

Contact us

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Warning! Installation by person with electrotechnical expertise only.
Warnung! Installation nur durch elektrotechnische Fachkraft.
Avvertenza! Fare installare solo da un elettricista qualificato.



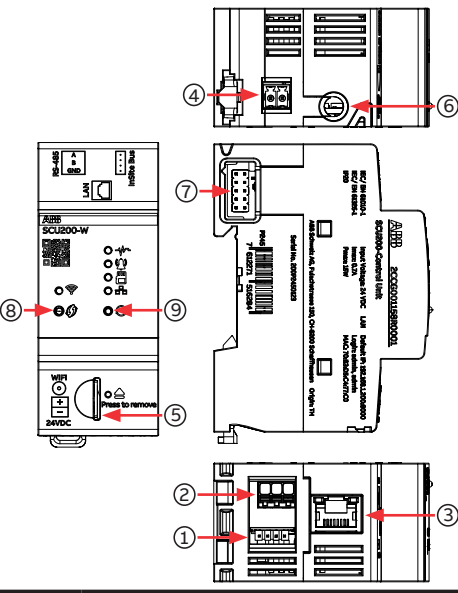
QR Code for online Installation Manual.

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1.Packaging Content

- Control unit SCU200 / SCU200-W
- Installation manual

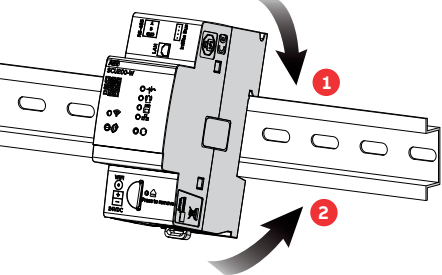
2.Product overview



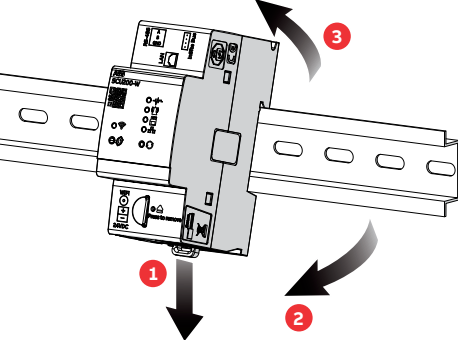
Description	
1	InSite bus interface
2	RS-485 (2-wire)
3	RJ45 LAN port
4	Connection port to 24 VDC
5	microSD slot
6	SMA connector (only on SCU200-W)
7	Modular bus connector (input)
8	WPS button
9	Reset button

3.SCU200 on 35mm DIN-Rail

3.1.Assembly on DIN-Rail



3.2.Disassembly on DIN-Rail

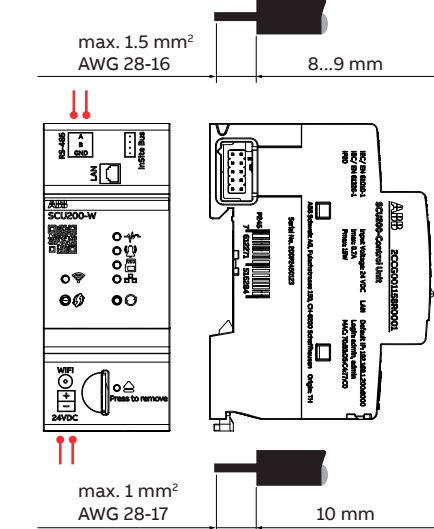


9AKK108467A9129-D March 2024

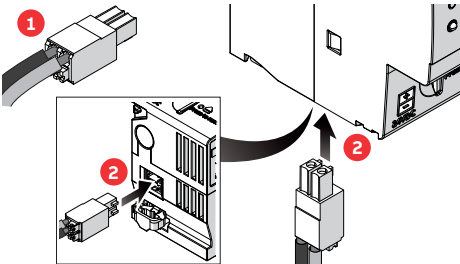
InSite energy management system
INSTALLATION MANUAL

InSite control unit
SCU200 / SCU200-W

4.Connection diagram



To power the SCU200 with 24VDC, first connect cables to the adapter, and then plug it into the 24VDC connection port paying attention not to force the insertion too much.



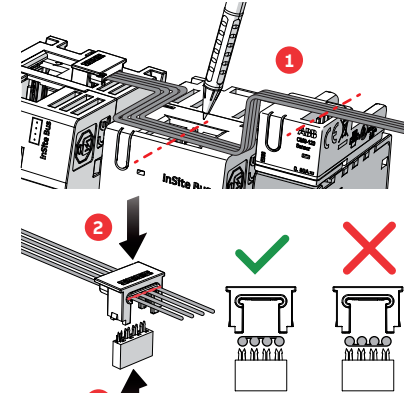
5.Connection to current sensors, I/O modules and smart accesories

- Use the connectors only once.
- Keep a distance of 5.5mm minimum between the flat cable and uninsulated live parts.
- Consider the maximum flat cable length. To calculate maximum length, please refer to the tool available at this link.



QR Code for online tool.

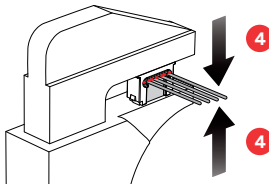
Mark the desired placement of the connector with a pen.



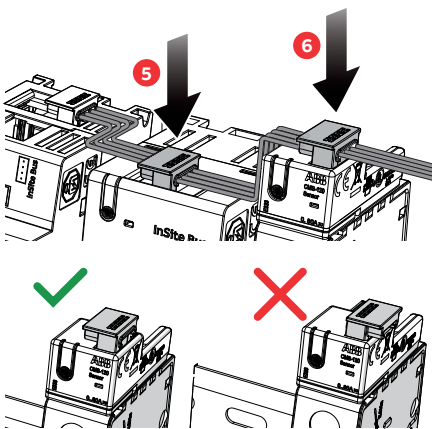
Attention: Pay attention to the correct orientation of the cable. Make sure that the cable is properly inserted into the connector housing.



Press connector set with parallel pliers together.



Plug connectors to Control Unit and sensors, I/O modules and/or smart devices.



Attention: When plugging in the InSite flat cable, check the correct connection direction.

5.1.Mounting of current sensors

Refer to dedicated instruction manuals or InSite user manual



QR Code for 2CCC481010M1003 (Open-Core sensor)



QR Code for 2CCC481009M1001 (Solid-Core sensor)

5.2.Mounting of I/O modules

Refer to dedicated instruction manuals or InSite user manual.



QR Code for 9AKK107680A1728 (Instructions for I/O modules)

5.3.Mounting of smart accessories

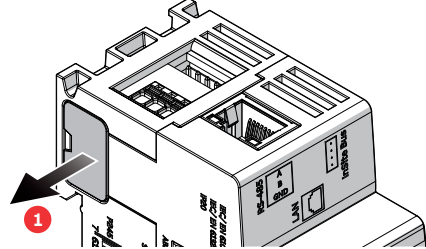
Refer to dedicated instruction manuals or InSite user manual.



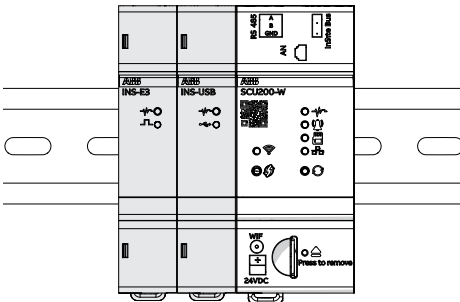
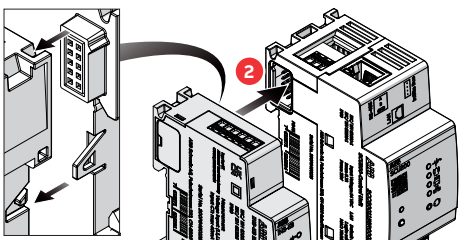
QR Code for 9AKK107680A1728 (Instructions for I/O modules)

6.Connection of InSite expansion modules

To connect expansion modules remove the flap covering the input connectors of SCU200



and insert the connector plug placed on the right side of the InSite expansion module. Pay attention to the correct interlocking between modules.

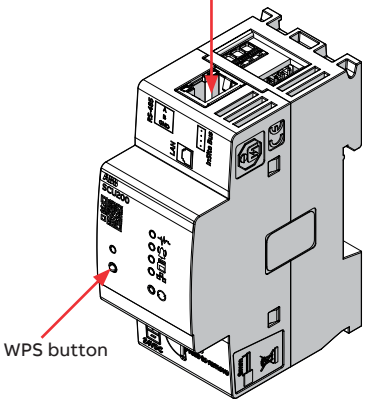


Attention: In case one or more expansion modules have to be added to SCU200 / SCU200-W plug them all first before assembling on DIN-Rail bar.

7.Connection to LAN

The SCU200 control unit can be connected to the router using a RJ45 cable. In case of SCU200-W connection can also be done through WiFi, by pressing the WPS button on both router (first) and control unit or selecting the correct network in the WebUI "System setup - Communication - Wifi" section and typing the correspondent password if needed.

RJ45 socket for LAN connection



If wired connection through RJ45 is selected:

Static access with default factory setting	Details
1 Static IP address for PC	https://192.168.1.x (x=2...254)
2 Subnet mask	255.255.255.0
3 DHCP access (In case: If you change after initial commissioning for DHCP access)	Hostname: insite
4 access web User Interface	Google Chrome
5 Default IP of Control Unit	https://192.168.1.200:8000
6 Default login	admin, admin

Information: Make sure that IP address in assigned LAN is not used twice, if needed adjustment is required. Example: <https://192.168.1.x> (x=2...254)

In case of cable extension (antenna connected to the cabinet), be sure to isolate the antenna from the ground (e.g. using a panel-mounted isolated SMA connector).

Attention: Antenna shields are connected to common system ground. Connecting antenna shields to different potentials may damage the system or result in protection means trip.

If wireless connection is selected:

Wireless access with default factory setting	Details
1 IP address for PC	DHCP
2 WiFi network	SSID: see product label
3 SSID password	See product label
4 Default IP of Control Unit	https://192.168.2.1:8000
5 Default login	admin, admin

8.Setting and configuration

Detailed explanation to access web User Interface is reported in section "5. Access to control unit and configuration wizard" of the user manual. How to configure the system is detailed in section "6. WebUI" of the user manual.



Download User Manual.

9.Technical data

Technical feature	Unit	Description WIFI
Supply voltage	[VDC]	24 +/- 10%
Current	[A]	0.7
Connection		InSite modular bus
Power consumption	[W]	2.5 ... 15 (depending on the CPU load, interfaces and InSite bus load)
Refresh time		1 sec / 30 sec (depending on type of data)
Data storage and export		Integrated data storage (expandable through microSD card)
		Automatic CSV data export
		Modbus TCP/IP
		Rest API
Communication protocols		DHCP
		HTTPS
		NTP
	[Mbit/s]	Ethernet, 10/100
Communication ports		RS485 (120Ω termination default)
		WiFi 2.4 GHz IEEE 802.11 b/g/n*
		InSite bus
External antenna port		Female SMA / 50Ω / 2.4 GHz*
Data rate of Modbus RTU		RS485 2- wire, 2400 ... 115200
External antenna (not included)		Male SMA / 50 Ohm / 2.4 GHz max 4.7 dBi*

Conductor cross section solid/flexible	[mm²]	0.2 ... 1
AWG	[AWG]	28-17
Strip length	[mm]	10

Conductor cross section solid/flexible	[mm²]	0.14 ... 1.5
AWG solid conductor	[AWG]	28-16
AWG flexible conductor	[AWG]	26-14
Strip length	[mm]	8 ... 9

Connected devices		Up to 32 CMS sensors/digital channels/smart accessories
		Up to 16 Modbus TCP and 16 Modbus RTU devices
Mounting method		35mm DIN rail (DIN 5022)
Degree of protection		IP20
Dimensions	[mm]	35.8x87x64.9 (2M)
Weight	[g]	105
Operating temperature	[°C]	-25... +55
Storage temperature	[°C]	-40... +85
Operating altitude	[m]	0... 2000
Standards		EN 61010-1 / IEC 61010-1 EN IEC 61326-1

*available only in SCU200-W

(EN) English

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 **Warning** – Working with high voltage is potentially lethal. Persons subjected to high voltage may suffer cardiac arrest, burn injuries, or other severe injuries. To avoid such injuries, make sure to disconnect the power supply before you start the installation.

Electrical equipment should only be installed, accessed, serviced and maintained by qualified electrical personnel.

 **Warning** – For safety reasons it is recommended that the equipment is installed in a way that makes it impossible to reach or touch the terminal blocks by accident.

The best way to make a safe installation is to install the unit in an enclosure. Further, access to the equipment should be limited through use of lock and key, controlled by qualified electrical personnel.

 **Warning** – Do not operate the equipment outside the specified technical data and intended use.

Service and Maintenance

The equipment contains no parts that can be repaired or exchanged. A broken equipment must be replaced.

Caution – Be careful that no liquid gets into the device since it may damage the equipment.

Disposal

Faulty products should be treated as hazardous waste and disposed of in an appropriate manner. National or regional regulations regarding the disposal of hazardous waste should be adhered to.

IMPORTANT: since the module allows circuit breakers to be controlled, it can only be connected to networks that meet all the necessary requirements for security and prevention of unauthorized access (for example, the network of the control system of an installation). It is the responsibility of the installer to make sure that all the necessary security measures have been adopted (for example, firewalls and so on).

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(IT) Italiano

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 **Avvertenza** – Lavorare con l'alta tensione è potenzialmente letale. Le persone colpite da alta tensione possono soffrire di arresto cardiaco, lesioni da ustione ed altre lesioni gravi. Per evitare queste lesioni, disconnettere l'alimentazione prima di dare inizio all'installazione. L'apparecchiatura elettrica deve essere installata esclusivamente da personale elettrico qualificato che ha letto tutte le informazio-ni relative all'installazione.

 **Avvertenza** – Per motivi di sicurezza si consiglia di installare l'apparecchia-tura in modo tale da rendere impossibile raggiungere o toccare per sbaglio le morsettiere.

Il modo migliore per rendere sicura l'installazione è quello di installare l'unità in un quadro chiuso. Inoltre, l'accesso all'apparecchiatura dovrà essere limitato dall'uso di serratura, con chiave sotto il controllo di personale elettrico qualificato.

 **Avvertenza** – Le apparecchiature devono essere utilizzate in conformità ai dati tecnici specificati e all'uso previsto.

Assistenza e manutenzione

L'apparecchiatura non contiene parti riparabili o sostituibili. Un prodotto guasto va sostituito.

Attenzione – Fare attenzione che all'interno del prodotto non entrino liquidi in quanto l'apparecchiatura potrebbe danneggiarsi.

Smaltimento – I prodotti difettosi devono essere trattati come rifiuti pericolosi e smaltiti in modo appropriato. È necessario rispettare le norme nazionali o regionali relative allo smaltimento di rifiuti pericolosi.

IMPORTANTE poiché il prodotto permette il controllo di interruttori, può essere collegato solo a reti dotate di tutti i necessari requisiti di sicurezza e prevenzione da accessi non autorizzati. È responsabilità dell'installatore assicurarsi che siano adottate tutte le necessarie misure di sicurezza (per esempio, firewall, e altre).

(DE) Deutsch

Haftungsausschluss

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 **Warnung** – Arbeiten mit hohen Spannungen kann potenziell tödlich sein.

Personen, die mit hohen Spannungen in Berührung kamen, können einen Herz- stillstand, Verbrennungen oder andere schwere Verletzungen erleiden. Um solche Verletzungen zu vermeiden, müssen Sie vor der Installation die Stromversorgung unterbrechen.

Installation, Zugang und Wartung elektrischer Geräte darf nur durch qualifizierte Elektrofacharbeiter, unter Beachtung der Installationsanleitung, erfolgen.

 **Warnung** – Aus Sicherheitsgründen wird empfohlen, dass die Geräte so ins- talliert werden, dass ein zufälliges Berühren der Anschlussklemmen nicht möglich ist. Die beste Möglichkeit für eine sichere Installation ist die Installation in einem Gehäuse. Außerdem muss der Zugang zu den Geräten mithilfe eines Schlosses und Schlüssels eingeschränkt werden und von qualifizierten Elektrofacharbeitern überwacht werden.

 **Warnung** – Das Gerät gemäß der angegebenen technischen Daten und des Verwendungszwecks verwenden.

Wartung

Das Messgerät enthält keine Komponenten, die repariert oder ausgetauscht oder gewartet werden müssen. Ein defektes Messgerät muss neu ersetzt werden.

Achtung – Achten Sie darauf, dass keine Flüssigkeit in das Messgerät eindringt. Andernfalls kann das Gerät beschädigt werden.

Entsorgung – Fehlerhafte Produkte sind als gefährlicher Abfall zu behandeln und ordnungsgemäß zu entsorgen.

Nationale oder regionale Vorschriften zur Entsorgung gefährlicher Abfälle sind zu beachten.

WICHTIG: Da das Gerät die Steuerung von Schaltgeräten ermöglicht, kann es nur an Kommunikationsnetze angeschlossen werden, die alle erforderlichen Anforde- rungen für die Sicherheit und den Schutz vor unbefugtem Zugriff erfüllen. Es liegt in der Verantwortung des Installateurs, sicherzustellen, dass alle erforderlichen Sicherheitsmaßnahmen getroffen wurden (z. B. Firewalls usw.).

(PT) Português

Aviso Legal

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ABB não se responsabiliza por eventuais danos acidentais ou consequentes que resultem da utilização de qualquer software ou hardware descrito no presente documento.
 **Aviso** – Efetuar trabalhos em alta tensão é potencialmente fatal. Os indi- viduos sujeitos a alta tensão podem sofrer paradas cardíacas, ferimentos por queimaduras, ou outros ferimentos graves. Para evitar, certifique-se de que a fonte de alimentação esteja desligada antes de iniciar a instalação.
A instalação, assistência e manutenção de equipamentos eletricos devem ser realizada apenas por profissionais eletricistas qualificados, seguindo-se todas as instruções e recomendações deste manual em todas as etapas da instalação.
 **Aviso** – Por motivos de segurança, recomenda-se que o equipamento seja instalado em local que seja impossível tocar ou alcançar acidentalmente os bornes de ligação. A melhor forma de garantir uma instalação segura é inserir o produto no interior de um quadro elétrico. Além disso, o acesso ao equipamento deve estar limitado, utilizando-se um cadeado com chave, controlado apenas por um eletricista qualificado.
 **Aviso** – Não operar o equipamento além dos dados técnicos especificados e da utilização pretendida.

Assistência e Manutenção

O equipamento não possui componentes que possam ser reparados ou substituí- dos, caso danificado descarte-o.
Se for necessário limpar o produto, utilize um pano ligeiramente umedecido e um detergente suave.

Atenção – Tenha cuidado para não deixar líquidos entrarem no produto, pois podem danificar o equipamento.
Descarte – os equipamentos com defeitos devem ser considerados perigosos e descartados em local apropriado. Seguindo regulamentos nacionais ou regionais para tais fins.

IMPORTANTE: como o dispositivo controla os disjuntores, ele deve estar conectado às redes TCP/IP que atendam a todos os requisitos necessários para segurança e prevenção de acesso não autorizado. É de responsabilidade do instalador garantir que todas às medidas de segurança cibernéticas necessárias sejam adotadas (por exemplo, a utilização de firewall).

(ES) Español

Limitación de responsabilidad

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 **Advertencia** – Trabajar con alta tensión es potencialmente letal. Las personas sometidas a alta tensión pueden sufrir un paro cardíaco, quemaduras u otras lesiones graves. Para evitar este tipo de lesiones, asegúrese de desconectar el suministro eléctrico antes de iniciar la instalación. El material eléctrico únicamen- te debe ser instalado por personal cualificado una vez leído toda la información relativa a la instalación.

 **Advertencia** – Por motivos de seguridad se recomienda instalar el equipo de modo que sea imposible alcanzar o tocar los bloques de terminales de forma accidental.

La mejor manera de efectuar una instalación segura es instalar la unidad en un envoltente. Además, el acceso al equipo debe restringirse mediante llave y debe ser controlado por el personal eléctrico cualificado.

 **Advertencia** – Es necesario utilizar el equipo en conformidad con los datos técnicos especificados y el uso previsto.

Servicio y mantenimiento

Esta unidad no contiene ninguna pieza que se pueda reparar o sustituir. Si se estropea la unidad debe sustituirse por una nueva.

Atención – Lleve cuidado con que ningún líquido entre en contacto con la unidad puesto que podría ser dañada.

Disposición – Las unidades mal funcionantes deben ser tratadas como material peligroso y ser desechadas de la manera apropiada. Normativas nacionales o regionales sobre desperdicios peligrosos deben ser respetadas.

Importante – Puesto que la unidad permite el control de interruptores, debe ser usada solo en sistemas de supervisión y comunicación que respeten todos los criterios de seguridad y prevención de accesos fraudulentos. Es responsabilidad del instalador asegurarse que todas las medidas de seguridad necesarias han sido adoptadas (por ejemplo, con la instalación de "firewalls", etc).

Service and Maintenance
The equipment contains no parts that can be repaired or exchanged. A broken equipment must be replaced.
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Disposal
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(ZH) 简体中文

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 **警告** – 在高电压条件下作业时可能会导致生命危险。高电压触电可能导致心跳停止、烧伤或其他严重伤害。为避免此类伤害，请确保在开始安装前切断电源。

电气设备只能由已经阅读了与安装有关所有信息的合格的电气人员进行专门安装。

 **警告** – 为安全起见，建议采用如下安装方式，即端子不会被无意中碰到或接触到。

最安全的安装方式是将设备安装在机柜中。此外只有通过使用由合格电气人员掌握的锁和钥匙才能接触到设备。

 **警告** – 切勿以超出特定技术参数和有待于预定用途的方式操纵设备。

服务和维修

设备中所有部件均无法修理或更换。设备一旦损坏，必须进行更换。

小心 – 注意不要让任何液体进入设备，否则可能会损坏设备。

处置方式 有缺陷的产品应被视为有害废物，并以适当的方式进行处理。应遵守相关有害废物处置的国家或地区法规。

重要说明 由于该设备允许控制断路器，因此只能将其连接到满足所有必要安全性的通信网络中，并防止未授权的访问。安装人员有责任确保已经采取了全部必要的安全措施（例如防火墙等）。

(FR) Français

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 **Avertissement** – Travailler avec une alimentation en haute tension est potentiellement mortelle. Les personnes exposées à une haute tension peuvent subir un arrêt cardiaque, des brûlures, ou d'autres blessures graves. Pour éviter tous ces risques de blessures, assurez-vous de débrancher la source d'alimentation électrique avant de démarrer l'installation. Les appareillages électriques doivent être installés exclusivement pas du personnel qualifié qui ont lu la totalité des informations en lien avec l'installation.

 **Avertissement** – Pour des raisons de sécurité, il est recommandé d'installer l'équipement de manière à ce qu'il soit impossible d'atteindre ou de toucher le bornier de raccordement par accident.

Le meilleur moyen de réaliser une installation sûre consiste à installer l'équi- pement dans un coffret. De plus, l'accès à l'équipement doit être limité et doit s'effectuer au moyen d'un verrou et d'une clé, contrôlés par un électricien qualifié.

 **Avertissement** – L'équipement doit être utilisé conformément aux données techniques et à l'utilisation prévue.

Entretien et maintenance

L'équipement ne comporte aucune pièce pouvant être réparée ou remplacée. Un équipement endommagé doit être remplacé intégralement.

Attention – Veillez à ce qu'aucun liquide ne pénètre à l'intérieur de l'appareil qui pourrait endommager l'équipement.

Traitement des déchets – Les produits défectueux doivent être considérés comme des déchets dangereux et doivent être gérés de manière appropriée. Les recommandations ou normes locales ou régionale doivent être appliquées.

IMPORTANT Comme l'appareil permet le contrôle des disjoncteurs, il peut unique- ment être connecté au réseau de communication qui respecte tous les pré-requis de sécurité et de prévention d'accès non autorisés. Il en est de la responsabilité de l'installateur de s'assurer que toutes les mesures de sécurité ont bien été adoptées (par exemple, pare-feu etc).

Service and Maintenance
The equipment contains no parts that can be repaired or exchanged. A broken equipment must be replaced.
Caution – Be careful that no liquid gets into the device since it may damage the equipment.
Disposal
Faulty products should be treated as hazardous waste and disposed of in an appropriate manner. National or regional regulations regarding the disposal of hazardous waste should be adhered to.

IMPORTANT: since the module allows circuit breakers to be controlled, it can only be connected to networks that meet all the necessary requirements for security and prevention of unauthorized access (for example, the network of the control system of an installation). It is the responsibility of the installer to make sure that all the necessary security measures have been adopted (for example, firewalls and so on).

Service and Maintenance
The equipment contains no parts that can be repaired or exchanged. A broken equipment must be replaced.
Caution – Be careful that no liquid gets into the device since it may damage the equipment.
Disposal
Faulty products should be treated as hazardous waste and disposed of in an appropriate manner. National or regional regulations regarding the disposal of hazardous waste should be adhered to.

WICHTIG: Da das Gerät die Steuerung von Schaltgeräten ermöglicht, kann es nur an Kommunikationsnetze angeschlossen werden, die alle erforderlichen Anforde- rungen für die Sicherheit und den Schutz vor unbefugtem Zugriff erfüllen. Es liegt in der Verantwortung des Installateurs, sicherzustellen, dass alle erforderlichen Sicherheitsmaßnahmen getroffen wurden (z. B. Firewalls usw.).

عمل بالجهد العالي قد يكون مميتا. قد يتعرض الأشخاص الذين يتعرضون للجهد العالي للسكتة القلبية أو إصابات الحروق أو الإصابات الشديدة الأخرى. لتجنب مثل هذه الإصابات تأكد من فصل مزود الطاقة قبل بدء التركيب.يجب تثبيت المعدات الكهربائية على وجه الحصر بواسطة أفراد مؤهلين قرأوا جميع المعلومات المتعلقة بالتركيب.

 **تحذير** – لأسباب تتعلق بالسلامة، يوصى بتثبيت الجهاز بطريقة تجعل الوصول إلى المحطات الطرفية أو لمسها مستحيلًا.

أفضل طريقة لإجراء تثبيت آمن هي تثبيت الوحدة في حاوية. علاوة على ذلك، يجب أن يكون الوصول إلى المعدات محدودًا من خلال استخدام القفل والمفتاح، ويتم التحكم فيها بواسطة طاقم كهربائي مؤهل.

 **تحذير** – يجب استخدام الأجهزة وفقًا للمواصفات الفنية المذكورة والاستخدام المنصوص عليه.

لا يحتوي الجهاز على أي أجزاء يمكن إصلاحها أو استبدالها. يجب استبدال المعدات المكسورة.

تحذير – احرص على عدم وصول أي سائل إلى الجهاز لأنه قد يؤدي إلى تلف الجهاز.

التخلص
يجب معالجة المنتجات المعيبة كنفایات خطيرة والتخلص منها بطريقة مناسبة. يجب الالتزام باللوائح الوطنية أو الإقليمية المتعلقة بالتخلص من النفايات الخطرة.

مهم
نظرًا لأن الجهاز يسمح بالتحكم في قواطع الدائرة، يمكن توصيله فقط بشبكات الاتصال التي تلي جميع المتطلبات اللازمة للأمان ومنع الوصول غير المصرح به. تقع على عاتق المثبت مسؤولية التأكد من اعتماد جميع التدابير الأمنية اللازمة (على سبيل المثال، جدران الحماية وما إلى ذلك).