

<div></div> <div>CARLO GAVAZZI</div>	
	
Installation instruction	Power analyzer for three-phase and two-phase systems
Istruzioni per l'installazione	Analizzatore di potenza per sistemi trifase e bifase
Installationsanweisung	Leistungsanalysator für Drei-und Zweiphasensysteme
Instructions pour l'installation	Analyseur de puissance pour systèmes triphasé et biphasé
Instrucciones para la instalación	Analizador de potencial para sistemas trifásicos y bifásicos
Vejledning til installation	Analyseapparat effekt til trefasede og tofasede systemer
EN	
Operating temperature	From -25 to +55 °C/from -13 to +131 °F
Storage temperature	From -25 to +70 °C/from -13 to +158 °F
Protection degree	IP40 and IP51 (just in a distribution board with IP51 degree)
Overvoltage/Measurement category	III, 4kV rated input voltage
Utilization category	UC2
Protective class	II
Altitude	Max 2000 m
Consumption	<1.3 W/2.6 VA (W value not UL evaluated)
Digital output	V _{ON} 2.5 V ac/dc, max 100 mA. V _{OFF} 42 V ac/dc max
Digital input	Contact measuring voltage: 5 V dc +/- 5%. Contact measuring current: 5 mA max
Weight	270 g
<i>Note: R.H. < 90 % non-condensing @ 40 °C / 104 °F.</i>	
IT	
Temperatura di esercizio	Da -25 a +55 °C/da -13 a +131 °F
Temperatura di stoccaggio	Da -25 a +70 °C/da -13 a +158 °F
Grado di protezione	IP40 e IP51 (solo in un quadro di distribuzione con grado IP51)
Categoria di sovratensione/misura	III, tensione di ingresso nominale 4kV
Categoria di utilizzo	UC2
Classe di protezione	II
Altitudine	Max 2000 m
Consumo	<1,3 W/2,6 VA (valore W non valutato UL)
Uscita digitale	V _{ON} 2,5 V ca/cc, max 100 mA. V _{OFF} 42 V ca/cc max
Ingresso digitale	Tensione misura contatto: 5 V cc +/- 5%. Corrente misura contatto: max 5 mA
Peso	270 g
<i>Nota: U.R. < 90 % senza condensa @ 40 °C / 104 °F.</i>	
DE	
Betriebstemperatur	-25 bis +55 °C/ -13 bis +131 °F
Lagertemperatur	-25 bis +70 °C/ -13 bis +158 °F
Schutzklasse	IP40 und IP51 (nur in einer Verteilertafel mit IP51-Schutzklasse)
Überspannungs-Messungskategorie	Kat. III, 4 kV bemessene Eingangsspannung
Einsatzkategorie	UC2
Schutzklasse	II
Höhe	Max 2000 m
Leistungsaufnahme	<1.3 W/2.6 VA (W nicht UL-geprüft)
Digitalausgang	V _{ON} 2.5 V ac/dc, max 100 mA. V _{OFF} 42 V ac/dc
Digitaleingang	Kontakt für Spannungsmessung: 5 V DC +/- 5%. Kontakt für Strommessung: 5 mA max.
Gewicht	270 g
<i>HINWEIS: R.L. < 90 % nicht kondensierend @ 40 °C / 104 °F.</i>	
FR	
Température de fonctionnement	De -25 à +55 °C/de -13 à +131 °F
Température de stockage	De -25 à +70 °C/de -13 à +158 °F
Indice de protection	IP40 et IP51 (uniquement dans un tableau de distribution avec indice IP51)
Catégorie de surtension/mesure	Cat. III, tension d'entrée nominale de 4kV
Catégorie d'emploi	UC2
Classe de protection	II
Altitude	Max 2000 m
Consommation	<1.3 W/2.6 VA (W non évaluée par UL)
Sortie logique	V _{ON} 2,5 V ca/cc, max 100 mA. V _{OFF} 42 V ca/cc
Entrée numérique	Contact mesurant la tension : 5 V dc +/- 5%. Contact mesurant le courant : 5 mA max
Poids	270 g
<i>Note : U.R. < 90 % sans condensation @ 40 °C / 104 °F.</i>	
ES	
Temperatura de funcionamiento	De -25 a +55 °C/de -13 a +131 °F
Temperatura de almacenamiento	De -25 a +70 °C/de -13 a +158 °F
Grado de protección	IP40 e IP51 (solo en un cuadro de distribución con grado IP51)
Categoría de sobretensión/medida	Cat. III, tensión de entrada nominal 4kV
Categoría de uso	UC2
Clase de protección	II
Altitud	Máx 2000 m
Consumo	<1.3 W/2.6 VA (W sin evaluación UL)
Salida digital	V _{ON} 2,5 V ca/cc, max 100 mA. V _{OFF} 42 V ca/cc
Entrada digital	Tensión de medición del contacto: 5 V CC +/- 5%. Intensidad de medición del contacto: 5 mA máx.
Peso	270 g
<i>Nota: U.R. < 90 % sin condensación @ 40 °C / 104 °F.</i>	
DA	
Driftstemperatur	Fra -25 til +55 °C/fra -13 til +131 °F
Opbevaringstemperatur	Fra -25 til +70 °C/fra -13 til +158 °F
Beskyttelsesgrad	IP40 og IP51 (kun i et fordelingsstavle med IP51-grad)
Overspændings-måle kategori	Kat. III, 4kV nominal impulsspænding
Brugskategori	UC2
Beskyttelsesklasse	II
Højde	Maks. 2000 m
Forbrug	<1.3 W/2.6 VA (W ikke UL evalueret)
Digitale udgang	V _{ON} 2.5 V ac/dc, max 100 mA. V _{OFF} 42 V ac/dc
Digital indgang	Målespænding for kontakt: 5 V dc +/- 5% Målestøm for kontakt: 5 mA max
Vægt	270 g
<i>Bemærk: R.F. < 90 % uden kondens @ 40 °C /104 °F.</i>	

ENGLISH	
Warnings <div><div>⚡</div> <div>⚠</div></div> DANGER! Live parts. Heart attack, burns and other injuries. <ul style="list-style-type: none">Disconnect the power supply and loads before connecting/disconnecting the electrical wires. Only use the analyzer at the specified voltage and current. The analyzer should only be installed by qualified personnel experienced in working in safety. Access to the terminals is reserved for qualified personnel for maintenance operations.	
AVVERTENZE <div><div>⚡</div> <div>⚠</div></div> PERICOLO! Parti sotto tensione. Arresto cardiaco, bruciaciture e altre lesioni. <ul style="list-style-type: none">Scollegare l'alimentazione e i carichi prima di collegare/scollegare i cavi elettrici. Utilizzare l'analizzatore solo alla tensione e corrente specificate. L'installazione degli analizzatori deve essere eseguita solo da personale specializzato. L'accesso ai terminali è riservato a personale specializzato per operazioni di manutenzione.	

NOTICE: *La sicurezza di qualsiasi sistema che incorpora l'analizzatore ricade sotto la responsabilità dell'installatore del sistema.*

NOTICE: *Always use electrical wires according to all applicable local and international regulations.*

NOTICE: *only use the analyzer at the specified voltage and current to avoid permanent damage.*

NOTICE: *no one is authorized to open the analyzer. This operation is reserved exclusively for CARLO GAVAZZI technical service personnel. Protection may be impaired if the instrument is used in a manner not specified by the manufacturer.*

👤 This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.

Cleaning

Use a slightly dampened cloth to clean the display. Do not use abrasives or solvents.

Responsibility for disposal

♻ The product must be disposed of at the relative recycling centers specified by the government or local public authorities. Correct disposal and recycling will contribute to the prevention of potentially harmful consequences to the environment and persons.

Service and warranty

In the event of malfunction, fault, requests for information or to purchase accessory modules, contact the CARLO GAVAZZI branch or distributor in your country. Installation and use of analyzers other than those indicated in the provided instructions void the warranty.

Notes

- The instrument must be installed taking care of leaving the external disconnecting device easily accessible.
- An external switch or circuit-breaker that must be mounted near the instrument is required.
- To be used in a pollution degree 2 or better environment only.
- Indoor use only.
- Use copper conductors only.
- Auxiliary inputs/outputs (Digital input, Digital output, RS485, M-Bus) must be connected only to Limited-Energy Circuit in accordance with IEC/EN 61010-1.
- The product is intended to be installed inside a certified fire/electrical enclosure.

- Lo strumento deve essere installato facendo attenzione a lasciare il dispositivo di sezionamento esterno facilmente accessibile.
- È richiesto un interruttore o interruttore automatico esterno che deve essere montato vicino allo strumento.
- Devono essere utilizzati soltanto in un ambiente con grado di inquinamento 2 o migliore.
- Solo per uso in ambienti interni.
- Utilizzare soltanto conduttori in rame.
- Gli ingressi/le uscite digitali (Ingresso digitale, Uscita digitale, RS485, M-bus) devono essere collegati unicamente a un Circuito a Energia Limitata, conformemente a quanto previsto dalla norma IEC/EN 61010-1.
- Il prodotto è progettato per essere installato all'interno di protezioni antincendio/cabine elettriche certificate.

- Il prodotto deve essere installato facendo attenzione a lasciare il dispositivo di sezionamento esterno facilmente accessibile.
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- Gli ingressi/le uscite digitali (Ingresso digitale, Uscita digitale, RS485, M-bus) devono essere collegati unicamente a un Circuito a Energia Limitata, conformemente a quanto previsto dalla norma IEC/EN 61010-1.
- Il prodotto è progettato per essere installato all'interno di protezioni antincendio/cabine elettriche certificate.

Additional UL notes

- Auxiliary inputs/outputs (Digital input, Digital output, RS485, M-Bus) must be connected only to Limited-Energy Circuit in accordance with UL/CSA 61010-1 or Class 2 supply source which complies with the National Electrical Code (NEC), NFPA 70, Clause 725.121 and Canadian Electrical Code (CEC), Part I, C22.1
- Evaluated as open type device; it is intended to be installed inside a dedicated NRTL certified fire/electrical enclosure (overall enclosure) or inside end-product equipment enclosure; it is not intended for retrofit installations in the enclosure of switchgears or panel boards.

Display icons	
Symbol	Description
⚠	ALARM (blinking icon): the value of the variable has exceeded the threshold set.
🔧 ⚠	WIRING ERROR (steady icons): a wiring fault has been detected, for problem solutions, see “EM500 IM wiring solutions”
Rx Tx	Serial communication state (reception / transmission)
🔧	The association of the phase terminal or the direction of the currents have been modified via UCS software to correct virtually a wiring fault. To view the current setup of the terminals, access the info screens (MENU > INFO > TERMINAL).
Icone del display	
Simbolo	Descrizione
⚠	ALLARME (icona lampeggiante): il valore della variabile ha superato la soglia impostata.
🔧 ⚠	ERRORE DI CABLAGGIO (icone fisse): è stato rilevato un errore di cablaggio, il controllo funziona, per risoluzione problemi, vedi “EM500 IM wiring solutions”
Rx Tx	Stato della comunicazione seriale (ricezione / trasmissione)
🔧	L'associazione del terminale di fase o la direzione delle correnti sono state modificate tramite UCS software per correggere virtualmente un errore di cablaggio. Per vedere la configurazione corrente dei terminali, accedere alle pagine info (MENU > INFO > TERMINAL).

ITALIANO	
Avvertenze <div><div>⚡</div> <div>⚠</div></div> PERICOLO! Parti sotto tensione. Arresto cardiaco, bruciaciture e altre lesioni. <ul style="list-style-type: none">Scollegare l'alimentazione e i carichi prima di collegare/scollegare i cavi elettrici. Utilizzare l'analizzatore solo alla tensione e corrente specificate. L'installazione degli analizzatori deve essere eseguita solo da personale specializzato. L'accesso ai terminali è riservato a personale specializzato per operazioni di manutenzione.	
AVVISO: <i>La sicurezza di qualsiasi sistema che incorpora l'analizzatore ricade sotto la responsabilità dell'installatore del sistema.</i>	
AVVISO: <i>utilizzare sempre cavi elettrici conformi a tutte le normative locali e internazionali applicabili.</i>	
AVVISO: <i>utilizzare l'analizzatore solo alla tensione e corrente specificate per evitare danni permanenti.</i>	
AVVISO: <i>nessuno è autorizzato ad aprire l'analizzatore. Solo il personale dell'assistenza tecnica CARLO GAVAZZI può farlo. La protezione può essere compromessa se lo strumento viene usato in un modo non specificato dal costruttore.</i>	
👤 Questo manuale è parte integrante del prodotto. Deve essere consultato per l'installazione dell'analizzatore. Deve essere mantenuto in buone condizioni e conservato in un luogo pulito e accessibile agli operatori.	
Pulizia <p>Per mantenere pulito il display usare un panno leggermente inumidito. Non usare abrasivi o solventi.</p>	
Responsabilità di smaltimento <p>♻ Smaltire con raccolta differenziata tramite le strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento e il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per le persone.</p>	
Assistenza e garanzia <p>In caso di malfunzionamento, guasto, necessità informazioni o per acquistare moduli accessori, contattare la filiale CARLO GAVAZZI o il distributore nel paese di appartenenza. L'installazione e l'uso dell'analizzatore diversi da quanto indicato nelle istruzioni fornite invalidano la garanzia.</p>	
Note <ul style="list-style-type: none">Lo strumento deve essere installato facendo attenzione a lasciare il dispositivo di sezionamento esterno facilmente accessibile. È richiesto un interruttore o interruttore automatico esterno che deve essere montato vicino allo strumento. Devono essere utilizzati soltanto in un ambiente con grado di inquinamento 2 o migliore. Solo per uso in ambienti interni. Utilizzare soltanto conduttori in rame. Gli ingressi/le uscite digitali (Ingresso digitale, Uscita digitale, RS485, M-bus) devono essere collegati unicamente a un Circuito a Energia Limitata, conformemente a quanto previsto dalla norma IEC/EN 61010-1. Il prodotto è progettato per essere installato all'interno di protezioni antincendio/cabine elettriche certificate.	

DEUTSCH	
Hinweise <div><div>⚡</div> <div>⚠</div></div> GEFAHR! Unter Spannung stehende Teile. Herzstillstand, Verbrennungen und sonstige Verletzungen. <ul style="list-style-type: none">Bevor Stromkabel angeschlossen/gelöst werden, muss die Stromversorgung und die Last unterbrochen werden. Den Analysator ausschließlich mit der angegebenen Spannung und dem angegebenen Strom betreiben. Die Installation der Analysatoren darf ausschließlich von Personen vorgenommen werden, die in der Lage sind, unter Sicherheitsbedingungen zu arbeiten. Der Zugang zu den Klemmen ist qualifiziertem Personal für Wartungsarbeiten vorbehalten	
HINWEIS: <i>Die Sicherheit jedes Systems, in welches des Analysator eingebaut wird, liegt in der Verantwortung derjenigen Person, die das System installiert.</i>	
HINWEIS: <i>Immer elektrische Kabel gemäß allen anwendbaren lokalen und internationalen Regulationen verwenden.</i>	
HINWEIS: <i>den Analysator ausschließlich mit der angegebenen Spannung und dem angegebenen Strom betreiben, um dauerhafte Schäden zu vermeiden.</i>	
HINWEIS: <i>es ist niemandem gestattet, den Analysator zu öffnen. Dies ist nur dem Kundendienstpersonal der Fa. CARLO GAVAZZI gestattet. Die Schutzfunktion kann beeinträchtigt werden, wenn das Instrument anders als vom Hersteller vorgesehen benutzt wird.</i>	
👤 Diese Anleitung ist wesentlicher Bestandteil des Produkts. Sie muss zur Installation des Analysators herangezogen werden. Diese Anleitung muss in einwandfreiem Zustand gehalten und an einem sauberen, für die Bediener zugänglichen Ort aufbewahrt werden.	
Reinigung <p>Zur Reinigung des Displays ein leicht angefeuchtetes Tuch verwenden. Keine Scheuer- oder Lösungsmittel verwenden.</p>	
Verantwortlichkeit für Entsorgung <p>♻ Dieses Produkt muss bei einem geeigneten von der Regierung oder lokalen öffentlichen Autoritäten anerkannten Recyclingbetrieb entsorgt werden. Ordnungsgemäße Entsorgung und Recycling tragen zur Vermeidung möglicher schädlicher Folgen für Umwelt und Personen bei.</p>	
Kundendienst und Garantie <p>Bei Funktionsstörungen, Ausfall, Anforderung von Informationen oder Erwerb von Zusatzmodulen bitte Kontakt mit der Filiale CARLO GAVAZZI oder mit dem Händler im Installationsland aufnehmen Von den Angaben dieser Anleitung abweichende Installation und Betrieb des Analysators führen zur Ungültigkeit der Garantie.</p>	
Hinweise <ul style="list-style-type: none">Beim Installieren des Instruments muss dafür gesorgt werden, dass die externe Abtrennvorrichtung leicht zugänglich gelassen wird. Ein externer Schalter oder Schutzschalter, der nahe beim Instrument montiert sein muss, ist erforderlich. Nur in einer Umgebung mit Verschmutzungsgrad 2 oder besser verwenden. Gebrauch nur in Innenräumen. Nur Kupferleiter verwenden. Hilfseingänge/-ausgänge (Digitaleingang, Digitalausgang, RS485, M-Bus) dürfen nur an Schaltungen mit begrenzter Energie gemäß IEC/EN 61010-1 angeschlossen werden. Das Produkt ist für Installation in ein zertifiziertes feuer-/elektrisch-sicheres Gehäuse vorgesehen.	

FRANÇAIS	
Avertissements <div><div>⚡</div> <div>⚠</div></div> DANGER! Pièces sous tension. Crise cardiaque, brûlures et autres blessures. <ul style="list-style-type: none">Débrancher l'alimentation et les charges avant de brancher/débrancher les câbles électriques. Utiliser l'analyseur seulement à la tension et au courant spécifiés. L'installation des analyseurs dot être effectuée seulement par des personnes sachant opérer en sécurité. L'accès aux bornes est réservé au personnel qualifié pour la maintenance.	
AVIS : <i>La sécurité de tout système qui incorpore l'analyseur retombe sous la responsabilité de l'installateur du système.</i>	
AVIS: <i>utiliser toujours des fils électriques conformes à toutes les réglementations locales et internationales applicables.</i>	
AVIS: <i>utiliser l'analyseur seulement à la tension et au courant spécifiés pour éviter des dommages permanents.</i>	
AVIS: <i>personne n'est autorisé à ouvrir l'analyseur. Seul le personnel de l'assistance technique CARLO GAVAZZI peut le faire. La protection peut être compromise si l'instrument est utilisé d'une manière non spécifiée par le fabricant.</i>	
👤 Ce manuel fait partie intégrante du produit. Il doit être consulté pour l'installation de l'analyseur. Il doit être maintenu dans de bonnes conditions et conservé dans un lieu propre et accessible aux opérateurs.	
Nettoyage <p>Pour maintenir limpio el display, usar un paño ligeramente húmedo. No usar abrasivos ni disolventes.</p>	
Responsabilité en matière d'élimination <p>♻ Éliminer selon le tri sélectif avec les structures de récupération indiquées par l'État ou par les organismes publics locaux. Bien éliminer et recycler aidera à prévenir des conséquences potentiellement néfastes pour l'environnement et les personnes.</p>	
Service et garantie <p>En cas de dysfonctionnement, de panne, de besoin d'informations, ou pour acheter des modules accessoires, contacter la filiale ou le distributeur CARLO GAVAZZI de votre pays. Une installation et une utilisation de l'analyseur autres que celles indiquées dans les instructions fournies invalident la garantie.</p>	
Notes <ul style="list-style-type: none">L'instrument doit être installé en faisant attention à laisser un accès facile à l'appareil de déconnexion externe. Un interrupteur ou disjoncteur externe devant être monté à proximité de l'instrument est requis. À utiliser uniquement dans un environnement de degré de pollution 2 ou supérieur. Utilisation en intérieur uniquement. Utiliser uniquement des conducteurs en cuivre. Les entrées/sorties auxiliaires (entrée numérique, sortie numérique, RS485, M-Bus) doivent être connectés uniquement au circuit à énergie limitée conformément à la norme CEI/EN 61010-1. Le produit est destiné à être installé à l'intérieur d'une enceinte coupe-feu/électrique certifiée.	

Notes UL <ul style="list-style-type: none">Les entrées/sorties auxiliaires (entrée numérique, sortie numérique, RS485, M-Bus) doivent être connectés uniquement à un circuit à énergie limitée conformément à la norme UL/CSA 61010-1 ou à une source d'alimentation de classe 2 conforme au Code électrique national (NEC), NFPA 70, clause 725.121 et au Code électrique canadien (CEC), partie I, C22.1 Évalué comme dispositif de type ouvert ; il est destiné à être installé à l'intérieur d'un boîtier spécial certifié NRTL pour la protection contre l'incendie et l'électricité (boîtier intégral) ou à l'intérieur du boîtier de l'équipement ; il n'est pas destiné à être installé ultérieurement dans le boîtier d'appareillage de commutation ou les tableaux de distribution.

ESPAÑOL	
Advertencias <div><div>⚡</div> <div>⚠</div></div> ¡PELIGRO! Elementos sometidos a tensión. Ataque al corazón, quemaduras u otras lesiones. <ul style="list-style-type: none">Desconectar la alimentación y las cargas antes de conectar/conectar los cables eléctricos. Utilizar el analizador solo a la tensión y corriente especificadas. La instalación de los analizadores solo deberá correr a cargo de personas que sepan operar de forma segura. El acceso a los terminales está reservado solo para personal calificado para operaciones de mantenimiento.	
AVISO: <i>La seguridad de cualquier sistema que incorpora el analizador será responsabilidad del instalador del sistema.</i>	
AVISO: <i>use hilos eléctricos en cumplimiento con las regulaciones locales e internacionales de aplicación en todo momento.</i>	
AVISO: <i>utilizar el analizador solo a la tensión y corriente especificadas para evitar daños permanentes.</i>	
AVISO: <i>nadir está autorizado para abrir el analizador. Solo el personal de la asistencia técnica CARLO GAVAZZI puede hacerlo. El uso del instrumento de un modo no especificado por el fabricante podría afectar a la protección.</i>	
👤 Este manual forma parte integrante del producto. Debe consultarse para instalar el analizador. Debe mantenerse en buenas condiciones y conservarse en un lugar limpio y accesible a los operadores.	
Limpieza <p>Para mantener limpio el display, usar un paño ligeramente húmedo. No usar abrasivos ni disolventes.</p>	
Responsabilidad de eliminación <p>♻ Eliminar mediante recogida selectiva a través de las estructuras de recogida indicadas por el gobierno o por los entes públicos locales. La correcta eliminación y el reciclaje ayudarán a prevenir consecuencias potencialmente negativas para el medioambiente y para las personas.</p>	
Asistencia y garantía <p>En caso de fallo de funcionamiento, avería, necesidad de información o para adquirir módulos accesorios, contactará a la filial CARLO GAVAZZI o al distribuidor en el país de pertenencia. La instalación y el uso del analizador diferentes de lo indicado en las instrucciones facilitadas invalidan la garantía.</p>	
Notas <ul style="list-style-type: none">El instrumento debe instalarse procurando que el dispositivo de desconexión externo quede fácilmente accesible. Se requiere montar un interruptor o disyuntor externo cerca del instrumento. Para uso exclusivo en ambientes con un grado de contaminación 2 o mejor. Solo para uso en interiores. Usar conductores de cobre exclusivamente. Las entradas/salidas auxiliares (Entrada digital, Salida digital, RS485, M-bus) deben estar conectadas únicamente a un circuito de energía limitada de acuerdo con IEC/EN 61010-1. Este producto está diseñado para su instalación en un recinto certificado contra incendios/electricidad.	

DANSK	
Advarsler <div><div>⚡</div> <div>⚠</div></div> FARE! Spændingsførende dele. Hjerteranfald, forbrændinger og andre kvæstelser. <ul style="list-style-type: none">Forsyningen og belastningen frakobles inden tilslutning/frakobling de elektriske kabler. Analyseapparatet må kun bruges ved den angivne spænding og strøm. Analysatoren må kun installeres af fagkyndigt/autoriseret personale, som ved, hvordan man arbejder i sikkerhed. Adgang til terminaler er forbeholdt kvalificeret personale til vedligeholdelse.	
ADVARSEL: <i>Sikkerheden for et hvilket som helst system, som omfatter analyseapparatet, er installatørens ansvar.</i>	
ADVARSEL: <i>Brug altid elektriske ledninger i henhold til alle gældende lokale og internationale regler.</i>	
ADVARSEL: <i>Analyseapparatet må kun bruges ved den angivne spænding og strøm for at undgå permanent skade.</i>	
ADVARSEL: <i>Ingen er autoriseret til at åbne analyseapparatet. Kun tekniker fra CARLO GAVAZZI må gøre dette. Beskyttelsen kan blive forringet, hvis instrumentet bruges på anden vis end det, der er angivet af fabrikanten.</i>	
👤 Denne manual er en integreret del af produktet. Den skal læse før installation af analyseapparatet. Den skal opbevares i god stand på et rent sted, som er let tilgængeligt for operatørerne.	
Rengøring <p>Brug en klud, som er lidt fugtig, til rengøring af displayet. Brug aldrig slibemidler eller opløsningsmidler.</p>	
Ansvar for bortskaffelse <p>♻ Produktet skal bortskaffes på en lokal, godkendt genbrugsstation. Korrekt bortskaffelse og genbrug vil bidrage til at mindske eventuelle skadelige konsekvenser for miljøet, menneske og dyr.</p>	
Service og garanti <p>Hvis der opstår fejlfunktioner og defekter, eller hvis der er brug for oplysninger, eller der skal købes tilbehørsmoduler, bedes du kontakte den lokale CARLO GAVAZZI-forhandler eller -afdeling. Ved installation og brug af analyseapparatet som ikke er overensstemmende med det, der er angivet i vejledningen, bortfalder garantien.</p>	
Bemærkninger <ul style="list-style-type: none">Instrumentet installeres. Sørg for at lade den eksterne frakoblingsanordning være let tilgængelig. En ekstern kontakt eller strømfafbryder, som skal monteres i nærheden af instrumentet, er påkrævet. Kun til brug ved en forureningsgrad på 2 eller bedre. Kun til indendørs brug. Brug kun kobberledninger. Ekstra indgange/udgange (digital indgang, digital udgang, RS485, M-Bus) må kun tilsluttes et begrænset energikredsløb i overensstemmelse med IEC/EN 61010-1. Produktet er beregnet til installation i et certificeret brandsikkert/elektrisk kabinet.	

Display icons	
Symbol	Description
⚠	ALARM (blinking icon): the value of the variable has exceeded the threshold set.
🔧 ⚠	WIRING ERROR (steady icons): a wiring fault has been detected, for problem solutions, see “EM500 IM wiring solutions”
Rx Tx	Serial communication state (reception / transmission)
🔧	The association of the phase terminal or the direction of the currents have been modified via UCS software to correct virtually a wiring fault. To view the current setup of the terminals, access the info screens (MENU > INFO > TERMINAL).
Icone del display	
Simbolo	Descrizione
⚠	ALLARME (icona lampeggiante): il valore della variabile ha superato la soglia impostata.
🔧 ⚠	ERRORE DI CABLAGGIO (icone fisse): è stato rilevato un errore di cablaggio, il controllo funziona, per risoluzione problemi, vedi “EM500 IM wiring solutions”
Rx Tx	Stato della comunicazione seriale (ricezione / trasmissione)
🔧	L'associazione del terminale di fase o la direzione delle correnti sono state modificate tramite UCS software per correggere virtualmente un errore di cablaggio. Per vedere la configurazione corrente dei terminali, accedere alle pagine info (MENU > INFO > TERMINAL).

Symbole anzeigen	
Symbol	Beschreibung
⚠	ALARM (blinkendes Symbol): Der Wert der Variable hat die eingestellte Schwelle überschritten.
🔧 ⚠	VERKABELUNGSFEHLER (stetige Symbole): Ein Verkabelungsfehler ist erkannt worden, für Problemlösungen siehe „EM500 IM Verkabelungslösungen“.
Rx Tx	Zustand der seriellen Kommunikation (Empfang / Übertragung)
🔧	Die Zuweisung des Phasenanschlusses oder der Stromrichtungen sind über die UCS-Software modifiziert worden, um einen Verkabelungsfehler virtuell zu korrigieren. Zum Ansehen der aktuellen Einstellung der Anschlüsse greifen Sie auf die Informationsanzeigebilder zu (MENU > INFO > TERMINAL).

Ícõnes d’affichage	
Symbole	Description
⚠	ALARME (icône clignotante) : la valeur de la variable a dépassé le réglage du seuil.
🔧 ⚠	ERREUR DE CÂBLAGE (icõnes fixes) : un erreur de câblage a été détectée, pour les dépannages, voir « Solutions de câblage EM500 IM »
Rx Tx	État de communication en série (réception/transmission)
🔧	L’association de la borne de phase ou le sens des courants ont été modifiés via le logiciel UCS pour corriger virtuellement une erreur de câblage. Pour visualiser le réglage du courant des bornes, aller aux écrans d’information (MENU > INFO > TERMINAL).

Iconos de display	
Simbolo	Descripción
⚠	ALARMA (icono parpadeante): el valor de la variable ha superado el umbral establecido.
🔧 ⚠	ERROR DE CABLEADO (iconos fijos): se ha detectado un error de cableado, para resolución de problemas, ver “EM500 IM wiring solutions”
Rx Tx	Estado de la comunicación serial (recepción / transmisión)
🔧	La asociación del terminal de fase o la dirección de las corrientes se han modificado mediante el software UCS

Installing EM540 / Installare EM540 / Installation des EM540 / Installer le EM540 / Instalar el EM540 / Installer EM540

1. Mount EM540 on DIN rail.
2. Open terminal caps
3. Complete measuring input connections.

Un (L-N)	120 ... 240 V
Un (L-L)	208...415 V
Voltage tolerance	-20, +15%
Frequency	50...60 Hz

Note: for MID versions the voltage range is limited to 3x120 (208)...3x230 (400)V, frequency to 50Hz.

Ib/In	5 A
I _{max}	65 A

4. Close the terminal caps
5. Seal the terminal caps (MID requirement).
6. Connect inputs and digital output, RS485 or M-Bus.

Note: Digital input, digital output, M-bus and RS485 port have reinforced insulation from mains circuit.

7. Turn on power and check correct operation.
8. Configure EM540.

1. Montare EM540 su guida DIN.
2. Aprire i coprimorsetti
3. Eseguire i collegamenti degli ingressi di misura.

Un (L-N)	120 ... 240 V
Un (L-L)	208...415 V
Tolleranza tensione	-20, +15%
Frequenza	50...60 Hz

Nota: per le versioni MID il range di tensione è limitato a 3x120 (208)...3x230 (400)V, la frequenza a 50Hz.

Ib/In	5 A
I _{max}	65 A

4. Chiudere i coprimorsetti
5. Sigillare i coprimorsetti (requisito MID).
6. Collegare ingressi e uscita digitale, RS485 o M-Bus.

Nota: L'ingresso digitale, l'uscita digitale, la porta M-bus e la porta RS485 sono dotati di isolamento rinforzato dal circuito di rete.

7. Alimentare e verificare il corretto funzionamento.
8. Configurare l' EM540.

1. EM540 auf DIN-Schiene montieren.
2. Anschlussabdeckungen öffnen.
3. Eingangsanschlüsse komplett durchmessen.

Un (L-N)	120 ... 240 V
Un (L-L)	208...415 V
Spannungstoleranz	-20, +15%
Frequenz	50...60 Hz

Hinweis: bei MID-Versionen ist der Spannungsbereich auf 3x120 (208)...3x230 (400)V und die Frequenz auf 50 Hz begrenzt.

Ib/In	5 A
I _{max}	65 A

4. Anschlussabdeckungen schließen.
5. Siegeln Sie die Anschlussabdeckungen (MID-Anforderung).
6. Eingänge und digitalen Ausgang, RS485 oder M-Bus anschließen.

Hinweis: Digitaleingang, Digitalausgang, M-Bus und RS485-Port haben verstärkte Isolierung vom Hauptstromkreis.

7. Die Stromversorgung einschalten und die einwandfreie Funktion prüfen.
8. Konfigurieren Sie das EM540.

1. Monter EM540 sur un rail DIN.
2. Ouvrir les cache-bornes.
3. Compléter la mesure des connexions d'entrée.

Un (L-N)	120 ... 240 V
Un (L-L)	208...415 V
Tolérance de tension	-20, +15%
Fréquence	50...60 Hz

Remarque: pour les versions MID, la plage de tension est limitée à 3x120 (208)...3x230 (400)V et la fréquence à 50Hz.

Ib/In	5 A
I _{max}	65 A

4. Fermer les cache-bornes.
5. Scellez les cache-bornes (exigence MID).
6. Connecter les entrées et les sorties numériques, RS485 ou M-Bus.

Note: l'entrée numérique, la sortie numérique, le M-bus et le port RS485 ont une isolation renforcée du circuit secteur.

7. Alimentar et vérifier le fonctionnement correct.
8. Configurer EM540.

1. Montar el EM540 en el carril DIN.
2. Abrir los tapones para terminales.
3. Realizar las conexiones de las entradas de medición.

Un (L-N)	120 ... 240 V
Un (L-L)	208...415 V
Tolerancia de tensión	-20, +15%
Frecuencia	50...60 Hz

Nota: para las versiones MID, el rango de tensión está limitado a 3x120 (208)...3x230 (400)V, la frecuencia a 50Hz.

Ib/In	5 A
I _{max}	65 A

4. Cerrar los tapones para terminales.
5. Sellar los cubrebornes (requisito MID).
6. Conectar las entradas y la salida digital, RS485 o M-Bus.

Nota: la entrada digital, la salida digital, el M-bus y el puerto RS485 cuentan con aislamiento reforzado frente a la red eléctrica.

7. Alimentar y comprobar el correcto funcionamiento.
8. Configurar el EM540.

1. Montere EM540 på DIN-skinne.
2. Åbn klemmedæksler.
3. Udfør måling af indgangsforbindelser.

Un (L-N)	120 ... 240 V
Un (L-L)	208...415 V
Spændingstolerance	-20, +15%
Frekvens	50...60 Hz

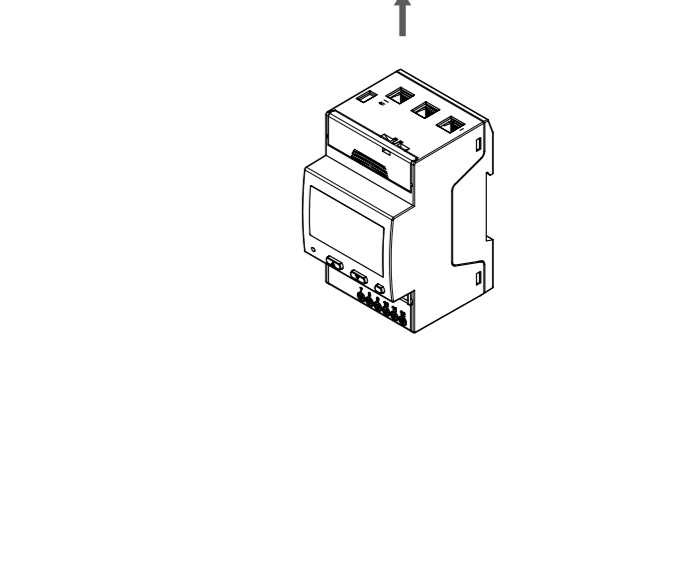
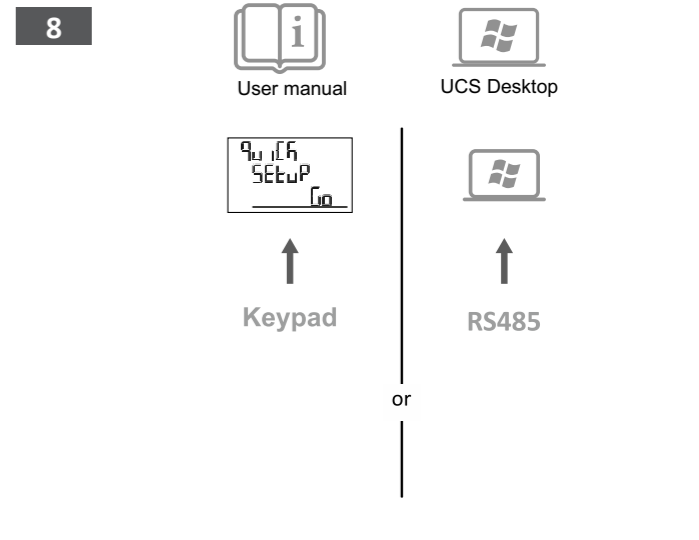
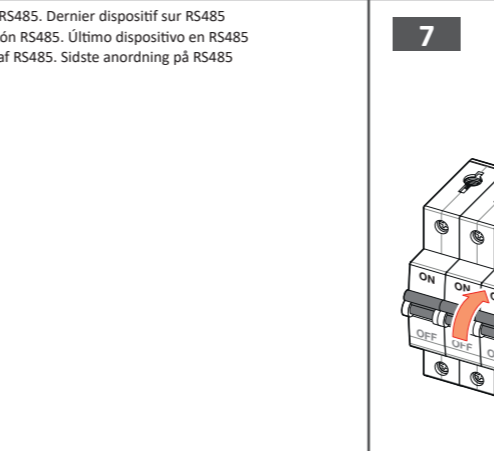
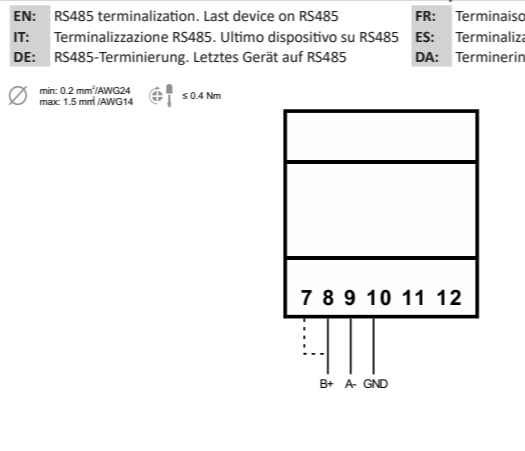
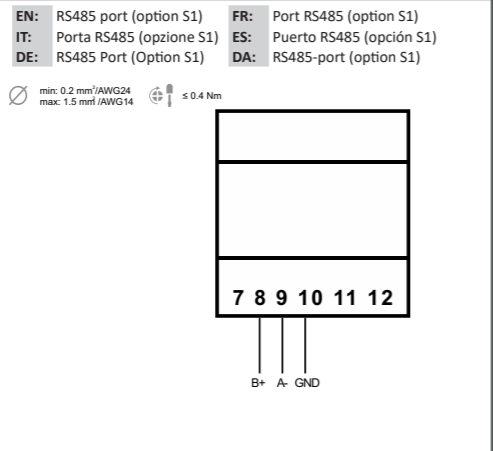
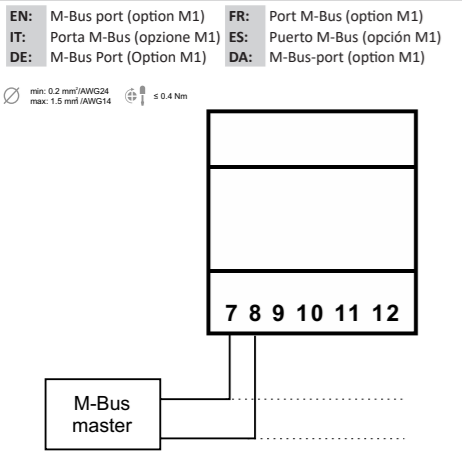
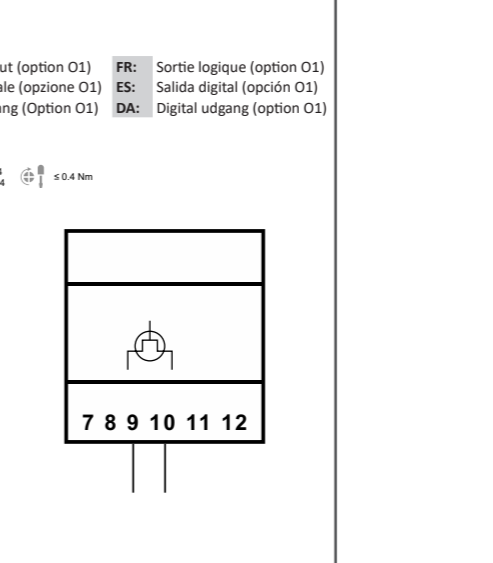
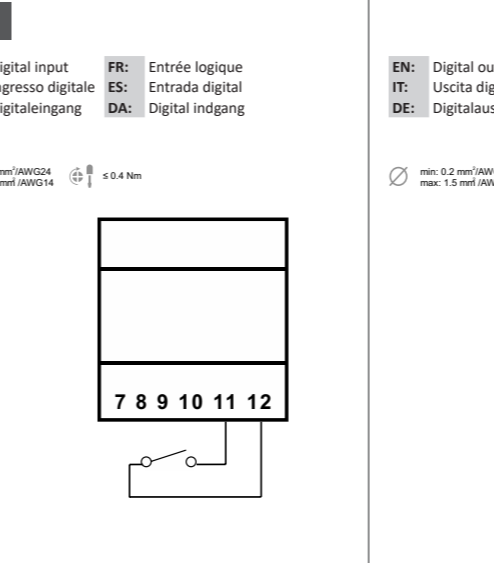
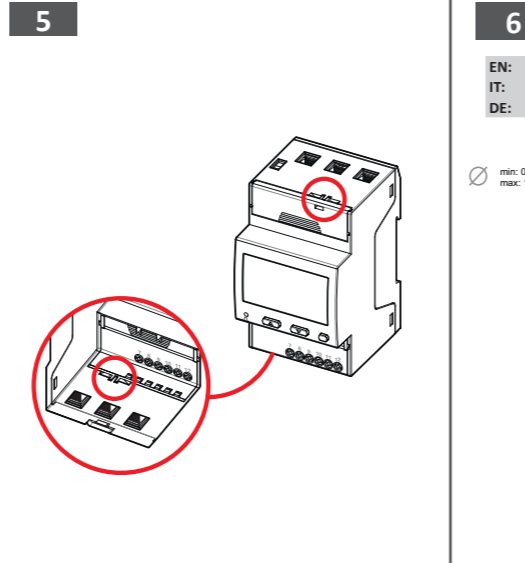
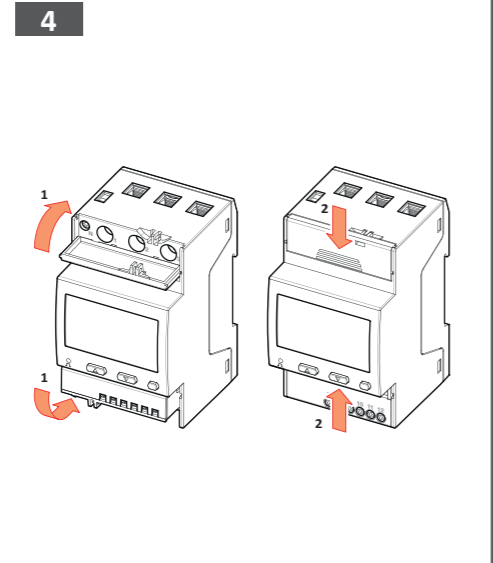
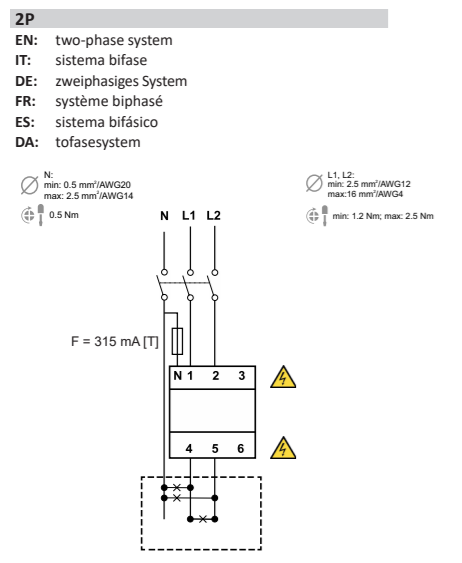
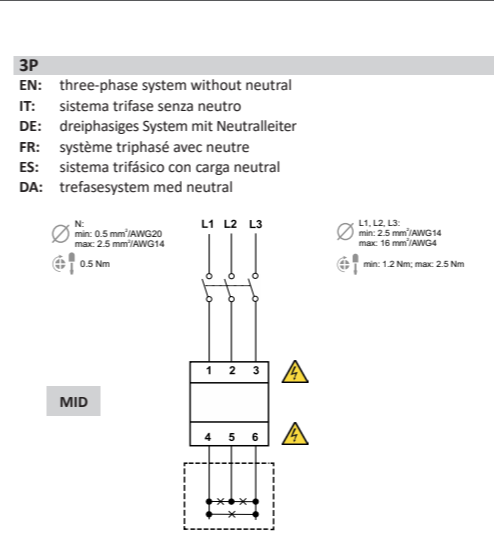
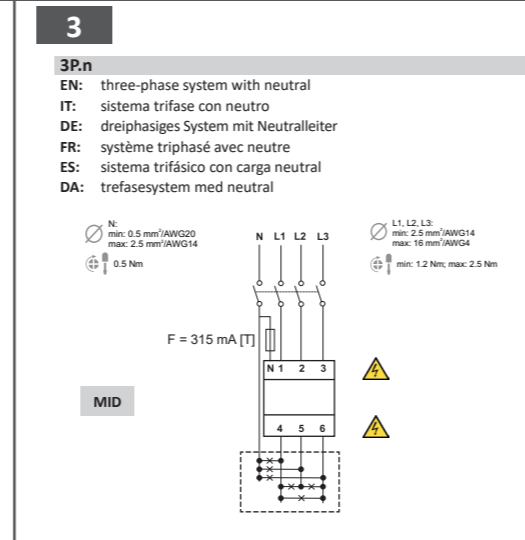
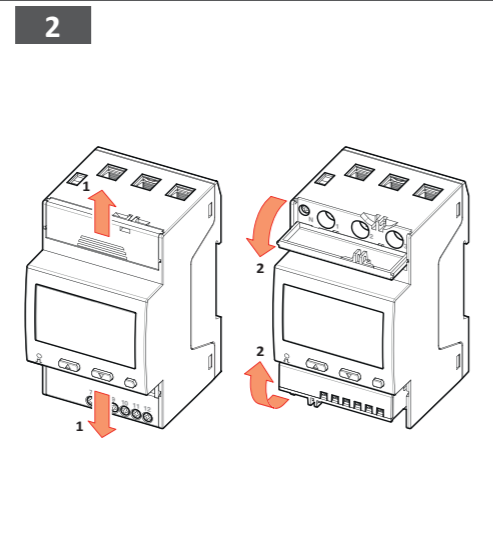
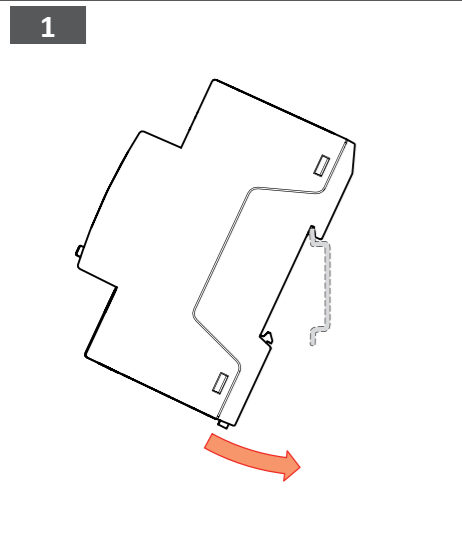
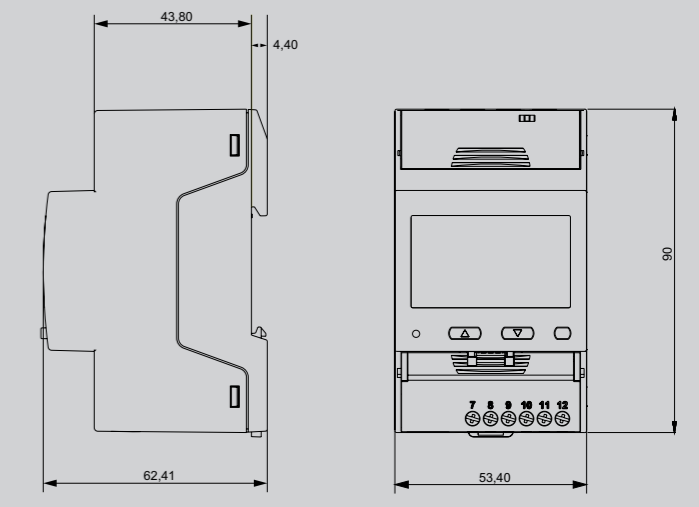
Bemærkning: for MID-versioner er spændingsområdet begrænset til 3x120 (208)...3x230 (400)V, frekvens til 50Hz.

Ib/In	5 A
I _{max}	65 A

4. Luk klemmedækslerne.
5. Forsegel klemmedæksler (MID krav).
6. Tilslut indgange og digital udgang, RS485 eller M-Bus.

Bemærk: Digital indgang, digital udgang, M-bus og RS485-port har forstærket isolering fra hovedkredsløbet.

7. Sæt strøm til, og kontrollér den korrekte drift.
8. Konfigurer EM540.



User manual https://www.gavazziautomation.com/images/PIM/MANUALS/ENG/EM540_IM_INST.pdf

UCS Desktop <https://www.gavazziautomation.com/images/PIM/OTHERSTUFF/ucs.zip>

www.gavazziautomation.com 30/11/23| 8022281| COPYRIGHT ©2023

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Carlo Gavazzi

EM540

Installation instruction
Power analyzer for three-phase and two-phase systems

安装说明

适用于三相和两相系统的功率分析仪

安裝說明

適用於三相和雙相系統的功率分析儀

EN	
Operating temperature	From -25 to +55 °C/from -13 to +131 °F
Storage temperature	From -25 to +70 °C/from -13 to +158 °F
Protection degree	IP40 and IP51 (just in a distribution board with IP51 degree)
Overvoltage/Measurement category	III, 4kV rated input voltage
Utilization category	UC2
Protective class	II
Altitude	Max 2000 m
Consumption	<1.3 W/2.6 VA (W value not UL evaluated)
Digital output	V _{ON} 2.5 V ac/dc, max 100 mA。V _{OFF} 42 V ac/dc max
Digital input	Contact measuring voltage: 5 V dc +/- 5%. Contact measuring current: 5 mA max
Weight	270 g

Note: R.H. < 90 % non-condensing @ 40 °C / 104 °F.

ZH-SC	
工作温度	-25 至 +55 °C/-13 至 +131 °F
存储温度	-25 至 +70 °C/-13 至 +158 °F
防护等级（未经 UL 评估）	IP40 和 IP51（仅用于 IP51 等级的配电板）
过电压/测量类别	III, 4kV 额定输入电压
设施类别	UC2
防护等级	II
海拔高度	最高 2000 m
功耗	<1.3 W/2.6 VA（W 值未经过 UL 评估）
数字输出	V _{ON} 2.5 V ac/dc，最大 100 mA。V _{OFF} 42 V ac/dc 最大
数字输入	触点测量电压：5 V dc +/- 5%。触点测量电流：最大 5 mA
重量	270 g
备注：	<i>相对湿度< 90 % 非冷凝 @ 40°C/104°F。</i>

ZH-TC	
作業溫度	-25 到 +55 °C/-13 到 +131 °F
保存溫度	-25 到 +70 °C/-13 到 +158 °F
防護等級（未經 UL 評估）	IP40 和 IP51（僅用於 IP51 等級的配電板）
過電壓/量測類別	III, 4kV 額定輸入電壓
使用類別	UC2
防護等級	II
海拔高度	最高 2000 m
消耗量	<1.3 W/2.6 VA (W 值未經過 UL 評估)
數位輸出	V _{ON} 2.5 V ac/dc，最大 100 mA。V _{OFF} 42 V ac/dc 最大
數位輸入	接觸量測電壓：5 V dc +/- 5%。接觸量測電流：最大 5 mA
重量	270 g
備註：	<i>相對濕度< 90 % 未凝結 @ 40 °C / 104 °F。</i>

ENGLISH	
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Warnings	
⚠️⚠️	DANGER! Live parts. Heart attack, burns and other injuries.

- Disconnect the power supply and loads before connecting/disconnecting the electrical wires.
- Only use the analyzer at the specified voltage and current.
- The analyzer should only be installed by qualified personnel experienced in working in safety.
- Access to the terminals is reserved for qualified personnel for maintenance operations.

NOTICE: *The system installer is liable for the safety of any system that includes the analyzer.*

NOTICE: *Always use electrical wires according to all applicable local and international regulations.*

NOTICE: *only use the analyzer at the specified voltage and current to avoid permanent damage.*

NOTICE: *no one is authorized to open the analyzer. This operation is reserved exclusively for CARLO GAVAZZI technical service personnel. Protection may be impaired if the instrument is used in a manner not specified by the manufacturer.*

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
---	--

Cleaning

Use a slightly dampened cloth to clean the display. Do not use abrasives or solvents.

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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Responsibility for disposal

♻️ The product must be disposed of at the relative recycling centers specified by the government or local public authorities. Correct disposal and recycling will contribute to the prevention of potentially harmful consequences to the environment and persons.

Service and warranty

In the event of malfunction, fault, requests for information or to purchase accessory modules, contact the CARLO GAVAZZI branch or distributor in your country. Installation and use of analyzers other than those indicated in the provided instructions void the warranty.

- Notes:**
- The instrument must be installed taking care of leaving the external disconnecting device easily accessible.
- An external switch or circuit-breaker that must be mounted near the instrument is required.
- To be used in a pollution degree 2 or better environment only
- Indoor use only
- Use copper conductors only
- Auxiliary inputs/outputs (Digital input, Digital output, RS485, M-Bus) must be connected only to Limited-Energy Circuit in accordance with IEC/EN 61010-1.
- The product is intended to be installed inside a certified fire/electrical enclosure

简体中文

警告

⚠️ **危险!** 带电部件。可能导致心脏病发作、烧伤及其他伤害。

- 在连接/断开电线之前，请先断开电源和所有负荷。
- 只可在规定电压和电流下使用分析仪。
- 分析仪只能由具备安全工作经验的合格人员安装。
- 只有合格人员才能使用端子，以进行维护操作。
- 系统安装人员负责保证任何包含分析仪的系统的安全性

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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注意：只可在规定电压和电流下使用分析仪，以避免发生永久性损坏。

注意：意：务必使用符合当地和国际规范要求的电气线材。

注意：任何人都不得拆开分析仪。只有 CARLO GAVAZZI 的技术服务人员才可进行此项操作。如果以制造商未指定的方式使用仪器，可能会损害保护功能。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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本手册是产品不可或缺的一部分。安装分析仪时必须查阅本手册。必须将其妥善保存在所有操作人员都可轻松取得的显眼位置。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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清洁
使用略微蘸湿的布清洁显示屏。请勿使用研磨剂或溶剂。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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Responsibility for disposal

♻️ 本产品必须在政府或当地公共机构所指定的相关回收中心进行处置。正确处置和回收可以防止对环境 and 人身安全造成潜在危害。

处置责任

本产品必须在政府或当地公共机构所指定的相关回收中心进行处置。正确处置和回收可以防止对环境 and 人身安全造成潜在危害。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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维修和保修

如果发生故障、错误，或需要了解信息或购买附属模块，请联系 CARLO GAVAZZI 在您所在国家/地区的分公司或经销商。若未按照附带说明书所载方式安装和使用分析仪，将导致保修失效。

- 注：**
- 仪表安装时必须注意保证相应外部断开装置处于方便操作的位置。
- 要求安装一个必须安装在仪器附近的外部开关或断路器。
- 仅可用于污染等级 2 或条件更佳的场所
- 仅可用于室内
- 仅可使用铜导线
- 辅助输入/输出（数字输入、数字输出、RS485、M-Bus）必须仅连接至符合 UL/CSA 61010-1 要求的有限能量电路。
- 该设备设计应安装在经认证的防火电气机柜内。

繁體中文

警告

⚠️ **危險!** 帶電零件。可能導致心臟病發作、燒傷及其他傷害。

- 在連接/斷開電線之前，請先斷開電源和負載。
- 只可在規定電壓和電流下使用分析儀。
- 分析儀只能由具備安全工作經驗的合格人員安裝。
- 僅限合格人員使用端子，以進行維護操作。
- 系統安裝人員負責保證任何包含分析儀的系統的安全性

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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注意：只可在規定電壓和電流下使用分析儀，以避免發生永久性損害。

注意：始終依所有適用的當地和國際法規使用電線。

注意：任何人都不得拆開分析儀。此類操作必須由 CARLO GAVAZZI 技術服務人員進行。如果不依照製造商指定的方式使用儀器，可能會對防護等級造成損害。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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本手冊是產品不可或缺的一部分。安裝分析儀時必須查閱本手冊。請務必將手冊妥善存放在所有操作人員都能方便拿取的顯眼位置。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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清潔
使用微濕抹布清潔顯示器。請勿使用研磨劑或溶劑。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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廢棄責任

♻️ 必須將本產品交由政府或當地公共機關指定之相關回收中心進行廢棄。請按照正確方式廢棄和回收，避免對環境與個人造成潛在危害。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
---	--

服務與保固

若功能異常、發生故障、需要資訊或購買配件模組，請聯絡您所在國家/地區的 CARLO GAVAZZI 分公司。

若未按照附帶說明書所載方式安裝和使用分析仪，將導致保固失效。

附註:

- 安裝本儀器時，必須注意要易於接觸外部斷開裝置。
- 需要在本儀器附近安裝外部開關或断路器。
- 只能在污染等級為 2 或更好的環境中使用。
- 僅限室內使用
- 僅使用銅導線。
- 輔助輸入/輸出（數位輸入、數位輸出、RS485、M-Bus）必須僅連接到符合 IEC/EN 61010-1 的限能電路。
- 本產品旨在安裝在經認證的防火/電氣外殼中

Additional UL notes:

- Auxiliary inputs/outputs (Digital input, Digital output, RS485, M-Bus) must be connected only to Limited-Energy Circuit in accordance with UL/CSA 61010-1 or Class 2 supply source which complies with the National Electrical Code (NEC), NFPA 70, Clause 725.121 and Canadian Electrical Code (CEC), Part I, C22.1
- Evaluated as open type device; it is intended to be installed inside a dedicated NRTL certified fire/electrical enclosure (overall enclosure) or inside end-product equipment enclosure; it is not intended for retrofit installations in the enclosure of switchgears or panel boards.

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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額外 UL 备注:

- 辅助输入/输出（数字输入、数字输出、RS485、M-Bus）必须仅连接至符合 UL/CSA 61010-1 要求的有限能量电路，或符合美国电气规范（NEC）NFPA 70 第 725.121 条以及加拿大电气规范（CEC）第 1 部分 C22.1 要求的 2 类电源。
- 作为开放式设备评估；它 intended 到 be installed inside a dedicated NRTL 认证的专用防火/电学机柜（整体柜）内或最终设备机柜内；该设备设计不可通过改造安装于开关设备或面板机柜内。

👤	This manual is an integral part of the product. It must be consulted for analyzer installation. It must be kept in good condition and in a clean location accessible to all operators.
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其他 UL 說明:

- 輔助輸入/輸出（數位輸入、數位輸出、RS485、M-Bus）必須僅連接到符合 UL/CSA 61010-1 的限能電路或符合美國國家電工法規（NEC），NFPA 70，條款 725.121 和加拿大電工法規（CEC），第 1 部分 C22.1 的 2 級電源
- 評估為開放式裝置；旨在安裝在經 NRTL 認證的專用防火/電氣外殼（整體外殼）或最終產品設備外殼內；不適用於在開關設備或配電盤外殼中進行改造安裝。

Installing EM540 / 安裝 EM540 / 安裝 EM540

1. Mount EM540 on DIN rail.
2. Open terminal caps
3. Complete measuring input connections.

Un (L-N)	120 ... 240 V
Un (L-L)	208...415 V
Voltage tolerance	-20, +15%
Frequency	50...60 Hz

Note: for MID versions the voltage range is limited to 3x120 (208)...3x230 (400)V, frequency to 50Hz.

Ib/Iref	5 A
I _{max}	65 A

1. 將 EM540 安裝在 DIN 導軌上。
2. 打開端子蓋
3. 完成測量輸入連接。

Un (L-N)	120 ...240 V
Un (L-L)	208...415 V
电压容差	-20, +15%
频率	50...60 Hz

注意：对于 MID 版本，电压范围限制为 3x120 (208)...3x230 (400)V，频率限制为 50 Hz。

Ib/Iref	5 A
I _{max}	65 A

1. 將 EM540 安裝於 DIN 導軌上。
2. 打開端子蓋
3. 完成量測輸入連接。

Un (L-N)	120 ...240 V
Un (L-L)	208...415 V
電壓公差	-20, +15%
頻率	50...60 Hz

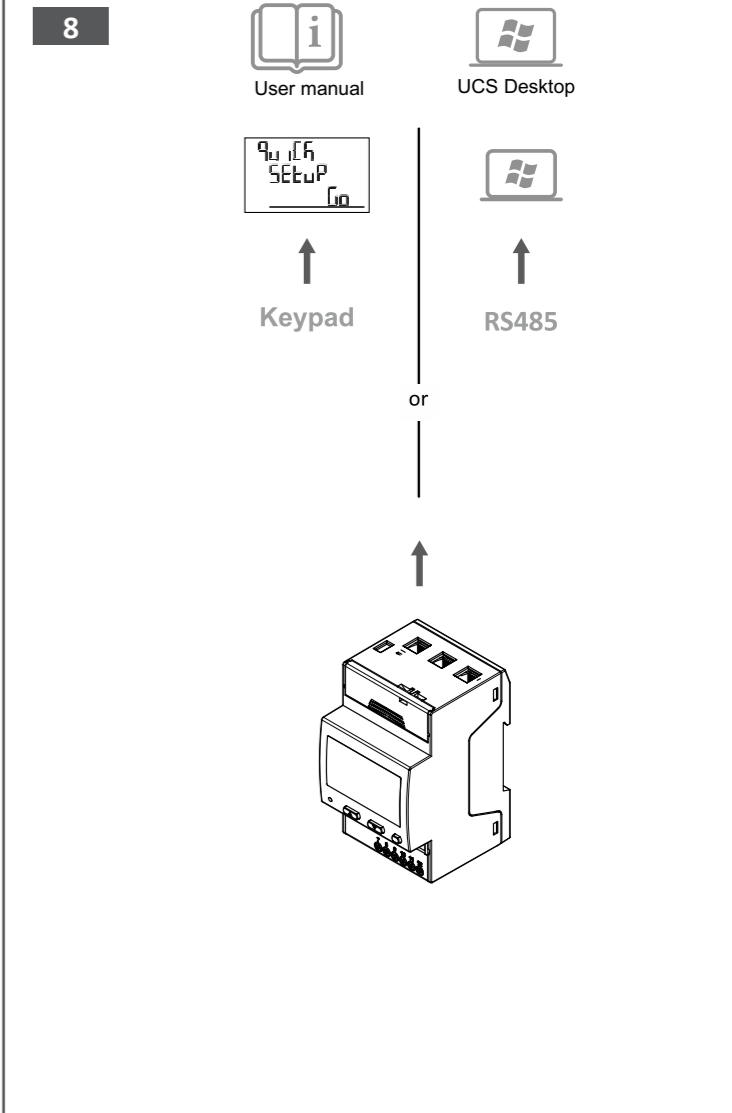
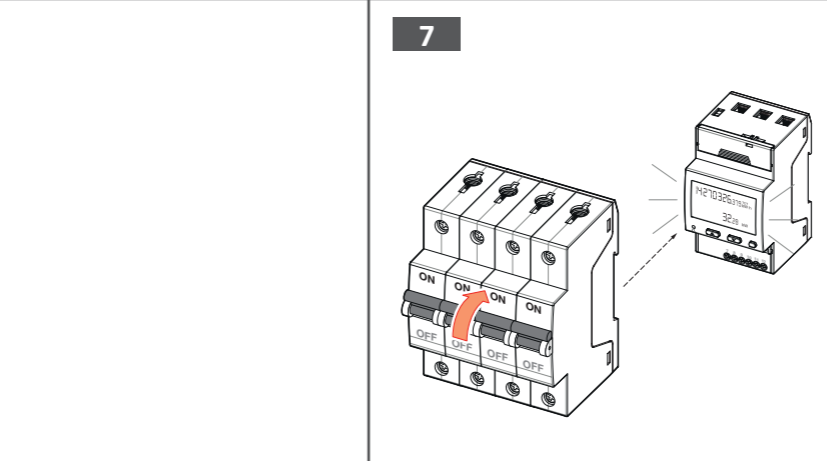
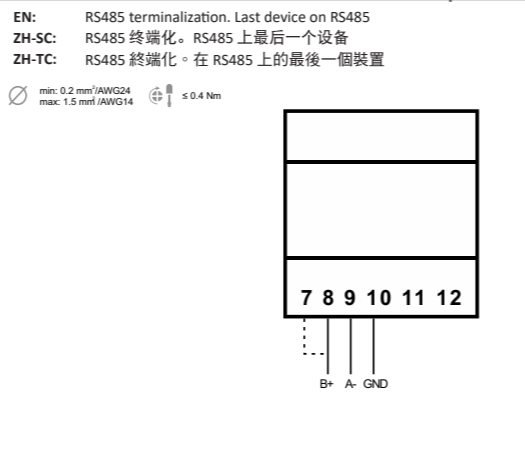
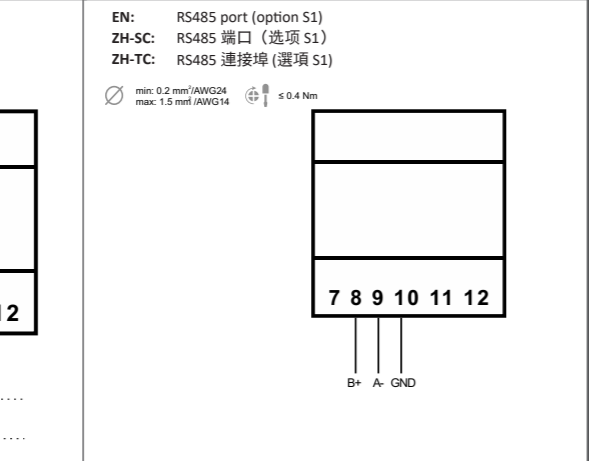
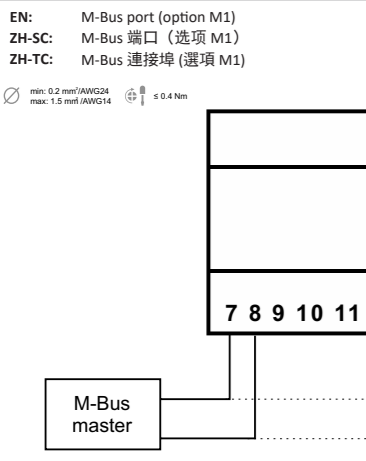
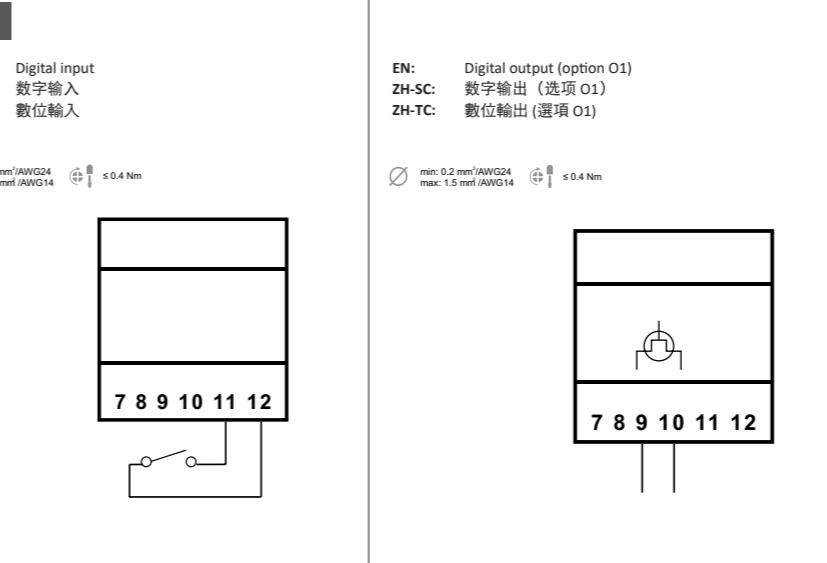
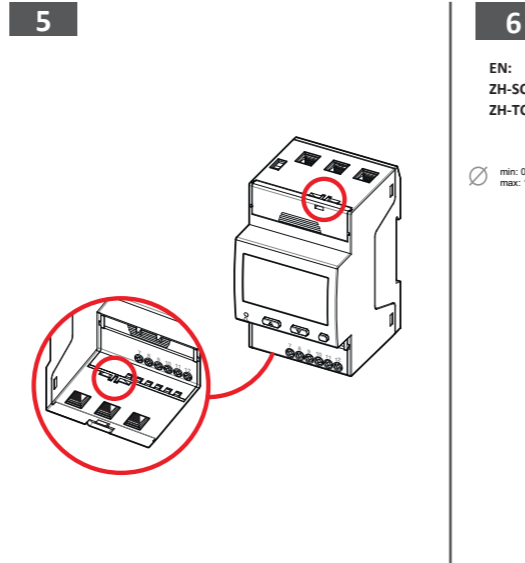
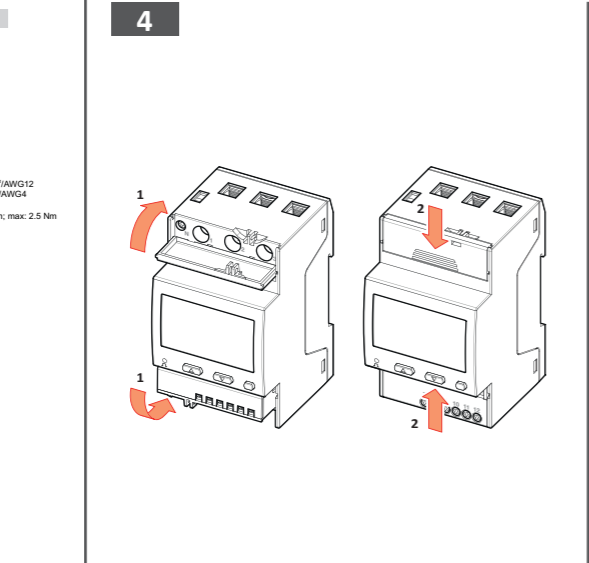
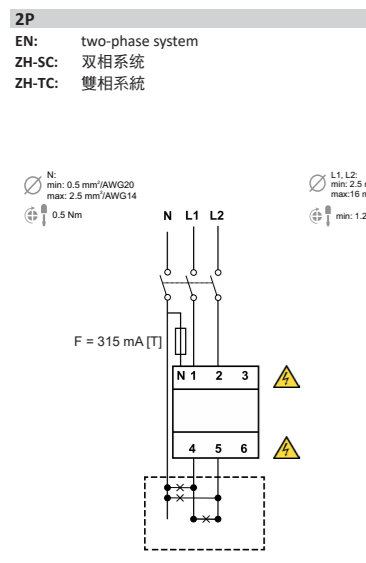
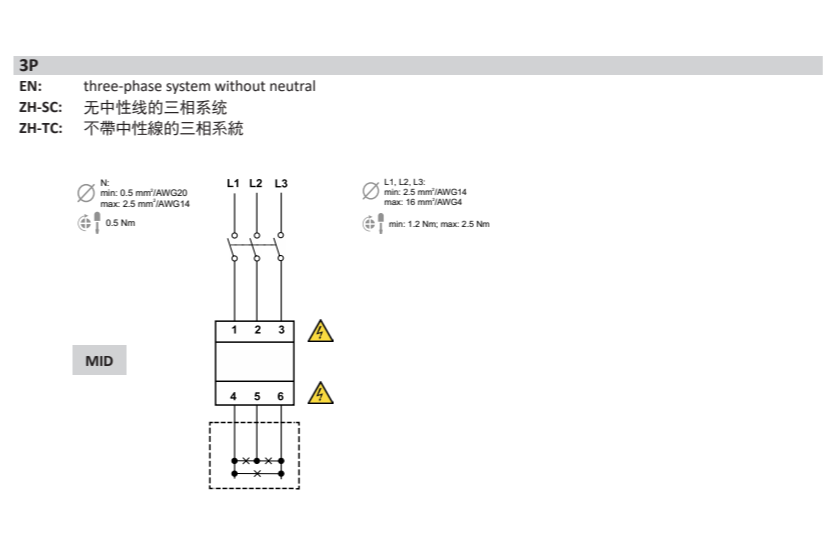
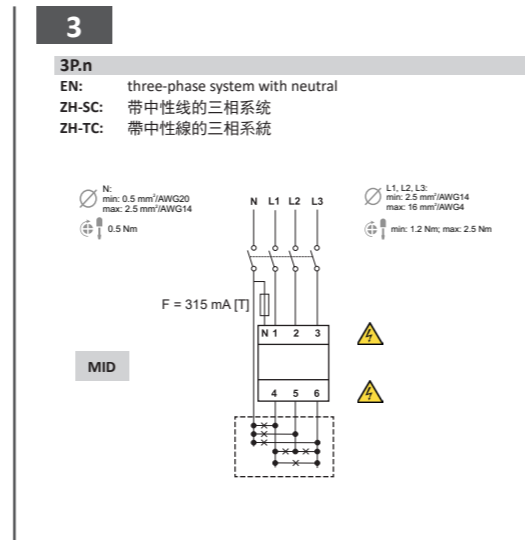
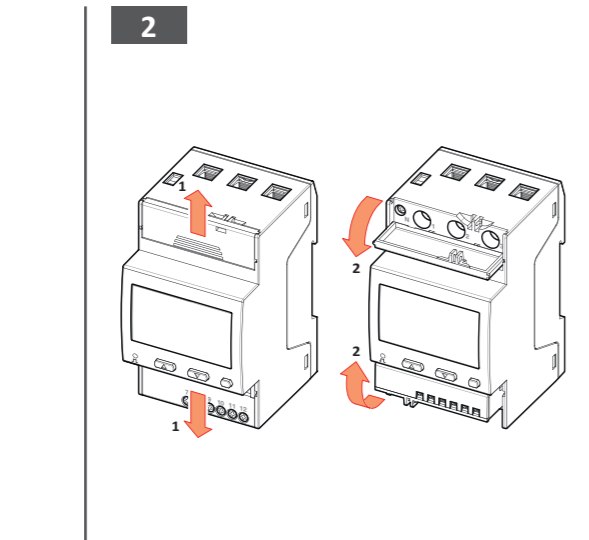
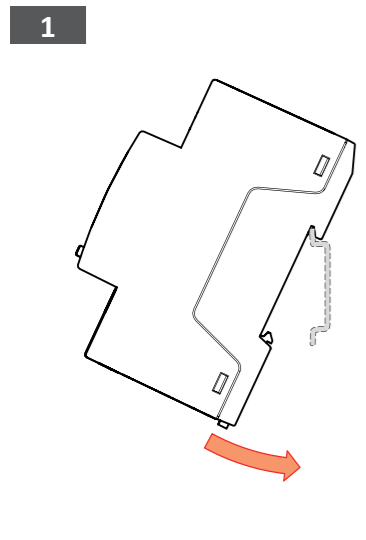
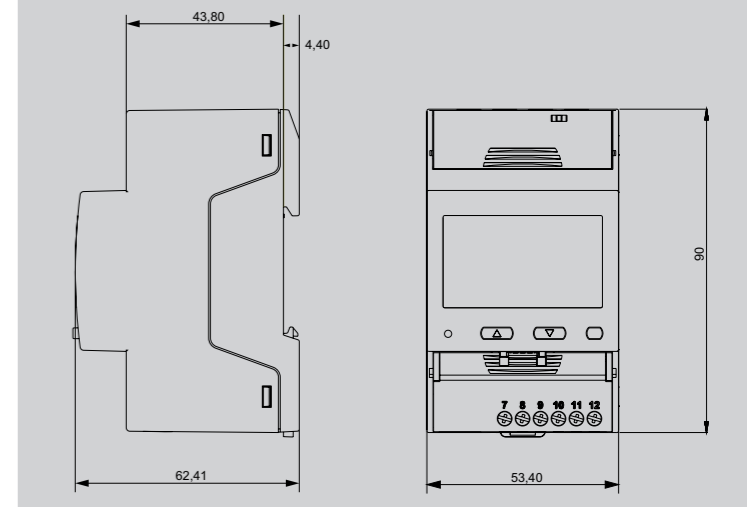
注意：對於 MID 版本，電壓範圍限制為 3x120 (208)...3x230 (400)V，頻率限制為 50 Hz。

Ib/Iref	5 A
I _{max}	65 A

4. Close the terminal caps
 5. Seal the terminal caps (MID requirement).
 6. Connect inputs and digital output, RS485 or M-Bus.
- Note:** Digital input, digital output, M-bus and RS485 port have reinforced insulation from mains circuit.
7. Turn on power and check correct operation.
 8. Configure EM540.

4. 關閉端子蓋
 5. 密封端子蓋 (MID 要求)。
 6. 連接輸入和數字輸出、RS485 或 M-Bus。
- 注：**數字輸入、數字輸出、M-Bus 及 RS485 端口均配有加強絕緣保護以保證與主電源電路絕緣。
7. 打開電源，檢查是否正常工作。
 8. 配置 EM540。

4. 蓋上端子蓋
 5. 密封端子蓋 (MID 規定)。
 6. 連接輸入與數位輸出、RS485 或 M-Bus。
- 附註：**數位輸入、數位輸出、M-Bus 和 RS485 通訊埠已加強與電源電路的絕緣。
7. 打開電源，檢查是否正確運作。
 8. 設定 EM540。



User manual https://www.gavazziautomation.com/images/PIM/MANUALS/ENG/EM540_IM_INST.pdf
 UCS Desktop <https://www.gavazziautomation.com/images/PIM/OTHERSTUFF/ucs.zip>



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EM530 - EM540

ADDITIONAL NOTES FOR MID COMPLIANCE - NOTE AGGIUNTIVE PER CONFORMITA' ALLA DIRETTIVA MID - ZUSÄTZLICHE HINWEISE ZUR MID-KONFORMITÄT MID 合規性補充說明

ENGLISH

ITALIANO

DEUTSCH

繁體中文

MID notes:

- Electromechanical environmental condition : E2
- Mechanical environmental condition: M2

Reference standards:

EN 50470-3:2022
EN IEC 62052-11:2021/A11:2022
(Emissions according to CISPR 32:2015, class B)
EN IEC 62052-31:2016

Supplementary metrology marking:

- EM530 model (Fig. 1a)
- EM540 model (Fig. 1b)

Installation notice.

Check the integrity of the seal:

- EM530 model (Fig. 2a)
- EM540 model (Fig. 2b)

Seal the terminal caps before use:

Note: the seal is applied by the user and not by the manufacturer. The seal shown is for illustration purpose only.

- EM530 model (Fig. 3a)
- EM540 model (Fig. 3b)

Note: For EM530 only, the following table reports the optical test output pulse weight, proportional to energy consumption and depending on the CT ratio (16 Hz maximum frequency):

Weight (kWh per pulse)	CT ratio
0.001	<=7
0.01	From 7.1 to 70
0.1	From 70.1 to 700
1	From 700.1 to 2000

Note sulla MID:

- Condizione dell'ambiente elettromagnetico : E2
- Condizione dell'ambiente meccanico: M2

Standard di riferimento:

EN 50470-3:2022
EN IEC 62052-11:2021/A11:2022
(Emissioni in accordo con CISPR 32:2015, classe B)
EN IEC 62052-31:2016

Marcatura metrologica supplementare:

- Modello EM530 (Fig. 1a)
- Modello EM540 (Fig. 1b)

Nota sull'installazione.

Controllare l'integrità del sigillo:

- Modello EM530 (Fig. 2a)
- Modello EM540 (Fig. 2b)

Sigillare i coprimorsetti prima dell'uso:

Note: il sigillo è applicato dall'utente e non dal produttore. Il sigillo mostrato è solo a scopo illustrativo.

- Modello EM530 (Fig. 3a)
- Modello EM540 (Fig. 3b)

Note: solo per EM530, la seguente tabella riporta il peso dell'impulso dell'uscita ottica di prova, proporzionale al consumo di energia e in base al rapporto CT (frequenza massima 16 Hz):

Peso (kWh per impulso)	Rapporto CT
0.001	<=7
0.01	Da 7.1 a 70
0.1	Da 70.1 a 700
1	Da 700.1 a 2000

MID-Hinweise:

- Elektromechanische Umgebungsbedingung: E2
- Mechanische Umgebungsbedingung: M2

Standard normen:

EN 50470-3:2022
EN IEC 62052-11:2021/A11:2022
(Emissionen gemäß CISPR 32:2015, Klasse B)
EN IEC 62052-31:2016

Ergänzende Metrologiemarkierung:

- EM530-Modell (Abb. 1a)
- EM540-Modell (Abb. 1b)

Installationshinweis.

Unversehrtheit der Versiegelung prüfen:

- EM530-Modell (Abb. 2a)
- EM540-Modell (Abb. 2b)

Die Anschlusskappen vor Gebrauch versiegeln:

Hinweis: Die Versiegelung wird vom Benutzer angebracht und nicht vom Hersteller. Die gezeigte Versiegelung dient nur zur Illustration.

- EM530-Modell (Abb. 3a)
- EM540-Modell (Abb. 3b)

Hinweis: Nur für EM530 gibt die folgende Tabelle das optische Testausgangsimpulsgewicht, proportional zum Energieverbrauch und abhängig vom CT-Verhältnis an (16 Hz maximale Frequenz):

Gewichtung (kWh pro Impuls)	CT-Verhältnis
0.001	<=7
0.01	7,1 bis 70
0.1	70,1 bis 700
1	700,1 bis 2000

MID 注意事項：

- 機電環境條件：E2
- 機械環境條件：M2

標準：

EN 50470-3:2022
EN IEC 62052-11:2021/A11:2022
(排放符合 CISPR 32:2015，等級 B)
EN IEC 62052-31:2016

充度量衡標示：

- EM530 機型 (圖 1a)
- EM540 機型 (圖 1b)

安裝注意事項。

檢查密封完整性：

- EM530 機型 (圖 2a)
- EM540 機型 (圖 2b)

使用前，請密封端子蓋：

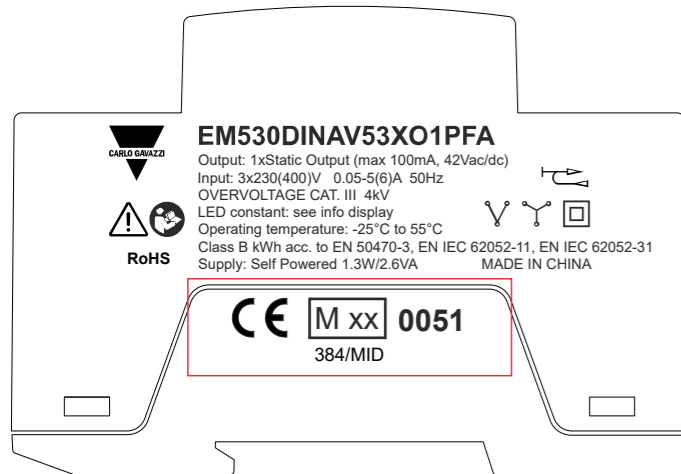
注意事項：密封應由使用者而非製造商進行。如圖所示的密封僅供說明之用。

- EM530 機型 (圖 3a)
- EM540 機型 (圖 3b)

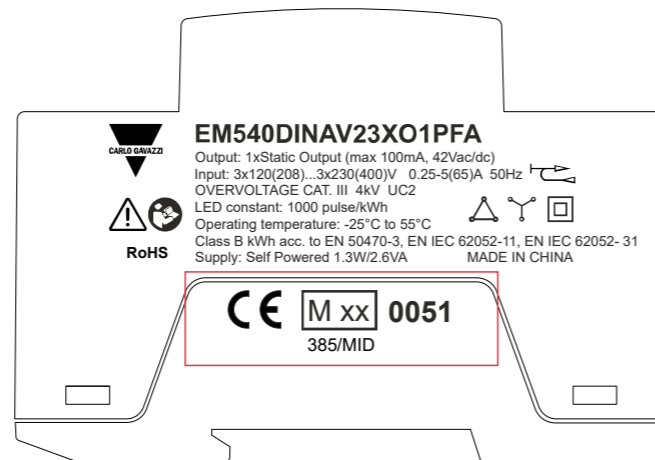
附註：僅對於 EM530，下表報告了光性試驗輸出脈衝權重，與能耗成正比，並取決於 CT 比例 (16 Hz 最大頻率)：

權重(每脈衝kWh)	CT 比率
0.001	<=7
0.01	從7.1 至70
0.1	從70.1 至700
1	從700.1 至2000

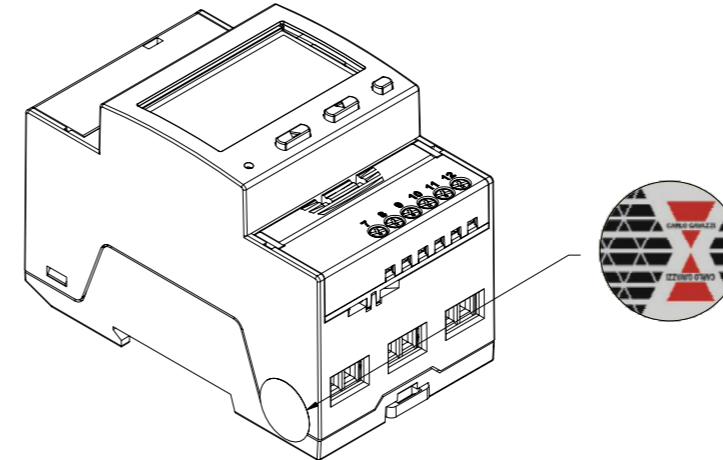
1a



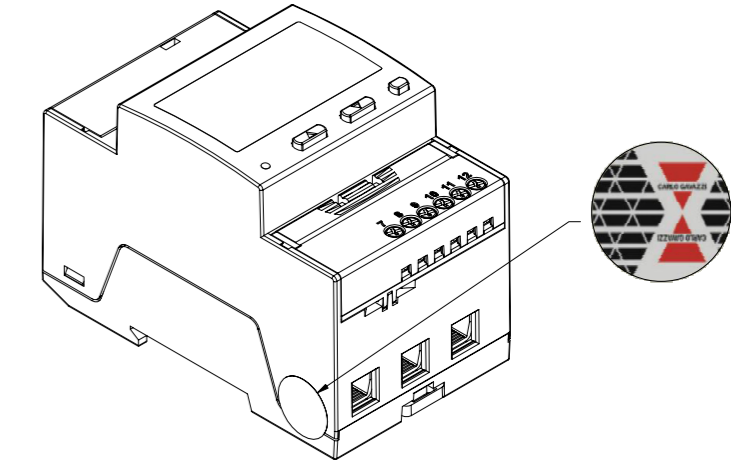
1b



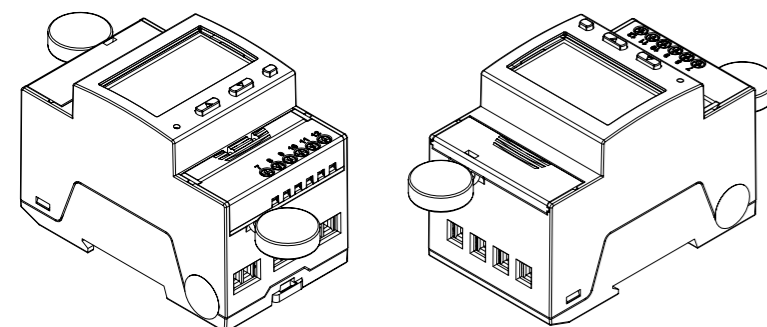
2a



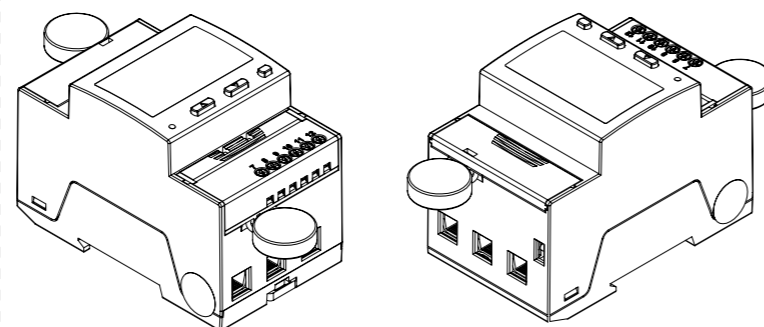
2b



3a



3b



FRANÇAIS

Remarques MID :
 • Condition environnementale électromécanique : E2
 • Condition environnementale mécanique : M2

Normes de référence:
 EN 50470-3:2022
 EN IEC 62052-11:2021/A11:2022
 (Emissions selon CISPR 32:2015, classe B)
 EN IEC 62052-31:2016

Marquage complémentaire de métrologie :
 • Modèle EM530 (Fig. 1a)
 • Modèle EM540 (Fig. 1b)

Avis d'installation.
 Contrôler l'intégrité du joint :
 • Modèle EM530 (Fig. 2a)
 • Modèle EM540 (Fig. 2b)

Sceller les cache-bornes avant l'emploi :

Remarque : le joint est posé par l'utilisateur et pas par le fabricant. Le joint est montré à titre purement indicatif.
 • Modèle EM530 (Fig. 3a)
 • Modèle EM540 (Fig. 3b)

Note: Pour EM530 uniquement, le tableau suivant mentionne le poids d'impulsion de la sortie d'essai optique, proportionnel à la consommation d'énergie et en fonction du rapport du transformateur de courant (fréquence maximale 16 Hz) :

Poids (kWh par impulsion)	Produit du CT
0.001	<=7
0.01	De 7,1 à 70
0.1	De 70,1 à 700
1	De 700,1 à 2000

ESPAÑOL

Notas MID:
 • Condiciones ambientales electromecánicas: E2
 • Condiciones ambientales mecánicas: M2

Normativas de referencia:
 EN 50470-3:2022
 EN IEC 62052-11:2021/A11:2022
 (Emisiones según CISPR 32:2015, clase B)
 EN IEC 62052-31:2016

Marcado de metrología complementario:
 • Modelo EM530 (Fig. 1a)
 • Modelo EM540 (Fig. 1b)

Aviso de instalación.
 Compruebe la integridad del sello:
 • Modelo EM530 (Fig. 2a)
 • Modelo EM540 (Fig. 2b)

Selle los tapones para terminales antes de su uso:

Nota: es el usuario quien aplica el sello, no el fabricante. El sello se muestra con fines meramente ilustrativos.
 • Modelo EM530 (Fig. 3a)
 • Modelo EM540 (Fig. 3b)

Nota: Para EM530 exclusivamente, la tabla a continuación muestra el peso del pulso de salida de la prueba óptica, proporcional al consumo de energía y basado en la proporción CT (frecuencia máxima 16 Hz):

Peso (kWh por pulso)	Relación del CT
0.001	<=7
0.01	Desde 7.1 hasta 70
0.1	From 70.1 to 700
1	From 700.1 to 2000

DANSK

Bemærkninger om MID:
 • Elektromekanisk miljøbetingelse: E2
 • Mekanisk miljøbetingelse: M2

Standarder:
 EN 50470-3:2022
 EN IEC 62052-11:2021/A11:2022
 (Emissioner i henhold til CISPR 32:2015, klasse B)
 EN IEC 62052-31:2016

Supplerende metrologisk mærkning:
 • EM530-model (Fig. 1a)
 • EM540-model (Fig. 1b)

Installationsmeddelelse.
 Kontrollér forseglingsintegritet:
 • EM530-model (Fig. 2a)
 • EM540-model (Fig. 2b)

Forsegl terminalhætterne før brug:

Bemærk: Forseglingen påføres af brugeren, ikke af producenten. Den viste forsegling er kun til illustrative formål.
 • EM530-model (Fig. 3a)
 • EM540-model (Fig. 3b)

Bemærk: Kun til EM530, følgende tabel viser impuls vægt for udgang for den optiske test i forhold til energiforbruget og afhængigt af CT-koefficienten (16 Hz maks. frekvens):

Vægt (kWh pr. puls)	CT ratio
0.001	<=7
0.01	Fra 7,1 til 70
0.1	Fra 70,1 til 700
1	Fra 700,1 til 2000

简体中文

MID 备注:
 • 机电环境条件: E2
 • 机械环境条件: M2

标准:
 EN 50470-3:2022
 EN IEC 62052-11:2021/A11:2022
 (排放符合 CISPR 32:2015, B 类)
 EN IEC 62052-31:2016

补充计量标识:
 • EM530 型号 (图 1a)
 • EM540 型号 (图 1b)

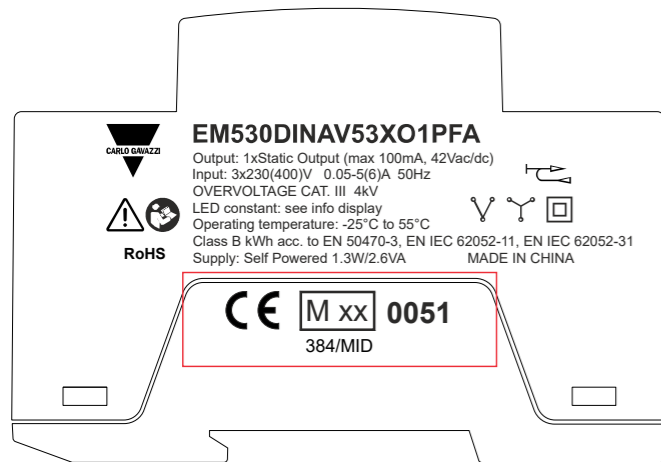
安装注意事项.
 检查密封的完整性:
 • EM530 型号 (图 2a)
 • EM540 型号 (图 2b)

使用前, 请密封端子盖:
备注: 密封应由用户而非制造商进行。图中所示的密封仅用于说明目的。
 • EM530 型号 (图 3a)
 • EM540 型号 (图 3b)

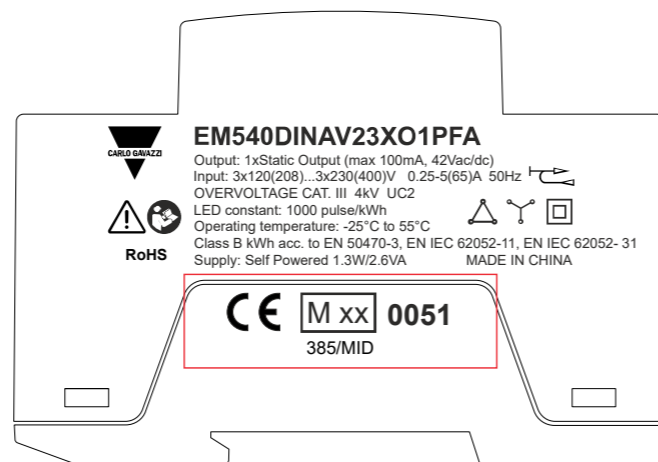
注: 仅对于 EM530, 下表给出了光学测试输出脉冲权重, 此数据与能耗成正比, 取决于 CT 比 (16 Hz 最大频率):

权重 (kWh/脉冲)	CT 比
0.001	<=7
0.01	7.1 至 70
0.1	70.1 至 700
1	700.1 至 2000

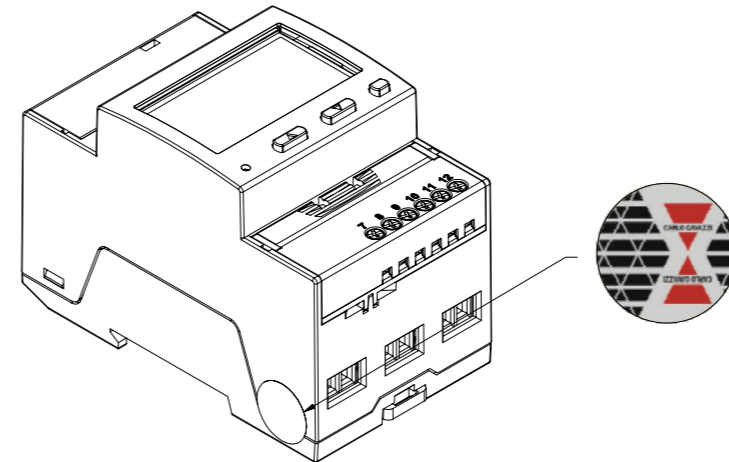
1a



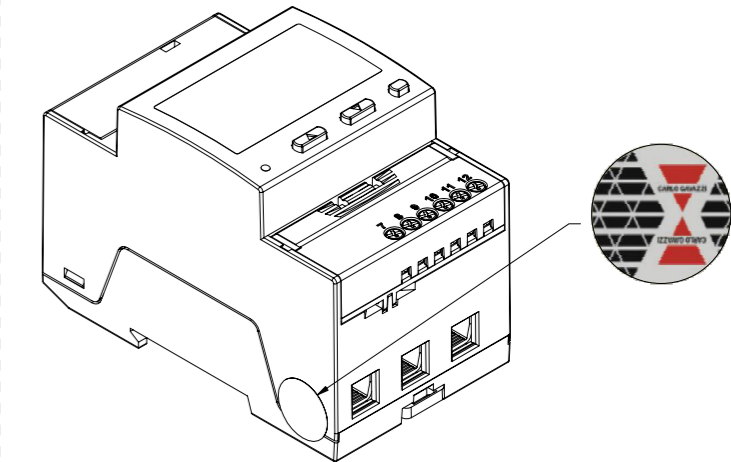
1b



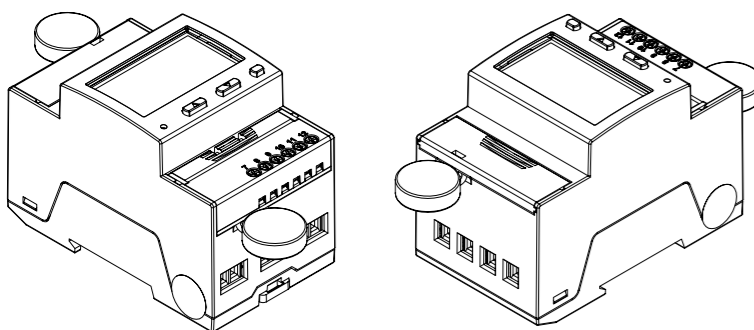
2a



2b



3a



3b

