

Ulusoy HMM24-03 Voltage Measurement Switchgear User Manual



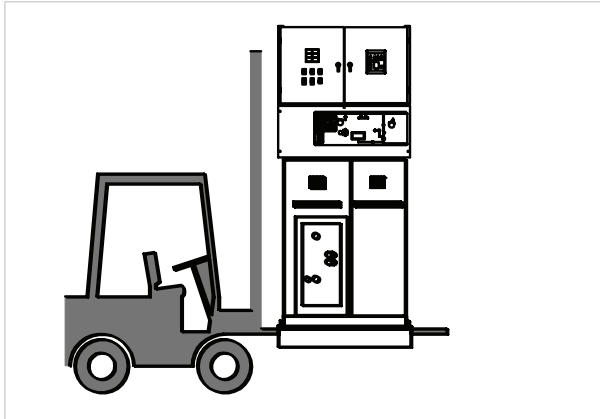
Powering Business Worldwide

Table of Contents

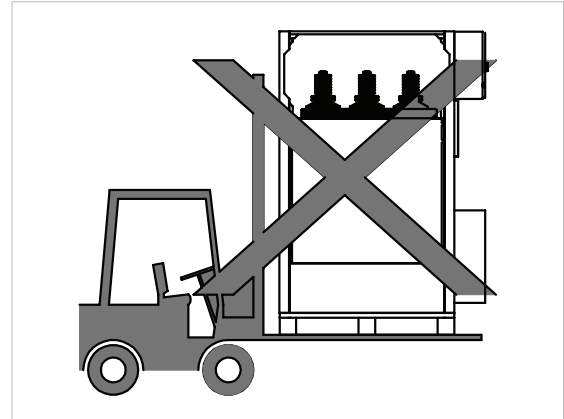
TRANSPORTATION INSTRUCTIONS.....	1
STORAGE INSTRUCTIONS.....	2
PREPARING THE SWITCHGEARS FOR INSTALLATION.....	2
INTRODUCTION OF SWITCHGEAR.....	3
DIMENSIONS.....	4
CHECKS BEFORE ENERGIZING THE SWITCHGEARS.....	5
TRIAL OPERATION TO BE PERFORMED BEFORE ENERGIZING SWITCHGEARS.....	5
ENERGIZING THE SWITCHGEAR.....	6
OPERATION INSTRUCTIONS.....	7
INSTALLING PADLOCK.....	10
SAFE USE.....	11
TROUBLESHOOTING.....	11
TERMINAL DIAGRAM.....	11

Transportation Instructions

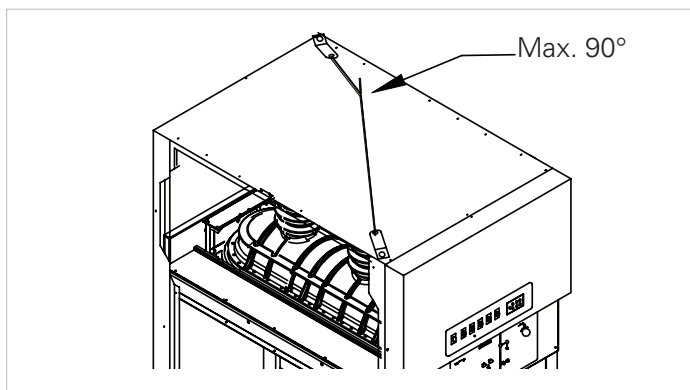
Transportation with Forklift



Carry with palette!

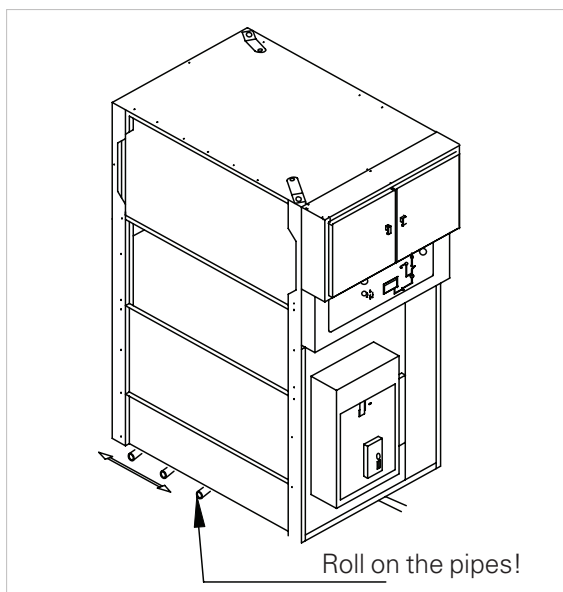


Transportation with Sling

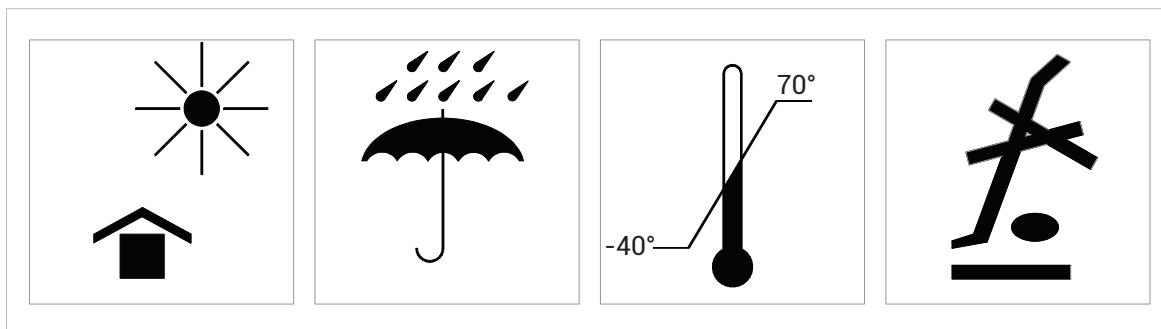


Remove the bolts which mounts the switchgear to the pallet.

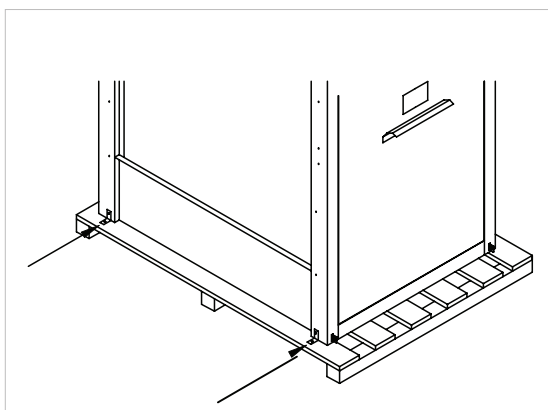
Transportation on Pipes



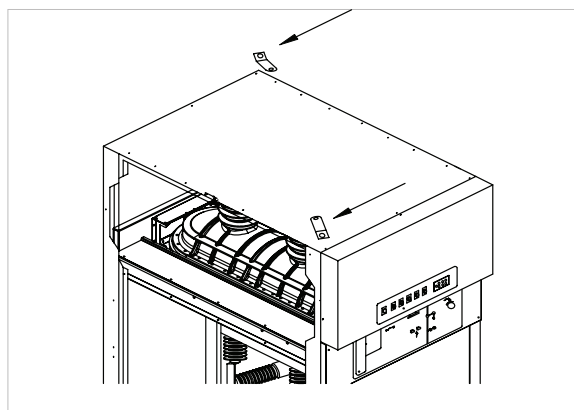
Storage Instructions



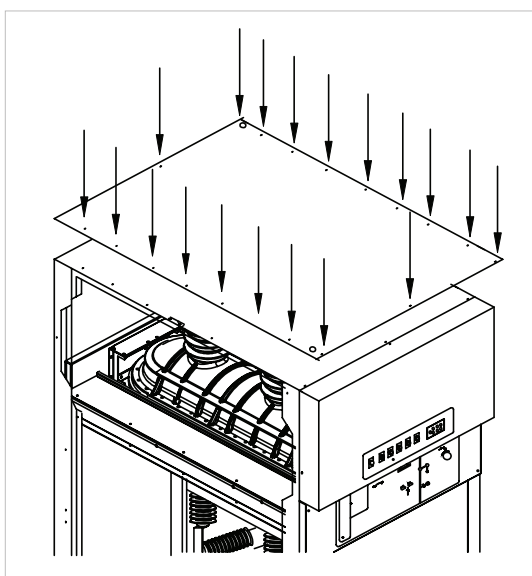
Preparing the Switchgears for Installation



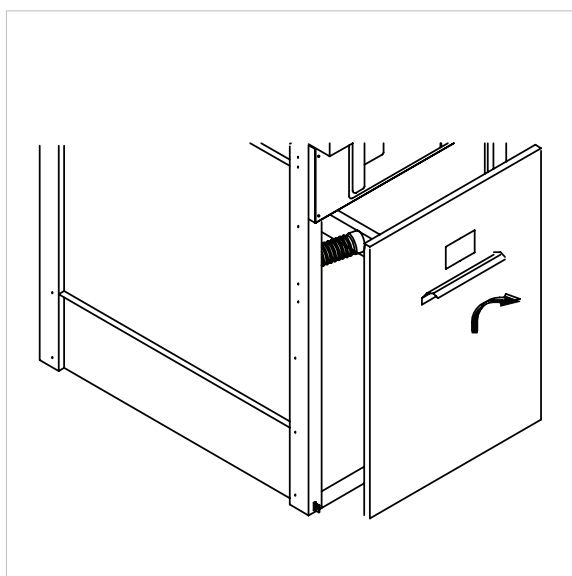
Remove the bolts which mounts the switchgear to the palette.



Disassemble the lifting plates.



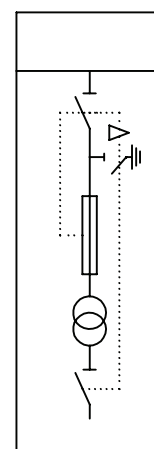
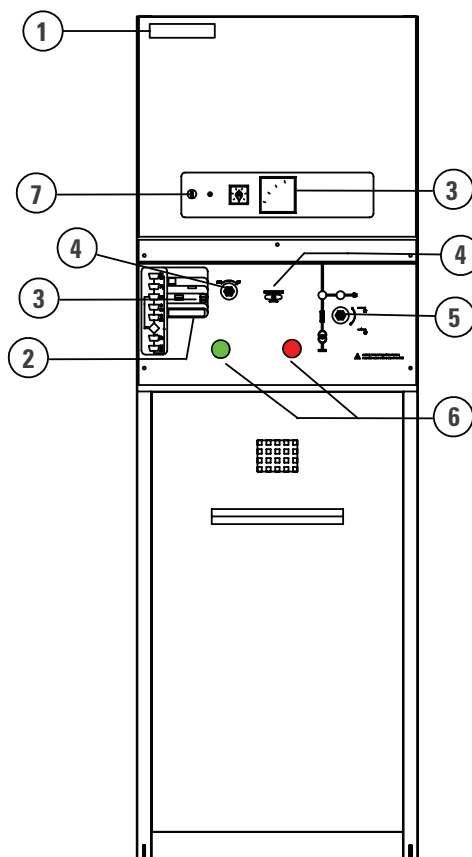
Disassemble the top sheet metal.



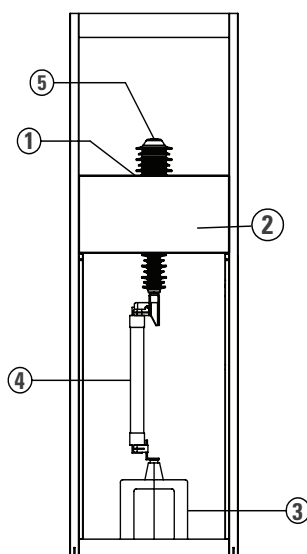
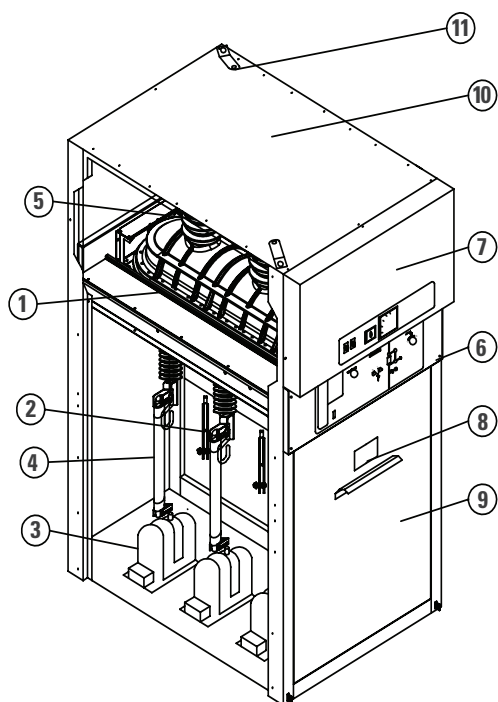
Pull out the front cover of the switchgear.

Introduction of Switchgear

1	Switchgear Type Label
2	Switchgear Details
3	Switchgear Process Order Flowchart
4	Closing Spring Installation Housing
5	Earth Isolator Control Housing
6	On / Off Buttons
7	Internal Lighting Buttons
8	Voltmeter
9	Padlock Housing



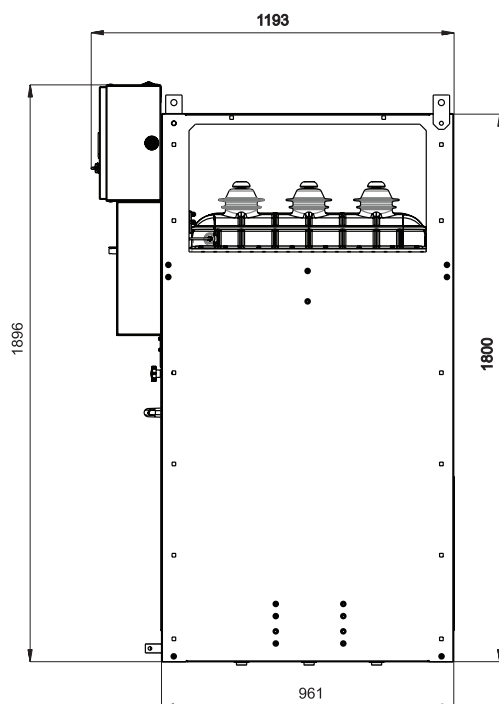
Single line scheme



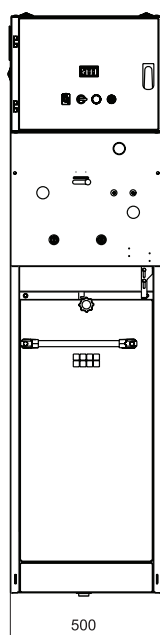
1	Isolator
2	Earth Isolator
3	Voltage Transformers
4	MV Fuses
5	Bar Connection Terminals
6	Mechanism Section
7	LV Board
8	Monitoring Window
9	Switchgear Front Cover
10	Ceiling Plate
11	Lifting Rings

Earth Isolator (in the vessel)

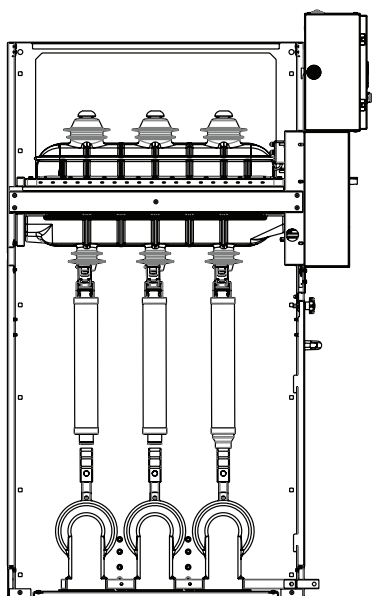
Dimensions



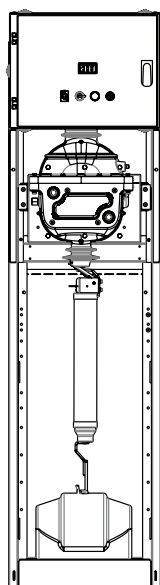
Side view



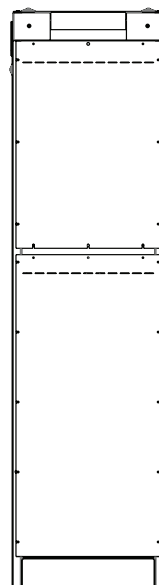
Front view



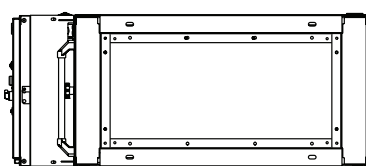
Internal side view



Internal front view



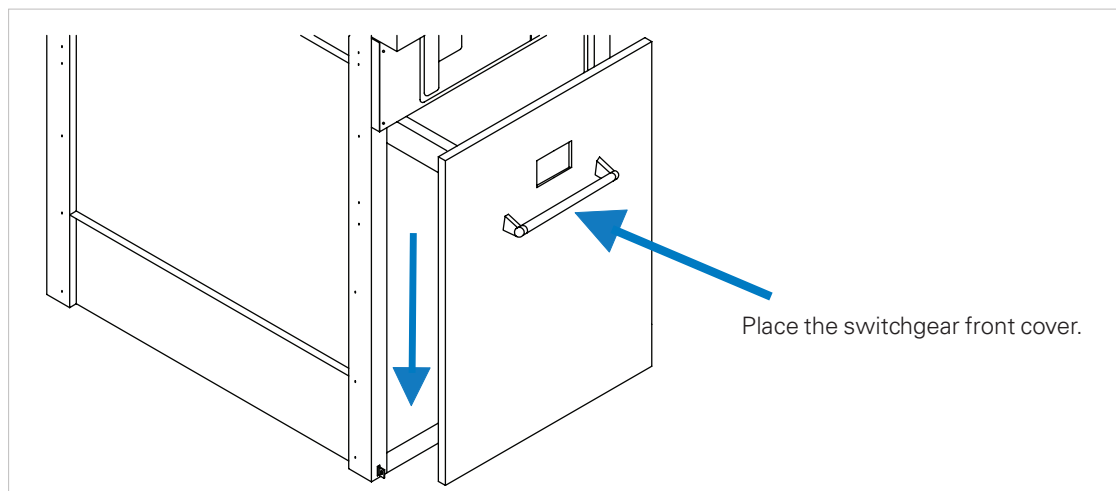
Back view



Top view

HMH24-03 Checks Before Energizing the Switchgears

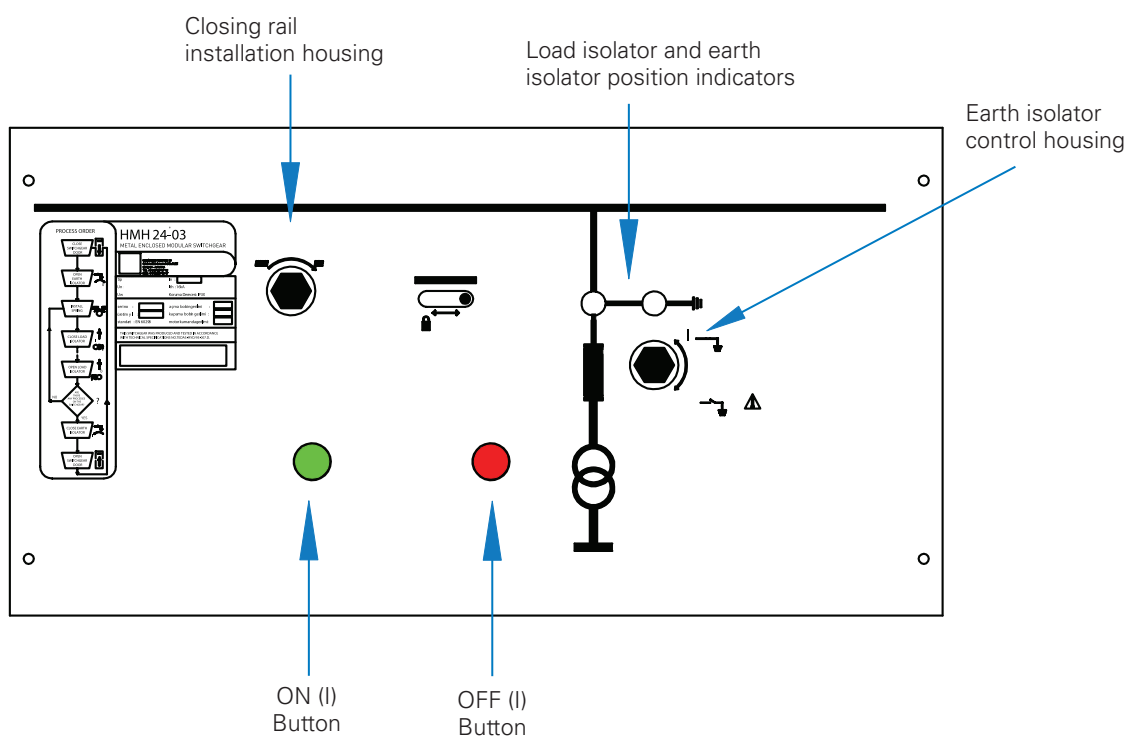
Check if there are foreign objects in the switchgear.
Check the connections of the switchgear.



Ensure that front cover is placed firmly.

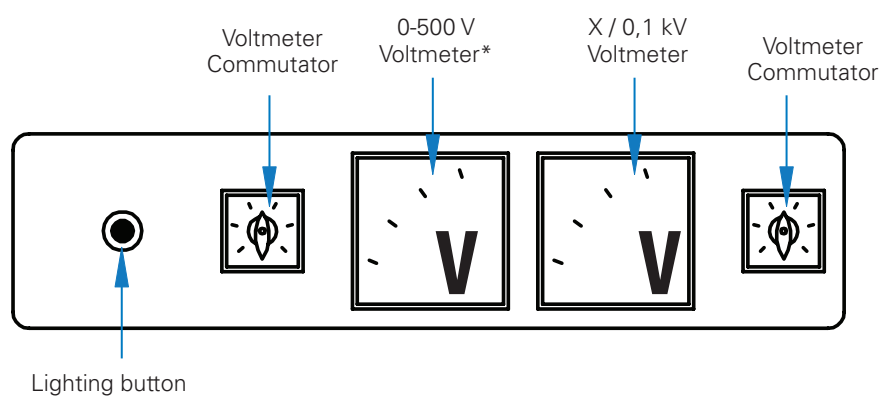
If the front cover is not placed firmly, control arm cannot be placed on the installation housing.

HMH24-03 Trial Operation to be Performed Before Energizing Switchgears



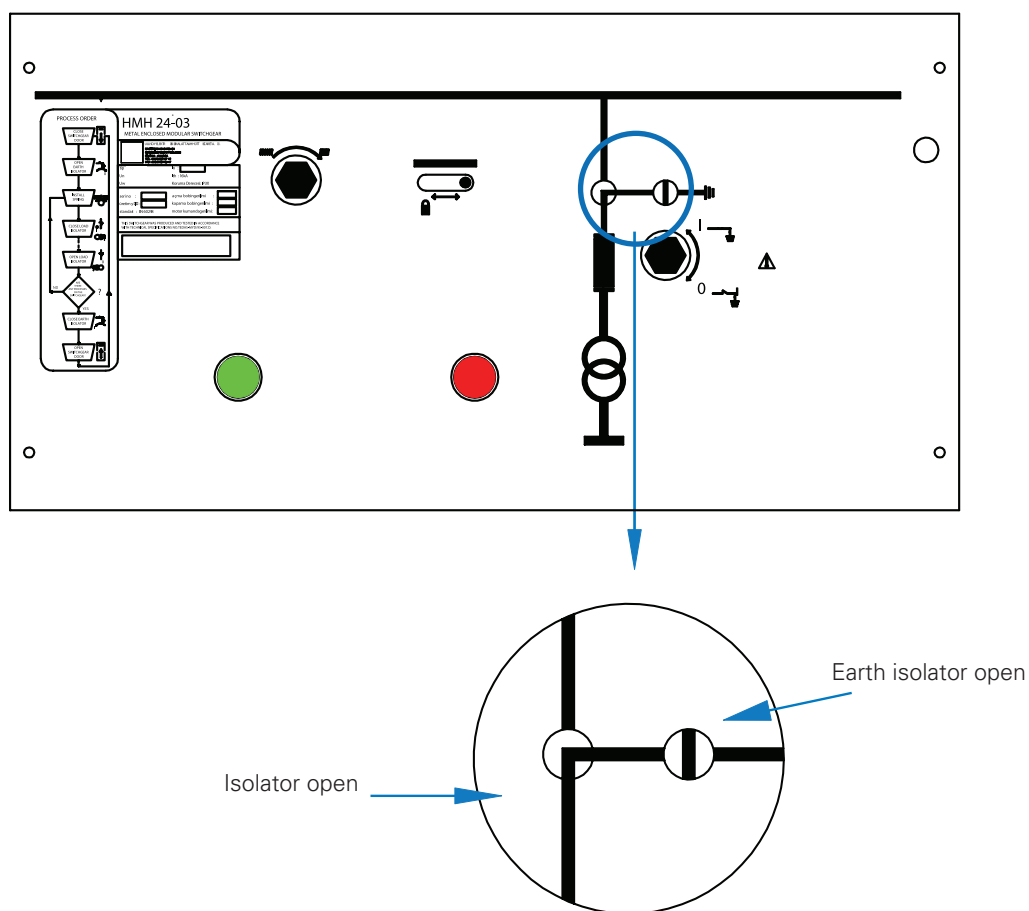
Operate isolator and earth isolator a few times.

HMH24-03 Board Control Panel of Switchgears



0-500V Voltmeter is available if it is used as Aux supply.

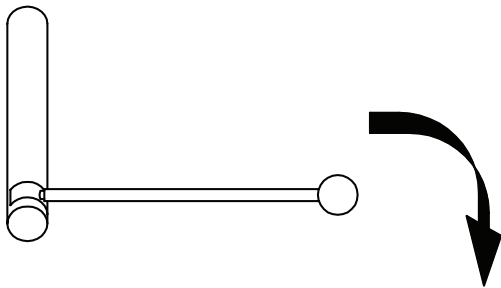
Energizing the Switchgear



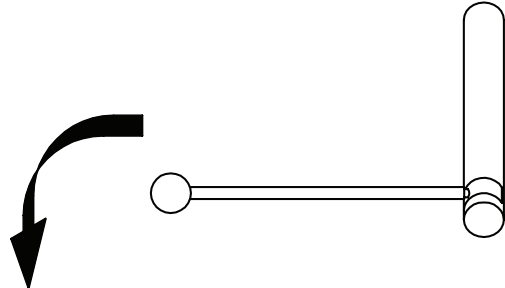
Earth isolator must be open.(See operation instructions section.)

Operation Instructions

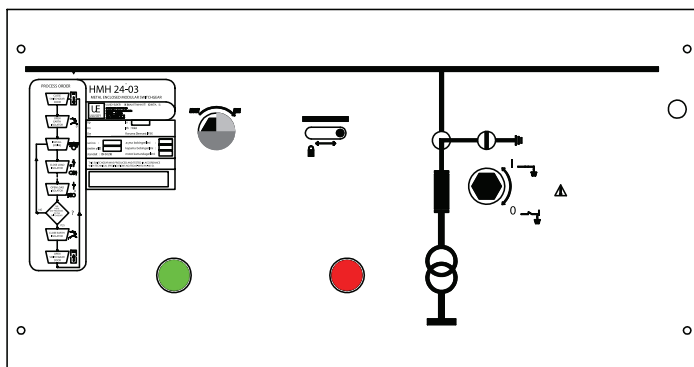
Manual use and front view



Place the control arm as shown in order to install the load isolator closing spring and to open the earth isolator, and rotate in arrow direction.



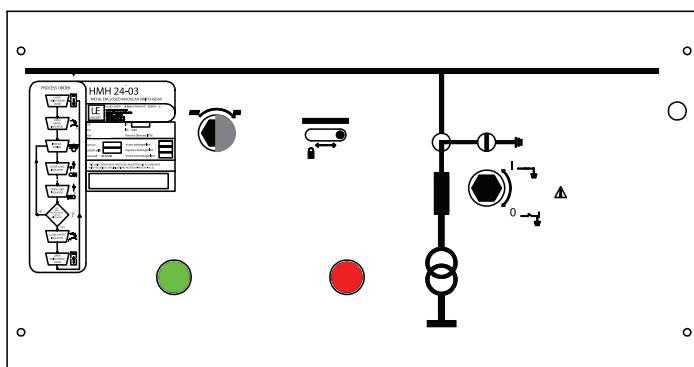
Place the control arm as shown in order to close the earth isolator, and rotate in arrow direction.



When starting after assembly works are completed:

Place the installation arm to installation housing as shown and rotate in arrow direction.

Ensure that installation sound is heart when installing the closing spring.

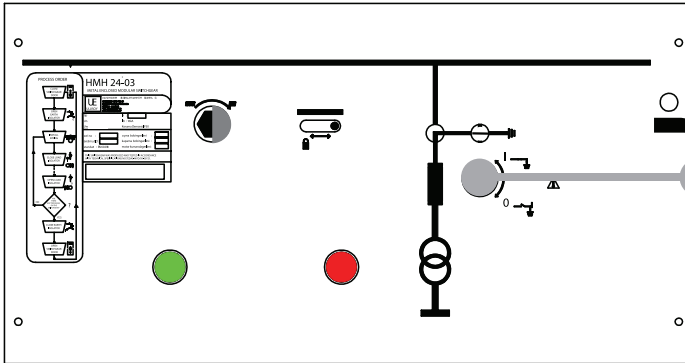


After switchgear front cover is closed:

Earth isolator closed, closing spring idle (load isolator open), switchgear front cover closed.

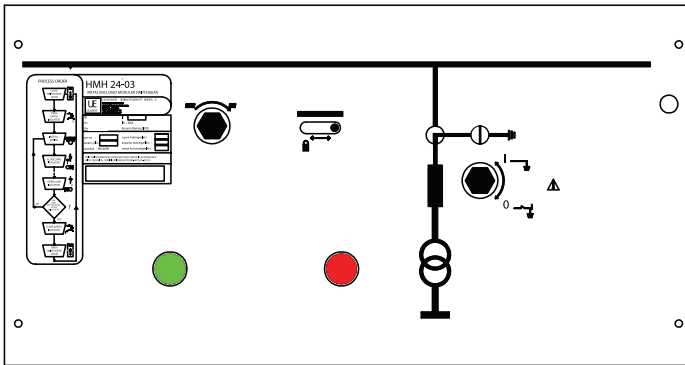
Operation Instructions

Earth isolator maneuvers



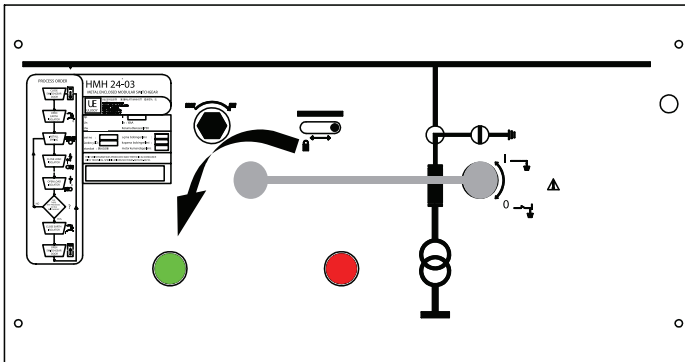
OPENING THE EARTH ISOLATOR:

Place the control arm in earth isolator control housing as shown and rotate in arrow direction.



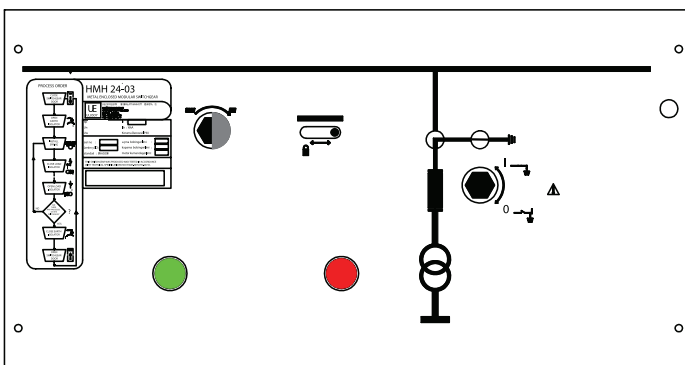
Position After the Earth Isolator is Opened:

Earth isolator open, closing spring idle (isolator open) switchgear front cover closed.



CLOSING THE EARTH ISOLATOR:

Place the control arm in earth isolator control housing as shown, and rotate in arrow direction.

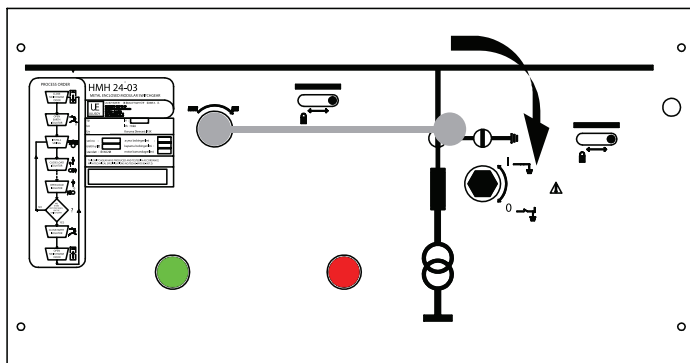


Position After the Earth Isolator is Closed:

Earth isolator closed, closing spring idle (load isolator open) switchgear front cover closed.

Operation Instructions

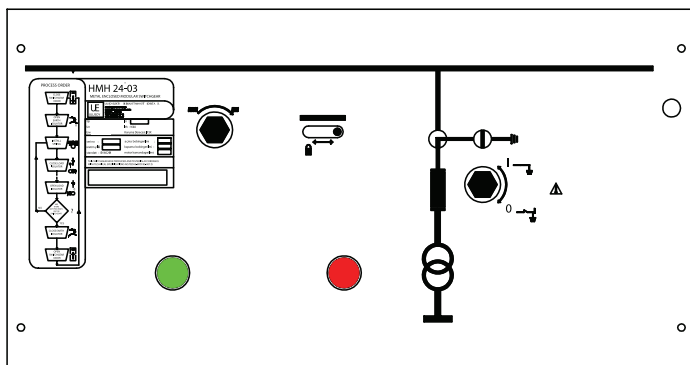
Isolator maneuvers



INSTALLING THE CLOSING SPRING:

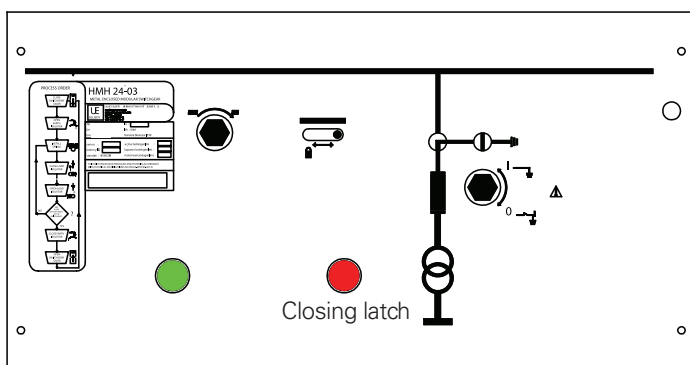
Place the installation arm to installation housing as shown and rotate in arrow direction.

Ensure that installation sound is heart when installing the closing spring.



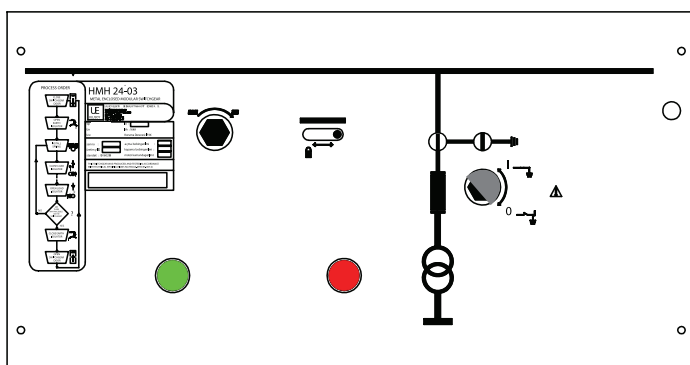
After the closing spring is installed:

Earth isolator open, closing spring installed (isolator open).



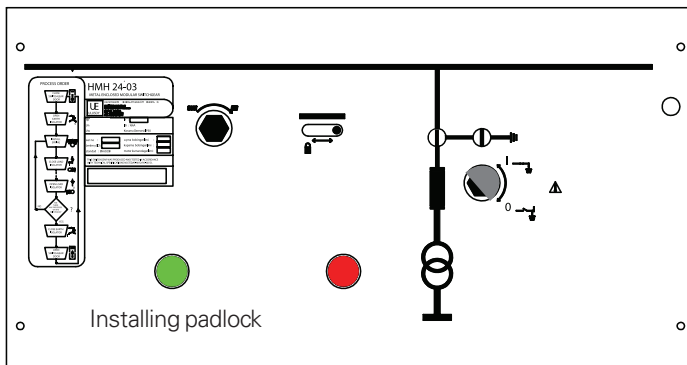
CLOSING THE ISOLATOR:

Press the off button to close the isolator.



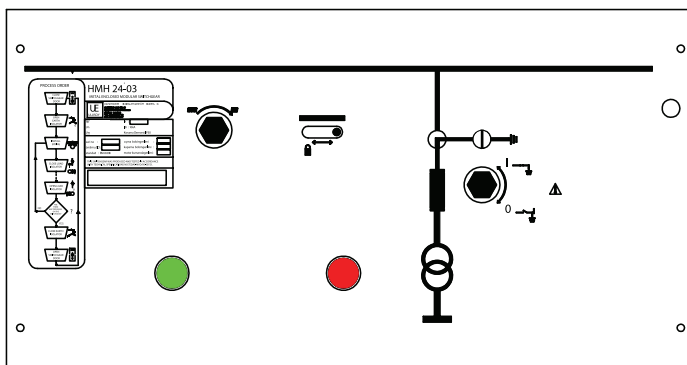
Position after the isolator is closed:

Earth isolator open, opening spring installed
Isolator closed.



OPENING THE ISOLATOR:

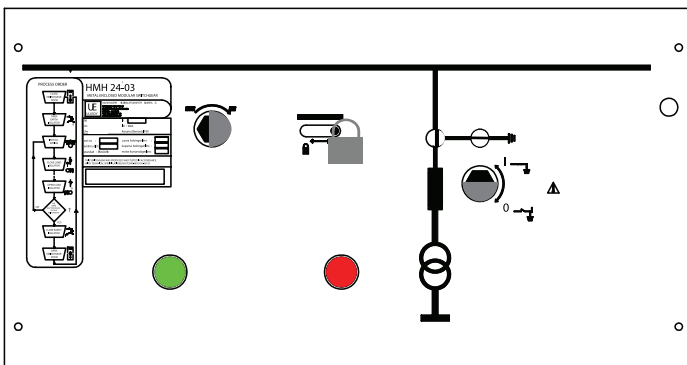
Press the on button to open the isolator.



Position after the isolator is opened:

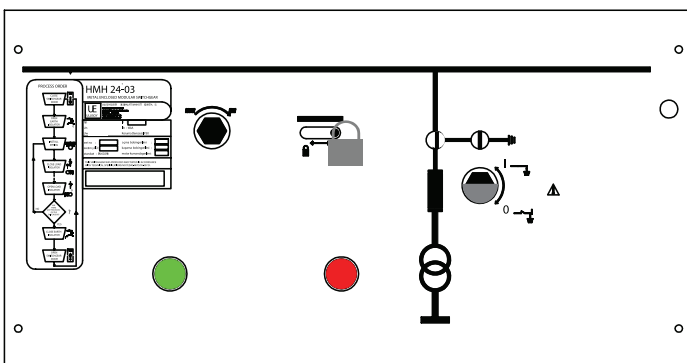
Earth isolator open, isolator open, closing spring idle.

Installing Padlock



Locking with padlock when earth isolator is closed and isolator is open:

In order to install the padlock, push the padlock pin up and closed the earth control housing and install the padlock while the pin is up.

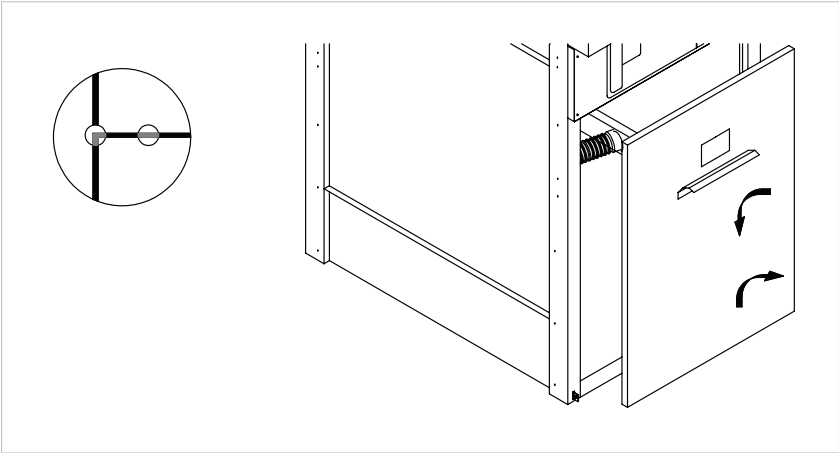


Locking with padlock when earth isolator is open and isolator is open:

This lock is used in order to prevent earth isolator from closing when there is energy in input switchgears.

Safe Use

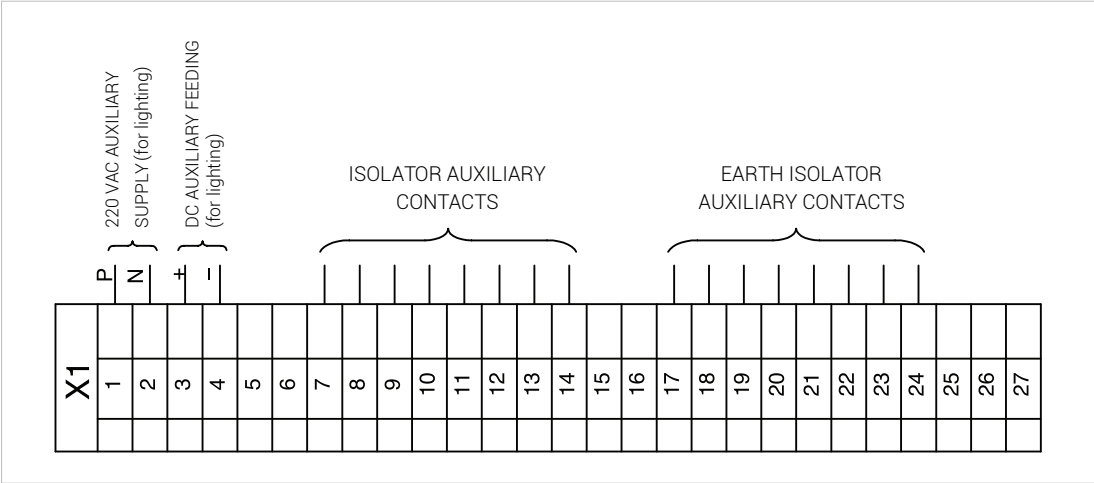
Switchgear front cover can only be placed and removed when the earth isolator is in closed position.



Troubleshooting

Voltmeter /voltmeters do/ does not work.	Voltmeter fuses in MG may be blown. LV fuses may be blown. Voltmeter is broken down. Voltage transformer is faulty. Check whether the isolator is closed.
Switchgear front cover cannot be opened or closed.	Check whether the earth isolator is closed. Close if open.
Earth isolator cannot be opened.	Check whether the switchgear front cover is fitted properly. Remove the switchgear front cover and open/close the earth blade a few times while the cover is open. Push the earth isolator blades below by hand while doing this.
Isolator cannot be closed.	Check whether the earth isolator is open.

Terminal Diagram



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