

U.S. TSUBAKI SHOCK RELAY

TSBSS Series – Manual Reset TSBSA Series – Automatic Reset

Overload Protection – OEM Model

For use with single and three-phase motors up to 300 amps

START TIME

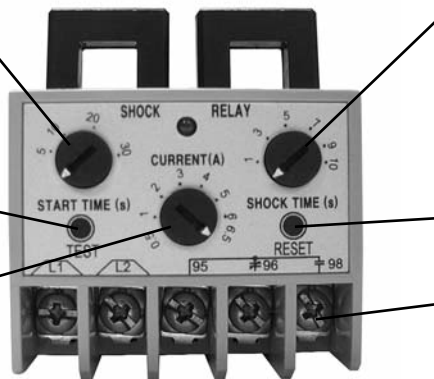
During startup, the current draw of a motor is greater than the running current. In order to prevent the Shock Relay from engaging during startup, the start time is adjustable from 0.2 seconds to 30 seconds.

TEST

The test button simulates a current overload.

CURRENT (A)

The trip current level is user adjustable and varies according to the Shock Relay model selected. The Shock Relay will only trip when the current draw of the motor exceeds both the current setting and the shock time setting.



SHOCK TIME

The shock time feature allows the current overload time to be set. The shock time is adjustable from 0.2 seconds to 10 seconds. The Shock Relay will only trip when the current draw of the motor exceeds the trip current and when the shock time is exceeded.

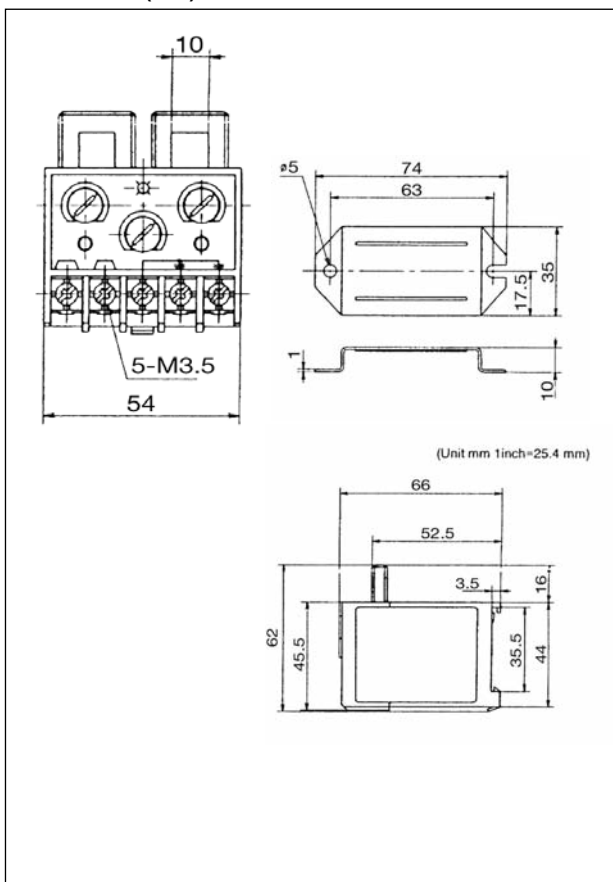
RESET BUTTON (SS model)

SA is auto reset.

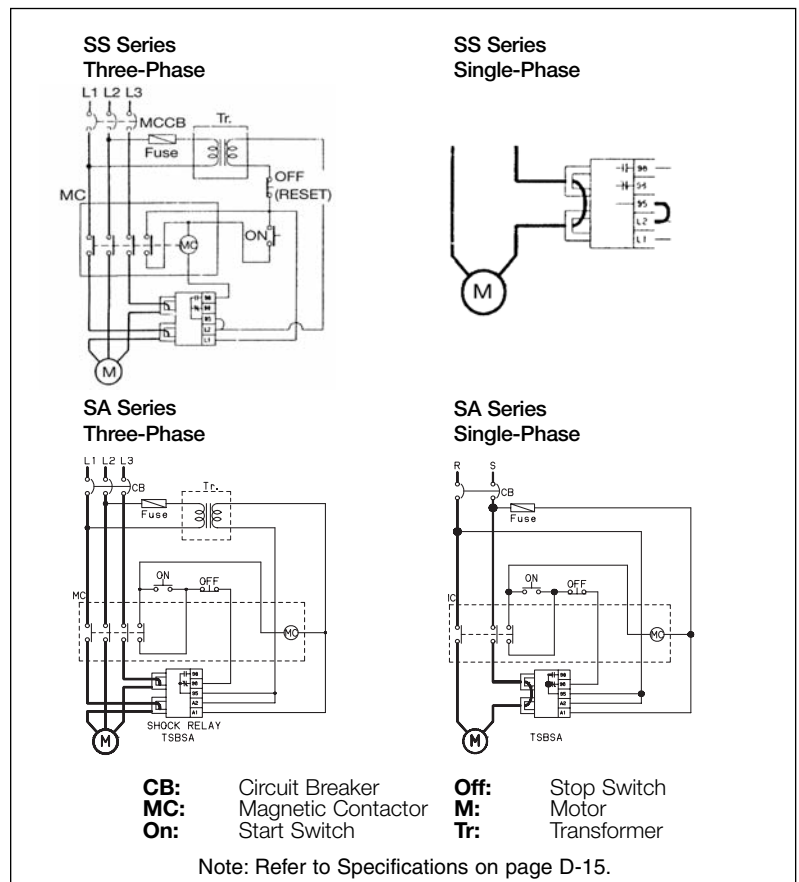
CONNECTION TERMINALS (CONTACTS)

L1 & L2: Used to provide power to the Shock Relay. 95, 96 & 98: Provide output from the Shock Relay. The application - such as a motor - can be wired into these terminals. When the Shock Relay trips, the circuit opens and the application stops.

DIMENSIONS (mm)



TYPICAL CONNECTING DIAGRAM



D - PT COMPONENTS

TSBSS/SA Shock Relay with External Current Transformer

SS/SA SERIES
Shock Relay



EXTERNAL CURRENT TRANSFORMER
The external current transformer is wired together with the SS/SA Series Shock Relay to provide overload protection for applications using larger motors, typically more than 60A.

SPECIFICATIONS

Shock Relay Model	TSBSS/SA05	TSBSA10	TSBSS/SA30	TSBSS/SA60
Motor HP 230 VAC	0.125 hp ~ 1.5 hp	0.75 hp ~ 3 hp	2 hp ~ 7.5 hp	10 hp ~ 15 hp
Motor HP 460 VAC	0.25 hp ~ 3 hp	1.5 hp ~ 7.5 hp	5 hp ~ 15 hp	20 hp ~ 30 hp
Load Current Setting Range	0.5A ~ 5A	1A ~ 10A	3A ~ 30A	5A ~ 60A
Shock Relay with External Current Transformer Model	TSBSS/SA100	N/A	TSBSS/SA200	TSBSS/SA300
Transformer	TSB2CT100	N/A	TSB2CT200	TSB2CT300
Motor HP 230 VAC	20 hp ~ 25 hp	N/A	30 hp ~ 50 hp	60 hp ~ 100 hp
Motor HP 460 VAC	40 hp ~ 60 hp	N/A	75 hp ~ 125 hp	150 hp ~ 200 hp
Load Current Setting Range	60A ~ 100A	N/A	100A ~ 200A	200A ~ 300A
Common to all TSBSS/SA units	TSBSS/SA05 TSBSS/SA100	TSBSA10	TSBSS/SA30 TSBSS/SA200	TSBSS/SA60 TSBSS/SA300
Trip Output Relay Status				
Energized/Fail Safe to Open	SS only	N/A	SS only	SS only
Not Energized	SA only	SA only	SA only	SA only
Trip Output Relay Contact rating	3A load			
Start Time Setting Range	0.2 ~ 30 sec			
Shock Time Setting Range	0.2 ~ 10 sec			
Shock Relay Power Supply	90 ~ 240 VAC			
Test Function	Built In			
Mounting	35mm DIN Rail or Panel			
Operating Temperature Range	-4°F ~ 158°F			