32 17302A01 Product Specification





32 17302A01

Single-phase overexcitation rectifier with voltage sensor

The single-phase rectifier with voltage sensor specified below reduces the switch-on time of electromagnetic brakes. The electronic switch provides extremely short switch-off times as they would otherwise only be possible with DC side switching.

Block diagram



The product consists of a thyristor-controlled rectifier and a timer. During the overexcitation time, the rectifier converts the AC mains voltage into bridge-rectified output voltage. The thyristor is then disabled by the timer to change over to a half-wave rectified output voltage. During switch-off, the built-in

voltage sensor and electronic switch provide rapid deenergizing of the excitation coil. Consequently, DC side switching over a switching contact is not necessary. The switch-off voltage is limited to approx. 400 V. Varistors are provided to protect the rectifier against overvoltage.

The single-phase rectifier can be connected either between a phase conductor and a neutral conductor or between two phase conductors. Attention!

If the input voltage is below 150 VAC, the rectifier switches off on the DC side. The switch-on time must not remain under the specified minimum time as frequent switching off during the overexcitation time may cause thermal overloading of the rectifier and brake.

Technical data

Input voltage: Frequency: Output voltage:

Max. output current:

Max. switching power: Overexcitation time: Recovery time: Min. switch-on time: Max. switching frequency: Ambient temperature: Protection (EN 60529): 220...480 VAC +6% -10% 40...60 Hz U₁ x 0.89 – 8% with overexcitation U₁ x 0.445 with holding excitation 4 ADC with overexcitation 2 ADC with holding excitation 200 W with holding excitation 300 ms \pm 30% 100 ms 400 ms 2 Hz -10...+70 °C rectifier IP65, connection IP00

CE

These products meet the requirements of the EMC Directive 89/336/EEC. Compliance with the following standards is confirmed: EN 55011 (VDE 0875, part 11, 1992) Gr. 1, cl. A, disturbance voltage Gr. 1, cl. B, disturbance radiation EN 61000-4-3 (1997) test severity level 3, EN 61000-4-4 (1996) test severity level 3, EN 61000-4-5 (1996) test severity level 3 The products comply with the Low Voltage Directive 73/23/EEC. Compliance with the following standards is confirmed:

HD 625.1 S1 (1996)

EN 60529 (1991)

The products are considered components in the sense of the **Machinery Directive 98/37/EEC** and are not to be used until the machine in which they are to be incorporated is declared to con-form to the requirements of the EEC Directives.

Specification subject to change without notice.

Please observe ordering data!



Current reduction $I = f(U_1)$

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