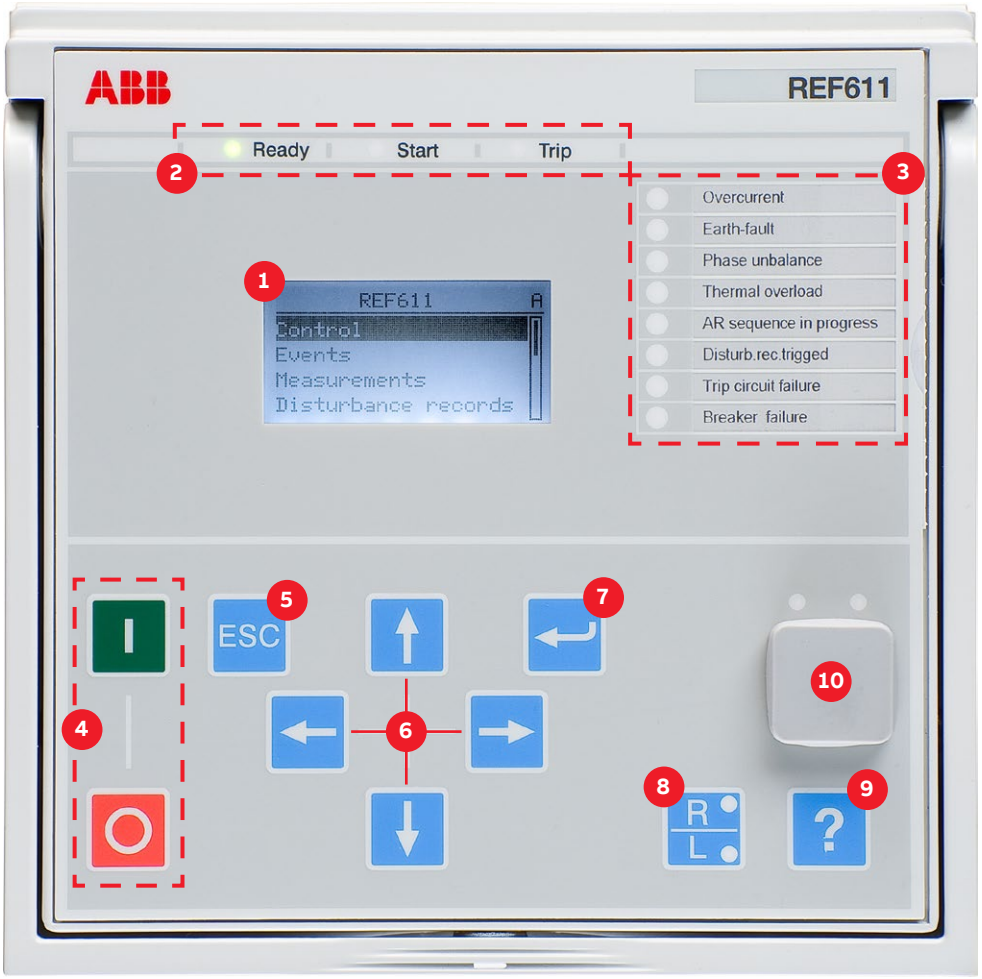
Quick Start Guide

Relion® 611 series



1	**Display**	Use navigation buttons for entering to submenus
2	**Self-supervision and protection indicator LEDs**	Ready-LED steady: OK, Ready-LED flashing: Internal Relay Fault (IRF), Start-LED steady: protection started, Start-LED flashing: protection function blocked, Trip-LED: protection operated
3	**Programmable LEDs**	Can be programmed for alarming and indication with latching and/or flashing features
4	**Control Circuit Breaker (CB)**	Press open/close and confirm by pressing enter. Note: control has to be in Local mode.
5	**Escape / Cancel**	Used for canceling actions and leaving setting mode without saving the values. Returns back to menu.
6	**Navigation**	Left = go back, Right = go further, Up = scroll up, Down = scroll down. Are also used for changing setting values.
7	**Enter / Select**	Entering to parameter setting mode and confirming new values
8	**Local / Remote**	Changes the control between Local/Remote
9	**Help**	View help menu
10	**Front communication port**	RJ-45 port can be used for connecting the IED to a PC

Using the local HMI

Accessing main menu and changing parameters
Press ← to navigate to the main menu from the measurements view.

From the main menu, go to **Settings** and press →.
Then press ↑ or ↓ to select the setting value you want to change. Press ↵ to change it with ↑ or ↓ buttons.
If there is a "#" mark on the same line as the parameter value, you have to first select which setting group parameter you want to change. If there is no "#" mark then you can change the value directly by pressing ↵ and then with ↑ or ↓ or ← or → buttons.

You can change all parameters in the same way. The most common function block names are described at the end of this document.

Storing settings
Parameters have to be stored before taken into use.
Store the settings by going back to the main menu by pressing the ← button. The IED will ask for confirmation to commit changes, answer "Yes". Some changes require the IED to reboot before the changes are taken into use. Reboot the IED by going to main menu **Configuration** → **General** → **Software reset** or by switching the auxiliary power off and back on.

Changing the overcurrent start value
From the main menu, go to **Settings** → **Settings** → **select setting group, default 1** and press ↵ → **Current Protection** → **PHLPTOC1** → **Start value**.

Changing function block naming from IEC 61850 names to IEC 60617
From the main menu, go to **Configuration** → **HMI** → **FB Naming convention**.

Checking binary input value
From the main menu, go to **Monitoring** → **I/O Status** → **Binary input values** → **select correct BIO card**.

Checking fault records and measurement values of the latest faults
From the main menu, go to **Monitoring** → **Recorded data** → **Fault record**.

Clearing events, indications and programmable LEDs
From the main menu, go to **Clear**. Select the item you want to clear and press ↵ and select Clear by pressing ↑ (Cancel will disappear). Confirm by pressing ↵.

Checking IED order code, serial number, HW revision and software version
From the main menu, go to **Information** → **Product Identifiers**.

Display header area
The icon area at the upper right corner of the dislay shows the current action or user level. These are described below:
S = Parameters are being stored
! = Warning and/or indication
V = Viewer
O = Operator
E = Engineer
A = Administrator

Checking the input and output status of a function block
From the main menu, go to **Monitoring** → **I/O status**.

Checking the IP address
The address of the front communication port is fixed: 192.168.0.254. If the IED is equipped with a communication card you can check the IP address of the rear communication port from the main menu **Configuration** → **Communication** → **Ethernet** → **Rear port(s)**.

Activating the Web HMI
To activate the Web HMI from the main menu go to **Configuration** → **HMI** → **Web HMI mode**. Activation requires rebooting the IED.

Changing the display contrast
Hold ESC and press ↑ or ↓ to change the display contrast. The display contrast setting is automatically stored when A (Administrator) is visible in the icon area at the upper right corner of the display.

Using the Web HMI

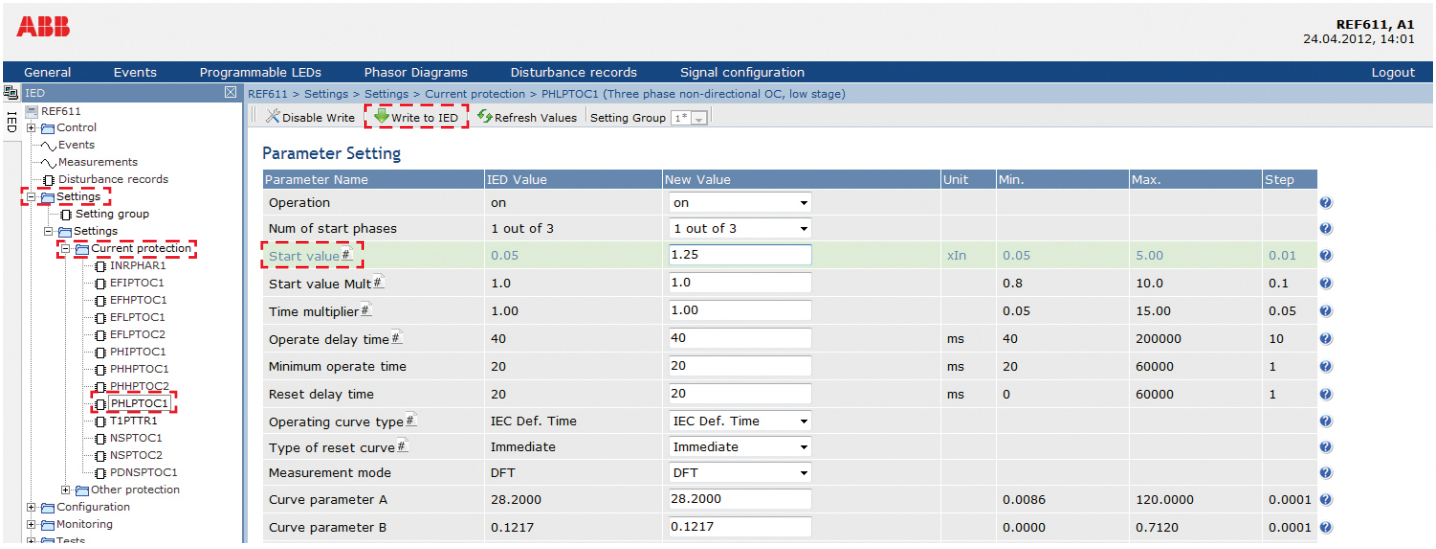
Connect PC to the IED front communication port with a Ethernet cable. Enter the IP address 192.168.0.254 in a web browser. For full access, login with administrator username and password. The username is "ADMINISTRATOR" and the default password is "remote0004".

Changing the overcurrent start value via WebHMI
It is important to enable writing to the IED. If write is disabled it is not possible to change settings.

Click settings in the left menu bar, then go to **Settings** → **Settings** → **Current Protection** → **PHLPTOC1** → **Start value**.

After you have changed the **start value** parameter, click **"Write to IED"** and click **"Commit"** in the notification bar that opens.

Input and output signal configuration
Click the corresponding area to view a specific logical group, and then the switch groups included in the logical group are listed in the Function View page. Click **"Overview"** to go back to the overview page.



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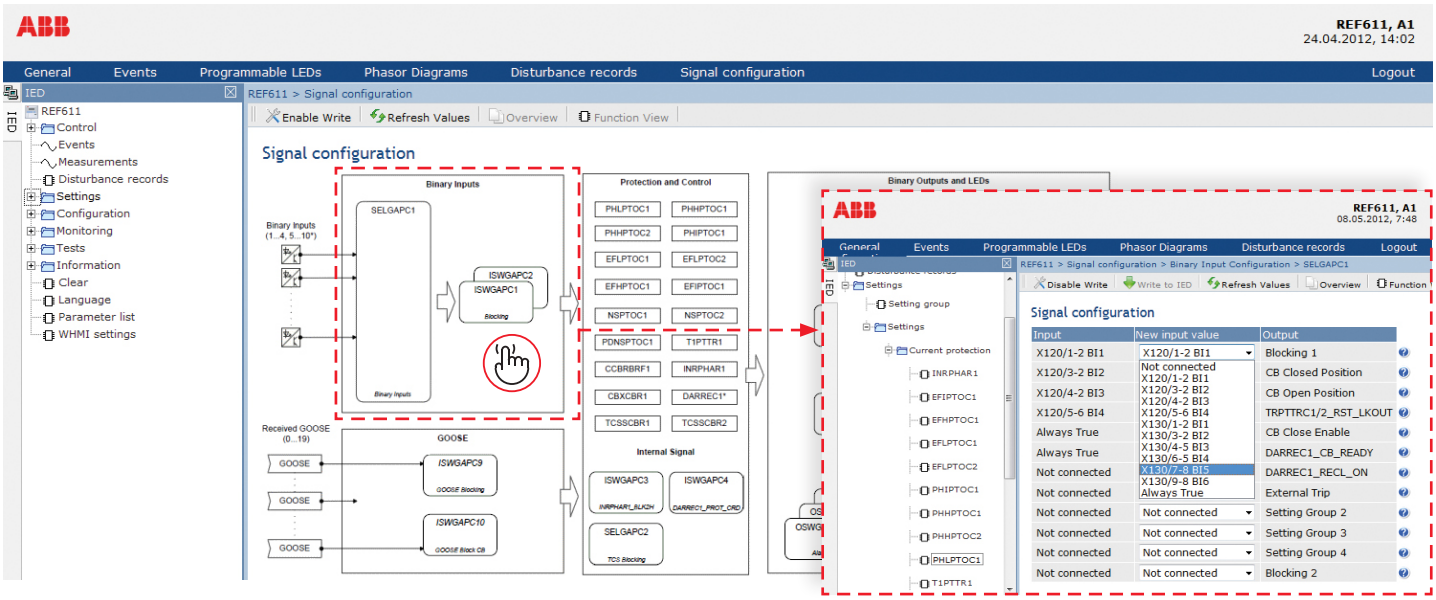
Changing the overcurrent start value via WebHMI



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Input and output signal configuration

Most common function blocks

The most common function blocks are listed below, see the full list from the operators manual. Available function blocks varies depending on the selected IED and standard configuration.

Function	IEC 61850	IEC 60617
Three-phase non-directional overcurrent protection, low stage	PHLPTOC	3I>
Three-phase non-directional overcurrent protection, high stage	PHHPTOC	3I>>
Three-phase non-directional overcurrent protection, instantaneous stage	PHIPTOC	3I>>>
Non-directional earth-fault protection, low stage	EFLPTOC	Io>
Non-directional earth-fault protection, high stage	EFHPTOC	Io>>
Non-directional earth-fault protection, instantaneous stage	EFIPTOC	Io>>>
Directional earth-fault protection, low stage	DEFLPDEF	Io> →
Directional earth-fault protection, high stage	DEFHPDEF	Io>> →
Transient / intermittent earth-fault protection	INTRPTEF	Io> → IEF
Negative-sequence overcurrent protection	NSPTOC	I2>
Phase discontinuity protection	PDNSPTOC	I2/I1>
Residual overvoltage protection	ROVPTOV	Uo>
Three-phase thermal protection for feeders	T1PTTR	3Ith>F
Loss of load supervision	LOFLPTUC	3I<
Motor load jam protection	JAMPTOC	Ist>
Motor start-up supervision	STTPMSU	Is2t n<
Phase reversal protection	PREVPTOC	I2>>
Thermal overload protection for motors	MPTTR	3Ith>M
Circuit breaker failure protection	CCBRBRF	3I>/Io>BF
Three-phase inrush detector	INRPHAR	3I2f>
High-impedance differential protection	HIPDIF	dHi>
Phase segregated CT supervision function	HZCCRDIF	MCS 1I
Circuit-breaker control	CBXCBR	I ↔ O CB
Emergergency startup	ESMGAPC	ESTART
Trip circuit supervision	TCSSCBR	TCS
Runtime counter for machines and devices	MDSOPT	OPTS
Disturbance recorder	RDRE	DR
Optional		
Auto-reclosing	DARREC	O → I

Complete customer documentation is available in the product pages that can be accessed through **abb.com/relion**.

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For more information, please contact

ABB Distribution Solutions
P.O. Box 699
FI-65101 Vaasa, Finland
Phone: + 358 10 22 11

abb.com/substationautomation

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