Brooks Utility Products
A Tyden Group Company

S-120 SINGLE PHASE METER SOCKET TESTER

Product Data Sheet

The Brooks S-120 Single Phase Meter Socket Tester is a safe and simple way to protect the meter installer from dangerous flash and fault conditions at the meter socket.

FEATURES

- Detects short circuits,grounds, backfeed, and wiring errors on 120/240 Volt 3-wire single phase self-contained socket installations.
- Provides a "last layer" of protection to the meter installer.
- Easy to see safe lights and fault lights indicate whether the meter is safe to set.
- Convenient handle makes installation quick and easy.
- Two extra replacement fuses provided with all units.

NOTE: THE S-120 IS NOT INTENDED AS A REPLACEMENT FOR NORMAL SOCKET CHECK PROCEDURES. IT MAY NOT DETECT BACKFEED IN ALL SITUATIONS.

APPLICATIONS

This tester should be used by meter installers to check meter socket boxes for short circuits, grounds, backfeed and wiring errors PRIOR to setting the meter on 120/240 volt 3-wire single-phase self-contained socket installations.

MODEL NUMBER

- **S-120 Standard Single Phase**

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TESTING PROCEDURE

Step 1:
Place S-120 so that the two bottom (load) socket blades of the tester touch the two bottom jaws (load terminals) of the socket box.

1. If safe lights on the socket tester DO NOT glow, proceed to Step 2.
2. If safe lights glow, it indicates a backfeed, internal jumpers in the socket box, or reverse of line and load wires. DO NOT proceed to Step 2 and DO NOT set the meter.

Step 2:
Insert the S-120 into the meter socket. The customer's main switch should be open for this test. If this cannot be done, it is possible to blow the fuses in the tester and cause the fault lights to glow provided an energized load of 30 amps is present. The lineman should be aware of this possibility so that they can proceed accordingly.

1. If only one safe light or any fault lights glow, DO NOT set the meter. After the problem is corrected, replace the blown fuses and repeat the testing procedure.
2. If both safe lights glow, it is safe to set the meter.

ANALYSIS OF RESULTS

Reference is made to Step 1 of testing procedure. This step is necessary only to assure correct metering.

Backfeed Indication: One or both safe lights glow. If a 120V backfeed condition exists across the load terminals of the socket, the right hand safe light will glow. For a 240V backfeed condition, both safe lights glow. The S-120 will not detect a backfeed condition where both load terminals are fed by the same phase.

Internal Jumper Indication: One or both safe lights will glow. This test will detect any devices that jumper or connect the line and load terminals in the socket box.

Reversal of Line & Load Wires Indication: Both safe lights will glow. If the socket box is wired incorrectly resulting in load wires connected to the bottom terminals of the socket, both safe lights will glow.

Reference is made to Step 2 of testing procedure. This step is necessary to assure that the meter is set safely.

Ground Indication: One or both fault lights glow. If a ground exists on a phase wire, the respective fuse will blow, and allow the fault light to glow.

Short Circuit Indication: Both fault lights glow. If a phase to phase, short circuit exists, both fuses will blow and allow its fault lamp to glow.

Backfeed Indication: One or both fault lights glow. If an out of phase backfeed exists and is not detected in Step 1, one or both fuses will blow, allowing one or both fault lamps to glow.

Phase & Neutral Wires Reversed Indication: Only the 120V safe light (right lamp) glows. If a wiring connection error is made resulting in the phase and neutral wires being intercharged, a nominal 120 volts will exist across the load terminals of the tester and allow only the 120 volt lamp to glow.

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