



MV/LV Substations for Distribution
Network Solutions

ormaset.m

Metallic Transformer Substation

Up to 36 kV, 1000 kVA

IEC 62271-202 standard

Preface

Ormazabal's ormaset is a Metallic Prefabricated Transformer Substation, installed on surface and externally operated, with:

- » Reduced dimensions
- » Standard-built
- » Factory tested
- » Supplied from the factory as a unit

It is characterised by incorporating a Medium Voltage equipment for distribution networks up to 36 kV.

It has independent accesses for the high voltage switchgear compartment, for the transformer compartment and for the low voltage switchboard compartment.

Applications

- » Conventional transformer substation
- » Temporary transformer substation on-site
- » Mobile transformer substation (lightweight & simple installation)
 - » Utility: Generation & Public Distribution & Smart Grids
 - » End users: Infrastructures, Industrial & Tertiary
 - » Renewable Energy: Solar & Wind

Safety

- » High safety for people and goods
 - Option Class IAC-A/B 16 kA 1 s
- » According to IEC 62271-202
- » Earthed metallic doors and ventilation grids
- » IP44 (MV & LV compartment)
- » IP23D (transformer compartment)

Reliability

- » Factory assembled and tested
- » Corrosion category C4 H (ISO 12944-1)

Efficiency

- » Fast and simple replacement of the equipment.
- » Ventilation: class 5 K, 1000 kVA (B₀36 B_k36)

Sustainability

- » Low environmental impact
- » Reduced size and versatility
- » Wide range of colours

Continuous innovation

- » Transportable (fully assembled) in sea open-top container
- » Optionally closed MV & LV cable incomings
- » Optionally collection sealed pit

Standards

IEC / UNE-EN 62271-202

Common specifications for high voltage switchgear and controlgear standards.

On request:

Specific regulations of the Utility

Technical Data

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- » Fully gas insulated MV switchgear
 - » Up to 24 kV: **cgmcosmos** System
 - » Up to 36 kV: **cgm.3** System
 - » Cubicle configuration: Up to 3 feeder and 1 protection function (fused or circuit-breaker)
- » Distribution transformer up to 1000 kVA
- » Low Voltage board
- » MV and LV interconnections
- » Earthing circuit connection
- » Lighting and auxiliary circuits
- » Metallic enclosure.
 - » Independent accesses for:
 - » HV compartment
 - » LV compartment
 - » Transformer compartment

Technical Characteristics

Rated voltage	[kV]	24	36
Frequency	[Hz]	50	
Transformer			
Power	[kVA]	≤1000	
Medium Voltage Switchgear			
Rated current	[A]	400/630	
Busbars		400/630 (L) 200 (P)	
Feeder		400/630 (L) 200 (P)	
Short time current	[kA]	16 / 20	
Insulation level			
Power frequency	[kV]	50 / 60	70 / 80
Lightning impulse	[kV] _{peak}	125 / 145	170 / 195
Low Voltage board			
Rated voltage	[V]	400	
Rated current	[A]	≤1600	

Physical Characteristics

Length	[mm]	3900
Width	[mm]	2336
Height	[mm]	2300
Weight of empty enclosure	[kg]	2050
Maximum weight*		
630 kVA	[kg]	< 4800
1000 kVA	[kg]	< 5500

➔ (*) Including cubicles, transformer and LV board
Installation recommendation: place it on solid ground.
For other configurations and/or values, please consult **Ormazabal**

Design



Family

ormaset.m-24 & ormaset.m-36

