MV/LV Substations for Distribution
Network Solutions

ormaset.m

Metallic Transformer Substation

Up to 36 kV, 1000 kVA IEC 62271-202 standard

Reliable innovation. Personal solutions.
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.

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**Technical Data**

**ormaset.m**

- 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**

<table>
<thead>
<tr>
<th></th>
<th>24</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current</td>
<td>[A]</td>
<td></td>
</tr>
<tr>
<td>Busbars</td>
<td>400/530</td>
<td></td>
</tr>
<tr>
<td>Feeders</td>
<td>400/630 (L) 200 (P)</td>
<td></td>
</tr>
<tr>
<td>Short time current</td>
<td>[kA]</td>
<td>16 / 20</td>
</tr>
<tr>
<td>Power frequency</td>
<td>[kV]</td>
<td>50 / 60</td>
</tr>
<tr>
<td>Low Voltage board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated voltage</td>
<td>[V]</td>
<td>400</td>
</tr>
<tr>
<td>Rated current</td>
<td>[A]</td>
<td>≤1600</td>
</tr>
</tbody>
</table>

**Physical Characteristics**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Length</td>
<td>[mm]</td>
</tr>
<tr>
<td>Width</td>
<td>[mm]</td>
</tr>
<tr>
<td>Height</td>
<td>[mm]</td>
</tr>
<tr>
<td>Weight of empty enclosure</td>
<td>[kg]</td>
</tr>
<tr>
<td>Maximum weight</td>
<td></td>
</tr>
<tr>
<td>630 kVA</td>
<td>[kg]</td>
</tr>
<tr>
<td>1000 kVA</td>
<td>[kg]</td>
</tr>
</tbody>
</table>

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**Standards**

**IEC / UNE-EN 62271-202**

Common specifications for high voltageswitchgear and controlgear standards.

**On request:**
Specific regulations of the Utility

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**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

**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 (Bₚ₃₆ Bₚ₃₆)

**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

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**Design**

**Family**

**ormaset.m-24 & ormaset.m-36**

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**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)

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