

RECTIFIERS

Rectifiers are available from KEB to produce DC voltage from the AC line. They have built in arc suppression and peak voltage protection to protect the customer's contacts and switches. All internal components are encapsulated in plastic for high temperature resistance and vibration protection.

For AC side switching (Figure 4a) simply apply AC voltage across the rectifier and the brake will release. The brake is wired in parallel with the motor. It is important to understand that this type of hookup results in relatively slow brake engagement times with a more gentle braking action observed. This may or may not be desirable for the given application.

When faster brake action is required, approximately 5 times as fast as AC side switching, the brake should be switched across the DC side (Figure 4c) of the rectifier. The switch terminals should be wired into an auxiliary motor contact so that when the motor is running the terminals are connected, and when the motor is turned off the terminals are disconnected.

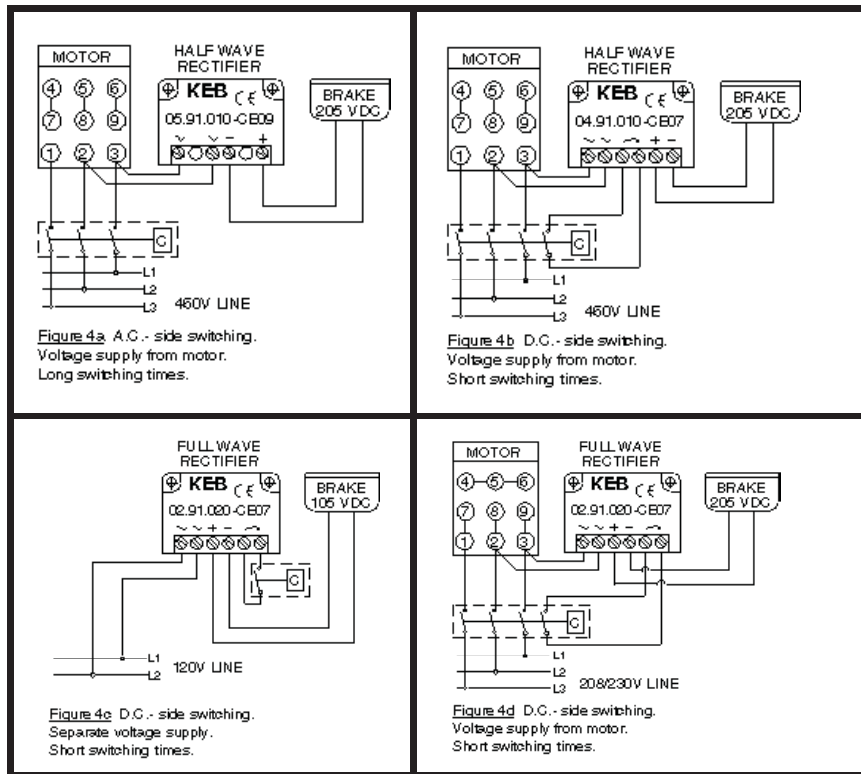
For even faster switching cycles an external varistor can be connected in parallel with the brake or the +/- terminals of the rectifier. See Table 1.

For applications requiring the following:

- rapid switch-on
- higher wear reserves
- shorter switch-off times
- reduced heating

The KEB Powerbox for 230VAC (300 VAC maximum) supply replaces half or full wave rectifiers. This rectifier was developed to give improved switching response of the spring-set brakes. Consult KEB for more Powerbox information.

TYPICAL RECTIFIER WIRING



RECTIFIER SPECIFICATIONS

Style	Vin max.	Vout DC	Rated Current		Switching	Max Switch off voltage	Varistor for fast switching	Rectifier part number
			45 C	80 C				
Full	275V	0.9*Vin	2.0A	1.0A	AC or DC	450 V	00.90.045-2752	02.91.020-CE07
Full	500V	0.9*Vin	2.0A	1.0A	AC or DC	900 V	00.90.045-5105	04.91.020-CE07
Half	275V	0.45*Vin	1.0A	0.5A	AC or DC	450 V	00.90.045-2752	02.91.010-CE07
Half	500V	0.45*Vin	1.0A	0.5A	AC or DC	900 V	00.90.045-5105	04.91.010-CE07
Half	600V	0.45*Vin	1.0A	0.5A	AC	1000 V	00.90.045-6252	05.91.010-CE09
Half	720V	0.45*Vin	1.0A	0.5A	AC	1600 V	00.90.045-4202	06.91.010-CE09
Half ¹⁾	275V	0.45*Vin	1.0A	0.5A	AC or DC	450 V	00.90.045-2752	02.91.010-CEMV

1) with EMC Protection