

Claims

1. A bypass device for replacing a direct meter without supply interruption to a customer load comprising:

5 a first and a second miniature circuit breaker (MCB) switches;

a first pair of permanent magnetic contacts provided on each of an in port the first and second MCB switches and adapted to be connected to an in port and an out port of the incoming supply of the meter;

10 a second pair of permanent magnetic contacts provided on each of an out port of the first and second MCB switch and adapted to be connected to an in port and an out port of the customer load;

a first indicator connected to the in port of the first MCB switch and the out port of the second MCB switch,

15 a second indicator connected to the in port of the first MCB switch and the in port of the second MCB switch and adapted to be connected to the in port and the out port of the incoming supply of the meter, and

a third indicator connected to the out port of the first MCB switch and the out port of the second MCB switch and adapted to be connected to the in port and the out port of the customer load.

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2. The bypass device of claim 1 further comprising:

a pair of relays connectable to each other via the first and second MCB switches.

3. The bypass device of claim 1 wherein each of the first, second and third indicators

25 comprises one of light bulbs and voltmeter.

4. The bypass device according to any one of claims 1-3 further comprising a movable mount with securing means for securing the first and the second MCB switches, the first

and second pairs of permanent magnetic contacts and the first, second and third indicators to the movable mount.

5. The bypass device according to any one of claims 1-4 wherein each of the first and
5 second pairs of permanent magnetic contacts comprises a permanent magnetic rod.

6. The bypass device according to claim 5 wherein each of the first and second pairs
of permanent magnetic contacts further comprises an electrical connector having a housing
and a fastener electrically connected to the first and second MCB switches and one end of
10 the permanent magnetic rod.

7. The bypass device according to any one of claims 1-6 wherein each of the first and
second pairs of permanent magnetic is neodymium magnet made of an alloy of neodymium,
iron and boron.

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8. The bypass device according to claim 7 wherein each of the first and second pairs
of permanent magnetic is coated with nickel.

9. A method of replacing a direct meter using the bypass device of anyone of claims
20 1-8 without supply interruption to a customer load comprising:

connecting the first pair of permanent magnetic contacts to an incoming exposed
screw and an outgoing exposed screw of a first MCB of the direct meter;

connecting a second pair of permanent magnetic contacts to an incoming exposed
screw and an outgoing exposed screw of a second MCB of the direct meter;

25 checking the first, second and third indicators of the meter bypass device;

in response to the first, second and third indicators lighting up, switching on the first
and second MCB switches of the bypass device;

switching off the first and second MCBs of the direct meter and replacing the direct meter with a new direct meter.

10. The method of claim 9 further comprising:

5 upon completion of the replacement of the new meter, switching on the first and second MCBs of the new direct meter;

switching off the two MCB switches of the bypass device; and

disconnecting the first and second pairs of permanent magnetic contacts from the first and second MCBs of the new direct meter.

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