

CT5V.5



Medium-voltage switchgear for  
Distribution Network Solutions

## cgm.800

Fully gas insulated modular system

Up to 36 kV  
Up to 38.5 kV

IEC Standards  
ANSI/IEEE Standards

Reliable innovation. Personal solutions.

[www.ormazabal.com](http://www.ormazabal.com)

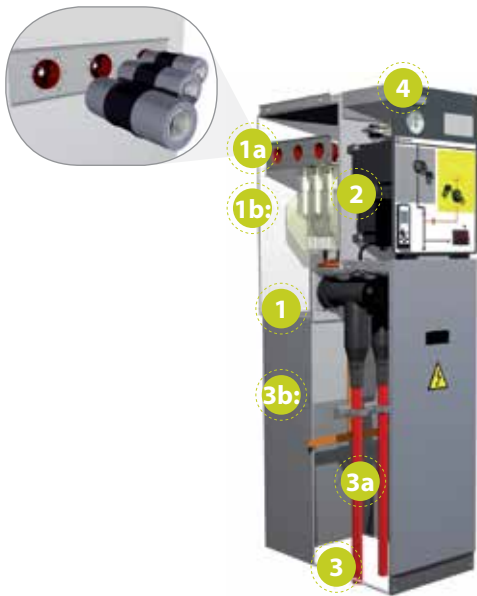
## Foreword

**cgm.800** is the logical evolution of the full insulation systems which **Ormazabal** has developed over several decades, for facilities which require a larger range of rated currents whilst maintaining all other characteristics.

**CGM-CGC**, **cgmcosmos** and **cgm.3** systems have been integrated in numerous applications in smart grids and renewable energy systems. There are currently more than 565,000 functional units of these systems in service in over 35 countries.

**cgm.800** system provides reliable, efficient solutions for the distribution network (DNS) for all types of medium-voltage installations, from energy companies to infrastructure, leisure facilities to industrial installations and from windfarms to photovoltaic plants.

## Design



- 1 Gas tank
- 1a Busbar connection
- 1b Switching and breaking elements
- 2 Driving mechanisms
- 3 Base
- 3a Cable compartment cover
- 3b Gas expansion

## Benefits

### Safety

- » Tested against internal arc
- » All live parts are housed in a hermetically-sealed gas tank
- » Mechanical/electrical interlocking to prevent unsafe operation
- » Indicators for switch position, voltage presence and acoustic alarm

### Reliability

- » Full insulation with lifetime sealing
- » 24-hour immersion tests
- » Factory routine tests on 100 % of the units

### Efficiency

- » Modular design extensible on both sides thanks to **ormalink**
- » Uninterrupted motorisation of supply
- » Easy front access to install and test medium voltage cables and fuses
- » Compact size and lightweight

### Sustainability

- » Ongoing reduction in the use of greenhouse gases
- » End-of-life and recycling management
- » Use of highly-recyclable materials
- » Self-powered protection relays

### Continuous innovation

- » Cubicles operating at - 30 °C
- » Evolution in the driving mechanisms
- » Protection and automation units integrated in the cubicle
- » System prepared for smart grids
- » Voltage and current sensors
- » Cable faults preventive diagnosis
- » Partial discharge (PD) detection for network diagnosis

## Standard

### IEC

IEC 62271-1	IEC 62271-103
IEC 62271-200	IEC 60255
IEC 62271-100	IEC 60529
IEC 62271-102	IEC 62271-206
IEC 62271-105	IEC 61243-5

### ANSI/IEEE

IEEE Std C37.74	IEEE Std C37.09
IEEE Std C37.20.3	IEEE Std C37.20.7
IEEE Std 1247	
IEEE Std C37.123	
IEEE Std C37.20.4	
IEEE Std C37.04	
IEEE Std C37.06	



## Technical details

### General

- » Metal enclosure, single busbar  
Indoor use up to altitude 2000\* m
- » **Environmental temp:**  
Standard - 5 °C to + 40 °C\*  
Extended - 30 °C to + 40 °C\*
- » **Loss of service continuity:**  
LSC 2B
- » **Compartmentalisation class:** PM
- » **Rated frequency** 50/60 Hz

☞ (\*) Other conditions to order

	IEEE	IEC
<b>Rated voltage</b>	Up to 38.5 kV	Up to 36 kV
<b>Rated current</b>	Up to 800 A	
<b>Classification of internal arc</b>	AFL 20 <sup>(1)</sup> - 25 kA (1 s)	AF/AFL 16 - 25 - 25 kA (1 s) AFLR <sup>(2)</sup> kA (1 - 3 s)/25 (1 s)
<b>Rated short-time withstand current</b>	20 <sup>(1)</sup> kA (1 - 3 s)/25 (1 s)	16-20 <sup>(1)</sup> kA (1 - 3 s)/25 (1 s)
<b>Functions</b>	I, p, v	

<sup>(1)</sup> Tests conducted at 21 kA/52.5 kA

<sup>(2)</sup> With gas output via the relief duct. Check availability in accordance with model

# Product range

## Unifunctional units



Feeder



Fuse-protection



Circuit-breaker

## Dimensions and weights

Module	Height [mm]	Width [mm]	Depth [mm]	Weight [kg]
-l	1400	418	850 <sup>[1]</sup>	147
	1745			162
-p	1400	480	1010	215
	1745			230
-v	1400	600 <sup>[2]</sup>	850	240
	1745			255

<sup>[1]</sup> In the case of double symmetrical terminal, the switchgear is an extra 80 mm deep.

<sup>[2]</sup> As an option, there is also a 595 mm wide cgm.800-v cubicle module available. Please check with **Ormazabal**.





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