

# Type Approval Certificate



This is to certify that the undemoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. 61 688 - 14 HH

Company ABB Oy  
Medium Voltage Products  
P.O. Box 699  
65101 Vaasa, FINLAND

Product Description Digital Protection Relays

Type 630 series: REF630, REM630, RET630, REG630

Environmental Category C, EMC2

Technical Data /  
Range of Application REF630 : Feeder Protection and Control  
for the protecting, monitoring and controlling of feeder lines.

REM630 : Motor Protection and Control  
for the protection, monitoring and controlling of synchronous and asynchronous  
motors

RET630 : Transformer Protection and Control  
for the protection, monitoring and controlling of two-winding power transformers

REG630 : Generator Protection and Control  
for the protection, monitoring and controlling of generators

Test Standard REF630, REM630, RET630 Protection relays are not approved for synchronizing  
Guidelines for the Performance of Type Approvals, Chapter 2- Test Requirements  
for Electrical / Electronic Equipment and Systems (VI-7-2), Edition 2012  
IEC 60255-1:2009

Documents Type Test summary 1MRS082134 date: 02.10.2013

Remarks REG630 only in conjunction with separate check synchronizer

Valid until 2019-01-23

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File No. I.L.01

Hamburg, 2014-01-24

Type Approval Symbol



**Germanischer Lloyd**

*i.A. [Signature]*  
Arne Schaarmann

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Harald Amberger

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".

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## Basic Protection Functions:

### REF630: Feeder Protection and Control

- Three-phase non-directional/directional overcurrent protection
- Non-directional/directional earth-fault protection
- Three-phase overvoltage/undervoltage protection
- Frequency protection
- Three-phase inrush current detection

### REM630 : Motor Protection and Control

- Three-phase non-directional overcurrent protection
- Non-directional/directional earth-fault protection
- Three-phase undervoltage protection
- Motor load jam protection
- Motor startup supervision

### RET630 : Transformer Protection and Control

- Three-phase non-directional overcurrent protection
- Non-directional earth-fault protection
- Three-phase overvoltage/undervoltage protection
- Transformer differential protection for two-winding transformers

### REG630 : Generator Protection and Control

- Three-phase non-directional/directional overcurrent protection
- Non-directional/directional earth-fault protection
- Three-phase overvoltage/undervoltage protection
- Stabilized differential protection
- Frequency protection
- Reverse power/directional overpower protection

Further supported protection functions according manufacturer documentation

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## Power Supply

Uaux nominal: 100, 110, 120, 220, 240 V AC 50 and 60 Hz  
48, 60, 110, 125, 220, 250V DC

Uaux variation: 85...110% of Un (85...264 V AC)  
80...120% of Un (38,4....300 V DC)

## Energizing Inputs

Rated frequency:	50/60 Hz	
Rated current In:	0.1/0.5 A	1/5 A
Thermal withstand capability		
• Continuously	4 A	20 A
• For 1 s	100 A	500 A
• For 10 s	25 A	100 A
Input impedance	<100mOhm	<20mOhm

Rated voltage 100 V AC/ 110 V AC/ 115 V AC/ 120 V AC/

## Voltage withstand:

- Continuously 425 V AC
- For 10 s 450V AC

Burden at rated voltage

<0,05VA

## Binary inputs:

Operating range Maximum input voltage 300 V DC

Rated voltage 24...250 V DC

## Signal output:

Rated voltage 250 V AC/DC

Continuous contact carry 5A

Make and carry for 3.0 s / 0.5 s 10A / 15A

## mA outputs:

Output range -20mA...+20mA

Operation accuracy  $\pm 0.2$  mA

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