218.5 mm ⁽²⁾	On pallet	Lying down (not stackable) or upright (strapped), respecting pallet size and inserting appropriate protections
XL ³ HP 160 Surface-mounting (insulated)	450 - 1350 mm	250 - 800 mm	147 mm	170 mm ⁽¹⁾ 190 mm ⁽²⁾	198.5 mm ⁽¹⁾ 218.5 mm ⁽²⁾	On pallet	
XL ³ HP 160 Flush-mounted	545 - 1445 mm	670 mm	110 mm	115 mm ⁽¹⁾ 145 mm ⁽²⁾	143.5 mm ⁽¹⁾ 153.5 mm ⁽²⁾	On pallet	Lying down (not stackable). Cannot travel upright.

(1) Flat door ; (2) Curved door; (3) Quarter-turn handle; (4) Lever handle



RANGE	HEIGHT	WIDTH	DEPTH			SUPPORT	POSITION
			without door	with door	with door and handle		
XL ³ HP 630	806 - 2006 mm	400 - 850 mm	233 mm	258 mm	287 mm ⁽³⁾ 294 mm ⁽⁴⁾	On pallet	Depending on dimensions: lying down (not stackable) or upright (strapped)
XL ³ HP 630 (IP 55)	846 - 2046 mm	506 - 956 mm	231 mm	256 mm	284 mm ⁽³⁾ 291 mm ⁽⁴⁾	On pallet	Depending on dimensions: lying down (not stackable) or upright (strapped)
XL ³ HP 6300 (monobloc)	1600 - 2000 mm	600 - 1600 mm	-	453 - 653 mm	470 - 670 mm	Depending on dimensions: on pallet* or on base	Upright (strapped)
XL ³ HP 6300 (assemblable for distribution)	1600 - 2200 mm	450 - 1400 mm	403 - 1203 mm	450 - 1250 mm ⁽²⁾	450 - 1250 mm ⁽²⁾	Depending on dimensions: on pallet* or on base	Upright (strapped)
XL ³ HP 6300 (assemblable for industry)	1200 - 2000	400 - 1600 mm	403 - 1003 mm	411 - 1011 mm ⁽¹⁾	428 - 1028 mm ⁽¹⁾		
Large-size products (doors, panels, bars, etc.)	-	-	-	-	-	On pallet	Lying down** or upright (strapped)

(1) Flat door ; (2) Curved door; (3) Quarter-turn handle; (4) Lever handle

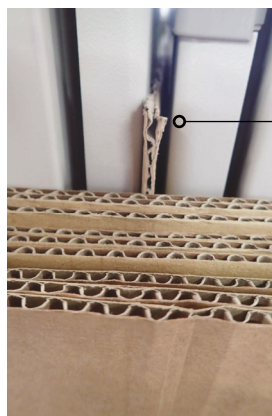
*Preferably screwed on pallet using the base
** Do not stack heavy products on top

When transporting two large enclosures, they can be placed vertically, back-to-back, on a pallet, provided that all necessary securing and lashing measures are respected.

If the enclosure is transported without a pallet, ensure that it is well protected and easily movable/liftable to minimize the risk of scratches and impacts.

Products transported uprights must be firmly secured to the structure of the transport vehicle using suitable straps so that they cannot move during the entire transport duration.

Enclosure mounted on chassis for upright transport:



It is the carrier's responsibility to ensure that weight distribution, stabilization, and load alignment are correctly carried out.

Protect the cabinets with cardboard or bubble wrap to avoid damaging the panels.

Secure the cabinet in the chassis, at the front and rear, to reduce the risk of tipping.



XL³ HP LOGISTICS BEST PRACTICES GUIDE

HANDLING ENCLOSURES (EMPTY)

The size and weight of enclosures vary depending on the range. To ensure safe handling, Legrand recommends the following method:


RANGE	WIDTH	WEIGHT* (EMPTY)	RECOMMENDED HANDLING
XL ³ HP 160 Surface-mounting (metal)	250 - 800 mm	10.9 - 27,2 kg	
XL ³ HP 160 Surface-mounting (insulated)	250 - 800 mm	7.60 - 18,42 kg	
XL ³ HP 160 Flush-mounted (metal/plastic)	670 mm	9.66 - 20,40 kg	
XL ³ HP 630	400 - 850 mm	14.73 - 36,38 kg	On pallet, in original packaging
XL ³ HP 630 (IP 55)	506 - 956 mm	18.41 - 44,91 kg	
XL ³ HP 6300 (monobloc)	600 - 1200 mm	59.4 - 134,5 kg	
XL ³ HP 6300 (assemblable)	400 - 1600 mm	29.2 - 107,6 kg	

* Depending on enclosure dimensions

HANDLING ENCLOSURES (EQUIPPED)

Small-sized enclosures are delivered on wooden pallets to allow the use of pallet trucks/forklifts.

For handling operations, the enclosure must be lifted using a pallet truck or forklift with appropriate specifications, from the lower part of the pallet.

 Cabinets must be strapped onto pallet trucks or forklifts when movements take place on uneven, chaotic surfaces, with holes or on outdoor roads.

Handling with pallet truck and forklift

Sets fixed on pallets can be handled using a pallet truck or forklift without risk of damage.

Handling XL³ HP cabinets is possible when pallets are removed, provided they are equipped with blocks.

The cabinet base is robust enough to support the forks of a forklift, even when the cabinet is equipped with devices. Lifting must be carried out after removing the removable covers from the base.



Lifting with rings or corner pieces

These lifting methods apply only to XL³ HP 6300 and XL³ HP 630 IP 55 cabinets.

XL³ HP 630 IP 43 cabinets do not allow the attachment of lifting rings or corner pieces. Wall mounting brackets must not be used for lifting.

LIFTING WITH RINGS - UP TO 1000 KG (CAT.NO 3KLIFTA* AND 2KLIFTA**)

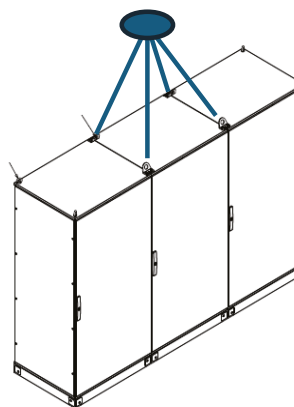


Lifting rings are used for handling a single cell whose width is less than 2 meters and whose weight is under 1000 kg.

* for XL³ HP 6300

** for XL³ HP 630

LIFTING WITH CORNER PIECES - UP TO 1400 KG (CAT.NO 3KLIFTB *)



Corner pieces are used for handling paired cells whose length exceeds 2 meters, and whose weight is between 930 kg and 1400 kg. They help balance the load between two enclosures during lifting.

It is recommended to ensure that the angle formed by the cables is always less than 45° at the eyelet edge and 15° in lateral traction, and that the cable length and lifting equipment reach are sufficient. Failure to comply with these recommendations may damage the lifting accessory.

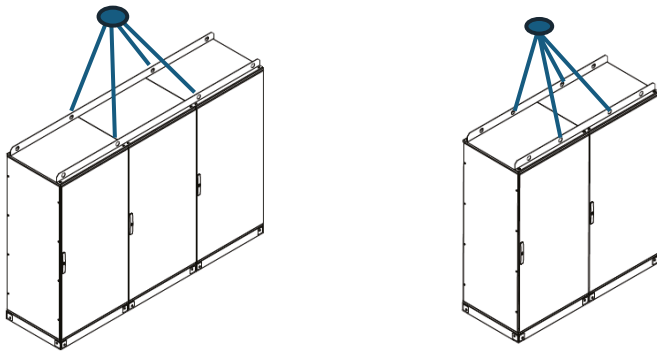
Endless slings or straps are not recommended for the lifting techniques described above.

HANDLING CABINETS (EQUIPPED)

Lifting with rings or corner pieces (continued)

LIFTING WITH CORNER PIECES - BETWEEN 1750 AND 2500 KG (TO BE MADE BY THE CUSTOMER)

Corner lifting pieces (to be made by the customer) are used when the electrical cabinet consists of several units whose length exceeds 2 m and whose weight is between 1750 kg and 2500 kg.



⚠ Ensure that the length of the corner pieces covers the entire length of the units to be lifted.

💡 Recommended corner piece thickness: 8 mm.
 Legrand recommends using corner pieces for handling a maximum of three cells, ensuring that the lifting equipment is suitable.

Positioning of lifting elements

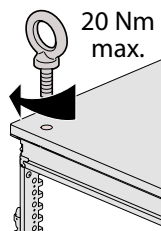
POSITIONING RINGS (CAT.NO 3KLIFTA * AND 2KLIFTA**)

Screw the accessories in place, respecting the maximum tightening torque.

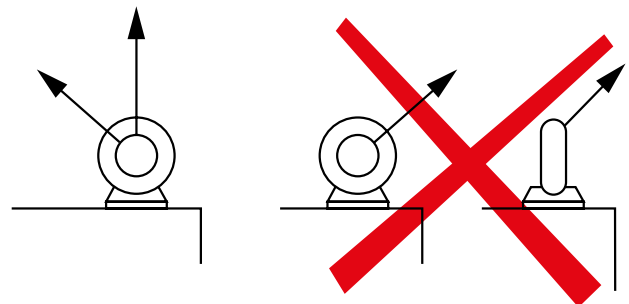
When slinging with multiple rings, base-mounted rings must be used.

* for XL³ HP 6300

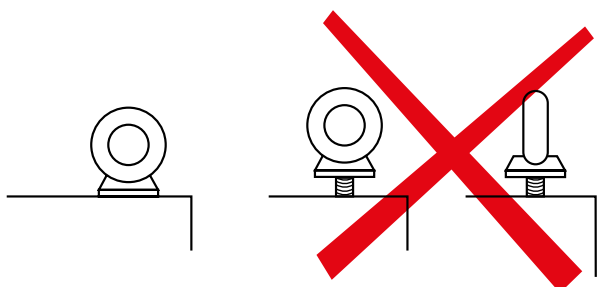
** for XL³ HP 630



Orient the rings in the axis of the slings.
 If necessary, adjust by loosening.



⚠ Screw the rings down to the base so that contact between the ring base and the part to be lifted occurs over the entire surface of the base.



⚠ Lateral forces on misaligned rings can cause breakage.

💡 Adjustable and articulated rings* are also recommended to align the orientation of the ring after tightening, the direction of traction force.

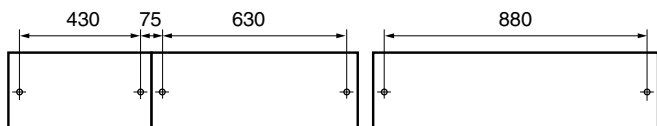
*Product not available in the catalog.



Positioning of lifting elements (continued)

POSITIONING RINGS (CAT.NOS 3KLIFTA * AND 2KLIFTA**) (CONTINUED)

Spacing between lifting ring fixing points (mm)

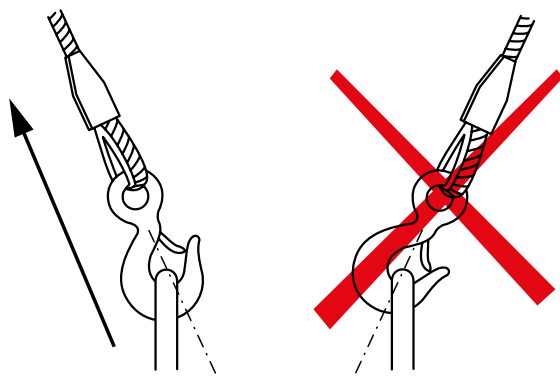


* for XL³ HP 6300

** for XL³ HP 630

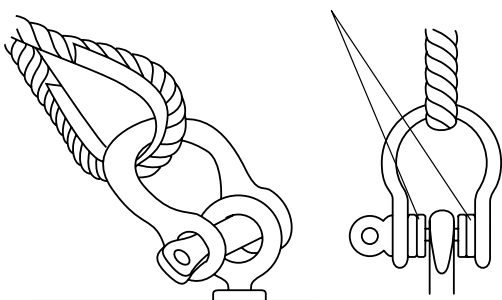
POSITIONING HOOKS

Position hooks with the tip facing upward.



Use accessories to prevent accidental unhooking: safety hooks or shackles (the use of washers helps keep shackles centered).

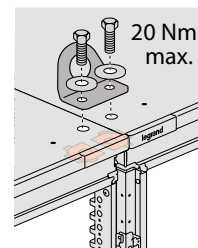
Holding washers



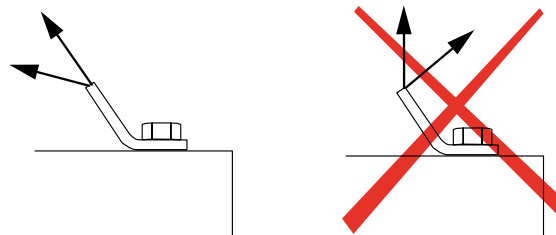
POSITIONING CORNER PIECES (CAT.NO 3KLIFTB *)

Before positioning the corner pieces, remove the cabinet roof, then fix the corner pieces.

Screw the devices in place, respecting the maximum tightening torque.



Orient the rings in the axis of the slings.



* for XL³ HP 6300

POSITIONING CORNER PIECES (MADE BY THE CUSTOMER)

Before positioning the corner pieces, unscrew the enclosure roof, then fix the corner pieces.

HANDLING CABINETS (EQUIPPED)

Choice of slings


It is the slinger's responsibility to choose the appropriate sling based on the load to be handled and the lifting equipment.

- Significantly estimate the load weight.

 The mass and volume to be handled can be calculated digitally using XL Pro Panels software.

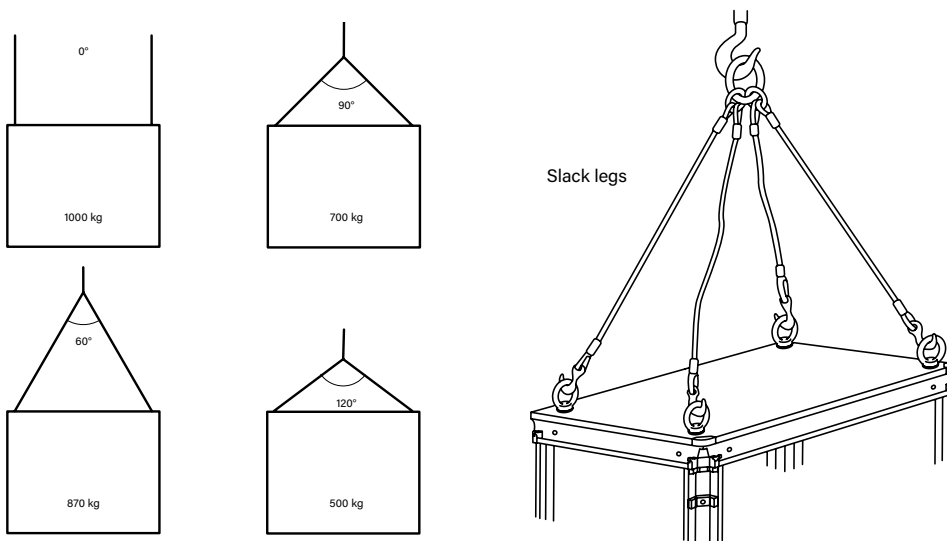
In the absence of precise data, permissible load values can serve as a reference.

- Determine the required sling capacity.
The Working Load Limit (WLL), which must be indicated on the sling, must match the lifting operation.


 The minimum WLL value of the slings is indicated on the lifting diagrams in the enclosures instruction sheets (value for a single sling or for one leg of a multi-leg sling).

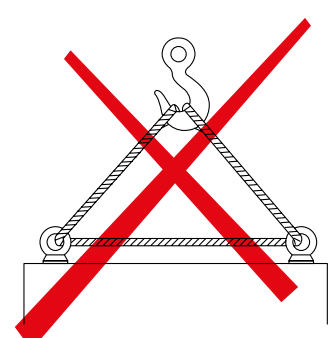
- Check the liftable load considering the sling mode factor M, depending on the angle and number of legs.

Often, the load is not perfectly balanced. Sling legs may not be evenly loaded, and their lengths may not be identical, which can reduce the lifting capacity. Standard NF EN 52150 specifies the reduction factor M to apply for common cases.



Shows how the angle between sling legs affects the liftable load

 **Strictly prohibit passing an endless sling through the rings. Induced forces on rings and slings may exceed their capacity.**



 **The angle between sling legs must be limited to 90° and never exceed 120°, to reduce lateral forces on attachment points and preserve lifting capacity.**



Choice of slings (*continued*)

POSITIONING SLINGS

Before performing the lifting operation, the operator must take all necessary measures to ensure safety and must know:

- the Working Load Limit (WLL) that the sling can support under normal use.
- the factor applied to the WLL of a single-leg sling to account for the geometry of the slinging (number and angles of legs) and the resulting bending of certain components.

Each sling leg must not be angled more than 45° from the vertical. Depending on the lifting rings used, a reduction of the WLL of the ring must be applied based on the angle.

Before any slinging operation, ensure that lifting accessories and slings have been inspected.

Beyond 45°, a specific study is required.

Handling XL³ HP enclosures with base

Bases can be installed by the customer under the enclosures according to technical requirements. These bases also allow handling of the enclosures using a forklift or pallet truck from the lower part. To do this, the base cover must be removed, then replaced once positioning is complete.

Particularly heavy enclosures can be fitted with reinforcements (custom-made by the customer), mounted under the enclosures. We recommend not removing these reinforcement elements before final installation on site.



Enclosure with base blocks and base cover



Enclosure with reinforced bases

ENCLOSURES	ENCLOSURE WIDTH	DISTANCE BETWEEN BASE BLOCKS (mm)
XL ³ HP 6300 (monobloc)	600 - 1200 mm	460 - 1060 mm
XL ³ HP 6300 (assemblable)	400 - 1600 mm	260 - 1460 mm

XL³ HP LOGISTICS BEST PRACTICES GUIDE

PANEL BUILDER



RECEPTION

Checks

Upon receiving Legrand products, verify:

- completeness of the material;
- any damage during transport;
- condition of large-size products (doors/panels): folds, dents, broken corners, etc.;
- condition of painted products: scratches, cracks, etc.;
- condition of the packaging carton: if torn, risk of losing components (screws, instructions, etc.).



For shipment, certain products may need to be removed from the assembled enclosure. Keep the original packaging for later repacking.



All inspection or verification of delivered material must be carried out within the time limits specified by the applicable sales conditions.

In case of irregularity, request intervention from a technical and commercial manager.

IN CASE OF ISSUES

Determine the extent, cause, and origin, then immediately record the observed damage on the delivery note, reserve the goods, and report them to the carrier in writing, formally, with acknowledgment of receipt.



HANDLING EQUIPPED ENCLOSURES

Handling Legrand XL³ HP enclosures can be done by lifting with corner pieces (3KLIFTB) or rings (Ref. 3KLIFTA / 2KLIFTA), using a forklift or pallet truck.



For handling enclosures and other components of the XL³ HP range, see ► [page 8](#)

STORAGE

Enclosures are delivered in packaging adapted to normal transport and storage conditions in a covered location for a short period (60 days), unless the customer has specified particular packaging and transport requirements.

If assembly or installation must occur after a longer period, it is recommended to store the panels in a well-ventilated area, free from excessive temperature variations, and to cover them with a waterproof tarpaulin to prevent dust accumulation.

It is also recommended to place desiccant bags inside the enclosures to absorb any moisture present and to check these bags regularly to ensure their effectiveness. Regularly verify that no pests or insects have access to the stock.

For storing accessories for later installation, it is recommended to keep them in their original packaging to reduce the risk of scratches, scuffs, breakage, etc.



Before installing previously stored accessories, verify that their version corresponds to the current version on the market. Refer to Legrand.com or your Legrand contact for version verification.



Packaging and protection



Legrand recommends protecting cabinets and their components with suitable packaging before delivery to reduce the risk of damage during transport, dust, and humidity during storage.



It is advisable to use reusable and/or recyclable packaging (e.g., wooden protective case).

We recommend delivering enclosures with their bases. If bases are not provided, delivery should be made using pallets adapted to support the weight of the columns. Enclosures must be securely fixed to the pallets.

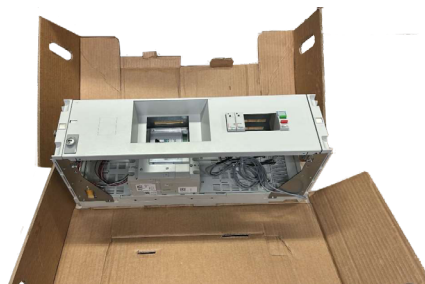


When using wooden packaging and protection/bracing systems, we recommend checking compliance with **phytosanitary standards** required by the destination country. To ensure unrestricted acceptance, Legrand recommends opting for treatment compliant with ISPM 15 standard.

To reduce the weight of the enclosure, devices weighing more than 30 kg must be delivered separately and in their original packaging. Likewise, precision instruments of high value for measurement and indication, plug-in/draw-out devices, and fragile materials must be properly protected and delivered separately.



IS drawers must be packed separately.



1. Place the IS drawer in the inner box.



2. Fold the sides of the box.



Reuse the original base packaging to pack the drawers.





3. Join the sides with adhesive tape.



4. Insert the assembly into the outer packaging box.



5. Position the base according to the customer's indication inside and outside, then close the packaging.



Place the packaging box on the floor and use the handles to insert the assembly gently.



Make sure to attach a label indicating fragility, sensitivity to humidity, and the transport position.

SHIPMENT BY SEA



Refer to SEI4C standard for maritime delivery.

For packaging enclosures shipped by sea, seal the enclosure under vacuum to reduce exposure to humidity, place the assembly inside a wooden case to protect against potential shocks.



Secure the assembly on a pallet to ensure handling on the boat.

SHIPMENT BY AIR



Refer to IATA standard for air delivery.

For packaging enclosures shipped by air, place the assembly inside a wooden crate to protect against potential shocks, and secure the assembly to the floor using straps or other fastening solutions.

Information and traceability

To ensure proper traceability and correct setup upon arrival at the site, it is important to provide all necessary information in advance, including at least:

- The manufacturer of the assembly.
- The manufacturing date.
- The name of the panel/cabinet with unit numbers in case of plurality (also indicate the right or left side of the first cell, as well as the front and back of the units).
- Identification of the feeders.
- The weight of each transportable part.
- A warning on the heaviest side of each transportable part to prevent tipping during handling.
- Indications regarding weight, center of gravity, top and bottom, shock prevention, and prohibition of tipping enclosures must be clearly marked on the packaging for the carrier.



It is imperative to indicate the heaviest side to prevent any tipping during handling.




XL³ HP LOGISTICS BEST PRACTICES GUIDE

SHIPPER

ROAD TRANSPORT

Loading

Place the heaviest loads along the central axis of the vehicle. Position lighter loads above heavier ones. Ensure the center of gravity is as low as possible.

 For optimal transport, it is recommended to place the doors upright and properly strapped, or flat.

The securing system must withstand forces exerted by the load forward and upward, sideways, and backward.

The weight of the load, the lashing angle, the friction factor, and other elements may influence the number of straps required.

 Enclosures must be properly strapped inside the truck to avoid tipping risks.



Do not stack other goods on doors and/or side panels when transported flat.

Unloading

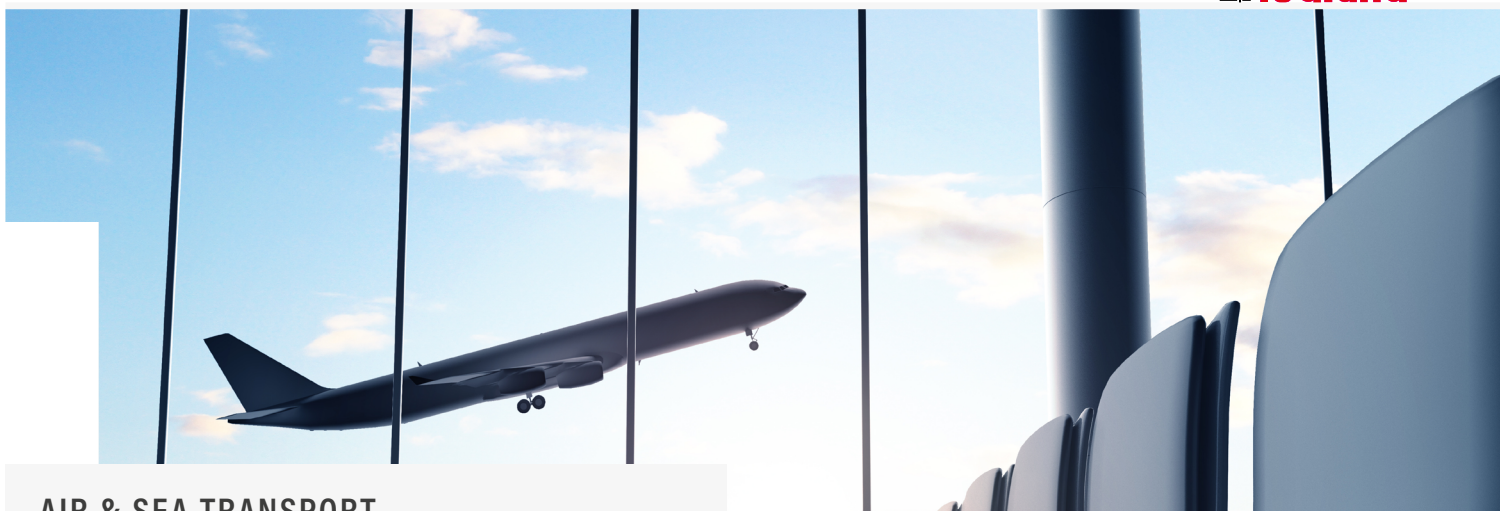


The pallets supplied by Legrand allow merchandises to be unloaded from the rear or side of the truck.

Container unloading

For unloading large enclosures packed in wooden cases, it is recommended to use a forklift.





AIR & SEA TRANSPORT

Handling of enclosures



For air transport, refer to the IATA standard.
For sea transport, refer to the SEI4C standard.

Large assembled enclosures are shipped in large wooden protective cases. Consequently, lifting handling is not possible until arrival at the final delivery point. It is recommended to handle using a forklift and the pallet supporting the cabinet.



For handling enclosures, refer to

► [page 8](#)

Container loading



In the case of sea transport: before loading, check that the container is watertight, undamaged/not pierced, and that the door is sealed under proper conditions.



For product positioning, refer to the procedure on ► [page 4](#)



XL³ HP LOGISTICS BEST PRACTICES GUIDE

INSTALLER



RECEPTION

Checks

Upon receiving any Legrand product, verify:


- the integrity of the material;
- any possible transport damage;

The protections implemented by the panel builder should be in the same condition as when leaving the factory.

When receiving equipped enclosures, perform the following main operations upon reception:

- identify the enclosure identification numbers;
- check the arrangement of devices complies with the project;
- verify the attached documentation.

Any irregularity must be reported to the panel builder by referencing the identification number shown on the enclosure's nameplate.

 All inspection or verification of delivered material must be carried out within the time limits set by the applicable sales conditions. In case of irregularity, contact your Legrand representative.

IN CASE OF ISSUES

Determine the extent, cause, and origin, then immediately record the observed damage and visible reservations on the delivery note, and formally notify the relevant forwarder with acknowledgment of receipt.

STORAGE



For storage of enclosures and other components of the XL³ HP range, refer to ► [page 13](#)





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