

Technical Note

Brake Reaction



At the instant the motor power ceases, energy stored within the brake coil must decay as rapidly as possible in order to stop the motor quickly. Fortunately, the weaker magnetic field that holds the pressure plate is advantageous not only during operation, but also during stopping. Its low current provides minimal heat while the motor is operating. And, its low energy allows it to decay quickly.

Nonetheless, the holding coil may be wired so that its low energy decays even faster. With appropriate wiring, all SEW rectifiers can convert the residual energy into heat using a varistor.

Normal Reaction

Normal reaction is commonly used for horizontal applications with a low duty cycle or those that do not require the most precise stopping distance. Figure 8 shows the path that occurs within a BG or BGE rectifier after ac power is removed from the motor. Since there is no additional resistance in the path besides the coils, the residual coil energy must decay naturally.

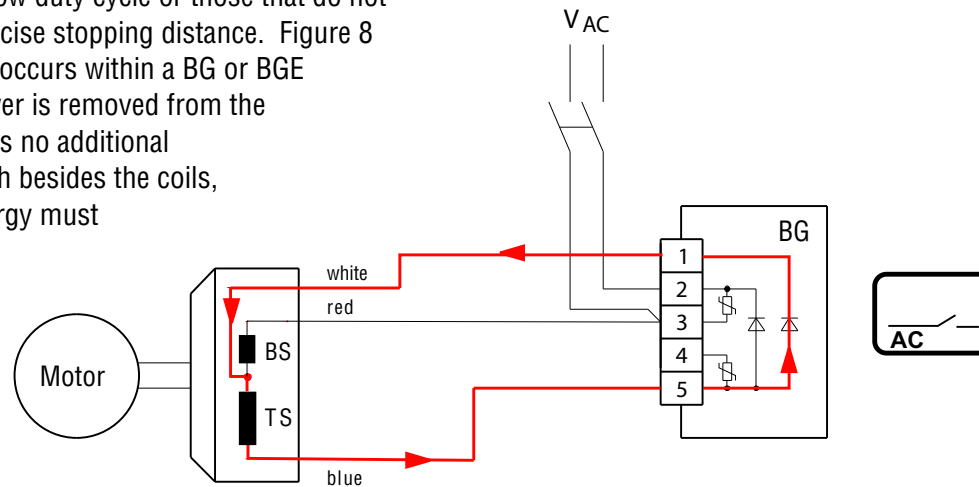


Figure 8 – Normal Reaction