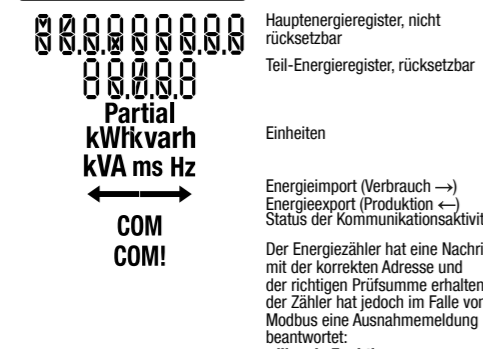
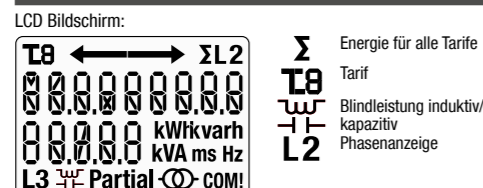
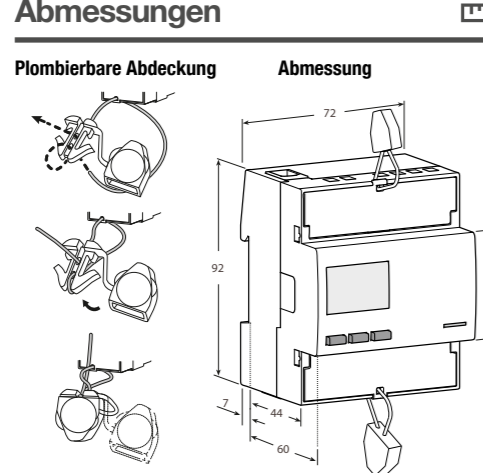
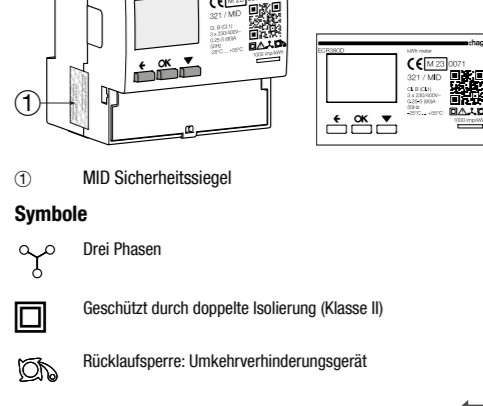
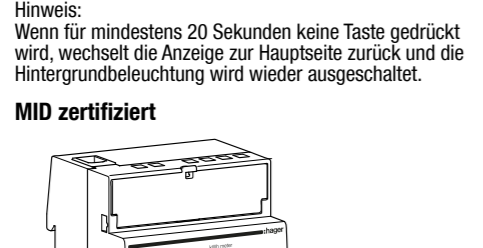


Geräteaufbau

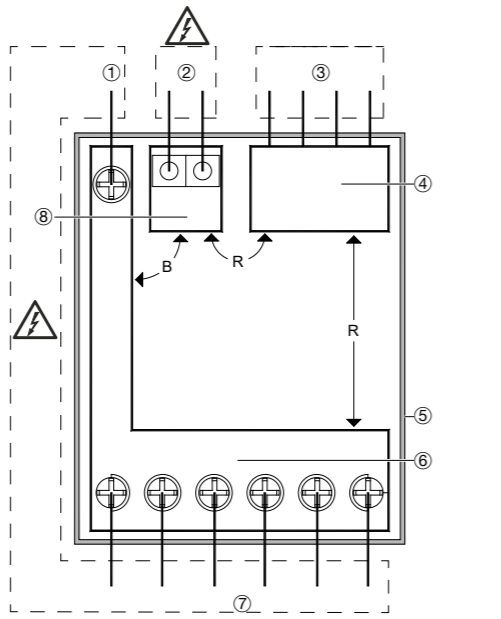


- Befehle: OK-Taste, SCROLL-Taste, ESCAPE-Taste, Optische messtechnische LED

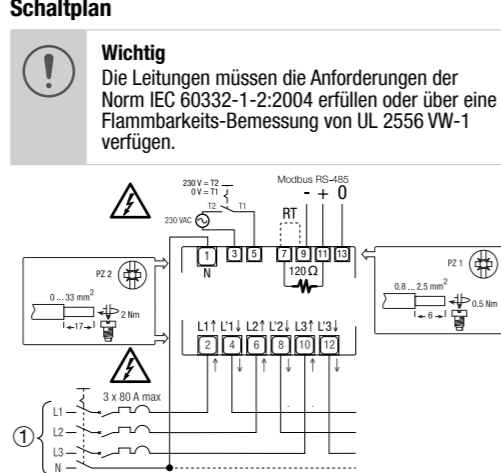


Anschluss

Modbus RTU Kommunikation: Empfehlungen, Modbus-Protokoll, Wichtig, Bestimmungsgemäße Verwendung



- Es sind keine berührbaren Teile vorhanden: Legende: B = Basisisolierung, D = doppelte Isolierung, R = verstärkte Isolierung, F = Funktionsisolierung



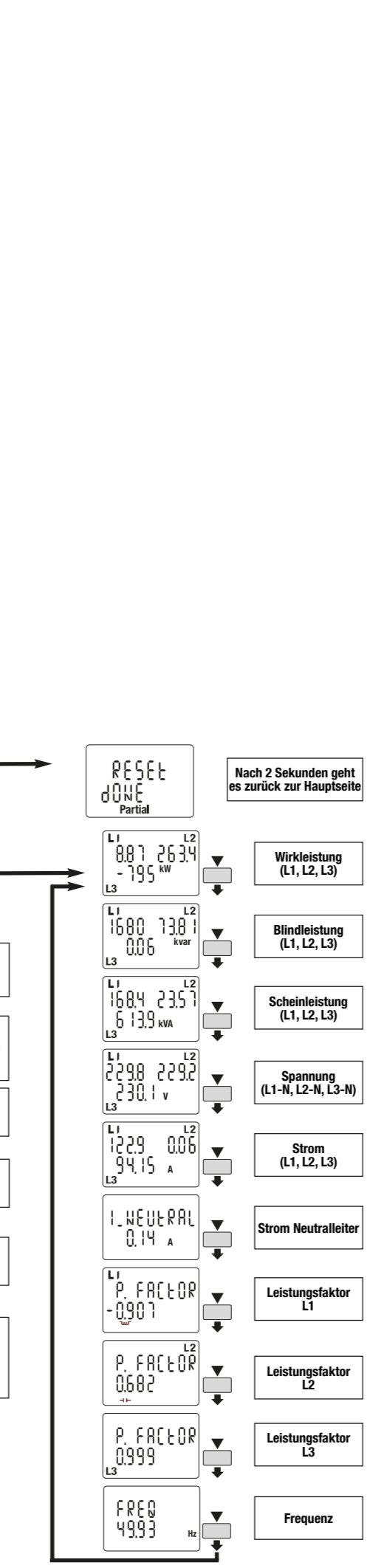
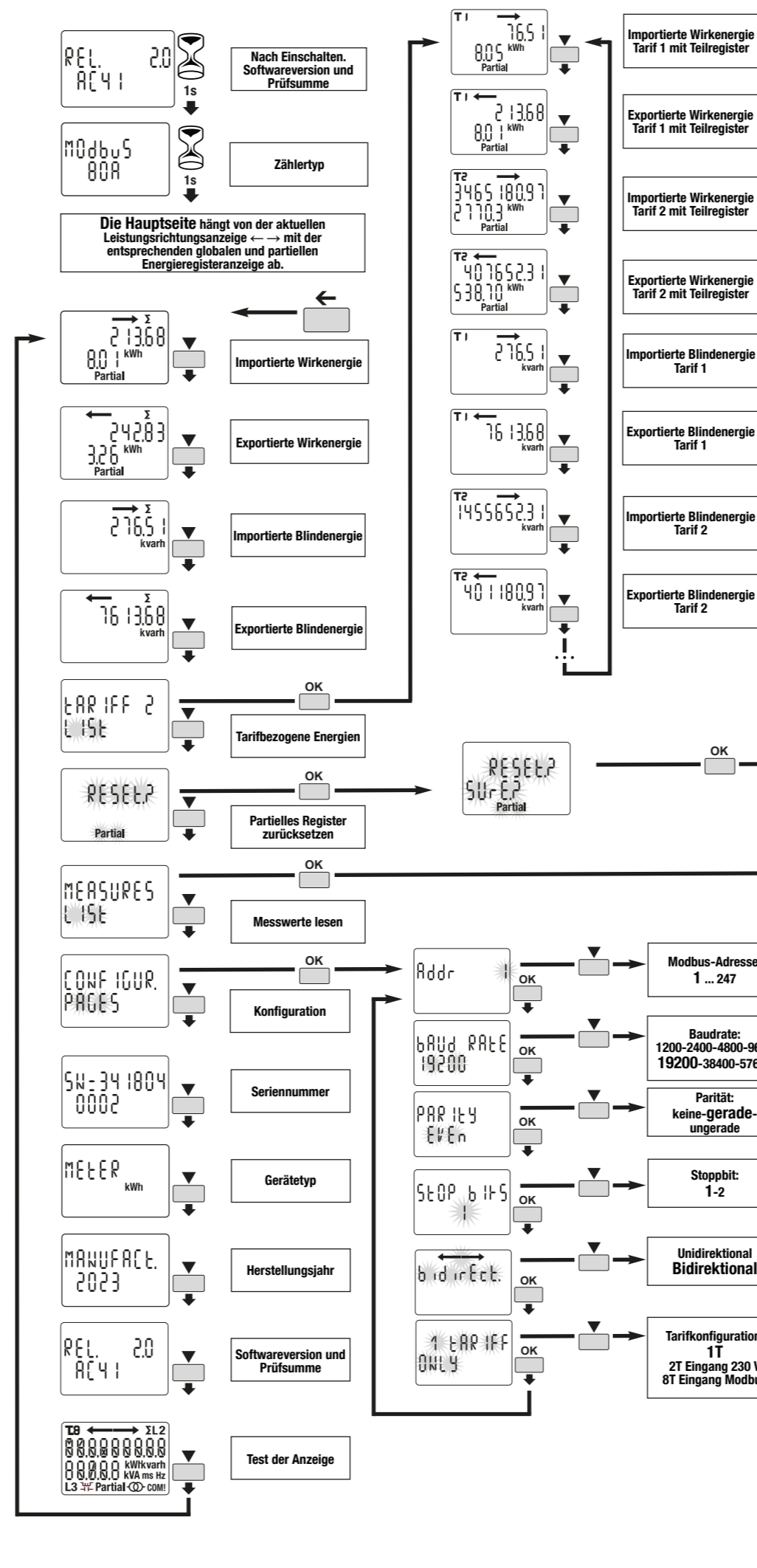
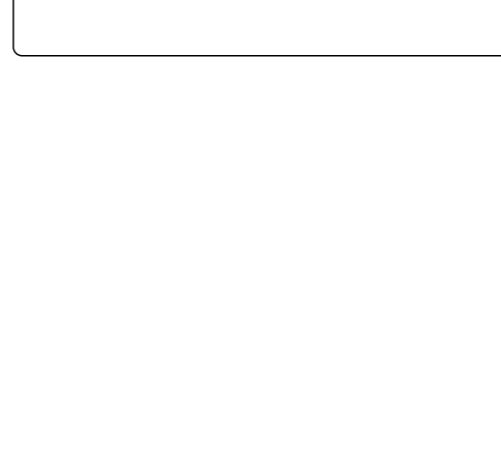
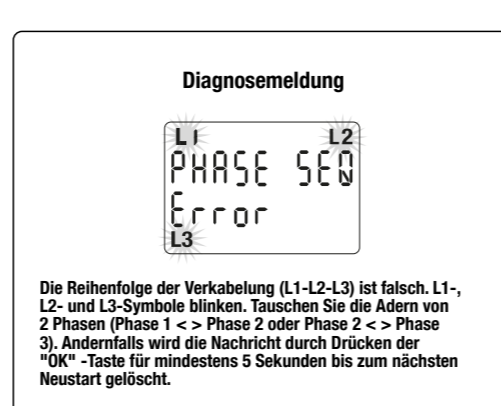
Installation

Das einspeisende Schalt- oder Schutzgerät (Nummer 1 im Anschlussplan) muss leicht zu identifizieren bzw. zu bedienen und zudem nahe am Zähler installiert sein.

Inbetriebnahme: Empfehlungen, Folgende Punkte müssen vor der Inbetriebnahme beachtet werden: Sicherstellen, dass keine gefährliche Spannung an den SELV-Klemmen anliegen.

Wartung: Sicherstellen, dass keine Spannung am Energiezähler anliegt. Es darf nur eine Trockenreinigung mit einem Naturfasertuch (bspw. aus Baumwolle) oder einem Tuch aus synthetischem Stoff, das keine Restfasern auf der Oberfläche oder im Inneren des Zählers hinterlässt, durchgeführt werden.

Hilfe bei Problemen: Fehlerbedingung: Bei blinkender Teil-Energie, Teil-Energieregister zurücksetzen (Register für maximale Teilenergie). Wenn auf dem Display die Meldung ERROR N02 oder ERROR N03 angezeigt wird, funktioniert der Zähler nicht korrekt und muss ausgetauscht werden.

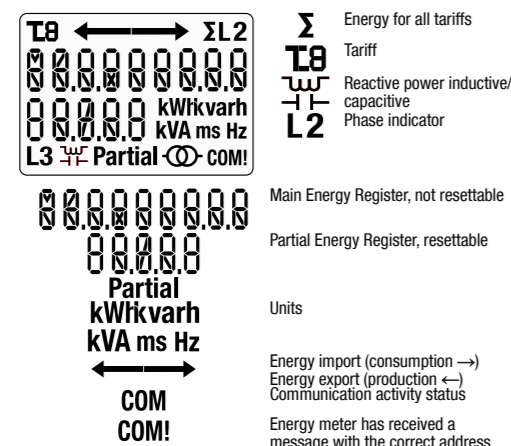


Technische Daten

Table with technical specifications: Allgemeine Charakteristiken, Bedriefunktionen, Versorgungsplanung und Stromverbrauch, Überlastungsfähigkeit, Messfunktionen, Anzeigefunktionen, Optische messtechnische LED, Sicherheit, IR-verbündbare Kommunikationsmodule, Integrierte Kommunikationsschnittstelle Modbus.

6LE005392B

LCD display:



ECR380D

Three phase energy meter, direct connection 80 A with MID declaration of conformity and Modbus RTU communication MID certification concerns active energy only. User instructions EU declaration of conformity: Modbus table: Download from: http://hgr.io/r/ecr380d

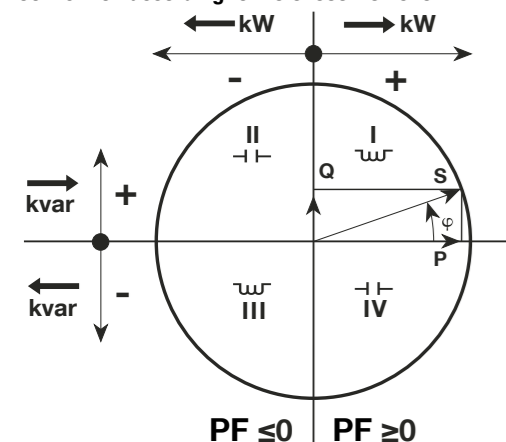
Safety instructions

- This device must be installed indoor only by a professional electrician fitter according to local applicable installation standards. Do not plug in or unplug this product when the power supplying is ON. Any type of intervention on the products, including cases in which they cease to function or present defects, can be dangerous for the operator's safety and relieves the Manufacturer from all civil and criminal liability.

Function

This 4 quadrants Modbus RTU meter measures the active and reactive energy used in an electrical installation. This device can manage 2 tariffs by 230 VAC digital input and up to 8 controlled via communication. Only the total active energy register can be used for billing purposes according to measuring instrument directive (MID).

Power factor Convention according to IEC 62053-23:2020

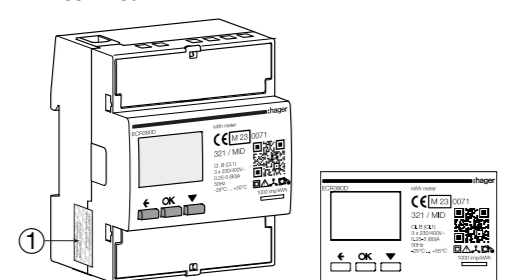


Commands

- OK button: is used to confirm a modification of a parameter (or of a digit of a numerical parameter) or to answer to a question. ESCAPE button: is used to escape to main menu from anywhere or to skip back to the previous digit of the value under modification.

Note: If no button is pushed for at least 20 seconds the display goes back to the main page and the backlight is switched off again.

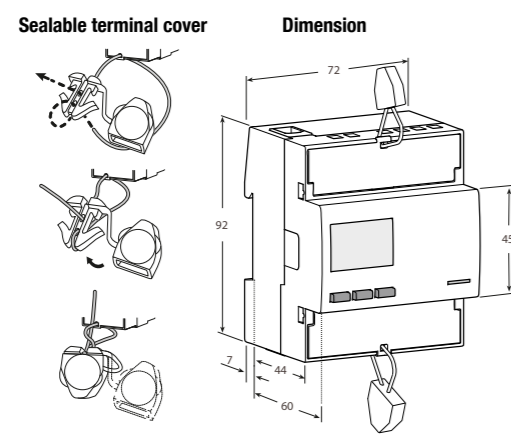
MID certified



Symbols

- Three phases, Protected by double insulation (Class II), Backstop: Reversal preventing device

Dimensions



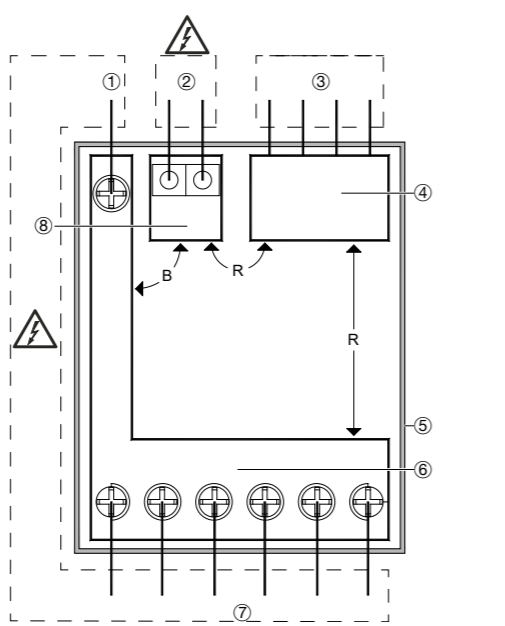
Modbus RTU Communication

Recommendations Use HTG485H reference cable specially developed as accessory by Hager.

Modbus protocol The Modbus protocol operates on a master/slave structure: - Reading (Function 3), - Writing (Function 6 or 16), broadcast option at address 0. The communication method is RTU (Remote Terminal Unit) with hexadecimal.

Important It is essential to connect a resistance of 120 Ohms at the 2 ends of the connection.

Intended use The Energy Meter is suitable for use on both impedance grounded networks and not grounded networks.

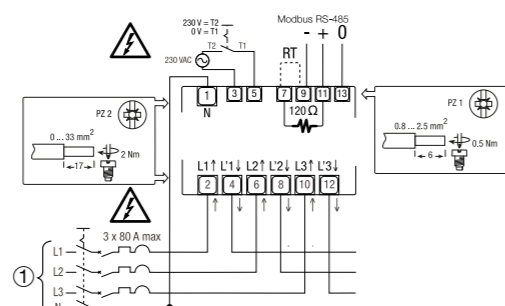


There are no accessible parts Legend: B = Basic Insulation, D = Double Insulation, R = Reinforced Insulation, F = Functional Insulation

- HLV TERMINAL, 1 terminal for neutral, SELV TERMINALS, 4 terminals or 2 RJ45 connectors, SELV CIRCUIT, (communication) working voltage <25 Vac, < 60 Vdc, PLASTIC CASE (NOT EARTHED), HLV CIRCUIT, (mains) Working Voltage = 300 Vac, HLV TERMINAL, 6 terminal for mains, HLV CIRCUIT, (tariff input) working voltage = 300 Vac

Wiring diagram

Important Cables must therefore comply with IEC 60332-1-2:2004 or have a flammability rate UL 2556 VW-1.



The four-pole disconnector (reference 1) in the wiring diagrams must be easy to identify and to operate and must be close to the Meter. They both must be in "OFF" position (open circuits) from the beginning to the end of the installation or of the uninstallation.

Commissioning

- Recommendations Check the following before putting it into service: Make sure that no dangerous voltages are connected to the SELV terminals. Make sure that a phase has not been connected to the Neutral terminal (this would cause the internal protections to intervene and will damage the Meter). Check that the main page appears on the display (see menu description) and not the Phase Sequence Error page.

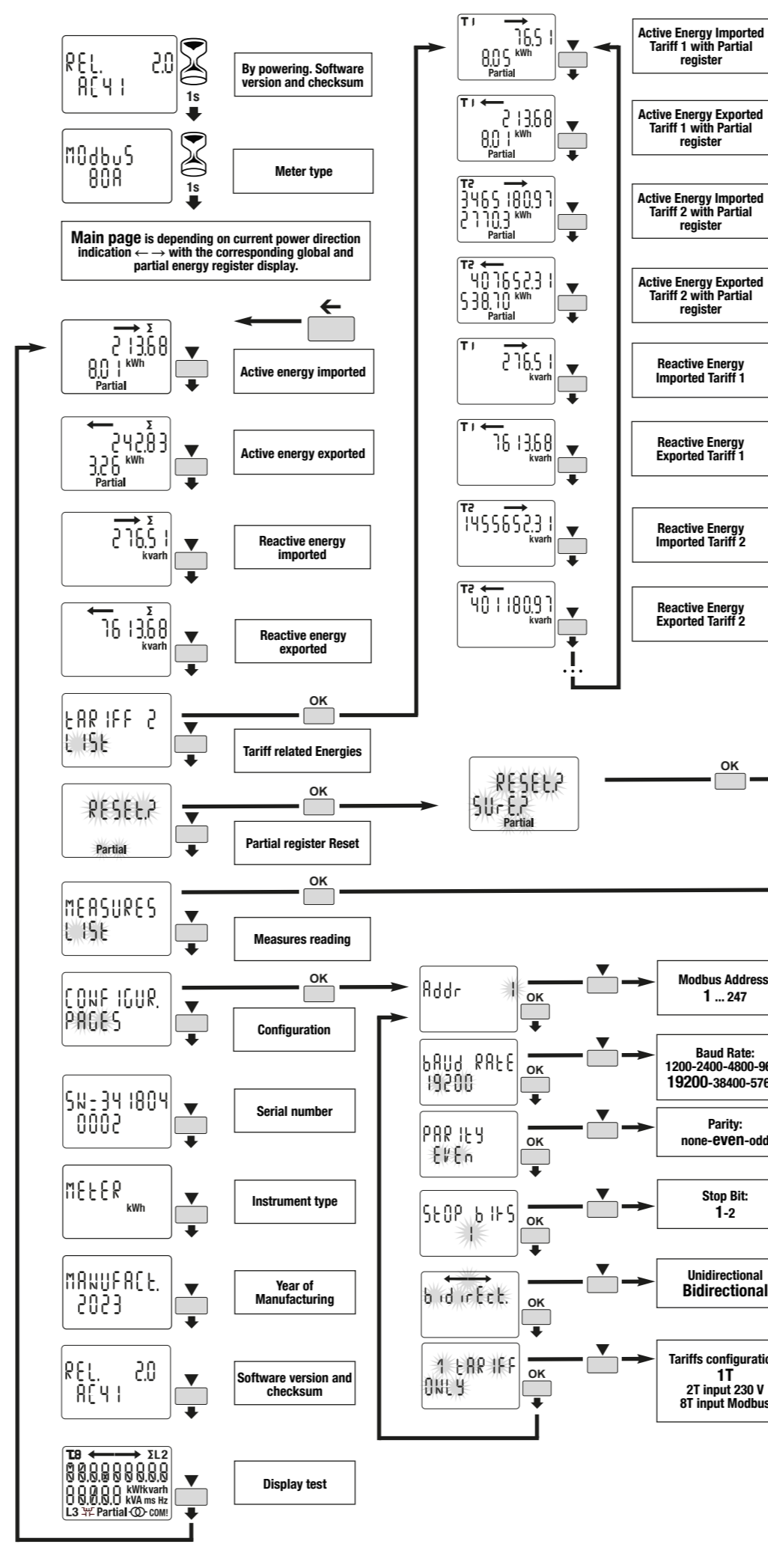
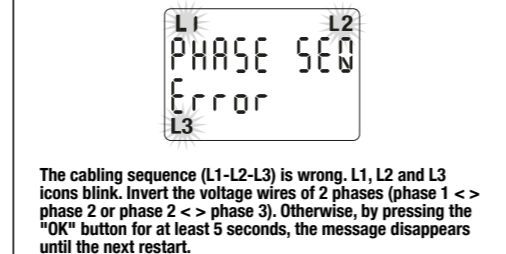
Maintenance

- Make sure that no voltage is applied to the instrument. Only dry cleaning is allowed with a natural fiber cloth (for example cotton or linen) or synthetic fabric that does not leave residual fibers that can remain on the surface of the Energy Meter or that can penetrate into the Energy Meter. For this Energy meter, no maintenance, repair or replacement of parts is foreseen. Such interventions are to be considered prohibited. In case of malfunction, it must be replaced.

Help in case of problems

Error condition When partial energy blinks, reset partial energy (maximum partial energy register). When the display shows the message ERROR N02 or ERROR N03, the meter has got a malfunction and must be replaced.

Diagnostic message



Technical data table with sections: Data in compliance with EN 62052-11:2021+A11:2022, EN 62052-31:2016-06, IEC 62052-31, EN 62059-32-1:2012. General characteristics, Operating features, Approval, Reference Voltage, Reference Current, Minimum Current, Maximum Current, Starting Current, Transitional Current, Reference Frequency, Number of phases, Certified Measures, Accuracy, Supply Voltage and Power Consumption, Overload capability, Measuring Features, Display features, Optical metrological LED, Safety, Utilization category, Protective class, AC voltage test, Degree of pollution, Operational voltage, Impulse voltage test, Housing material flame resistance, Safety-sealing between upper and lower housing part, Printed circuit board flammability class, Material Group, IR Connectable Communication Modules, Embedded Modbus communication, Physical interface, Internal termination resistor, Baud rate, Parity, Stop Bit, Address, Isolation class, Tariff, Input impedance, Environmental conditions, Mechanical environment, Electromagnetic environment, Installation, Altitude (max.), Humidity, IP rating, Emission class compatibility CISPR 32, Durability Certification.