



Application

These compact and reliable modules are designed for the efficient control of electromagnetic clutches and brakes.

Half-Wave Rectifier

Half-wave rectifiers convert alternating current (AC) into a pulsating direct current (DC) by utilizing only one half of the AC waveform.

Advantage: Simple construction.

Electromagnetic brakes often do not require a perfectly smoothed DC voltage, which makes the simple technology of a half-wave rectifier sufficient for many applications.

Bridge Rectifier

A bridge rectifier uses both halves of the AC waveform to generate an almost continuous DC voltage.

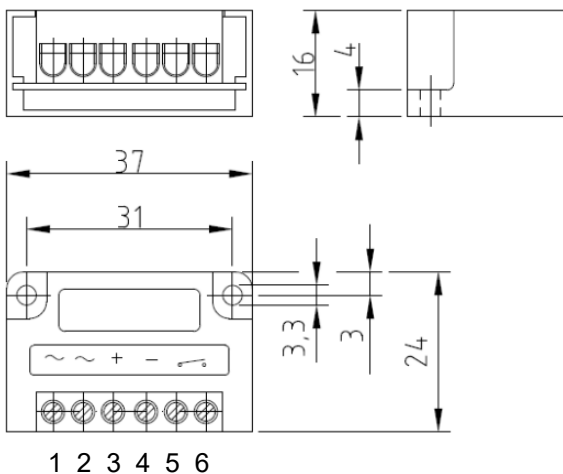
It is particularly advantageous when a stable magnetic force is required for the brake — for example, in precision applications such as CNC machines or robotics, where voltage uniformity is essential.

Conclusion

While half-wave rectifiers offer advantages in simplicity and cost efficiency, bridge rectifiers provide smoother, more efficient, and power-friendly operation. These benefits often make them the preferred choice for demanding or performance-critical applications.

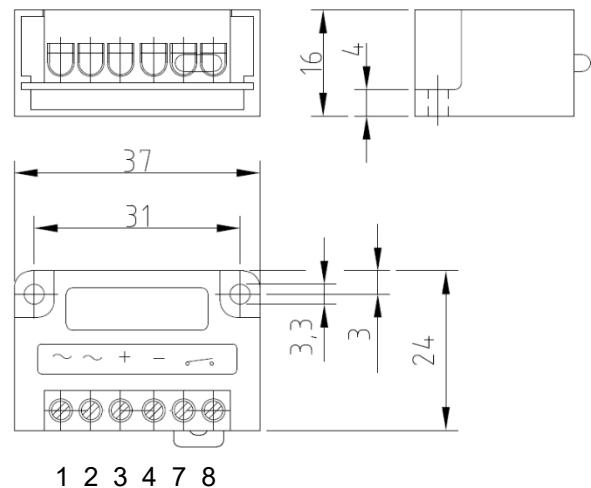
DC-side Switching (Direct Current)

Figure 1



AC-side Switching (Alternating Current)

Figure 2



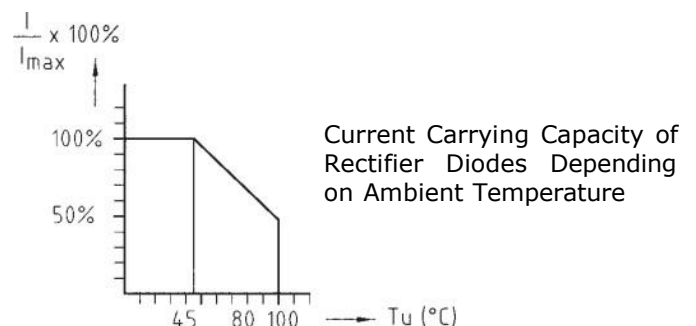
Electrical Connections (Terminals)

1, 2 – Input voltage [VAC]

3, 4 – Brake coil [VDC]

5, 6 – DC-side switching [Figure 1]

7, 8 – Wechselstromseitiges Schalten [Figure 2]
(Switch bypassed)



Technical Data

		PME 400-S	PME 500-S	PMB 400-S
Maximum input voltage (+10%)	VAC	400	500	400
Output voltage	VDC	0,45 x UAC	0,45 x UAC	0,9 x UAC
Maximum output voltage	VDC	180	225	360
Maximum output current	A	1	1	2
Peak reverse voltage	V	1500	1500	1500
Terminal cross-section	mm ²	0,34 – 1,5	0,34 – 1,5	0,34 – 1,5
Ambient temperature	°C	-20 to +100	-20 to +100	-20 to +100
Certification marks		CE	CE	CE
Article number		17908	17931	17913

Safety

Meaning of Safety and Warning Symbols



Danger Indicates a risk of fatal injury due to electric shock.



Warning Indicates a potential risk of fatal injury.

Validity

- The information provided in the technical documentation, as well as any application-specific advice, is given to the best of our knowledge and based on our understanding of the application. This also applies regarding potential infringement of third-party intellectual property rights.



Responsibility of the User

The use and application of our devices in end products are beyond our control and are therefore solely the responsibility of the user.

Qualification



- Installation, commissioning, and maintenance must only be carried out by qualified personnel (in accordance with IEC 364 or VDE 0100).



- The power supply must be disconnected before installing or servicing the device.

Design modifications reserved. Please check the ordering data before placing an order.