32 073xxB40 Product Specification

UNIVERSAL COLLECTION

Single-phase rectifiers for universal use

These half-wave and bridge rectifiers are ideal for installation in the connection boxes of medium power brake motors, brakes and solenoids. Accessories include flying leads and a variety of mounting hardware so that installation on DIN rails is also possible. Encapsulated versions offer an extended operating temperature range. In case of additional DC side fast disconnection, the induction voltage induced by inductive loads is internally limited.

Technical specifications

<table>
<thead>
<tr>
<th>Operating principle</th>
<th>Half-wave and bridge rectifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>6 clips</td>
</tr>
<tr>
<td></td>
<td>max. 2.5 mm²</td>
</tr>
<tr>
<td></td>
<td>max. 0,4Nm</td>
</tr>
<tr>
<td>Installation</td>
<td>Schrauben, Zubehör</td>
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<tr>
<td>DC switching, cut-off voltage $U_{max} / \text{V}$</td>
<td>350</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Rectification</th>
<th>Output voltage $U_2 / \text{VDC}$</th>
<th>Execution, Temperature range $\theta_{35} / ^\circ\text{C}$</th>
<th>Rated input voltage $U_1 / \text{VAC (+10%)}$</th>
<th>Max. output current at $U_1$ $I / \text{ADC}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 07322B40</td>
<td>Half-wave</td>
<td>$U_2 = 0,445 \cdot U_1$</td>
<td>Standard, unshed -40 ... 100</td>
<td>0 ... 240</td>
<td>2,0</td>
</tr>
<tr>
<td>32 07323B40</td>
<td>Bridge</td>
<td>$U_2 = 0,890 \cdot U_1$</td>
<td>Standard, unshed -25 ... 100</td>
<td>400</td>
<td>1,5</td>
</tr>
<tr>
<td>32 07332B40</td>
<td>Half-wave</td>
<td>$U_2 = 0,445 \cdot U_1$</td>
<td>reinforced, unshed -40 ... 100</td>
<td>500</td>
<td>1,2</td>
</tr>
<tr>
<td>32 07333B40</td>
<td>Bridge</td>
<td>$U_2 = 0,890 \cdot U_1$</td>
<td></td>
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</table>

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

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 EN 60529

Accessories

Mounting rail clip
32 07322A00103
Set of mounting clips for 35mm mounting rail to EN50022. 1 set per rectifier

Adhesive pad:
32 07322A00104
Double-sided adhesive tape for installation on smooth surfaces. Dimensions 45 x 20 x 1mm³. 1 pad per rectifier

Flying leads:
32 17221A03004
Set of 2 flying leads with self-retaining fork cable lug M4, preferably for rectifier connection to motor terminal board.

Figure similar to design
**Max. no. of switching operations**

<table>
<thead>
<tr>
<th>Switching Operations</th>
<th>10000</th>
<th>1000</th>
<th>100</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
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<tr>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
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<td>300</td>
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<td>400</td>
<td>450</td>
<td>500</td>
</tr>
</tbody>
</table>

DC side switching with resistive/inductive load for specific power (KENDRION series 76 431..H..) at $9_{13} \leq 40^\circ C$

**Max. current load**

![Graph showing current load vs. temperature](image)

**Dimensions (mm)**

All types

![Dimension diagram](image)

**Connection and operation**

Rectifiers with possible DC side switching are ideal for use with electromagnetic brakes of electric motors or with other electromagnetic components. 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 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.

**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. 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.

**Ordering example**

Single-phase rectifier

32 073xxB40

2 = non-encapsulated standard version

3 = reinforced encapsulated version

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-ids@kendrion.com