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(UNE-EN Standards, are the official versions of the corresponding edition of EN Standards)

## SCOPE OF ACCREDITATION

### ORMAZABAL CORPORATE TECHNOLOGY A.I.E.

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Is accredited by the **ENTIDAD NACIONAL DE ACREDITACIÓN**, according the criteria collected in EN ISO/IEC 17025:2005 (CGA-ENAC-LEC), for performing the following tests on:

#### Electrical Distribution Equipment

Category 0 (Tests in the permanent laboratory)

PRODUCT / TEST OBJECT	TEST	STANDARD / PROCEDURE
High-voltage/low voltage prefabricated substation	Dielectric tests: <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> </ul>	IEC 62271-202:2006 IEC 62271-202:2014.
	Temperature-rise tests	
	Short-time and peak withstand current tests on main and earthing circuits: up to 80kA/3s	UNE-EN 62271-202:2007.
	Internal arcing test: up to 40kA/1s	
	Degrees of Protection IP: from 2X up to 4X from X3 up to X6	IEC 60529 :2001 IEC 60529 :2003 CORR. IEC 60529 :2007 CORR.
	Degrees of Protection IK: from 06 up to 10	IEC 62262 :2002

Alternating current disconnectors and earthing switches	<p>Dielectric tests:</p> <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul> <p>Temperature-rise tests</p> <p>Measurement of the resistance of circuits</p> <p>Operating and mechanical endurance tests</p> <p>Short-time and peak withstand current tests on main and earthing circuits: up to 80kA</p> <p>Test to prove the short-circuit making performance of earthing switches: up to 40kA</p>	<p><b>IEC 62271-102:2001</b>  <b>IEC 62271-102: 2002</b>  <b>CORRIGENDUM 1</b>  <b>IEC 62271-102: 2003</b>  <b>CORRIGENDUM 2</b>  <b>IEC 62271-102: 2005</b>  <b>CORRIGENDUM 3</b>  <b>IEC 62271-102/A1: 2011</b>  <b>IEC 62271-102/A1: 2012</b>  <b>CORRIGENDUM 1</b>  <b>IEC 62271-102/A1&amp;A2:2013</b></p> <p>UNE-EN 62271-102:2005          UNE-EN 62271-102:2005          ERRATUM 2011          UNE-EN 62271-102/A1:2012</p>
	<p>Degrees of Protection IP:          from 2X up to 4X          from X3 up to X6</p>	<p><b>IEC 60529 :2001</b>  <b>IEC 60529 :2003 CORR.</b>  <b>IEC 60529 :2007 CORR.</b></p>
	<p>Degrees of Protection IK:          from 06 up to 10</p>	<p><b>IEC 62262 :2002</b></p>
High-voltage switches for rated voltages above 1 kV and less than 52 kV	<p>Dielectric tests:</p> <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul> <p>Temperature-rise tests</p> <p>Measurement of the resistance of circuits</p> <p>Mechanical operating tests</p> <p>Short-time and peak withstand current tests on main and earthing circuits: up to 80kA</p> <p>Making and breaking tests: up to 2500MVA, 36kV</p>	<p><b>IEC 60265-1:1998</b>  <b>IEC 60265-1:2000</b>  <b>CORRIGENDUM</b>  <b>IEC 62271-103:2011</b>  <b>IEC 62271-103</b>  <b>CORRIGENDUM 1: 2013.</b></p> <p>UNE 60265-1:1999.          UNE 60265-1:2005          CORRIGENDUM          UNE-EN 62271-103 :2012</p>
	<p>Degrees of Protection IP:          from 2X up to 4X          from X3 up to X6</p>	<p><b>IEC 60529 :2001</b>  <b>IEC 60529 :2003 CORR.</b>  <b>IEC 60529 :2007 CORR.</b></p>
	<p>Degrees of Protection IK:          from 06 up to 10</p>	<p><b>IEC 62262 :2002</b></p>

High-voltage Alternating current circuit-breakers	<p>Dielectric tests:</p> <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul> <p>Temperature-rise tests</p> <p>Measurement of the resistance of circuits</p> <p>Mechanical operating tests</p> <p>Short-time and peak withstand current tests: up to 80kA</p> <p>Making and breaking tests: up to 2500MVA, 36kV</p>	<p><b>IEC 62271-100:2008</b>  <b>IEC 62271-100/A1:2012</b>  <b>IEC62271-100/A1</b>  <b>CORRIGENDUM 1 :2012</b></p> <p>UNE-EN 62271-100:2003.          UNE-EN 62271-100/A1:2004          UNE-EN 62271-100:2004          ERRATUM          UNE-EN 62271-100/A2:2007          UNE-EN 62271-100:2011          UNE-EN 62271-100:2011/          Versión Corregida Abril 2014</p>
	Degrees of Protection IP: from 2X up to 4X from X3 up to X6	<p><b>IEC 60529 :2001</b>  <b>IEC 60529 :2003 CORR.</b>  <b>IEC 60529 :2007 CORR.</b></p>
	Degrees of Protection IK: from 06 up to 10	<p><b>IEC 62262 :2002</b></p>
A.C. metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV	<p>Dielectric tests:</p> <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul> <p>Temperature-rise tests</p> <p>Measurement of the resistance of circuits</p> <p>Mechanical operating tests</p> <p>Short-time and peak withstand current tests: up to 80kA</p> <p>Internal fault test: up to 40kA/1s</p>	<p><b>IEC 62271-200: 2003</b>  <b>IEC 62271-200: 2011.</b></p> <p>UNE-EN 62271-200:2005          UNE-EN 62271-200:2012.</p>
	Degrees of Protection IP: from 2X up to 4X from X3 up to X6	<p><b>IEC 60529 :2001</b>  <b>IEC 60529 :2003 CORR.</b>  <b>IEC 60529 :2007 CORR.</b></p>
	Degrees of Protection IK: from 06 up to 10	<p><b>IEC 62262 :2002</b></p>

High-voltage switchgear and controlgear	<p>Dielectric tests:</p> <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul>	<p><b>IEC 62271-1:2007</b> <b>IEC 62271-1/A1:2011</b></p>
	Temperature-rise tests	<p>UNE-EN 62271-1:2009 UNE-EN 62271-1/A1:2011.</p>
	Measurement of the resistance of circuits	<p>UNE-EN 60694:1998. UNE-EN 60694:1999 CORRIGENDUM</p>
	Mechanical operating tests	<p>UNE-EN 60694/A1:2002 UNE-EN 60694/A2:2002</p>
	Short-time and peak withstand current tests: up to 80kA	
	Degrees of Protection IP: from 2X up to 4X from X3 up to X6	<p><b>IEC 60529 :2001</b> <b>IEC 60529 :2003 CORR.</b> <b>IEC 60529 :2007 CORR.</b></p>
	Degrees of Protection IK: from 06 up to 10	<p><b>IEC 62262 :2002</b></p>
Power transformers	Routine tests	<p><b>IEC 60076-1:1993.</b> <b>IEC 60076-1/A1:1999</b> <b>IEC 60076-1:1997</b> <b>CORRIGENDUM 1</b> <b>IEC 60076-1:2011</b> UNE-EN 60076-1:1998. UNE-EN 60076-1/A1:2001 UNE-EN 60076-1/A12:2002 UNE-EN 60076-1:2013</p>
	Temperature-rise tests	<p><b>IEC 60076-2:1998.</b> <b>IEC 60076-2:1 IEC 60076-3:2013998 ERRATUM 2006</b> <b>IEC 60076-2:2011</b> UNE-EN 60076-2:2013.</p>
	Dielectric tests:	<p><b>IEC 60076-3:2000.</b> <b>IEC 60076-3:2000</b> <b>CORRIGENDUM 1</b> <b>IEC 60076-3:2013</b> UNE-EN 60076-3:2002. UNE-EN 60076-3:2006 ERRATUM</p>
	Ability to withstand short circuit	<p><b>IEC 60076-5:2006</b> UNE-EN 60076-5:2002 UNE-EN 60076-5:2008</p>

	Degrees of Protection IP: from 2X up to 4X from X3 up to X6	<b>IEC 60529 :2001</b> <b>IEC 60529 :2003 CORR.</b> <b>IEC 60529 :2007 CORR.</b>
	Degrees of Protection IK: from 06 up to 10	<b>IEC 62262 :2002</b>
Requirements for Subsurface, vault and Pad-Mounted Load-Interrupter switch-gear and fused load-interrupter switch-gear for alternating current systems up to 38 kV	Dielectric tests: <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul> Temperature-rise tests Measurement of the resistance of circuits Mechanical operating tests Short-time and peak withstand current tests on main and earthing circuits: up to 80kA Making and breaking tests: up to 2500MVA, 38kV	<b>IEEE C37.74:2003.</b>
Automatic circuit reclosers and fault interrupters for alternating current Systems up to 38 kV	Dielectric tests: <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul> Temperature-rise tests Measurement of the resistance of circuits Mechanical operating tests Short-time and peak withstand current tests on main and earthing circuits: up to 80kA Making and breaking tests: up to 2500MVA, 38kV: <ul style="list-style-type: none"> <li>▪ Line charging current and cable charging current interruption tests</li> <li>▪ Making current capability</li> <li>▪ Rated symmetrical interrupting current tests</li> </ul> Degrees of Protection	<b>IEEE C37.60:2012</b> <b>IEC 62271-111:2012</b>

<p>Metal-Enclosed Interrupter Switchgear (1kV – 38kV)</p>	<p>Dielectric tests:</p> <ul style="list-style-type: none"> <li>▪ Power Frequency: up to 100 kV</li> <li>▪ Lightning Impulse: up to 288 kV</li> <li>▪ Partial discharge measurement: up to 100 kV and up to 2pC</li> </ul> <p>Temperature-rise tests Measurement of the resistance of circuits Mechanical operating tests Short-time and peak withstand current tests on main and earthing circuits: up to 80kA Making and breaking tests: up to 2500MVA, 38kV:</p> <ul style="list-style-type: none"> <li>▪ Line charging current and cable charging current interruption tests</li> <li>▪ Making current capability</li> <li>▪ Rated symmetrical interrupting current tests</li> </ul> <p>Degrees of Protection</p>	<p><b>IEEE C37.20.3:2013</b> <b>IEEE C37.100.1:2007</b></p>
<p>Electric and Electronic Equipment</p>	<p>Degrees of Protection IP: from 2X up to 4X from X3 up to X6</p>	<p><b>IEC 60529:2001</b> <b>IEC 60529:2001</b> <b>CORRIGENDUM 1:2003</b> <b>IEC 60529:2001</b> <b>CORRIGENDUM 2:2007</b></p>
	<p>Degrees of Protection IK: from 06 up to 10</p>	<p><b>IEC 62262:2002</b></p>