

Technical Description

Make: **Callenberg Technology Group A/S**

Type: **"MINI"**

1. **INPUTS**

The panel is supplied from the following two inputs:

3x440 (380)V
3x230V

Back-up protection for all two inputs to be max. 20A.

2. **THREE PHASE POWER OUTLET, MAX. 10A**

3x440 (400)V or 3x230V can be selected by means of selector switch SI.

The auxiliary voltage to the digital measuring instruments is applied by closing the Multi 9 miniature circuit breaker Q2.

The component under test is connected to screw-terminals R-S-T and power is switched on by closing the Multi 9 miniature circuit breaker QI.

By means of change-over switches S2 (pos. L1, L2, L3) and S3 (Pos. 3), the load line currents and voltage can be measured, respectively.

3. **SINGLE PHASE 0-250V, 2,5A VARIABLE VOLTAGE OUTLET**

The 0-250V, 2,5A output can be selected from either screw terminals or ordinary 19 mm plugs.

The outlet is energized by closing the miniature circuit breaker Q2 and adjusted by means of the vario-autotransformer.

Measurements of output current and voltage can be read by means of S2 (pos. 5) and S3 (pos. 2), respectively.

This outlet can be used for testing single-phase loads of up to 250V as well as relays and measuring instruments.

4. VARIABLE LOW VOLTAGE OUTLET, 0-30V AC/0-28V DC

Up to 10A of either AC or full-wave rectified (not ripple free) DC can be supplied from this variable low voltage outlet.

The output current and voltage can again be read from the built-in digital instruments, by turning S2 to pos. 6 and S3 to pos. I.

The use of these outputs is similar to that of item no. 3 for the lower voltage range (hence higher sensitivity) of 0-30V AC or DC.

Moreover, charging of small accumulators can be made possible from the DC output, whereas the AC output could be used to test AC moving-iron ammeters.

5. CONTINUITY AND INSULATION TEST FACILITIES

By means of testpins, one can examine, whether there is continuity or leakage of the units or similar.

For low resistance values (say 0-100 ohms), outlet with the black terminals is to be used, which is marked 0-100 ohm. The testing voltage is 24V with a 3W incandescent lamp connected in series.

For higher resistance values, outlet with the red terminals is to be used, which is marked 100 ohm-500K ohm. The testing voltage is now 220V with connected neon lamp in series. This testing circuit is especially suitable for leakage measurement.

6. TESTING OF FLUORESCENT TUBES

Facilities for testing fluorescent 20W light tubes, their starters and chokes are also found on the panel.

20W tubes under test are to be inserted in the fixed sockets installed on the bottom of the panel. Switch S10 should be turned to pos. "Normal".

20W choke under test is to be connected on the corresponding screw-terminals and switch S10 turned to pos. "TEST". Finally, the starter is tested in socket Q5 (20W).