

Insulation monitoring device (IMD) for offline applications



Principle of operation

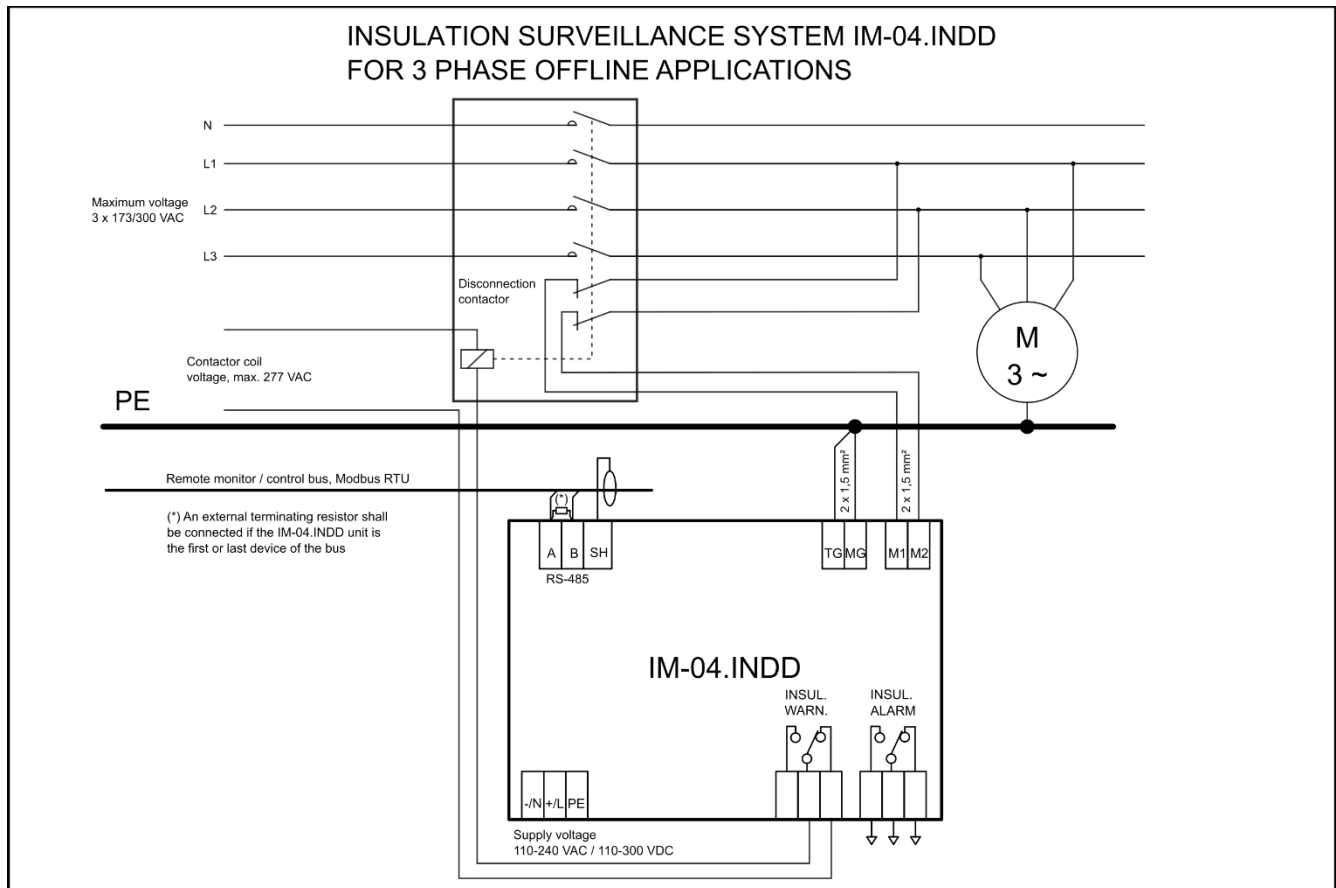
The system is equipped with a disconnection contactor which is controlled by the IMD. When the system is started, the disconnection contactor is open, disconnecting the load network from the supply network. At the same time, the NC auxiliary contacts of the disconnection contactor connects the supply network to the measurement input connectors of the IMD. When the load network is supposed to be connected to the supply network, a command is sent to the IMD through the Modbus RTU interface. After receiving the connection command, the IMD disables insulation monitoring and powers the disconnection contactor, which connects the load network to the supply network and disconnects the measurement inputs from the load network. Disconnecting the load network from the supply network works the same way in the opposite manner.

The disconnection contactor must have 4 NO contacts and 2 NC auxiliary contacts. A suitable type is, for example, ABB AF116B-40-22-13 for up to 55 kW loads or some higher power version of the similar type. The voltage rating of the auxiliary contacts must be suitable for the network voltage.

Possible IMD models are:

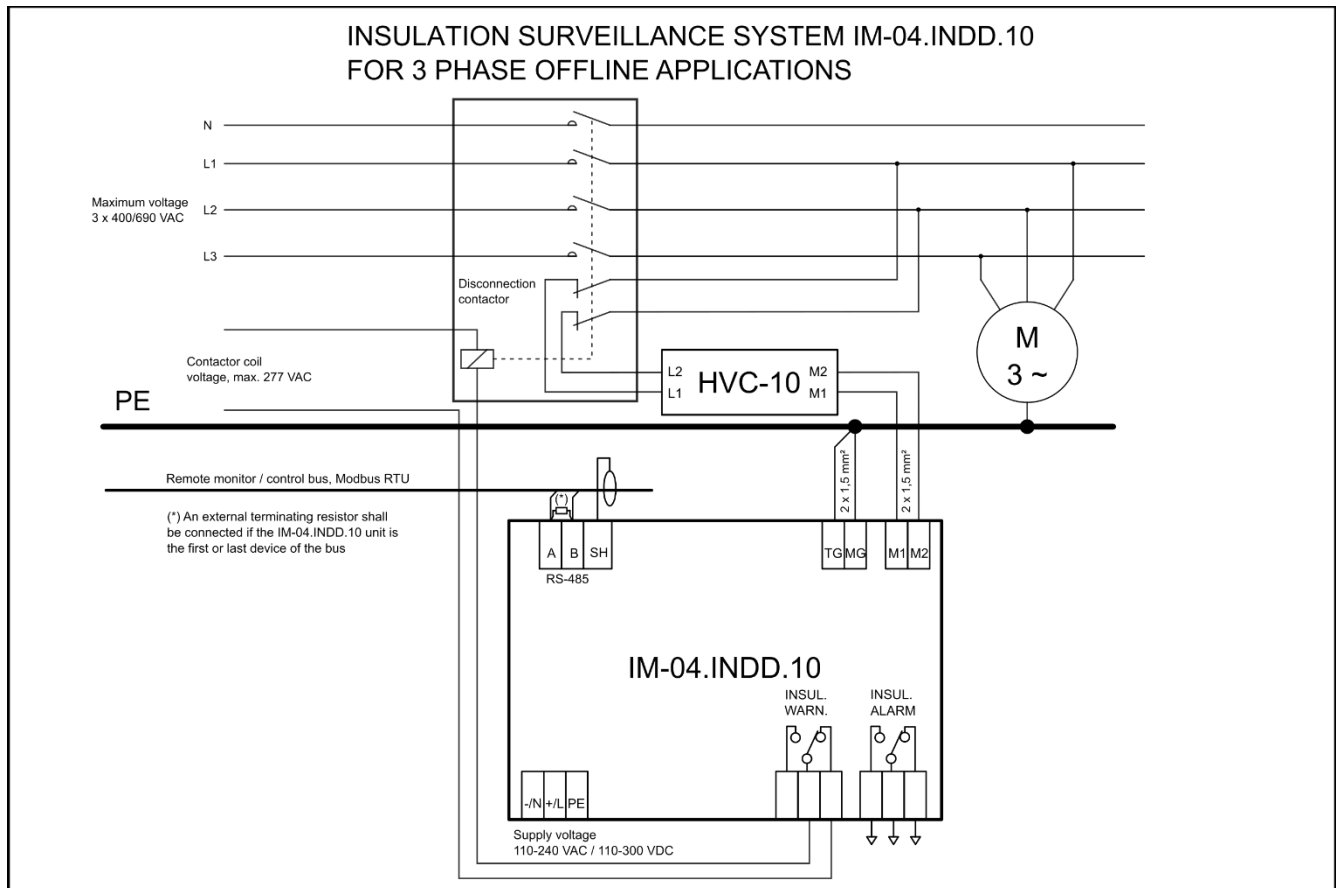
- IM-04.INDD up to 3 x 173/300 VAC
- IM-04.INDD.10 + HVC-10 up to 3 x 400/690 VAC
- IM-01.INDD up to 3 x 400/690 VAC





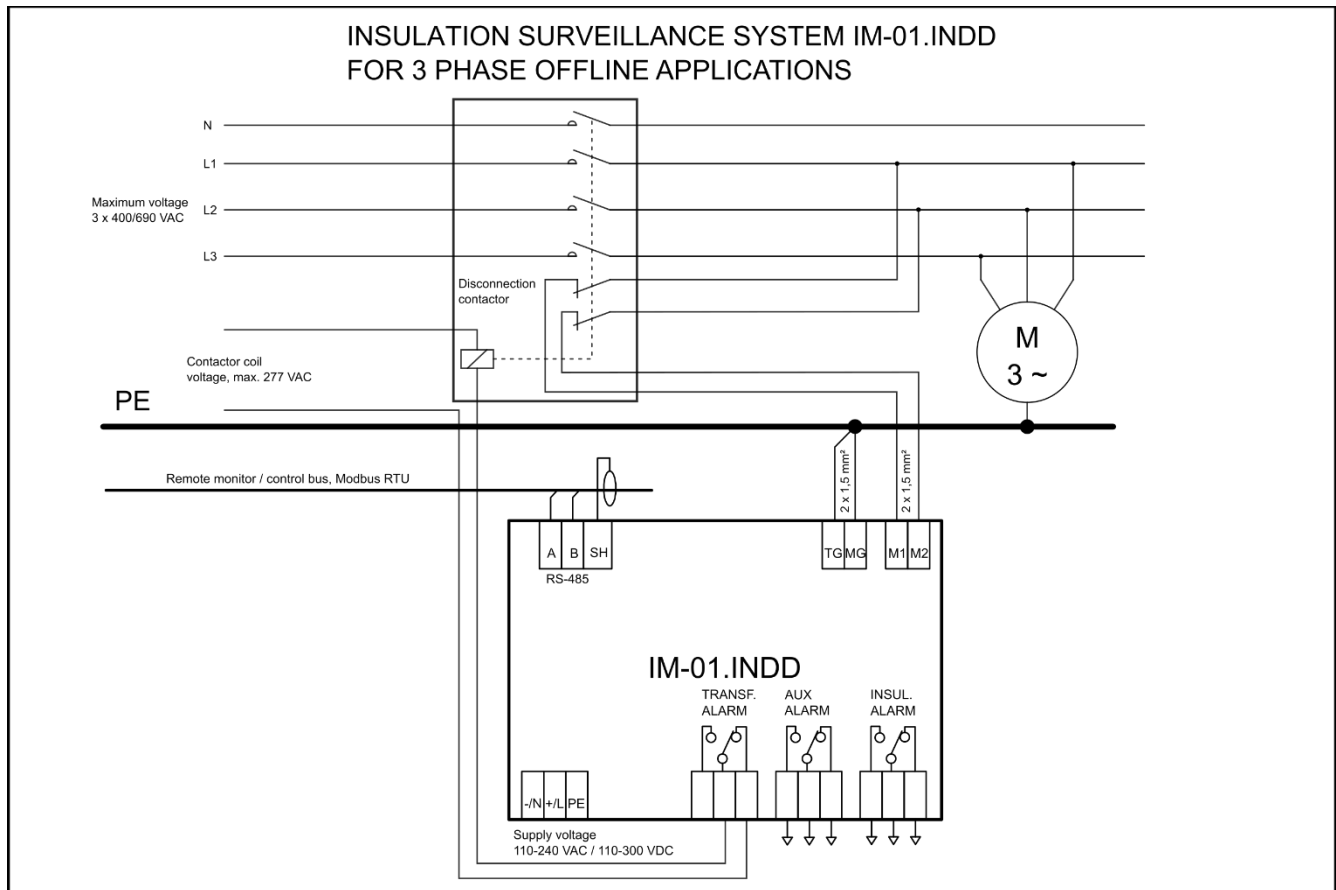
Connection diagram of IM-04.INDD





Connection diagram of IM-04.INDD.10 + HVC-10





Connection diagram of IM-01.INDD

