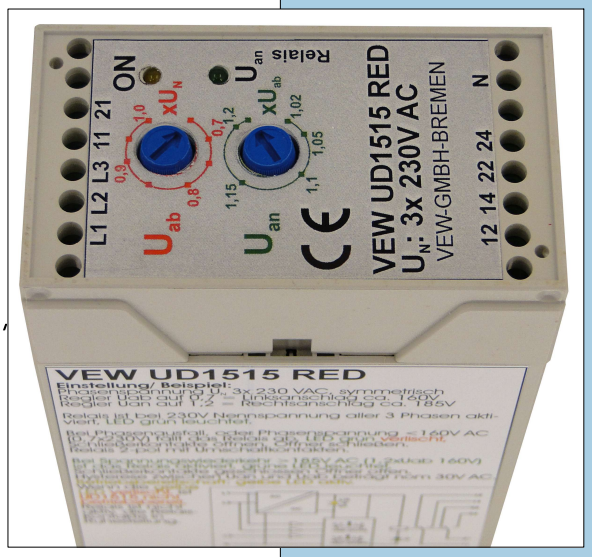
VEW UD1515 RED
Mains voltage monitoring

Redesign

The 3-phase mains voltage monitoring reacts to the failure of one of the three phases or to falling below the nominal voltage to an adjustable lower switching threshold by deactivating a relay and the green LED goes out. The switching threshold of the undervoltage detection is set on the setting controller Uab with a factor of 0.7 to 1.0 of the nominal voltage.
The Uan controller is used to set the hysteresis of the switching point between undervoltage detection and nominal voltage in order to prevent the relay from "chattering" around the switching point.
For the setting of Uab 0.7 (left stop) and the setting of Uan 1.2 (right stop), this means that the undervoltage must have recovered from the value 0.7 of the nominal voltage by a factor of 1.2 before the relay is switched on again is activated and the green LED lights up.

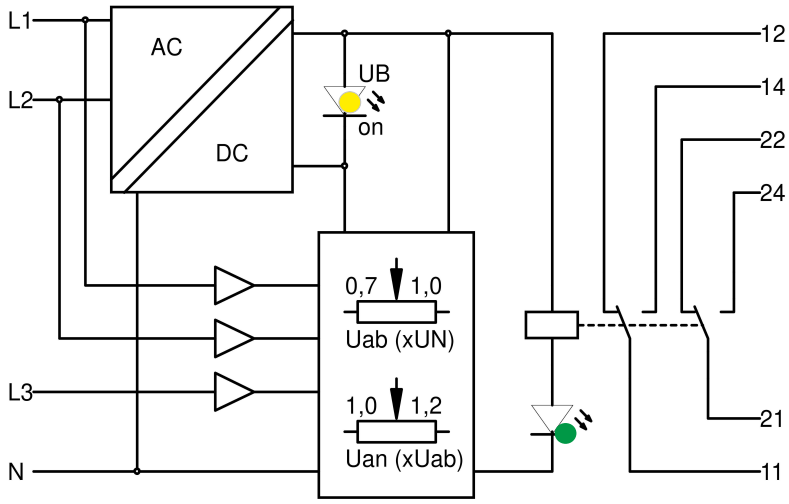
<u>Example:</u>
Phase voltage UN 3x 230 VAC, symmetrical
Controller Uab to 0.7 = left stop
Controller Uan to 1.2 = right stop
Relay is activated at 230V nominal voltage of all 3 phases, LED lights up green.



If a phase fails, or the phase voltage is <160V AC(0.7x230V), the relay drops out, the green LED goes out, the NO contacts close, the NC contacts open.
If the voltage returns >185V AC (1.2xUab 160V), the relay is activated again, the green LED lights up, NO contacts are open, NC contacts are close.

With a setting of 1.2, the hysteresis between Uan and Uab is nominally 32V AC.
The relay has 2 poles with changeover contacts, so that the user can use both openers and closers to indicate under voltage.
The internal operating voltage of the evaluation electronics of the Ud1515 is displayed with a yellow LED.
If the yellow LED goes out, UD1515 is not operational, the relay is not active, the relay contacts are in the idle position.

Simplified diagram



Technical data:

Dimensions	: DIN-rail snap-on housing, 45x75x110mm
Supply/ monitoring	: 3x 230V AC symmetrical, Setting range undervoltage 0,7...1,0 U_N
Power consumption	: approx. 2VA
Relay	: 2x Um, max. 2A, max. 250V AC
Display	: LED yellow = UD1515 ready for operation; LED green = all 3 phases within the monitored areas

DIE ENTWICKLER

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