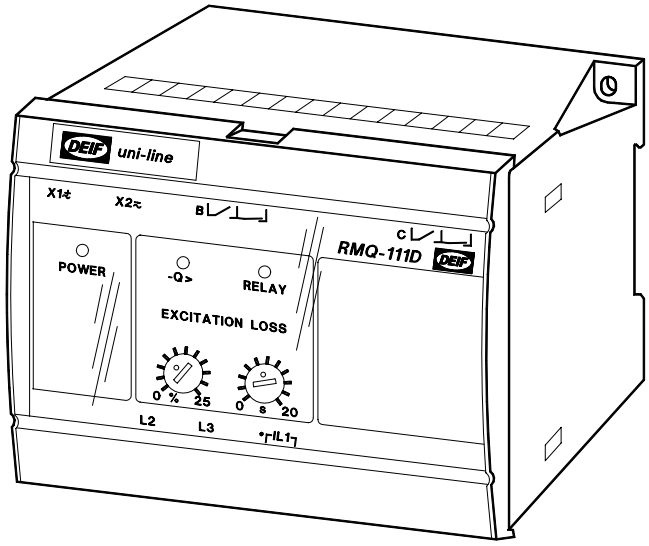
DEIF A/S

Installation and start up instructions

Loss of excitation relay type RMQ-111D

uni-line

4189340125E (UK)



- *Protection of generators*
- *Single phase measurement*
- *LED indication of fault condition*
- *Timer controlled tripping*
- *LED indication for activated relay*
- *35 mm DIN rail or base mounting*

CE

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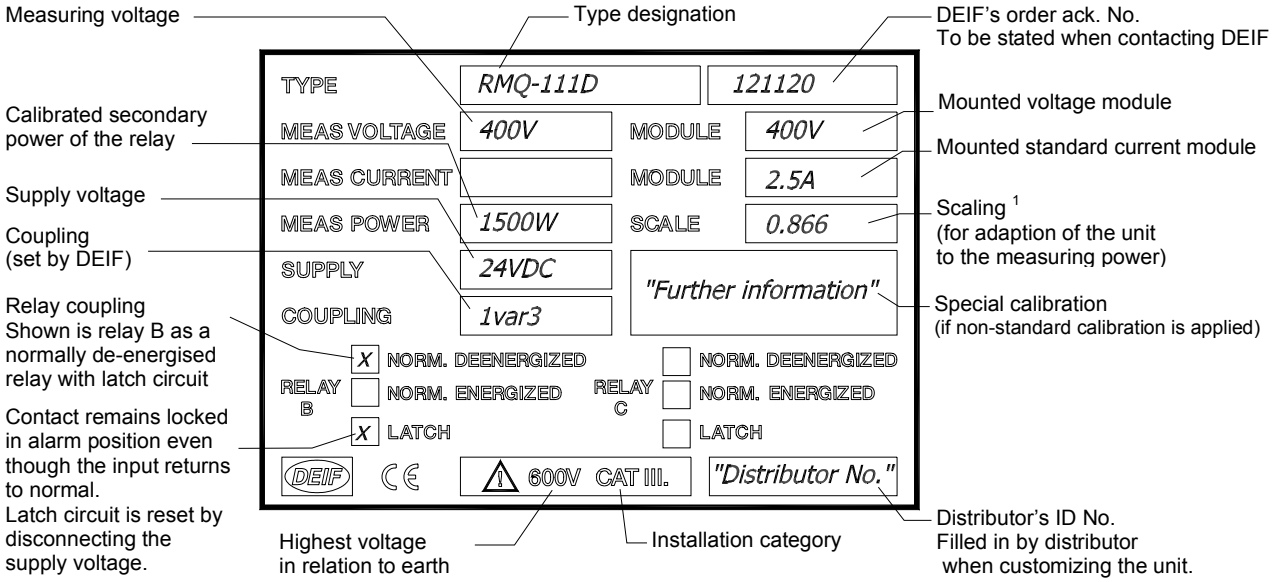
1. Description

This protective loss of excitation relay type RMQ-111D forms part of a complete DEIF series (the *uni-line*) of relays for protection and control of generators.

2. Label

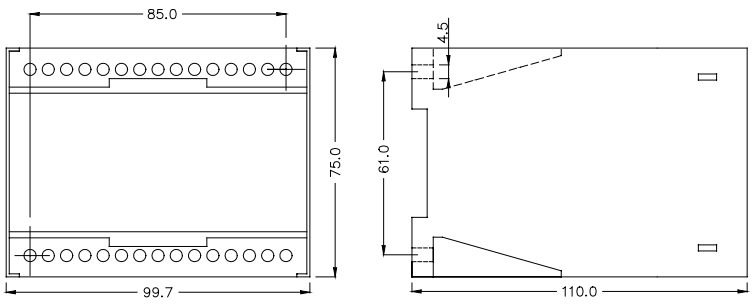
The relay is provided with a label with the following data:



Note 1: Calculation of measuring power:
1.732 *x voltage module x current module x scale = measuring power*

Note: The relay is provided with a 200 ms power-up relay, ensuring correct function of the relay on connection of the auxiliary voltage. Normally energised contacts (”NE”) are not activated (contact does not open/close) until 200 ms after connection of the auxiliary voltage. Likewise, the relay is provided with a 200 ms power-down circuit, ensuring supervision and maintenance of any set point exceeding for 200 ms after disconnection of the auxiliary voltage.

3. Mounting instructions



The RMQ-111D is designed for panel mounting, being mounted on a 35 mm DIN rail, or by means of two 4-mm screws.

Weight: Approx. 0.650 kg

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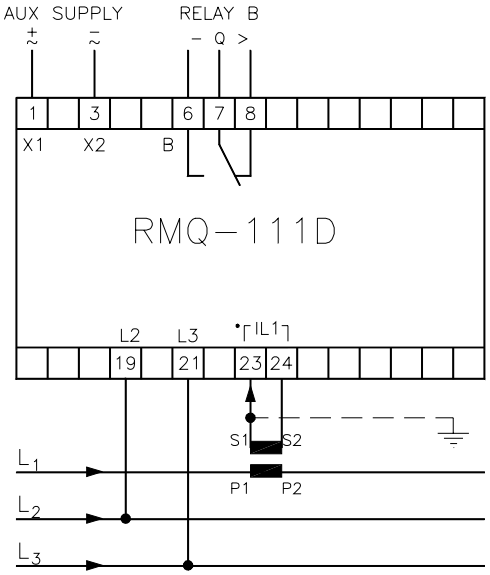
The design of the relay makes mounting of it close to other *uni-line* units possible, however make sure there are min. 50 mm between the top and bottom of this relay and other relays/units.

The DIN rail must always be placed horizontally when several relays are mounted on the same rail.

4. Connection diagram



A 2A fuse may protect all voltage inputs.

The relay is protected against ESD (electrostatic electricity), and further special protection against this during the mounting of the relay is not necessary.

If the external current transformer is placed in another phase than indicated in the above diagram, the voltage inputs are connected as shown in the below table:

External current transformer is connected to L2	Connect L3 to term. No. 19	Connect L1 to term. No. 21
External current transformer is connected to L3	Connect L1 to term. No. 19	Connect L2 to term. No. 21

5. Start up instructions

5.1 Setting and indication

Setting of	LED/relay	
Reactive power set point: (0…25%) of Q_n	”-Q>”	Yellow LED is lit when the reactive power has dropped below the set point value (has become more negative), but the output contact has not yet been activated.
Time delay: 0…20 s	The contact is activated and the red LED is lit after the timer has expired.	

The set point value must be selected to correspond to the amount of reactive power, which may be transferred by the busbar, in order to ensure disconnection of the generator, should the excitation current drop to a too low value.

The time delay must be set to a value ensuring that any system regulations will not cause unnecessary disconnections. A setting of min. 10 s is recommended.

6. Technical specifications

Overload, currents: 4 x I_n, continuously
20 x I_n for 10 s (max. 75A)
80 x I_n for 1 s (max. 300A)

Load: Max. 0.5VA.

Overload, voltages: 1.2 x U_n, continuously, 2 x U_n for 10 s

Load: 2kΩ/V

Frequency range: 40…45…65…70Hz

Relay contact: 1 changeover switch

Contact ratings: 250V-8A-2000A (AC), 24V-8A-200W (DC)

Contact voltage: Max. 250V (AC). Max 150V (DC)

Response time: <400 ms

Galv. separation: Between inputs, outputs and aux. supply: 3250V-50Hz-1 min.

Consumption: (Aux. supply) 3.5VA/2W