

Dry Air Insulated Switchgear



AGIS Series
AGIS 36



aktif
ELEKTROTEKNIK

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Aktif gas insulated switchgear uses climate-friendly dry air insulation, maintains all the benefits of F-gas based GIS and provides additional safety and asset health features unmatched by the competition. The single busbar GIS covers the medium voltage (primary) distribution range of up to 36 kV. Its sealed pressure system is designed for 30-40 years of lifetime.

Aktif AGIS - Dry Air Gas Insulated Switchgears are free from following costs needed for SF6 GIS.

- Specialized SF6 gas equipment
- SF6 reporting obligations
- SF6 certification of personnel
- SF6 inventory keeping
- Training of personnel
- End-of-life disposal costs

Sensors can be used to prevent functional break down and extend the lifetime of the switchgear. The sensory integration enables the following:

- Online monitoring of temperature and partial discharge via a single platform
- Passive measurement methods used to ensure long lifetime of sensors
- Simple GUI (graphical user interface) for local measurement display and configuration
- Connectivity to SCADA networks or public networks via Modbus RTU or Modbus TCP/IP and IEC 61850 communication protocols
- Long term local data recording option

Application Areas

- Power production
- Transmission and distribution
- Renewable power
- Nuclear
- Oil and gas
- Infrastructures and buildings
- Transportation (shipyard, railways, airport)

| Service Conditions | | |
|---------------------|----------------------------|--------|
| Application Area | | Indoor |
| Altitude | | 1000m |
| Ambient Temperature | Min. | -5°C |
| | Max. | 40°C |
| | Average period of 24h | 35°C |
| Humidity | Max. (period of 24h) | 95% |
| | Max. (period of one month) | 90% |
| Ambient Pollution | | Light |



Standards

- IEC 62271-1
- IEC 62271-200
- IEC 62271-100
- IEC 62271-102
- IEC 61869-2
- IEC 61869-3

Color

- RAL 9003 for front cover
- RAL 7015 for side cover

Advantages

- 4 segregated compartments
- Protection class is IP3X (doors are closed), IP2X (between compartments)
- Fully manufacturing according to type tests
- Climate-friendly natural gases (app. 80% nitrogen, 20% oxygen)
- Widely available as standard technical gas
- No F-gas equipment and certification
- Increased personnel safety
- Customizable software
- Special production option against corrosion for tropical environment
- 5 year warranty option

Safety

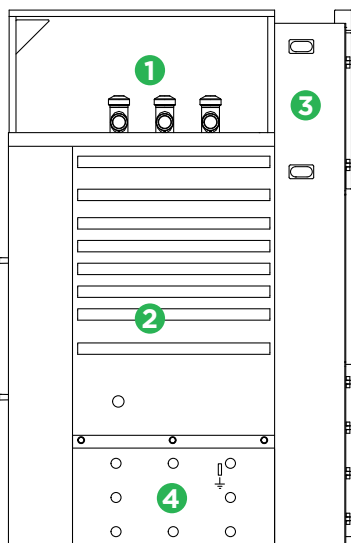
- Internal arc classification IAC AFLR
- Classified LSC-2, PM
- Safe mechanical and electrical interlock
- Continuity of earthing system
- 2 mm sheet steel construction

Technical Specifications

| Description | | Value |
|-------------------------------------|-----|---------------|
| Rated voltage | kV | 36 |
| Power frequency withstand voltage | kV | 70 |
| Lightning impulse withstand voltage | kV | 170 |
| Rated frequency | Hz | 50/60 |
| Rated busbar current | A | 1250/2000 |
| Rated feeder current | A | 1250 |
| Rated short time current | kA | 31.5 |
| Rated peak withstand current | kA | 78.8 |
| Short circuit withstand time | s | 3 |
| Internal arc protection | kA | 31.5 |
| Internal arc protection time | s | 1 |
| Dry Air Insulation Medium | | |
| Filling pressure (relative) | bar | 1.8 at 20°C |
| Min. operating pressure (relative) | bar | 1.6 at 20°C |
| Circuit Breaker Endurance | | Standard |
| Electrical | E2 | IEC 62271-200 |
| Mechanical | M2 | IEC 62271-200 |
| Capacitive current breaking | C2 | IEC 62271-200 |
| Disconnecter Endurance | | Standard |
| Electrical | E2 | IEC 62271-102 |
| Mechanical | M0 | IEC 62271-102 |

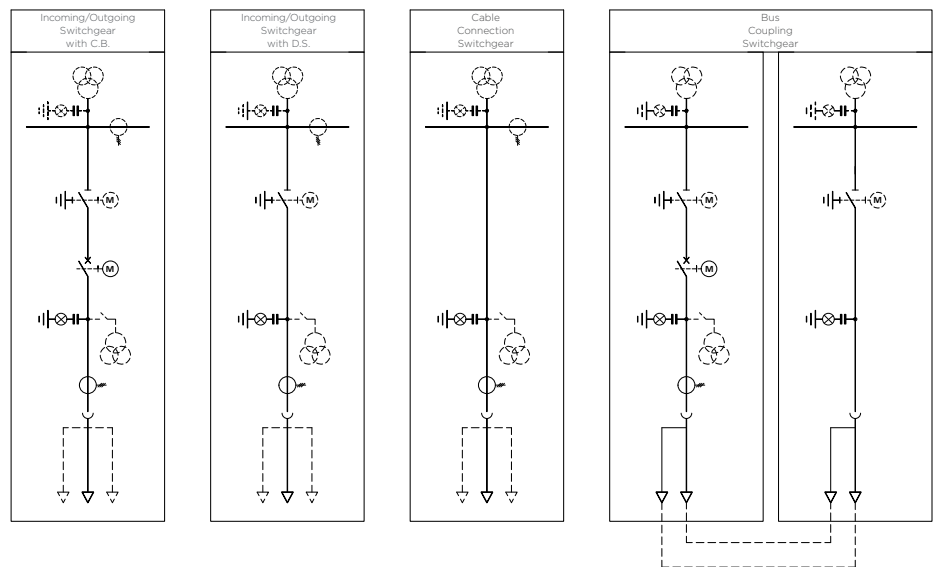
| Dimension | | |
|-----------|----|------|
| Width | mm | 650 |
| Height | mm | 2350 |
| Depth | mm | 1500 |

Typical Feeder Unit



- 1 - Busbar Compartment
- 2 - Switching Compartment
- 3 - LV Compartment
- 4 - Cable Compartment

Single Line Diagram of Typical Units



Aktif AGIS - Dry Air GIS design allow to add current transformers, voltage transformers and surge arrestors on cable and busbar compartment, optionally.



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