



32 77303A00

Overexcitation rectifier with integrated DC switching by voltage detection

Characterised by their compact design, the overexcitation rectifiers 32 77303A.. are recommended for installation in motor, brake or magnet terminal boxes.

The switching behaviour will be improved by detection of the mains voltage.

The integrated switching transistor switches the load off if the mains voltage is lower than

the specified threshold voltage. Due to this function the switch off time is extremely lower than with AC-switching. Owing to the integrated over-excitation, these rectifiers also ensure rapid brake release times and thus minimal wear during motor start-up as well as reduced motor starting current and energy consumption of the brake or magnet.

Various mounting and connection features and accessories make these rectifiers suitable for equally varied applications as the 32 x7x2xA.. series. All series are equivalent in terms of their mechanical design and connection features and thus fully interchangeable.

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)

Group 1, class A disturbance voltage
Group 1, class B disturbance radiation
DIN EN 61000-4-3 (1997)

test severity level 3,
DIN EN 61000-4-4 (1996)
test severity level 3,
DIN EN 61000-4-5 (1996)

test severity level 3
The products comply with the **Low Voltage Directive 73/23/EEC**.

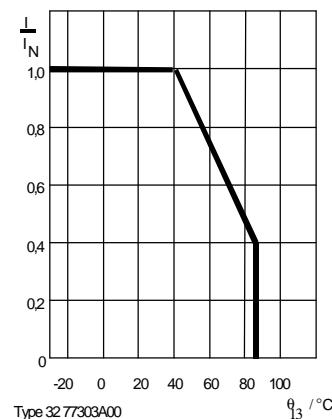
Compliance with the following standards is confirmed: HD 625.1 S1 (1996)
EN 60529 (1991)

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 conform to the requirements of the EC Directives.

Technische Daten

Rectification / DC side switching		time-controlled change-over from bridge to half-wave rectification / internal by voltage detection			
Output overexcitation voltage $V_{2OE} = f(V_1)$		$0,89 \cdot V_1$			
Output holding voltage $V_{2H} = f(V_1)$		$0,445 \cdot V_1$			
Disconnection delay after switching off the AC input voltage		30 ms			
Disconnection voltage		approx. 400 V at 0,7 ADC			
Maximum permitted energy absorption of switching voltage limitation		28 J for 2 ms			
Type	Rated input voltage V_1 (tol.: $\pm 10\%$) (40 – 60 Hz) (VAC)	Max. current output I (ADC)	Overexcitation time t_{OE} (tol. $\pm 30\%$) (ms)	Max. threshold voltage V_{off} (VAC)	Terminals
32 77...					
303A00	220 – 415	1,4 / 0,7	300	190	6 screw terminals 1.5 ²

Admissible current load at ambient temperature



Application hints

If these rectifiers are used together with brake-motors and connected parallel to the motor terminals, the voltage generated by the motor when running out, could slow down switching of the brake because the threshold voltage of the rectifier is exceeded for a certain period of time.

Active mechanical loads increase that problem. In this case rectifiers with current detection or standard rectifiers in combination with external DC-side switching or external current relay are recommended.

Attention!
Switching operations must take place in such a way that a dead

time at least as long as the overexcitation time specified for the rectifier is observed between disconnection and reconnection. Moreover, the mean power of the load reached as a result of the switching operations must not exceed its rated power in order to avoid any thermal overload.

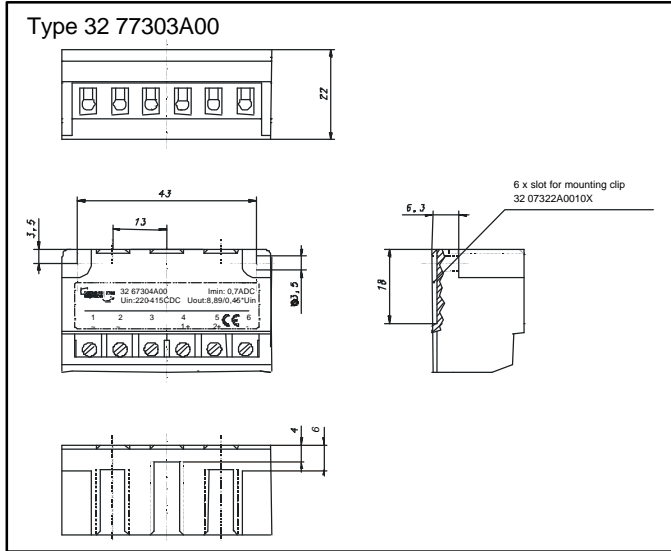
Protection type:
as per EN 60529: IP 00

Specification subject to modifications without notice!

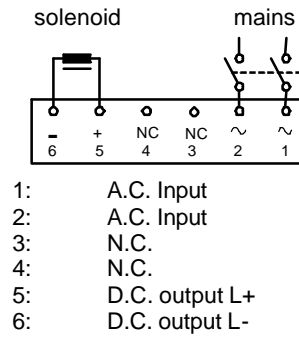
Please observe ordering data!

32 77303A..

Dimensions (mm)



Connection diagram



Accessories

Using a dovetail keyway, the clips or straps are to be connected with the rectifier in such a way that a flexible installation is ensured.

Clip: 32 07322A00101
Mounting clip for bores with a diameter of 4.3 mm
1 or 2 clips per rectifier

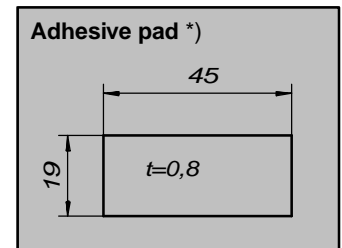
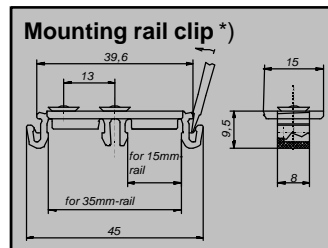
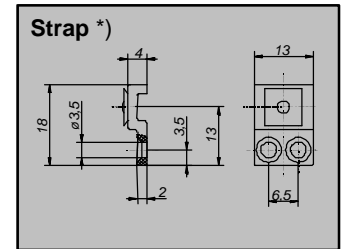
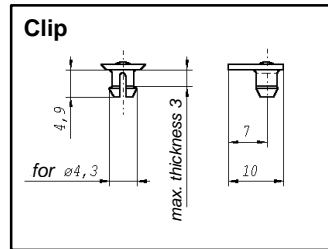
Strap *): 32 07322A00102
Mounting strap with a bore diameter of 4.2 mm for vertical or horizontal screwed mounting.
Alternative: installation in retention grooves.

(see dimensions)
1 or 2 straps per rectifier

Mounting rail clip *): 32 07322A00103
Mounting clip for 35 and 15 mm mounting rails in accordance with EN 50022 and EN 50045
1 or 2 clips per rectifier

Adhesive pad *): 32 07322A00104
Double-sided adhesive tape for mounting on smooth surfaces
1 pad per rectifier

*) upon request



Kendron Binder Magnete GmbH
Electronic Systems
Plant:
Mönchweilerstraße 1
D-78048 Villingen-Schwenningen
Mailing address:
Post box 1220
D-78002 Villingen-Schwenningen
Phone: +49 (0)7721 877-296
Fax: +49 (0)7721 877-293

Ordering example

Overexcitation rectifier with voltage detection
32 77303A

0 – Toe 0,3 s
0 – 220 – 415 VAC, 1,4/0,7 ADC