FIMER

Solar Inverter
PVS-175-TL “A.2 Version”

Quick Installation Guide

In addition to what is explained in this quick installation guide, the safety and installation information provided in the product manual must be read and followed. The technical documentation for the product is available at the website.
The device must be used in the manner described in the manual. If this is not the case the safety devices guaranteed by the inverter might be ineffective.

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⚠ **ATTENTION – IMPORTANT SAFETY INSTRUCTIONS**
This document contains important safety instructions that must be followed during the installation and maintenance of the equipment.

⚠ **ATTENTION – SAVE THESE INSTRUCTIONS**
Keep this document in a safe place near the inverter for easy access during installation, operation and maintenance.

⚠ **ATTENTION –** The installer must read this document in its entirety before installing or commissioning this equipment. In addition to what is explained below, the safety and installation information provided in the product manual must be read and followed. For more detailed information regarding proper installation and use of this product, refer to the product manual located at www.fimer.com.

⚠ **ATTENTION –** The product must be used in the manner described in the document. If this is not the case the safety devices guaranteed by the inverter might be ineffective.

⚠ **ATTENTION –** All pictures and illustrations shown in this document are indicatives and must be intended as support for installation instruction only. Actual product may vary due to product enhancement. Specifications subject to change without notice. The latest version of this document is available on the FIMER website.

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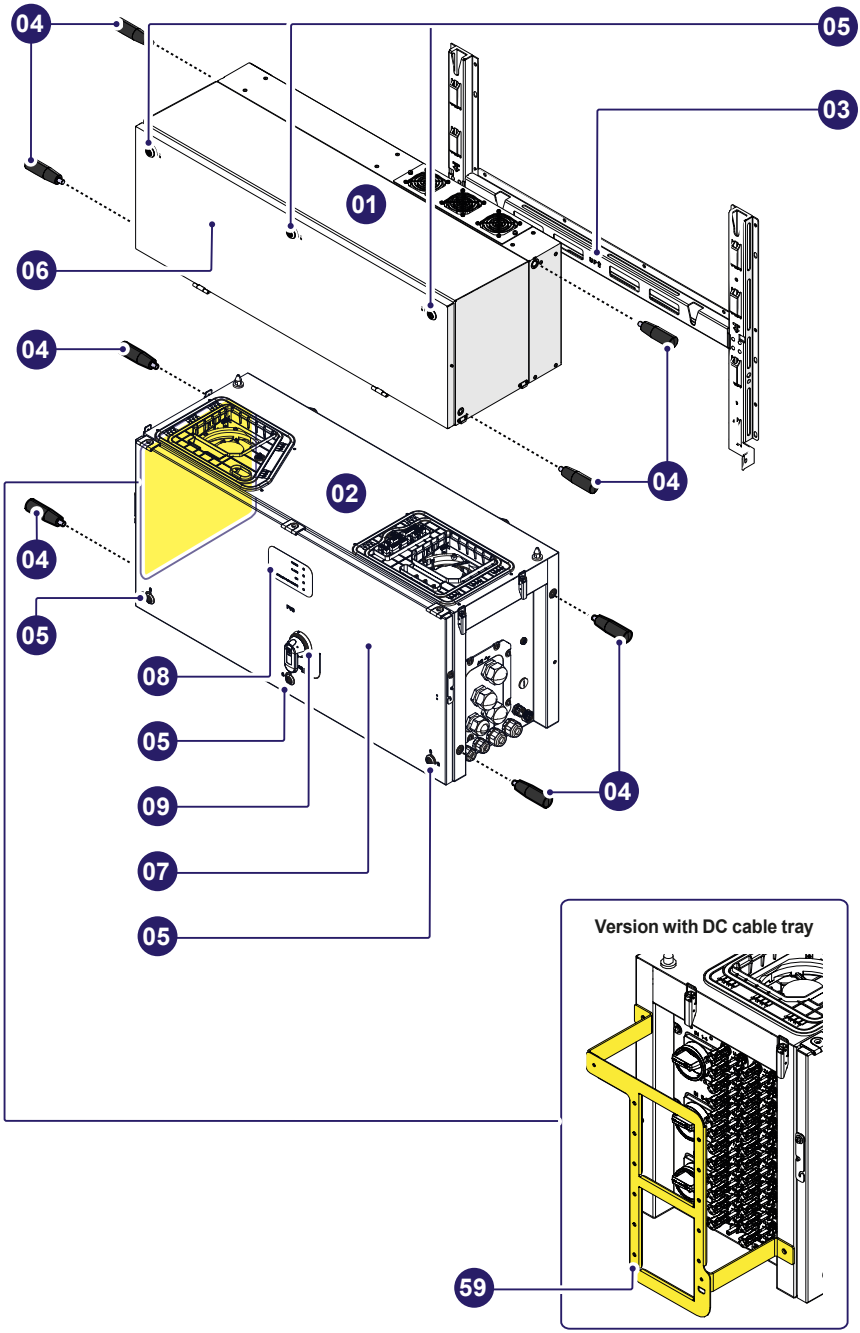
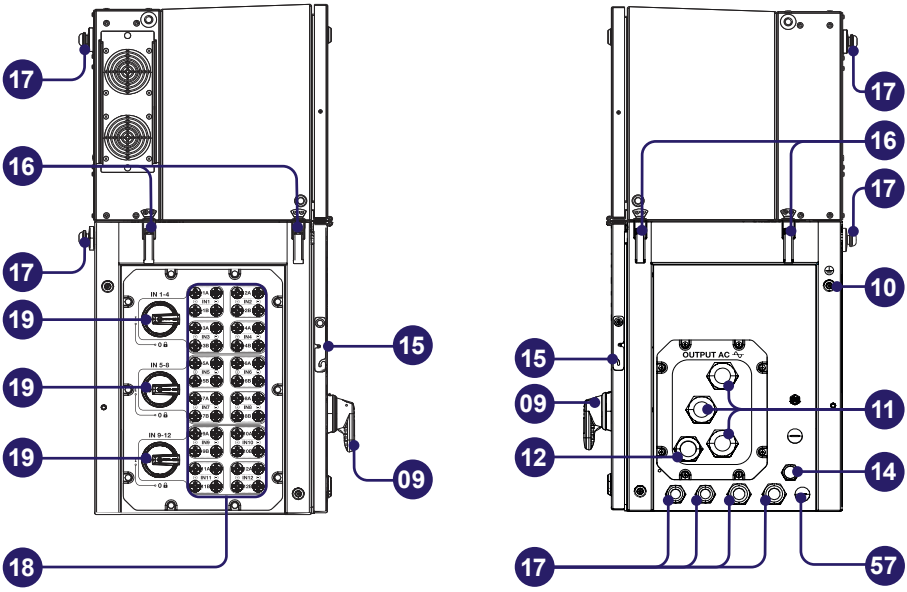
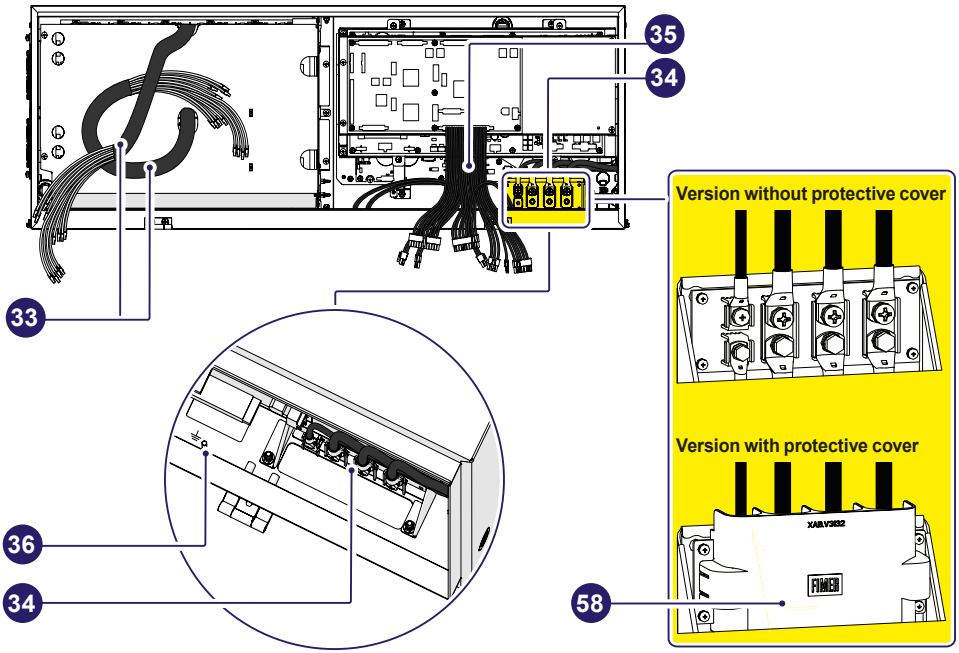
1.1 Inverter external view



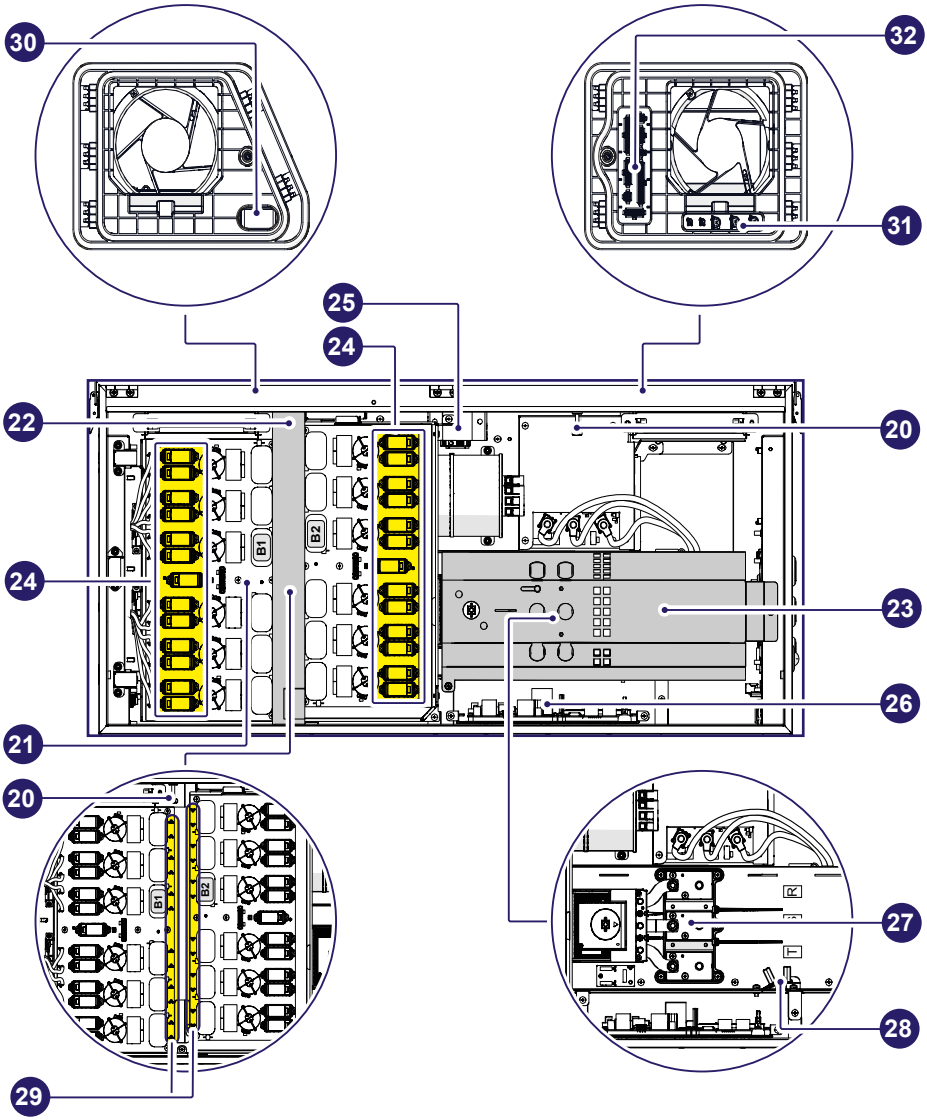
1.2 PVS-175-TL - External sides view



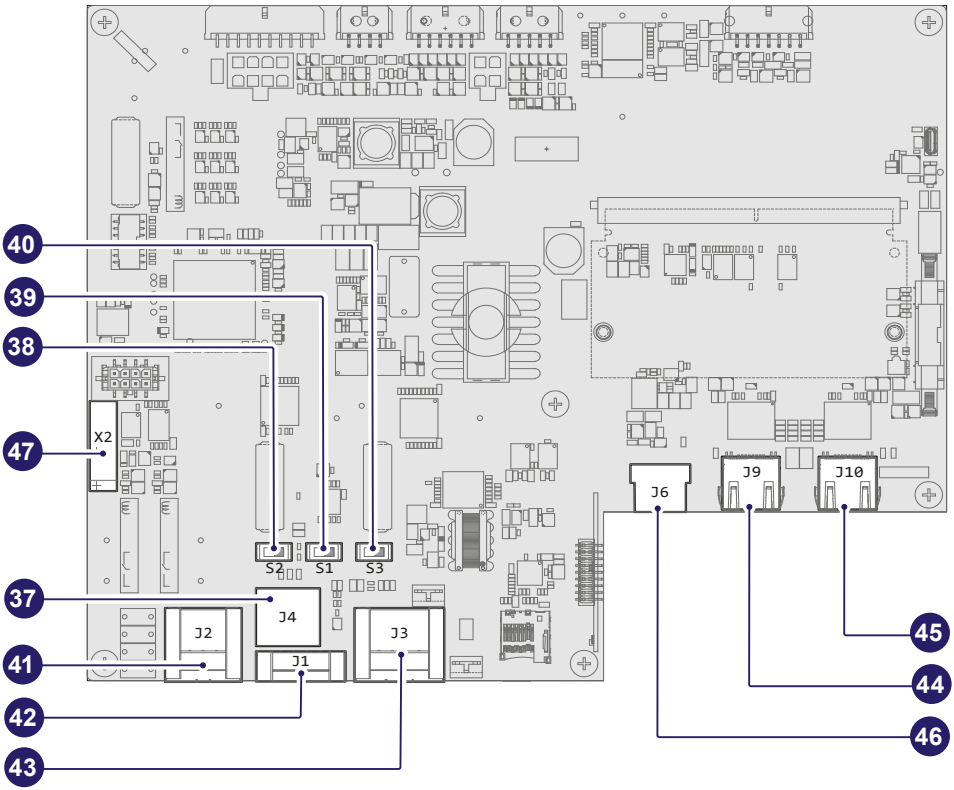
1.3 PVS-175-TL - Power module Internal view



1.4 PVS-175-TL - Wiring box Internal view



1.5 Communication board



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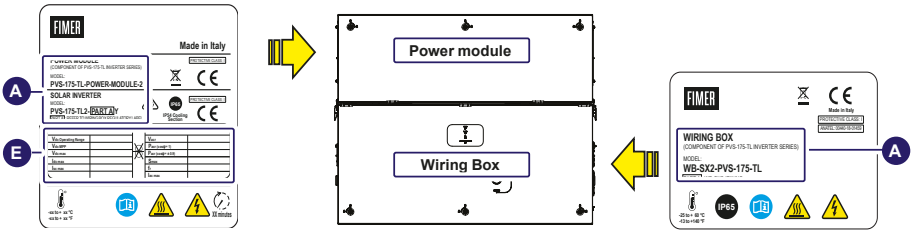
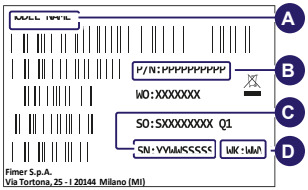
2. Labels and Symbols

The labels on the inverter and on wiring box have the Agency marking, main technical data and identification of the equipment and manufacturer.

NOTE – The labels shown below have to be intended as example only.

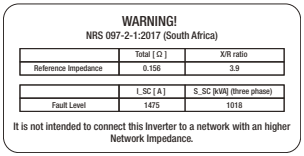
FORBIDDEN – The labels affixed to the equipment must NOT be removed, damaged, stained, hidden, etc., for any reason whatsoever.





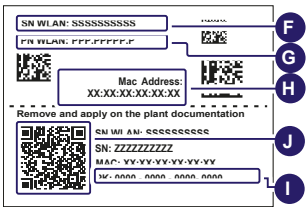
A. Inverter/wiring box model
B. Inverter/wiring box Part Number
C. Inverter/wiring box Serial Number
D. Week/Year of manufacture
E. Main technical data

NOTE – An additional PN and SN label of the full system (power module + wiring box) is applied on the external packaging. This label should be stored in plant documentation for reference.



ATTENTION – For connection to the network in South Africa. According to NRS097-2-1 requirements, at the end of installation it is mandatory to apply the label at the left (supplied with the inverter) near the power module regulatory label.

Communication Identification label:
The Communication Identification label (applied on the wiring box) is divided in two separate parts by a dashed line; take the bottom part and apply it on the plant documentation. (FIMER recommend to create a plant map and apply the Communication Identification label on it).



F. **WLAN embedded board Serial Number**
G. **WLAN embedded board Part Number**
H. **MAC address:**
- To be used to obtain the SSID of the wireless access point created by the inverter: ABB-XX-XX-XX-XX-XX-XX (where “X” is a hex digit of the MAC address).
- To be used to obtain the “Host Name”: http://ABB-XX-XX-XX-XX-XX-XX.local (where “X” is a hex digit of the MAC address).

I. **Product Key:**
To be used as wireless access point password, or to be used to access to the Web UI as username and password in case of lost credentials, and to commission inverter using FIMER Installer for Solar Inverters.

J. **QR Code:**
To be used to commission inverter using FIMER Installer for Solar Inverters for claiming process.

In the manual and/or in some cases on the equipment, the danger or hazard zones are indicated with signs, labels, symbols or icons.	
	Always refer to instruction manual
	ATTENTION- Important safety information
	WARNING - Hazardous voltage
	Hot surfaces
	Risk of electric shock.The discharge time (quantified in the figure by the number XX) of the stored energy after de-energizing of the Inverter from both DC side and AC side.
	Positive pole and negative pole of the input voltage (DC)
	Direct and alternating currents, respectively
	Temperature range
	Always use safety clothing and/or personal safety devices
	Without isolation transformer
	Point of connection for grounding protection
	Protection rating of equipment

NOTE – The choice of the inverter model must be made by a qualified technician who knows about the installation conditions, the devices that will be installed outside the inverter and possible integration with an existing system.

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3. Models and range of equipment

NOTE – The choice of the inverter model must be made by a qualified technician who knows about the installation conditions, the devices that will be installed outside the inverter and possible integration with an existing system.

3.1 Bracket model

Model Number	Description
PVS-175-TL-BRACKET	Bracket allowing both vertical and horizontal installation.

3.2 Power Module models

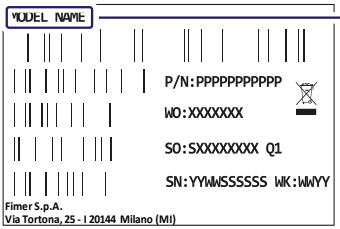
Model Number	Description
PVS-175-TL-POWER-MODULE-1	Inverter section / power module with precharge
PVS-175-TL-POWER-MODULE-2	Inverter section / power module without precharge

3.3 Wiring box models

Model Number	Description
WB-SX-PVS-175-TL	• Input with 24 quick fit connectors pairs (2 each MPPT) **(18)** • SPD Type 2 (DC & AC) **(24) (25)** • DC disconnect switches **(19)**
WB-SX2-PVS-175-TL	• Input with 24 quick fit connectors pairs (2 each MPPT) **(18)** • SPD Type 2 (DC & AC) **(24) (25)** • DC disconnect switches **(19)** • AC disconnect switch **(09)**

To identify the presence of below mentioned Kit:
- Arc Fault circuit interrupter
- Anti-PID

Refer to the identification labels present on the Power Module and Wiring Box.



WB-SX2_PVS-175-TL;A2;24IN;AFCI

MODEL NAME reports the model number and some additional information

Verify the prensence of the correspondent Acronym in the complete string to identify if the specific kit is pre-installed in Power Module and/or in the wiring Box according to the below table:

KIT	Acronym	
	Wiring Box	Power Module
Arc Fault	AFCI	AFCI
Anti-PID	Anti-PID	

4. Lifting and transport

4.1 Transport and handling

Transportation of the equipment, especially by road, must be carried out using appropriate vehicles and methods to protect the components (particularly electronic components) from violent shocks, humidity, vibration, etc.

4.2 Unpacking and checking

The components of the packaging must be disposed in accordance with the regulations in force in the country of installation.
When you open the package, check that the equipment is undamaged and make sure all the components are present. If you find any defects or damage, stop unpacking and consult the carrier, and also promptly inform the Customer Service.

Equipment weight

Device	Weight (kg/lb)	Lifting points	Holes for handles (optional) or Eyebolts UNI2947 (not supplied)
Power module	76 kg	4	M8. Kit of handles **(04)** and eyebolts (to be ordered)
Wiring box	~ 77 kg	4	M8. Kit of handles **(04)** and eyebolts (to be ordered)

4.3 Lifting

⚠ **ATTENTION –** Risk of injury due to the heavy weight of the equipment!

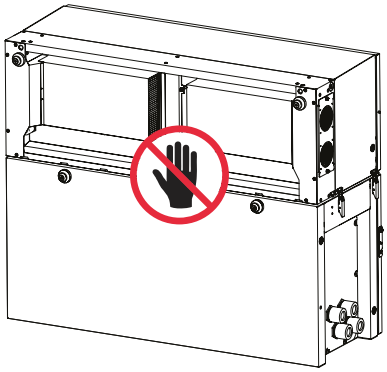
FIMER usually stores and protects individual components by suitable means to make their transport and subsequent handling easier. Nonetheless, as a rule, it is necessary to turn to the experience of specialised staff to take charge of loading and unloading components. The power module and the wiring box must be lifted using the 4 handles **(04)** or alternatively using suitable lifting equipment. The means used for lifting must be suitable to bear the weight of the equipment.

⚠ **ATTENTION –** In case of manual lifting the number of required operators necessary to lift the equipment must be in accordance to local regulations relating lifting limits per operator.

The handles **(04)** must be mounted into the designated holes located on the enclosures; If lifting with ropes, M8 eyebolts must be mounted in the same holes.

⚠ **ATTENTION –** Handling and installation operations shall be performed only by using the special tools and accessories provided with “PVS-175 Installation Kit” that have to be ordered separately. The use of these equipment are mandatory to safely install the inverter. Refer to “Kit of recommended spare parts” chapter content in the user manual for further information.

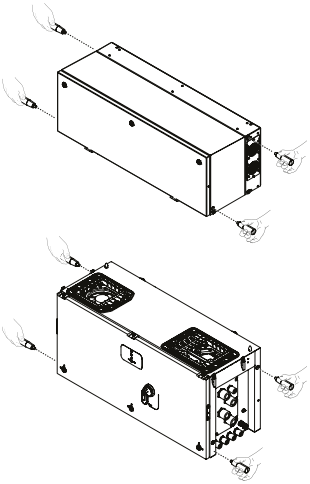
⚠ **ATTENTION –** DO NOT grab the equipment from the rear flange! Risk of injury due to cutting surfaces and risk of equipment damange. Always use proper lifting equipment!



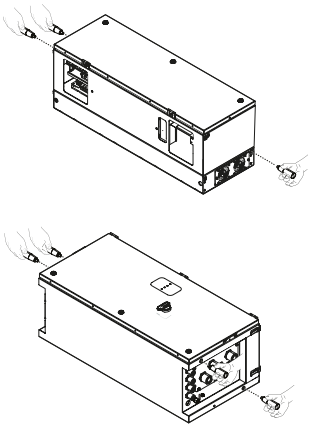
It is required to use one of the following lifting methods to move the equipment during installation or maintenance phases.

⚠ **ATTENTION –** Pay attention to completely tight the thread of the handles or eye-bolts.

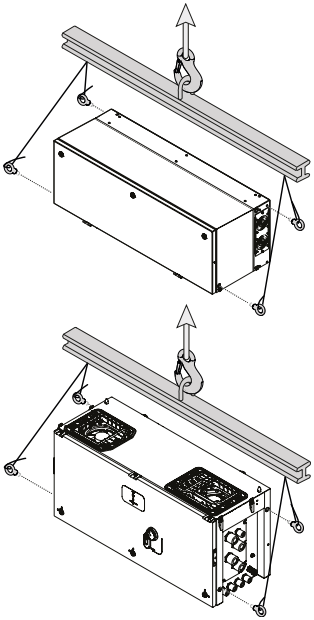
Vertical lifting (handles)



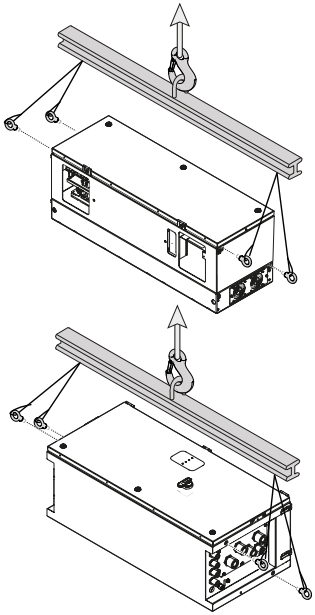
Horizontal lifting (handles)



Vertical lifting (eyebolts and lifting balancer)

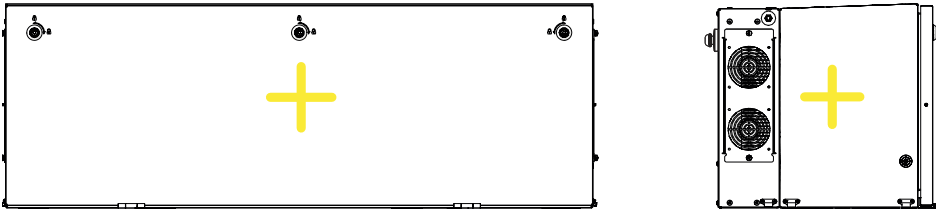


Horizontal lifting (eyebolts and lifting balancer)

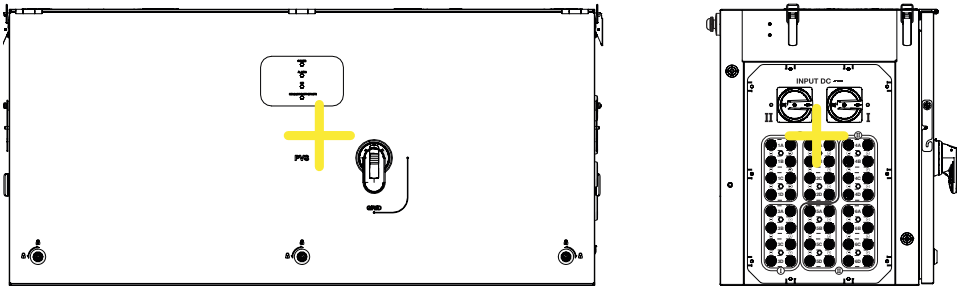


⚠ **ATTENTION –** Always consider the center of gravity of the enclosures while lifting.

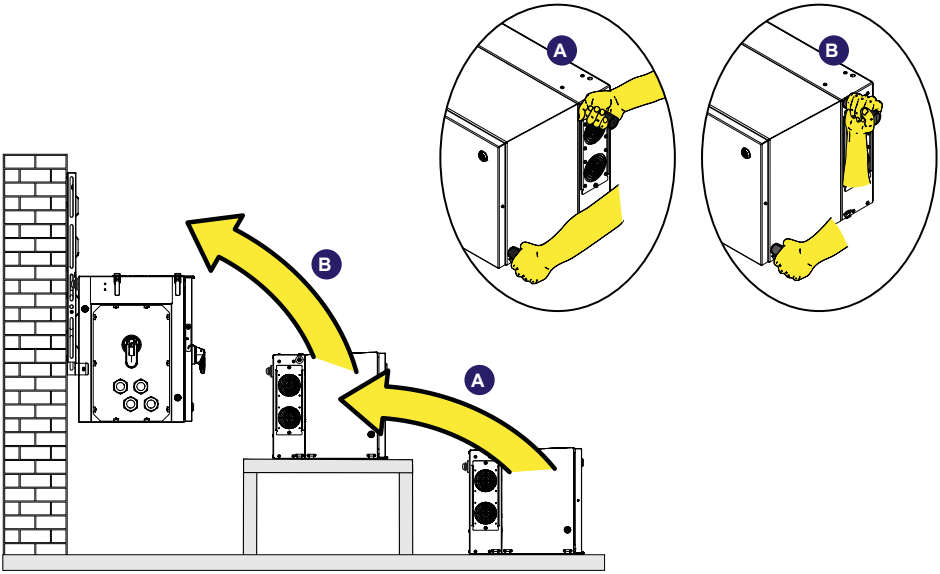
Center of gravity (power module)



Center of gravity (wiring box)



⚠ **ATTENTION –** In case of manual lifting it's suggested to use a support plan (e.g. a table) to place the equipment during the lifiting operation, to allow the change of hands position.



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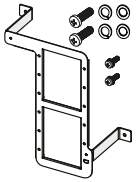
5. List of supplied components

Available components for wiring box		Qty
	Connector for connection of the configurable relay **(41)** and aux relay **(41)** (pre-installed on communication board **(26)**)	2
	Connector for connecting the Remote ON/OFF **(42)** signal and RS485 **(43)** (pre-installed on communication board **(26)**)	3
	Two-hole gasket (6mm Ø) for PG21 service cable glands **(13)** and cap	2 + 2
	Key tool for front covers quarter cam-lock **(05)** Different keys are available based on the cover quarter cam locks **(05)** installed on the inverter	1 + 1
	M8 bolt and washers for external protective earth connection point **(10)**	1 + 1 + 1
	Technical documentation	1

Available components for power module		Qty
	M6 bolts with washers for AC interface connection point (phases) **(34)**	3
	M5 bolts with washers for AC interface connection point (MID BULK) **(34)**	3
	M5 nut and washers for Interface protective earth point **(36)**	1 + 2
	Version with DC cable tray **(59)** only: DC cable tray **(59)** + 2xM5 assembly screws + 2xM8 installation screws + 2xM8 flat washers + 2xM8 cut washers	1 + 2 + 2 + 2 + 2
	Sheating for DC interface cables **(33)**	2

Available components for brackets		Qty
	Mounting Bracket	1
	M8 bolts with washers for mechanically securing the half-brackets	2
	M6 screws for mechanically securing the wiring box to the bracket	2

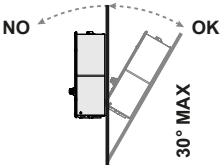
6. Choice of installation location

6.1 General recommendation on installation position

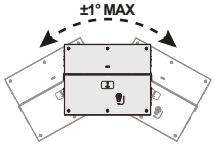
- See characteristics and technical data paragraph to check the required environmental conditions (protection rating, temperature, humidity, altitude, etc.).
- The installation location shall be easily accessible.
- Installation of the unit in a location exposed to direct sunlight NOT acceptable. (Add awning in case of direct sunlight installation).
- Final installation of the device must not compromise access to any disconnection devices that may be located externally.
- Do not install in small closed rooms where air cannot circulate freely.
- Always ensure that the flow of air around the inverter is not blocked so as to prevent overheating.
- Do not install in locations where flammable substances or gases may be present.
- Do not install on wooden walls or other flammable supports.
- Install on a wall or strong structure suitable to bear the weight.
- Do not install in rooms where people live or where the prolonged presence of people or animals is expected, because of the high noise that the inverter produces during operation. The level of the sound emission is heavily influenced by where the appliance is installed (for example: the type of surface around the inverter, the general properties of the room, etc.) and the quality of the electricity supply.
- All installations over 6500' (2,000 meters) must be assessed by FIMER Technical Sales to determine the proper datasheet derating.
- If the Anti-PID board is installed, hazardous DC voltages are supplied to the photovoltaic array during the night.
- Inverters equipped with DC link Pre-charge board are not provided with full protection against shock hazard. Therefore inverters must be installed in a closed electrical operating area (behind the fences), with access limited to qualified personnell.

6.2 Tilting admittance

- The installation can be carried out with a maximum inclination as indicated in the figures beside.



Vertical Tilting

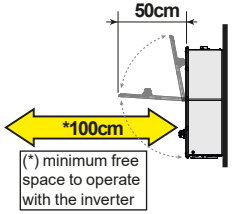


Side Tilting

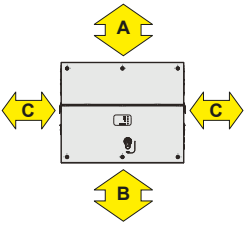
⚠ **ATTENTION –** In case of horizontal installation in outdoor environment consider an installation with a minimum tilt of 3° to avoid any water stagnation.

6.3 Distances

- Hardware and software maintenance on device entails removing the front cover. Check that the correct installation safety distances are observed in order to allow routine check and maintenance operations.
- Provide sufficient working space in front of the inverter that allows to open the front covers **(06)(07)** and to make connections on the wiring box.
- Install at a height which takes into consideration the weight of the appliance and in a position which is suitable for servicing, unless suitable means are provided to carry out the operation.
- If possible, install at eye-level so that the status LEDS **(08)** can be seen easily.



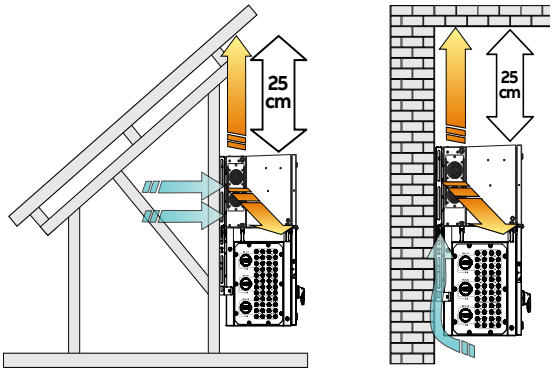
- Respect the minimum distances from objects around the inverter that could prevent the inverter installation and restrict or block the air flow.



⚠ **ATTENTION –** Do not install any object (e.g. AC or DC cables) that could be damaged by overheating from outgoing hot air flow from side fan sections (ΔT= +15 °C compared to ambient temperature). In case of this kind of installation needs, please evaluate the installation of a proper air deflector. Always respect the minimum distances required.

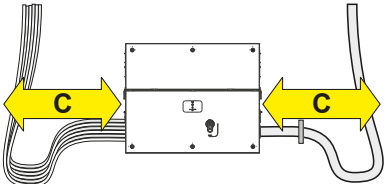
The minimum clearance distances depends from multiple factor:

- **Ventilation flow on the top side of the inverter.** The upper **(A)** minimum required free space must be **25 cm**.



- **Possible flooding or damage during grass cutting.** It changes the bottom **(B)** required free space: If the inverter is installed in a place where there are risks of flooding or there is need to cut the grass growing underneath the unit, the bottom **(B)** minimum recommended free space is 50 cm; otherwise in case the inverter is installed in a place where there's no risks of flooding or grass cutting evenience, the bottom **(B)** minimum required free space can be reduced to 15 cm.

- **Cables bending radius.** Sides **(C)** minimum required free space may depends from cable type (cable dimension, bending radius, etc..): this evaluation must be done by the installer during the plant design phase. In any case minimum required free space for proper ventilation of the unit (near side fans) cannot be under **15 cm on the right side and 30cm on the left side.**

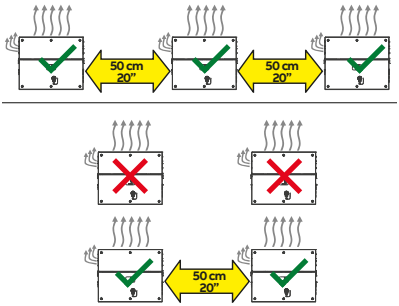


⚠ **ATTENTION –** In case of manual installation,using handles **(04)**, consider a free side space to lift the inverter of 60 cm minimum (both sides).

⚠ **ATTENTION –** In case of installation with lifting equipments (eyebolts and ropes) the side distances **(C)** could be reduced at the minimum required but a subsequent manual lifting it will no longer be possible: in this case the lifting equipments must remain available on the field for any subsequent operation.

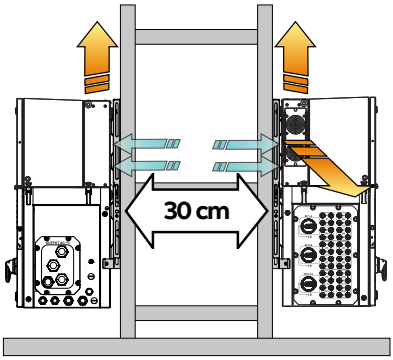
6.4 Installation of multiple units

- When installing multiple units position the inverters side by side paying attention to keep the minimum clearance distances (measured from the outer edge of the inverter) for each inverter specified in the following graph.



⚠ **ATTENTION –** In case of manual installation,using handles **(04)**, consider a free side space to lift the inverter of 60 cm minimum (both sides).

- The installation of two inverters positioned back to back is also permitted on a structure which must be composed of a 2 or 3 frame supports (refer to “Mounting with a support bracket” chapter). In this case the minimum recommended distance between the units in order to avoid the use of an air deflector is 30cm.



NOTE – Please refer to the warranty terms and conditions to evaluate any possible warranty exclusions due to improper installation.

6.5 Wireless signal environmental checks

The inverter can be commissioned and monitored using the wireless communication channel. The WLAN board of the inverter uses radio waves to transmit and receive data, it is therefore important to find a new position for the router considering the different materials which the radio signal will have to pass through:

Material	Relative signal reduction
Open field	0% (strength of approximately 40 meters)
Wood / Glass	From 0 to 10%
Stone / Plywood	From 10 to 40%
Reinforced concrete	From 60 to 90%
Metal	Up to 100 %

ATTENTION – Final installation of the inverter must not compromise access to any externally located disconnection devices.

READ THE MANUAL – Please refer to the warranty terms and conditions to evaluate any possible warranty exclusions due to improper installation.

7. Mounting Instructions

⚠ **ATTENTION –** The installation operations must be carried out by qualified personnel and it is mandatory to adhere to the indications provided in this manual, the diagrams and the enclosed documentation, paying attention to follow the installation sequence exactly as described in this manual.

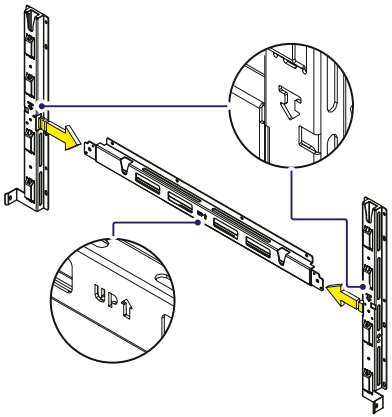
⚠ **ATTENTION –** Staff authorized to carry out the installation must be specialized and experienced in PV plant installation and specifically PV inverters installation. FIMER can provide training on the product to provide suitable knowledge for the installation.

⚠ **ATTENTION –** The installation must be performed by qualified installers and/or licensed electricians in accordance with the existing regulations in the country of installation.

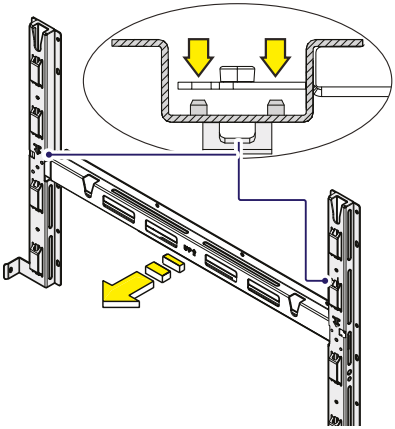
⚠ **ATTENTION –** The installation must be carried out with the equipment disconnected from any voltage sources. Refer to “Inverter total de-energization and safe access” chapter on the product manual to know all the necessary step to safely operate on the inverter.

7.1 Bracket assembly

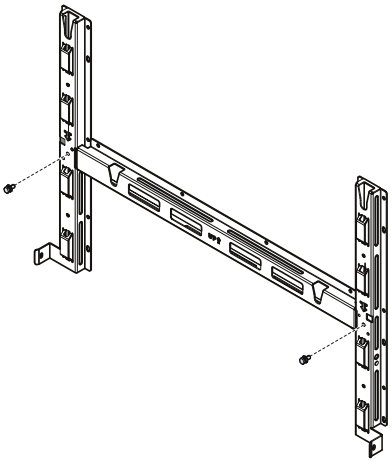
- Assembly the two side bracket pieces together with the central bracket, by sliding it as shown in the picture and paying attention to the orientation of the pieces (refer to arrow and “UP” markings on the brackets): side brackets arrow have to be turned downwards, central bracket have to be turned upwards.



Slide the central bracket in order to match the two holes with the centerning pins of the side brackets.



- Use the two M8 screws with flat and spring washers (supplied) to fix the pieces of the bracket together.



- Position the bracket **(03)** perfectly level on the support and use it as drilling template (consider the overall dimensions of the power module and the wiring box).

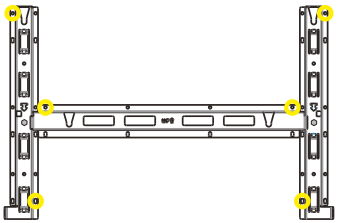
- It is the installer’s responsibility to choose an appropriate number and distribution of attachment points. The choice must be based on the type of support (wall, frame or other support), the type of anchors to be used, and their ability to support 4 times the inverter’s weight (4x125Kg/276lbs=500Kg/1104lbs for all models).

- Depending on the type of anchor chosen, drill the required holes to mount the bracket **(03)**. The pictures shown the recommended minimum fixing point depending to the type of support.

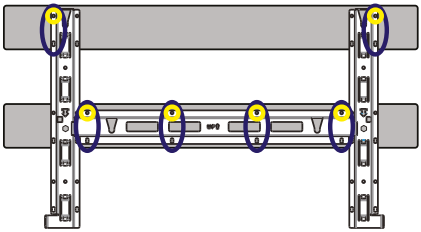
-

• Attach the bracket **(03)** to the support with at least 6 attachment screws (shown in **YELLOW**) or at least 6 frame fixing bracket for frame mounting (shown in **BLUE**).

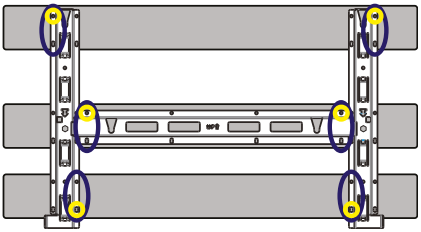
Wall mounting minimum fixing points



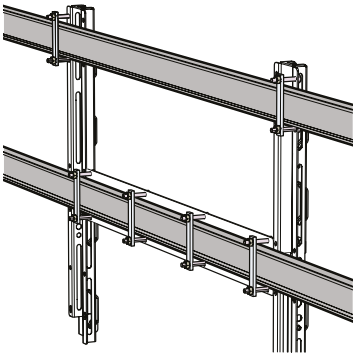
Frame mounting (2 supports) minimum fixing points



Frame mounting (3 supports) minimum fixing points



• In case of use of “frame fixing brackets” (see picture below as example) it will be possible to fix the bracket to the frame structure without drill any additional holes.



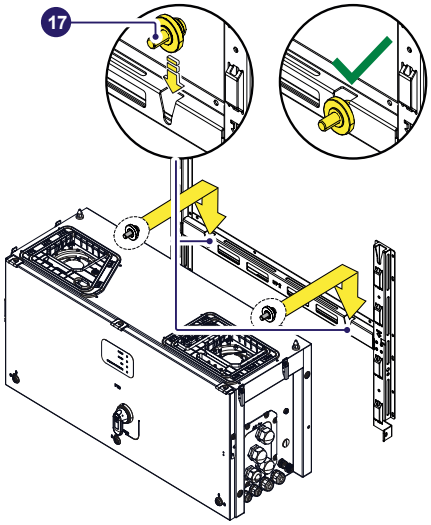
• Fix the bracket **(03)** to the support.

7.2 Assembly the Inverter to the bracket

⚠ **ATTENTION –** Handling and installation operations shall be performed only by using the special tools and accessories provided with “PVS-175 Installation Kit” that have to be ordered separately. The use of these equipment are mandatory to safely install the inverter. Refer to “Kit of recommended spare parts” chapter content in the user manual for further information.

• Lift the wiring box up to the bracket **(03)** (using the handles **(04)** or M8 eyebolts) and insert the heads of the two rear attachment pins **(17)** (placed on the rear part of the wiring box) into the two slots on the bracket **(03)**. Check that the pins **(17)** has been correctly inserted in the slots as shown in the picture before releasing the wiring box.

⚠ **ATTENTION –** Risk of injury due to the heavy weight of the equipment. Always consider the center of gravity of the enclosures while lifting.

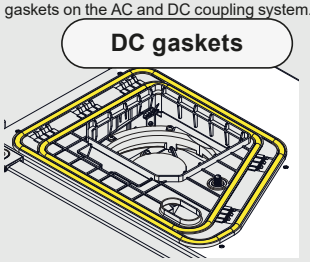


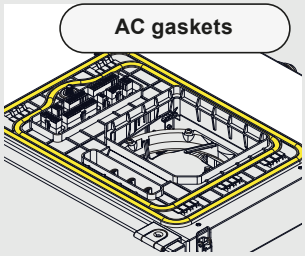
• Remove the handles **(04)** or eyebolts.

- Lift the power module up to the bracket **(03)** and over the wiring box (using the handles **(04)** or M8 eyebolts) and insert the heads of two rear attachment pins **(17)** (placed on the rear part of the power module) into the slots on the bracket **(03)**.

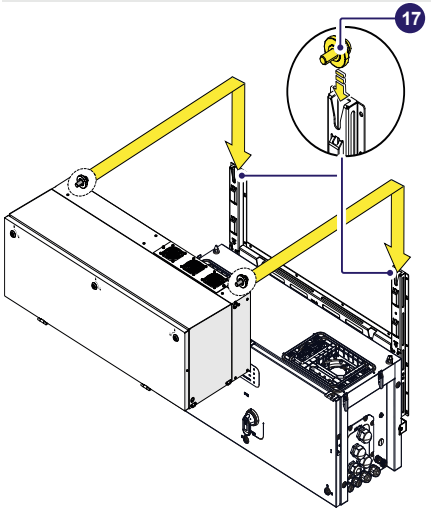
⚠ **ATTENTION –** Risk of injury due to the heavy weight of the equipment. Always consider the center of gravity of the enclosures while lifting.

⚠ **ATTENTION –** During this installation phase pay special attention to not damage the gaskets on the AC and DC coupling system.

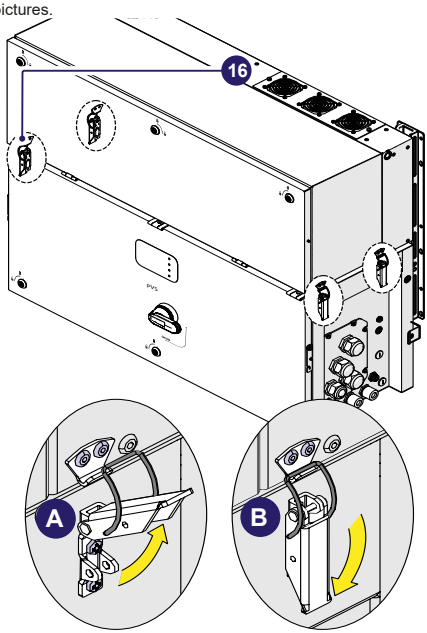




Any damage on the gaskets could cause serious fault to the unit and will lead to the invalidation of the warranty.



- Fasten all of the four side closures (latches) **(16)** as shown in the pictures.



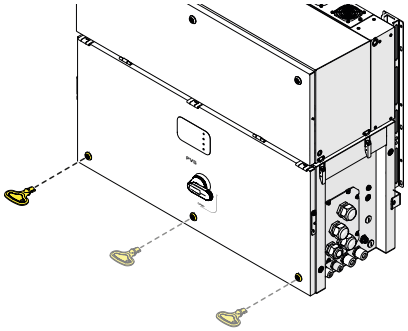
⚠ **ATTENTION –** Risk of injury due to the high strength of latches **(16)** Use the proper protection gloves.

7.3 Opening the Wiring box cover

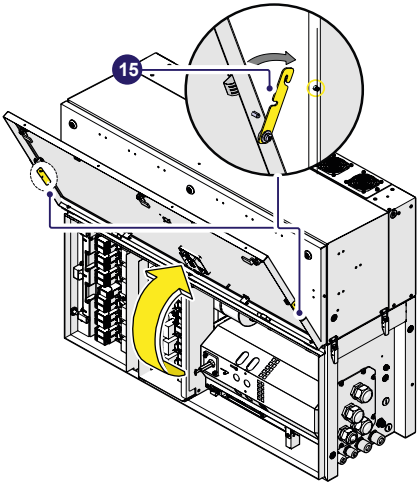
- Using the key tool provided in the kit of supplied components (inside the wiring box package), open the three cover quarter cam locks **(05)** following the proper ways as shown in the related silkscreens on the Wiring box cover **(07)**.

⚠ **ATTENTION –** Use the right key (supplied) for the cover quarter cam locks **(05)**.

⚠ **ATTENTION –** (only for -SX2 version) Set the wiring box AC disconnect switch **(09)** to OFF position; otherwise it will not be possible to open the Wiring box cover **(07)**.



- Open the Wiring box cover **(07)** and use the cover support brackets **(15)** to lock the cover **(07)** in open position.

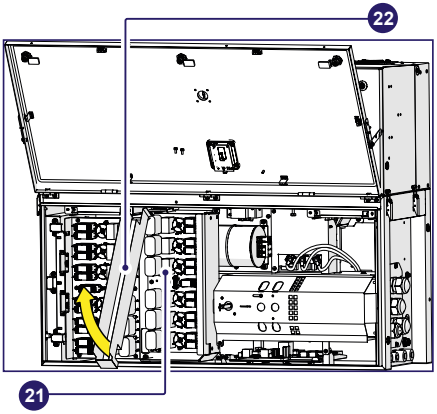


⚠ **ATTENTION –** Pay attention to properly secure the cover support brackets **(15)** in order to avoid falling of the cover!

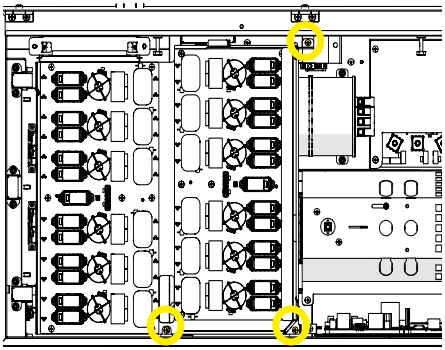
7.4 Final fastening operations

In order to reach the two junction screws **(20)** and complete the power module and wiring box mating, the DC surge arrester plate **(21)** has to be opened as follow:

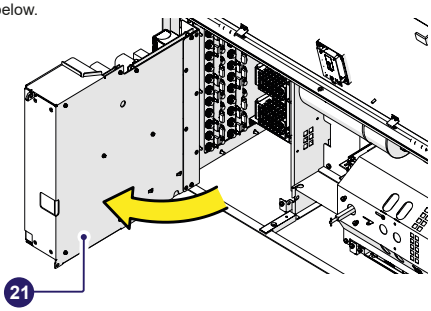
- Remove the DC cable duct **(22)** from the DC surge arrester plate **(21)**.



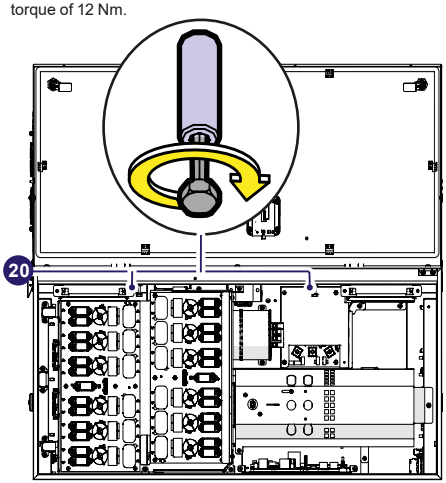
- Remove the three M5 screws from the DC surge arrester plate **(21)**.



- Rotate the DC surge arrester plate **(21)** as shown in the picture below.

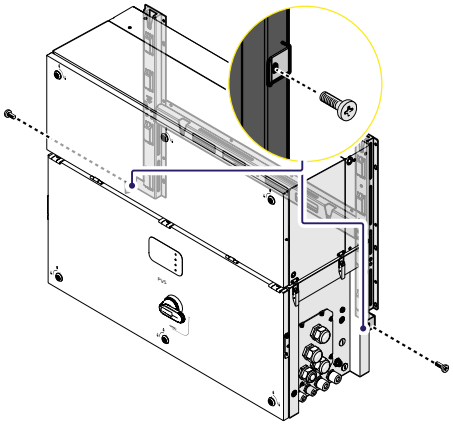


- Tighten the two hexagonal junction screws **(20)** with a tightening torque of 12 Nm.



- Close the DC surge arrester plate **(21)** using the three M5 screws previously removed with a tightening torque of 3 Nm.

• Insert the DC cable duct **(22)** previously removed to the DC surge arrester plate **(21)**.Tighten the two side screws (supplied) with a tightening torque of 5 Nm, to avoid the tilting of the bottom part of the inverter.

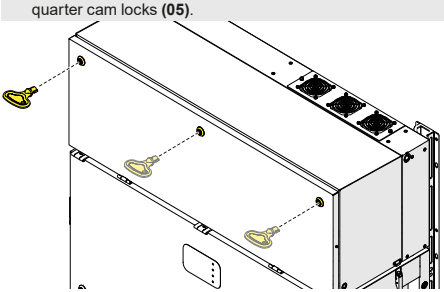


• Close the Wiring box cover **(07)**.

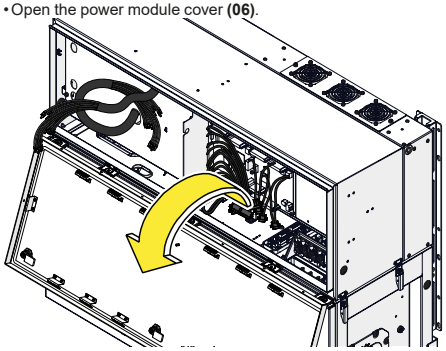
7.5 Opening the power module box cover

• Using the key tool provided in the kit of supplied components (inside the wiring box package), open the three cover quarter cam locks **(05)** following the proper ways as shown in the related silkscreens on the cover **(06)**.

⚠ **ATTENTION –** Use the right key (supplied) for the cover quarter cam locks **(05)**.

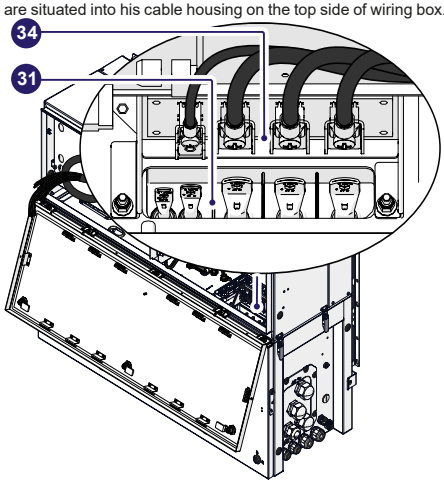


• Open the power module cover **(06)**.

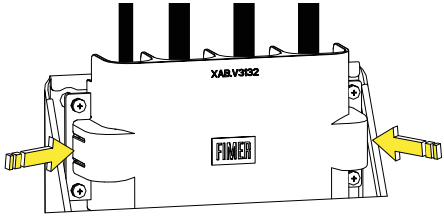


7.6 Connection of the AC interface cables

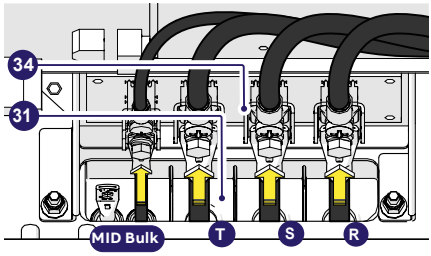
The AC interface cable lugs **(31)** (RST phases, PE and MID BULK) are situated into his cable housing on the top side of wiring box.



• Remove the AC interface connections protective cover **(58)** (if present) by pressing the 2 sides latch.



• Connect the R, S and T phases and MID BULK cable lugs **(31)** to the respective AC interface connection point **(34)** situated on the internal bottom side of power module, paying attention to the correspondence of the phases with the labels, using the M6 bolts (for phases) and the M5 bolt (for MID BULK) supplied in the power module installation kit.

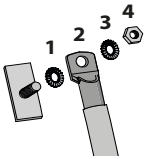


⚠ **ATTENTION –** In case of a wrong phase sequence the inverter will not connect to the grid and it will provide an error state.

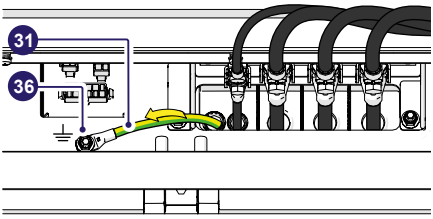
⚠ **ATTENTION –** The cable lugs must be installed with a tightening torque of 5 Nm for phases (M6 bolts) and 3 Nm for MID-BULK (M5 bolts).

• Connect the protective earth cable lug **(31)** to the protection earth

connection point **(36)** situated on the internal bottom side of power module, using the washers and bolt supplied in the power module installation kit, as shown in the following picture:



1 = tooth washer
2 = cable lug
3 = tooth washer
4 = M5 nut



⚠ **ATTENTION –** The cable lug must be installed with a tightening torque of 3 Nm.

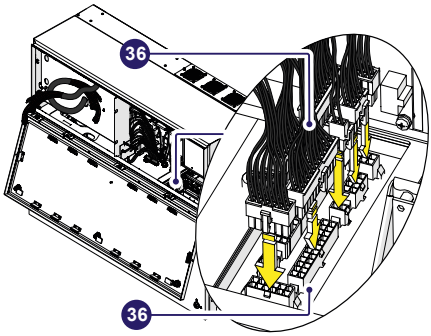
⚠ **ATTENTION –** Any failure of the inverter when it is not connected to earth through the appropriate connection point is not covered by the warranty.

- Re-install the AC interface connections protective cover **(58)** (if present).

7.7 Connection of the interface signal connectors

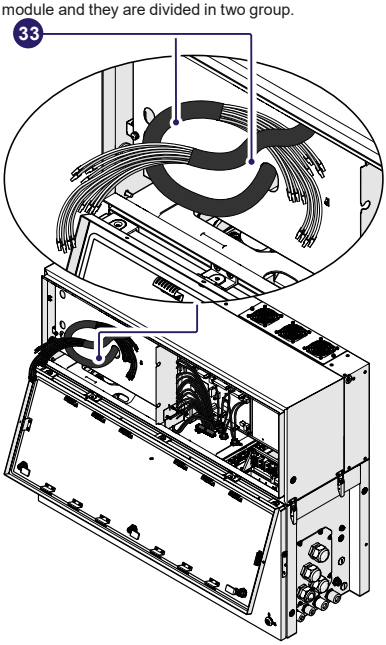
The interface signal connectors (male) **(35)** are situated into right side of Power module and they are composed by 8 connectors.

- Connect all the interface signal connectors (male) **(35)** with the related interface signal connectors (female) **(32)** located on the top side of wiring box (push the connector until you hear a locking “click”). All connectors have a different pin-out in order to avoid any connection error.

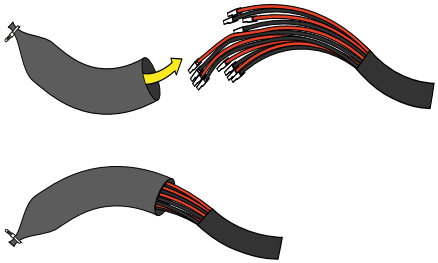


7.8 Connection of the DC interface cables

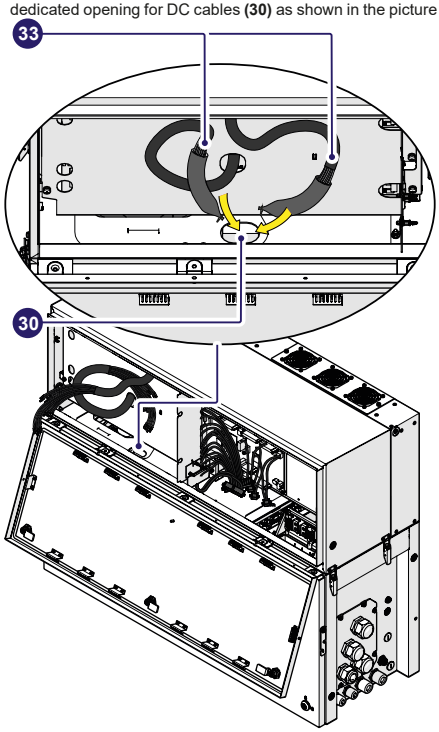
The DC interface cables **(33)** are situated into left side of Power module and they are divided in two group.



Wrap the DC interface cables **(33)** with the two cable sheathing supplied in the power module installation kit.

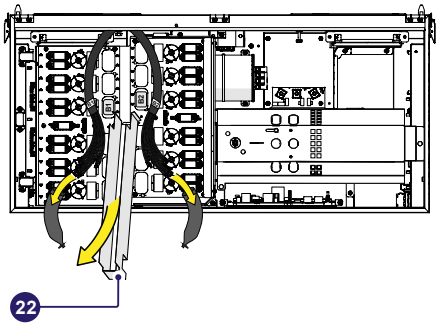


- Pass the DC interface cables **(33)** into the wiring box using the dedicated opening for DC cables **(30)** as shown in the picture

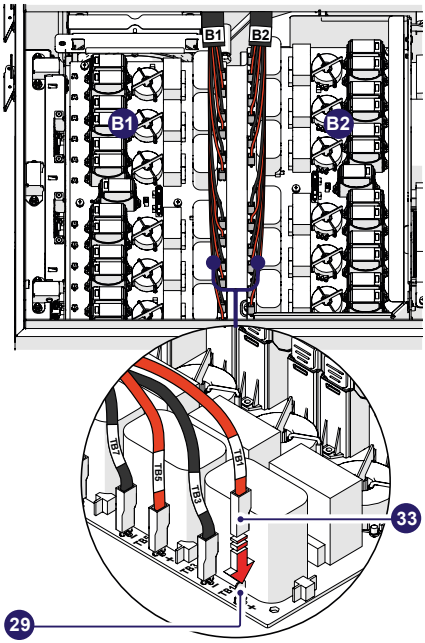


- Close the power module cover **(06)** and open the wiring box cover **(07)**.

- Remove the cable sheathing from the DC interface cables **(33)** and the DC cable duct **(22)** from the DC surge arrester plate **(21)**.



- Connect all DC interface cables **(33)** to the related DC interface faston connectors **(29)** located in the DC surge arrester plate **(21)**. The two cable group are marked with a identification label “B1” and “B2” that corresponds to the DSP board number label (“B1” and “B2”). Each single cable are marked with a label corresponding to related DC interface faston connectors **(29)** on the DSP boards (E.g. “TB1”, “TB3”...).



⚠ **WARNING –** Polarity inversion can cause serious damage. Check polarity before connecting each cable!

⚠ **WARNING –** Always check correspondance of cables and board faston connectors identification!

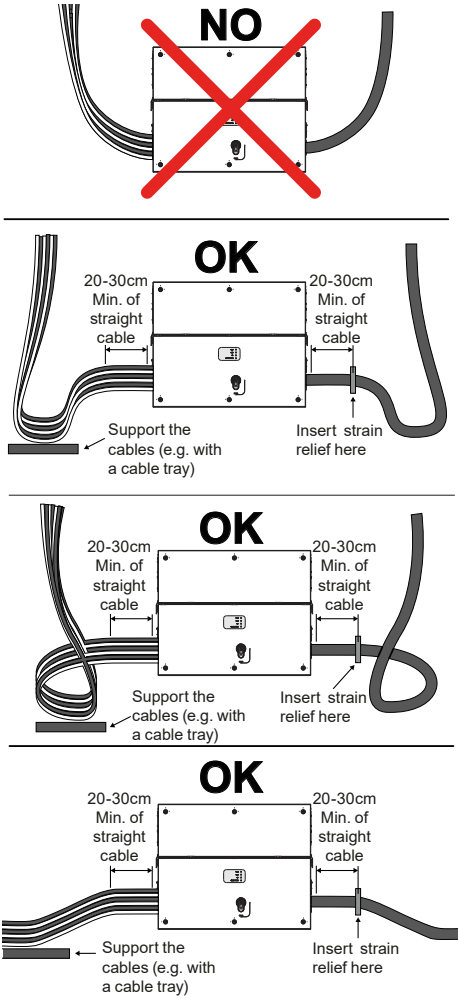
8. Routing the cable to the inverter

- The cable routing have to be done in order to avoid water dripping to the AC panel cable glands **(11)** **(12)**, DC input quick fit connectors **(18)** or to signal cable glands **(13)**.

Expecially when coming from the top, the cables must be routed in order to create a loop: in this way the water that flows on the cables will be drained.

The AC and DC conductors must be anchored or supported in order to prevent loading and mechanical stress on the cable glands and quick fit connectors causing potential damage on the AC and the DC plates.

The pictures below are showing some example of incorrect and proper cable routing.



⚠ **ATTENTION –** In case of the AC cable glands **(11)** was accidentally removed during the cable routing phase, it will needed to assure the correct tightness of the lock nut of the cable gland to the inverter chassis with a tightening torque of 8.0 Nm (for each cable gland).

9. Grid output connection (AC side)

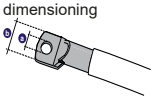
The inverter must be connected to a three-phase TN system with the center of the star connected to ground. To connect the inverter to the grid is necessary to use a three-wire connection (3 phases) without neutral cable. **In any case, the inverter's earth connection is mandatory.**

9.1 Characteristics and sizing of the protective grounding cable

FIMER inverters must be earthed via the connection points marked with the protective earth symbol ⏚ and using a cable with an appropriate conductor cross-section for the maximum ground fault current that the generating system might experience. According to IEC 62109-1:
If the external Protective earthing conductor cross-section area is S/2, where S is the cross-section of the phase conductor, no further calculation are needed to demonstrate that the cross-section is enough to sustain the fault current. Otherwise the protective earthing conductor cross-section shall be determined by calculation according to IEC 60364-5-54 or have to fulfill the requirement of local standard.

⚠ **ATTENTION –** Any failure of the inverter when it is not connected to earth through the appropriate connection point is not covered by the warranty.

The ground connection can be made through the Protective earth point (int.) **(28)**, Protective earth point (ext.) **(10)** or both (this is required by regulations in force in certain countries of installation). The sizing of the ground cable depend on the choice of the protective earth point (internal **(28)** or external **(10)**) where it will be connected:

	Protective earth point (int.) (28)	Protective earth point (ext.) (10)
Cable diameter range	18 - 25 mm	-
Max. conductor cross section	185 mm² copper 240 mm² aluminium	-
Cable lug dimensioning 	for M10 Stud a = 10.5 mm (min) b = 40 mm (max)	for M8 Bolt a = 8.4 mm (min) - 8.5 mm (max) b = all dimension accepted

9.2 Load protection breaker (AC disconnect switch) and differential protection downstream of the inverter

To protect the AC connection line of the inverter, an overcurrent protection device with the following features must be installed (these are the caracteristic of a load protection switch referred to a single inverter installation):

Load protection breaker		
Type	Automatic circuit breaker with thermal-magnetic protection	Fuses switch disconnector
Voltage/current rating	800 V / 150 A (*)	800 V / 200 A (*)
Magnetic protection characteristic	Magnetic curve B/C	gG, gS
Number of poles	3	3

(*): please consider thermal and other derating when selecting the current rating of the protection equipment for your application.

In case of installation of a residual current protection, the device shall meet the following characteristics in order to prevent nuisance tripping due to capacitive leakage current of photovoltaic modules:

Residual current protection device requirements	
Type	A / AC
Sensitivity	2.0 A

NOTE – For protection of the AC line, on the basis of the information above with regard to the differential protection

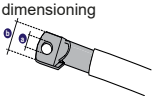
integrated in FIMER inverters, it is not necessary to install a type B ground fault switch.

9.3 Characteristics and sizing of the line cable

Depending of the type of the AC panel it's possible to use single conductors cables or a multipolar cable:

- Single-core configuration have 3xM40 cable glands **(11)** for the "R", "S", "T" phases and a M32 cable gland **(12)** for the grounding cable.
- Multi-core configuration (optional) have a M63 cable gland **(11)** for the "R", "S", "T" phases and a M32 cable gland **(12)** for the grounding cable.

The cross-section of the AC line conductor must be sized in order to prevent unwanted disconnections of the inverter from the grid due to high impedance of the line that connects the inverter to the power supply point.

	Single conductor cable	Multipolar cable
Cable diameter range	22 - 32 mm	37 - 53 mm
Min. conductor cross section	50 mm²	
Cable lug dimensioning 	for M10 Stud a = 10.5 mm (min) b = 40 mm (max)	
Conductor material	copper or aluminum	

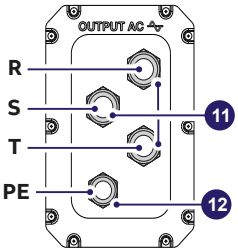
⚠ **ATTENTION –** The AC connection busbars **(27)** are in copper tin-plated; therefore if aluminum cables are used, the correct coupling with the copper bars must be guaranteed by using appropriate bi-metallic cable lug.

9.4 AC output cables connection

⚠ **WARNING –** Before carrying out any operation, check that any external AC switch downstream to the inverter (grid side) are in OFF position and check for voltage absence on the AC conductors!

Routing of the AC cables inside the inverter must be carried out from the right side of the inverter.
Depending of the version of the AC panel installed on the inverter it will be necessary to route the AC output and ground cables into different ways:

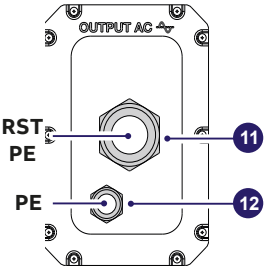
Single-core configuration (default) :
3xM40 cable glands **(11)** for the "R", "S", "T" phases and a M32 cable gland **(12)** for the grounding cable. In this configuration the AC output and ground cables must be inserted into the proper cable glands, trying to follow a logical order based on the position of the internal connections:



R = Phase R (indicated with a label near the AC connection busbar **(27)**)
S = Phase S (indicated with a label near the AC connection busbar **(27)**)
T = Phase T (indicated with a label near the AC connection busbar **(27)**)

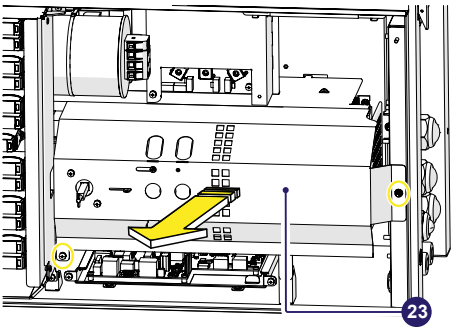
The ground connection can be made using the Protective earth point (int.) **(28)**, Protective earth point (ext.) **(10)** or both (this is required by regulations in force in certain countries of installation).
⏚ = Ground (indicated with the protective earth symbol ⏚ near the protection earth connection point (int.) **(28)** or protection earth connection point (ext.) **(10)**).

Multi-core configuration (optional):
one M63 cable gland **(11)** for the "R", "S", "T" phases and a M32 cable gland **(12)** for the grounding cable.
This version of the AC panel can be ordered separately. Refer to "Kit of recommended spare parts" chapter for further information.



Follow the procedure below to route all the cables:

- Open the wiring box front cover **(07)**.
- Remove the AC protective shield **(23)** by removing the M5 screw and the M5 nut.

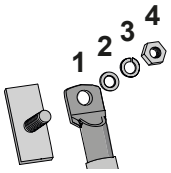


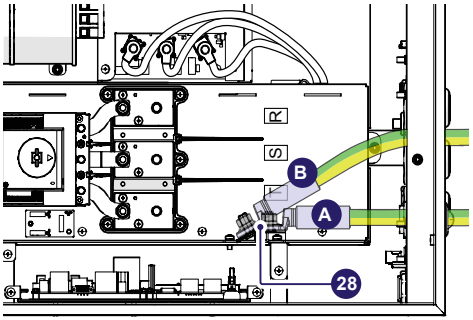
Depending on the ground connection method (internal **(28)** or external **(10)**) follow the procedures described below:

Internal ground connection

- Pass the protective earth cable through the proper cable gland **(12)** on the AC panel.
- Fix the protective earth cable lug to the protection earth connection point (int.) **(28)** using the washers and bolt pre-installed on the M10 stud, as shown in the following diagram:

1 = cable lug
2 = flat washer
3 = spring washer
4 = M10 nut





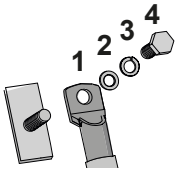
⚠ **ATTENTION –** Depending on the version of the AC panel installed on the inverter it will be necessary to use a different protection earth connection point in order to avoid mechanical stress due to cable bending: in case of Single-core AC panel use the horizontal connection point (A), otherwise in case of Multi-core AC panel it will be necessary to use the oblique connection point (B).

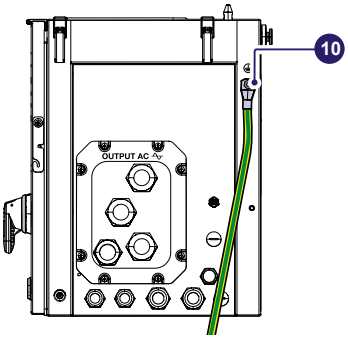
⚠ **ATTENTION –** The cable lug must be installed with a tightening torque of 21Nm.

External ground connection

- Fix the protective earth cable lug to the protection earth connection point (ext.) **(10)** (this is the same thread for handles) using the washers and M8 bolt provided in the wiring box component kit, as shown in the following diagram:

1 = cable lug
2 = flat washer
3 = spring washer
4 = M8 bolt





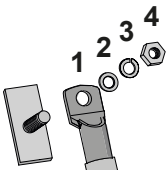
⚠ **ATTENTION –** The cable lug must be installed with a tightening torque of 15.2 Nm.

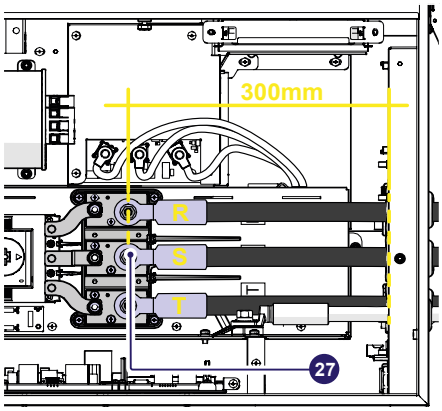
⚠ **ATTENTION –** Before connecting the inverter to AC or DC sources use a suitable multimeter to test the conductivity of the earth connections between the protection earth connection point (ext.) **(10)** and a handles thread **(04)** on the housing of power module.

AC line connection

- Pass the AC cables through the cable glands **(11)** on the AC panel. The lenght of phase cables on the internal side of wiring box need to be about 300 mm (cable lug included).
- Fix the R, S and T cable lugs to the AC connection busbars **(27)**, paying attention to the correspondence of the phases with the labels, using the washers and the M10 nuts pre-installed on the busbar as shown in the following diagram:

1 = cable lug
2 = flat washer
3 = spring washer
4 = M10 nut





⚠ **ATTENTION –** In case of a wrong phase sequence the inverter will not connect to the grid and it will provide an error state.

⚠ **ATTENTION –** The cable lugs must be installed with a tightening torque of 25Nm.

- Re-install the AC protective shield **(23)** by using the M5 screw and the M5 nut previously removed with a tightening torque of 3 Nm.
- Check the tightness of the AC cable glands **(11)** (5 Nm for single core AC cable gland M40 / 18 Nm for multi core AC cable gland M63) and, if used, protective earth cable gland **(12)** (5 Nm for PE cable gland M32) at the end of the installation.

⚠ **ATTENTION –** In case of the AC cable glands **(11)** was accidentally removed during the cable routing phase, it will needed to assure the correct tightness of the lock nut of the cable gland to the inverter chassis with a tightening torque of 8.0 Nm (for each cable gland).

10. Input connection (DC)

⚠ **ATTENTION –** Special care must be taken when performing the first energization on units that have been stored and installed for long periods before usage. When the date of first power-up is later than six (6) months from the date of manufacture of the power module (as indicated on the label), BEFORE CONNECTING ANY PV STRING TO THE INVERTER please contact Fimer Service to receive instructions and specific guidelines for the correct energization and commissioning procedure of the unit!"

⚠ **WARNING –** Comply with the maximum input current relating to the quick-fit connectors as indicated in the technical data.

⚠ **WARNING –** The reverse polarity can cause severe damage and electric arc hazards! In case of reverse input strings do not disconnect them while under load and do not turn the DC disconnect switches **(19)** to OFF position. Wait until input current are below 0.5A (when solar irradiance declines at night) and turn the DC disconnect switches **(19)** to OFF position, disconnect the DC input quick fit connectors **(18)** and correct the wrong polarity of the string.

⚠ **WARNING –** Check absence of any leakage to ground in the PV generator.

⚠ **WARNING –** When the photovoltaic panels are exposed to sunlight they provide continuous DC voltage to the inverter. To avoid risks of electrical shock, all wiring operations must be carried out with the DC disconnect switches (internal **(19)** and external to the inverter) and AC disconnect switches (internal **(09)** or external to the inverter) OFF.

⚠ **WARNING –** The inverters referred to in this document are TRANSFORMERLESS. This type requires the use of insulated photovoltaic panels (IEC61730 Class A Rating) and the need to keep the photovoltaic generator floating with respect to ground: no terminal of the generator must be connected to ground.

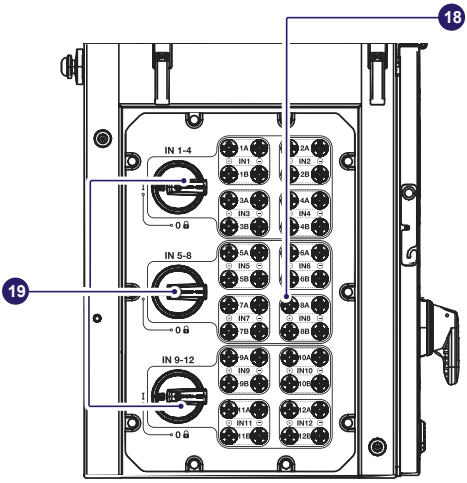
For the string connections it is necessary to use the quick fit connectors **(18)** located on the left side of the wiring box.
The models of the counterpart for quick fit connectors to be used to connect the input strings are shown in the table below:

-Manufacturer -Type -Model	P/N	Conductor cross section	Ø cable gland
- Stäubli	32.0087P0001-UR	4 - 6 mm²	4.7-6.4mm
- Male	32.0089P0001-UR	4 - 6 mm²	6.4-8.4mm
- PV-KBT4-EVO 2	32.0093P0001-UR	10 mm²	6.4-8.4mm
- Stäubli	32.0086P0001-UR	4 - 6 mm²	4.7-6.4 mm
- Female	32.0088P0001-UR	4 - 6 mm²	6.4-8.4mm
- PV-KST4-EVO 2	32.0092P0001-UR	10 mm²	6.4-8.4 mm

⚠ **ATTENTION –** According to IEC 62548 (Photovoltaic (PV) arrays – Design requirements), connectors mated together in a PV system shall be of the same type from the same manufacturer, i.e. a plug from one manufacturer and a socket from another manufacturer or vice versa shall not be used to make a connection.

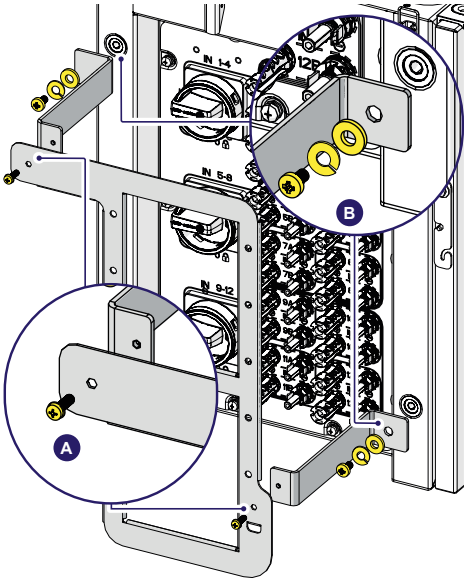
⚠ **ATTENTION –** Using mating parts of different type or brand than those specified above could cause serious damage to the unit and will lead to the invalidation of the warranty.

The input connectors are divided into 12 MPPTs (one MPPTs for each input channel) consisting of 2 pairs of quick fit connectors **(18)**. Each DC disconnect switches **(19)** are related to a group of four MPPTs.



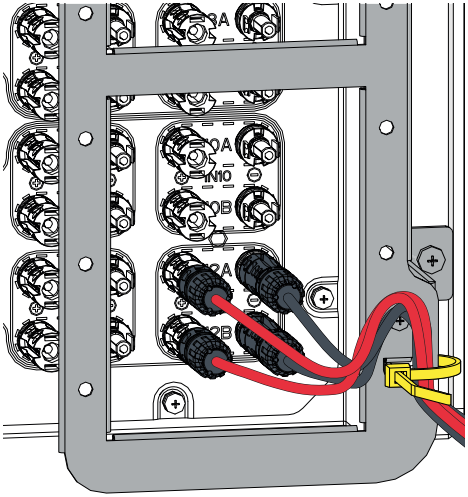
10.1 Input connection with DC cable tray (59)

- Install the DC cable tray (only for inverter version where the DC cable tray is supplied).
  A. Assembly the 2 tray supports using supplied M5 (Tightening torque 3Nm)
  B. Install the DC cable tray to the wiring box using the M8 screws, cut and flat washers (Tightening torque 12Nm).

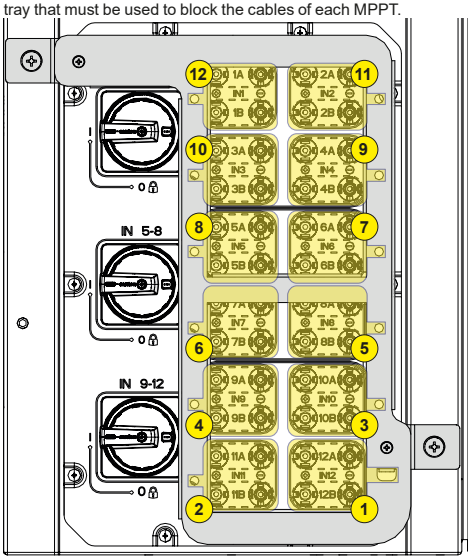


• Connect the strings, starting from IN12 till IN1 (one MPPT at time), and lock the cables to the DC cable tray **(59)** using a cable tie.

⚠ **ATTENTION –** Make a bend on the cables (of each MPPT) before locking them with the cable ties; this is to ensure that the cables are not in tension.



Follow the installation order shown in the figure, to connect the cables neatly. The figure also indicates the right holes on the cable tray that must be used to block the cables of each MPPT.



⚠ **WARNING –** Always checking the seal of the connectors.

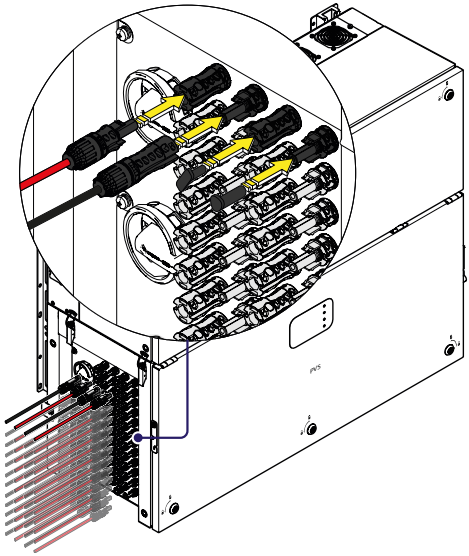
⚠ **ATTENTION –** Make sure to connect at least one string per MPPTs to prevent unbalancing between input channels.

⚠ **ATTENTION –** The MC4 input quick fit connectors must be properly installed. After the installation make sure the connectors are correctly locked through the clips.

⚠ **ATTENTION –** If any string inputs is not required check that protective caps are installed to the relative unused connectors. This is necessary for the inverter seal and to avoid any damage to the unused connectors which may be used at a later time.

10.2 Input connection without DC cable tray (59)

• If the DC cable tray is not supplied proceed to connect all the strings required by the system taking in consideration how indicated in the “Routing the cable to the inverter” paragraph.



⚠ **WARNING –** Always checking the seal of the connectors.

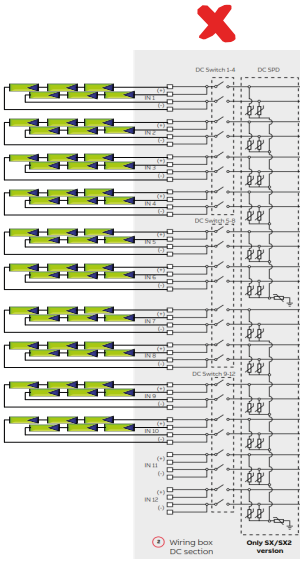
⚠ **ATTENTION –** Make sure to connect at least one string per MPPTs to prevent unbalancing between input channels.

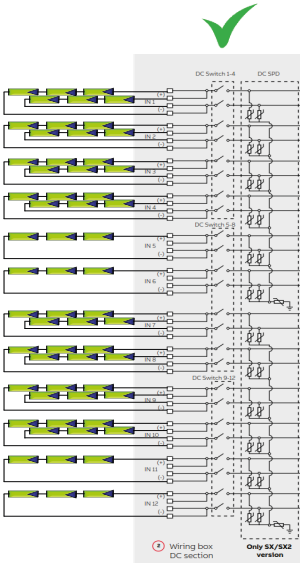
⚠ **ATTENTION –** The MC4 input quick fit connectors must be properly installed. After the installation make sure the connectors are correctly locked through the clips.

⚠ **ATTENTION –** If any string inputs is not required check that protective caps are installed to the relative unused connectors. This is necessary for the inverter seal and to avoid any damage to the unused connectors which may be used at a later time.

10.3 Notes on the system sizing

NOTE – - Decisions on how to structure a photovoltaic system depend on a series of factors and considerations, such as the type of panels, the space availability, the future location of the system, energy production goals over the long term, etc. A configuration program that can help to correctly size the photovoltaic system is available on the FIMER website (http://stringsizer.fimer.com/).

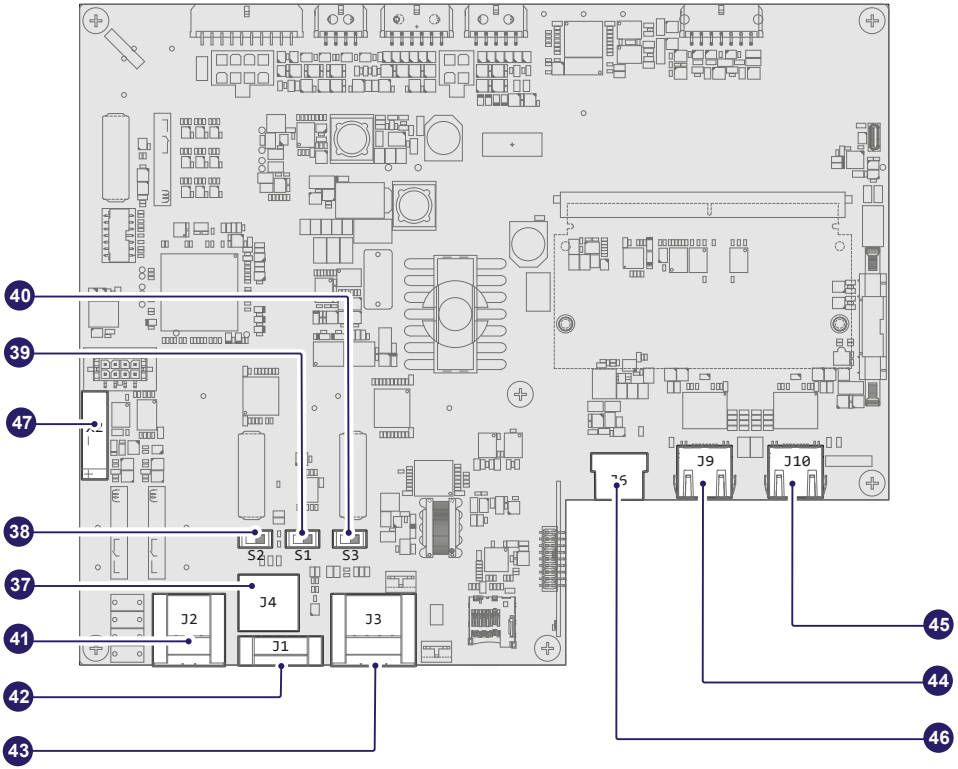




ATTENTION – When configuring DC input and during the installation it's needed to follow one basic rule to avoid possible output power derating: All MPPTs shall be populated connecting at least one string. Considering to connect 20 strings, proceed connecting one string per MPPT and then connect the remaining strings in the selected MPPTs where you want to use 2 strings.

11. Connection of the communication and control signals

11.1 Communication and control board references



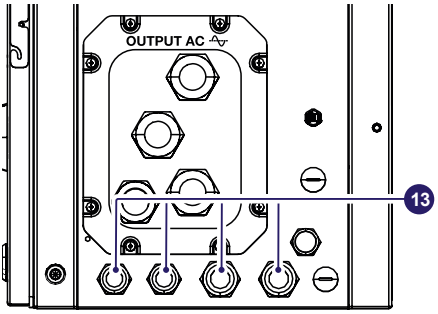
Terminal Name	Terminal Reference	Description
J4	37	FIMER RS485 service Ethernet connector (RJ45) (service only)
S2	38	RS485 FIMER service 120Ohm termination res. (service only)
S1	39	DRM0 activation switch
S3	40	RS485 line 120Ohm termination resistance selector switch
J2	41	Connection to the multifunction relay (ALARM terminal block)
J1	42	Remote ON/OFF terminal block
J3	43	RS485 line terminal block
J9	44	Ethernet connector 2 (RJ45)
J10	45	Ethernet connector 1 (RJ45)
J6	46	USB connector
X2	47	CR2032 Backup battery

(*) The RS-485 connector (RJ45) (FIMER Service only) **(37)** and the signal R1 on the Remote ON/OFF terminal block **(42)** are used to bring the signals on the external RS-485 Service connector **(14)**.

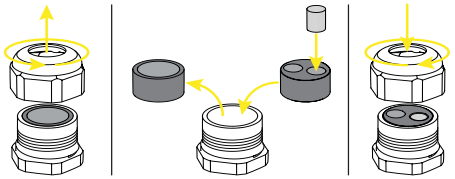
11.2 Connections to the communication and control board

The communication and control signals are connected to the communication and control board **(26)** inside the wiring box. To reach the board, on the right side of the wiring box, there are:

- 2x PG16 cable glands (cable range accepted 10-14mm) **(13)**
- 2x PG21 cable glands (cable range accepted 13-18mm) **(13)**



NOTE – As an alternative, the standard gasket of the PG21 cable glands can be replaced with the two-hole gasket (supplied in the wiring box installation kit), that accepts two separate cables with a diameter of 6mm. If a hole is not used, it is necessary to install a plug (supplied plastic cylinder) to ensure the inverter's sealing.

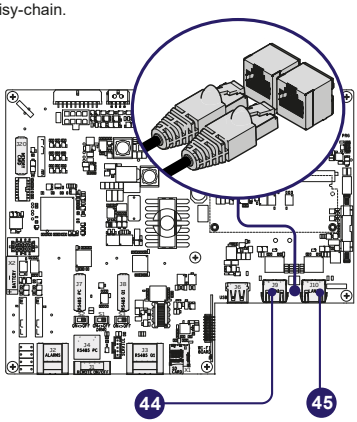


ATTENTION – Please ensure that all unused cable glands **(13)** are properly sealed by the IP65 plastic cap (pre-installed on cable glands).

Check the tightness of the signal cable glands **(13)** (5 Nm PG16 cable gland / 7.5 Nm PG21 cable gland) at the end of wiring operations.

11.3 Ethernet connection

The connection of the ethernet communication cable must be made on the specific connectors **(44) (45)** located on the Communication and control board **(26)**. The two RJ45 connectors LAN1 and LAN2 are equivalent to each other and can be used for the input or for the output of the line connecting multiple inverters in a daisy-chain.



The cable should be compliant to the following specification:

- Cable type: Patch or Cross type, 100BaseTx, CAT5e (or higher). For outdoor application and/or in presence of strong electromagnetic sources it is advisable to use shielded cables with metallic shielded RJ-45 plug.
- UV-resistant if used outdoors
- The maximum length that can reach these cables is 100 meters, and it is always advisable not to let them pass by the power cords to avoid interference with data transmission.
- Maximum inverters number connected over one single daisy chain is 40.

ATTENTION – For outdoor application and/or in presence of adverse weather/strong electromagnetic events it is advisable to use additional overvoltage protective devices.

Three topologies of ethernet connection to the router are available: Ring configuration, Daisy chain configuration, star configuration.
The ring configuration is the preferred method to connect multiple units in order to allow reaching inverters also in case of single unit failures.
In case inverters are connected to the networking switch with a ring topology is recommended to enable SPT protocol on the switch (Spanning Tree Protocol SPT (IEEE 802.1D) is enabled by default on inverters.

ATTENTION – On each configuration the maximum length of the cable must be 100m between inverter – inverter and inverter – switch.

ATTENTION – No initial setup is required to start data transmission to Aurora Vision.Internet connection is required to use all the Aurora Vision remote functionalities.

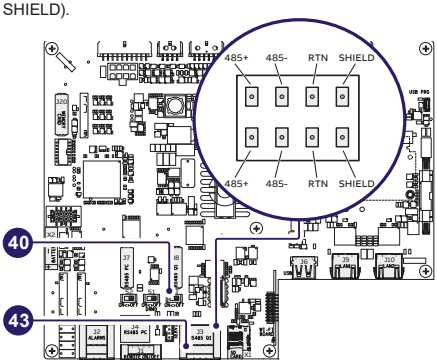
ATTENTION – Please refer to Aurora Vision documents available on FIMER website for further information how to get an Aurora Vision account for remotely monitoring and managing the installed solar assets.

11.4 Serial communication connection (RS485)

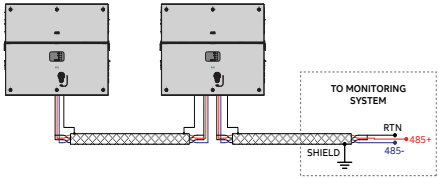
⚠ **ATTENTION –** Please note that automatic settings of network parameters at turning on, embedded logging capability, automatic logger-free transferring of data to Aurora Vision Cloud and remote firmware update are provided over TCP/IP (Ethernet and/or Wi-fi) bus only.

NOTE – The use of the inverters over the RS485 line is recommended in case of monitoring and controlling by using third party RS485 control systems.

The RS-485 serial communication line is available on the communication and control board **(26)** with two terminal blocks **(43)** for each serial line signal (+T/R, -T/R and RTN) so as to be able to make a daisy-chain connection ("in-out") of multiple inverters.
Connection of the R485 communication line conductors is made using the terminal block connectors **(43)** (485+, 485-, RTN and SHIELD).



Slave mode
By default the RS485 port is set as Slave mode. In case the port was set as "Master mode" it must configured through the integrated Web User Interface (refer to chapter "Web User Interface") to use the RS485 as a serial communication line.
The RS-485 port can be used to set up a line of communication which, when connected to a monitoring device, enables the operation of the photovoltaic system to be kept under control. Depending on the device used monitoring can be local or remote.



RS485 line supports Modbus/RTU SUNSPEC compliant Modbus protocol.

- When connecting a single inverter to the monitoring system, activate the communication line resistance terminal by setting the switch **(40)** (to the ON position). In case of multiple installation set the switch only on the last inverter of the chain.

Master mode
The RS485 port can either be used for connecting supported accessories (like weather station): in this case data from accessories will be logged and transferred to the cloud by inverter itself (master mode).
This will allow the inverter to serve as a logger for FIMER accessories.

- When an accessory is connected set the switch of the termination resistance **(40)** to"ON" position.
- When an accessory is connected it must be added and configured into the "Monitored device" list on the integrated Web User Interface.

NOTE – For more information on connecting the accessories to the RS485 terminal block, refer to the accessory product manual or contact FIMER customer support.

READ THE MANUAL – For further information regarding the configuration and use of the RS-485 serial communication line, please refer to the user manual.

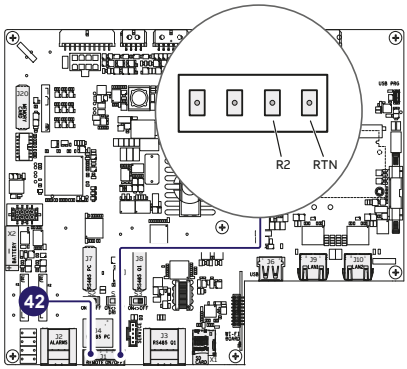
11.5 Remote control connection

The connection and disconnection of the inverter to and from the grid can be controlled through an external control.

The function must be enabled via web server user interface. If the remote control function is disabled, the switching on of the inverter is dictated by the presence of the normal parameters that allow the inverter to connect to the grid.

If the remote control function is on, besides being dictated by the presence of the normal parameters that allow the inverter to connect to the grid, switching on the inverter also depends on the state of the R2 terminal compared to the RTN terminal present on the connector of the terminal block **(42)** of the communication and control board **(26)**.

When the R2 signal is brought to the same potential as the RTN signal (i.e. by making a short circuit between the two terminals of the connector), this causes the inverter to disconnect from the grid.



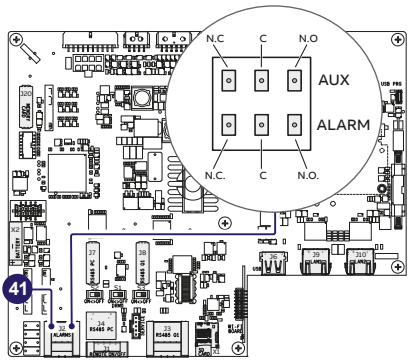
Since this is a digital input, there are no requirements to be observed as regards cable cross-section (it only needs to comply with the sizing requirement for passing cables through the cable glands and the terminal connector).

The external switch used for Remote ON/OFF should be rated for DC low voltage, low current application (the minimum switching current capability should be 1mA or lower).

READ THE MANUAL – For further information regarding the configuration and use of the Remote control terminal block, please refer to the user manual.

11.6 Multifunction Relay connection (ALARM and AUX)

The inverter is equipped with 2 multifunction relays terminal blocks **(41)** with configurable activation. It can be connected with normally open contact (being connected between the NO terminal and the common contact C) and with normally closed contact (being connected between the NC terminal and the common contact C). This contact can be used in different operating configurations that can be selected by accessing the relevant section in the web user Interface “SETTINGS > Digital Outputs”.
Different types of devices (light, sound, etc.) can be connected to the relay, provided they comply with the following requirements:



Alarm terminal block requirements	
Alternating current	Maximum Voltage: 160 Vac / Maximum Current: 6 A
Direct current	Maximum Voltage: 30 Vdc / Maximum Current: 3 A
Cable requirements	Conductor cross-section: from 0.08 to 1.3 mm²

READ THE MANUAL – For further information regarding the configuration and use of the multifunction relay terminal blocks, please refer to the user manual.

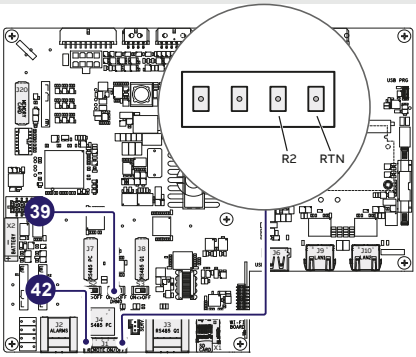
11.7 Demand Response Mode 0 (AS/NZS 4777.2)

Where requested by the AS/NZS 4777.2 standard, it’s possible to use the Remote terminal block **(42)** for the Demand Response Mode 0 (DRM0) functionality.

The function could be activated by setting the DRM0 activation switch **(39)** to “ON” position.

The terminals to be used to connect the inverter to the distribution grid are R2 and RTN.

ATTENTION – In case of the DRM0 function is activated without the proper wiring of the Remote terminal block **(42)**, the inverter will no longer be able to connect to the grid. For further information regarding the DRM0 function refer to the AS/NZS 4777 standard.



12. Description of LED panel

POWER
Indicates that the inverter is functioning correctly.
When the unit is commissioned, while the grid is checked, this LED blinks. If a valid grid voltage is detected, the LED remains continuously lit, as long as there is sufficient sunlight to activate the unit. Otherwise, the LED will continue to blink until the sunlight is sufficient for activation.

ALARM
Indicates that the inverter has detected an anomaly. This type of problem is highlighted in the Web User Interface and FIMER Installer for Solar Inverters APP.

GFI
The “GFI” (ground fault) LED indicates that the inverter has detected a ground fault in the DC side photovoltaic generator. When this fault is detected, the inverter immediately disconnects from the grid.

WLAN/LAN
Indicates the status of the Wireless or Ethernet communication lines.

All possible LED activation combinations are shown in the following table. In particular, each LED could behave in one of the following ways:
● = LED on
⊗ = LED flashing slow (2 seconds on / 2 seconds off)
✱ = LED flashing fast (0.2 seconds on / 0.2 seconds off)
○ = LED off
✱ = Any one of the conditions described above

The following table shows all the possible activation combinations of “Power” “Alarm” and “GFI” LEDs on the LED panel **(08)** according to the operating status of the inverter.

Led Status	Operating state
green: ⊗ yellow: ⊗ red: ⊗	**Firmware programming** The inverter firmware is being programmed (never turn off the inverter during this phase).
green: ○ yellow: ○ red: ○	**Night mode (inverter automatically switches off)** The inverter is in night time switch-off mode (input voltage less than 70% of the set start-up voltage and AC grid is missing).
green: ⊗ yellow: ○ red: ○	**Inverter initialization / Waiting Sun** This is a transitional state due to verification of the operating conditions. During this stage the inverter checks that the conditions for connecting to the grid are met.
green: ● yellow: ○ red: ○	**The inverter is connected and is feeding power into the grid** Normal operation. During this stage, the inverter automatically tracks and analyses the photovoltaic generator’s maximum power point (MPP).
green: ⊗ yellow: ● red: ○	**Missing grid** Indicates lack of grid voltage. This condition does not allow the inverter to connect to the grid.
green: ✱ yellow: ● red: ○	**Warning indication: (W message codes) or Error: (E message codes)** Indicates that the inverter control system has detected a warning **(W)** or error **(E)**. It is possible to identify the type of problem generated in the dedicated section of integrated Web User Interface (“Inverter Log” section).
green: ○ yellow: ● red: ○	**Temperature protection trip** Indicates that the trip relating to internal temperatures (insufficient or excessive temperature) may have been activated.

Led Status	Operating state
	Ventilation anomaly Indicates ananomaly in the operation of the internal ventilation system that could limit output power at high ambient temperatures.
green: ●	**Overvoltage surge arresters triggered (where fitted)**
yellow: ⊗	Indicates that any class II overvoltage surge arresters installed on the AC or DC side have been triggered
red: ○	**Internal statistics memory anomaly** Indicates an operating anomaly in the internal memory on which the inverter statistics are stored
	Buffer battery discharged The buffer battery is low and the inverter does not maintain the time setting
	Pre-commissioning phase (first start-up of inverter) The commissioning of the inverter must be completed through the Installation wizard steps (Web User Interface) or using the FIMER Installer for Solar Inverters mobile APP
	Initial configuration failure The inverter is in locked state due to a failure in the initial configuration of the equipment, such as the standard network setting for the country of installation
green: ○	**Self-test not carried out (for Italian grid standards only)**
yellow: ✳	Self-test operation failure
red: ○	**Incompatibility of the device firmware versions** The firmware versions of the various devices comprising the equipment are incompatible and are being updated (this is an automatic operation)
	Temperature sensor anomaly detected
green: ✳	**Remote OFF activated**
yellow: ○	The Remote Off command has been activated.
red: ○	The unit will not connect to the network until the remote ON command has been activated
green: ○	**Anomaly in the insulation system of the photovoltaic generator**
yellow: ○	Indicates that a leakage to earth from the PV generator has been detected, causing the inverter to disconnect
red: ●	from the grid.

The following table shows all the possible status of “WLAN/LAN” LED on the LED panel **(08)** according to the operating status of the wireless or ethernet communication lines.

Led Status	Operating state
Blue: ○	Wireless not configured or/and ethernet cable not connected.
Blue: ⊗	Scanning for available wireless networks.
Blue: ✳	Trying to connect to a wireless network.
Blue: ●	Wireless or ethernet network is connected to the inverter and IP address is obtained.

13. Commissioning

⚠ **ATTENTION –** Do not place objects of any kind on the inverter during operation! Do not touch the heat sink while the inverter is operating! Some parts may be very hot and could cause burns.

⚠ **ATTENTION –** Before proceeding with commissioning, make sure you have carried out all the following checks: 1) Ensure that the front door have been correctly closed. 2) Check the correct connection and polarity of the DC inputs, and the correct connection of the AC output and earth cables. 3) Check the sealing of the cable glands and installed quick-fit connectors to prevent accidental disconnections and/or avoid compromising the IP65 environmental protection rating.

⚠ **ATTENTION –** This inverter can be powered both with AC or DC sources. In case of DC source is used, make sure that irradiation is stable and adequate for the inverter commissioning procedure to be completed.

⚠ **ATTENTION –** At the first activation of the inverter the firmware version could syncronized between power module and wiring box. During this phase the LEDs “Power” “Alarm” and “GFI” blinks together every 1 second. This process is absolutely normal and must be completed without interruption. A switch-off of the system during this process could cause serious damage to the inverter.

⚠ **WARNING –** If the DC link precharge board is installed, hazardous DC voltages are supplied to the photovoltaic array during the night.Inverters are not provided with full protection against shock hazard. Therefore inverters must be installed in a closed electrical operating area (behind the fences), with access limited to qualified personnell.

Commissioning could be carried out in two different ways:
- **Via FIMER Installer for Solar Inverters APP** (mobile APP for commissioning a single inverter as well as a multi-inverter solar plant)
- **Via Web UI** (Integrated Web User Interface enabling setting parameters and performing commissioning of a single inverter).

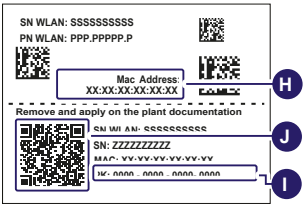
NOTE – FIMER Installer for Solar Inverters APP is the recommended method to commission the inverters.

READ THE MANUAL – To address any problems that may occur during the initial stages of operation of the system and to ensure the inverter remains fully functional, you are advised to check for any firmware updates in the download area of the website www.fimer.com or at https://registration.solar.fimer.com (instructions for registering on the website and updating the firmware are given on the user manual).

13.1 Commissioning via FIMER Installer for Solar Inverters mobile APP

FIMER Installer for Solar Inverters APP is available for Android mobile devices with an Android version of 6.0.1 or greater (for iOS mobile devices will be implemented soon) and could be downloaded and installed from Play Store.

The requirements to complete the procedures are listed below:
- FIMER Installer for Solar Inverters APP installed on mobile device.
- Enabled installer account for FIMER Installer for Solar Inverters APP (The account could be created in the mobile app directly following the dedicated wizard procedure).
- Manual claiming of the inverters to be commissioned.



The claiming process consists of indicating which inverters are to be commissioned.

- Claiming process can be performed by:
- taking pictures of the QR codes **(J)** of single inverter units (printed on the Communication identification label) (recommended).
- manual insertion of the MAC address **(H)** and related product keys **(I)** (printed on the Communication identification label) of all the inverters that shall be commissioned.
- scanning and selecting of SSIDs associated to the Wi-Fi networks generated by each inverter to commission.

Follow the procedure below to commission the inverter:

NOTE – This inverter can be powered both with AC or DC sources. In case of DC source is used, make sure that irradiation is stable and adequate for the inverter commissioning procedure to be completed.

- Close the DC disconnect switches **(19)** to supply the inverter with input voltage from the photovoltaic generator or close the AC switch downstream of the inverter (and AC disconnect switch **(09)** for the -SX2 wiring box version) to supply the inverter with AC grid voltage. In the pre-commissioning phase the “Alarm” LED keeps quickly flashing, “Power” and “GFI” LEDs are OFF.
- Perform the installation wizard steps with FIMER Installer for Solar Inverters APP enabling the transferring the settings to all the claimed inverters.
- After the commissioning via FIMER Installer for Solar Inverters APP is completed, the inverter changes the behavior of the “Power” and “Alarm” LEDs **(08)**, in relation of the input voltage value:

Input voltage	LED Status	Description
Vin < Vstart	Power = Flashing Alarm = OFF	The input voltage is not sufficient to enable connection to the grid.
Vin > Vstart	Power = Flashing Alarm = ON	The input voltage is sufficient to enable connection to the grid: the inverter waits for the grid voltage to be present to make the connection to the grid.

- Depending of the supply source used to complete the installation wizard steps, close the disconnect switch of missing voltage sources: In case of missing AC source close the AC switch downstream of the inverter (and AC disconnect switch **(09)** for the -SX2 wiring box version); In case of missing DC source close the DC disconnect switches **(19)**.
- When the input voltage is sufficient to allow the connection to the grid, the inverter will check the grid voltage, measure the isolation resistance of the photovoltaic field with respect to ground and performs other auto-diagnostic checks. During the preliminary checks on the parallel connection with the grid, the “Power” LED keeps flashing, the “Alarm” and “GFI” LEDs are OFF. The inverter will ONLY connect to the grid if all parameters fall within the ranges foreseen by current regulations.
- If the outcome of the preliminary checks to grid synchronization are positive, the inverter connects and starts to export power to the grid. The “Power” LED remains fixed on while the “Alarm” and “GFI” LEDs are OFF.

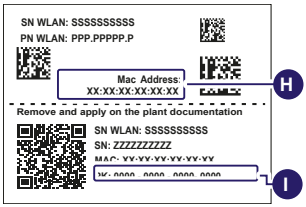
NOTE – For more details about commissioning and any other functionalities of the Installer for Solar Inverters mobile APP please contact FIMER customer support.

13.2 Commissioning via Web User Interface

Commissioning could be carried out via wireless connection to the inverter’s Web User Interface. Initial setup of the system must therefore be carried out via a tablet, notebook or smartphone with a wireless connection.

NOTE – This inverter can be powered both with AC or DC sources. In case of DC source is used, make sure that irradiation is stable and adequate for the inverter commissioning procedure to be completed.

- Close the DC disconnect switches **(19)** to supply the inverter with input voltage from the photovoltaic generator or close the AC switch downstream of the inverter (and AC disconnect switch **(09)** for the -SX2 wiring box version) to supply the inverter with AC grid voltage. In the pre-commissioning phase the “Alarm” LED keeps quickly flashing, “Power” and “GFI” LEDs are OFF.
- Once powered, the inverter will automatically create a wireless network (approx. 60 seconds after switching-on).



- Enable the wireless connection on the device which is being used for the board setup (tablet, smartphone or PC) and connect it to the Access Point created by the inverter system: the name of the wireless network created by the system that the connection should be established with, will be: ABB-XX-XX-XX-XX-XX-XX where “X” is a hex digit of the wireless MAC address **(H)** (MAC address can be found on the “Communication Identification Label” placed on the side of the inverter).
- When required enter the PRODUCT KEY **(I)** (printed on the “Communication Identification label” and applied during the commissioning phase to the plant documentation) as access point password (Note that it’s required to digit also the dash “-” characters of the Product Key in the password field).

- Open an internet browser (recommended browser: Chrome versions from v.55, Firefox versions from v.50) and enter the pre-set IP address 192.168.117.1 to access the Web User Interface.
- Follow the step-by-step commissioning wizard to complete the commission of the inverter.
  After the settings are confirmed, the inverter restarts.

ATTENTION – From the moment the grid standard is selected, there will be 24 hours available to make any changes to the grid standard; after this, the “Country Select” feature is blocked and you can make further changes only by resetting the remaining-time timer.

READ THE MANUAL – For further information regarding the commissioning procedure via Web User Interface, please refer to the product manual.

- After the wizard procedure is completed, the inverter changes the behaviour of the “Power” and “Alarm” LEDs **(08)**, in relation of the input voltage value:

Input voltage	LED Status	Description
Vin < Vstart	Power = Flashing Alarm = OFF	The input voltage is not sufficient to enable connection to the grid.
Vin > Vstart	Power = Flashing Alarm = ON	The input voltage is sufficient to enable connection to the grid: the inverter waits for the grid voltage to be present to make the connection to the grid.

- Depending of the supply source used to complete the installation wizard steps, close the disconnect switch of missing voltage sources: In case of missing AC source close the AC switch downstream of the inverter (and AC disconnect switch **(09)** for the -SX2 wiring box version); In case of missing DC source close the DC disconnect switches **(19)**.
- When the input voltage is sufficient to allow the connection to the grid, the inverter will check the grid voltage, measure the isolation resistance of the photovoltaic field with respect to ground and performs other auto-diagnostic checks. During the preliminary checks on the parallel connection with the grid, the “Power” LED keeps flashing, the “Alarm” and “GFI” LEDs are OFF. The inverter will ONLY connect to the grid if all parameters fall within the ranges foreseen by current regulations.
- If the outcome of the preliminary checks to grid synchronization are positive, the inverter connects and starts to export power to the grid. The “Power” LED remains fixed on while the “Alarm” and “GFI” LEDs are OFF.

14. Characteristics and technical data

14.1 Technical data

	PVS-175-TL
Input	
Absolute maximum DC input voltage (Vmax,abs)	1500 V
Start-up input voltage (Vstart)	750 V (650 - 1000 V)
Input operating interval (Vdcmin...Vdcmax)	600 - 1500V
Rated DC input voltage (Vdcr)	1100 Vdc
Rated DC input power (Pdcr)	188000 W @ 30°C - 177000 W @ 40°C
Number of independent MPPT	12
MPPT voltage range (VMPPTmin ... VMPPTmax) to Pacr	850 - 1350 V
Maximum DC input power for each MPPT (Pmppt,max)	20000 W
Maximum DC input current for each MPPT (Idcmax)	22 A
Maximum short circuit current for each MPPT (Iscmax)	30 A
Maximum return current (AC side vs DC side)	Negligible in normal operating conditions (1)
Number of input pairs for each MPPT	2
Type of input DC connectors	PV quick fit connector
Type of photovoltaic panels that can be connected at input according to IEC 61730	Class A
Input protection	
Reverse polarity protection	Yes, from current limited source
Input over voltage protection for each MPPT	2 (Type 2) with monitoring
Photovoltaic array isolation control	Yes, according to IEC 62109-2
Residual current monitoring device	Yes, according to IEC 62109-2
DC switch rating for each MPPT	20 A/1500 V - 50 A/1000 V (2)
Fuse rating	N/A, No fuses
String current monitoring	Input current monitoring per MPPT (12ch)
Arc fault protection	Optional
Output	
AC Connection to the grid	Three phase 3W+PE (TN system)
Nominal AC Output Power (Pacr @cosφ=1)	175 000 W @ 40 °C
Maximum AC Output Power (Pacmax @cosφ=1)	185 000 W @ 30 °C
Maximum apparent Output power (Smax)	185 000 VA
Rated AC Output Voltage (Vacr)	800 V
Output voltage range (Vacmin...Vacmin)	552...960 V (3)
Maximum output current (Iacmax)	135 A
Contribution to short-circuit current	140 A
Rated Output Frequency (fr)	50 Hz / 60 Hz
Output Frequency Range (fmin...fmax)	45...55 Hz / 55…65 Hz (3)
Nominal power factor and setting interval	> 0.995, 0...1 inductive/capacitive with maximum Smax
Total harmonic distortion of current	<3%
Max DC Current Injection (% of In)	< 0.5%*In
Maximum AC Cable outer diameter / multi core	1 x 53 mm (1 x M63 cable gland)
Maximum AC Cable outer diameter / single core	3 x 32 mm (3 x M40 cable gland)
AC connection type	Busbar for lug connections with M10 bolts (included); Single core cable gland plate with 4 individual AC cable glands: 3 x M40: Ø 22...32mm, 1 x M32: Ø 18...25mm Multi core cable gland plate (optional) with 2 individual AC cable glands: 1 x M63: Ø 37…53mm, 1x M32 Ø 18...25mm)
Output protection	
Anti-islanding Protection	According to local standard
Maximum external AC overcurrent protection	200 A
Output overvoltage protection - Modular surge arresters	Type 2 with monitoring

	PVS-175-TL
Operating performance	
Maximum Efficiency (ηmax)	98.7%
Weighted Efficiency (EURO)	98.4%
Communication	
Communication interfaces	1x RS485, 2x Ethernet (RJ45), WLAN (IEEE802.11 b/g/n @ 2,4 GHz)
Local user interface	4 LEDs, Web User Interface, Mobile APP
Communication protocol	Modbus RTU/TCP (Sunspec compliant)
Commissioning tool	Web User Interface, Mobile APP/APP for plant level
Remote monitoring services	Aurora Vision® monitoring portal
Advanced features	Embedded logging, direct telemetry data transferring to FIMER cloud
Environmental	
Operating ambient temperature range	-25...+60°C/-13...140°F with derating above 40°C/ 104°F
Relative Humidity	4…100 % with condensation
Storage conditions (Temperature / Relative Humidity)	0°C...+35°C (32°F...95°F) / 4...75%
Sound pressure level, typical	68dB(A)@ 1m
Maximum operating altitude without derating	2000 m / 6560 ft
Environmental pollution degree classification for external environments	3
Environmental class	Outdoor
Climatic category according to IEC 60721-3-4	4K4H
Physical	
Environmental Protection Rating	IP 65 (IP54 for the cooling section)
Cooling System	Forced air
Dimensions (H x W x D)	867x1086x419 mm / 34.2”x42.7”x16.5” for -SX model 867x1086x458 mm / 34.2”x42.7”x18.0” for -SX2 model
Weight	~76 kg / 167,5 lbs for power module ; ~77 kg / 169,7 lbs for Wiring box Overall max ~153 kg / 337,2 lbs
Assembly System	Mounting bracket support
Overvoltage rating as per IEC 62109-1	II (DC input) III (AC output)
Safety	
Safety class	I
Insulation Level	Transformerless
Marking	CE [4]
Safety, EMC and Radio Spectrum Standards	IEC/EN 62109-1, IEC/EN 62109-2, EN 61000-6-2, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12, EN 301 489-1, EN 301 489-17, EN 300 328, EN 62311
Grid standard (check the availability with your sales channel)	CEI 0-16, UTE C 15 712-1, JORDAN IRR-DCC-MV, BDEW, P.O. 12.3, DRRG D.4, AS/ NZS4777.2
Accessories	
Assembly accessories	PVS-175 Installation Kit AC multicore cable gland plate (Supports M63 Ø 37…53mm + M32 Ø 18...25mm)
DC Series Arc Fault Circuit Interrupter	Type I acc. to UL 1699 [5] with single-MPPT sensing capability
AC Plate, Multi Core Cables	Plate with 2 individual AC cable glands: 1 x M63: Ø 37…53mm, 1 x M25: Ø 10...17mm
DC link recharge circuit [6]	Night time operation with restart capability
Anti-PID [7]	Based on night time polarization of the array

1. In the event of a fault, limited by the external protection envisaged on the AC circuit
2. According to standard IEC60947.3 Table D.5
3. The AC voltage and frequency range may vary depending on specific country grid standard
4. Hereby, Power-One Italy S.p.A. (A Member of the FIMER Group) declares that the radio equipments (radio module combined with the inverter), to which this user manual refers, are in compliance with the Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet address: www.fimer.com.
5. Performance in line with the relevant requirements of the Draft IEC 63027 standard
6. The Inverter cannot verify the photovoltaic array isolation resistance before connection during Night time. When this accessory is present, the inverter must be installed and operate in “restricted areas (access limited to qualified personnel)” according to IEC 62109-2
7. Cannot operate simultaneously with the Night Mode

NOTE – Features not specifically mentioned in this data sheet are not included in the product.

14.2 Tightening torques

Component	Nm
Single core AC cable gland **(11)** M40	5 Nm
PE cable gland **(12)** M32	5 Nm
Multi core AC cable gland **(11)** M63	100 Nm
Signal cable gland **(13)** PG16	5 Nm
Signal cable gland **(13)** PG21	7.5 Nm
AC connection busbar **(27)** M10 bolts	25 Nm
Protective earth point (int.) **(28)** M10 nut	21 Nm
Protective earth point (ext.) **(10)** M8 bolt	15.2 Nm
Junction screws **(20)**	12 Nm
Side bracket screws	5 Nm
AC interface connection point M6 bolts **(34)** (Phases)	5 Nm
AC interface connection point M5 bolt **(34)** (MID-BULK)	3 Nm
Interface protective earth point M5 nut **(36)**	3 Nm
DC surge arrester plate M5 screws **(21)**	3 Nm
AC protective shield M5 screw and nut **(23)**	3 Nm
Communication connector counterparts **(41) (42) (43)**	0.25 Nm

14.3 Cable gland clamping range

Cable gland clamping range	mm
Single core AC cable gland **(11)** M40	22...32mm
PE cable gland **(12)** M32	18...25mm
Multi core AC cable gland **(11)** M63	37...53mm
Signal cable gland **(13)** PG16	10...14mm
Signal cable gland **(13)** PG21	13...18mm

ENGLISH

The symbol of the crossed-out wheeled bin identifies electrical and electronic equipment (EEE) placed on the market after 13 August 2005 which should be separately collected in accordance with the Directive 2012/19/EU of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE).

Users of EEE from private households (consumers) within each European Union country:
Electrical and electronic equipment should be disposed of in appropriate collection facilities as set up by the competent authorities within each Member State or in accordance with that Member State's national regulations regarding WEEE collection and disposal.

Professional users (Companies - Enterprises) within each European Union country:
Electrical and electronic equipment should be disposed of in accordance with the Member State's national regulations regarding WEEE collection and disposal. Further information should be obtained from the reseller or local vendor.

Both Private and Professional Users from countries outside the European Union:
Electrical and electronic equipment should be disposed of in accordance with the Member State's national regulations regarding WEEE collection and disposal.
Inappropriate EEE disposal could have a negative environmental impact and hamper human health. Cooperating in the appropriate disposal of this product contributes to product reuse and recycling, while protecting our environment.

ITALIANO

Il simbolo del contenitore di spazzatura su ruote barrato, accompagnato da una barra piena orizzontale, identifica le apparecchiature elettriche ed elettroniche, immesse sul mercato dopo il 13 agosto 2005, oggetto di raccolta separata in conformità alla Direttiva Europea 2012/19/UE (WEEE Directive).

Utenti domestici (privati cittadini) della Comunità Europea:
Lo smaltimento di questa apparecchiatura elettrica ed elettronica può avvenire presso le isole ecologiche messe a disposizione dagli enti locali o comunque seguendo le indicazioni delle autorità locali per la raccolta differenziata dei rifiuti elettronici.

Utenti professionali (Aziende-Imprese) della Comunità Europea:
Lo smaltimento di questa apparecchiatura elettrica ed elettronica deve avvenire in conformità alla legislazione locale. Contattare il rivenditore o il fornitore locale per ulteriori informazioni.

Utenti domestici e professionali in altri paesi fuori dalla Comunità Europea:
Lo smaltimento di questa apparecchiatura elettrica ed elettronica deve avvenire in conformità alla legislazione locale.
Uno smaltimento dei rifiuti inappropriato può avere effetti negativi sull'ambiente e sulla salute umana. Collaborando allo smaltimento corretto di questo prodotto, si contribuisce al riutilizzo, al riciclaggio e al recupero del prodotto, e alla protezione del nostro ambiente.

DEUTSCH

Mit dem Symbol der ausgekreuzten Mülltonne werden Elektro- und Elektronikgeräte gekennzeichnet, die nach dem 13. August 2005 auf den Markt gebracht wurden und in Einklang mit der Richtlinie 2012/19/EU des Europäischen Parlaments über Elektro- und Elektronik-Altgeräte (WEEE) getrennt zu sammeln sind.

Benutzer von Elektro- und Elektronikgeräten aus privaten Haushalten (Konsumenten) in den Mitgliedstaaten der Europäischen Union:
Elektro- und Elektronikgeräte sind bei einer hierfür von den zuständigen Behörden eingerichteten geeigneten Annahmestelle im jeweiligen Mitgliedstaat abzugeben oder in Einklang mit den nationalen Bestimmungen des Mitgliedstaats hinsichtlich der Sammlung und Entsorgung von Elektro- und Elektronikgeräten gemäß der WEEE-Richtlinie zu entsorgen.

Professionelle Benutzer (Unternehmen) in den Mitgliedstaaten der Europäischen Union:
Elektro- und Elektronikgeräte sind in Einklang mit den nationalen Bestimmungen des Mitgliedstaats hinsichtlich der Sammlung und Entsorgung von Elektro- und Elektronikgeräten gemäß der WEEE-Richtlinie zu entsorgen. Für nähere Informationen wenden Sie sich bitte an den Wiederverkäufer oder Ihren Händler vor Ort.

Sowohl private als auch professionelle Benutzer in den Mitgliedstaaten der Europäischen Union:
Elektro- und Elektronikgeräte sind in Einklang mit den nationalen Bestimmungen des Mitgliedstaats hinsichtlich der Sammlung und Entsorgung von Elektro- und Elektronikgeräten gemäß der WEEE-Richtlinie zu entsorgen.
Bei unsachgemäßer Entsorgung besteht das Risiko nachteiliger Auswirkungen auf Umwelt und Gesundheit. Durch Ihre Kooperation zur ordnungsgemäßen Entsorgung fördern Sie die Wiederverwendung und das Recycling des Produkts und tragen zum Umweltschutz bei.

ESPAÑOL

El símbolo del contenedor de basura tachado con un aspa identifica aquellos aparatos eléctricos y electrónicos (AEE, EEE por sus siglas en inglés) lanzados al mercado después del 13 de agosto de 2005 que deben recogerse de forma separada de acuerdo con la Directiva 2012/19/UE del Parlamento Europeo y el Consejo Europeo sobre residuos de aparatos eléctricos y electrónicos (RAEE).

Usuarios particulares de AEE (consumidores) en cada uno de los países de la Unión Europea:
Los aparatos eléctricos y electrónicos deben eliminarse en los puntos de recolección adecuados establecidos por las autoridades competentes de cada Estado miembro de acuerdo con las normativas nacionales de dicho Estado miembro sobre la recolección y eliminación de RAEE.

Usuarios profesionales (Empresas e Instituciones) en cada uno de los países de la Unión Europea:
Los aparatos eléctricos y electrónicos deben eliminarse de acuerdo con las normativas nacionales sobre la recolección y eliminación de RAEE. Puede obtener más información en su distribuidor o proveedor local.

Usuarios particulares y profesionales de países no pertenecientes a la Unión Europea:
Los aparatos eléctricos y electrónicos deben eliminarse de acuerdo con las normativas nacionales sobre la recolección y eliminación de RAEE.
La eliminación inadecuada de un AEE puede tener un impacto negativo en el medio ambiente y perjudicar la salud humana. Su cooperación en la eliminación adecuada de este producto contribuye a su reutilización y reciclado a la vez que protege el medio ambiente.

FRANÇAIS

Le symbole de poubelle interdite identifie les équipements électriques et électroniques (EEE) mis sur le marché après le 13 août 2005 qui doivent être collectés séparément conformément à la Directive 2012/19/UE du Parlement européen et du Conseil relative aux déchets d'équipements électriques et électroniques (DEEE).

Ménages utilisateurs d'EEE (consommateurs) dans chaque pays de l'Union européenne:
Les équipements électriques et électroniques doivent être mis au rebut dans des points de collecte appropriés mis en place par les autorités compétentes au sein de chaque État membre ou conformément aux réglementations nationales de cet État membre relatives à la collecte et à la mise au rebut des EEE.

Utilisateurs professionnels (sociétés - entreprises) au sein de chaque pays de l'Union européenne:
Les équipements électriques et électroniques doivent être mis au rebut conformément aux réglementations nationales de l'État membre relatives à la mise au rebut des EEE. Pour plus d'informations, contactez le revendeur ou le fournisseur local.

Utilisateurs privés et professionnels des pays hors Union européenne:
Les équipements électriques et électroniques doivent être mis au rebut conformément aux réglementations nationales de l'État membre relatives à la mise au rebut des EEE.
La mise au rebut inappropriée des EEE peut avoir un effet néfaste sur l'environnement et sur la santé humaine. En participant à la mise au rebut appropriée de ce produit, vous contribuez à sa réutilisation et à son recyclage tout en protégeant notre environnement.

PORTUGUÊS

O símbolo do contentor com uma cruz sobreposta identifica equipamentos elétricos e eletrónicos (EEE) colocados no mercado após 13 de agosto de 2005, que devem ser recolhidos separadamente de acordo com a Diretiva 2012/19/UE do Parlamento Europeu e do Conselho sobre resíduos de equipamentos elétricos e eletrónicos (WEEE).

Utilizadores de EEE de ambientes domésticos privados (consumidores) dentro de cada país da União Europeia:
Os equipamentos elétricos e eletrónicos deverão ser eliminados em instalações de recolha adequadas, conforme estabelecido pelas autoridades competentes dentro de cada Estado Membro, ou de acordo com os regulamentos nacionais desse Estado Membro sobre a recolha e eliminação de WEEE.

Utilizadores profissionais (Companhias - Empresas) dentro de cada país da União Europeia:
Os equipamentos elétricos e eletrónicos deverão ser eliminados de acordo com os regulamentos nacionais dos Estados Membros sobre a recolha e eliminação de WEEE. Informações adicionais deverão ser obtidas junto do revendedor ou do fornecedor local.

Utilizadores privados e profissionais dos países fora da União Europeia:
Os equipamentos elétricos e eletrónicos deverão ser eliminados de acordo com os regulamentos nacionais dos Estados Membros sobre a recolha e eliminação de WEEE.
A eliminação inadequada de EEE poderá ter um impacto ambiental negativo e afetar a saúde humana. A cooperação com a eliminação adequada destes produtos contribui para a reutilização e reciclagem dos mesmos, protegendo simultaneamente o nosso ambiente.

NEDERLASNDS

Het symbool van de doorkruiste afvalbak identificeert elektrische en elektronische apparatuur (EEA) op de markt gebracht na 13 augustus 2005, die apart moet worden verzameld in overeenstemming met de Richtlijn 2012/19/EU van het Europees Parlement en de Raad betreffende afgedankte elektrische en elektronische apparatuur (AEEA).

Gebruikers van EEA uit particuliere huishoudens (consumenten) in elk land van de Europese Unie:
Elektrische en elektronische apparatuur moet worden weggegooid via de daarvoor bestemde voorzieningen zoals opgezet door de bevoegde autoriteiten in elke lidstaat of in overeenstemming met de nationale regelgeving van de lidstaat met betrekking tot de inzameling en verwijdering van AEEA.

Professionele gebruikers (Bedrijven - Ondernemingen) in elk land van de Europese Unie:
Elektrische en elektronische apparatuur dient te worden vernietigd in overeenstemming met de nationale voorschriften van de lidstaat met betrekking tot de inzameling en verwijdering van AEEA. Nadere informatie moet worden verkregen van de verkoper of lokale leverancier.

Zowel particuliere als professionele gebruikers uit landen buiten de Europese Unie:
Elektrische en elektronische apparatuur dient te worden vernietigd in overeenstemming met de nationale voorschriften van de lidstaat met betrekking tot de inzameling en verwijdering van AEEA.
Onjuiste verwijdering van EEA kan een negatieve invloed op het milieu hebben en de menselijke gezondheid schaden. Samenwerking bij de correcte verwijdering van dit product draagt bij aan hergebruik en recycling en beschermt ons milieu.

SVENSKA

Symbolen med en överkryssad soptunna på hjul identifierar elektrisk och elektronisk utrustning (EEE) som lanserats på marknaden efter 13 augusti 2005 som ska samlas in separat i enlighet med Europaparlamentets och rådets direktiv 2012/19/EU om avfall som utgörs av eller innehåller elektriska eller elektroniska produkter (WEEE).

Användare av EEE i privathushållen (konsumenter) i varje land inom Europeiska unionen:
Elektrisk och elektronisk utrustning ska bortskaffas på lämpliga uppsamlingsanläggningar som inrättats av behöriga myndigheter i varje medlemsstat eller i enlighet med den medlemsstatens nationella bestämmelser gällande uppsamling och bortskaffande av WEEE.

Yrkesmässiga användare (bolag – företag) i varje land inom Europeiska unionen:
Elektrisk och elektronisk utrustning ska bortskaffas i enlighet med medlemsstatens nationella bestämmelser gällande uppsamling och bortskaffande av WEEE.
Olämpligt bortskaffande av EEE kan ha en negativ miljöpåverkan och skada människors hälsa. I och med att du samarbetar i fråga om att bortskaffa den här produkten på ett lämpligt sätt, bidrar du till att produkten kan återanvändas och återvinnas, samtidigt som du hjälper till att skydda miljön.

DANSK

Symbolet med den overstregede affaldsspand med hjul angiver, at elektrisk og elektronisk udstyr (EEE), der er markedsført efter d. 13. august 2005, skal indsamles særskilt i henhold til Europa-Parlamentets og Rådets direktiv 2012/19/EU om affald af elektrisk og elektronisk udstyr (WEEE).

Brugere af EEE fra private husholdninger (forbrugere) inden for hvert EU-medlemsland:
Elektrisk og elektronisk udstyr skal bortskaffes via passende indsamlingsfaciliteter, der er etableret af de ansvarlige myndigheder i hver medlemsstat, eller i henhold til den pågældende medlemsstats nationale lovgivning vedrørende indsamling og bortskaffelse af WEEE.

Professionelle brugere (virksomheder – firmaer) inden for hvert EU-medlemsland:
Elektrisk og elektronisk udstyr skal bortskaffes i henhold til den pågældende medlemsstats nationale lovgivning vedrørende indsamling og bortskaffelse af WEEE. Yderligere oplysninger kan rekvireres fra forhandleren eller den lokale leverandør.

Både private og professionelle brugere fra lande uden for den Europæiske Union:
Elektrisk og elektronisk udstyr skal bortskaffes i henhold til den pågældende medlemsstats nationale lovgivning vedrørende indsamling og bortskaffelse af WEEE.
Uhensigtsmæssig bortskaffelse af EEE kan have en negativ virkning på miljøet og folks helbred. Samarbejde i forbindelse med korrekt bortskaffelse af disse produkter bidrager til genbrug og genindvindelse, samtidig med at miljøet beskyttes.

SUOMI

Merkki, jossa on yli rastittu pyörällinen jäteastia, viittaa 13.8.2005 jälkeen markkinoille tuotuihin sähkö- ja elektroniikkalaitteisiin, jotka Euroopan parlamentin ja neuvoston sähkö- ja elektroniikkalaiteromusta annetun direktiivin 2012/19/EU (WEEE) mukaisesti on kerättävä erikseen.

Yksityisten kotitalouksien sähkö- ja elektroniikkalaitteiden käyttäjät (kuluttajat) kussakin Euroopan unionin maassa:
Sähkö- ja elektroniikkalaitteet on hävitettävä jäsenvaltion toimivaltaisten viranomaisten järjestämien keräyspisteiden kautta tai kyseisen jäsenvaltion kansallisten sähkö- ja elektroniikkalaiteromun keräystä ja hävittämistä koskevien määräysten mukaisesti.

Ammattikäyttäjät (yritykset) kussakin Euroopan unionin maassa:
Sähkö- ja elektroniikkalaitteet on hävitettävä jäsenvaltion kansallisten sähkö- ja elektroniikkalaiteromun keräystä ja hävittämistä koskevien määräysten mukaisesti. Lisätietoja on voitava saada jälleenmyyjältä tai paikalliselta toimittajalta.

Euroopan unionin ulkopuolisten maiden yksityiset ja ammattikäyttäjät:
Sähkö- ja elektroniikkalaitteet on hävitettävä jäsenvaltion kansallisten sähkö- ja elektroniikkalaiteromun keräystä ja hävittämistä koskevien määräysten mukaisesti.
Sähkö- ja elektroniikkalaitteiden epäasianmukaisella hävittämisellä voi olla haitallisia vaikutuksia ympäristöön ja ihmisten terveyteen. Yhteistyö tämän tuotteen asianmukaiseksi hävittämiseksi edistää tuotteen uudelleenkäyttöä ja kierrätystä ja suojelee ympäristöämme.

ČESKY

Symbol přeškrtnuté popelnice na kolečkách označuje elektrické a elektronické zařízení (EEZ) prodávané na trhu od 13. srpna 2005, které by mělo být sbíráno samostatně v souladu se Směrnicí 2012/19/EU Evropského parlamentu a rady o odpadním elektrickém a elektronickém zařízení (OEEZ).

Uživatelé EEZ v domácnostech (spotřebitelé) v zemích Evropské unie:
Elektrické a elektronické zařízení by mělo být likvidováno na příslušných sběrných místech zřízených kompetentními úřady v jednotlivých členských státech nebo v souladu s národními předpisy příslušného členského státu ohledně sběru a likvidace OEEZ.

Firemní uživatelé (společnosti a podniky) v zemích Evropské unie:
Elektrické a elektronické zařízení by mělo být likvidováno v souladu s národními předpisy členského státu týkajících se sběru a likvidace OEEZ. Další informace je třeba zajistit od distributora nebo místního prodejce.

Soukromí uživatelé i firmy ze zemí mimo Evropskou unii:
Elektrické a elektronické zařízení by mělo být likvidováno v souladu s národními předpisy členského státu ohledně sběru a likvidace OEEZ.
Nesprávná likvidace EEZ může mít negativní dopad na životní prostředí a zdraví lidí. Spolupráce na řádné likvidaci tohoto výrobku přispívá k opětovnému použití a recyklaci výrobků a ochraně našeho životního prostředí.

ΕΛΛΗΝΙΚΑ

Το σύμβολο με τον διαγεγραμμένο τροχήλατο κάδο προσδιορίζει ηλεκτρικό και ηλεκτρονικό εξοπλισμό (ΕΕΕ) που έχει κυκλοφορήσει στην αγορά μετά τις 13 Αυγούστου 2005 και θα πρέπει να συλλέγεται ξεχωριστά, σύμφωνα με την Οδηγία 2012/19/ΕΕ του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου περί απόβλητου ηλεκτρικού και ηλεκτρονικού εξοπλισμού (WEEE).

Χρήστες ηλεκτρικού και ηλεκτρονικού εξοπλισμού από ιδιωτικά νοικοκυριά (καταναλωτές) εντός κάθε χώρας της Ευρωπαϊκής Ένωσης:
Ο ηλεκτρικός και ηλεκτρονικός εξοπλισμός θα πρέπει να απορρίπτεται σε κατάλληλες ξεχωριστούς συλλογής, όπως ορίζονται από τις αρμόδιες αρχές εντός κάθε κράτους-μέλους ή σύμφωνα με τους εθνικούς κανονισμούς του συγκεκριμένου κράτους-μέλους αναφορικά με τη συλλογή και την απόρριψη απόβλητου ηλεκτρικού και ηλεκτρονικού εξοπλισμο.

Επαγγελματίες χρήστες (εταιρείες, επιχειρήσεις) εντός κάθε χώρας της Ευρωπαϊκής Ένωσης:
Ο ηλεκτρικός και ηλεκτρονικός εξοπλισμός θα πρέπει να απορρίπτεται σύμφωνα με τους εθνικούς κανονισμούς του κράτους-μέλους αναφορικά με τη συλλογή και την απόρριψη απόβλητου ηλεκτρικού και ηλεκτρονικού εξοπλισμού. Περαιτέρω πληροφορίες θα πρέπει να εξασφαλίζονται από το μεταπωλητή ή τον τοπικό προμηθευτή.

Ιδιώτες και επαγγελματίες χρήστες από χώρες εκτός της Ευρωπαϊκής Ένωσης:
Ο ηλεκτρικός και ηλεκτρονικός εξοπλισμός θα πρέπει να απορρίπτεται σύμφωνα με τους εθνικούς κανονισμούς του κράτους-μέλους αναφορικά με τη συλλογή και την απόρριψη απόβλητου ηλεκτρικού και ηλεκτρονικού εξοπλισμού.
Η ακατάλληλη απόρριψη ηλεκτρικού και ηλεκτρονικού εξοπλισμού θα μπορούσε να έχει αρνητικό αντίκτυπο στο περιβάλλον και να δημιουργήσει προβλήματα στην ανθρώπινη υγεία. Με τη συνεργασία για την κατάλληλη απόρριψη αυτού του προϊόντος, συμβάλλετε στην εκ νέου χρήση και ανακύκλωση του προϊόντος, προστατεύοντας παράλληλα το περιβάλλον μας.

POLSKI

Symbol przekreślonego kosza na śmieci na kółkach na sprzęcie elektrycznym i elektronicznym (EEE) wypuszczonym na rynek po 13 sierpnia 2005 oznacza, że powinien być on zbierany oddzielnie, zgodnie z Dyrektywą 2012/19/UE Parlamentu Europejskiego i Rady w sprawie zużytego sprzętu elektrycznego i elektronicznego (WEEE).

Użytkownicy EEE w gospodarstwach domowych (konsumenci) w każdym z państw Unii Europejskiej:
Sprzęt elektryczny i elektroniczny należy oddawać do odpowiednich punktów zbioru utworzonych przez upoważnione organy w każdym państwie członkowskim lub zgodnie z regulacjami krajowymi dotyczącymi zbierania i pozbywania się WEEE w danym państwie członkowskim.

Użytkownicy profesjonalni (firmy i przedsiębiorstwa) w każdym z państw Unii Europejskiej:
elektrycznego i elektronicznego należy pozbywać się zgodnie z regulacjami krajowymi dotyczącymi zbierania i pozbywania się WEEE w danym państwie członkowskim. Dalsze informacje można uzyskać od odsprzedającego lub lokalnego sprzedawcy.

Zarówno użytkownicy prywatni, jak i profesjonalni z krajów nienależących do Unii Europejskiej:
Sprzętu elektrycznego i elektronicznego należy pozbywać się zgodnie z regulacjami krajowymi dotyczącymi zbierania i pozbywania się WEEE w danym państwie członkowskim.
Nieodpowiednie pozbywanie się EEE może mieć negatywny wpływ na środowisko i zagrażać zdrowiu ludzi. Współpraca przy odpowiednim pozbywaniu się tego produktu przyczynia się do ponownego używania i recyklingu, a także do ochrony środowiska.

SLOVENČINA

Symbol prečrtanej nádoby na kolesách označuje elektrické a elektronické zariadenie (EEZ) predávané na trhu od 13. augusta 2005, ktoré by malo byť zbierané samostatne v súlade so Smernicou 2012/19/EÚ Európskeho parlamentu a rady o odpadovom elektrickom a elektronickom zariadení (OEEZ).

Používatelia EEZ v domácnostiach (spotrebitelia) v krajinách Európskej únie:
Elektrické a elektronické zariadenie by malo byť likvidované na príslušných zberných miestach zriadených kompetentnými úradmi v jednotlivých členských štátoch alebo v súlade s národnými predpismi príslušného členského štátu týkajúcimi sa zberu a likvidácie OEEZ.

Firemní používatelia (spoločnosti a podniky) v krajinách Európskej únie:
Elektrické a elektronické zariadenie by malo byť likvidované v súlade s národnými predpismi členského štátu týkajúcich sa zberu a likvidácie OEEZ. Ďalšie informácie je potrebné zaistiť od distribútora alebo miestneho predajcu.

Súkromní používatelia i firmy z krajín mimo Európskej únie:
Elektrické a elektronické zariadenie by malo byť likvidované v súlade s národnými predpismi členského štátu týkajúcimi sa zberu a likvidácie OEEZ.
Nesprávna likvidácia EEZ môže mať negatívny dopad na životné prostredie a zdravie ľudí. Spolupráca na riadnej likvidácii tohto výrobku prispieva k opätovnému použitiu a recyklácii výrobkov a ochrane nášho životného prostredia.

SLOVENŠČINA

Simbol prečrtanega koša za smeti na kolesih je znak za električno in elektronsko opremo (EEO), ki je bila dana na trg po 13. avgustu 2005 in jo je treba zbirati ločeno skladno z Direktivo 2012/19/EU Evropskega parlamenta in Sveta o odpadni električni in elektronski opremi (OEEO).

Uporabniki električne in elektronske opreme v zasebnih gospodinjstvih (potrošniki) v posamezni državi Evropske unije:
Električno in elektronsko opremo je treba predati ustreznim zbirnim centrom, ki so jih ustanovile pristojne oblasti v posamezni državi članici, ali skladno z nacionalnimi predpisi države članice o zbiranju in odlaganju OEEO.

Profesionalni uporabniki (podjetja) v posamezni državi Evropske unije:
Električno in elektronsko opremo je treba odvreči skladno z nacionalnimi predpisi države članice o zbiranju in odlaganju OEEO. Za dodatne informacije se obrnite na prodajalca ali lokalnega dobavitelja.

Zasebni in profesionalni uporabniki iz držav izven Evropske unije:
Električno in elektronsko opremo je treba odvreči skladno z nacionalnimi predpisi države članice o zbiranju in odlaganju OEEO.
Neustrezno odlaganje OEEO lahko škoduje okolju in zdravju ljudi. Z ustreznim odlaganjem tega izdelka prispevate k njegovi ponovni uporabi, recikliranju in zaščiti okolja.

LIETUVIŲ

Perbrauktos šiukšlių dėžės su ratukais simbolis reiškia, kad vadovaujantis Europos parlamento direktyva 2012/19/ES ir Tarybos direktyva dėl elektros ir elektroninės įrangos atliekų (WEEE), elektrinė ir elektroninė įranga (EEE), pateikta į rinką po 2005 m. rugpjūčio 13 d., turi būti surenkama atskirai.

Privatūs namų ūkiai (naudotojai), naudojantys EEE bet kurioje Europos Sąjungos šalyje:
Elektros ir elektroninė įranga turi būti perduodama į atitinkamus surinkimo centrus, kaip tai yra nustatyta kompetentingų institucijų kiekvienoje valstybėje narėje arba pagal tos valstybės narės nacionalinius teisės aktus, reglamentuojančius WEEE atliekų surinkimą ir šalinimą.

Profesionalūs naudotojai (įmonės)bet kurioje Europos sąjungos šalyje:
Elektros ir elektroninė įranga turi būti pašalinta vadovaujantis valstybės narės nacionaliniais teisės aktais, reglamentuojančiais WEEE atliekų surinkimas ir šalinimas. Daugiau informacijos galite gauti iš atstovo arba vietos pardavėjo.

Privatūs ir profesionalūs naudotojai iš Europos Sąjungai nepriklausančių šalių:
elektros ir elektroninė įranga turi būti pašalinta vadovaujantis valstybės narės nacionaliniais teisės aktais, reglamentuojančiais WEEE atliekų surinkimas ir šalinimas.
Netinkamas EEE šalinimas gali neigiamai veikti aplinką ir žmonių sveikatą. Dalyvaudami teisingame šio gaminio šalinimo procese, jūs ne tik saugote aplinką, bet ir prisidedate prie pakartotinio gaminio panaudojimo ir perdirbimo.

EESTI

Läbikriipsutatud ratastega prügikonteineri sümbol tähistab pärast 13. augustit 2005 turuletoodud elektri- ja elektroonikaseadmeid, mis tuleb kokku koguda kooskõlas Euroopa Parlamendi ja nõukogu direktiiviga 2012/19/EL elektri- ja elektroonikaseadmete jäätmete kohta.

Elektri- ja elektroonikaseadmete kasutajad kodumajapidamistes (tavatarbijad) igas Euroopa Liidu riigis:
Elektri- ja elektroonikaseadmed tuleb kõrvaldada iga liikmesriigi pädevate asutuste rajatud asjakohastes kogumiskohtades või kooskõlas selle liikmesriigi elektri- ja elektroonikaseadmete jäätmete kogumist ja kõrvaldamist käsitlevate riiklike eeskirjadega.

Erialased kasutajad (ettevõtted) igas Euroopa Liidu riigis:
Elektri- ja elektroonikaseadmed tuleb kõrvaldada liikmesriigi elektri- ja elektroonikaseadmete jäätmete kogumist ja kõrvaldamist käsitlevate riiklike eeskirjadega. Lisateavet peaks saama edasimüüjalt või kohalikult müüjalt.

Kodumajapidamised ja erialased kasutajad Euroopa Liidu välistest riikidest:
Elektri- ja elektroonikaseadmed tuleb kõrvaldada liikmesriigi elektri- ja elektroonikaseadmete jäätmete kogumist ja kõrvaldamist käsitlevate riiklike eeskirjadega.
Elektri- ja elektroonikaseadmete sobimatul kõrvaldamisel võib olla keskkonda ja inimeste tervist kahjustav mõju. Koostöö selle toote asjakohasel kõrvaldamisel aitab kaasa toote taaskasutamisele ja ringlusevõtule ning kaitseb ühtlasi meie keskkonda.

LATVIEŠU

Simbols, kurā attēlots nosvītrots atkritumu konteiners ar rītenjiem, identificē elektriskās un elektroniskās iekārtas (EEI), kas nokļuvušas Eiropas Savienības tirgū pēc 2005. gada 13. augusta un kuras ir jāsavāc atsevišķi saskaņā ar Eiropas Parlamenta un Padomes Direktīvu 2012/19/ES par elektrisko un elektronisko iekārtu atkritumiem (EEIA).

EEI lietotāji mājsaimniecībās (patērētāji) visās Eiropas Savienības valstīs:
Elektriskās un elektroniskās iekārtas ir jālikvidē atbilstošos savākšanas punktos, ko izveidojušas atbildīgās varas iestādes katrā dalībvalstī vai saskaņā ar šīs dalībvalsts noteikumiem attiecībā uz EEIA savākšanu un likvidēšanu.

Profesionālie lietotāji (uzņēmumi) visās Eiropas Savienības valstīs:
Elektriskās un elektroniskās iekārtas ir jālikvidē saskaņā ar dalībvalstī spēkā esošajiem tiesību aktiem attiecībā uz EEIA savākšanu un likvidēšanu. Papildinformāciju jāsaņem no tālākpārdevēja vai vietējā piegādātāja.

Privātie un profesionālie lietotāji valstīs ārpus Eiropas Savienības:
Elektriskās un elektroniskās iekārtas ir jālikvidē saskaņā ar dalībvalstī spēkā esošajiem tiesību aktiem attiecībā uz EEIA savākšanu un likvidēšanu.
Nealbistoša EEI likvidēšana var nelabvēlīgi ietekmēt vidi un bojāt cilvēku veselību. Kopīgi sadarbojoties, lai atbilstoši likvidētu šo produktu, tiek veicināta produkta atkārtota izmantošana un pārstrāde, vienlaikus aizsargājot mūsu vidi.

BOSANSKI

Simbol precrtane korpe sa točkićima označava električnu i elektronsku opremu (Electrical and Electronic Equipment, EEE) koja je predstavljena na tržištu nakon 13. avgusta 2005. godine i koju treba zasebno prikupljati u skladu sa Direktivom 2012/19/EU Evropskog parlamenta i saveta u vezi sa otpadom koji čini električna i elektronska oprema (Waste Electrical and Electronic Equipment, WEEE).

Korisnici EEE iz privatnih domaćinstava (potrošači) u svakoj državi Evropske unije:
Električnu i elektronsku opremu treba odlagati u odgovarajućim objektima za prikupljanje koje su osnovale nadležne vlasti u svakoj državi članici ili u skladu sa nacionalnim propisima te države članice u vezi sa prikupljanjem i odlaganjem WEEE.

Profesionalni korisnici (kompanije – preduzeća) u svakoj državi Evropske unije:
Električnu i elektronsku opremu treba odlagati u skladu sa nacionalnim propisima države članice u vezi sa prikupljanjem i odlaganjem WEEE. Dodatne informacije treba pribaviti od distributera ili lokalnog prodavca.

Privatni i profesionalni korisnici iz država izvan Evropske unije:
Električnu i elektronsku opremu treba odlagati u skladu sa nacionalnim propisima države članice u vezi sa prikupljanjem i odlaganjem WEEE.
Nepravilno odlaganje EEE može da dovede do negativnog uticaja na životnu sredinu i ugrožavanja zdravlja ljudi. Saradnja u vezi sa odgovarajućim odlaganjem ovog proizvoda doprinosi ponovnoj upotrebi i recikliži proizvoda a istovremeno štiti našu životnu sredinu.

MAGYAR

Az áthúzott kuka szimbólum a 2005. augusztus 13-a után piacra kerülő elektromos és elektronikus berendezések (EEE) jelölő, amelyeket külön kell gyűjteni az Európai Parlament és az Európai Tanács elektromos és elektronikus berendezések hulladékairól szóló 2012/19/EU irányelvének (WEEE-irányelv) értelmében.

EEE-felhasználók (fogyasztók) az Európai Unió egyes tagországainak magánháztartásaiban:
Az elektronikus és elektromos berendezések minden egyes tagállam illetékes hatósága által kijelölt, arra megfelelő gyűjtőlétesítményeiben helyezhetők el, az adott tagállam WEEE-gyűjtésre és -ártalmatlanításra vonatkozó nemzeti szabályozásának megfelelő módon.

Üzleti felhasználók (cégek, vállalatok) az Európai Unió egyes tagországaiban:
Az elektromos és elektronikus berendezések az adott tagállam WEEE-gyűjtésre és -ártalmatlanításra vonatkozó nemzeti szabályozásának megfelelő módon helyezhetők el. További információkért forduljon a viszonteladóhoz vagy helyi kereskedőhöz.

Magán- és üzleti felhasználók az Európai Unión kívüli országokban:
Az elektromos és elektronikus berendezések az adott tagállam WEEE-gyűjtésre és -ártalmatlanításra vonatkozó nemzeti szabályozásának megfelelő módon helyezhetők el.
A nem megfelelő EEE-ártalmatlanítás káros környezeti hatásokkal járhat, és veszélyeztetheti az emberi egészséget. A termék megfelelő módon történő ártalmatlanításában való közreműködésével Ön hozzájárul a termék újrafelhasználásához, újrahasznosításához, valamint környezetünk védelméhez.

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