Specification

Supply:
525Vac +15% - 35%, 3-phase 50 Hz, also suitable for use on VSDs or inverters.
Burden: approximately 8VA per phase

Excitation:
200mA for 2 msec every second
Continuous leakage: less than 1mA

Resistance measurement:
Range: 0 – 500 Ω
Measurement resolution: 4 Ω

Trip output:
Nominal switching voltage: 110 – 525Vac, 50 – 60 Hz
Current rating: 3A continuous, 15A for 0.2 sec
Max. voltage between open contacts before clampdown: 600Vac
Normally open, leakage: about 3.5mA at 525V, 50Hz
Dielectric strength between contacts and Neutral reference: 2500Vac

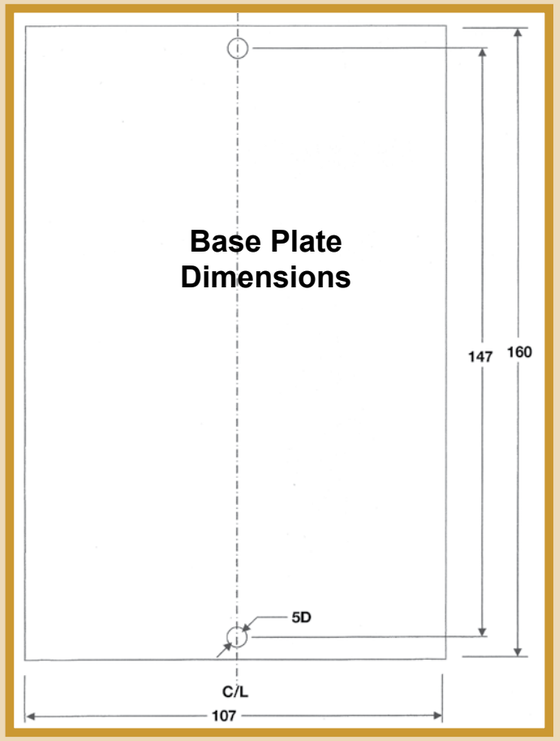
Trip indication:
Red flashing LED, able to flash up to three days when power is disconnected

Operating temperature range:
-5 to +70°

Storage temperature range:
-40 to +85°C

Dimensions:
127 x 107 x 60mm

Mounting Plate:
160 x 107mm



Consider this:

If people's lives are your responsibility you need the EWM550.

If the integrity of your earth wire system cannot be guaranteed at all times, you need the EWM550.

So let the EWM550 monitor your earth wires and manage your electrical safety.

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JOJEN SUPPLIES

Earth Wire Monitor – EWM550

Profit and production are the key to your success.

However, if these are to be achieved by compromising on safety, then best you reconsider your business model.

The EWM550 is a unique device offering you increased peace of mind in the most hostile of operating environments.

It works with the electrical supply system to monitor and alert you to a deterioration of the earthing system allowing you to react before your production is affected – but protecting your plant and personnel in the case of a dangerous condition developing.

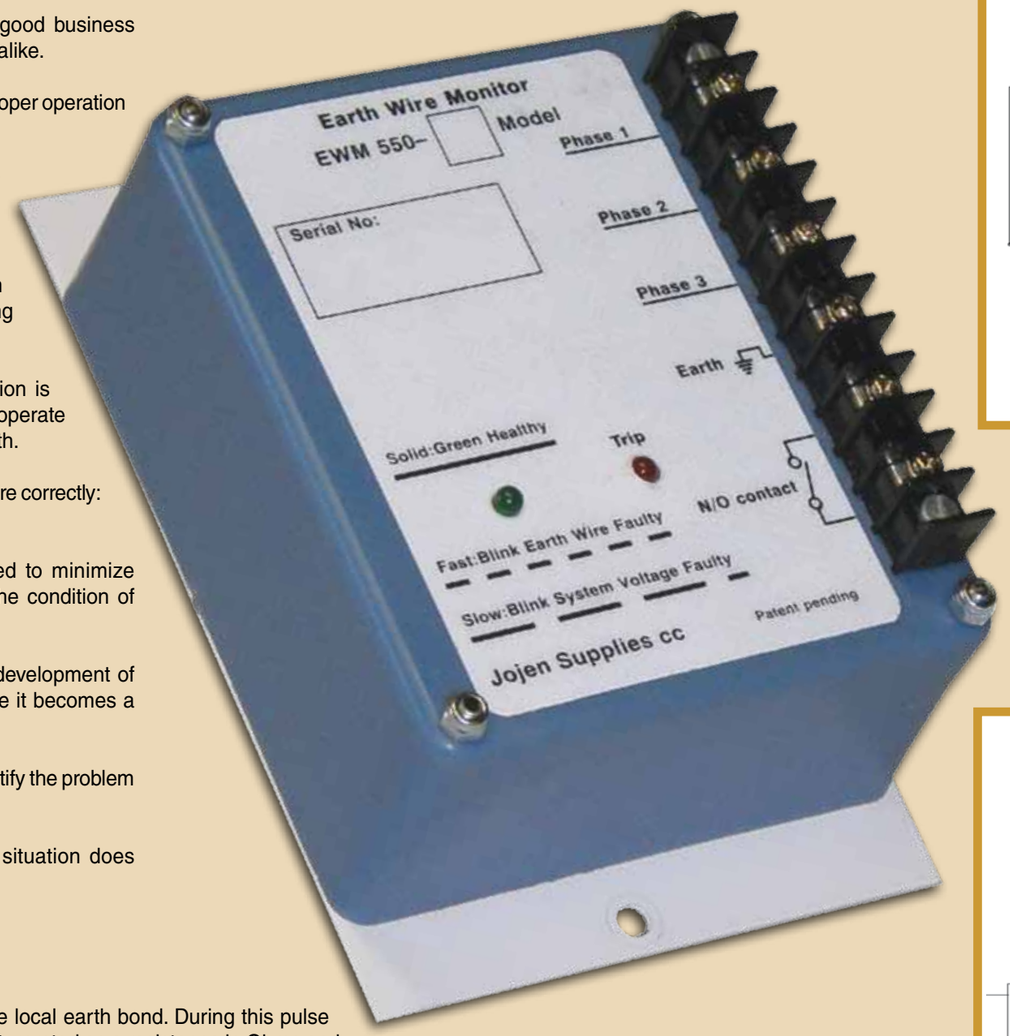
Features

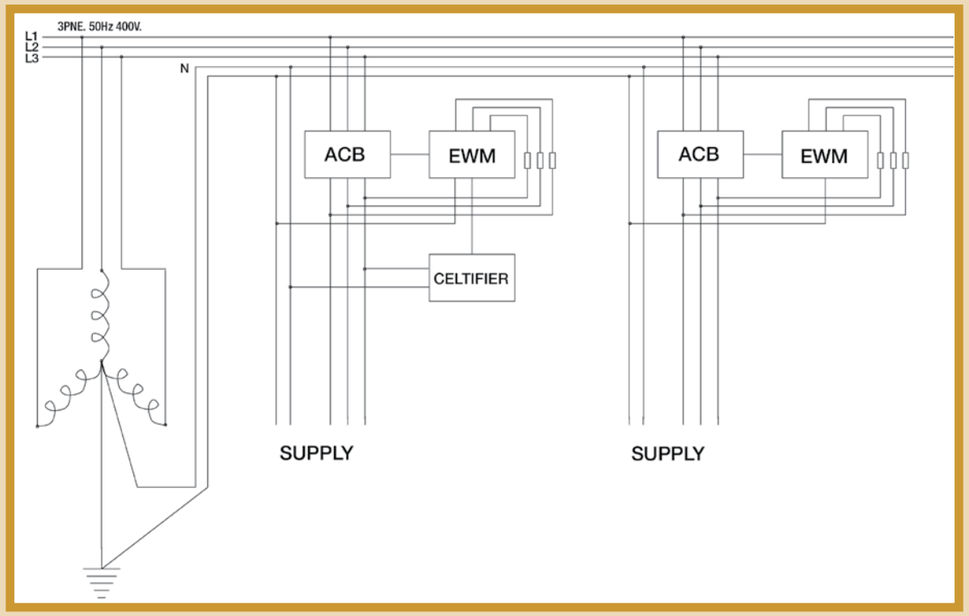
- Continuous monitoring of earth bond integrity.
- Connects to 400/525V 3-phase system.
- For safety the maximum energy available at the local earth is 380/525V limited to 0.3 Joule / pulse.
- Three different trip times and levels available for discrimination.
- Able to withstand failure of one phase or 50% supply voltage.
- LED indication for trip condition, also when power is off.
- Totally solid state, shock-proof: no moving parts.

What value the earth wire?

Safety is the most important thing at your plant.

- The highest safety standards are demanded by good business practice, legislators, employees and shareholders alike.
- In any electrical system the earth wire is the key to proper operation of your electrical safety system.
- But what is the condition of the earth wire at your plant? Do you know? And can you monitor it? Is the earth wire even intact?
- Earth wires carry no load current and are often damaged (or even stolen), severely compromising the operation of your system.
- Often the deterioration of the earth wire connection is only recognized after the protection has failed to operate correctly—in many cases resulting in injury or death.
- The EWM550 helps you value the role of the earth wire correctly: as the key to electrical safety at your plant.
- The EWM550 has been designed and developed to minimize nuisance tripping while continuously monitoring the condition of the earth wire.
- Continuous monitoring allows you to identify the development of a high resistance condition in the earth wire before it becomes a problem.
- Continuous monitoring allows you to identify and rectify the problem in good time.
- Continuous monitoring also ensures that, if the situation does become dangerous, the supply can be tripped.





Operation

A pulse of limited current and duration is applied to the local earth bond. During this pulse the change in voltage at the earth bond is measured, interpreted as a resistance in Ohms and compared to a limit. This pulse is applied every second.

When a preset resistance limit is exceeded a solid state N/O trip output is activated after a preset delay and for approximately 2.5 sec. The red LED will flash for approximately five seconds after a good earth bond has been restored.

Solid Green LED = Healthy Earth Connection
Fast Blinking Green LED = Earth Wire Faulty
Slow Blinking Green LED = System Voltage Faulty