

# VEW 6DT1021, -1022, -1023 RED

## Thyristor regulators 1,5KW; 3,5KW; 7,5KW

## Redesign

The original Siemens thyristor regulators are no longer available. Regarding pin dimensions and functions, our newly developed and redesigned devices are fully compatible with the original, and can be installed/replaced "plug-and-play" in the existing location.

The modular units with 1.5 kW output rating are mounted in a 1/2-19-inch 3HE rack, and the units for 3.5 kW and 7.5 kW output in a full 19-inch 3HE rack.

The open-frame construction is designed for natural convection cooling in a control cabinet with a 50% overload rating, and an ambient temperature of max. 60°C.

The units work as a 3-phase reversal switch with an optional automatic DC brake for stopping and change of rotation direction.

The rotation direction of the connected AC actuator motor is determined by thyristor-controlled phase switching.

Hereby, the respective rotation (RL-LL) and actuation of the DC brake are indicated by signalling LEDs in the front panel.

The automatic DC brake can be triggered between every change of rotation direction and for stopping, with an adjustable duration of 17 ms up to max. 530 ms.

The logical input conditions at E8 and E9 for RL-LL control are mutually locked.

A signal change at only one of the logic inputs during operation does not cause a change in the actuators rotation direction.

Interference pulses are suppressed.

A superordinate blocking input at E7 is provided in the rotation direction logic.

If blocking input E7 is set during operation, the actuator will be stopped (release).

If the automatic DC brake has been configured in the hardware, it will be triggered after every positioning pulse, and the preset braking sequence will start when the preset turn-off time for the thyristors has expired.

Hereby, a thyristor chain is operated as a rectifier for 70 ms using phase-angle control, so that the motor winding generates a static magnetic field, which brakes the rotor.

Depending on how the module has been configured by means of jumpers, the turn-off time for the thyristors is 13.5 ms or 27 ms.

When the actuators rotation direction is to be changed, the thyristor turn-off times preceding and following the preset braking time are added to give a total time, after which the actuator is reversed.

For example: 13.5 ms + 85 ms + 13.5 ms = 112 ms.

Furthermore, the control unit monitors phases L2 and L3, the system voltage, and the actuator temperature.

Each of the three monitors can trigger a corresponding alarm signal, which can be processed by an external superordinate system.



6DT1021 1,5KW 1/2-19"

**Samples are available ex stock.**

#### Technical data:

Supply voltage	: 400 VAC; 3-phase
Output rating	: 1,5KW; 3,5KW; 7,5KW (1021, 1022, 1023)
Input, logic signal	: + 24 V level; RL-LL; Release (stop)
Brake	: Configurable with/without, adjustable 17...530 ms



**DIE ENTWICKLER**

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