



32 17x2xBxx

UNIVERSAL COLLECTION

Single-phase overexcitation rectifiers for universal use

These rectifiers with time controlled bridge/half-wave changeover are ideal for installation in the connection boxes of brake motors, brakes and solenoids with high dynamic requirements.

Accessories include flying leads and mounting hardware so that installation on DIN rails is also possible.

Encapsulated versions for an extended operating temperature range are available as options. In case of additional DC side fast disconnection, the induction voltage induced by inductive loads is internally limited.

Technical specifications

| Principle of operation | | Rectifier with time-controlled bridge-/ half-wave change-over | | | | | |
|-------------------------------|---|---|---|------------------------------------|---|--|---|
| fast switching | | Offswitching DC over external protective contact | | | | | |
| Installation | | Screws, accessories | | | | | |
| Rectification | | Time-controlled bridge-/ half-wave change over | | | | | |
| Type | Rated input voltage U_1 / VAC ($\pm 10\%$) | Overexcitation time $T_{ÜE}$ / s ($\pm 15\%$) | Max.output current overexcitation / holding period I / ADC | Min. recovery time T_F / s | Output voltage Overexcitation / holding period U_2 / VDC (-8%) / (-) | Design temperature range ϑ_{13} / °C | DC side switching / disconnection voltage Y/N / $U_{0max.}$ / V |
| 17320B00 | 220 ... 500 | 0.25 | 2.0 / 1.0 | 0.15 | $U_2 = 0.890 / 0.445 \bullet U_1$ | standard, non-encap-sulated -25 ... 85 | yes / 350 |
| 17320B03 | 110 ... 240 | 0.25 | 3.0 / 1.5 | 0.15 | | | |
| 17320B13 | 110 ... 240 | 0.50 | 3.0 / 1.5 | 0.15 | | | |
| 17320B23 | 110 ... 240 | 1.10 | 3.0 / 1.5 | 0.30 | | | |
| 17221B00 | 220 ... 500 | 0.25 | 2.0 / 1.0 | 0.15 | | | no / 2 |
| 17221B03 | 110 ... 240 | 0.25 | 3.0 / 1.5 | 0.15 | | | |

CE

EMC Directive 2014/30/EU:

Compliance with the following standards is confirmed:

EN 50081-2 (Emission):

EN 55011 (VDE 0875, part 11, 2011)

Group 1, Class A conducted interference

Group 1, Class B radiated interference

EN 61000-6-2 (Immunity):

EN 61000-4-3 (2011) severity level 4

EN 61000-4-4 (2013) severity level 3

EN 61000-4-5 (2015) severity level 3

Low Voltage Directive 2014/35/EU:

Compliance with the following standards is confirmed:

HD 625.1 S1:2009 (VDE 0110) insulation coordination

EN 60529 (2014) IP 54

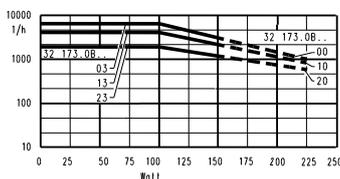
external mounting

Maximum no. of switching operations and duty cycle

With resistive/inductive load for specific power

Reference: KENDRION series

76 431..H.. at ambient temperature: $\vartheta_{13} \leq 40^\circ\text{C}$



Machinery Directive 2006/42/EC:

These products are considered components in the sense of Machinery Directive 2006/42/EC and must not be put into service until the machinery in which they are incorporated has been declared in conformity with the provisions of the EC Directives

ROHS

We hereby declare that the above-mentioned products comply with the requirements of the RoHS Directive 2011/65/EU on the restriction of the usage of certain hazardous substances in electrical and electronic equipment, assigned to equipment category 11.

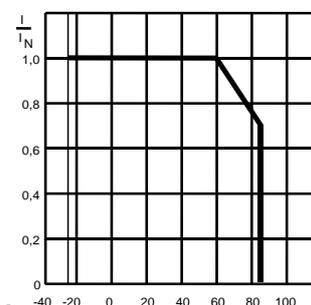
Protection:

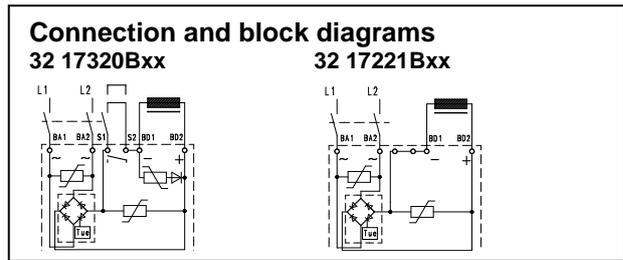
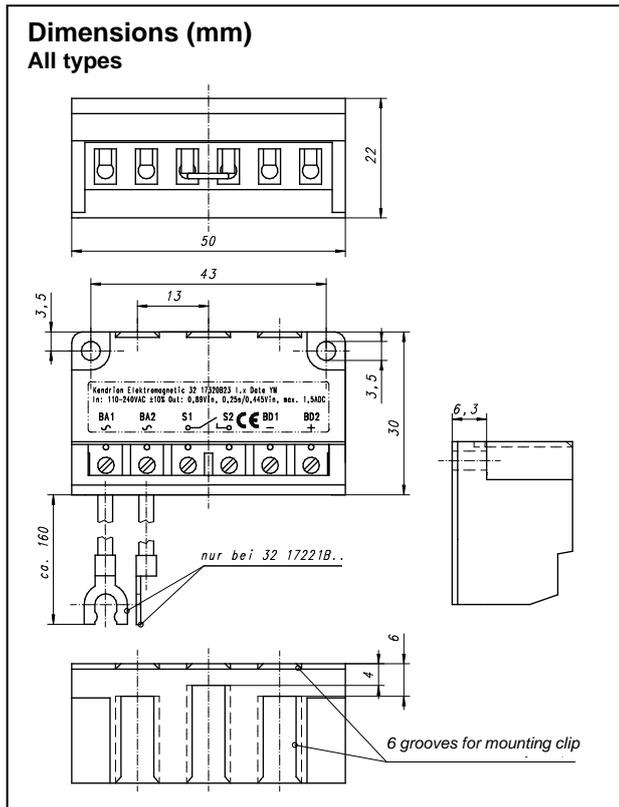
IP 00 to EN60529

Subject to change without notice.

Please observe ordering data.

Maximum current load





Accessories

Mounting rail clip:

23 07322A00103

Set of mounting clips for 35mm mounting rails to EN50022. 1 set per rectifier

Adhesive pad:

32 07322A00104

double-sided adhesive tape for installation on smooth surfaces. Dimensions 45x20x1mm³. 1 pad per rectifier

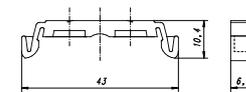
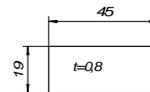


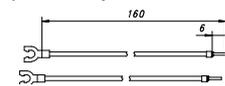
Figure similar to design



Flying leads:

32 17221A03004

Set of 2 flying leads with self-retaining fork cable lug M4, preferably for rectifier connection to motorterminal board.



Connection and operation

Overexcitation rectifiers with possible DC side switching are ideal for use with electromagnetic brakes of electric motors or with other electromagnetic components with high dynamic performance. They also enable the reduction of losses during holding periods.

The technical specifications depend on the connected loads and on their electric and mechanical properties.

When electromagnetic brakes are operated in parallel with the motor without DC side switching, brake engagement may be significantly delayed after disconnection due to the generator function of the motor.

The mechanical time constants during brake release or engagement and during switching of the electromagnetic component must be taken into consideration.

The maximum switching frequency of the rectifier merely defines a limit value for the dissipated power that can be absorbed by the rectifier, taking account of the overexcitation time and its tolerance, the minimum holding time and minimum recovery time.

In case of DC side switching, AC side switching is also required. Otherwise no overexcitation will occur when the system is restarted.

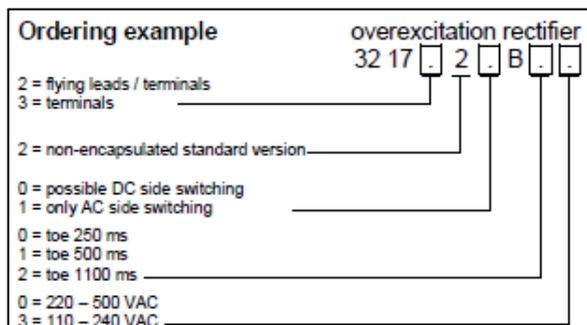
DC side switching must take place at holding current since repeated disconnection during overexcitation may cause thermal overloading of the rectifier.

Attention!

Rectifier operation must take place in such a way that the connected load is not overloaded and that any use of the load other than its intended use is avoided.

As a rule, the mean power must not exceed the rated power of the connected load at the rated duty cycle. The mean current load of the rectifier must not exceed the specified rated holding current at the specified ambient temperature. Check that the rectifier pinout is correct. Incorrect connection would cause irreversible damage to the rectifier.

The rectifiers are not short-circuit proof. Output short-circuit to ground will destroy the rectifier. All work must only be carried out by suitably qualified personnel. Make sure that no voltage is applied during connection. The specifications on the rating plate and the information provided in the circuit diagram or in the datasheet must be strictly observed.



Kendrion (Villingen) GmbH

Wilhelm-Binder-Straße 4-6
78048 Villingen-Schwenningen
Germany

Phone +49 7721 877 1417

Fax +49 7721 877 1462

E-Mail sales-villingen-ib@kendrion.com

www.kendrion.com