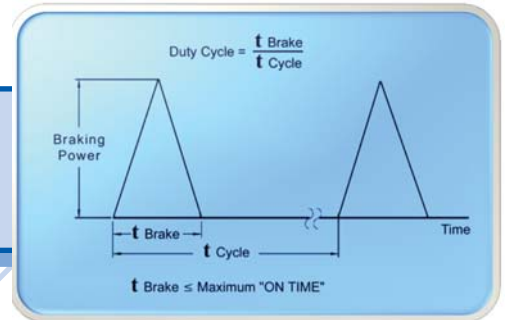


OVERVOLTAGE SOLUTIONS FOR AC DRIVES – UNDERSTANDING BRAKING

Braking conditions can be sorted into 3 basic types as they relate to most industrial applications.

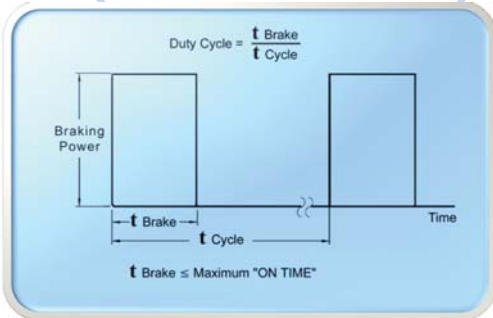
ECCENTRIC

For some applications braking resistors are required because of torque or load fluctuations while the speed remains constant. Some examples of this are tumblers, punch presses and pump jacks.



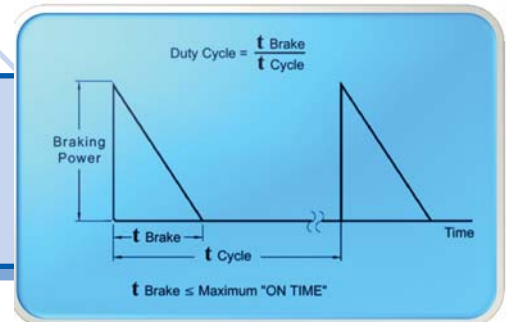
OVERHAULING

During an overhauling load cycle the braking resistor keeps the motor speed from increasing beyond the speed set by the drive. The required braking torque remains constant, therefore approximately twice the power of a deceleration braking cycle is required of the braking resistor.

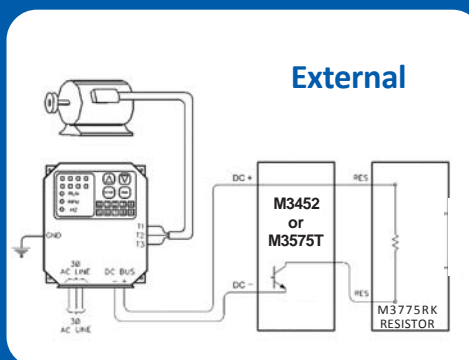
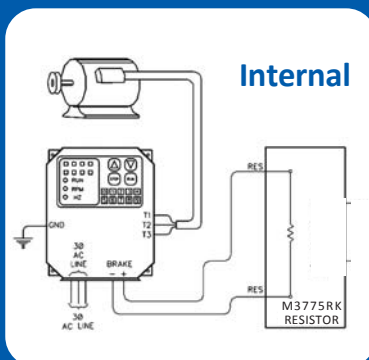


DECELERATION

During deceleration, the braking resistor is used to stop or reduce the speed of the motor. The required braking torque reduces with speed, therefore approximately one-half the power of an overhauling load cycle is required of the braking resistor. Most drives require braking resistors only for stopping.



– BRAKING TRANSISTOR FIELD CONNECTIONS –



Bonitron's M3575R and M3775RK modules serve as a resistive loads that coordinate with either a drive's internal braking transistor or Bonitron's M3452, M3575T, or M3675T Braking Transistors. Loads are available in sizes to fit most application requirements. Overtemperature status contacts are standard on all of our resistors, while many manufacturers do not offer this as an option.