MEVOCO
MEDIUM VOLTAGE COMPONENTS

THE ONE STOP SHOP FOR MEDIUM-VOLTAGE COMPONENTS

RP600 Digital Protection Relay
Easy, effortless and quick programming

Today's network components require maximum reliability, ease of use and maintenance freedom. Mevoco's protection relay RP600 provides an answer to these requirements.

www.mevoco.be

User-friendly

The relay functions are easily accessible and programmable with the help of a laptop or with the support of a menu oriented interface. The RP600 is not only easy to use, it is also designed specifically to easily integrate with Mevoco's next generation vacuum circuit breaker VA-2. On request, this relay is also available as a freestanding version to be integrated in medium voltage switchgear from any manufacturer brand.
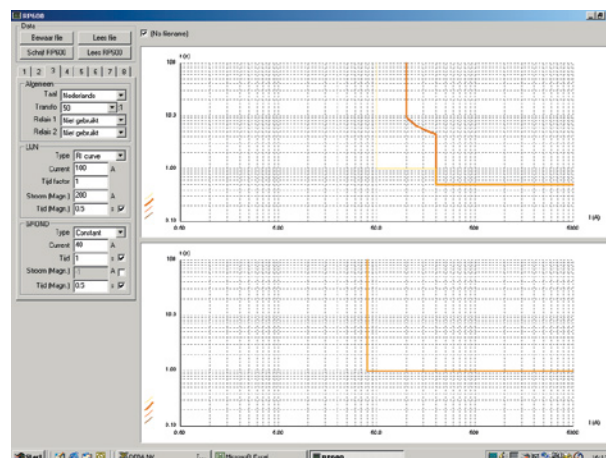
Your advantages

- Ready to connect to a laptop (RS-232 connection)
- User interface with large display
- Easy and quick programming thanks to to a menu oriented interface
- Wide range of protection functions and extended functionalities
- Self-powered and self-steered curves metering
- Possibility of 8 different curves (protection functions)
- Equipped with 4 outgoing contact points and 2 free programmable outgoing points
- Extended fault registration by the use of an auxiliary supply
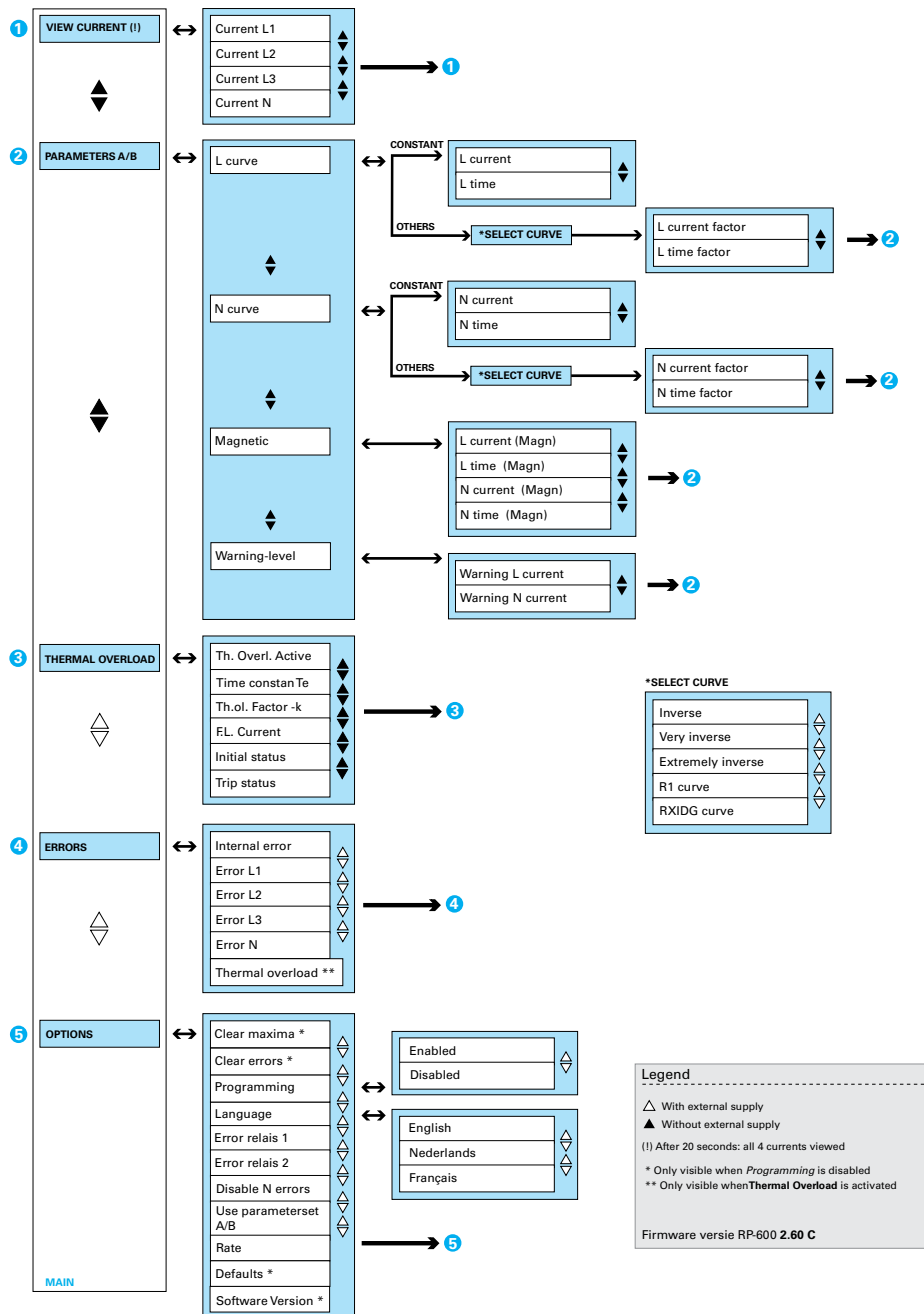
SETTING RANGE						
In (A)		50	150	200	400	600
Phase Fault						
I>	0.5 to 2.1 x In	20-105	60-315	80-420	160-840	240-1260
I>>	0.5 to 40 x In	20-2000	60-6000	80-8000	160-16000	240-24000
Earth Fault						
Io>	0.5 to 2.1 x In	10-40	30-120	40-160	80-320	120-480
Io>>	0.5 to 40 x In	10-400	30-1200	40-1600	80-3200	120-4800

Currents are introduced as absolute values. The mentioned values are relative values (related to the ratio of the current transformer). Available current transformer ratios are: 1:50, 1:150, 1:200, 1:400 and 1:600.

CONNECTIONS			
	A	B	
[Vac meas+]	12	12	R2 (com)
[Vac meas-]	11	11	R2 (NO)
N	10	10	R2 (NC)
L3	9	9	R1 (com)
L2	8	8	R1 (NO)
L1	7	7	R1 (NC)
OUT- (0V)	6	6	ERR (com)
OUT+ (12V)	5	5	ERR (NO)
[110 Vdc-]	4	4	WARN (com)
[110 Vdc+]	3	3	WARN (NO)
110/220 Vac	2	2	Sens N off +
110/220 Vac	1	1	Sens N off -

Menu Display RP600

VIEW CURRENT (!) ↔ Current L1 / Current L2 / Current L3 / Current N → **1**

PARAMETERS A/B ↔

L curve
- CONSTANT → L current / L time
- OTHERS → *SELECT CURVE → L current factor / L time factor → **2**

N curve
- CONSTANT → N current / N time
- OTHERS → *SELECT CURVE → N current factor / N time factor → **2**

Magnetic ↔ L current (Magn) / L time (Magn) / N current (Magn) / N time (Magn) → **2**

Warning-level ↔ Warning L current / Warning N current → **2**

THERMAL OVERLOAD ↔ Th. Overl. Active / Time constan Te / Th.ol. Factor -k / F.L. Current / Initial status / Trip status → **3**

***SELECT CURVE**
- Inverse
- Very inverse
- Extremely inverse
- R1 curve
- RXIDG curve

ERRORS ↔ Internal error / Error L1 / Error L2 / Error L3 / Error N / Thermal overload ** → **4**

OPTIONS ↔
- Clear maxima *
- Clear errors *
- Programming ↔ Enabled / Disabled
- Language ↔ English / Nederlands / Français
- Error relais 1
- Error relais 2
- Disable N errors
- Use parameterset A/B
- Rate
- Defaults *
- Software Version * → **5**

MAIN

Legend
△ With external supply
▲ Without external supply
(!) After 20 seconds: all 4 currents viewed
 * Only visible when *Programming* is disabled
 ** Only visible when **Thermal Overload** is activated

Firmware versie RP-600 **2.60 C**

Programming is easy

The use of a keyboard provides access to the different menus. The functions are registered under the keys 1 to 9, the cancellation key (X), the confirmation key (ø) and some other functions are accessible through the arrow keys (2,4,6 and 8).

The relay can only be programmed with an auxiliary supply. By using the confirmation key in the selected menu, it is possible:
- to wipe the fault currents in the memory (with confirmation).
- to define the standard values (with confirmation).
- to activate the programming (with confirmation).

Every action can be interrupted at any time by pressing the cancellation key. When the programming is activated, the "warning" LED is on and the characters "Ep" appear in the bottom left corner of the display.

It is possible in the "programming function" to modify the different parameters. Using the arrow keys, select the required menu and confirm by using the "confirm" key. The value will now start to flash and allow the registration of a new value.

If the parameter is not a value, then the arrow keys allow you to select the language, the ratio and the curve. When all the values are programmed and confirmed, they will be placed in the system's memory.

FUNCTION	MINIMUM VALUE	MAXIMUM VALUE	DEFAULT
Line curve	See user interface	See user interface	Constant
Line Current thermic	0.40 A	2.50 A	1.00 A
Line Time thermic	0.00 s	99.98 / ∞ s	1.00 s
Line L – factor	0.40 A	2.50 A	1.00 A
Line K – factor	0.10	1.00	1.00
Neutral curve	See user interface	See user interface	Constant
Neutral Current thermic	0.20 A	2.50 A	0.80 A
Neutral Time thermic	0.00 s	99.98 / ∞ s	1.00 s
Neutral L – factor	0.04 A	0.80 A	0.20 A
Neutral K – factor	0.10	1.00	1.00
Line Current magnetic	0.40 A	12.00 A	4.00 A
Line Time magnetic	0.00 s	99.98 / ∞ s	0.50 s
Neutral Current magnetic	0.40 A	7.50 / ∞ A	∞ A
Neutral Time magnetic	0.00 s	99.98 / ∞ s	0.5 s
Language	See user interface	See user interface	Dutch (*)

(*) Available interface languages: Dutch, French, English, Spanish, Russian

MEVOCO

MEDIUM VOLTAGE COMPONENTS

Mevoco spearheads a drive for the development of medium-voltage components that excel in quality and safety. Mevoco's range of products includes load break switches, circuit breakers, voltage detectors, a relay, and an arc-killer. Among its innovations, Mevoco created the Arc-killer SV-25, a patented mechanism that dramatically improves safety in medium-voltage cubicles. It maximizes not only operator safety, but it reduces material damage as well. The story lies at the heart of a vision for safer medium-voltage components. Mevoco is located in Belgium, at the heart of an international transportation network. It ships products worldwide.
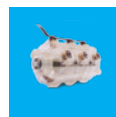
Our products

RV 44
Load break switch

RV 50
Load break switch

RV 53
Load break switch

RV 54
Load break switch (submersible)

HR-2 / HR-3
(Non-)integrated voltage detector

VA-2
Vacuum circuit breaker

SV-25
Arc-killer

RP600
Digital Protection Relay

DW600314

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