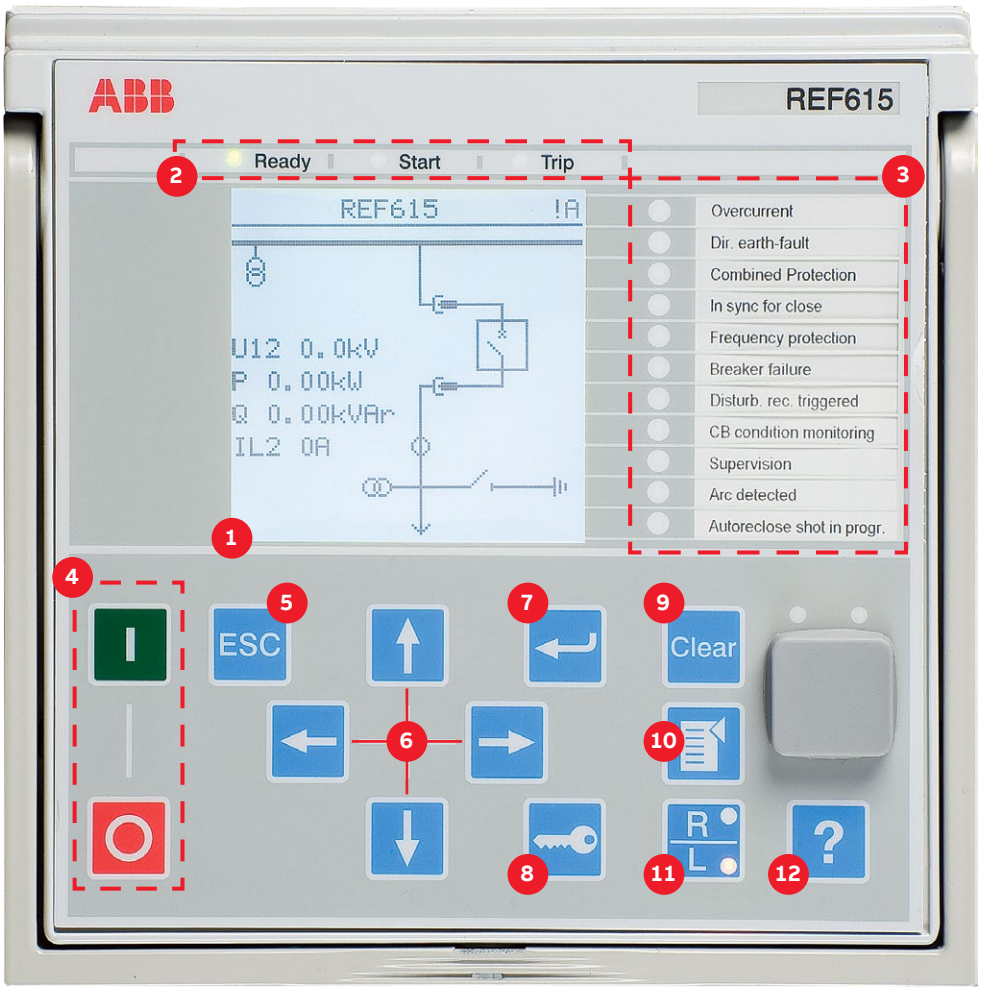
Quick Start Guide

Relion® 615 series



1	**Display**	Default view can be selected from single line diagram (SLD), measurements and main menu
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. If there is more than one controllable object select the object first with navigation buttons. 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. Up/down can also be used when selecting controllable objects like breakers and switches in single line diagram.
7	**Enter / Select**	Entering to parameter setting mode and confirming new values
8	**Authorization**	If authorization is used you can log in or log out using this button
9	**Clear**	Clearing events and indications, see next page for further details
10	**Menu**	Switch views in between the main menu, single line diagram and measurements
11	**Local / Remote**	Changes the control between Local/Remote
12	**Help**	View help messages

Using the local HMI

Accessing main menu and changing parameters
Press ☰ to navigate between main menu, measurements and single-line diagram.

Press → and select which setting value you want to change and press ↵ to change it with ↑ or ↓ keys. If there is "#" mark at the same line with 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 → keys.

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
After making changes to parameters they have to be stored to get them into use. Store the settings by going back to main menu by pressing ☰ or using the ← key. When IED asks confirmation to commit changes, answer "Yes". Some changes require the IED to reboot before the changes can be taken into use. Reboot the IED by going to **Menu → Configuration → General → Software reset** or switching the auxiliary power off and back on.

Changing the overcurrent start value
Menu → 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 or ANSI
Menu → Configuration → HMI → FB Naming convention

Checking binary input value
Menu → Monitoring → I/O Status → Binary input values → select correct BIO card

Checking fault records and the currents and voltages of the latest faults
Menu → Monitoring → Recorded data → Fault record

Changing the display contrast
Hold ESC and press ↑ or ↓ to change the display contrast. If you want to store the contrast go first in the menu and then go back to the default view, so that A (Administrator) appears to the right upper corner. If authentication is enabled you need to login and then change the contrast.

Clearing events and indications
There are two ways to do this:
- Go to clear menu by pressing Clear or selecting **Clear** from the main menu. Then select what you want to clear and press ↵ → press ↑ (Clear text will appear and Cancel will disappear) and then press ↵.
- Press Clear hold for three seconds to clear indications and immediately after that three seconds again to clear LEDs.

Checking IED order code, serial number, HW revision and software version
Menu → 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

I/O status
Menu → Monitoring → I/O status
From here you can check the input and output data of a function block. More information about function block operation can be found under **Monitored data**. Physical input/output statuses, communication monitoring etc are also available.

Changing the language
Menu → Language
Or you can push ESC and ← anywhere in the menu and language will be changed. English is always the default language and there can be maximum of two additional languages in the IED.

Changing the default view
Menu → Configuration → HMI → Default View

Reading the Internal Relay Fault (IRF) code
Menu → Monitoring → IED Status → Self-supervision

Restoring factory settings
Warning! All parameter settings will be overwritten with the default values. During normal use, a sudden change of the settings can cause a protection function to trip.
Menu → Configuration → General → Factory Setting
Using the local HMI

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

Function block naming

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. The last digit indicates the instance number of the block, only the first instance is listed below.

IEC 61850	IEC 60617	ANSI
ARCSARC1	ARC (1)	50L/50NL (1)
CBXCBR1	I < → O CB	I < → O CB
CCBRBRF1	3I>/Io>BF	51BF/51NBF
CCRDIF	MCS 3I	MCS 3I
DARREC1	O → I	79
DCSXSWI1	I < → O DC (1)	I < → O DC (1)
DEFHPDEF1	Io>> →	67N-2
DEFLPDEF1	Io> → (1)	67N-1 (1)
DPHHPDOC1	3I>> →	67-2
DPHLPDOC1	3I> → (1)	67-1 (1)
DPHLPDOC1	Io>> (1)	51N-2 (1)
EFIPTOC1	Io>>>	50N/51N
EFLPTOC1	Io> (1)	51N-1 (1)
ESMGAPC1	ESTART	ESTART
ESSXSWI1	I < → O ES	I < → O ES
FRPFRQ1	f>/f<,df/dt (1)	81 (1)
HREFPDIF1	dIoHi>	87NH
INRPHAR1	3I2f>	68
INTRPTEF1	Io> → IEF	67NIEF
JAMPTOC1	Ist>	51LR
LNPLDF1	3dI>L	87L
LOFLPTUC1	3I<	37
LREFPNDF1	dIoLo>	87NL
LSHDPFRQ1	UFLS/R	81LSH
MPTTR1	3Ith>M	49M
NSPTOC1	I2> (1)	46 (1)
NSPTOV1	U2> (1)	47O- (1)
OLATCC1	COLTC	90V
PDNSPTOC1	I2/I1>	46PD
PHHPTOC1	3I>> (1)	51P-2 (1)
PHIPTOC1	3I>>> (1)	50P/51P (1)
PHLPTOC1	3I> (1)	51P-1 (1)
PHPTOV1	3U> (1)	59 (1)
PHPTUV1	3U< (1)	27 (1)
PREVPTOC1	I2>>	46R
PSPTUV1	U1< (1)	47U+ (1)
ROVPTOV1	Uo> (1)	59G (1)
SECRSYN	SYNC	25
SEQRFUF1	FUSEF	60
SSCBR1	CBCM	CBCM
STTPMSU1	Is2t n<	49, 66, 48, 51LR
T1PTTR1	3Ith>F	49F
TCSSCBR1	TCS (1)	TCM (1)
TPOSSLTC1	TPOSM	84M
TR2PTDF1	3dI>T	87T
TRPPTRC1	Master Trip (1)	94/86 (1)

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