

## WHAT AN HRG SYSTEM CAN NOT DO FOR YOU

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In no case does resistance grounding limit or mitigate the magnitude of phase to phase faults. It only works on initial phase to ground faults.

- 1 . Confused about your overall system?
- 2 . Do you have informed employees?
- 3 . Do you have proper test equipment?
- 4 . Do you understand multiphase arc flash hazards on an HRG system?

## WHAT ELSE SHOULD I KNOW?

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As with any electrical system, properly designed and installed HRG systems provide the maximum protection for employees and management.

Obviously employees working and/or testing a faulted HRG system are exposed to the same arc flash hazard as if the system was solidly grounded. Do your workers know this and understand the risk?

This important information is provided by:

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## UNDERSTANDING HIGH RESISTANCE GROUNDING

### *Benefits of an HRG System*



# IS A HIGH RESISTANCE GROUNDED SYSTEM RIGHT FOR YOU?

“High resistance grounding provides the same advantages as ungrounded systems yet limits the steady state and severe transient over-voltages associated with ungrounded systems.... There is no arc flash hazard as there is with solidly grounded systems....” IEEE Std. 141-1993

This statement is true ONLY for the initial phase to ground fault. A second ground fault on different phase can have the same arc flash hazard as if the system was solidly grounded.

Is there more about this type of system that you need to know? Some reasons for limiting current are:

1. Reduce burning and melting effects on equipment
2. Reduce mechanical stresses in circuits
3. Reduce electric-shock hazards
4. Reduce arc blast or flash hazard
5. Reduce momentary line-voltage dip
6. Secure control of transient over-voltages to avoid shutdown of circuits

## CAN YOUR EMPLOYEES QUICKLY LOCATE THE FAULT?

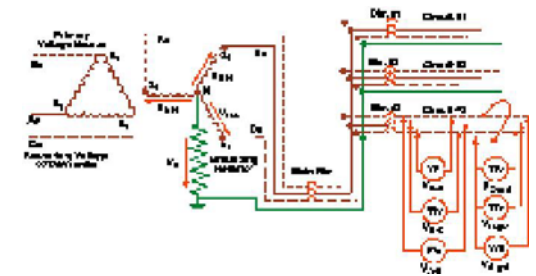
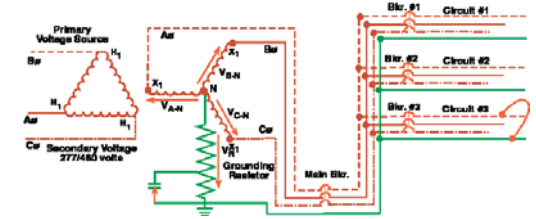
Training can help them understand the theory of HRG systems and the methods for detecting faults. The grounding and bonding of equipment and circuits are presented. NEC© requirements are explained. ATC can conduct a four hour course at your location that will enable each employee to ask questions and review basic grounding theory, design and application.

**Call today to schedule this class at your location: 972-889-9075**

## BENEFITS OF AN HRG SYSTEM

- High Resistance Grounded systems typically use ground-fault current levels of 10A or less.
- It provides increased reliability through fewer outages.
- Since grounded systems are now the predominant choice in industrial facilities, the use of resistors will provide the maximum benefit and protection.
- Basic circuit knowledge for employees provides basis for understanding of HRG systems and how to maintain them.

## SOME OF MANY TYPICAL DIAGRAMS FOR HRG SYSTEMS



Can your employees correctly interpret these circuits?

## EXPERT ASSISTANCE AT FEES YOU CAN AFFORD

We often save clients more than the cost of our service alone. So why not call or email us today?

Call 972-889-9075 or email: [info@atc-trng.com](mailto:info@atc-trng.com)