

High Voltage Products | Integrated Multifunctional Products

MFM – Multifunctional Modules

PASS M0H, 72.5 kV - 170 kV

Product information

The compactness and versatility of a single PASS module for building any HV substation with an H configuration.

Design features

Multifunctional Modules (MFM) are capable of combining various functions in a single product application, such as:

- High-voltage switchgear
- Power transformer
- Medium-voltage switchgear
- Control and protection

M0 H is a high voltage multifunctional module of the PASS family with SF₆ insulation designed for connections to the high voltage network with an H configuration.

It is available for systems with a maximum rated voltage of 72.5 kV - 170 kV and it reduces to a minimum the electrical and civil engineering activities for the substation, the logistics and the manpower needed for the electromechanical assembly works and on-site testing, thereby minimising the costs and risks of interference related with those activities.

M0 H modules are fully assembled and tested in the factory, are suitable for provisional and final installations and are easily transportable using normal commercial means of transport, without the need for oversize transport vehicles.

They are installed easily and quickly, and they can be adapted to the various needs of the substation and include their own protection and control system.



Applications

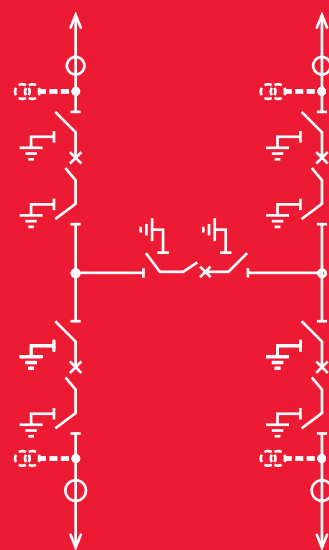
- Integration of renewable power to the grid
- Rapid or temporary substation applications
- Power supply
- Power generation

Why Hitachi Energy?

- The MFM concept enables significant reduction in construction and engineering time for substations
- The compact design allows for transport with conventional methods



Typical single-line diagram

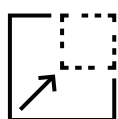


Time

E&C in 4 days:

- Installation
- SF₆ filling
- Commissioning
- Connection

Time related costs are minimized (downtime, security etc.).



Space

Smallest solution available:

- ¼ of an AIS substation
- Being outdoor, the building does not add to its GIS size
- Suitable for both metropolitan or straitened locations



Value

Includes:

- Product
 - 7 weeks workforce
 - 7 weeks of site equipment
- Civil work savings



Reliability

- GIS technology with no assembly at site risks (unlikely but costly)
- The level of maintainability can be configured as needed

Performance data — PASS M0H

		72.5 kV	145 kV	170 kV
Rated voltage	kV	72.5	145	170
Rated frequency	Hz	50-60	50-60	50-60
Test voltage	kV x 60s	140	275	325
BIL	kV	350	650	750
Rated current	A	up to 3150	up to 3150	up to 3150
Rated breaking capacity	kA	up to 40	up to 40	up to 40

The data are not limiting values. Additional data on request.

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