



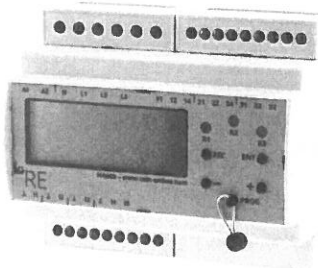
RE

## Quick Start Guide

NA003  
Art.Nr.: 2700000

090 850

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**Danger! Never carry out work on live parts!**  
**Danger of fatal injury!**  
**The product must not be used in case of obvious damage!**  
**To be installed by an authorized person!**

- The complete manual is available at:  
[http://www.tele-online.com/resources/data-sheets/en\\_NA003\\_Manual.pdf](http://www.tele-online.com/resources/data-sheets/en_NA003_Manual.pdf)
- This Quick Start Guide does not replace the manual and the owner should read in conjunction with the whole Manual.
- The safety instructions are to be observed

## Intended use:

The TELE NA003 is a Grid and System Protection Device for the use with energy producing generation plants like combined heat and power plants, wind power plants, waterpower plants as well as photovoltaic plants.  
In case of power failures or net anomalies private power plants have to be disconnected immediately from mains to avoid unintentional feeding to the grid. On the one hand continuing grid feeding could endanger maintenance staffs, on the other hand connected devices could be exposed to inadmissible voltages and/or frequencies.

In case the grid operator requires thresholds that are not conform with the specific standards, it is partially possible to set thresholds outside the normative defined range!  
Outside these range the device is not in accordance with the standards anymore and the corresponding certificate loses validity! This state is indicated as „ncfm“ on the display.  
Settings outside the conformity range are therefore in responsibility of the operator respectively the acceptance authority!

## Safety note:

The device was developed, produced and tested in accordance to the latest industry standards. Nevertheless improper handling or use can endanger humans and machines.

Please use the device only in accordance with the installation and operating instructions. Check for secure assembly and good condition. Moreover, the rules and regulations on accident prevention applicable to the place of use must be strictly followed.

- Eliminate all faults immediately which may endanger safety!
- Do not make any unauthorised changes and only use replacement parts and optional accessories purchased from or recommended by TELE!
- In case of obvious damage the device must be checked and replaced if necessary!
- Country specific regulations have to be considered in any case!
- If required by national standards, the NA003 has to be protected against unauthorized changes by password and/or sealing!

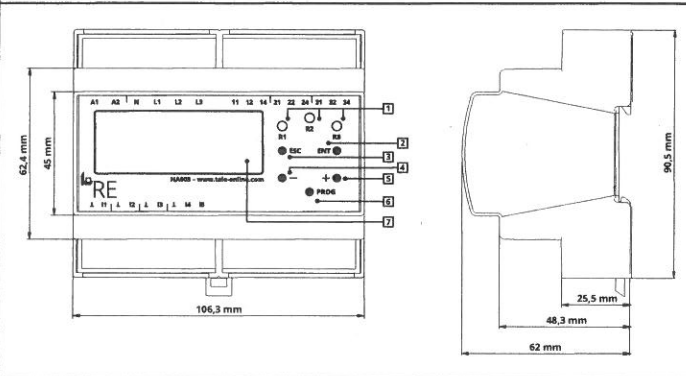
## Mounting on DIN rail according to EN 60715:

Snap the rear mounting clip of the device into place in such a way that a safe and tight fit is ensured.

## Available configurations:

CEI 0-21, VDE V 0126-1-1, VDE-AR-N 4105, according to VDE V 0124-100,  
G59/3 LV, G59/3 MV, G83/2, C10-11 LV, C10-11 MV, TR3-according to BDEW 2008,  
OENorm E 8001-4-712, EN50438, EN50438 (DK), OPEN SETUP

## Dimensions:



## Controls:

Legend	Marking	Type	Function
1	R1, R2, R3	LED (yellow)	Status indication output relays
2	ENT	Pushbutton	ENTER, Input confirmation, menu level forward
3	ESC	Pushbutton	ESCAPE, Input rejection, menu level back
4	-	Pushbutton	Change parameters, menu navigation
5	+	Pushbutton	Change parameters, menu navigation
6	PROG	Pushbutton (sealable)	PROGRAM, Enter Program mode
7		LCD-Display 4x20 characters	Display

## Terminals:

A1, A2	Supply	DC: 24V AC: 110 - 230V A1: L (+) A2: N (-)
L1, L2, L3, N	Measuring input	U <sub>N</sub> : 3x400V AC
11, 12, 14	Relay channel A (CO contact) Status indication via yellow LED R1	Potential free changeover contact 11: Common 12: Normally closed contact 14: Normally open contact
21, 22, 24	Relay channel B (CO contact) Status indication via yellow LED R2	Potential free changeover contact 11: Common 12: Normally closed contact 14: Normally open contact
31, 32, 34	Relay channel D (CO contact) Status indication via yellow LED R3	Potential free changeover contact 11: Common 12: Normally closed contact 14: Normally open contact
I1, I <sub>L</sub>	Digital input 1 (Feedback contact contactor A)	Potential free (24V/5mA) Input active: I1 and I <sub>L</sub> connected
I2, I <sub>L</sub>	Digital input 2 (Feedback contact contactor B)	Potential free (24V/5mA) Input active: I2 and I <sub>L</sub> connected Does not apply to national standards without functional safety!
I3, I <sub>L</sub>	Digital input 3 (Remote disconnection)	Potential free (24V/5mA) Input active: I3 and I <sub>L</sub> connected
I4, I5, I <sub>L</sub>	Digital inputs 4 and 5 (Parameter switchover)	Applies to CEI 0-21 Potential free (24V/5mA) Input active: I4 resp. I5 and I <sub>L</sub> connected

## Technical data:

<b>Supply circuit</b> Terminals: Supply voltage:  Supply voltage tolerance:  Rated frequency: Tolerance of rated frequency: Rated surge voltage:	A1 (L +); A2 (N -) DC: 24V AC: 110 - 230V DC: ± 10% AC: ± 30% 50 / 60Hz 48 - 63Hz 4 kV
In order to ensure the proper function during power failures, an external UPS has to be used.	
<b>Measuring circuit</b> Terminals: Measuring input: Measurand:	L1-L2-L3-N 3 x 400V AC line to line voltage, line to neutral voltage, 10 minutes average voltage, frequency, rate of change of frequency (RoCoF), phase shift (PShift)
<b>Measuring ranges</b> Line to line voltage: Line to neutral voltage: Frequency: RoCoF: Pshift:	0 - 560VAC 0 - 325VAC 40 - 65Hz 100mHz/s ... 2.000mHz/s 1 - 15°
<b>Digital inputs</b> Terminals: Type of contact: Min. switching voltage / switching current:	I1 and I <sub>L</sub> ; I2 and I <sub>L</sub> ; I3 and I <sub>L</sub> ; I4 resp. I5 and I <sub>L</sub> potential free  24V / 5mA
<b>Output circuit</b> Terminals:	R1: 11-12-14 R2: 21-22-24 R3: 31-32-34 3 changeover contacts AgNi 5A / 250V AC 100 x 10 <sup>3</sup> switching cycles (AC-1) 15 x 10 <sup>6</sup> switching cycles
<b>Number of contacts:</b> <b>Contact material:</b> <b>Rated current:</b> <b>Electrical endurance:</b> <b>Mechanical endurance:</b>	
<b>Accuracy</b> Voltage monitoring: Base accuracy: Temperature influence: Resolution: Frequency monitoring: Base accuracy: Temperature influence: Resolution:	< 0.5% @ +25°C < 0.01% / °C 10mV < 0.01Hz @ +25°C < 0.0002Hz / °C 1mHz
<b>Isolation data</b> Rated insulation voltage: Supply circuit / Measuring circuit: Supply circuit / Output circuit: Supply circuit / Digital inputs: Output circuit / Measuring circuit: Output circuit / Digital inputs:	400V protective separation protective separation protective separation basic insulation basic insulation
<b>Environmental conditions</b> Ambient temperature operation: Ambient temperature storage: Visibility temperature display: Relative humidity: Weight:	-25 ... +55°C -40 ... +70°C -15 ... +55°C 5 ... 95% (non-condensing) 300g
<b>Electrical connection</b> Wire size: Stripping length: Electrical strength:	max. 2,5mm <sup>2</sup> max. 8mm max. 450V/16A (digital inputs; relay outputs) max. 750V/16A (measuring inputs) max. 0,5Nm M3, slotted recess for screw driver 0,6 x 3,5mm
<b>Torque:</b> <b>Screw:</b>	
<b>Sealing wire</b>	Ø max. 0,8mm



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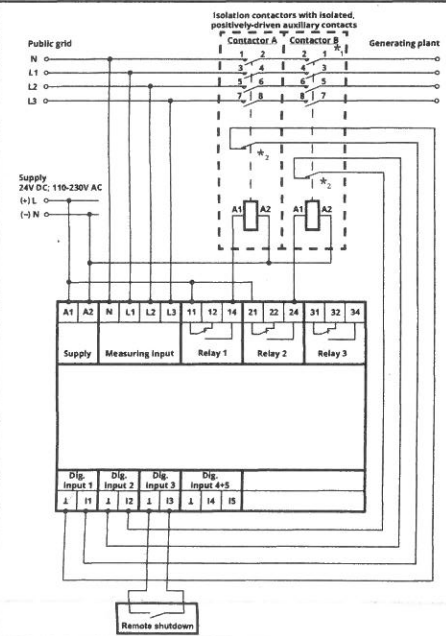
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## Connection diagram 1:

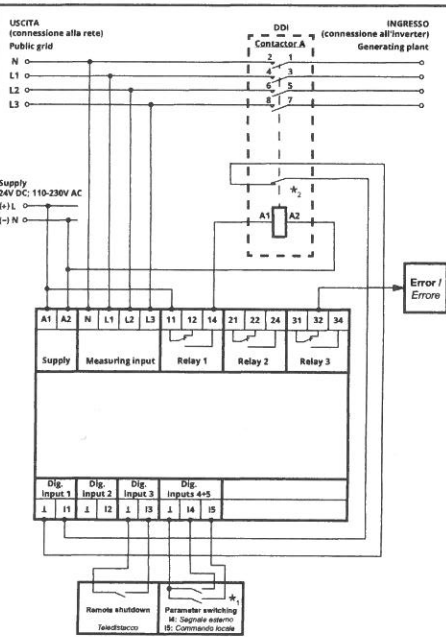


## Applies to:

- » VDE V 0126-1-1
- » VDE-AR-N 4105, according to VDE V 0124-100
- » OENorm E 8001-4-712
- » EN50438
- » G59/3 LV \*1
- » G59/3 MV \*1
- » G83/2 \*1
- » C10-11 LV \*1
- » C10-11 MV \*1
- » TR3 - according to BDEW 2008 \*1
- » EN50438 (DK) \*3
- » OPEN SETUP \*3

- \*1 ... Contactor B is not necessary for applications requiring no functional safety
- \*2 ... Auxiliary contact configurable as "normally open", "normally closed" or "disabled"
- \*3 ... 1- or 2-channel connection possible and can be configured

## Connection diagram 2:



## Applies to:

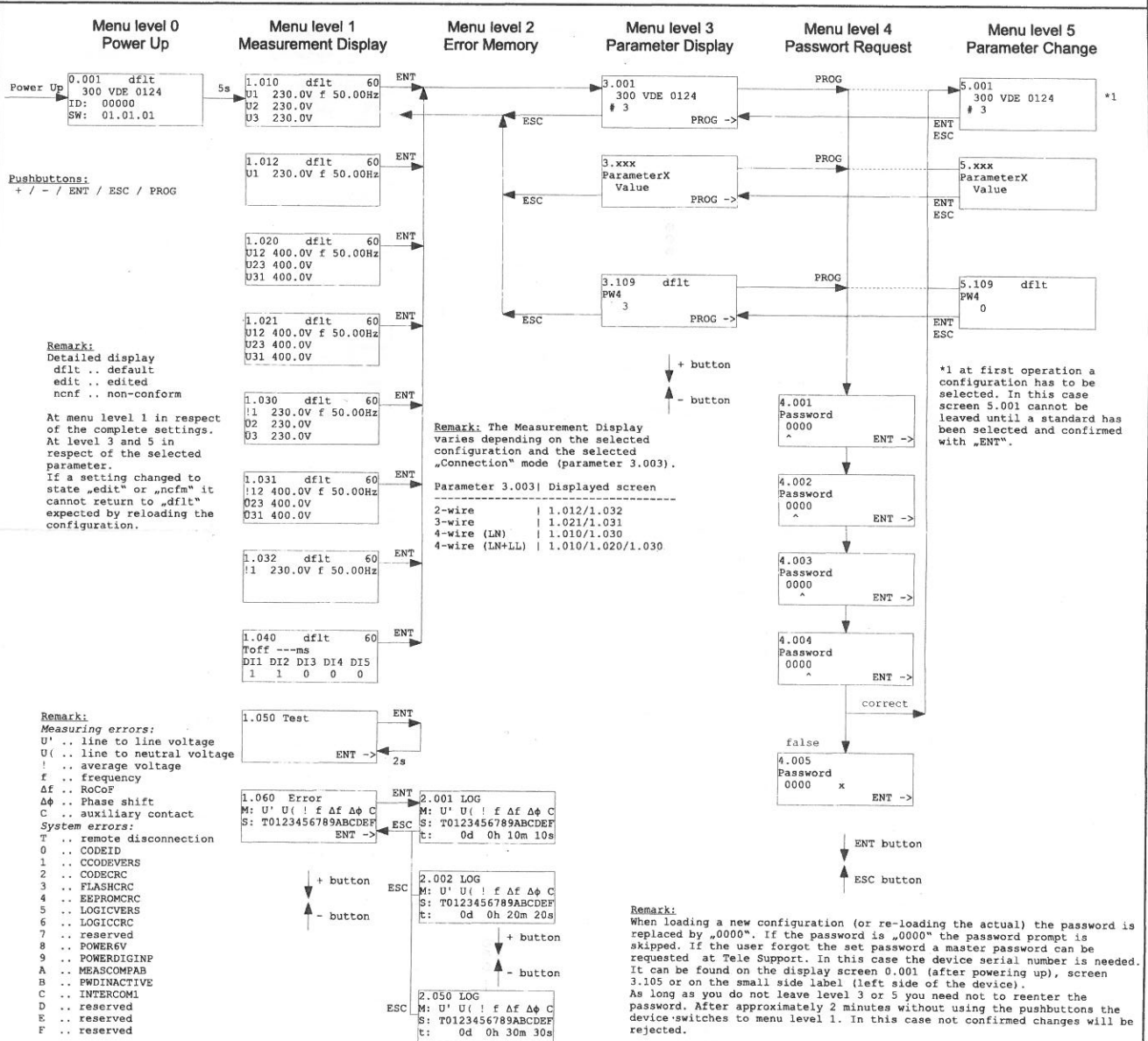
- » CEI 0-21

## \*1 ... Parameter switching:

- definitive mode (Operational mode 0):**  
I4 inactive / contact opened:  
overfrequency 1, underfrequency 1  
I4 active / contact closed:  
overfrequency 2, underfrequency 2
- transitory mode (Operational mode 1):**  
I5 active / contact closed:  
overfrequency 2, underfrequency 2  
I5 inactive / contact open:  
overfrequency 3, underfrequency 3

- \*2 ... Auxiliary contact configurable as "normally open", "normally closed" or "disabled"

## Menu structure:



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Austria

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Subject to alterations and errors!  
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