

U.S. TSUBAKI SHOCK RELAY

TSB151W, TSB152W

Overload and Underload Protection

ACTUAL LOAD METER

Actual current of the motor is indicated in percentages, which makes it easy to set "LOAD CURRENT," regardless of the value of the actual current load.

OVERLOAD CURRENT

This presets the load current at the optimum setting in the range from 30% to 130% of the motor's current. When the actual current exceeds the preset current for the preset SHOCK TIME, the SHOCK RELAY trips to break the motor circuit.

UNDERLOAD CURRENT

This presets the lower acceptable load current limit. When the actual load current falls below this level for the preset SHOCK TIME, the SHOCK RELAY trips to break the motor circuit.



TERMINALS FOR CONNECTION

All terminals are located on the upper surface to provide easy access.

POWER INDICATOR

Indicates that the power supply is on.

TRIP INDICATOR

Lamp comes on when SHOCK RELAY trips.

TEST BUTTON

This switch is used to verify SHOCK RELAY operation.

TSB151W and TSB152W have a test switch for both upper and lower levels.

RESET BUTTON (manual)

Reset can be done quickly whenever a restart is desired.

SHOCK TIME

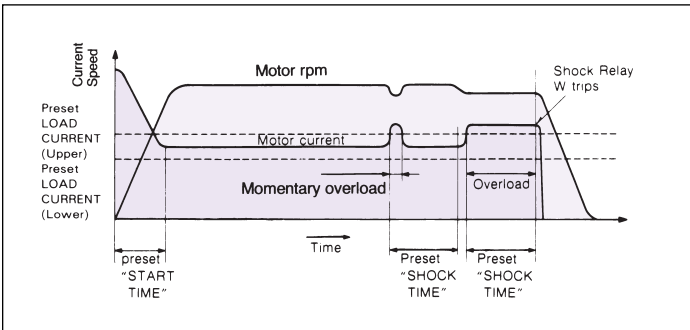
This presets the overload period. Range is variable from 0.2 to 3 seconds. Every momentary load over the preset current with a shorter period than the preset is ignored. When the overload equals the preset period, the SHOCK RELAY will trip immediately to break the power supply to the motor.

START TIME

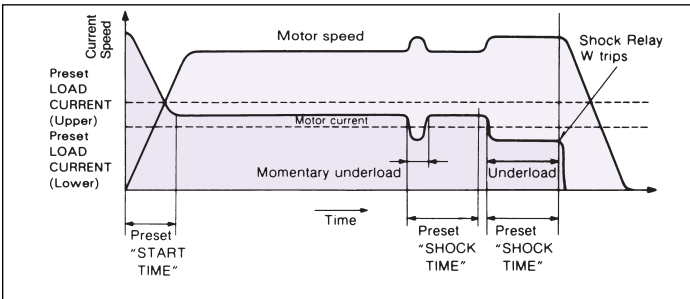
When starting a motor, the starting current value is greater than the running current. This starting current value continues until the motor reaches normal speed. During this starting period, the time of which mainly depends on the type of load, the function of detecting the overload is disabled. Adjustable range is from 0.2 to 20 seconds.

DIAGRAM OF OPERATION

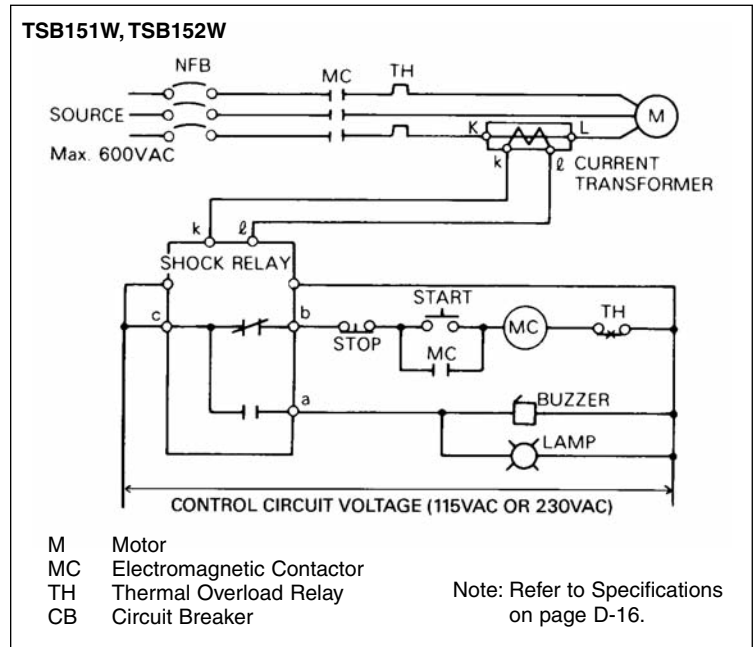
OVERLOAD



UNDERLOAD



STANDARD CONNECTING DIAGRAM



Dimensions and current transformer selection is the same as for TSB151 and TSB152. Refer to page D-8.

D - PT COMPONENTS