MV Switchgear for Distribution Network Solutions

gae630 Fully Gas Insulated Modular System

Up to 24 kV IEC Standards

Reliable innovation. Personal solutions.

www.ormazabal.com
Preface

gae type fully GIS ring main units were first designed in 1985 as one of the earliest compact ring main units (RMU) for secondary distribution networks up to 24 kV. Being one of the smallest RMUs that incorporates the minimum amount of gas in its gas tanks compared to its competitors, gae has been recognized as one of the world’s pioneer RMUs.

Following the market success of its antecedents (gae & ge) gae630 was first launched in 2001, as a fully gas insulated and modular cubic range, mainly for secondary distribution applications. In 2004, the gae system upgraded its busbar current ratings to 1250 A based on our customer’s demands for electrical utility, RES and industrial applications. Finally in 2013, gae1250kmax series has been further upgraded to 25 kA ratings.

Recently gae family has already been installed for smart grid applications of many electrical utilities worldwide. Today more than 350,000 gae feeders have been installed in more than 40 countries.

Standards

IEC

- IEC 62271-1
- IEC 62271-200
- IEC 62271-100
- IEC 62271-102
- IEC 62271-105
- IEC 61243-5
- IEC 60265-1
- IEC 60529

Technical data

**Rated values**
- 7.2-12-17.5-24 kV
- 630 A
- 16 kA, 20 kA 1-3 s
- 50/60 Hz

**Type-tested, factory-built, metal-encapsulated, single busbar**

**Indoor use up to 1000* m altitude**

**Ambient temperature**
- Standard -5°C to +40°C
- (*) Other conditions under consultation

**Loss of service continuity**
- LSC 2A

**Partition class:**
- PM

**Internal arc class**
- IAC AFL 20 kA 1 s

**Functions**
- Modular:
  - 1k, 1kg, 1ts, 1lsf, 1lsfg, 1h1, 1e, 1h2, 1lsv, 1lsvg, 1m1, 1m2, 1m4, 1m5, 1m5ü, 1m6
- Extensible compacts:
  - 2k, 2ts, 2k1ts, 3k, 2k1lsf

**kg, lsfg and lsvg functions are designed for connecting with 1m1 or 1m5ü functions**

Safety

- Internal arc tested (Up to IAC AFL 20 kA 1 s)
- Optional passive & maintenance free arc absorber technology
- All live compartments are inside a hermetically sealed stainless steel tank
- Anti-reverse mechanical / electrical interlocks to prevent unsafe operations
- Switch position and capacitive voltage presence indicators

Reliability

- Fully insulated and sealed for life
- Screened cable connectors
- Completely designed in Germany
- 100% routine tested at the factory

Efficiency

- Modular design suitable to any electrical single line diagram
- Small size and light weight
- Easy frontal access to install and to test MV cables and HRC fuses
- Smart grid ready systems (Optional)
- Customized protection and automation systems (Client specifications)

Sustainability

- Continuous reduction in use of greenhouse gases
- End-of-life management
- Use of highly recyclable material
- No use of SF6 during installations

Continuous innovation

- Ambient temperature in -5/-25°C
- Adaptation to smart grid