

nIm3 Neutral Link Monitor

Leaders in Innovative Protection Systems, Bramco's nIm3 is compliant to the latest statutory and industry standards. The Bramco Neutral Link Monitor relay (nIm3) is a NER integrity protection device designed to continuously monitor the current limitation system on the secondary star point to earth connection of a supply transformer.

The unit can also be utilized to monitor a direct connection to earth from the star point. The NLM3 monitors the NER Resistance integrity, excess phase voltage rise, neutral earth leakage current, with the ability to adjust trip times for protection coordination.

nIm3 Features:

The nIm3 connects directly to AC supply systems with line voltages up to 1100 Volt without any additional barrier assembly.

It can also be utilized on systems with line voltages up to 4160 Volt with the addition of a barrier assembly.

Earth Leakage Current is monitored in the neutral to earth circuit using an external EL toroid (Toroid not included).

LED indication of Power On, NER integrity, Excess Voltage and Earth Leakage current

The unit is configured as fail safe and latch on fault.

- Back up protection is provided by detecting voltage rise across the NER.
- Trip Delay Times are individually adjustable for:
 - o Earth leakage
 - o NER integrity
 - o Over-voltage
- Adjustable earth leakage current trip.
- Adjustable excess voltage trip
- Adjustable NER resistance limits.
- Earth leakage frequency response range selectable: 50 – 60Hz or 5 – 100Hz.
- Open circuit toroid protection.
- Reset push button input provided.
- Time-stamped log of trip events.
- Password protection for setting all parameters.

Mounting: Convenient DIN Rail Mounting with screw terminals.

Material: High impact PVC housing.

Communications: RS485 serial port Modbus ASCII / RTU

Instrumentation output: 4-20 ma or 2-10 volt

Specifications:

Power Input: 110-240VAC 50/ 60Hz
24-48VACDC

NER Resistance Values: NER 24 to 650 ohms depending on system voltage and limiting current required.
Consult the factory for your system needs.

Earth Leakage System Voltages: Models to suit

- 415 /1100V - 240/635V phase
- 3.3kV/4.16kV - 1900/2500V phase

NER trip value adjustment: -50% to +100%
(as required in AS/NZS 2081 – 2010)

Trip Tolerance: -10% to +0%

Trip Delay Timer:

- 50 to 500 milliseconds for over-voltage and earth leakage.
- 2 to 10 seconds for NER integrity

Excess Voltage Trip: 5 - 50% phase voltage

Relay Contacts: - 2 pole changeover 5A 240V AC for earth leakage
- 2 pole changeover 5A 240V AC for over-voltage and NER integrity

Operating Temperature: 0 - 60Deg C

Enclosure Dimensions: 150mmW x 75mmH x 110mmD

Material: High impact resistant polycarbonate

Weight: 900g

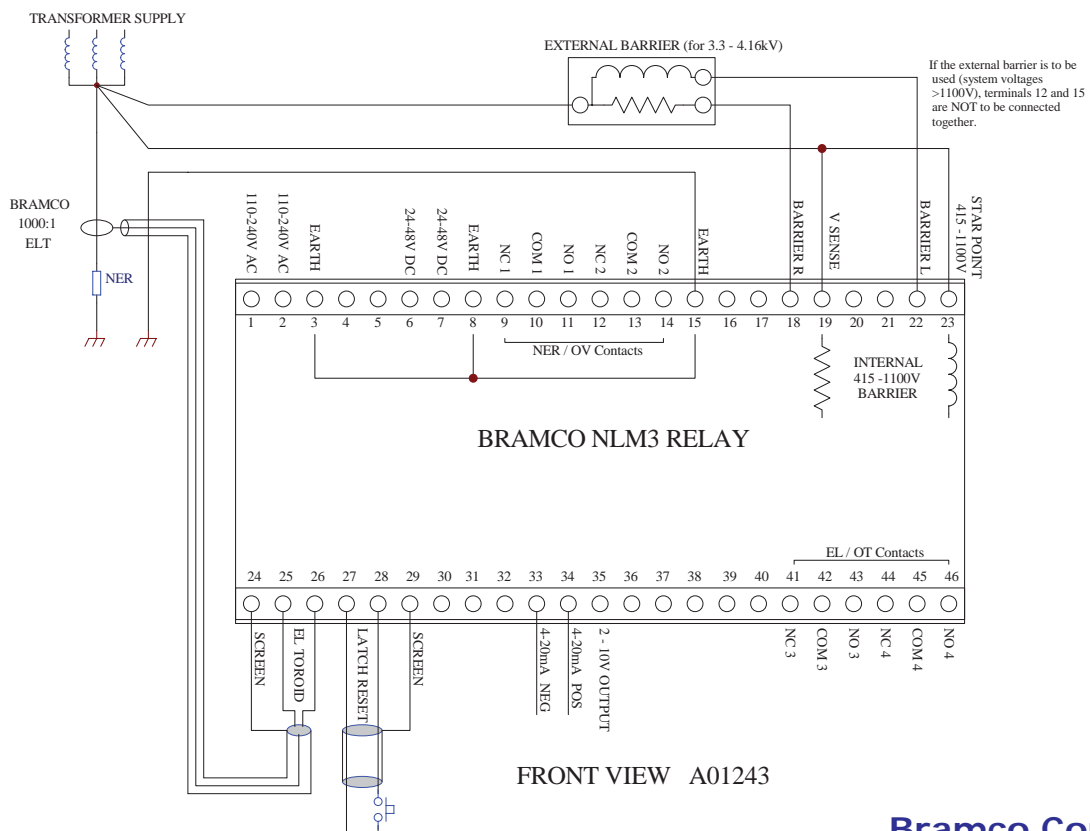
Ordering Information:

A01243 Neutral Link Monitor - nIm3
 A01334 40mm Toroid 1000:T
 (see factory for alternate sizes)
 A00014 Isolation Barrier 3.3KV

Compliance:

AS/NZ 2081:2002
 • Electrical Equipment for Mines
 • Electrical Protection Devices.
 The nIm3 comes with a 2 year warranty.

Connection Diagram:



Bramco Contacts:

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