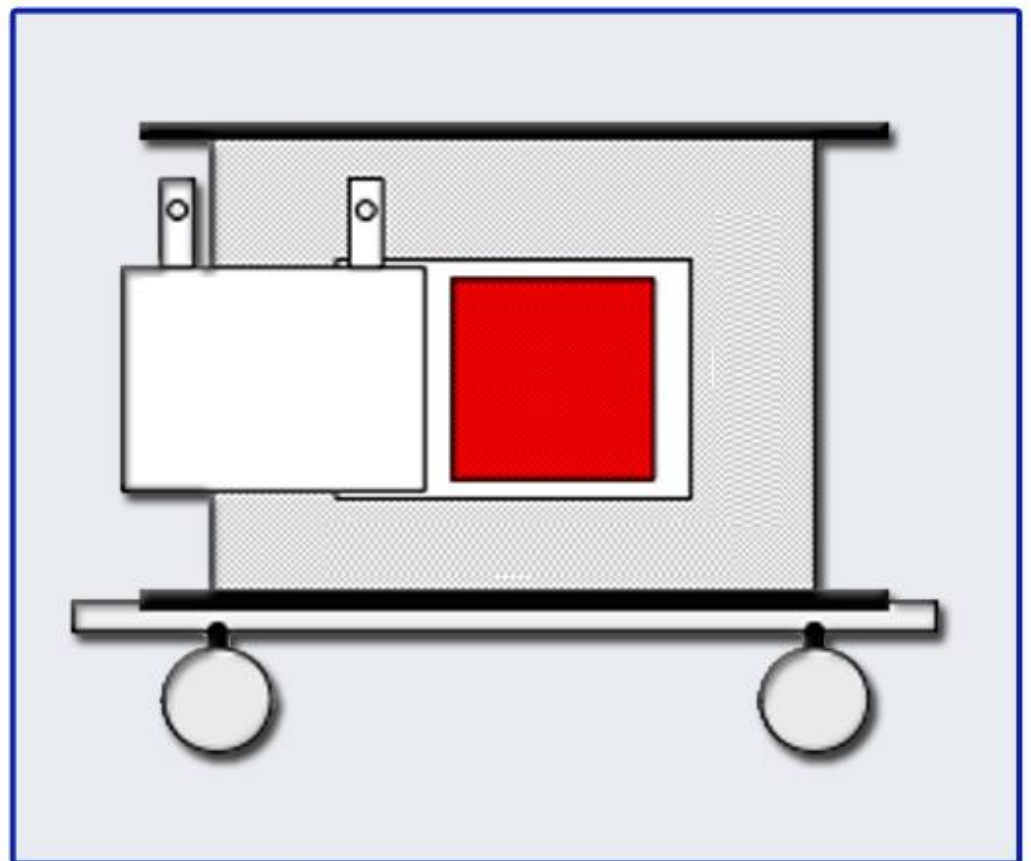


ASD

Load / Heat Cycle Test System



Integrated Systems Design and Development

ASD

Load / Heat Cycle Test System

Low Voltage, Current Test Set For Power Cable

ASD High Current Load / Heat Cycle Test Systems are designed to test solid dielectric cable or other short circuit, low impedance electrical loops. This is achieved by raising the temperature to defined levels and simulating the current loading conditions in electric circuits.

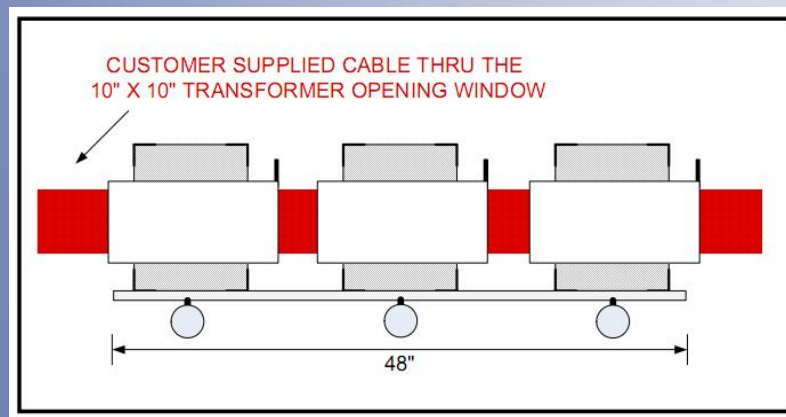
The secondary winding of a current transformer (CT) is used for inductive heating as test loop. Multiple K or other type thermocouple could be used to measure the temperature of the test loop. The low voltage test system utilizes one loop of the conductor passing through the desired number of CT carts to reach the necessary power and voltage level. The test goes on as such; voltage is applied to the test sample simultaneously with the heating current. Measurement of the conductor temperature is not done during test cycle.

A single current transformer can provide heating current to typical low impedance loops up to about 15 meters in length. As the length of the tested sample changes, the number of CT's can be adjusted to meet the required heating current. The figure below is an example layout of the transformer assembly on a platform with caster wheels.

Most test loops are highly inductive, with the actual losses presenting a small portion of the required power. Capacitors bank can be utilized to minimize the actual power required from the local source. A typical system is provided with a power source limited to the rating of one current transformer. This provides a suitable safety margin to accommodate the resistive losses in the test cable.

Features

- PC based control & measurement system
- User friendly software
- Temperature set controls
- Cycle duration setting
- Integrated chart recorder
- Database storage
- Custom report generation
- Optically isolated thermocouples
- Safety overload and Interlocks
- Automatic and manual control of test sequences
- Timer setting up to one year
- Zero start inter-lock
- Updateable software
- Capacitor bank compensator



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Applications

Testing of insulating Cables

Current Transformers

ASD current transformer rated at 12 volts and 4000A is a standard building block of the test loop. As the loop size changes, the power level will change, requiring the addition or deletion of current transformers from the system in order to achieve the desired heating curve.

The K or other type thermocouples, isolated amplifier transmitter are mounted on a cart. A current transformer is also mounted on the cart, to monitor the current in the test loop.

Voltage Regulator

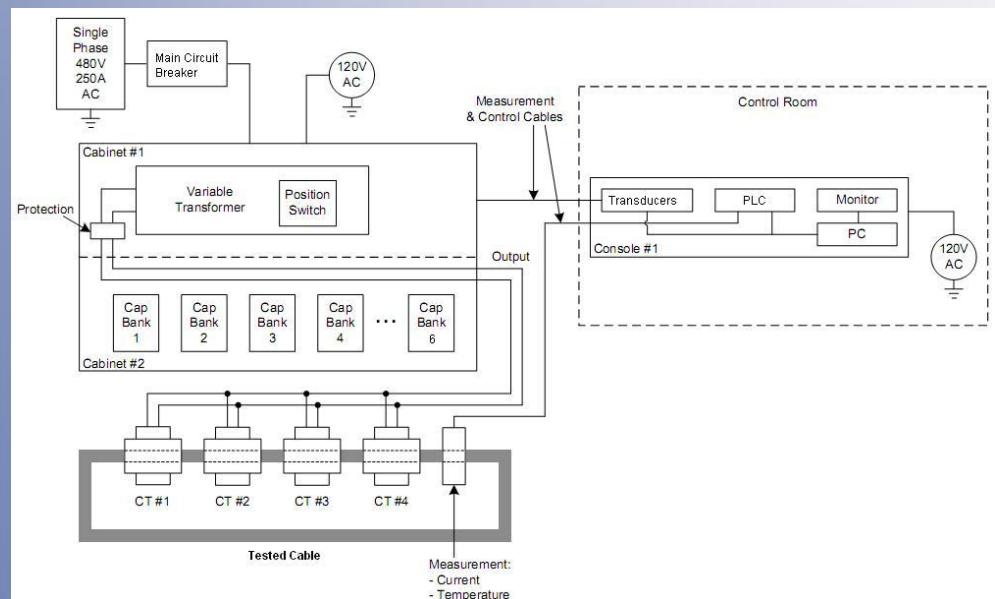
The motorized voltage regulator supplies the power to the primary winding (s) of the current transformers. Regulating Transformer adjust the input voltage of the transformer to achieve the proper required load.

Software

The system is equipped with user friendly software allowing you of:

- Performing measurements and taking readings automatically.
- Performing temperature corrections automatically.
- Showing real-time graphical and indicator value displays of current, voltage and temperature readings.
- Storing test results automatically.
- Viewing graphical analysis of current and previous test results.
- Generating extensive excel report for selected test's results. The report includes measured values, calculated values and graphical analysis for each connector.

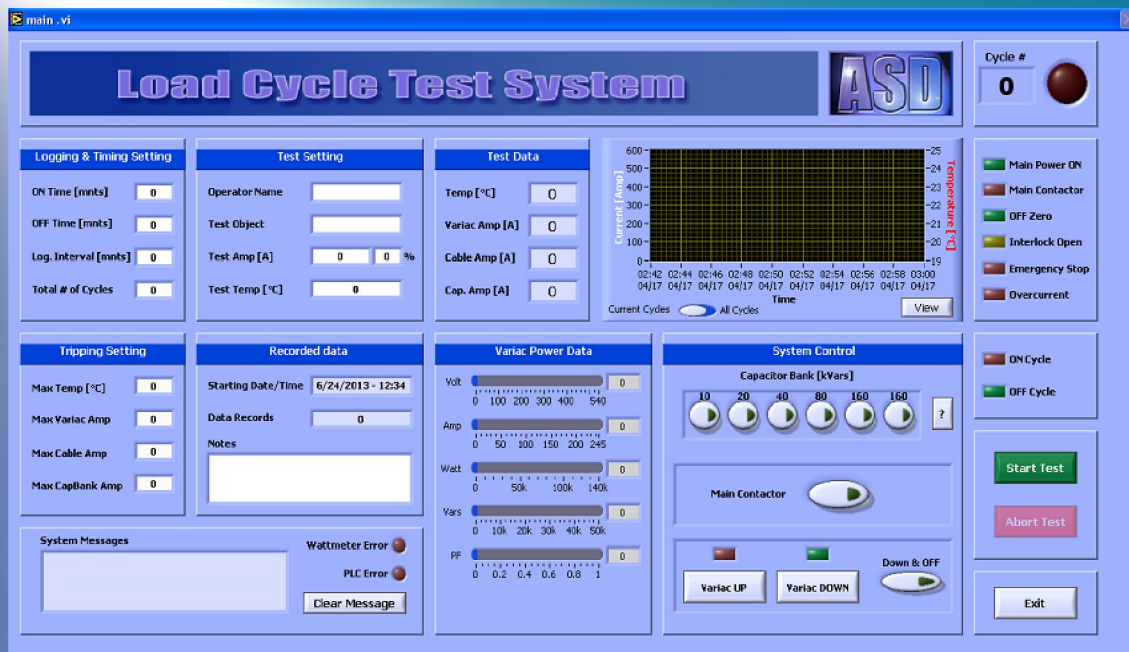
The software offers a window to specify user configurable parameters that help control the system and perform the right test procedure regarding the cable's specifications.



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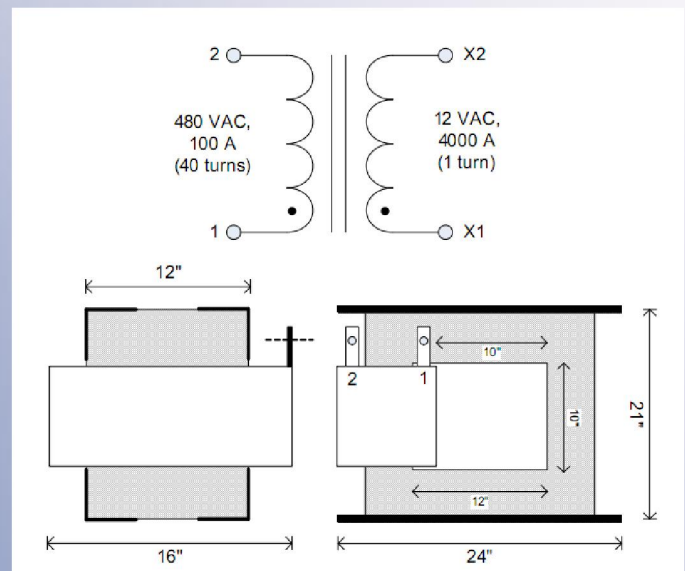


Technical Specifications

ASD reserves the right to change certain ratings or design parameters of individual components without affecting the overall system performance or guaranteed performance levels.

High current transformer assembly:

- Primary Winding: 480 VAC, 1 PH, 60 Hz
- Secondary Winding: 12 VAC, 4000 Amps, 1 turn
- Current transformer window is 10" x 10"
- One current transformers is installed on a platform with caster wheels (Note: Optional Two transformers can be installed on a platform)
- Platform dimensions: 16" x 24"
- Platform assembly can be wheeled around or forklift / crane liftable.



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