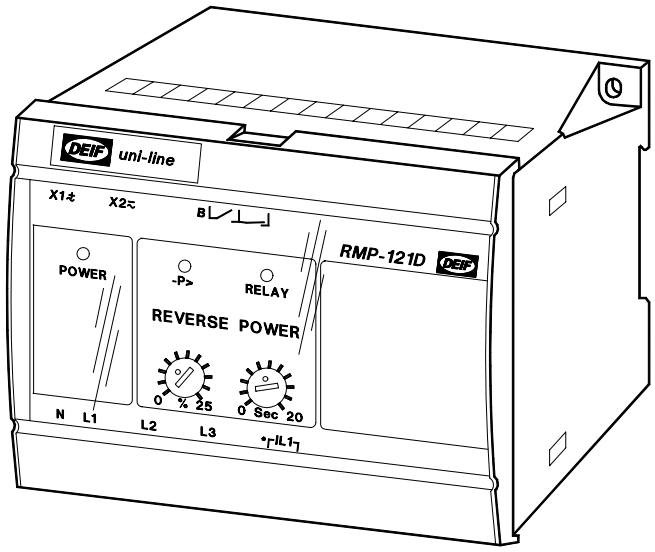
DEIF A/S

Installation and start up instructions

Reverse power relay type RMP-121D

uni-line

4189340122F (UK)



- *Protection against ”motoring”*
- *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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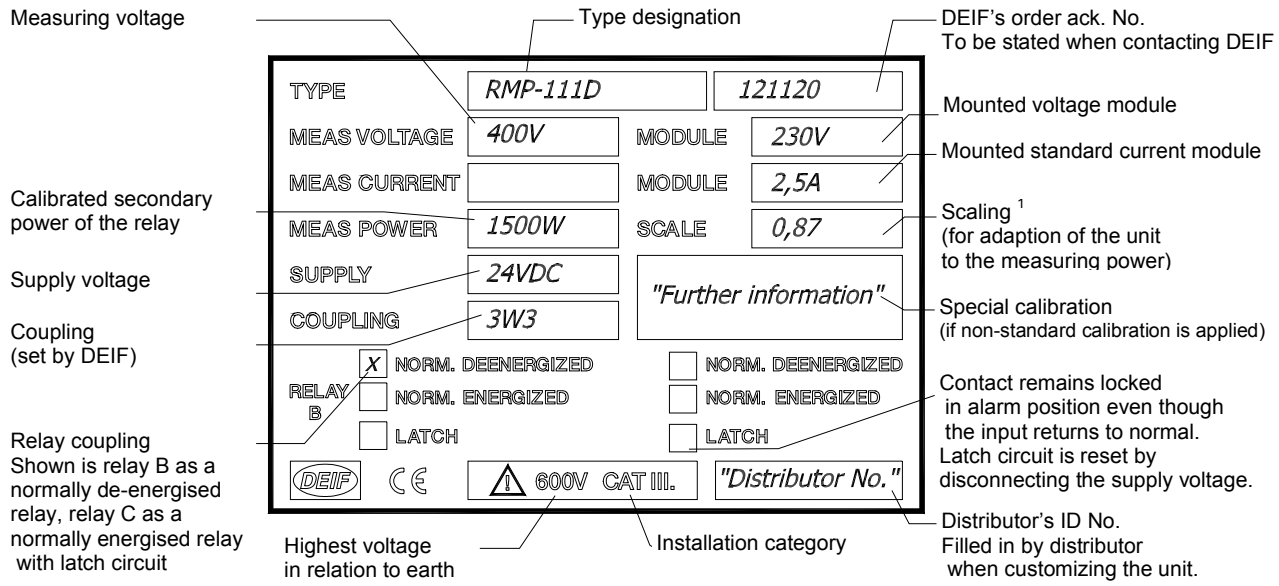
1. Description

This protective reverse power relay type RMP-121D forms part of a complete DEIF series (the *uni-line*) of relays for protection and control of generators.

2. Label

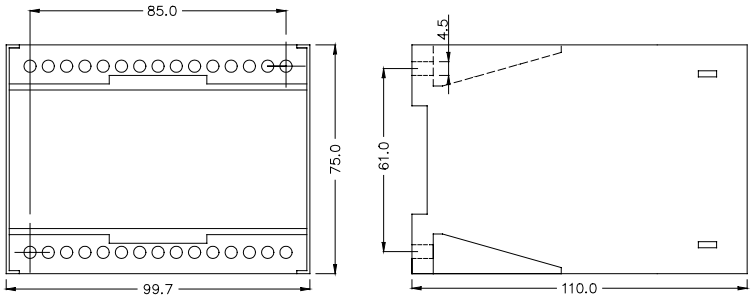
The relay is provided with a label with the following data:



Note 1: Calculation of measuring power:
"X" x voltage module x current module x scale = measuring power
"X" is replaced by 1 for coupling 1W
3 for couplings 1W3 and 1W4

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 RMP-121D is designed for panel mounting, being mounted on a 35 mm DIN rail, or by means of two 4-mm screws.

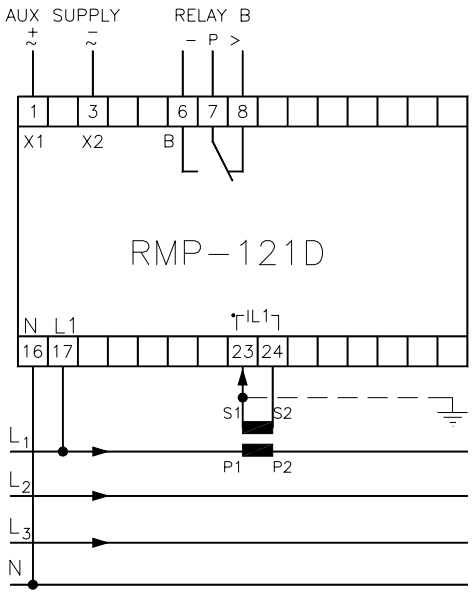
Weight: Approx. 0.650 kg

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.

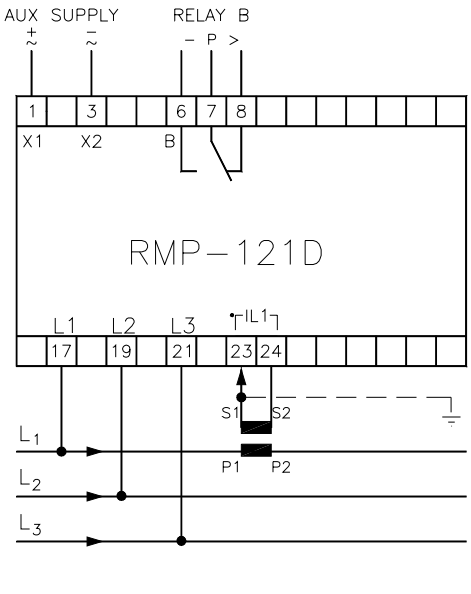
The DIN rail must always be placed horizontally when several relays are mounted on the same rail.

4. Connection diagram

(1W), 1W4



1W3



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.

Couplings 1W and 1W4: Connect terminal No. 17 to the phase to which the external current transformer is connected.

Coupling 1W3: Connect the voltage inputs as follows, if the current transformer is placed in another phase than indicated in the above diagram:

Ext. current transformer	Connect		
- connected to L2	L2 to term. No. 17	L3 to term. No. 19	L1 to term. No. 21
- connected to L3	L3 to term. No. 17	L1 to term. No. 19	L2 to term. No. 21

5. Start up instructions

5.1 Setting and indication

Setting of	LED/relay	
Reverse power set point: (0…25%) of $-P_n$	"-P>"	Yellow LED is lit when the set point has been exceeded, 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 based on the power required to run the prime mover when no fuel is fed to this. To start by setting the set point to 10% of P_n is recommended.

Selecting a time delay of min. 5 s is recommended to avoid disconnection during synchronisation.

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 per phase
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