

deutsch

Sicherheitshinweise
Die „Installationsanleitung“ stellt kein vollständiges Verzeichnis aller für einen Betrieb des Geräts erforderlichen Sicherheitsmaßnahmen dar. Besondere Betriebsbedingungen können weitere Maßnahmen erfordern. Die in dieser Anleitung enthaltenen Hinweise, die Sie zu Ihrer persönlichen Sicherheit und zur Vermeidung von Sachschäden beachten müssen. Verwendete Symbole:

- Dieses Symbol als Zusatz zu den Sicherheitshinweisen deutet auf eine elektrische Gefahr hin.
- Dieses Symbol als Zusatz zu den Sicherheitshinweisen deutet auf eine potenzielle Gefahr hin.
- Dieses Symbol mit dem Wort **HINWEIS!** beschreibt:
 - Verfahren, die keine Verletzungsgefahren bergen.
 - Wichtige Informationen, Verfahren oder Handlungen.

Sicherheitshinweise sind durch ein Warn- Dreieck hervorgehoben und je nach Gefährdungsgrad wie folgt dargestellt:

GEFAHR!
Weist auf eine unmittelbare drohende Gefahr hin, die zu schweren bzw. tödlichen Verletzungen führen kann.

WARNUNG!
Weist auf eine möglicherweise gefährliche Situation hin, die zu leichten Verletzungen oder Sachschäden führen kann.

VORSICHT!
Weist auf eine möglicherweise gefährliche Situation hin, die zu leichten Verletzungen oder Sachschäden führen kann.

Maßnahmen zur Sicherheit
Beim Betrieb elektrischer Geräte stehen zwangsläufig bestimmte Teile dieser Geräte unter gefährlicher Spannung. Es können deshalb schwere Körperverletzung oder Sachschäden auftreten, wenn nicht fachgerecht gehandelt wird:

- Vor Arbeitsbeginn Ihre Anlage spannungsfrei schalten! (Spannungsfreiheit prüfen)
- Vor Anschluss von Verbindungen das Gerät am Schutzleiteranschluss, wenn vorhanden, anschließen.
- Gefährliche Spannungen können in allen mit Spannung versorgten Verbindungen in Schaltkreislagen entstehen.
- Auch nach Abtrennen der Versorgungs- spannung können gefährliche Spannungen im Gerät vorhanden sein (Kondensator- spannung).
- Betriebsmittel mit „/5 A (1 A)“-Strom- wendekreislagen nicht offen betreiben.
- Die im Benutzeranbuch und auf dem Typenschild genannten Grenzwerte nicht überschreiten, dies auch bei der Prüfung und der Inbetriebnahme.
- Beachten Sie Sicherheits- und Warnhinwei- se in den Dokumenten, die zu den Gerä- ten gehören!

Qualifiziertes Personal
Die Installation und die Wartung zu vermei- den, darf nur qualifiziertes Personal mit elektro- technischer Ausbildung am Gerät arbeiten mit Kenntnis der einschlägigen Vorschriften

- der nationalen Unfallverhütungsvorschriften
- in Standards der Sicherheitstechnik
- in Installation, Inbetriebnahme und Betrieb des Geräts.

Bestimmungsgemäße Verwendung
Das Gerät ist:

- für den Einbau in Schaltkreislagen und Installationskleinverleihen bestimmt
- mit Schutzleiteranschluss zu bestim- men
- der Einbau in Fahrzeugen be- stimmt
- Der Einsatz des Geräts in nicht- ortsfesten Ausrüstungen gilt als außer- gewöhnliche Umweilbedingung und ist nur nach gesonderter Vereinbarung zulässig.

Strommessung
Das Gerät ist nur für eine Strommessung über Strom- wandler zugelassen.

- ist für den Anschluss von „/5 A (1 A)“-Stromwandler
- misst keine Gleichströme.

Verzerrungsgefahr durch elektrische Spannung!
Schwere Körperverletzungen oder Tod können erfolgen, durch:

- Berühren von blanken oder abisolierten Adern, die unter Strom stehen.
- Berührungsfähige Strommessesingän- ge am Gerät und an den Stromwandlern.

Vor Arbeitsbeginn Ihre Anlage spannungsfrei schalten! Verwenden Sie dazu die Erdanschlußstellen mit Sekundärwicklungen von Stromwandlern und alle der Berührung zugänglichen Metallteile der Wandler!

Verzerrungsgefahr durch große Ströme und hohe elektrische Spannungen!
Sekundärseitig offen betriebene „/5 A (1 A)“-Stromwandler (hohe Spannungsspitzen) können schwere Körperverletzungen oder Tod zu Folge haben.

Den offenen Betrieb der Stromwandler vermeiden, um unbelegte Wandler kurz- schließen!

Sachschaden durch falsche Netzwerkeinstellungen!
Falsche Netzwerkeinstellungen können Störungen im IT-Netzwerk verursachen

Informieren Sie sich bei Ihrem Netz- werksadministrator über die korrekten Netzwerkeinstellungen für Ihr Gerät.

Montage
Sachschaden durch Nicht- beachtung der Montage- hinweise!

VORSICHT!
Nichtbeachtung der Montagehinweise kann Ihr Gerät beschädigen oder zerstören.

Sorgen Sie in Ihrer Umgebung für ausreichende Luftzirkulation, bei hohen Umgebungstemperaturen ggf. für Kühlung.

Analoge Eingänge
Beschädigung des Geräts/ Verschleiß durch Kurz- schluss!

Zu geringe Isolierung der Betriebsmittel an den Analog-Eingängen gegenüber den Netzstromkreislagen kann zur Beschädigung Ihres Geräts/Ihrer Anlage führen.

Sorgen Sie für eine verstärkte oder dop- pelte Isolierung zu den Netzstromkreislä- nen!

Verzerrungsgefahr oder Beschädigung des Geräts!
Durch Nichtbeachtung der Anschlussbedin- gungen für die Spannungsmeßeingänge können Sie sich verletzen oder das Gerät beschädigen. Beachten Sie deshalb:

- Die Spannungsmeßeingänge nicht mit Gleichspannung belegen.
- mit einer geeigneten, gekennzeichneten in der Nähe platzierten Sicher- ungsvorrichtung (Alternativ: Leitungsschutzschalter) versehen.
- Spannungen, die die erlaubten Netz- spannungswerte überschreiten über Spannungswandler anschließen.
- Messstromme und Messströme müs- sen aus dem gleichen Netz stammen!

VORSICHT!
Durch Nichtbeachtung der Anschlussbedin- gungen für die Spannungsmeßeingänge können Sie sich verletzen oder das Gerät beschädigen. Beachten Sie deshalb:

- Die Spannungsmeßeingänge nicht mit Gleichspannung belegen.
- zur Spannungsmessung in SELV- Kreisläufen (Schutzkleinspannung) verwenden.
- Spannungen, die die erlaubten Netz- spannungswerte überschreiten über Spannungswandler anschließen.
- Messstromme und Messströme müs- sen aus dem gleichen Netz stammen!

Verzerrungsgefahr oder Beschädigung des Geräts!
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- zur Spannungsmessung in SELV- Kreisläufen (Schutzkleinspannung) verwenden.
- Spannungen, die die erlaubten Netz- spannungswerte überschreiten über Spannungswandler anschließen.
- Messstromme und Messströme müs- sen aus dem gleichen Netz stammen!

français

Consignes de sécurité
L'« installation » ne comporte pas les mesures de sécurité nécessaires au bon fonctionnement de l'appareil.

Les conditions d'utilisation spéciales peuvent nécessiter d'autres mesures. Les instructions d'installation comportent des remarques qui sont observées pour votre sécurité personnelle et pour éviter les dommages.

Risque de blessures lié à la tension électrique!
AVERTISSEMENT!
Il existe un risque de blessures graves ou de mort dans les cas suivants :

- Contact avec des fils nus ou non isolés qui sont sous tension.
- Contact avec des appareils qui sont dangereux en cas de contact.

Mettez l'appareil hors tension avant de faire des travaux ! Vérifier l'absence de tension !

Dommages en cas de non-respect des conditions de raccordement ou de dépassement de la plage de tensions autorisées.

PRUDENCE !
En cas de non-respect des conditions de raccordement ou de dépassement de la plage de tensions autorisées, votre appareil peut être endommagé ou détruit.

Avant de raccorder l'appareil à la tension d'alimentation, vérifiez l'absence de tension !

La tension et la fréquence doivent correspondre aux données de la plaque d'identification ! Les valeurs limites indiquées dans le mode d'emploi doivent être respectées !

Dommages en cas de non-respect des conditions de raccordement ou de dépassement de la plage de tensions autorisées.

PRUDENCE !
En cas de non-respect des conditions de raccordement ou de dépassement de la plage de tensions autorisées, votre appareil peut être endommagé ou détruit.

Avant de raccorder l'appareil à la tension d'alimentation, vérifiez l'absence de tension !

La tension et la fréquence doivent correspondre aux données de la plaque d'identification ! Les valeurs limites indiquées dans le mode d'emploi doivent être respectées !

italiano

Indicazioni di sicurezza
Le istruzioni per l'installazione, non rappresenta un elenco completo di tutte le misure di sicurezza necessarie al funzionamento del dispositivo.

Condizioni d'uso particolari possono richiedere misure diverse. Le istruzioni per l'installazione contengono indicazioni e avvertenze che vanno lette con cura e osservate con attenzione per la propria sicurezza personale e per evitare danni materiali.

Simboli utilizzati:

- Questo simbolo, ad integrazione delle indicazioni di sicurezza, indica un pericolo di natura elettrica.
- Questo simbolo, ad integrazione delle indicazioni di sicurezza, indica un potenziale pericolo di natura elettrica.
- Questo simbolo con la dicitura **NOTA!** descrive:
 - Processi che non presentano rischi o informazioni importanti, processi o manipolazioni.

Le indicazioni di sicurezza sono evidenziate da un triangolo di avvertimento o il livello di pericolo è rappresentato come di seguito descritto:

- CAUTELA!** Richiama l'attenzione su un pericolo imminente, che comporta conseguenze gravi, lesioni, possibili morti.
- CAUTELA!** Richiama l'attenzione su una situazione potenzialmente pericolosa, che può comportare lesioni, lesioni o danni materiali.

Misura per la sicurezza
Durante il funzionamento di dispositivi elettrici, per forza di cose alcuni componenti di tali dispositivi sono sottoposti a tensioni o correnti pericolose. Possono pertanto presentarsi gravi lesioni fisiche o danni materiali, se non si opera in modo professionale:

- Prima dell'inizio del lavoro, scollegare la tensione dall'impianto. Verificare l'assenza di tensione!
- Prima dell'inizio del lavoro, scollegare la tensione dall'impianto. Verificare l'assenza di tensione!
- Prima dell'inizio del lavoro, scollegare la tensione dall'impianto. Verificare l'assenza di tensione!

español

Instrucciones de seguridad
Las «instrucciones de instalación», no presenta una lista completa de todas las medidas de seguridad necesarias para el funcionamiento del equipo.

Condiciones de funcionamiento especiales de uso particular pueden requerir medidas de seguridad diferentes. Las instrucciones de instalación contiene instrucciones a observar para su seguridad personal propia y para evitar daños materiales.

Simbolos usados:

- Este simbolo como suplemento a las instrucciones de seguridad indica un peligro eléctrico.
- Este simbolo como suplemento a las instrucciones de seguridad indica un potencial peligro eléctrico.
- Este simbolo con la palabra **NOTA!** describe:
 - Procesos, que no encierran peligros o manipulaciones importantes.

Las instrucciones de seguridad se resaltan mediante un triángulo de advertencia.

El nivel de peligro se representa de la siguiente manera:

- ¡PELIGRO!** Se refiere a un peligro inminente capaz de causar la muerte o lesiones graves.
- ¡ADVERTENCIA!** Indica una situación potencialmente peligrosa capaz de provocar lesiones graves o daños materiales.

Medidas de seguridad
Durante la operación de equipos eléctricos, por fuerza de las cosas algunos componentes de estos equipos están sometidos a tensiones o corrientes peligrosas. Si no se manejan adecuadamente, pueden producirse lesiones graves o daños materiales.

Antes de comenzar a trabajar desconectar el equipo de la fuente! [Comprobar la ausencia de voltaje] [Conectar el equipo a tierra] [Para ello, utilice los puntos de conexión a tierra con el símbolo de tierra] [Conectar también a tierra los secundarios de los transformadores de potencia y todas las partes metálicas expuestas a contacto del transformador]

¡PELIGRO! Lesiones graves o la muerte pueden ocurrir, por:

- Contacto con cables sin aislamiento o desnudos, que están bajo tensión.
- Contacto peligroso entradas de medida de corriente en el dispositivo o los transformadores de corriente.
- Contacto con cables sin aislamiento o desnudos, que están bajo corriente.

¡ADVERTENCIA! Lesiones graves o la muerte pueden ocurrir, por:

- Contacto con cables sin aislamiento o desnudos, que están bajo corriente.
- Contacto peligroso entradas de medida de corriente en el dispositivo o los transformadores de corriente.

Antes de comenzar a trabajar desconectar el equipo de la fuente! [Comprobar la ausencia de voltaje] [Conectar el equipo a tierra] [Para ello, utilice los puntos de conexión a tierra con el símbolo de tierra] [Conectar también a tierra los secundarios de los transformadores de potencia y todas las partes metálicas expuestas a contacto del transformador]

¡PELIGRO! Lesiones graves o la muerte pueden ocurrir, por:

- Contacto con cables sin aislamiento o desnudos, que están bajo corriente.
- Contacto peligroso entradas de medida de corriente en el dispositivo o los transformadores de corriente.
- Contacto con cables sin aislamiento o desnudos, que están bajo corriente.

¡ADVERTENCIA! Lesiones graves o la muerte pueden ocurrir, por:

- Contacto con cables sin aislamiento o desnudos, que están bajo corriente.
- Contacto peligroso entradas de medida de corriente en el dispositivo o los transformadores de corriente.

nederlandse

Veiligheidsinstructies
De „installatieinstructies“ geven geen volledige weergave van alle voor het gebruik van het apparaat vereiste veiligheidsmaatregelen voor.

Het aanraken van blanke of gestrippte aders die onder spanning staan.

- Aanrakinggevaarlijke ingangen van het apparaat.
- Aanrakinggevaarlijke stroomtoevoeringen op het apparaat en aan de stroomtransformatoren.

Controleer de machine spanningsloos is!

Materiële schade door het niet in acht nemen van de aansluitvoorwaarden of van de veiligheidsvoorschriften duidt op een gevaar door elektrische spanning!

VOORZICHTIG!
Doordat het niet in acht nemen van de aansluitvoorwaarden of het overschrijden van het toegestane spanningsbereik kan uw apparaat worden beschadigd of worden vernield.

Voordat u uw apparaat op de stroomvoorziening aansluit, moet u de volgende zaken nagaan:

- Spanning en frequentie moeten voldoen aan de gegevens op het typeplaatje! Grenswaarden, zoals deze in de gebruiksaanwijzing worden opgegeven, moeten strikt worden nageleefd.
- In de gebouwinstallatie moet de stroomvoorziening met een UL-vermeedbare aardingsmethode (aardingsmethode volgens IEC) worden beveiligd!
- Het scheidingssysteem moet overeenkomstig bereikbaar zijn in de nabijheid van het apparaat aansluiten.
- Voor het desbetreffende apparaat aanduiden.
- De stroomvoorziening moet een aardingsmethode met een nulspanningsvormer hebben.
- Voor de nuldrader een beveiliging aanbrengen als de nuldrader van de nuldrader van de bron niet geaard is.

Spaanspanning
Doordat het niet in acht nemen van de aansluitvoorwaarden voor de aansluitingsopties van het apparaat kan schade aan het apparaat ontstaan.

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Doordat het niet in acht nemen van de aansluitvoorwaarden voor de aansluitingsopties van het apparaat kan schade aan het apparaat ontstaan.

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Doordat het niet in acht nemen van de aansluitvoorwaarden voor de aansluitingsopties van het apparaat kan schade aan het apparaat ontstaan.

portuguese

Condições de segurança
As «instruções de instalação» não apresentam uma lista completa de todas as medidas de segurança necessárias para o funcionamento do equipamento.

Condições de funcionamento especiais de uso particular podem requerir medidas de segurança diferentes. As instruções de instalação contêm instruções a observar para a sua segurança pessoal e para evitar danos materiais.

Simbolos utilizados:

- Este símbolo como suplemento às instruções de segurança indica um perigo elétrico.
- Este símbolo como suplemento às instruções de segurança indica um potencial perigo elétrico.
- Este símbolo com a palavra **ATENÇÃO!** descreve:
 - Processos que não apresentam riscos ou informações importantes, processos ou manipulações.

As instruções de segurança são realçadas mediante um triângulo de advertência.

O nível de perigo é representado da seguinte maneira:

- PERIGO!** Refere-se a um perigo iminente capaz de causar a morte ou lesões graves.
- AVERTÊNCIA!** Indica uma situação potencialmente perigosa capaz de provocar lesões graves ou danos materiais.

Medidas de segurança
Durante a operação de equipamentos elétricos, por força das coisas, alguns componentes desses equipamentos estão submetidos a tensões ou correntes perigosas. Se não forem manuseadas adequadamente, podem ocorrer lesões graves ou danos materiais.

Antes de começar a trabalhar desconectar o equipamento da fonte! [Verificar a ausência de tensão] [Conectar o equipamento à terra] [Para isso, utilize os pontos de conexão à terra com o símbolo de terra] [Conectar também à terra os secundários dos transformadores de potência e todas as partes metálicas expostas a contacto do transformador]

PERIGO! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob tensão.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.
- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.

AVERTÊNCIA! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.

Antes de começar a trabalhar desconectar o equipamento da fonte! [Verificar a ausência de tensão] [Conectar o equipamento à terra] [Para isso, utilize os pontos de conexão à terra com o símbolo de terra] [Conectar também à terra os secundários dos transformadores de potência e todas as partes metálicas expostas a contacto do transformador]

PERIGO! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.
- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.

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- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.

english

Safety information
The „installation manual“ does not represent a full list of all safety measures required for safe operation of the device. Certain operating conditions may require further measures. The „installation manual“ contains information that you must observe for your own personal safety and to avoid damage to property.

Symbols used:

- This symbol is used as an addition to the safety instructions and warns of a potential hazard.
- This symbol with the word **NOTE!** describes:
 - Procedures that do not entail any danger of injury.
 - Important information, procedures or handling steps.

Safety instructions are highlighted with a warning triangle and shown as follows, depending on the degree of hazard:

- DANGER!** Indicates an immediately threatening hazard that can result in serious or even fatal injuries.
- WARNING!** Indicates a potentially hazardous situation that could lead to serious or even fatal injuries.
- CAUTION!** Indicates a potentially hazardous situation that could lead to minor injuries or damage to property.

Measures for safety
When operating electrical devices, specific parts of these devices inevitably carry dangerous voltages. This could result in serious bodily injury or damage to property if they are not handled correctly:

- Before starting work, disconnect your system from the power supply! Verify that there is no current.
- Before connecting the device, ground it at the ground wire connection if available.
- Dangerous voltages may be present in all circuit parts connected to the voltage supply.
- There may still be dangerous voltages present in the device even after it is disconnected from the supply voltage (capacitor storage).
- Do not operate equipment with „/5 A (1 A)“-current transformer circuits when open.
- Do not exceed the limit values stated in the user manual or on the rating plate – even during testing or commissioning.
- Observe the safety instructions and warnings in the documents that belong to the device!

Qualified personnel
In order to avoid injuries to personnel and property damage, only qualified personnel with electrical training are permitted to work on the devices with knowledge:

- of the national regulations for accident prevention
- of safety standards
- of installation, commissioning and operation of the device.

Proper use
The device is:

- intended for installation in switch cabinets and small installation distributors.
- not intended for installation in vehicles!

The use of the device in mobile equipment is considered to be non-standard environmental conditions and is therefore only permitted after written agreement.

not intended for installation in environments with hazardous oils, acids,

Current measurement
The prerequisites of faultless, safe operation of the device are: transport and proper storage, set-up, installation, operation and maintenance.

Connecting the supply voltage
WARNING!
Danger of injury due to electrical voltage!
Serious bodily injury or death can result from:
• Contact with bare or stripped live wires.
• Device inputs that are dangerous to touch.
Render the system free of voltage before starting work! Check the system is free of electrical energy!

CAUTION!
Damage to property due to disregard of the connection conditions or impermissible overvoltage!
Your device can be damaged or destroyed by a failure to comply with the connection conditions or by exceeding the permissible voltage range.
Before connecting the device to the device supply voltage, please check:
• Voltage and frequency correspond to the details on the ratings plate! Limit values stipulated in the user manual have been complied with!
- In building installations, the supply voltage must be connected via a UL approved circuit breaker / a fuse (Dimensioning see Installation manual)!
- Do not install near the device and in a location that is easily accessible for the user – must be labeled to identify the respective device.
- Do not tap the supply voltage from the voltage transformer!
- Provide a fuse for the neutral conductor if the neutral conductor terminal of the source is not grounded.

Devices with LAN Port
CAUTION!
Property damage due to incorrect network settings
Incorrect network settings can cause faults in the IT network!
Find out the correct network settings for your device from your network administrator.

Montage
CAUTION!
Damage to property due to disregard of the installation instructions
Disregard of the installation instructions can damage or destroy your device. Ensure that you have enough air circulation in your installation environment and in the event of high environmental temperatures, provide cooling if necessary.

Analog inputs
CAUTION!
Damage to the device / your plant due to short circuit!
Insufficient insulation of the equipment to the analog inputs over the mains circuits can cause damage to your device / your plant.
Provide a reinforced or double insulation to the mains circuits!

Current measurement
The prerequisites of faultless, safe operation of the device are: transport and proper storage, set-up, installation, operation and maintenance.

Connecting the supply voltage
WARNING!
Danger of injury due to electrical voltage!
Serious bodily injury or death can result from:
• Contact with bare or stripped live wires.
• Device inputs that are dangerous to touch.
Render the system free of voltage before starting work! Check the system is free of electrical energy!

CAUTION!
Damage to property due to disregard of the connection conditions for the voltage measurement inputs can result in injuries or to the device being damaged. For this reason, note that:
• The voltage measurement inputs are not connected to DC voltage.
• are equipped with a suitable, labelled fuse and isolation device located (alternatively: miniature circuit breaker) located nearby.
• are dangerous to touch.
- Voltages that exceed the allowed network rated voltages must be connected via a voltage transformer.
- Measured voltages and measured currents must derive from the same network!

Danger of injury or damage to the device
CAUTION!
Disregard of the connection conditions for the voltage measurement inputs can result in injuries or to the device being damaged. For this reason, note that:
• Do not connect the voltage measurement inputs to DC voltage.
• Do not use for voltage measurement in SELV circuits (safe extra low voltage).
• Voltages that exceed the allowed network rated voltages be connected via a voltage transformer.
• The voltage measurement inputs are to be equipped with a suitable, labelled fuse and isolation device located in the vicinity.

Janitza

english

Safety instructions
The „installation instructions“ do not include a full list of all safety measures necessary for operating the device. Special operating conditions may require further measures. The „installation instructions“ contain notes that must be observed for your personal safety and to avoid property damage. Use symbols:

- This symbol as a supplement to the safety instructions indicates an electrical hazard.
- This symbol as a supplement to the safety instructions indicates a potential hazard.
- This symbol with the word **NOTE!** describes:
 - Procedures that do not pose any risk of injuries.
 - Important information, procedures or operations.

Safety instructions are highlighted by a warning triangle and are presented as follows depending on the level of risk:

- DANGER!** Indicates an imminent danger that can result in serious and/or fatal injuries.
- WARNING!** Indicates a potentially dangerous situation that can result in serious injuries or death.
- CAUTION!** Indicates a potentially dangerous situation that can result in minor injuries or property damage.

Measures for safety
When operating electrical devices, specific parts of these devices inevitably carry dangerous voltages. As a result, serious bodily harm or property damage can occur if they are not handled correctly:

- Before starting work, disconnect your system from the power supply! Verify that there is no current.
- Before connecting the device, ground it at the ground wire connection if available.
- Dangerous voltages may be present in all circuit parts connected to the voltage supply.
- There may still be dangerous voltages present in the device even after it is disconnected from the supply voltage (capacitor storage).
- Do not operate operating equipment with open „/5 A (1 A)“-current transformer circuits.
- Do not exceed the limit values stated in the user manual or on the rating plate; this must also be observed during inspection and commissioning.
- Observe the safety instructions and warning notices in the documents that accompany the devices.

Qualified personnel
To prevent injuries and property damage, only qualified personnel with electrical engineering training may work on the devices. They must also have knowledge:

- of the national accident prevention regulations
- of safety technical standards
- of installation, commissioning and operation of the device.

Intended use
The device is:

- intended for installation in switching cabinets and small installation distributors
- not intended for installation in vehicles!

Using the device in mobile equipment is considered to be non-standard environmental condition and is only permissible by special agreement.

Current measurement
The prerequisites of faultless, safe operation of the device are: transport and proper storage, set-up, installation, operation and maintenance.

Connecting the supply voltage
WARNING!
Danger of injury due to electrical voltage!
Serious bodily injury or death can result from:
• Contact with bare or stripped live wires.
• Current measurement inputs on the device and on the current transformer that are dangerous to touch.
Render the system free of voltage before starting work! Check the system is free of electrical energy!

CAUTION!
Damage to property due to non-compliance of the connection conditions or exceeding the permissible voltage range can damage or destroy your device.
Before you connect the device to the supply voltage, please observe the following:
• The voltage and frequency must comply with the specifications on the rating plate. Observe the limit values as described in the user manual.
• In building installations, secure the supply voltage with a UL-listed circuit breaker/fuse for dimensioning, see installation instructions!
- The circuit breaker must be easily accessible for the user and located in the vicinity of the device.
- Do not tap the supply voltage at the voltage transformers.
- Provide a fuse for the neutral conductor if the neutral conductor connection is not grounded to the source.

Devices with LAN Port
CAUTION!
Property damage due to incorrect network settings
Incorrect network settings can cause faults in the IT network!
Find out the correct network settings for your device from your network administrator.

Montage
CAUTION!
Risk of injury or damage to device!
Noncompliance with the connection conditions for the voltage measurement inputs can injure you or damage the device. Therefore, please note the following:
• The voltage measurement inputs must not be connected to DC current.
• must be provided with a suitable, labeled fuse and circuit breaker (alternatively: miniature circuit breaker) in their immediate vicinity.
• are dangerous to touch.
- Voltages that exceed the allowed nominal network voltages must be connected via voltage transformers.
- Measured voltages and measured currents must originate from the same network!

Danger of injury due to electrical voltage!
WARNING!
Risk of injury due to electric voltage!
It may result in serious bodily harm or death due to:
• Touching live exposed or stripped cores.
• Device inputs that are dangerous to touch.
Before starting work, disconnect your system from the power supply! Verify that there is no current!

CAUTION!
Property damage due to non-compliance of the connection conditions or exceeding the permissible voltage range can damage or destroy your device.
Before you connect the device to the supply voltage, please observe the following:
• The voltage and frequency must comply with the specifications on the rating plate. Observe the limit values as described in the user manual.
• In building installations, secure the supply voltage with a UL-listed circuit breaker/fuse for dimensioning, see installation instructions!
- The circuit breaker must be easily accessible for the user and located in the vicinity of the device.
- Do not tap the supply voltage at the voltage transformers.
- Provide a fuse for the neutral conductor if the neutral conductor connection is not grounded to the source.

Devices with LAN Port
CAUTION!
Property damage due to incorrect network settings!
Incorrect network settings can cause faults in the IT network!
Consult your network administrator for the correct network settings for your device.

Assembly
CAUTION!
Property damage due to noncompliance with the assembly instructions!
Noncompliance with the assembly instructions can damage or destroy your device.
Ensure sufficient air circulation in your installation environment and, where applicable, sufficient cooling with high ambient temperatures.

Analog inputs
CAUTION!
Damage of the device/ your system due to short circuit!
Too little insulation of the operating equipment on the analog inputs with respect to the mains circuit can lead to damage of your device/system.
Ensure a reinforced or double insulation to the power circuits!

Current measurement
The prerequisites of faultless, safe operation of the device are: transport and proper storage, set-up, installation, operation and maintenance.

Connecting the supply voltage
WARNING!
Risk of injury due to electrical voltage!
It may result in serious bodily harm or death due to:
• Touching live exposed or stripped cores.
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Devices with LAN Port
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Ensure a reinforced or double insulation to the power circuits!

Janitza

nederlandse

Veiligheidsinstructies
De „installatieinstructies“ geven geen volledige weergave van alle voor het gebruik van het apparaat vereiste veiligheidsmaatregelen voor.

Het aanraken van blanke of gestrippte aders die onder spanning staan.

- Aanrakinggevaarlijke ingangen van het apparaat.
- Aanrakinggevaarlijke stroomtoevoeringen op het apparaat en aan de stroomtransformatoren.

Controleer de machine spanningsloos is!

Materiële schade door het niet in acht nemen van de aansluitvoorwaarden of van de veiligheidsvoorschriften duidt op een gevaar door elektrische spanning!

VOORZICHTIG!
Doordat het niet in acht nemen van de aansluitvoorwaarden of het overschrijden van het toegestane spanningsbereik kan uw apparaat worden beschadigd of worden vernield.

Voordat u uw apparaat op de stroomvoorziening aansluit, moet u de volgende zaken nagaan:

- Spanning en frequentie moeten voldoen aan de gegevens op het typeplaatje! Grenswaarden, zoals deze in de gebruiksaanwijzing worden opgegeven, moeten strikt worden nageleefd.
- In de gebouwinstallatie moet de stroomvoorziening met een UL-vermeedbare aardingsmethode (aardingsmethode volgens IEC) worden beveiligd!
- Het scheidingssysteem moet overeenkomstig bereikbaar zijn in de nabijheid van het apparaat aansluiten.
- Voor het desbetreffende apparaat aanduiden.
- De stroomvoorziening moet een aardingsmethode met een nulspanningsvormer hebben.
- Voor de nuldrader een beveiliging aanbrengen als de nuldrader van de nuldrader van de bron niet geaard is.

Spaanspanning
Doordat het niet in acht nemen van de aansluitvoorwaarden voor de aansluitingsopties van het apparaat kan schade aan het apparaat ontstaan.

VOORZICHTIG!
Doordat het niet in acht nemen van de aansluitvoorwaarden voor de aansluitingsopties van het apparaat kan schade aan het apparaat ontstaan.

VOORZICHTIG!
Doordat het niet in acht nemen van de aansluitvoorwaarden voor de aansluitingsopties van het apparaat kan schade aan het apparaat ontstaan.

portuguese

Condições de segurança
As «instruções de instalação» não apresentam uma lista completa de todas as medidas de segurança necessárias para o funcionamento do equipamento.

Condições de funcionamento especiais de uso particular podem requerir medidas de segurança diferentes. As instruções de instalação contêm instruções a observar para a sua segurança pessoal e para evitar danos materiais.

Simbolos utilizados:

- Este símbolo como suplemento às instruções de segurança indica um perigo elétrico.
- Este símbolo como suplemento a las instrucciones de seguridad indica un potencial peligro eléctrico.
- Este símbolo con la palabra **ATENCIÓN!** describe:
 - Procesos, que no encierran peligros o manipulaciones importantes.

Las instrucciones de seguridad se resaltan mediante un triángulo de advertencia.

O nível de perigo é representado da seguinte maneira:

- PERIGO!** Se refere a um perigo imminente capaz de causar a morte ou lesões graves.
- AVERTÊNCIA!** Indica uma situação potencialmente perigosa capaz de provocar lesões graves o danos materiais.

Medidas de segurança
Durante a operação de equipamentos elétricos, por força das coisas, alguns componentes desses equipamentos estão submetidos a tensões ou correntes perigosas. Se não forem manuseadas adequadamente, podem ocorrer lesões graves ou danos materiais.

Antes de comenzar a trabajar desconectar el equipo de la fuente! [Verificar la ausencia de tensión] [Conectar el equipo a tierra] [Para esto, utilice los puntos de conexión a tierra con el símbolo de tierra] [Conectar también a tierra los secundarios de los transformadores de potencia y todas las partes metálicas expuestas a contacto del transformador]

PERIGO! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob tensão.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.
- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.

AVERTÊNCIA! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.

Antes de comenzar a trabajar desconectar el equipo de la fuente! [Verificar la ausencia de tensión] [Conectar el equipo a tierra] [Para esto, utilice los puntos de conexión a tierra con el símbolo de tierra] [Conectar también a tierra los secundarios de los transformadores de potencia y todas las partes metálicas expuestas a contacto del transformador]

PERIGO! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob tensão.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.
- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.

AVERTÊNCIA! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.

español

Instrucciones de seguridad
Las «instrucciones de instalación», no presenta una lista completa de todas las medidas de seguridad necesarias para el funcionamiento del equipo.

Condiciones de funcionamiento especiales de uso particular pueden requerir medidas de seguridad diferentes. Las instrucciones de instalación contiene instrucciones a observar para su seguridad personal propia y para evitar daños materiales.

Simbolos usados:

- Este simbolo como suplemento a las instrucciones de seguridad indica un peligro eléctrico.
- Este simbolo como suplemento a las instrucciones de seguridad indica un potencial peligro eléctrico.
- Este simbolo con la palabra **ATENCIÓN!** describe:
 - Procesos, que no encierran peligros o manipulaciones importantes.

Las instrucciones de seguridad se resaltan mediante un triángulo de advertencia.

O nível de perigo é representado da seguinte maneira:

- PERIGO!** Se refere a um perigo imminente capaz de causar a morte ou lesões graves.
- AVERTÊNCIA!** Indica uma situação potencialmente perigosa capaz de provocar lesões graves o danos materiais.

Medidas de seguridad
Durante la operación de equipos eléctricos, por fuerza de las cosas algunos componentes de estos equipos están sometidos a tensiones o corrientes peligrosas. Si no se manejan adecuadamente, pueden producirse lesiones graves o daños materiales.

Antes de comenzar a trabajar desconectar el equipo de la fuente! [Comprobar la ausencia de voltaje] [Conectar el equipo a tierra] [Para ello, utilice los puntos de conexión a tierra con el símbolo de tierra] [Conectar también a tierra los secundarios de los transformadores de potencia y todas las partes metálicas expuestas a contacto del transformador]

PERIGO! Lesiones graves o la muerte pueden ocurrir, por:

- Contacto con cables sin aislamiento o desnudos, que están bajo tensión.
- Contacto perigoso das entradas de medição de corrente no dispositivo ou dos transformadores de corrente.
- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente.

AVERTÊNCIA! Lesões graves ou a morte podem ocorrer, por:

- Contacto com cabos sem isolamento ou desnudos, que estão sob corrente

